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**THE 'ACADEMIC COMMUNITY' AND THE TRANSFORMATION OF
MODES OF KNOWLEDGE PRODUCTION**

**A DISCIPLINARY, INSTITUTIONAL, PROFESSIONAL
AND GENERATIONAL STUDY**
Volume II - Appendix

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Appendix I
Script of the interviews
Key actors

Script for the interviews with English and Portuguese key actors

1. Regarding to your institution what are its main function and how does it relates to other major agencies of higher education and research in your country?

2. Who are the main actors ('academics', managers…) and the main institutions (research centres, universities) of higher education and research in your country? What is the dynamic between teaching, research and service?

2.1. How concentrated is research within your country (particular universities, research centres inside and outside universities, other organisations)?

2.2. What is the dynamic between research, teaching and service (or maybe refer to knowledge transfer) and is it changing?

3. In the last years, what were the major changes affecting higher education and research in your country?

3.1. More specifically, what were the major changes affecting the production of knowledge (in the nature of knowledge in itself – 'applied', 'fundamental', 'contractualised', … - and in the people who works with it)?

3.2. Is it clearly defined, in your country, who is a researcher (producer of knowledge) and who is not? If yes, how? If not, how do you define research and researchers?

4. What are the main values of knowledge production?

4.1. How do you define 'relevant' knowledge? And what impact does this definition have in the justification of the funding of research? What kind of research (production of knowledge) is privileged and valued?

4.2. What criteria are used in assessing the 'quality' and the 'value' of research?

4.2.1. What is the balance between 'independence' and 'responsiveness' in research?

4.2.2. What is the balance between 'peer review' and 'user engagement' in evaluating research?

5. Would you say that we could talk about a English/Portuguese 'academic community'? If yes, by whom it is constituted (how would you define an 'academic' in your country)? If no, what can characterise and gather groups of 'academics' (discipline, institution, profession and generation)?

[Only for English interviewees]

1. Having in mind the existence of a double funding system (from Research Councils and from Higher Education Funding Council for England) is this an advantage or it would be better to have one single funding system?

2. The Research Assessment Exercise is being replaced by the Research Excellence Framework. Why different names? What are the major differences?

3. How do you feel about the criticism of Research Excellence Framework by Research Councils (e.g. there should be a single system for science and non-science subjects; all subjects should include some form of 'light-touch peer review; research into the benefits to economy and society is being underplayed; all staff should have their work counted under the citation system,…)?

Appendix II
Script of the interviews
Academics

Script for the interviews with English and Portuguese academics

[Academic Community]

1. How do you usually present yourself in a professional context (as a teacher, researcher, student, scholar, citizen…)?

2. Would you say that we could talk about a English/Portuguese 'academic community'? If yes, by whom it is constituted (how would you define an 'academic' in your country)? If no, what can characterise and gather groups of 'academics' (discipline, institution, profession and generation)? Do you usually work and/or know 'academics' from different disciplines, institutions, professions and generations? What kind of differences and similarities do you feel in that relationship?

3. How the functions of teaching, research and service reflect in your daily work?

[Production of Knowledge]

4. Is it clearly defined, in your country, who is a researcher (producer of knowledge) and who is not? If yes, how? If not, how do you define research and researchers?

5. In the last years, what were the major changes affecting higher education and research in your country? More specifically, what were the major changes affecting the production of knowledge (in the nature of knowledge in itself and in the people who works with it)?

6. Is the communication of the research (production of knowledge) a major part of your work? How?

7. In relation to funding, what kind of research (production of knowledge) is privileged? How do you usually get funding for your activities?

8. Who is the audience for the research? Who or what influences the choice of topics for research? Who or what influences the choice of methods for research? Are you dependent on others for the success of your research? How would you define this success?

[Personal Data]

9. Do you like being an 'academic'? What would say that are the major challenges, advantages and difficulties of 'academic work'?

Appendix III
Transcription of the interviews
Key actors

Interview A

Summary. Key-Actor Portugal. President of Science Department of Calouste Gulbenkian Foundation. 15 October 2008.

Higher education and research

Identification of the importance of the difference between higher education and research and the differences resulting between universities/colleges and research centres.

Knowledge transmitted and created in universities and colleges, meaning higher education, is a knowledge-oriented basic training, where you get a certain perspective in a specialised field. This is a disciplinary knowledge belonging to a knowledge domain that has very clear rules of input and output with its own language well developed. People need formal education to understand, use and apply this language.

Research centres, regarding the kind of knowledge produced, are very different because they do not produce knowledge in a strict discipline, there is always a cluster of disciplines involved and if, even sometimes, the research belongs to a very hard discipline it goes beyond that same discipline due to the fact that it is systematically proposing new languages.

The role of knowledge in science and research is thus different from the 'academic' knowledge.

Professors and researchers have to be differentiated. Although there are some Professor who are excellent researchers and even are directors of research centres, Professors usually have a large part of their time dedicated to teaching (of course) and the percentage of time dedicated to research is very low when compared with professional researchers whose only function is to research. Of course that the quality of thinking of each one might not be measured in these terms, but if two people are equal, a person who research 100% of the time is very different from a person who research 20% or 30% of the time.

Research in business and private centres

A substantial part of the scientific community in Portugal are in companies where is also produced basic research, fundamental research, but facing a potential technological application. These are areas that are basic but could be operated in a different way to transfer knowledge for the industry. This is because basic research is necessary to use principles, structures, etc. But the aim is not to study the regularities in nature.

There are also people who do research in private centres. In Portugal are also few. In Portugal we see that, in fact, the research is done in national laboratories... The national laboratories have declined sharply. We see this throughout history.

What is to be 'academic'

We say 'academic' in order to engage more with universities/colleges than research centres, but the word 'academic' is related to the Academies of Sciences, the modern university, with the University of Berlin in 1810. So when we started to form an academic spirit, we say that is a university spirit. The academic spirit is more associated with the research centres although the current use of the word is not.

The 'location' of knowledge production

The location of the production of knowledge depends on the type of knowledge to which we refer to, such as academic knowledge, practical, organisation, political and social.

Knowledge is produced in Portugal and all of us, individually and in institutions, are producers, distributors, receivers and assimilators of knowledge.

Knowledge is not only produced in universities. Knowledge is produced everywhere.

Academic knowledge and practical knowledge

The academic knowledge is a knowledge that is aimed at training students to understand a basic mastery of a discipline and have a body of knowledge of theoretical and experimental study on a given subject and, in addition, they also have a set knowledge about society. The academic knowledge associated with the university can be seen as a national focus of civilisation and culture. People who have a certain kind of education are, of course, also required to behave and perceive the functioning of society around them and the relationship with others in a different way than people who have not had a formal education. This kind of academic education has been expanding, only making sense to produce good citizens. Not only good specialists, the noble idea background includes the formation of good citizens ....

The lack of academic knowledge (as a result of a formal education) is not equivalent to lack of innovation and creativity. There are plenty of people who have great imagination and they create, are highly creative, and had no formal academic knowledge and produce knowledge. Thus, there is practical knowledge.

Teaching, research and community service

These three functions have to be seen as a sequence. The first function of all is education. A university that does not teach is not a university. Education is the first essential function. Without education there is no institution of higher education, is a fraud. But to have quality education there must be research and therefore this research is done to ensure the quality of education. This is the second step. And, so, who is in a university can not complain of having few time to research. A university is to teach. If you want to do research go to a research centre. Finally, the services are a function that emerges from the ability of the teaching and research functions.

Service is a very important function because universities are connected to the outside through advice and services. It is an activity that universities have to pay as centres of civilisation and culture. They have to be able to discuss issues of interest to society and clarify those same issues, to support further investigation, other research institutes, for instance reducing some problems. This can only be done by excellent teaching and excellent research. This service activity can never be seen as an impediment, is an activity that naturally flows from the other two.

Research of higher education and research centres: two different 'leagues'. Teaching universities and research universities.

The research that is done in the modern university, the University of 200 years ago, is a research in support of quality education. Because of its support does not mean it is less important. The Professor is a Professor, not a professional researcher, only in very rare cases it is as competitive as other full-time researchers in that field because it has less time to produce. A Professor of a university has to conduct a sort of research that will keep him/her able to teach that discipline with the degree of modernity that it entails.

For 50 years we began to see that there is now a new mode of technology production and scientific basis. To produce people who can do science-based technology is necessary to consider that the post-graduation is not an educational activity but, rather, a research activity. That is, the post-graduate degrees or above degree, in the past, were degrees of university career and served for people to teach in universities. Now they are levels that have the same name but are different degrees. Because, rather than degrees of end stage or maturity levels of career certifying that the person is able to teach with flair and quality, grades are now seen as the beginning of a research career. And so the researcher that goes into this type of activity is quite different. They are two different championships.

So, naturally, we cannot have all the universities doing the same things because even the market itself will selects some. I say this because only some subjects are of interest to the group of companies that are around and interested. Well, so this happens in the United States, it was where it started to develop and then spread to Europe, etc. We see that there are a number of universities that respond to these impulses by creating a post-graduation activity as important as the first degrees activity. These are called research universities. So, in these universities there are so many undergraduate as postgraduate students. Why? Because for these universities as important as the undergraduate degree is the number of doctorates and the number of papers they produce. Why? Because these papers will allow joint projects between researchers from these universities and researchers from other sectors, usually businesses, large companies that need scientific community to be in contact with people who are working in this area.

Naturally, universities have lived very isolated for a long time and, therefore, were all equal at the outset, had an equal social status. In a world in which there are many ways of looking at each other, where there are many criteria, many rankings, what happens is that universities are beginning to realise that they are not equal to each other, there is a big difference between several universities. The political power should realise that there is this difference and further this differentiation. If you say that a teaching university has no research, it is a lie! Have to have but has a research activity that is related to teaching at undergraduate level. Numerically, in terms of money, amount of investment in this research represents a value smaller than a university whose primary function is to produce a certain type of techno-scientific knowledge that will later give rise to applications that are exploited by companies.

Two regimes of science and political science

There are two schemes in science. Science motivated by curiosity, science that gives a view of the world, science that allows us to understand the major regularities of nature. For example, the thermodynamics, electricity. Doing science in this approach involves extending the scope of knowledge and solving problems. It is the system of curiosity-driven science.

There is another regime in science, technological science, which is characterised by using contractual arrangement. This is not the same as saying that there aren´t fundamental and applied research, but the ultimate goal is to produce technology. It is the system of techno-science.

The system of curiosity-driven science driven and techno-science has to be opposed analytically since the regime of techno-science is recruiting best people in the field.

Best people are going to techno-science because they have better opportunities, especially in universities, have careers and opportunities for advancement. The problem is that however most of techno-science has a major horizon basic research, their objectives and financing are always much more connected to the short term. Therefore, we run the risk of being able to lose a fundamental part of people capable of abstract knowledge... That's what universities are for: to train such people so that they are not lost, so there is abstract knowledge to work. Many people who have the capacity for abstract activities will ultimately be in a given area of techno-science where there is, in fact, not even the creation of new fields or even the development of new languages and new structures. That is the main danger. Curiosity-driven science is being pushed by techno-science which requires enormous rates of papers production. Therefore, people in order to get grants and supervisors enter this scheme, no one knows what is the role for curiosity.

So, some of the brains that were more suited to be able to think in new languages, on issues that have no practical application may being diverted because of this market pressure to produce a technology . We all know that great ideas have never had practical application   in the beginning ... They were 'crazy' people. And we are sure that even good ideas for techno-science will be from people who have some intellectual readiness to think of things that are useless.

If people who are thinking about things that has no short-term practical application are people who are not as equipped to do so - but they are there because they got a scholarship somewhere else and only succeeded at that - they will not be so enthusiastic, probably will not have a brilliant idea that we are waiting and that will solve - like Einstein - and that will lay the groundwork for a new society.

If Einstein had a plan or the pressure to publish 'x' papers probably had failed to produce, in 1905, four papers that were revolutionary. It's a case but not the only one! If we see the history of other scientists we often see things happen like that. A person has to be apparently off of things but have to have a problem, a problem deeply engaged. This problem is usually rooted in practice being attacked with a highly abstract tool and that is what is a new language. So we have to recruit young men and women who like to think in that manner.

The science politics are not recognising this. The strength of the response - we are talking about very complicated things - to market mechanisms, international competition has been such that we are all aligned for the same and only path. Now we really begin to realise that this path is perhaps not the most productive one.

Today there is a consciousness that is becoming clear that we need o have a budget for a kind of intellectual venture capital. Just like in the past when there was the problem of the dissemination of science in which major projects should have a small percentage to make disclosure.

The regime of techno-science does not make a change at the 'essence' of knowledge. Knowledge is not very different from that of curiosity-driven science. The main difference between the two arrangements is the pace and pressure.

The techno-science leads to pressure on the scientific community, on people. It can be said that a more intense scheme causes a loss of horizon. Instead of being able to think about the future at will, people are systematically thinking about the future because they will not have a guarantee stability curriculum until much later... 'To have a place'. And that is something that also creates some natural breaks on all this activity.

More and more people are researching. The problem lies in the very knowledge that is produced and in the community... Knowledge have to have technological applications. Facing the present, therefore, do more of it. Make new but always the same thing. Much more than trying to find radically new ways for and with knowledge. Why? Due to the fact that radically new ways of understanding the world may mean 20 years of effort with no visible results and no one is willing to pay for 20 years of effort without predictable results.

Disciplinary differences

Much of the funding goes to areas of application, specifically biology and health. We know perfectly well that technology is a powerful force for change but that most companies are not organised to use this technology, this technology does not come as much effect. There's a whole aspect that has to do with social organisation, with communication networks, which is the field of social sciences and humanities that must accompany this development. Social sciences and humanities are always those who have no political significance, which are not intended to appear on television commentators ...

The humanistic culture was a very important one. This culture today feels very threatened, and that's not good because we know that we need to start having good philosophy, good ability to deal with issues that have to do much with the relationship between ourselves and others. Not only the relationship with society, with the economy but in the field of human sciences and the humanities, philosophy is crucial in relation to the arts, not only the design ....

The population continues to grow, we continue to feed people, we still think we continue to work. Nevertheless you must think ahead and think about the future with a certain capacity for dialogue between disciplines because nobody has a solution, the solution is always interdisciplinary.

One of the problems of techno-science is that specialisation is so strong that people come away with no notion of an academic spirit. This also happens within the universities, I have to say, because colleges do not talk to each other. In techno-science that is even more exaggerated because of tensions and pressures. People live in their discipline and have no idea what happens very close of that same discipline or department.

The actual existence of interdisciplinarity is wishful thinking, that's what people say they would like. There is a discourse about interdisciplinarity. What we know is that there is no problem, no big problem in society - if you can find one I really would appreciate - that has not been resolved in a technology that does not need a huge amount of disciplines to be treated because the solution is never only in a single discipline.

The academic

In Portugal there isn´t an academic community. There are several academic communities and scientific communities, there isn´t 'a' scientific community, hence the difficulty of having a body representing the scientific community. Each discipline has its own community. So the problem is that we cannot see the whole We have to be excellent in our field but also be excellent to communicate with others. These are very strong issues of our time.

Relevance

Research has nothing to be relevant. The best contribution that is given to the society is to have ideas. What needs to be socially relevant is the ability of people who are trained at university. In education it is necessary to have an enormous relevance and a university that has a strong research component of course there must also have social relevance. It does not matter to be doing research that is useful to a country across the world. If you are on this country, you have the resources here, you have people here, it attracts people from all over the world because it is very good, of course we would expect that this university overflow and feed the society around them. The university is a product, any organisation is a social product, and there must be some relevance. In terms of knowledge itself, no. But the funding goes to what has application, or that have results that can give advantages, results ...

Interview B

Key Actor Portugal. Calouste Gulbenkian Foundation Administrator. Former Minister of Education. November 19, 2008.

Sofia de Sousa (SdS) - What I wanted to ask was mainly about knowledge in Portugal ... Who do you think are the main actors and institutions that are linked to its production? Who produces knowledge in Portugal and where is that knowledge being produced?

Interviewee B (IB) - When looking at the country as a whole we can find, on the one hand, universities that are an essential part ... You are talking about production of knowledge?

SdS - Production of knowledge.

IB - Mainly universities, government laboratories, institutions like the LNEC (National Laboratory of Civil Engineering), research institutes, veterinary, the agricultural, former INETI (National Institute of Engineering, Technology and Innovation) etc. Some knowledge is developed in some companies. There are companies, now, that have departments... Those are major companies like Siemens, as Bial or even others, Sonae ...

SdS - That incorporate PhD ...

IB - Yes, that incorporate higher degrees and have a research, study and development. Knowledge is not only the scientific knowledge of great discoveries but it is also the know-how of things.

SdS - You spoke of very different things, universities, companies... Do you think that the knowledge that is produced is different in different institutions and by different people or have some points in common?

IB - Diverse in what way?

SdS - In the nature of knowledge in itself.

IB - The universities are currently producing a number - specially compared with what happened 10 years ago - of scientific papers of very high value compared to what it was before. There were a few hundred and now there are thousands of papers published in reference journals. And is this knowledge very diverse? I would not say it is very diverse, I believe that the country begins to have some areas that have more weight than others. For example areas such as molecular biology, biomedicine, life sciences, the country has progressed in recent years and has a huge capacity. I do not know how many PhDs but we have 2500, 3000 ...
Institutions such as the IPATIMUP (Institute of Molecular Pathology and Immunology, University of Porto), the IBMC (Institute of Molecular and Cell Biology), the I3S (Institute for Research and Innovation in Health) ... In Coimbra, the ICS (Institute of Social Sciences), the IBET (Institute of Experimental and Technologic Biology), the Faculty of Science and Technology of Nova University... There's a very large number of institutions, highly qualified people producing knowledge in a very advanced way.
Where the country has a serious flaw is in the implementation of this knowledge into patents. Here is the gap that the country has, there's a kind of a 'valley' that lacks completely.

SdS - For the transfer of knowledge into businesses

IB - For this transfer and specially into operational knowledge. In knowledge patentable or patented in the sense of development and business creation, economic development, job creation, etc. Here is where the failure is greater.

SdS - And why do you think this happens?

IB - I think we have not found the model. There is a model, even institutional, that some large laboratories and some large institutions have adopted creating a kind of a company that develops

the work of patenting. Doing a patent has a specific technical difficulty, requires first a legal battle that is intense, not only in Portugal but to patent around the world. Patenting is an act which implies a strong argument, a defence of the patent to prevent others claim that right.

I remember many years ago - when I worked at the National Laboratory of Civil Engineering - making three or four patents. Making patents was a very complicated process specially with the United States of America because in the United States - not here, here you do a patent and virtually nothing happens - a patent is analysed by those law firms to know if you have any implication on patents that have already been registered . So it's a horrible legal battle, that now with e-mails are all made in one afternoon but it is still complicated ...

SdS - Patents are a subject that is very much on the agenda ... In fact, in any request for project funding there is a 'box' of the patent application. This is a transfer of knowledge that is done to society, businesses very visible. But it is somewhat restricted to certain disciplines, is not? Hardly the social sciences or the humanities ...

IB - Yes, this is primarily in the areas of discovery of molecules.

SdS - But what do you think it brings to all the disciplines?

IB - In terms of university?

SdS - In terms of university.

IB - A university has - I will be very simplistic - a sector that does not generate revenue and has other business that generates revenue. Suppose the second sector is engineering, the bio-medicines, pharmacies and the first sector sciences, law, history, psychology, sociology, mathematics, etc. What happens is that, in terms of management, we cannot allow that what is generated in the second case are just recipes for that particular sector. For example, the College of Engineering has to some extent their income, their incomes, but incomes have to be spread throughout the university. It makes no sense that they are spread only on their own college. It is not easy to convince, particularly, the researchers but there are ways to compensate those who work in these sectors. Because of the revenue, the income, the income that a university can have on the strength of a particular department may always be, say, 10%, 15 % for the department itself and the rest to be poured in accordance with the priorities set by the university. Because otherwise we end up with a part of the university growing and the other contracting.

SdS - Do you think this is a risk?

IB - I think it's a very big risk.

SdS - Currently in Portugal?

IB - I would not say it is a very big risk in Portugal. I think it is a problem faced by all universities around the world. I remember relatively recently... At a conference in Munich I raised this issue in exactly the same terms under which we are here discussing and checked, check and verify that it is a problem that is not our own.

The universities have to keep certain areas. The Tibetan studies for example, or the language of the Bantu civilisation of Monomotapa. They are very interesting from a cultural standpoint and are essential to our lives, for this human adventure in which we all are and sometimes it is difficult to find funding for them. So universities cannot say 'we have income in the area of molecular biology, we have a molecule whose patent has been sold but the money will revert to all the same', I think then the universities must have the ability to incorporate knowledge in the institution of any such income.

SdS - I was talking about it and I was myself remembering the English case of evaluation exercises in relation to research, in which the indicators that will provide funding to institutions are research-related patents and papers published. Certainly these last areas you mentioned will not have funding.

IB - If you make a direct link between what is the production of patents and funding I admit that there... It also depends on funding. The funding I think its most important is the one related with quality through a selection based on who is better, who has quality. But, regarding this idea of balance between scientific areas, one must be very careful.

SdS - There are many subtleties to be taken into account.

IB - There are many subtleties.

SdS - Continuing to speak about universities... Research, teaching and community service are the three major functions. What you think is the dynamic between these three functions in the Portuguese universities, currently ? Meaning, a teacher or a university Professor is more Professor, is more researcher, provide more service to the community?

IB - I think it is very diverse. There is an issue that is related to that which I might introduce previously. We - when I say 'we', not 'we, the Portuguese', but 'we, Europeans' - find it hard to talk about what the American talk, in research universities and teaching universities. Then we have another thing that we could still call a polytechnic as higher education but non-university. We distinguish poorly the first two and do not distinguish the third case.

SdS - And you think that we should make this distinction?

IB - We do not have this tradition in Europe.

SdS - The United Kingdom does.

IB - Sofia, we end up doing that also because there are universities with significant scientific research and those who do not have much weight in scientific research. Therefore in institutional terms it is very diverse and what I think is more interesting, in order to answer your question, is to say that there are now universities in Portugal that are true research universities, meaning Professors/researchers are very active between the laboratory, office and classroom. If you ask me which has more weight, I would say that everyone can manage it their own way. The percentage of students in the definition of a research university is very important because when a university gets into a very large number of students, post-graduate students who are doing masters degrees, doctorates and therefore have their own work that gives a great weight to the institution... There are, however, many Professors in Portuguese universities, doctorates and teach classes. The research they do is relatively short, is small, narrow. They may have one PhD student or even none. But I want to believe that with the number of doctorates that are being made each year - about 1400 - this means that there is now a routine of post-graduate and doctoral conclusion that makes research happening.

We can not compare what was the 'Técnico' when I finished my doctorate in 1973 and today. We had half a dozen PhDs and now the 'Técnico' has around 800. This has become something very different than it was commonplace and research becomes usual.

When it comes to research is also necessary to distinguish because there are some things which we call research, but it is more applied research. Basic research is done in relatively few institutions in Portugal with a high level. This concentration is beneficial or detrimental? I think it's beneficial. If we have few resources is better that they are all concentrated in the same institution than in each one.

SdS - This distinction is doing ... It exists in Portugal - I agree with you - but does not formally exist, in terms of funding, science policy ...

IB - Nothing! However, nowadays in terms of funding, the funding of research is done in terms of competition.

SdS - Yes, research. But the university itself ...

IB - The system of funding universities will have have to be looked at very closely, in my opinion, because it has not change for more than ten years. We must learn from the mistakes that were committed and I think it is worth doing the exercise to review a number of things. The funding

of research that have been disseminated by the universities should not be, in fact, and I had some responsibility in this and I am ... I think is not right, you have to change. It is a very important change. Because the English case, for example, the vast majority of funding goes to a handful of institutions. The vast majority does not have ... The percentage of institutions in the United Kingdom which receive funding for research is very scarce.

SdS - In your opinion which were the major changes in higher education and research in Portugal in the last 15, 20 years?

IB - Change in private financing. For a long time the country went on an impasse with the payment of fees. 11 years ago it was established and became a stable system. This was a significant change in the functioning of universities and specially in the relationship that students have with university. Education is not free and the person feels that there is a greater sharing of responsibility and accountability in the part of the student.

The issue of funding of research done by selection seems to me a very significant change.

It seems significant that the emergence of private education, in the 80's. Today, with the trends, what is happening is that the system is to readjust and many institutions will disappear in the background, as some have already disappeared, until they establish a balance related mainly to quality. I think in the end we will have a system that will adapt with quality. People are going to want ...

There is one aspect that is a change that may have some meaning that is the emergence of the autonomous status that is bestowed to allow the program contracts between the state and the institution. This might be a turning point because the institutions will have another agility regarding programs, guarantees and financing, etc.

I think there is one thing that was very important for the Portuguese university, its internationalisation. Portuguese university was internationalised. Initially internationalised person by person, meaning a doctoral candidate who was out and then brought the link with the department. This now jumped to a much more institutional. The Portuguese universities are integrated in networks, the Portuguese universities compete for Erasmus Mundus courses, anything that requires networking, especially large ones, the best, most dynamic departments and with higher quality have been positioned.

SdS - We also published very much in English.

IB - This is a fact, English has become a kind of Esperanto, a common language. I think these changes are essentially ... It lacks to move now in the financing, the rules for funding universities.

SdS - And the nature of knowledge that is produced? Is there a difference? Meaning, the kind of knowledge that was produced and was financed, which was privileged ten years ago gets the same type of financing, valuation, recognition ...

IB - I think we are now more concentrated in certain areas. The country is going to - maybe I'm wrong - develop the area that I mentioned of life sciences and biomedical and life sciences and molecular biology, etc. I think that then the country will have an increased capacity.

SdS - So you think that...

IB - I think this knowledge is relevant, I think it is a knowledge that is now appreciated abroad, now we do have to make the leap to the patent and product development.

There is another area which I think is interesting, that is an area that is producing much. Because notice to produce science, to produce innovation needs to have a critical mass large enough to have not only one person. We got very good at innovation, you have to have forty or fifty or a hundred, or thousand! In order to remove a 'rabbit of the hat'. To have a fantastic thing, which is published in the magazines, seized by the pharmaceutical industry or something else has to have a very large base. For example the area where António Câmara is working on YDreams ... The YDreams is a typical example of an institution that took 20 years to have a critical mass like that to innovate, to do otherwise, new products, ability to enter the major international markets. It takes a long time and today it has no comparison to what it was 30 years ago. The country is another. I've said this many times, I think the 'Técnico' when I was there in the sixties, compared with the 'Técnico' that it is today, it was a technical school, making good engineers, I am not saying

that we left malformed. We got a good basic training, had extensive experience of practical life, we had a lot of factory engineers, we had many engineers work, we had many design engineers who were our teachers and so we learned a lot. But compared to what it is today in terms of knowledge and, above all, the production of knowledge ... Practically the 'Técnico' did not produce knowledge in the sixties. Chartered transmitted knowledge, people knew a lot, had great experience, were great engineers, but there was no innovation to make something new or discover or progress. The experimental teaching was too lateral. We had half a dozen things.

SdS - Within this context you were speaking in Portugal can you identify who is a researcher and who is not? Or all higher education Professors are researchers? Formally they are researchers, but in the true essence of the word ...

IB - It's hard to say because the pure researcher does not exist. The researcher is usually a person who also teaches. Because the person have to research to teach, is very important. It is very important that you forward and cooperate. Today no one does anything alone. Nobody research alone. Today all of that is networked, there are lots of complementarities.

SdS - Research career is residual in Portugal, almost does not apply.

IB - Very few.

SdS - Yes, I can tell you that I have been looking for them and not found them, they are all university Professors who accumulate ... But there is a career which provides that PhD graduates could compete for this career ...

IB - I think this is something that tends to disappear.

SdS - I think it would be exactly the opposite. Because the vacancies for places in universities are reducing.

IB - Depends. If we speak about the laboratories of state, as the National Laboratory of Civil Engineering one can find many researchers. So there is a research that is not directly related to universities. Previously many of them were both teachers in the 'Técnico'. Today I think less because the conditions have changed in technical but in terms of civil engineering laboratory, which was and is a great institution, in the laboratory there are mostly researchers who do not give lessons.

SdS - But do you think this is a loophole?

IB - I would say the researchers, the student, who does research, who does experimental work in the background who make literature ... I think it's always a loss if the person does not share with others. They do not have to be in formal situations, maybe with students graduate, maybe a series of conferences, there are many ways to do this ... If the career or not tend to disappear, perhaps not likely, perhaps I am not be adequately informed.

SdS - Speaking of relevant knowledge, which is a topic that raises many questions. The knowledge is relevant to whom, how? What do you think it brings about the values associated with knowledge. Who decides what knowledge is relevant?

IB - Who ultimately decide whether the knowledge is relevant or not are the peers. One person writes a paper, send it to a magazine and this article is scrutinised by peers. Therefore, a set of people who by their very high quality, curriculum, etc. are able to say 'good' or 'bad', 'publish' or 'not publish'. This is one instance where you decide much of the relevance of things. Once it is not accepted in a magazine can be accepted in another. A person can negotiate, you need to do more, but it is always a peer review.
For example, here in our Gulbenkian Science Institute, I had the authority of the IGC for a while when I was here at the beginning of the council in 2000/2001 and the institute has a scientific council made up of two Nobel prizes, has the permanent secretary of Academy of Sciences of France, a Director of Max Planck, a range of people with whom I had several meetings here. These are people who review the projects one by one and are able to give an opinion saying that

what he/she is doing is the best, the institute in order to develop needs more than one area and that area so that... This gain greater consistency. It is always a peer review. There is no mythical institution that can say 'this is relevant or not relevant'.

There is another perspective, the economic perspective and, for example, a pharmaceutical company, and pharmaceutical companies make a lot of this, drug companies have many agreements with research institutions around the world in which finance specific studies of interest to them. What is interest? Is that a particular molecule that was discovered to be developed to provide a drug for them to sell in the market to make money. In the pharmaceutical ... I will say a nonsense.

SdS - No problem.

IB - It may be more relevant for a pharmaceutical company a molecule that will give medication to lose weight than a molecule that gives a vaccine against malaria. Because the vaccine against malaria, from the economic point of view, the market they have is very poor, on the other hand, beauty products, for diets, weight loss can be a huge market. Or one thing to stretch the skin. Today, with this huge concern with aspect it has become a fantastic market. While others were perhaps more relevant - we as two idealists would say, 'I would prefer a vaccine for malaria, how many millions of kids can be saved with a vaccine and not to die, etc., etc.' but life is very paradoxical and economic interest here may overlap. I could refer also the areas of war, weapons of mass destruction. In the United States a part of the research is related to the war industry.

SdS - There are many important economic pressures and not social...

IB - Socially it is very negative because it is to kill people.

SdS - In the UK, with the evaluation of research they are moving from a system based on peer review into a metric system. What do you think of this?

IB - I do not think you can do an assessment based on metrics. The number of papers ... There are researchers who made three or four papers, not forty, but perhaps the three papers that they have are worth more than a thousand and do not know how many others have produced. Then the question of the relevance of peers is essential. Only peers have an understanding of the importance that it may have for the future. To do this you must have an overall view, you must have a holistic view, the metric does not translate.

SdS - Do you think there is an academic community in Portugal? Can we speak of an academic community?

IB - No, I think there are several academic communities. And the circles are very closed up, I think that there ... I have an idea that there are particular clusters of complicity. I think there are clusters of complicity.

SdS - It is an interesting description.

IB - There are clusters of complicity that can sometimes be in the same university or may be across universities. Now the Portuguese academic community, I think it does not exist in terms of our reality. Also because the academic community begins to have some expression. We now must have more than twenty thousands doctors and such ...

SdS - And would you say that all the doctorates belong to the academic community?

IB - Almost everyone. The number of doctorates that are out of a university in Portugal is low, I must be the few PhDs that I'm out of universities. There are companies that have but should not be three percent.

SdS - And would you say that this complicity... Is based on what? Discipline, personal issues, institutional issues ...

IB - I think there are several things. Scientific factors, factors of proximity to the university where people work. The political point of view I think maybe not, I do not think ... Maybe 30 years ago has been a factor, I think nowadays is not. The scientific business and personal relationships, personal relationships safely. People end up winning a certain connection, create a small community, universities are more marked than others. There are universities where there is a certain spirit of community. The University of Coimbra has a certain spirit of community, the University of Porto has spirit of community, Technical University of Lisbon has no spirit of community, a university is made up of scattered bodies such as Nova University. The 'Técnico' has very little interaction with the higher institute of economics or the vet school.

SdS - About the Ministry of Science and Technology and Higher Education ... You already talked about some challenges they have ahead but what do you think are the main concerns that the ministry will have to address?

IB - The ministry is recent. I think the ministry as an institution of guardianship outlines and guidelines to quality of research, strengthening the autonomy of institutions, hence the need to review the schemes, the grand question of accreditation and evaluation - are two very important areas . The status of the academic profession, which I do not attach much importance, is an area that should be taken into account and that I think is one of the concerns of the ministry. I think part of this ministry concerns some rationalisation of courses, institutions, duplication of courses, find areas of agreement here does not know whether to merge departments, possibly revise some courses, etc.Then there is a line that has been followed in the area of external relations, the relationship of these international agreements which are all made with the MIT (Massachusetts Institute of Technology) at Carnegie Mellon, with Harvard. There's a great importance that is attributed to this relationship with the outside. Always in view, I think, to raise the bar, set the bar higher. Requiring people to jump more incentives but on the other hand have higher levels of demand. I think that the ministry has done.

SdS - How does the academic profession will be in the near future? How it will be to be academic, researcher ...

IB - I think the career is a further bureaucratic aspect than anything else. In the career I believe that the most important is the selection criteria, the moments of selection and incentives. We have to encourage the best. Systems of evaluation should be presented not with a punitive but a motivating factor. The person is evaluated to be compensated. There are countries in which the evaluation over career is done on request. And that assessment has to do with progression, with the progress that one can do in careers. I think the career has to have a great balance between what is work as a Professor in the classroom, in the laboratory, in seminars, conferences, etc. And what the research work itself produces. There has to be a great balance between one thing and another for the person, the candidate, the Professor not overemphasise such research if that is the area that is more balanced and leaving behind the students. Universities are institutions for the production of knowledge but are institutions to train people. The student is an integral part of the objectives ...

SdS - Do you think that nowadays young people look for Professor or researcher in Portugal as something they would like to do? The best in certain subjects choose to do research or not?

IB - It is a very personal choice, the person wanting to go to the market, want things, want to earn money to go to a... And the person who looks over to other aspects which would be held personally. He/she liked studying, researching, became interested in knowing... Such a career has some compensation but is not comparable to a career that is outside the university. Basically, the person will have to make a choice between one thing and another but in my view there are still many people who like to do research work, which is attracted by the knowledge. We have more and more people today to think and understand knowledge as an instrument, as a very important weapon.

SdS - I was talking about it because more people warns that if this does not change they will give up. This is seen with the grant holder researchers, many voices are saying we can not do this for so long. They have grants and temporary contracts to ensure continuous tasks. More and more over time.

IB - We had here a competition for PhD fellowship. We do not know if we have 26 or 27 vacancies and we had hundreds of applications. There were sectors that were better than others but we have had perhaps 50 people with high quality, and FCT the same thing. This means that there's a huge critical mass of people want to move forward and do PhDs. I do not know if it belongs to the university or not. You can have in your doctorate a fantastic opportunity to launch a business of entrepreneurship. A person can shoot up to an initiative. The YDreams is a bit of this and there are other experiences. Coimbra has many. Porto has many things in the area of software in the area of the medicines. I think that there will be more and more people who do things like that. I do not mean in the areas of doctorates but in areas of the MBA. In the area of MBA will be a lot of people jumping to their own business.

SdS - Thank you for the interview.

Interview C

Key-actor England. Department for Innovation, Universities and Skills. Interview made by phone. 16th November 2008.

Interviewee C (IC) - I got your list of questions. I am happy to take free phone questions, it might be that you want me to just... You have a very specific list, so I will go through that then...

Sofia de Sousa (SdS) - OK, that is fine with me

IC - The Department of Innovation, Universities and Skills has been reconstituted from two other departments, where higher education policy used to sit within another department and science policy previously used to sit with the Department of Trade and Industry. We are focusing now a twenty billion budget that covers the funding of higher education, the funding of scientific research and the management of the organisations that do that, together with the funding of further education so, anything that is not classified as higher education, vocational training, colleges and lifelong learning.

SdS - Let me ask you one thing. When you say 'scientific research' you mean all the disciplines or...

IC - Absolutely. We have seven research councils. The smallest of those are the Arts and Humanities Research Council. We have research councils from natural sciences to social sciences.

SdS - Are all the disciplines represented?

IC - Yes, all the disciplines are represented. The social sciences are primarily funded by the Economic and Social Research Council. The smallest council will be Arts and Humanities Research Council, the largest, I think, is Science and Technology Facilities Council that funds physics research but also some of the large research facilities themselves. I can send further background about the seven councils...

SdS - I have some reports but I would appreciate any further information you can provide.

IC - The higher education team sponsor has responsibilities for managing the relationship with the seven research councils. I am trying to influence them in terms of how they interact with the hundred and thirty class universities in the UK. The higher education team sponsor the Higher Education Funding Council in England and there are other bodies in Scotland, Wales and Northern Ireland that do the same thing in terms of the block grants that are providing for teaching...

SdS - It is very different, isn´t it?

IC - I am not sure. Certainly the complexity of funding research is more difficult in terms of the assessment and control of science research funding than the funding of teaching... Because taught courses are funded on a capital basis so you can say that medical research gets more money because they need laboratories and things... Teaching medical students is more expensive than teaching someone in social sciences but the fees are exactly the same, so a university will know that if have a thousand students in one area it will get this much money.
It is much more difficult to plan how much the research income is based on... There are so many variables that will affect what the likely income is based on the perception of peer review and how the RAE system works. So at the moment we spend three point five billion, which will rise to about four billion this year, I think, on funding through research council which is a mix of basic and applied research so that can be also collaborative with business. The Engineering and Physical Sciences Councils, for instance, over 43% of their funding now is influenced by the end users of the research who funded, but with other things like arts and humanities, research is largely still individual research, you will find the monographs and books on history or in philosophy will be more typical as a research output.
We have something called the 'quality related research' where a large amount of money was allocated to universities also and they have total discretion and freedom about how they spend that

and in some case it may be used to sort of subsidise areas that were not as successful in wining competitive research.

SdS - About the double funding...

IC - The change of name is partly due to the fact that we were looking to reform the system. They will still be two systems rather than a single one but it may be... Is still very much in terms of consultation with the sectors about what we might do to measure the performance of or how we might change the research assessment exercise.

You might be familiar with how that operates in terms of the review panel. So, there are over sixty subject disciplines and this creates an effect of concentrating research funding particularly in natural sciences... Broadly we have over a hundred and thirty universities, most of them don´t get much research funding but focus most on teaching. Over three quarters of funding goes to less than twenty universities and over a half goes to about ten or twelve actually. So, the consequence of the peer review system is that there isn´t sort of... We focus pretty much on those that are deem to be excellent. The 1930 holding principle which expresses the fact that there is limited political control of the precise allocation of research funding, which is mostly done by academics themselves in their research communities. We can allocate the overall budget for research but the politicians don´t generally direct priorities about what should be funded, we can offer incentives and in the current research at climate we are looking particularly cross cutting research topics, such as climate change but is up to academic to respond to how they might focus on those groups, societal charges in terms of...

SdS - The final decision belongs to the academics?

IC - The academics will... Yes, in terms of where the funding is allocated. There is a tension between basic research and responsive mode but in grants applications... If they are applying to a specific project, with quality related research - this is with quality related research - there is a independence in the autonomy in the university in receiving a block grant of money for quality related research that they can spend it on what they want. And there are more conditions attached to the specific grants applications and projects, and funding proposals through the research councils. Having two funding streams, one that was very focused on specifics of what they would do with the money and one which often means that perhaps we will move towards a system where there will be more performance indicators in the allocation of quality related research... It is still very much under discussion.

SdS - Of course. My question regarding the double funding system appears because I was consulting in Times Higher Education that the creation of the department of innovation, universities and skills was sometimes viewed in that way. Some people were saying that it was the first step for a single funding system...

IC - It is not going to be merged and there will be separate systems but the way that we measure performance may change. So, in terms of terminology the research excellence framework is probably just a rebranded name for the research assessment exercise which will be reformed.

I suppose the main actors are, within DIUS, the people who sponsor the research councils, the funding councils and they meet as a group in a sort of funders forum which also has representatives from the university sector and in order to, with the consultative process about any reforms the funding system - because we are aware of the potential unintended consequences if we make decisions in isolation - and also in a wider forums within various groups of universities, such as the Russel Group or the 1994 group.

UCU is a sort of association that represents all the universities and they have very firm opinions about how the reform should proceed and then within the wider associations of universities there are one that represents those that had more research and those that have less research and sometimes these different groups has different perspectives about how funding should be allocated. So, where universities already get a lot of research some of those that get less funding may think that they should be given some but the system currently reinforces the allocation of research funding to those that already have a lot of money.

SdS - Because they do better research...

IC - Yes, because they do well. There are different types of universities within the system but we don´t pretend that all universities should be research excellent but there is a valid role for other universities in having a mainly teaching focus. However it does raise questions about how can you really call yourself university if you don´t do any research and that becomes difficult perhaps recruit academics or motivate people if they have limited research possibilities or experience within a career in an institutions where they are just teaching...

SdS - Research, teaching and service...

IC - I think we mention how concentrated research is in terms of probably about ten getting half the funding, largely the usual names would be the University College London, King's, Oxford, Cambridge, Imperial College... So largely about half of the funding is also spent in London and the South East of England but we have world class universities also perhaps in Manchester and Edinburgh but it is quite focus on the research budget of three point five billion, that is mostly spend in ten institutions out of a hundred and thirty.

SdS - About the research excellence framework and its emphasis on metrics, as far as I have understood, what would you say that are the major consequences of those kind of funding? Or would you say that all will remain the same?

IC - I think it will change because the experience proofs that what gets measured, gets done can drive behaviour so in other funding allocations were aware that people have incentives to record what they do in a way to deliver higher funding. It might be more rational system and I think initially the departments, a couple of years ago, were looking to introduce some much more metric based systems straight away and then they - not directly involved in this - then step back from it and looking to run a sort of parallel system with the RAE committees meetings but also in developing a metric system as a shadow before they moves fully towards a metricated system. Constantly universities complain about the administrative bureaucracy of having to be part of a peer review panel, read lot of papers and compare the results and if we had metrics that would perhaps simplify that but it would remove the element of a sort of human interaction and influence. Ultimately the decision being made by a group of people might have more legitimacy than metric but that perhaps is a personal opinion. But there is a close correlation, I think, between those universities that are very successful in wining public funding and also those that have lots of business income and business research. So it would be a lower cost system involving fewer people. Academics are always complaining for being involved in peer review but actually it can be quite good for their career and network. But I think also some academic disciplines are quite small in the UK so if there are only a few departments then potentially the situation where it becomes a sort of self perpetuating oligarchy, it isn´t healthy and not as objective, so metrics might be more beneficiary in that environment but I think that is still quite evolving.

In terms of major changes we have a target about 50% participation in higher education and that was a policy objective for some years where probably in the low forties in terms of, about 40% in terms of participation and education, higher education, so maintaining the quality of the experience a as well as having a higher rated system as one of the major challenges and changes in the UK in the past few years.

SdS - Production of knowledge...

IC - It is quite devolved to universities as to what they focus on, so they can choose how to develop their own business in terms of how much research they do and what they focus on. Some universities are, well they may not win much research funding, they do lots of contract research with business which is more focus in solving their problems and applying existing knowledge to a sort of business environment rather than doing fundamental research in new areas.

SdS - But what would you say that is more valued by society in a broader sense?

IC - I don´t think... I am not sure that... I think that there are number of outcomes in terms of having high qualified people who are capable of solving complex problems is probably the largest outcome from the university system and I don´t think we choose... We don´t make any prioritisation about... We cannot make any value judgements about what the university chooses to do because the system is largely demand driven, so what me might encourage more people to do science and

technology at a degree, if people choose to study other subject than we can´t... There are the values of people attached in their choices. If people choose to study arts subjects the department doesn't have an opinion on the value of particular courses. We don´t have an ideological position what is 'good' and 'bad' research and to an extent the academic community themselves select the 'good' research within their disciplines and that could be everything from archeology through zoology.

SdS - Who is a researcher in your country?

IC - That question is quite a difficult one. There is a lot of pressure, I think, for people within universities whose main focus is teaching who pretends that they are research active and it could be that will be more beneficial from them to focus on the quality of the teaching experience. And the consequence of the introduction of fees within the universities in the UK means that students now are much more, compared to ten or twenty years ago, sort of consumer focus on they feel that if they are paying for the service they need to be getting a good experience and one of the criticisms of the past was that teaching, the quality of the experience in terms of what they got from face time with Professors, were very poor because the Professors and Lecturers were, their main career motivation was focused by writing research papers and attending conferences and so on, so teaching was less for priority. There is a tension, I think, between teaching and research. So anyone who does... I suppose there is a distinction between doing original research and the sort of transfer activity which would been trying to incentive. In the past, I think, working with business on sort of marketing or production problems wasn´t seen as something that universities... it would not advance your career in a university if you were doing a research into how to solve business problems, wouldn't be original research. You might get a paper out of it but it wasn´t something that gave you the same status as other academics.

SdS - What would you say that are the main values regarding knowledge production?

IC - I suppose it is always good to be academic excellence. I am not quite sure if I understand the context of question...

SdS - Lot of authors are saying that knowledge production is changing in its very own nature. What used to be regarded as knowledge production is not anymore...

IC - Certainly there is a degree of interdisciplinarity emerging in certain research projects, if we look at some the cross cutting projects like living with environmental change or how to cope with as our population ages, how we adapt to a society where more people are older than younger. Along with natural sciences in term of how to solve technical problems you need social sciences to sort of interpret and help people - psychology and so on and on - in terms of how people perceive and the solutions, their attitude around genetic modification and things like that which have been very controversial in the past. There is a role for government and universities in academic community persuading people to be more informed about potential controversial subject about the production and the application of knowledge in the society.

SdS - In that context, relevant knowledge is what?

IC - Relevant knowledge, I think is still pretty wide. I mean you can infer from the allocation of the three point five billion science budget that 2% of the budget goes to arts and humanities research and they have 25% of the research community and then about 20% goes to physics research and large facilities and I can´t remember medical research is quite large as well. In terms of the hierarchy there isn´t one formally, the resources required to run a particle accelerator is much more than if you are writing a paper on archeology and digging in a field. You don´t need the same resources. But I think that there is a perception that there is a tension between the funding of social sciences and natural sciences and I think perhaps the allocation of the budget is partly done according, it is not so much done according to their past performance, but also... they present a business plan. If the research councils are presenting a business plan last year for a 3 year funding program, they need to convince us that they will spend the money effectively and that can be effective a social science or a natural science.

SdS - It depends on the argument rather than in the subject?

IC - Yes, depends on how they articulate on behalf of their research community but there is also a perception from government about what they think should be priority. I think we value all knowledges and all disciplines. But you can see from the size and scale of the allocation that in the same way that overall research is scud towards particular universities it is also scud towards particular disciplines. In terms of the resources allocation.

SdS - About quality, value, independence... These are like buzz words that we talk a lot when we are talking about funding research. How would you say they interfere with the work of each department?

IC - I suppose if a department is doing, currently, the research assessment exercise that was last carried out some five or six years ago, would take a sample of papers from different disciplines within the university and then rated all in a star system where you will be aware that there are five star, five star plus and they get a lot of money. If you get four star you get some funding. And if you get three star you get a little money. And anything less than that is not funded for research. So there is a tension. The investment of quality has moved because where people use to have some national research capability and were funded according to them being assessed as three or four stars, the amount of money that is given for three or four star had declined. And only perhaps five star and five star plus are given... There is been a sort of inflation, if you like, in the sense that it is harder to sustain a department that is just given three or four star funding unless they also have match funding from business and from end users of research. And I suppose any question about the value of the research also might relate to the willingness to pay concept in terms of whether its an art... We have a major art exhibition that is based on a program of academic research where the catalogue and exhibition are based on... At the moment in the British Museum there is a Babylon exhibition, which was previously in Berlin, the value of that may be related to the number of visitors or the number of people who are buying the catalogue or... You can assess that... Particular research project in terms of something with the arts and humanities community is often related to outputs in a museum and gallery sector or the popularity of a particular book. Within natural sciences and more high technology research projects is more related perhaps to the attitude to attract match funding from the private sector and there is lot of developments around scholarships, co-funding in all sorts of ways that attract for researchers but also that achieves the objectives for a project that may be designing a new aircraft or new drug or something. So I think it is still quite primitive perhaps but we have some sort of system that academics use to define quality which results in a system where they reward the best researchers and the rest don´t get very much.

SdS - Let me go back in the script. We talk about research and teaching. What about service? A kind of service to community and...

IC - I think most universities have in terms of their impact to the social, civic and cultural a sort of a footprint within the community in terms of an organisation that creates jobs or has the potential to enable people who traditionally had forgot university and I think they do perhaps - in some cases that is not very well defined and it is something that happens by accident - but I think in many cases also universities will have a strategy around social civic and cultural engagement and the money that we give under the higher education innovation fund budget isn´t allocated to any specific priorities, and although is formally around helping universities to engage with business it can also be used, it has been used, in the past to enable wider community engagement on sort of cultural projects or sort of civil society projects that aren´t focus on a relationship with a commercial company.

SdS - The academic community... What do you think about the existence, or not, of a single academic community?

IC - I am not sure. I think... Certainly there is an academic community and I think the perception of academics is that they are part of a wider community within their discipline and within a university. A university is more than the sum of its parts in the sense that there may be competition for resources between different faculties, between arts and sciences, there is a sense that they deliver more in a wider community, within the university and to the country. So I can´t think that there isn´t an academic community and there are societies for arts that were founded three

hundred years ago, so there is a degree of prestige attached to being a member of the Royal Society or a fellow in a sense that you are perceived by your peer group as member within a sort of club. To be fellow of the Royal Society of Chemistry or a fellow of the Royal Society of Arts or just a fellow of the Royal Society which is like the core group, and this academics are in many cases very influential with government in persuading us about how we would reform the system. We have at least six vice chancellors from universities involved in projects like that. There are various projects at the moment about the size and shape of the university system as we move forward and these are led by vice chancellors who are obviously the experts in how to reform the system. It wouldn't be the department here. Our main role is facilitating discussion with the academic community and then providing advice for the politicians to make a decision. One of the challenges also in terms of major changes affecting higher education systems is demography so we have... Quite soon there will be many few.... Although people are participating in higher education at different times in their life, most students, about 40/50%, still go at eighteen and we will have fewer teenagers in the next few years. There is a potential also that there will be more competition for the foreign students who come to study here. At the moment I think we have two hundred thousand which is quite large. If students from other countries decide that they will study in another country then potentially the sustainability of having a hundred and thirty universities in the United Kingdom looks difficult and then maybe we have to, if there were fewer students, from home or abroad, we would reduce to having fewer universities. It becomes quite painful to reduce the size of the system having spent ten years trying to built it up and expanding it.

SdS - When you say 'academic' you mean researchers or all the people that works in higher education, teacher, researchers...

IC - I think I mean everyone. But then the active research community is perhaps fifty thousand people, out of a much larger community that would include people who teach as well. Anyone who is teaching will have at least a master degree. I suppose that may be more prestige attached to research active community but that is my perception. But everyone of them is an academic and they are part of a wider community involved in teaching and learning within the system.

SdS - Thank you very much.

Interview D

Key-actor England. Deputy Vice-Chancellor of an English University. Former Director of Research, Innovation and Skills of the Higher Education Funding Council for England. Interview made by phone. 19th November 2008.

Sofia de Sousa (SdS) - I would like to ask you, regarding Higher Education Funding Council for England, what do you think are its main functions and challenges?... Nowadays, currently?

Interviewee D (ID) - The main function of the Higher Education Funding Council is to distribute public funding for teaching and research and more recently for knowledge transfer activity. Teaching is by far the biggest part of the budget, it is about four and a half billion pounds. Research is one and a half billion and there is knowledge transfer money and there is also capital money... And there are other things... So, the total budget is about eight billion pounds.
The main challenge for the funding council is how do you distribute the money across a university system which is very diverse. On the one hand you have universities like Oxford or Cambridge and, on the other hand, there are universities like Keele which is very different, much, much smaller than Oxford or Cambridge with a mixture of research and teaching. We have universities like Cambridge, Oxford, and Imperial which are highly research intensive, where almost all members of the staff are very research active, we have new universities, which became universities in 92, which were polytechnics before, which focus largely on vocational teaching and applied research... So, there is a huge diversity in the universities in England applying for funds which is a big challenge because the council funds by block grants, it doesn´t fund individual projects as such, so roughly speaking we used to, with my old job, allocate money for teaching on the basis of student numbers and research on the basis of their performance in the Research Assessment Exercise. And as you may know the results of the next Research Assessment Exercise will be with us tomorrow.

SdS - Regarding the Research Assessment Exercise in the allocation of funding, in research, for the Higher Education Funding Council for England is this exercise central?

ID - Yes, I mean the Research Assessment Exercise allocating money for research, just research not teaching, is absolutely central to the allocation of money because the principal which lies behind the allocation of research funding, through the Research Assessment Exercise, is that of funding excellence. Because funding is limited and as I said earlier the sector is so very diverse... So the research funding is to be allocated selectively to the very best research, so the Research Assessment Exercise, which happens once every five or six years, is very important in determining who is doing the best research as a department or a school and then make sure that money goes to those departments and schools.

SdS - Let me ask you one thing, personally you don´t have any problem with a university that doesn't do any kind of research? Do you think that it is still a university?

ID - It is an interesting question. Most universities in the UK do some research in one or two subject areas. So, a university might do a lot of teaching in arts, humanities, social sciences, physical sciences, political sciences, engineering, medicine but they might be doing research in one or two areas in there, quality research. Most universities also will be doing... Possibly applying other people's research to solve problems for industry and business... So although I am comfortable with a notion that lots of universities won't be doing significant amount of research, I do think every university is doing some, even if it is applied or practice based research, and also I think is important to say that while universities may not be doing research we would expect every university to be doing scholarship so that they are up to date with their subject.

SdS - Regarding, still, funding... In England, from what I have understood so far, you have a double funding system. Do you think that this works well? It is an advantage for the system or it could be better for higher education to have, instead, one single funding system?

ID - I can now speak independently. I would say that it is important that you have two streams of funding, one which is goes to HEFCE at the moment, which is a block grant, so the university has a block of money which it gets, based on the Research Assessment Exercise, which it can then

use to pursue its own priorities... So, if this university wants to put some money in environmental research, as we are doing, or we want to put some research into issues to do with ageing, two very important issues for society, we are able to do that because we have a block grant, we can take that money and say 'this is where we want to invest this money'. So that is the purpose of the block grant. I think it is important to have some money which comes directly to the university, which the university can decide how to spend and also at the same time have some money for projects where the research councils, to some extent, decide what the broad themes they will fund and the projects they will fund. So the dual system has the advantage, and one complements the other, but the systems complement each other. That doesn't necessarily mean you need two separate organisations allocating the money as it is the case now. My old organisation is allocating the block grant and the research councils allocating the project grants. You could have a single organisation as long as there are two funding streams, one which goes to universities and university management and one which goes to individual academics with projects applications. I don´t see it as a problem.

SdS - Regarding Research Assessment Exercise, again, I think it is being replaced by the Research Excellence Framework, right?

ID - There is work being done to reform the RAE

SdS - Why this transformation of the Research Assessment Exercise into a Research Excellence Framework?

ID - The changing name is not significant.

SdS - No?

ID - Because, as with all these things, the Research Assessment Exercise, the RAE, as it is very well known, here and throughout the world now, was set up in 1986 and there have been exercises in 89, 92, 96, 2001 and 2008 (the results coming out this week). The RAE has had quite a lot of criticism, much of the criticism comes from people who don´t benefit from it, because they feel it is too selective. There have been other criticisms about does it properly assess applied research, is it taking too much time on academic staff to fill in forms, reports and all of that. So, when we look at a new framework, with this new system, after 2008, given that the term 'RAE' has so many kinds of pre-conceptions it will be good to change the name to show that this is a change in the system. So the changing of the name is to create a sort of waterline and a break from the old system. The changing purpose is to make it, to some extent, to reduce the burden, particularly the areas where there is enough numeric data available, probably reduce the amount of effort and work which goes into it. But that is the underlying logic...

SdS - Maybe I understood it wrong. I understood that the Research Excellence Framework will introduce a metric system rather than a peer review system. Am I wrong?

ID - That will be the intention. But I think what you will find is that by the time it is launched in 2011 or 2012, so we hope, you will have a mix of peer review as well as metrics and that will be true in all subjects.

SdS - Regarding the higher education system of England, who would you say that are the main actors and the main institutions in your country... Researchers, teachers, students...

ID - The system is made of all of these people. I mean the academics are the heart of the system.

SdS - They are?

ID - Absolutely. They are the people who do research, they are the people who are creating new knowledge, they are the people who are helping business and others to apply knowledge they have created. So they are the knowledge creators, they are central to the system. Research students are an important part of that system as they are the future academics, if you like. The research managers are, in a sense, trying to facilitate high quality research from staff and students,

recognising that research is now a highly competitive activity, funding for research is highly limited, so the money has to be put in good use, and the role of the manager is to try to manage the very scarce resource as effectively as possible and creating the maximum value.

SdS - What would you say that is the dynamic between teaching, research and service in universities in England?

ID - There has been a lot of discussion about the links between research and teaching and clearly of course... New knowledge needs to inform development of curricula, development of courses and needs to be there. That doesn´t mean every teacher has to be highly research active or doing their own or research. They need to be aware of the up to date research and what is cutting edge research. So that settles an important issue.
Secondly, there is a view, and I have some sympathy with this view, that research in the UK has taken priority over teaching and that is why when I was at HEFCE we were looking at schemes like teaching fellowships, national Teaching Fellows, centres for excellence in teaching, additional money for teaching, to promote and value teaching and it is important that teaching is given value in terms of promotions to seniors posts and alike. In terms of service there are different types of service obviously. Some people are more involved in running things for the university, some people are involved for running clinical services, Professors of medicine also doing operations, that is one sort of service, there are others involved in business and that is obviously an important part because ultimately universities are creating knowledge and deliver that knowledge into the society.

SdS - And how would you define an academic? A person related to teaching, to research, to service, to all of this dimensions?

ID - There is no single definition...

SdS - But for you personally...

ID - For me personally an academic is somebody who is either doing teaching at university level together with scholarship or doing teaching and research or doing research. Either combination is ok. I think people who are managing service activities only I would not necessarily call them academics.

SdS - Talking about research, how concentrated is research in England? Would you say that universities are the main institutions to do research or are other places that can be producers of knowledge and research?

ID - The UK is probably quite different from most of Europe. We don´t have that many research institutes. We have a few but not many. Most of our research is done in universities, public funded research is done in universities, a small amount in research council institutes and obviously there is industrial research which is separate from public funded research, that is private funded research.

SdS - Regarding knowledge transfer to industry, do you think it is changing or it is the same as some years ago?

ID – It has changed hugely actually. Ten years ago one of the things we did at Higher Education Funding Council was to create the Higher Education Innovation Grant to promote universities to work more closely with business and there is something called the Higher Education Business and Community Interaction Survey, HEBCI, which is published every year, has been published for about five years and if you look at that survey the amount of interactions in the five years between university and business, whether you look at intellectual property generators, look at licenses, whether you look consultancy done for business, all of those are just going up and up and up. All that to me says that universities are delivering more than they used to do before.

SdS - And do you consider these an advantage for universities and for society?

ID - Is a huge advantage for society because we are using the knowledge base we have in universities. Is good for individuals because it provides ways they can interact with the broader

society and I think is bringing other sources of income into the universities, which is important as public funding is limited. So I see as a sort of win, win, win for those all involved with it.

SdS - And would you say that this is happening across all disciplines? Or only in the disciplines more related to technology and engineering?

ID - The predominant amount of activity in these area is still from the science side, and science technology side, but increasingly people are seeing the value of social sciences and how social sciences can contribute to solving real problems. I am a geographer and some research was in looking at flooding in Bangladesh and there were physical geographers looking at the soil, there were some other looking climate and forecasts, I was a social geographer looking at the impact on the people, their behaviour, there are other people who were construction engineers who were looking at how better to construct houses in these flood planes so that can stand in floods. You got people from social sciences also contributing to societal benefits. Traditionally more in sciences, and that is probably still the case but we must... Increasingly social sciences and humanities have a role to play. Traditionally, if you go back to early years of universities, a lot of what university did was talks, music, drama in the universities with the local public. That is an important contribution.

SdS - Regarding higher education in a broader sense what would you say that were the major changes, apart from the transfer of knowledge to industry that we have already discuss, affecting higher education in England?

ID - The big changes are to do with the fact we are now teaching far more students. When I was a student, twenty five years ago, probably one in ten or fifteen people of my age entered the university, now it is one in two. So it is the massification of higher education but there is an increasing need to ensure that the students in this mass higher education system are learning skills which then allowed them to get employment, the focus on skills education is continuing to increase. The importance in research teams working research, the big sort of discoveries, I mean inventions, innovations in research come probably from subjects working together through interdisciplinary and multidisciplinary research. So that is a big change, at my university almost all the research we do is highly interdisciplinary, because that was the principle which it was founded on in 1949.

SdS - Regarding the interdisciplinarity that you are talking about, do you think that is having impact in the academics and in the disciplines, in terms of identity?

ID - I think it is changing disciplines, no longer can you work in isolation in a small subject area. Disciplines are evolving and changing and that is not a bad thing. With some disciplines, there are some fundamentals that you have to learn but nevertheless disciplines are evolving quite a lot. And the academics who will succeed in the future I think will be people who are at ease with working across disciplines. I don´t want to minimise the importance of core knowledge in subjects like mathematics and so on...

SdS - Would you say that the production of knowledge is changing through interdisciplinarity and other things or just through interdisciplinarity?

ID - I think that knowledge is a difficult thing to define and knowledge comes in different forms. I don´t know if the knowledge is changing or not, what we are doing is creating a lot of new knowledge. In the last twenty five years has been more published and more things invented than in the history of all humankind.

SdS - But would you say that this 'lot of knowledge' was produced according to the same rules as the scientific knowledge of Galileu or would you say that is a different kind of knowledge produced with new rules and in new contexts?

ID - There are certain things about knowledge production rules which will still stand the same but what happened I think is that the context has changed, for the production of knowledge, and there is no easy answer to this. The nature of knowledge is changing, the way that knowledge is acquired is changing, what we define as knowledge is changing, how we disseminate knowledge is certainly changing, so we are in a sort of fairly fast moving environment in terms of new knowledge

but some of the fundamental principles to do with the epistemology of knowledge probably hasn´t changed. There are some fundamentals about creation of knowledge which are still true as they were when Galileo lived.

SdS - Can you clearly define in your country, in England, who is a researcher and who is not? Looking at the academic community would you say that it is simple and clear who is doing research and who is not?

ID - No. Because in some way or another we all are doing some research. People who are not doing research will be people who do not publish anything, who do not have any research grants, who are not involved with research in a different setting like business. Each university has to select which of its academics staff it will submit for assessment.   This is where peer review comes in, where people are doing good quality research, they are actually taking forward the frontiers of research and that knowledge is forwarded or whether they are just doing more of the same of what has been done before. That is very difficult to distinguish. Is difficult to distinguish unless you are a peer in that very specific field. My next door neighbour here in the offices is a statistician, is an interdisciplinary researcher because he deals with statistics in health matters, he gets a lot of grants and he publishes a lot so he is very research active but for me as a geographer I don´t know how good he is and that is where peer review comes in. So on one level is easy to distinguish who is doing research and who isn´t, on the other level it is very difficult to distinguish or it takes time to distinguish, it is harder to distinguish who is doing really good quality cutting edge research and the different types of research.

SdS - So would you say that the peer review is a crucial and essential part of the system of the assessment?

ID - I think it is, and that's why I said even the new Research Excellence Framework system will in a sense have an element of peer review within it.

SdS - Talking again about knowledge production, what would you say that are the main values related to that? How would you define, for instance, relevant knowledge that sometimes is used for the disease of the funding of research...

ID - This is a very difficult question. Probably more difficult than the other things we talked about. There is a lot of theory published on this subject, as you know, as a researcher yourself... Relevant knowledge depends on the context, if you like, and something may be very relevant in one context, may have no relevance in a different context. I am trying to think of an example. If you look, I suppose, research to do with earthquakes and things, volcanoes, they are very context specific research to some extent. If you are not in a land which has volcanoes it is not particularly relevant research. Now the difficulty for funding purposes, particularly for bodies like research councils is that you don´t really know for sure when something is really relevant or not. So, and if you look back at history, the big significant discoveries were all made really without knowing necessarily what its relevance was going to be... Then people says afterwards 'this bit of research is fantastic because now we understand the DNA, we can cure this disease or solve crime'. And there are a number of things (DNA is probably not a good example) going back a long time where those who discovered things probably had no understanding of the use of it. So I do think it is important for a nation to continue to fund research which is speculative, research which may or may not be relevant and this is where the Funding Council grant is quite important because that money goes straight to university, the university can look and decide whether they want to put money into areas without very specific project request, without very specific information about what is the justification because there is research which we ought to be supporting as a nation which may not at least in the first instance look particularly relevant, and some research obviously is not relevant in an economic sense, but is highly relevant in a cultural sense. And the research we are doing about, if you like, the value of music and the link between music and psychology for example and treatment of mental health and so on, the linkages between that are really very valuable given the amount of money spent on dealing with mental health patients. But you have to add up the economic value indirectly. This is a difficult area. These are just my own thoughts...

SdS - Would you say that the current funding in England is taking into account those things?

ID - I think it is. That is why I think having the two systems of funding is helpful because one part of the system which is funding projects is increasingly looking for outcomes. The research councils are looking for outcomes and what is going to be achieved...

SdS - Still talking about knowledge production, would you say that the pressure of being useful to society is something that in daily life of academics is a thing that they worried about or is something that you read about in reports but the academics don´t feel...

ID - I think those academics who are very research active and want to be successful do feel a little bit of pressure that national systems are driving towards economic impact. As long as there is a balance between that pressure and the freedom to do good quality research regardless of what it is, that is a healthy balance. We all need to be thinking about what we are doing and why we are doing it but is also... ok to say, actually I am doing this I don´t know what the end result will be or what the end benefit will be and that should be ok.. But for the majority of the researchers they seriously think about what are they doing, why are they doing it, what is the value to society and I think it is good and important that they ask those questions which, you know, academics 25 to 50 years ago might not have done but that mustn´t become the soul priority in their thinking. And I do think my own reading now having been back in a university for six months, I don´t think that pressure is too great, I mean, I think they are aware of it, they think about it, which is good, but I don´t think that they feel so pressurised that they must, you know, change the way they behave.

SdS - A last question, if you could improve something in higher education in England, what would you do to improve research namely?

ID - About research... You know, we are very strong research nation. What I think I would do is to find even more opportunities to get people from different disciplines working together because I think, for me, the future of really great discoveries lies in different disciplines working together.

SdS - Thank you.

Appendix IV
Transcription of the interviews
Academics

Interview 1
Academic England
Computer Science
Lecturer
17 June 2009

Sofia de Sousa (SdS) - What I would like you to talk about is related to your own perceptions, not worried about specific facts or the 'true', and what is the real thing, just opinions...

Interviewee 1 (I1) - Ok. I am very good at that.

SdS - So, I would like to start to ask you what... When you go to a conference, when you go to a class, when you are working with other researchers, how do you present yourself?... As a teacher, as a researcher...?

I1 - As a researcher... Let me qualify that a little bit. When going to conferences workshops, when talking with my colleagues here and so on I present my self very much as a researcher, first and foremost. The only time I sort explicitly present myself as a teacher is when I am going to teach an undergraduate level, because the reality is that students have... The reality is that undergraduate students are only very vaguely aware of the research part. To be honest, I think they do think that we just sit in our offices and do nothing except come out and teaching for the hour. So, in that respect, I go in there saying 'I am here, I am an authority on the subject and I am going to be teaching for an hour'. When they make a transition to postgraduate work then it is a lot more 'I am only teaching you stuff because it is related to the research'. So that is the main idea...

SdS - Regarding the definition of being an academic... What is it for you?

I1 - What is it for me?

SdS - Do you usually present yourself as an academic?

I1 - Do I have another...?
No, I present myself clearly as an academic. I just, struggling with what is the right definition when I say an 'academic', I guess that is an individual who has the freedom to explore topics of knowledge that he/she is interested in without necessarily having consequence to what is the application to the outside world. Sometime it does and sometime the reality push you into more applied areas but as an academic you have that rush to study what you want... To the point where even if it is something silly like doing something silly, an academic has that rush.

SdS - You think that in the English reality, with your colleagues, with the Research Assessment Exercise and so on... You think that all the people are academics in that sense or they don´t have the freedom to choose...?

I1 - Increasingly less you are... Increasingly one is being kind of crowd into studying particular areas.
As a very concrete example, I work in the field of computational biology, the interface between analytical methods, computer science, mathematics and so on and biology. So, I spend a lot of time talking to, in terms of funding, with one particular research council called the BBSRC (the Biotechnology and Biological Sciences Research Council). Recently, on the basis of a white paper that came out 2006 from Lord Sainsbury, there were an estimate on a new word entering the lexicon called 'impact' which is... The government turn out saying 'well we are happy that people study and research things, we want impact, we want to have impact', ok? And everybody says 'what do you mean by impact?' and of course that the game is we are trying to find out what impact means... Clearly there is gradually more pressure to work along particular lines.
I guess you could say, from my perspective, I kind... I shouldn't be surprised by this since I move from theoretical physic   - it is very hard to have a connection to make money - to computational biology which is much more applied... But, in fact, it's there and the reality of the next 10 years, in the UK at least, and probably for the rest of Europe, is that the public pressures are so stretch right now that what money they have, there is going to be a lot of pressure to really kind of provide some sort of bottom line for good or for ill.

SdS - And you think that we can speak about all those people that work, having impact or not, as an English academic community, or only in disciplines or other things? Do you feel that you belong to a community?

I1 - Do I feel that I belong to a community? I think I do... There are... I wouldn't go so far to say that exist... Community is a kind of a polite word, ok? Quite often, I think you could think of it more like the use the word tribe. You definitely sense that there are tribes in academia, people who work in the same areas, people who go around the world attending conferences and meeting the same people and getting drunk with them... Their families know each other and so on... And they work with each other for some years on the same field and so on move together. There are a group of people that I feel... It's actually quite a small number of people who I feel very comfortable with, who I can talk to about what I am doing and so on. Again, I think that is because I sort of change fields and since I change fields I think I wonder around a bit, so I haven´t really embedded myself in a proper tribe, if you will. The key thing is at conferences, at journals, the fact that in a tribe you can recognise all the names in a parallel session, the fact that you know all the people advisory panel for a journal, that sort of stuff... So, it's part that tribal thing and that's actually extend beyond the UK, it happens around the world.

SdS - Do you think that it happens around what?

I1 - Around a discipline. Definitely.

SdS - And do you usually work with people from different disciplines?

I1 - Yes. I spend all my time either talking to experimental biologists and there are more analytical people who I know and work with and we really talk the same language and so on.

SdS - Would you say that they are from the same 'tribe' as you?

I1 - Analytical people are the same tribe. With the biologists, it is a kind of symbiotic relation that you have with an experimental person, that's quite an unusual sort of thing that happens in academia. Most of the time people just work in their own tribe, with their own people. The key point there is that the language is understood. All of the terms, the jargon, everybody knows it. Every time you start a new relationship with somebody you have to learn a little about biology and they have to learn about what I do...

SdS - And talking about your daily work, what would you say that are the interactions between teaching, research, service...?

I1 - Right now, the last few months I have a kind of... My head of department gave me some time off from teaching, so right now it is pretty much all kind research based stuff. That is what is going on right now. More usually, it's 1/3 research, 1/3 admin, 1/3 teaching.

SdS - And you like this kind of model or would you like to have more time...?

I1 - Oh, I would love to be working full time research, but that is the reality...

SdS - If you have the choice you wouldn't teach? At undergraduate level at least?

I1 - Oh... Given the choice, I would do a bit of teaching, but the teaching I would do would be at a postgraduate level and it would be in my research area and it would be, most of the time, a very extended grooming exercise for getting good graduate students to work for me... That is not to say... The undergraduate teaching is not like 'oh my good, here I go...', the undergraduate teaching has its rewarding without a dash, there are lovely moments when one particular student came to realise something, and that is quite gratifying. However, the reality is that, within British academia, people who work exclusively as teaching are just close to zero respect. They are seen as the people who couldn't be act as successful researcher so therefore they found themselves in this little niche which is actually not... They don't have the intellectual right stuff. This is only something that is kind come to me after... I have been here for four years, it was only now... So, as a result

you have to be conscious that the only thing people are interested in, the only thing that academics are interested in, this community, in terms of your promotion, in terms of you just getting on is how you do your research. As long as you generates good research that is fine. Of course certain quality control issues are kicking in with respect to the teaching but as long - excuse the profanity - as long as you are not open and touching yourself in the middle of a lecture - sorry, that is a bit crude - then, actually, people would look the other way. Sorry, that is really hard. Maybe I shouldn't say that... As long it doesn´t appear in the Times Higher... But the point is that, with the teaching still, we don´t get any respect for it. There is zero promotion prospects, is a complete dead end. You know the structure. The structure here is Lecturer, Senior Lecturer, Reader, Professor. You might make it to Senior Lecturer but after that, no chance at all... So, that is how the things... All the Lecturers here... We all sweated for days and nights as post-docs and various things, so research is what we are interested in anyway. They are giving rain to our ambition, anyway...

SdS - But do you think that, for the quality of the teaching being done in higher education, this devaluation has some consequences or do you think that being a good researcher is enough to be a good teacher?

I1 - Again, a good question. And the answer is quite complicated. I know this one extreme example where you can have a good researcher who is a terrible teacher and the example that I had was when I was an undergraduate, when I went to the mathematics course that I had. I got this guy who walk in for an hour a few times a week and just spouts, just talk for an hour, and then walk out the door again and all of us stayed ' what the...?', no understanding at all. He was actually terrifying because you just felt completely lost. Don´t get me wrong, every lectures I have given are very structured, I think them very clear and I do spend time putting stuff together and so on. There is in fact a happy medium because I think part of the problem with UK students in particular is that right now, because of the educational system at a secondary level and, also, at a primary level, it is very very kind goals oriented, lots of little 'do this, do this, do this', it is all very organised and so structured that they just follow. As a result students don´t come in here realising... They don´t realise a couple of things... So, for example, they don´t realise that actually there isn´t necessarily a straight answer to everything. There are more shaded answers, there are things that are just complex and hard and have to be attacked from different angles, and sometimes you might never actually make sense of it... There is also... They tend to be gender like everything in it if it will appear in the exam or not. Sometimes it will be that a very short, two line question, which actually need a huge amount of thought but actually the answer itself is also a two line answer, they sort of complain bitterly 'this is unfair, because its only five marks for this because it is only two lines'... 'Yeah, but you have to think about it for ten minutes to come up, you had to do it right, you wouldn't done if you haven´t understood things'.... There is, in fact, an advantage in that attitude to saying to the students 'You can do better than this, this is the real world, you can understand stuff, we are not going to wrap in cotton wool anymore'.. So, I think the solution is to simply say provide the material that we have, you teach at a constant pace, being very care about what has been covered, give them a standard textbook to work with plus sort of give them a few other textbooks to work with, if they want to go and explore and go that way, and if people fall by the wayside do not go back and try to slow things down because you are not helping the majority of students there and it is also about standards as well... This is the reputation, would I be happy to sign my name off and say this student is capable of writing a piece of code that will fly an airplane, and the answer is no or yes...

SdS - Coming bak to research again, do you think that is clearly defined in England who is a researcher and who is not? In higher education? You were talking about people who only teach. Do you think that those people are not identified as researchers?

I1 - No, in job descriptions you don´t see that. People who do become Readers, you really are saying these are the people who are the really researchers and they are following the path of becoming Professor. The one who becomes Senior Lecturer is a kind of job that does a lot of admin and teaching stuff but that doesn´t mean that he still can´t make it to Professor. You certainly don´t see that in terms of the research... I think because actually of the fact there is this stigma attach with being called a teacher, you don´t see it specifically in job descriptions. Now, in honesty one of the things I sort of toyed with is trying get people to 'come put their money where their mouth is' and actually trying to find that but that you have to give a *quid pro quo*. If you are going to be a teacher then your teaching load is going up but on the other hand actually you

have... You are employed on an ongoing basis, just like quite Lecturers are right now. Researchers on the other hand are given an increase research load but on the other hand you give them safe, a five year contract and in the end of the five year contract the position is reviewed, and in fact in the end of the five years we ask do we give you another five years or we are saying to you go on, go to the teaching track... The reality is that at this point because of the fact that really there is a stigma associated with being a teacher people don´t want to do that, the labels are avoided...

SdS - Thinking about the senior Professors, that in some cases don´t do research anymore, do you still consider them as researchers because of the work they have done or...

I1 - Because they get to a merit stage or whatever?... I don´t think that far ahead. Those kind of people...

SdS - Because if you define researchers as producers of knowledge...

I1 - I know what you mean... The really good ones that you have, they are great people to talk too, if at least because they have a thousand good stories to tell, 'I remember when...', but they can often give that a sort of second opinion, they have that, it is a cliché, but they have that wisdom, they can give you, they can sort of stand back and, because they have seen it all, they can look at your proposal and they will say 'you can work on this'... They may not be actually up to date on stuff but on the other hand they will have that big picture which we don´t necessarily have, they will ask the obvious bloody question which everybody in your tribe will avoid, because everybody uses the same language and... So, those very, very senior people... No, I wouldn't call them necessarily researchers in the strictest terms if they are not publishing and they are not making proposals but that said, they are useful people... Now, I like to think that there are many of such people in this university. I think actually most of the senior staff, they are still researchers and so on... They are still very active. But in other places I have been to... It is just the wisdom of their advice, particularly with the administrative stuff... That is just a gold mine! That can make your life a lot easier... I am happy that we have a few of those people with us...

SdS - Talking about changes in higher education, what would you think were the major changes in England? In the last times?

I1 - I was educated in the Irish system, I did my PhD in Scotland. Since then I was working in English universities and so on, mostly as post-doc... Over the last four or five years, since I have been here, one of the changes that are going on well, and I could say that they are very, very...There is always the assumption that we should be pulling in more students than... It is continuously going on there, always about widening participation. What has been a kind of up and down, a roller coaster effect has also been the influx and the out flux of overseas students or, to be honest, Chinese students since they constitute 80% of the body. In term of this people basically come with cold hard cash, so as a result they are really providing... The first part of this decade they provide a huge impulse of cash into universities. You don´t know how many British students have been subsidised one way or the other by Chinese students. So, there is also been that kind of move and there is a danger there in terms of seeing them as commodities rather than as students, as people... So, I guess there are the two things that I have seen on educational side. On the research side there is increasingly this thing about impact, these word, not quite 'show me the money' but 'show me the impact'... I think unfortunately what you also see in the very near future is that there is going to be a big cut in the funds that are available as well... So, there is going bumpy, very bumpy times ahead, financially, for British universities. Really tough... Next few years are going to be very bumpy...

SdS - And about your own research, who defines what you are doing? Is it an individual option?

I1 - I define it right now. I say this is what I think it is interesting and worth following up on. There is, so far, there is no pressure on me... Again there has been little discussions about perhaps we should start introducing research plans and stuff like that and I think there is a kind of resistance is coming up against that, even just relatively minor thing... I mean we got very jealous about such things... But, right now, it's me, I decide what I do...

SdS - Is the communication of the research a major part of your work?

I1 - It is vital. It is absolutely essential to publish, to get out there, to go to conferences, to do seminars... You cannot just sit in your office with your thoughts... I mean, there is Andrew Wylie, who mostly solved... He spend nine years in his office in Princeton working on the last theorem to prove that and he didn´t do anything apart from that and he was basically completely quiet. Now I think that is almost unique that somebody in that sort of position would be allowed to just not publish anything. Anywhere else, except for Princeton, would say 'you got to publish', you have to show evidence that you are doing stuff, and actually that is the point because if you don´t have pressure then actually stuff doesn´t get done. You got have a bit of fear in there and you got have a bit of somebody with a big stick saying 'come on, come on, get it done', communicating your results is absolutely essential.

Depending on the discipline collaboration is essential to... In my field, actually... I am kind of an unusual, I work in one project when I work entirely on my own but increasingly you got to work with a body, with a group of people working as a team and this is perhaps actually one thing that is really seriously missing in terms of training our future researchers. We teach them everything about research topics, we even talk them about project management and bla, bla, bla, boring stuff like but it teaches you nothing about how do you go and meet somebody and how do you recognise that there is a good team here or judge that this is bad situation... There is nothing like that going on... So that is something that is important... Bottom line: communication is vital, collaboration is vital...

SdS - And regarding funding... How do you get funding for your projects?

I1 - Whatever way that works. So that means if you got a little idea, you knock on your head of departments door or to any doors in the offices in the university 'look, I mean, ten thousand pounds, five thousand pounds, two thousand pounds, can you help me here, can you get that', if you want to get something you got a bigger project, look for research.com, go to research in enterprise people to see what is there, go to research council page to see if it is something available there, you look at all the charity, you look anywhere and everywhere... You just... And particularly if you have try to get put together a team of people you just have to learn that actually... When you say you are doing research you aren´t doing, you are directing it, and most of all you are acting as this entrepreneur, you try to swat money all the time. Whatever way that works...

SdS - Who would you say that is the audience of your research? Are the people who are going to fund it, your colleagues, the public?....

I1 - When I write a paper I am writing for the community of people that I work with, the tribe. If the results are something that is kind of nice, then get involved and put together a press release, talk to media offices and media people - who will screw it up but you slap around a few times and eventually they will get something there - just to generate that. If you are writing for the research council obviously at the end of every proposal, every project, you have to write a little document to send it off but the papers that you write are for your community, because the next round of money that you are applying its... Those guys who will make the decisions, make the recommendations whether you get funded or not...

SdS - Do you enjoy being... Doing what you do everyday and doing research? Or it could be better?

I1 - I am satisfied by it. Is the best way of describing it. It's not a smug feeling of happiness 'gosh, I am feeling so great and enjoying it', most of all is a deep feeling of inadequacy when facing any of these problems and you pound your fist against the wall until they bleed and you make a little impact and so on but the little bit is satisfying. But, as I said, there are also times, most of times is like ' Oh, Jesus Christ!'. My old boss, my first supervisor, some years ago, said to me that theoretical physics is spending an all day writing a piece of paper and in the end you fall into the bin... But it is... It's having that freedom to go and to... Is good to... Not many people get that kind of freedom....

SdS - One last question, do you think that the nature of knowledge - what we consider as scientific knowledge - is changing? Considering these things like the importance of impact and the RAE, and so on?

I1 - I think... All the bureaucratic stuff at the end of the day they can shape it and move it and so on, but the reality... The worst that will happen is that all the bureaucratic staff will... There is unhappy people who are doing stuff they don´t want to do but that still doesn't mean that the end of the day they won´t go away and look up on a Nature paper on something that they think... People will still... The knowledge, the understanding doesn´t change. That doesn´t change.

What is shifting is that we are moving from an era of... The way we approach things, the types of problems that we are now attacking are bigger, and bigger and bigger. So, conceptually, they are getting so big that individuals can´t make progress, they have to work as part of a team. So the individuals will, in their relation with other researchers - and part of that actually has to do with the technologies -   they are changing things. So, for example, I think one of the things that is going happen in the near future is that the way we do research for secondary materials, in other words looking on papers that is an extremely hazard process right now... That will become... The technology will allow to say this is what people have done, this is what people haven´t done and finding your kind of niches and so on. That will actually will change things. The nature of... We will see bigger and bigger collaborations of scientific basis on bigger and bigger problems all the time. Bigger problems like what is the nature of life, these are the things that is going kind of happening over the century. So, the focus, the thing that people regard as being 'this is really cool to think about' is shifting right now from the simple big questions, the kind of physics oriented questions to more biological questions, to the climatology... All those kind of things and the way things are moving... That is a combination of the technology and the fact that progress is being made in those areas.

SdS - Thank you...

Interview 2
Academic England
Computer Science
Research Fellow
23 June 2009

Sofia de Sousa (SdS) - I would like you to tell me how do you usually present yourself when you are in a work context? As a researcher, as a teacher...

Interviewee 2 (I2) - I am a Research Assistant. I finish my PhD in 2004, I was a Research Assistant at Manchester for a year... I won a post-doctoral fellowship that is funding for three years for individual research. So, I have three years, in theory, with no teaching duties but I have taken a few lectures in someone else's course just for the experience... But, at the moment, my job is purely research.

SdS - Do you usually work by yourself or with others?

I2 - By myself most of the time. There is a Professor in this university, who I collaborate very closely with, but most of the time I am working on my own. We have a meeting every few weeks to discuss the results. About half of the papers I have at the moment I have been a solo author, half of them were authored with others.

SdS - And do you think that we can talk about an academic community?

I2 - Yes, certainly. The social side is very important. At conferences or by e-mail... Of course there is no point of doing anything if it is not useful to someone else. It is very important to keep track on whatever anyone else is doing... At least with the people who may want to give you a job in a few years time when your contract comes to an end...

SdS - And would you say that this academic community is centre in...?

I2 - In discipline, even more narrowly whatever specialist fields within disciplines. It is very rare for people of different departments in the same college to talk to each other. Someone working in a different field... I wouldn´t be able to understand their work without a lot of background reading. I think that there are collaborations once and again, they see that your work could be useful to someone else but, definitely, most of the time, you are talking and collaborating with people in your own field.

SdS - And regarding other institutions? Do you work with people from other institutions? Usually?

I2 - Yes. If there is people in your field in another institution...

SdS - And regarding interaction between different generations, meaning not only age but also in career terms?

I2 - While you are a junior researcher, as I have been, you will be interacting mostly with your supervisor... You can talk to your supervisor and maybe with the others RA or PhD students on his or her project.
At conferences it is a very good idea to talk to people who is more senior than you. Is easy, when you are a PhD student and go to a conference, to just hang around with the other PhD students... You will feel more comfortable but it is a bad idea! It is far better to get your supervisor to introduce to more senior people, in your field, for you to find out what else is going on in your area. But that is about it! Apart from the people you are working with at the time... Talk socially about your work to other people but is as far as it goes.

SdS - And you mention that your main function is about research.

I2 - Yes.

SdS - And what do you think about the interaction of research, teaching and service?

I2 - They are not as closely related as they should be, as they use to be. I don´t know much about this myself yet but, from what I have seen, there is a large drive at Britain, at least at the moment, to teach the courses that will bring in the biggest student numbers, to teach the things that are more popular with students... Which is not necessarily the things that the academics know most about. The theory beyond universities was 'we will provide a place where you can carry out your research in return from which you agree to teach the next generation'. We gave our students the opportunity to learn from people at the cutting edge of our fields but now teaching is seen as a task, as something you have to get through... How well you teach doesn´t affect your career prospects. Does not affect it at all, as far as I can see it! Research is by far the most important thing for your career prospect, appointments. If you have equal researchers the better teacher would be chosen... Say whatever they say about two people with the exactly equal qualifications, no two people have the same qualifications. So, how well you teach... So, putting more effort, more time into teaching does not benefit you at all. So, there are people who get away who are doing the bare minimum and there are people who really have a drive for teaching and think it is worth while, they think it is worth doing it for its own sake.

SdS - But what do you think?

I2 - I really hope that someday I will be in the second category but as the pressure amounts, as things are getting more competitive, tighter... There might come a time when I have to sacrifice teaching for research, for the sake of my own career, and it shouldn´t do, and I hope it won´t... The way academic sector is going that it comes out to that but that's the way things have drifted...

SdS - And what about service?

I2 - Well, that is not another mission. The reason we do research and the reason we teach is because they are useful... And the way that service seems to be taken... I think it is a little bit dangerous, there is an increasing trend to only fund research that is useful to industry, meaning research that is likely to lead to products that will make a profit in a short term... Only teach things are useful to students, by which they mean things that will increase students prospects, job prospects in a short term... And what has led to is that the private companies, more and more, are going to start use universities as a way to get the taxpayer to fund the employe training on the cheap. For instance, my field, Computer Science... Many, many students come to Computer Science want to be taught how to be a computer programer for a living, which is not exactly what Computer Science is... It is not what we are at beast at teaching and it leads to an unhappy compromise where they don´t want to learn the things that we are best at teaching and we are force to teach, half of the time, practical things which they will be better off learning in a more practical way... It is coming out in two ways. Firstly there is the fact that everything has to be an academic qualification these days... When the polytechnics became universities and many practical course are now taught in a very academic way. And secondly, as I said before, just because the drive for student numbers... Meaning the more theoretical, mathematical side of Computer Science, which is what the academic discipline is, is not valued as much because, let´s say, it doesn´t lead to a job within one year of leaving the university...
Often you see on the news people say 'isn´t the job of universities to give students the skills that employers are looking for?'... Well, that is only a small part of the job of a university, it is also... Well, it is give them skills to stand up to employers or to give them skills to change the job market or just to teach them there is more to life than the job, to produce a generation of informed citizens.

SdS - And regarding research, is it easy for you to identify who are the researchers in England and who are not? In higher education? Or everyone who is working in higher education, for you, is a researcher?

I2 - There are teaching only institutions and there are... Most universities do both research and teaching and, as I said, for universities, research is by far the more important of the two... The teaching institutions are not as near as prestigious. So far, because my job has been only research I only met researchers in conferences and etc... I only talked about research. So, teaching has not really been important to me so far...

SdS - And you mention some changes in higher education, like the polytechnics becoming universities and so on.... What do you think were the major changes that affect higher education in recent years?

I2 - Well, I have only been here about four years so far. So, most of what I know is just picked up from hearing other people talking. The biggest change will be the shift from.... We got the Research Assessment Exercise, which is now called Research Excellence Framework.

SdS - Do you think that is a major change?

I2 - If they gone with their first plan for the REF it would be a very big change but, as consultation goes one, they are finding just how unpopular the REF is. It is looking more and more like going back to the RAE. The first idea was to use very objective, numerical measurements to try to judge the quality of research, the impact factor of the journals published in, the number of times it is cited and so for... The feeling among academics is the only way to judge the quality research is... The only way to judge the quality of a paper is to have it read by an expert in the field.

SdS - Peer review system, right?

I2 - Yes. Exactly, peer review. The first plan would have given a lot of power to the big publishing corporations, impact factors favours the large publishing companies over the small ones and ignore the free open access into that publishing... It often takes a long while before a impact of a paper is felt. The number of citations of a paper can stay very, very low for ten, twenty years...

SdS - So, would you say that this kind of assessment based on metrics is unfair for the research?

I2 - It is not really about fairness, I would say. All these exercises, the RAE even... There are some negative impacts of the RAE, the riskier research disappears in favour of research that will be very likely to lead to results in medium terms, safer research. All this exercises are artificial ways of trying to introduce competition into the academic sector because of the ideology that has come in... In management theory, recently, competition will always improve everything... Which is not true. If you make things like universities compete they will become very good at whatever you are measuring, make universities compete over money they will become very good at making or saving money, not necessarily mean that they will be good at giving a good education to students. Make universities compete in the RAE they will become very good at fulfilling the criteria of the RAE which doesn´t necessarily mean that they will do better research. What it would have led to... What am I trying to say... Well, for example.... You have Andrew Wylie, the mathematician that proves Fermat's Last Theorem, he didn´t publish a single paper for seven years, while he was working on that last theorem, he was devoting all his energy into that... That is exceptional but in these days he would have lost his job... We need very safe thinking, things that will very likely to lead the papers or, even better, to patents and spin-off companies in the short term.

SdS - Just to make sure I understood, in your view, universities are not suppose to do only applied and useful research, right?

I2 - I think the main point is you can´t tell how useful research is going to be before you have done it. And if you try, if you decide this is how we are going decide which research is useful or not... The Engineering and Physical Sciences Research Council change the rules. So, now, when you submit a funding proposal to them they ask for the funding proposal to contain a two pages impact assessment which will.... In which you say, roughly, what the economic impact of the research will be. They say 'we don´t say what the impact of the research can be' and the impact can include scientific impact, can include academic impact but then 3/4 of their guidelines for that just talk about economic impact... For the best research, I say, you can't tell what the impact would be in advance. So, the researcher is going to be wasting his or her time writing these two pages of, what is the polite word for it, 'propaganda' or 'advertising'.

SdS - Apart from money and time in the life of academics, in the nature of the knowledge in itself, the question of what is scientific knowledge or what is not... Do you think that those changes

have some consequence to that? Do you consider that scientific and valid knowledge still remains the same as it was before those changes?

I2 - I think among scientist the feeling is still the same. Scientific knowledge is about understanding the natural world, is a good thing to do for its own sake and for its applications too which are   unfolded... Yes, it can produce profits and also can induce public services and... It improves everything! Among scientific researchers the feeling remains the same.

SdS - When you say 'scientific research' you mean natural sciences, engineer , humanities, arts or just hard sciences?

I2 - I meant all of them. Of course I only really know about computer science and mathematics.

SdS - The communication of research is a major and important part of work?

I2 - Yes. It is. For all researchers. It is all about publications and about getting your work known. To other researchers in the field, much, much more than the public. How well are you known by other people in your field is what is the most important for you career prospects. When you are looking for a job there is nothing that is more important than how well your work is known by the person you are applying to.... So, there are large research groups that produce hundreds of papers a year. If you got one of those you get your name on about fifty papers a year. The papers are absolutely awful, all that means is that you are a member of a large research group. Quantity of publications is nowhere near as important as quality of publications and the only way to someone know the quality of your work is by being familiar with it.
Communication with the public is pretty awful these days. The main route by which the public learn about scientific research is through newspapers and their reporting is absolutely awful because a bit of work will be taken, it will be rewritten by the public relations department of the university, and then by the reporter, and then by the sub editor and then, maybe, by the editor. None of which really understand the work and they always try to fit it into one of a few stories they know how to tell: Either somebody, preferably somebody young, completely turns the scientific world on ahead, shown that everything we believe so far is completely wrong or a study is done to prove something that everybody knew through common sense already...

SdS - So would you say that the audience of your research in particular are your own colleagues, your peers and people you are working with or...?

I2 - In the short term yes.

SdS - In the long term?

I2 - In the long term... Well... Your work will hopefully become important to people in other fields or industry or it will be taught to students or to be popularised in a book or in a scientific talk or something like that. But what I do, day to day, is write papers that are to be read by people who are working in the same field. Publishing to a large audience is something that is well worth doing. But it is an added bonus, it is not important for your career prospects, not something that you will be judged on. Again, about teaching, I think it is very worth doing well... When you have the luxury and security or a position....

SdS - And regarding funding... How do you usually get funding for you research projects?

I2 - The main sources for my field is EPSRC.

SdS - Is it easy to get funding from research council?

I2 - No, is really quite competitive. One in ten proposals get funded. Again, because of the changes in the way that universities are funded, they are putting a lot of pressure on their academics to get research funding. It is all about how much money you can bring in, the bigger research grants you can bring in, the better. Which means that the research councils are being flooded with a large number of proposals.

SdS - When you start a project, even with your PhD, who decides what are you going to study? Is an individual choice, a collaborative choice, a department choice?

I2 - So far I have been pretty much lucky. Found people who want me to work with them. So, I have an easy ride so far. Once you are a Lecturer, a Reader or a Professor you are writing the funding proposals so, you decide what to work on and it is best to work to... Try to work on the things you are best at, rather than try to second guess what is most likely to be funded.

SdS - And regarding this university, it can be called a research intensive university. What do you think about universities that are, let's say, non-research intensive university, I don´t know what to called them...

I2 - Teaching intensive, why not?
There is nothing wrong with that, at all. Myself, my research is what I loved. I have always doing mathematics and it is great that somebody is prepared to pay to me for doing it as a living. So I want to keep on a career of finding research jobs for as long as I can. About moving into teaching is something that I have consider if that does not work out. And if I did, I think I would prefer to teach at a higher education level, in a teaching intensive university, more than a college or a secondary school, just because the advanced, specialised mathematic logic is what I like the best, what I would like to teach the most...

SdS - And regarding you research, again, how would you define success in your research?

I2 - I would say success is solving an interesting and important problem that was unsolved before. Now, what is interesting and what is important is going to be very subjective of course and it is very hard when the thing that you work on for so long on comes ignore by many other people. And it happens the other way too, the thing that you rush off in five minutes because it has to be done is a thing that everyone else remembers and they are thinking up in the rest of the field. For me - maybe it is a bit arrogant to say so - but I am not doing this thing because I can´t get a job anywhere else, I don´t think anyone in the academic sector is doing it because they couldn´t get a job anywhere else. I am doing it because research is what I love and because it is a worth while thing to do. So, as long as someone is prepared to pay me to do it, I judge my success by the advances I make in the field.

SdS - I guess you like, very much, being an academic, right?

I2 - Yes.

SdS - And what would you say that are the main challenges or the things that you really enjoy in being an academic?

I2 - The fact that I am paid to do what I love, nine to five... Well another good thing is that is not a nine to five job, I can set my own hours, I can work in the bed or in the park, or in the train... The freedom I have so far, to choose what I work on... I am paid to do my hobby.

SdS - Do you see any disadvantages in being an academic or not?

I2 - Yes. Firstly, it is very stressful. I mean, I don´t know what I am going be doing in coming October. My contract comes to an end there and I am into negotiations to get a Lectureship in this university... I put in for funding for a research project so I can stay as a researcher there If I don´t get that but if neither of those go through then it look like I would probably have to take a break for my career for a year or so, do a different job while I try to find a post after that. Because it is very difficult to find an academic job at the moment... Even when you have a permanent position the pressure is always on to bring research grant which you can never be certain of, which are very competitive. Pressure in balancing teaching and research. It is so competitive, it is a never ending struggle. The pressure to be constantly bringing a research grant feels very like you are having to reapply for your own job every year, from what I have seen...

SdS - Thank you.

Interview 3
Academic England
Biology
Professor
30 June 2009

Sofia de Sousa (SdS) - I would like to ask you how do you usually present yourself when you are in a work context?

Interviewee 3 (I3) - In terms of the research that I do or...?

SdS - When you enter a room what do you say you are? A teacher, a researcher, an academic...?

I3 - What we normally do here... We actually stick about departmental roles... So, we normally describe ourselves by the administration role that we do, curiously... I am an admission tutor and deputy head of school so, yes, if I was in a meeting with others who did not know me in the college then I would say I am deputy head and admission tutor but it defers depending on... For example, if I went to a research meeting then I would say my research interest is plant micro-ecology, I would describe the topic of my research and have introduced myself in that way.

SdS - And would you say that you are a teacher or a researcher?

I3 - I would say I am an administrator because that takes more of my time, truthfully. For me, teaching and research take more or less the same amount of time. So, I do a fair amount of teaching but I also got a big research group. And my research... Me, personally, doing research, and by that I mean either doing practical work or writing a manuscript, tends to happen to me in vacation time rather than in term time. It is unusual for me to do much of that during the term whereas of course most of my time during the term is on teaching or administration because I have this job of admissions and admission takes about a third of my time over the all year.

SdS - And how would you say that this three kinds of missions, teaching, research and admin interact?

I3 - Very much because admission is completely separated. Having said that, I do bring in even research into admissions because I... We were in an interview day and what we do there is to tell the students about the research which goes on in the department, not just mine but all my colleague's as well, because when students come to university they really want to know about the research that goes on... So, we do introduce them to the researchers...

SdS - All kind of students?

I3 - Yes. I am talking about undergraduate students. Undergraduates are very interested, I mean they claim to be, very interested in the research of the department and as an admission tutor I sell the differences in departments to them by saying one of the things that makes a biology department, here, different to a biology department somewhere else is the research that we do and that is true because, of course, we all teach more or less the same stuff but we do different research and things. My own sort of research... Yes, I teach on the topics which I am interested in research. I have a very wide range of research interests. I am not someone who works on a very specific narrow thing, I do all sort of different things, I work on all sort of different places and a lot of examples of that I draw on and put it to my teaching.

SdS - And when you were speaking about administration, teaching and research... If you could choose, you will choose one of them or...?

I3 - No, no! It is funny actually because if you asked me that question four years ago I would have said 'research'. Over four years ago, three years ago, I had a sabbatical, I had an all year off, so no administration and no teaching, just research. And you know what? I got bored. I convince me that what I personally like is a mixture. I really missed, in that year, the interaction with the students because the students give me a lot of ideas. Undergraduates have always a delightful

naivety, they are not afraid to ask questions because they don´t understand enough of the subject to have that little fear that post graduates have of making themselves look stupid... They just ask the question and often the most innovative questions of those which are motivated purely out of ignorance... And they still ask me questions in my lectures and I think 'Uau, I never though of that! That is a really good idea! Let's do the research!'. So, I really miss that interaction and... The admin... Well, we all have to do admin, it is tedious but honestly if you organise yourself is not that hard. And is quite fun... The admissions, also, it might be strange when I say it, but it is quite a fun and interesting job because I meet hundreds of people during the course of the year. We interview all of the students, we interview something like four hundred students plus their moms and dads, granny and everybody else who comes on the interview day. So, I meet over a thousand people every year just through that part of the job alone and I talk to all sort of really interesting people. And I go out on visits to schools and get talks... So, I meet the teachers and the school kids there and is fun. Personally, I could not do a job where I do the same thing everyday. And for me... I love this job because everyday I do something different whether is teaching or admin or research or whatever, everyday I do something different. Even if I am here in the office I am still doing different things and that is to me what makes it interesting because if it is the same... I don´t work on one research theme, I work on lot of different things. It is just what keeps me interested and I am sure some of my colleagues could probably sit in an office and they will do exactly the same thing everyday. I would go mad if I do that. So, I can´t chose one, I love the mixture.

SdS - And you mention that you work in a lot of different projects. Do you think that you work in a community, with other institutions, people and disciplines or by yourself?

I3 - Almost nothing that I do is on my own. In other words all my research projects are collaborative with people from other universities. Most outside this university than within it but... Yes, a good example of that is where I had one research project where we were looking at the development of vegetation on green roots. I am a plant ecologist, I am interested in the plants but I am working with people from other university who are soil physicists and soil chemists and they are interested in the physics of things like cement. The co-supervisor of my student... His PhD was on the chemistry of ciment, can you believe this? It sounds to me absolutely tedious, I could not do that but if ever a man can make cement interesting is him. It is extraordinary and he is interested in the properties of the minerals which goes in the root zone about which I know nothing, and so, together, we had a project for the last three years looking how these different minerals can help plants grow and we did a plant ecology and microbiology and they do the soil physics and the soil chemistry.

SdS - You mention that other university. Although formally there are no classifications about research intensive and teaching intensive universities sometimes it appears research intensive as a major classification...

I3 - Oh, it is purely advertising! Every university in Britain wants to claim as the best in anything and there are league tables in the UK for everything that happens in the university. Absolutely everything we do is subject to a league table. My opinion is that is pathetic because if you look at a general league table, first of all, you will find that anyone university, even the so called best, Oxford and Cambridge, vary in their position within that league table. And the reason is because the people who make the league table use different criteria one to another. So, that alone, I think it is a pointless exercise. There is no one agreed league table. It is not like the football league where you get Manchester United in the top and somebody else in the bottom. It does not just happen like that. Second thing is that you can get extremely good departments in extremely bad universities, a bad university being when it comes down in the bottom in this general league table and, likewise, you can get very poor department in Oxford or Cambridge. So it is very pointless. But one thing, that is probably the most critical because it determines how much money a university gets, is this so called Research League Table, the Research Assessment Exercise. And you are probably aware that the RAE, as it is called... The results came out just before Christmas and every university will tell you how good they are in the RAE and there are quantify league tables of departments within the universities in the RAE and it is these which universities use primarily because the better they are seen to be doing research, the more likely they think they will get research funding and more money, and the better they are seen to be at research, the more likely good students would choose that university. So, universities use research quality excellence, whatever you want to call it, as an advertisement. And if they come higher in the league table they

claim to be research intensive because they are doing a lot, as they are good at it, and if they come lower down towards the bottom of the league table they can´t claim to be research intensive of course because it doesn´t match up. So you find that universities are using it as an advertisement.

SdS - Do you recognise any value in RAE?

I3 - Some. It made universities work in a better way. It made us be more focus in research but the element I don´t like is that it tends to make us concentrate on research which we know is going to contribute to a league table score rather than perhaps research which could be useful to society for example. I am a firm believer that any research a university does ought to be of use to mankind in some way. Now, of course, you can argue that can be extremely loose. I did practice ecology microbiology research, but my argument is that is benefiting mankind through biodiversity conservation or, in some cases, finding novels pharmaceuticals from a fungus. I cannot see the point of doing research for the sake of it but neither can I see the point of doing research purely to get higher at the league table. I think that a good university should allow its staff to have freedom of thought, we should allow our academics to choose their research topics.

SdS - But the RAE is not contributing to that, is it?

I3 - It constrains that. It definitely constrains it. I think I am very lucky. Because in this university I am allowed to do almost research what I want. I am not told what to do and I can choose my projects and, so long as my projects are funded... Really the bottom line is there is only two criteria upon which they judge me, research I do here, and there is how much money I bring in and how many papers I write. That is really the two crudest measures and that is true in every university because those are the two quantifiable things... We are supposed to bring in over a hundred thousand pounds of research money every year, to be average, we are supposed to write, at least, four manuscript per year, to be average, that is the benchmark by which I am judged. So, I have try exceed it every year. And if I do then I kind have a good year and I might get promoted. That is how it works in the UK system and the problem is... Some of the research I have done in the past I have done it because it was extremely interested to me and extremely useful in terms it could make money through patents but I have written somethings you can´t publish in any high flying journal and so, therefore, in terms of the output quality is minimal but the use to, perhaps, you could be extremely useful if you play golf for example... I can develop biological mechanism by which you can play golf more cheaply because the turf could be better produced without pesticides if I put my fungus into the soil and that is an example of something which is of use to you but publishing that... No, I am never going to get that in Nature or Science, no way, and so the output quality is quite low and the RAE drives the constraint of research so it has its good points but is restricted because, you know, all journals have impact factors... When I write a paper these days, first of all I look at the journal league table and I think well, which is the most applicable journal which is higher at the league table in terms of the impact factor, and for me experimental wise that is probably the journal Ecology. Right, ok, I will send it to Ecology and then you work your way down if they don´t accept it you send it to the next one or if you think, 'no I don´t think I possibly get it into Ecology because they just don´t publish this kind of material', then you go from the next one down. So, I tend to choose journals to publish my research in by impact factor rather than the nature of what they published... So... And that is driven by the RAE, because I have to get four high quality impact, ideally, I have to get four into Nature or four into Science...

SdS - And, regarding the research in England... Would you say that is clearly defined who is a researcher and who is not?

I3 - No, I wouldn´t say that is clearly defined. I would say that there is a continuum. As in all things in Ecology there is a continuum... I am not just talking about these department, I am talking about all the biology departments I know. There is a continuum from academics who do mostly research and very little teaching through to people, at the other end, who may do no research at all and lots, and lots of teaching. And most of us are on that continuum somewhere in between. And for me is 1/3 of my time is research, I manage to keep that up, from my point view. But it is hard work. I wouldn´t say that you can divide them into researchers and non researchers. I don´t think... It is not that clear cut.

SdS - And regarding your daily work, looking at your colleagues and the environment of the department, would you say that the generational issue is a major thing?

I3 - In this department I would say that we interact pretty well and the reason for that is because we are quite small. I came to this college from another college of London which was much, much bigger and there was competition between academics rather than collaboration because the department was large enough to allow that. Here, I think, if we have competition we would die, it will kill us. In other words, one of the academics would go extinct, to put it biologically, but in that department, which it was much larger... Here we have thirty something members of academic staff, they had nearly a hundred and they had two or three people who were interested in very similar things and they were competing rather than collaborating. And it wasn´t a very pleasant atmosphere in which to work, it was awful, I don´t think it generated a good department from that point view, but the department was large enough to stand it. But I think they would have been more successful have they been collaborative and not competitive but that is just the nature of the people who were employed there. But here... We have a mentoring system or things like that where the Professors would mentor one of the newer members of staff, and look after them and that sort of things and there is a lot of departmental collaboration. In other words, academics working together on grant applications. I tend to go outside simply because the nature of my research. I might be the only microbiologist here, nobody else is interested in microbioecology and so I go outside. Likewise I often work with people who are completely outside biology, chemistry people, and so I have to go to another university because of that but I have other colleagues in biomedical or plant molecular who work together because their research interests are much closer.

SdS - And, speaking of major changes that occur in the last few years in higher education, what would you say that were the most important for higher education, research?

I3 - I think that the best thing that we have here is the sabbatical policy. Encourages people to have time off to do research and I have colleagues in other universities who have been appointed as long as I have and they never been off with a sabbatical. Here, it's very good and about 70 % of the sabbaticals are almost when people applied for them and I think this university is extremely generous in the sabbatical policy. I think it works because it enables people to have time off to write a grant application or write a manuscript and as a result we did very well in the RAE - look, there I am advertising it, you see - and it work for us. I think if we do not have a sabbatical policy we wouldn´t done as well in the RAE. For a department of this size, no way! I think we have been quite clever in staff we have appointed. We have appointed some very good people and they help us to... In the future... We are about to merge of course. As an ecologist I have absolutely no idea. In fact, the reason I ask to delay this meeting is that I have just came from a meeting about the merger where they are all sitting there arguing about it even now. I don´t know what will happen from the point of view of research. I hope it will remain the same.
I would like to see research councils... If I was going to be specific about what I would like to see happen in the future I would like to see research councils 'put their money where their mouth is'. They claim to fund applied research, they ask now for knowledge exchange plans, in other words one has to demonstrate how the research will be of use to the general public, but when it comes down to it they are not interested in applied research. If you send them a research application which is pertaining to a particular industry and you want do fundamental research to help that industry they will say 'No, this is too applied. The industry should be funding it.' So, what is the point of writing a knowledge exchange plan? I really would like to see research councils fund more applied research and fund more what they call 'blue skies research', in other words, risky research. What really annoys me is that when I send a grant application to NERC, which is where I get most of my money from, there is a box on the referee form that has to be ticked which is risk reward analysis and you have a risk category of low, medium and high and a reward low, medium and high and the referee has to tick one cell in that table and, of course, if you tick high risk and low reward you will never get the funding... I don´t care how good they think the science is they will not fund it. I have seen it happen on comities where they are saying 'this is too risky' and yet they still claim to fund blue skies research but the true of the matter it is not like that, they are funding safe science, stuff they know it is going to produce outcomes and I like to see them take some more risks because I think the best quality research comes, like I said, when you allow researchers to do what they want. There is a thing, a year or so ago now, there was in Daily Telegraph they look at Michael Faraday original research and they said if that was submitted to a research council today it would go rejected because it was too risky...

SdS - So what do you think that are the implications for the knowledge in itself?

I3 - I don´t think our knowledge is progressing at the rate it which it could. I think it slows down the rate of acquisition of knowledge because if you take risks then sometime you will fail but if you take risks sometimes you will make a huge advance and you might discover the cure for cancer or a cure for HIV or whatever, it doesn´t have to be biomedical, it could be anything... But you might discover something which is world changing and when you look back over the course of time from, let's say, Isaac Newton onwards and even before, then the things which have changed people's life have been something which was really unusual at the time and if you continuously funds safe science you will only make those advances more slowly, I think, until you run the risk of making discoveries at a slower rate and I think we should take more risks. Some research projects will fail but one or two, perhaps just one, which will be so successful it would change the course of human life.

SdS - Do you think that it is likely to happen?

I3 - No, with the funding councils at the moment and, of course, with the lack of funding that there is then all they want is safe science and it is certainly what happen with the current government. No way!

SdS - And do you think that they are aware of those risks or they don´t just care?

I3 - I think they are aware of the fact that people complain about it but they do nothing. I think that there lies the problem because the research councils are spending public money and they have to be seen to be spending it responsibly and again you see awful things in the press sometimes about how a particular project, because the title might be really weird...

SdS - Regarding the funding of your research is it only governmental or also private or from other sources?

I3 - I think I am quite unusual. Over the years I had funding from government research councils, I have it from industries, from charities, from all sort of different places, EU for example... Because I am interested in lot of different things my funding comes from all sorts of different places. The majority of it come from research councils. The majority of it will be research council based but I get lot from charities and I get lot from industry who are prepared to contribute something to a project which we can run along aside, if you know what that means, and there are things called CASE studentships where one can get funding from a PhD studentship that industry contributes, I really like those because that actually bringing the industry into the research councils funding. So, again, some of my colleagues will only get their money from research councils, some will only get from charity, it depends upon the nature of their research but, again, the only way I have managed to survive with my line, my research interests is to basically get it many ways... I am not proud, if they are prepare to gave me money I will take it... You have to, you have to survive like that and that is another reason why I diversify, apart from the interest in lot of different things. I wouldn´t have got to where I am now if I hadn´t got money from all this different places... If I only rely on one source then I wouldn´t be near as successful.

SdS - And you are writing a paper or attending a conference...

I3 - I don´t go too many conferences.

SdS - No.

I3 - I think conferences are a waste of money.

SdS - Why?

I3 - My cynical view of conferences is that they are populated by 'somebodies' and 'nobodies' and if you are 'nobody' you go to one of these conferences and 'somebodies' do not want talk to you and if you are a 'somebody' you go to a conference then you just get other people wanting to

talk to you and you ignore them, you just talk to other people you know. The idea of social network in conferences and meeting the people who are influential, I think there is a load of rubbish! My personal opinion is that the way to get known in science is to publish. So, I spend all the money that I could spend on conferences, doing much more useful stuff like go and gathering data and the time that I could go to conferences I spend writing manuscripts. I just tend to go to conferences if they invite me. Is not because I am vain or anything like that but I don´t think why I should spend my research money going to a conference and given people my ideas. I much rather publish it. So, again, perhaps I am unusual. I have actually been to a very few conferences over the years. I don´t go to very many because I think they are a waste of money and I rather spend my time writing my four, five, six, whatever papers per year.

SdS - I was talking about conferences as a way to discuss your ideas with others...

I3 - No, I don´t agree with that. Because even in a diffuse subject like mine it is competitive and the only point of going to a conference is tell people what they already know. If you tell them what they don´t know, and you show them unpublished research you will find that they are already publishing it next week. I am very, very cynical because I have seen it happen. It happens to me. I have gone to conferences in the past, I have talk about interesting ideas with people who I may thought were potential collaborators and I find that they have a research project in the meantime on that and already publish it. So, I don´t just do it anymore, I have been stump too many times, now I much rather, if I go to a meeting, tell people what they already know, a review of the subject, rather than 'Hey, look this is what I discover last week but I have yet to write it up'. No way! I just wouldn´t do it anymore. There is too many people out there looking for ideas.

SdS - Do you think that is a general thing?

I3 - I think that probably is. I can´t believe that plant ecology is that competitive compare to other disciplines. I just don´t believe it. Yes, I think is a general thing and I suspect that many people don´t realise. I love writing manuscripts, that might be strange, but I love writing and I don´t get as much time as I would like to do it. So, I would much rather write six papers a year than go to a conference. I think the way to get famous and the way to get invited to conferences is writing lot of papers.

SdS - Publications.

I3 - Yes. You can´t publish too much.

SdS - And when you are publicising something who is your main audience?

I3 - Other researchers in the field. So, other people like me, post graduates of the subject, post doctoral researchers, full time researchers most of the time but for the applied stuff then it may not be professional scientists at all. A huge range of people. I quite like writing popular articles for the general public, they are quite fun. I like doing that because it gets the research known to a general public which I think is useful. I think often general public think that universities are too closed and they basically waste their time and I think that is a terrible perception that people have and writing general interest articles is great fun because you are writing in a completely different way and it is nice, it keeps me sort of refreshed because I am not writing scientific stuff all the time and again is this way which I work, I like doing lots of different things and so I write about lot of different things. When they ask me to write articles like that I always say yes because is fun.

SdS - Is the communication of research is a crucial part of your work?

I3 - Communication of my research is very important and... Yes, but I don´t communicate at many conferences. As far as I am concern I will communicate it briefly, if you like, by my website but usually through the papers I write. That is really where it is done. I have done it in all sort of places. I have done television programs, I have done radio programs, we have done podcasts, we try all to do sort of different things to get it beyond the scientifical fields, to get to the general public. But most of the time is to a scientific audience but I think other academics could do more like that.

SdS - Do you think that there a lot of academics who don´t communicate enough?

I3 - Yes. Unquestionably so. Some are much reclusive than me. Much more. Do you think I am miserable? You wanna try some of them.

SdS - Most of people are communicating through publications.

I3 - Yes, right.

SdS - Because they have to or do you think that they like to?

I3 - They have to because of two reasons. One because that is one of the measurements of how good they are when they get a promotion, or not, and they have to because their best four will counts towards the RAE, for the department at some point. So, we are all encouraged... We are told that the expectation is four manuscripts for year for everyone. At least! So, paper communication is by far the commonest for everyone.

SdS - And do you think that if there were no obligation to do that, communication of research would still be important?

I3 - I like to think so. It is a difficult question to answer because it has never been anything other... Even for example, in Biology, in Darwin's time when he eventually published the 'Origin of the Species' he published it as a book but he still wrote manuscripts as well. Even in his time in the XIX century, way beyond that, even in the VI century people were writing it down so the writing method of communication has really always been the main way of doing it. And, yes, conferences are important. Darwin communicated his theory of evolution, he went there and gave a lecture on it and stunt everybody but he actually receive some encouragement to do that. But he published a book at the same time. So, really, I think written is still the primary form of dissemination.

SdS - And how do you define the success of your research?

I3 - In terms of the number of manuscripts that we produce. In sheer quantifiable terms the number of manuscripts we produce... But, really, in what we find out that is not quantifiable. We do something, not always, hardly ever does research progress in the manner you think. You always find something new and find something which is not what you expected. That for me is a success, finding something most unexpected is great and, very often, research proceeds by lucky accidents. Serendipity is an important part of research which most of people don´t seem to realise, I think, and, so, research progresses is not a smooth thing. It goes jumps forwards as in many things. I often joke to my students that research is long periods of tedium and disgrace by seconds of excitement and I think that is often true. Students might spend hours in the field counting insects or counting plants and an awful of labour goes in just to obtain a few dots on a graph.

SdS - Do you like being an academic?

I3 - Yes.

SdS - And what are the major challenges?

I3 - Students. Well, students has always been a challenge because everyone is different. Do I like being an academic? Yes. I never thought end up as one but I like the job because of the variety of the things I do. The mixture of research, admin and teaching and the fact is that I can organise my diary and there are thing which... For example tomorrow I know I have got to do a talk and so I have no option for that but then there are other things which... Other than that I can organise my time, I can decide what I do when and that is for me what makes it interesting.

SdS - And you mention students...

I3 - Students are great. I like undergraduate students. I know a lot of academics don´t like them but I do because I have get lot of ideas from them and I do a lot of research with them, I publish plenty of research I have done with them in their projects. Again, I think is quite unusual, I involve my undergraduates in research projects which, again, if the experiment works is publishable and I

try to design projects with them which are going to produce some good data. And it is just the sheer variety of them. Everyone is different. And I would never get bored with them. Yes, there are cases that some of them drive you up the wall with their questions but even so they are great to have around and that was another thing I missed when I had a sabbatical, it really was, was the interaction with the students.

SdS - Thank you.

Interview 4
Academic England
Biology
Reader
30 June 2009

Sofia de Sousa (SdS) - How do you usually present yourself when you are a professional context, with your colleagues, with your students?

Interviewee 4 (I4) - As an academic or as a researcher...

SdS - And how would you define an academic in England?

I4 - Somebody who is involved in research in a university.

SdS - And somebody who is working only in a research institute or in a business related research centre?

I4 - Maybe not. I see it more related with the university

SdS - And the teaching and service functions? Are they characteristics of an academic? Or is it only about research?

I4 - No, I think that the concept of academic includes both research and teaching because most academic positions at university involves both... There are few just researchers or just teaching.

SdS - You are talking about the structure of the career, the formal structure...

I4 - Yes.

SdS - But if you could choose do you think that it would be better for you, as an academic, to do your work only in research or only in teaching or they are useful for each other?

I4 - I think they are useful for each other but ideally I would like to focus more on my research... But I don´t mind teaching part of my time as long as it is not all the time. At the moment I think it is ok.

SdS - When you do research, you usually do it by yourself, individually, or you work in an academic community with other disciplines, other researchers, other institutions?

I4 - I collaborate a lot with various people. I do some research by myself but mostly is collaborative.

SdS - And is it within your discipline?

I4 - Usually within my discipline but sometimes outside as well.

SdS - It is doable to talk to people outside your discipline?

I4 - It is easier within the discipline. Outside is doable, it takes time but it is worth it, I think.

SdS - Regarding institutions... Your work is mainly within this university or you work with other institutions?

I4 - Not so much in the UK but internationally.

SdS - And do you think that it is useful and essential for the academic work?

I4 - Yes.

SdS - It is easy, in England, to identify who is a researcher and who is not? Would you say that most people that work in higher education or universities are, in your perspective, researchers?

I4 - It is easy to identify researchers. I think so.

SdS - This university is called a research intensive university. What do you think about other institutions that are, let´s say, non-research intensive universities? What is their role in higher education?

I4 - I don´t know what institutions you mean but I assume they focus more on teaching so you can imagine, I guess, the situation where staff who teaches students, they don´t do much their own research, they are mostly full time Lecturers... Which is fine but I think that is beneficial for students to interact with somebody who actually conducts research... If the students want to get into research it is good to see how it is done first hand and they get more experience... But I am relatively new to UK, I arrived here five years ago. So, I don´t know. I guess that are some institutions in UK that focus more in teaching than on research...

SdS - I was just wondering what could be the value for an academic of those labels?

I4 - I think these labels came maybe from the Research Assessment Exercise... It is very important how we are evaluated in terms of our research. There is evaluation also in terms of teaching but it is not as a big deal compared to research evaluation. So, I think that universities who do well in research they try to advertise it because it is a good thing for students and it kind of shows the quality of department.

SdS - You were talking about the Research Assessment Exercise. What do you think its the impact in universities and in yourself as an academic?

I4 - Apparently it is very important. We just been through the first one since I came here, got results in December 2008 and we did quite well. Unfortunately because now it is economic downfall it won´t necessarily translate in that much funding as we expected but, in any case, it is very important for the department or the university to be well evaluated by this procedure in terms of funding that the university is awarded and also in terms of prestige and recruitment of students for future.
In other countries, where I worked, we don´t do this kind of things, we do some kind of universities rankings but it is not like a regular and rigourous exercise. So, I think that there is a lot of negative sides to that as well, because it is a lot of time spend in preparing this and there is always the possibility to play some 'games' and adjust the results and... I would wish that this time would be spent on research rather than playing this games. But that is the way science works in UK and I guess we just have to play by this rules and apparently they are changing the system for the next research assessment.

SdS - For a Research Excellence Framework.

I4 - Yes. Now is going to be based in some indicators like citations. Let's see but we are very pleased how it went at this university and very specially in our department.

SdS - Speaking about your daily work, what is the interaction regarding teaching and research?

I4 - By definition my position is about 1/3 of teaching and the rest of research. I think approximately is how it is. Obviously now, in summer, there are no students and we can concentrate on research. During the term we may be teaching all day or marking the reports. So, it is not evenly distributed throughout the year but I guess it is about right.

SdS - And this works for you? You like working these way?

I4 - I do like it.

SdS - We have talked about the RAE... What do you think that were the major changes in higher education since you have been here or from what you have heard?

I4 - I have been here only five years. I think what I experience was that there is increasing competition in terms of research funding and funding is getting tighter and during the last couple of years because of this economic downfall... So, it is becoming more and more competitive and... I think this is changing generations in some way... In this department 1/3 of the department is new, recently hired and they are all about the same age so it would be interesting to see what will happen... And they are all very research active and quite competitive...

SdS - Regarding this question of generation... Do you think that different generations, both in age and in structure of the career, work together well or there is some kind of natural gap between?

I4 - I think we work relatively well. We have several older members of staff who have not been so active in research but they did a lot of teaching so I think they are happy because they are out of competition, they don´t have to get grants every year... And other staff members are happy because they don´t have to teach. But, of course, there is a natural conflict. No more than usual. There are situations when you think 'I would do differently in a few years, is my turn, I can change the system'...

SdS - Regarding the production of knowledge in itself, producing research and science, would you thing that it is changing with features like the game of RAE, the importance of funding?

I4 - Well, I think the strategy of how to submit and... I think it is changing because it is getting more competitive, people maybe go for more short term projects rather than invest in something in long term, which will be difficult to maintain financially. Maybe because there is a pressure to publish a lot, maybe people start to publish smaller bits of information, rather than waiting for ten years to publish a paper because we have to publish and it still counts as only one paper even if contain data from several different experiences conducted over ten years. So, I think, in that sense, people approach science maybe more pragmatically and, you know, how to benefit their careers and how to... They think maybe more in the journals to submit, where it will be published faster way, where it will make a bigger 'splash'. So, I guess compared to ten years ago, there is more emphasis on that.

SdS - And do you think that there is a risk for science...?

I4 - I think that there is a risk because if you publish something prematurely there is a risk that next year you will find that it was actually wrong and there has been some studies that this is happening. So, I did some research myself in all of this. Citation analysis, how to estimate the research, what correlates research quality or not. So, it is a very difficult question. It is very difficult to estimate quality of individuals or research institutions and compare them.
The peer review, I think, is working well. Obviously when you have got some negative reviews you think 'Oh, they don´t understand my great science', but, in general, I think this works but I think the problem begins when they start to replace peer review by all kind of quality indicators like citations, number of publications, various indexes... There is the danger to start in your research to try to maximise these aspects rather than just do good science. And that is basically what people do. They just see how the rules of the game are changing and they have to adjust their behaviour, otherwise they will be out of the system. So...

SdS - And regarding funding... How do you usually get funding for your projects?

I4 - At the moment I am mostly funded through European Union, EU funding. I work in Finland before and I was quite successful in research funding there. Moving here I find it quite competitive and difficult to get funding from research councils. Specially coming from outside... Because I am not from UK, I haven´t graduate here so therefore I don´t exist.

SdS - Really?

I4 - Yes. That was a bit strange. Regardless of how good is your science, they were just like 'Who is she? I never heard of her before? So, therefore, she can't be good?'... But I am getting gradually...

SdS - Regarding the communication of research it is important for you and your work?

I4 - I go to a lot of conferences and try to... I think that... It works as a strategy, also, to get yourself known but it is also a good way to develop new collaborations and see what else people are doing.

SdS - When you write papers or when you go to conferences who is the main audience for you research? Who are you talking to?

I4 - I am talking to people who are researchers from other universities in other countries, from PhD students to Professors.

SdS - The public is not an audience?

I4 - No, I usually go to scientific conferences. It is usually academics.

SdS - How would you define the success of your research?

I4 - In terms of academic evaluation obviously how many papers you produce and where you publish and so on... For me, personally, I think if I found an answer to the scientific question which interested me, if I found some mechanism explain some part, it really kind of put the pieces of puzzle together and I kind of advance knowledge in that field or you invented something novel or... Then I think it is successful... If it is just more of the same and... It still may be useful but... I do a lot of research synthesis. Work a lot of time to put various data together and resolve some controversies in science.

SdS - And when you decide what to do research about, it is your own choice or is the department's choice?

I4 - It is my own choice but obviously I am influenced by funding opportunities. If there is a special call in research funding then obviously I can think how can I benefit from that and how I might link my current research with that topic. Essentially, in theory, I am free to study whatever I want but, in practice, it is what is getting funded. So it is the combination of your own interests and research possibilities to get funding.

SdS - And you have speak about being a foreigner in UK. There are some other ways, rather than funding that you have mentioned, that you find different from the UK researchers? Or there are more common points than differences?

I4 - I find that being an academic here is much, much, much bureaucratic than I have experienced in Finland or in Sweden. The amount of bureaucracies is phenomenal related to every aspect of research, which I think is bad. It slow people down but otherwise I think... That is what I like about research and collaboration with other people, because it is essentially the same wherever you go, you find different equipment, and people speak different languages but they do research, which is basically the same. So it is kind of nice...

SdS - Do you like being an academic?

I4 - Yes. I think it is great. It is freedom and diversity. I would never be able to do a job that I would do sit and do the same thing everyday and... Of course that being an academic comes with a lot of stress and all kind of bureaucratic things and sometimes you think 'why am I doing that?' but for me that are the main things: the diversity and the freedom. One day I am talking to you, the next day I am giving a lecture, next day I am in the field somewhere in Finland doing some field studies, the next day I am in a conference meeting some people. So it is very diverse and is really worth it.

SdS - Do you think that we can speak in England about an academic community in a broader sense?

I4 - Yes.

SdS - And what do you say that is shared by that community?

I4 - They share the fact that they do research and science.

SdS - Thank you.

Interview 5
Academic England
Biology
Lecturer
26 June 2009

Sofia de Sousa (SdS) - I would like to ask how do you usually present yourself when you are in a work context?

Interviewee 5 (I5) - Well, the job here as a Lecturer in the university is a mixture of several different tasks. So, a significant amount of time during terms is spent on teaching. Mainly, that consists, I would say, of three things. Lectures, which usually have one hour, two hours duration in which you are standing in front of a group giving a talk and a presentation to a class. That class size can vary from about hundred and fifty for some first year course to quite small ones where you can be dealing with anywhere from a dozen to...Like more a traditional classroom, so you have to adapt how you are presenting as well as the fact it is a different level. Generally class sizes gets smaller as you go more senior in the academic years. Also there has been practical subjects, we have lab classes as well, they usually last about six hours or so with a lunch break in the middle, in which case you have again.... Depends, but for example, my first year lab classes is about sixty working in pairs in a big laboratory classroom and with the help of demonstrators who are PhD students or post docs, we help them do the experiments and explain to them what they are doing. So, there will be a presentation beforehand and a presentation at the end and during the time we make sure they are doing the right things and understand what they are doing. We also have a tutorial systems so, every other week, we see students and we go through problems, exercises, essays, we set them work, we mark it and we go through what they have done right and what have they done wrong. So, I would say that these are the main three aspects.
Students do come to us after classes... You don´t have the all class one after the other coming to see you but you have one or two.
That hasn´t happen yet but next year I will also have project students. These are third year undergraduates who will be working in a lab for long periods, say weeks, not everyday or all of everyday but again they will need to spend a lot of time especially in the beginning. And is also the case as well that we have dissertation students, they are writing a large report and we see them very often through the year.

SdS - This is regarding teaching.

I5 - This is regarding teaching. In terms of doing research I started in September so, at the moment, I am still at the stage of setting up my laboratory and an aquarium. At the moment a lot of that time is spend setting those things up and also apply for small sums of money especially at the beginning so you can buy the things that we need. And the idea is to lead on from that with a few small experiments to get, what we call preliminary data, so that you can write a large application to one of the government or major charities in Britain to say 'I would like to do this project, these are my aims, these are my goals, and already I have done a little bit that says it should work'.

SdS - And how would you say that the dimensions of teaching and research interacts with each other?

I5 - They do help in the sense that... Depends on what you teach. I would think even subjects, if it is quite far from what I research, which at the moment is relatively narrow and very specialised, I think is a positive thing to have to learn and read about other things. As you become more and more specialised, you loose this sort of general knowledge. So, I think it is a positive thing that we have to keep on top of this broader aspects and certainly that encourages you to think in new ways. Even for subjects which are much closer to what I research I think it is very useful because it does clarify your mind to have to explain it to make you think much more clearly about this. Obviously project students, as well, work on something that is very close to your research... So, I think that can be useful. But all depend a lot on the quality of the students, on individual basis... But, at least, it does gave you the opportunity to try something that will still be interesting for the student and be productive but would also may be something that you are struggling to find time to do yourself... So, I think... I mean, is true that in some ways, you always, especially during terms... I always feel that you should be doing something else, if you are doing the teaching or preparing

the teaching, especially - a lot of the work really for the teaching is actually preparing the lectures rather than doing them, I mean is an hour, is not that much time, is actually preparing the material... Now, you can always be doing that and thinking I should be doing some more research. When you are doing some more research, you are always have this deadline that you have to get a number of lectures prepared or practical classes as well as all the marking. So, in some ways, it can seem like a bit of conflict on time or you have to juggle several things. And the other thing I didn´t say is that there is a significant amount of time occupied with, what one could call, administration or management. So, we have to gather together and decide internally how things are going in the department, discuss what we should do on equipment, how should we run teaching courses, etc. So, it is a lot of meeting based or discussion based work which takes an amount of time and also writing proposals for internal use of what we should do with pieces of equipment or what money should we spend on certain things. So, teaching and research... I think certainly teaching relatively broadly and also teaching next to you what you research is helpful in terms of how you think about things, what you can do with that... But obviously I don´t think there is really a direct...

SdS - Do you usually work in research and in teaching individually or you work with some other colleagues from other disciplines, institutions...

I5 - In teaching is mainly colleagues within the department... The way the courses are set up, say a all series of Lecturers, over one or two terms, you will have a course co-ordinator... So, depending on how large the course is and what level and how many people are at... So often we do spend some time discussing what do you teach and making sure that if fits in together... In terms of outside I haven´t got involved in courses yet but they do exist so... It is also true some staff have this new teaching training program in which there is an educational support section within the university, which teach us about the best message to teach and what options there are... So, we do have a monitoring from them... And we have a peer review sessions where I have people who are on the courses or people that are leading this course and advise us what we can do better and what is going well.... And every year we have a peer review, one of our colleagues seats in one of our classes to see how we are doing.

SdS - And regarding research?

I5 - At the moment... When it comes down to do experiments, especially as I have just started, I am going be doing those experiments,... On the other hand is not simply the case that I am completely on my own, we have technical support as well... But in terms of doing stuff at the bench a lot of that will have to be on my own. On the other hand, it is the case that I discuss with colleagues... I share a lab with one, we spend a lot of time working on what equipment we can share to save money, especially because we both are buying stuff and starting out and it is also true that a lot of us spend a quite some time meeting informally... We go to lunch, it's just a chat after a seminar of trying to think of ways we can do projects together. Because there is this general feeling that to get money you must write a grant in which there are a certain people on it and the work is divided... It stands more of a chance to getting through. Now, we just have a meeting with people from the BBSRC (Biotechnology and Biological Sciences Research Council), which is one of the major funding bodies in Britain and it is government funded and so you can write grants and then you have to write proposals and get send it for review. They said that is still ok for people on their own to write grants and they still get funded but generally we do have this feeling that we need to put one in together .... Although they are interdisciplinary they still are interested in biology. And that it would look better. We meet after seminars, if someone is presenting some data and think we can do this or something together. I am hopeful that such things like that will be productive over the next year or so. At the moment my main focus is on getting the equipment and lab ready so I can do some experiments.

SdS - Do you think that the generational issue is a relevant factor? I don´t mean generation regarding only age but also in the sense of the career structures?

I5 - I have been interacting here with everyone. They have been very nice and very open and very helpful. People who are a lot older and higher up and also who have larger research groups, they are still very happy to help. I think, on the other hand, that is true that especially for people who are younger to have smaller groups of people. I mean, for me, is just me at the moment.

Specially as you are starting up and therefore you are looking for new opportunities. Is true that there is probably more talk and discussion among that generation of where to go in terms of 'can we collaborate and put experiments and projects together'. I think that reflects, because all this people - that is really young and still in an early stage of their career - are really looking to expand and make opportunities and therefore there is a natural tendency to discuss with other colleagues in the same... But I wouldn´t say that there is this kind of divide where the senior Professors are on their own doing their own thing, I mean I wouldn´t say that at all. I have discussions with one of the senior staff saying maybe we can do this experiment together and so forth but I think that naturally because of the way... The younger members of staff are quite small groups, it tends to be that they have common points.

SdS - And do you think that in England and in this university is clearly defined who is a researcher or who is not or do you think that everybody who works in higher education is a researcher?

I5 - The situation for most Lecturers and Professors in a lot of universities in Britain... They do have a job function of doing research and doing teaching... Now, is true that there are also research institutes that runs pure research, although there is academic research, there is no teaching but for the vast majority of universities, at least this is my impression, that they have... There are in some universities people who are just employed to teach and it is also true that, specially depending on funding situation, there are some people who are there just doing research. They have fellowships through charities which means they are associated with a department but they don´t have any formal teaching duties. Although I would think most of them do try getting teaching because they may want to get a more permanent position in which case it looks good that they have done teaching. But in terms of people who are academic staff, who are Lecturers, Professors, Readers, etc., they will have a job function. Now, it's true that some universities are research-intensive, like this one, where it is expected and it is the case that we can have some teaching, you have a reasonable amount of time to do some research as well. Where some institutions, much more teaching intensive, they.... The majority of time is taking teaching and there is not that much time.... So, it does vary among institutions... But something .... This institution, and are many, many like it, the job of being a Lecturer, an academic member of staff, Reader or Professor you have to do both.

SdS - And you mention research and teaching intensive. What do you think about this distinction?

I5 - I wouldn´t say I will be confident in saying which one is which. This is what people say and... I wouldn't necessarily say I would think... It is just varies depending on the institutions... I don´t have enough experience or knowledge to say which one is which.

SdS - But I was wondering about... For you, as a scientist, the value of being working in a so-called research intensive university is very different, I guess, from being in a university which is labelled a teaching intensive. Or not?

I5 - I think... I wouldn´t necessarily approach it from that angle. The way I look at it is I like doing teaching but I really want to do fundamental biological, biochemical research and so I want to have a job which enables me to do that as well. So, certainly, specially if you look for jobs, and you depending on the option available to you, you look at how much time will be available to do research and teaching and you make a judgement on that. But that depends on the options that come out.

SdS - And speaking of major changes in England, in higher education what would you say that were the major changes in the last few years for your work as an academic and for higher education?

I5 - I think that would be very difficult. I wouldn´t be very confident in making any statement about that. I have been several years very focused on getting my research going very well so I could hopefully get a permanent job and also really concentrated on that and because I wasn´t teaching, I wouldn't be very aware of too many of the changes.

SdS - But regarding research?

I5 - Certainly that is true that funding is getting incredible hard to obtain. So if you look at the Research Councils for Britain, specially the ones to be with biology or biochemistry like BBSRC or MRC (Medical Research Council), now is less, it varies between 25%, 20%, less than 20% funding. In another words you have one in four, one in five chances getting the grant and that becomes really tough specially because if you want to submit the idea again you have to make some changes, it is also that often the idea by that time is obsolete. So, in the end because we have teaching to do even if we have the money, even if we have a reasonable sum of money the amount of time we have to do is relatively limited and so really you do need the big grants to come in which means you can employ people like the students or post docs to do lots of the research and you direct but you have people to do on daily basis to keep things going, doing the research and experiments. Now, that funding... The pressure is getting increasing hard to get and I would say that is probably, specially for me, the main worry as I am starting up. So in terms of other changes, as I said, because I have not been teaching before, I really can´t say anything about...

SdS - And how do you usually get your funding?

I5 - The main sources of funding are government or charities. So, for government point sources that would be the BBSRC and MRC. These are the two big grant awarding bodies. My research could also fit in the funding of the Welcome Trust which is a very large charity and provides a very large proportion of the funding for biomedical research within the United Kingdom. Now, the one thing they don´t fund is cancer research but one of the main reasons for that is that there is a very large cancer research called Cancer Research UK. They also award large grants.

SdS - And would you say that the communication of your research is important?

I5 - Yes, it is. One of the main things is, if you broadly look at communication, publishing! That is what the game is about! You want to publish and publish so that lot of other scientists see it and agree that is good work. That is one of the main reason why it raises your profile. It is also the case that going to conferences and talking also raises but really, to me, the thing to do is getting good publications out. It certainly... When you are applying for grants if you have a good research records with good publications you can show that you are going in the right direction and then you, hopefully, will be productive in the future. It also does... It opens up collaborations. It gives new ideas new experiments and... Then it also, as well, if you are looking to get funding, if you get active collaborations that looks good and it can open opportunities...

SdS - And when you are writing a paper or doing some talk in a conference who would say that is the audience for your research?

I5 - When you write a paper it would be your peers. Now depending on the kind of journal you go to does affect how you phrase it and how you write the paper but, generally, is for people who are doing very similar research. Obviously, if you are going for a high impact... Well if you are going for a very broad journal, like Nature, you would have to modify so that people in completely different fields could see how significant it is. But, certainly, for papers generally it is aimed at people doing very similar research. Now, on the other hand, if you are writing things like reviews, where you are looking at the data, then that would be much broader section of biochemistry, molecular biology or cellular biology or whatever you are writing for because of one of the ideas is to enable people to see what is happening in the field. Presentations would vary, depending on the audience. So, if you attend to a major conference which tends to be sort of people doing very same work you do, you aimed at that audience. But is true, as well, that you get invited to some talks where the audience is much broader in which point you have to adjust it and make sure they see that it is relevant and interesting.

SdS - And how would you define the success of your research?

I5 - I think that there are two aspects to it. The research is successful where you generate high quality papers that are well read and cited and interesting to the community. Now, some of these it's very difficult to measure... Citations is one way, if people are citing your paper a lot it means that is important... You can also make the judgement that if you manage to get your paper

published in a high impact, Nature or something like that, that is a really achievement... I think, as well, to get grant money is success.

So, there is really two things that you would think you really would be happy and that would be the day that you go out and open a bottle of champagne... That would be getting a major grant money and getting major paper published in a really good journal.

Obviously, at the moment, when you want the group to expand and you start having PhD students, then getting them through, write their thesis and submit it... But if you want to put it in very simple terms of what you think of those moments when you get to open the bottle of champagne and party with your colleagues that would be getting a major grant, getting a major paper in a really good journal published and also, in the long run, for someone in my situation, getting PhD students to finish their thesis and post-docs going on to get good jobs.

SdS - And about the Research Assessment Exercise, or the Research Excellence Framework, what do you think is the impact of those assessments in your work?

I5 - It does have a large effect on how your institution is perceived and therefore has effects on recruitment, the kind of people you can get, and that is very important... In the end what you are starting getting to, hopefully a position I will be very soon, when you are recruiting people a lot of your output depends on the quality of the people you recruit and that depends on the quality of the people who applied. If you have a good rating like this you are going to get good people apply because they think this is a good place to work. Also, it has effects on government funding because government funds through a teaching and a research stream through the Higher Education Funding Council, it gave money to the universities and so that effects that. But certainly I would say that will affect how your institution looks and what kind of people you recruit. It does affect undergraduate students as well. They are aware of it and they look into it and I think as well on grants, it certainly is going help if your institution has a good reputation.

SdS - So, do you think that an assessment like the RAE and some rankings that some journals do, do help people to have some valid information about universities?

I5 - People clearly look at them. They decide.... People see them and that gives them an impression... I am a bit septic about these measurements because they also affect how people behave... So, it changes what the measurement means and, as far as I can see, people want to have simple numbers so that they can measure things rather than dealing with sort of qualitative concepts. On the other hand, I think we have to be aware of the danger of measuring everything with some numbers because in the end, as I said before, there is lot of good papers came out in places that don´t have a high impact and people will still know those...

SdS - And do you think that playing this game of publications and assessment and so on has change the nature of knowledge? Or the knowledge that we consider good knowledge or scientific knowledge remains the same?

I5 - Well, It is difficult for me to make a judgement on how much is having an effect. I mean, I would just thought it does an effect being worried about these things so therefore it does start changing the system and what people do.

In the end, the whole system of getting grants and getting papers accepted is all done on peer review so, in the end, it still comes down to other scientists coming out with a judgement that is not necessarily related to impact factor or some other name that they come up with. That aspect is still judged on... When you get comments back from a review referee or grant is still the question, things like 'I think this an excellent piece of work' or 'I think this is unimaginative, not original', or 'I think this is acceptable but not that exciting'. It is still those kind of judgements that are coming back to you. On the other hand is true at other levels that things like the RAE clearly does affect the amount.... Other levels, where you have big decisions, like government deciding how money get distributed or the funding councils, how many money... These things do have an impact. At a very narrow and personally level, if I think about getting grants and getting papers, it is still people who are my peers, people who I meet at conferences, who will be sitting down there reading my grants and my papers

SdS - The last question, do you like being an academic?

I5 - Yes, I do. I have been in academic research now for a long time but this is my first academic appointment as a permanent member of staff who can lead my own group as, whatever you called it, principal investigator or group leader and so far I am enjoying it. Of course you could say it is very early to tell yet because there is still a long way to go. I have to... I am still just starting the teaching, I had one year teaching and I need my lab set up. That is true. When you do your PhD everybody says that you want to get good papers, then is all you get things started up well, there is always seems to be, there is always something that you have to get over and it does seem quite tough the requirements of what you have to achieve, you always feel as if... That is another test you need to go through before you get whatever it is but, so far, I am enjoying it. The thing, in the end, is I like the teaching, but the main thing is that this job gives me the option to do fundamental research, is not necessarily commercial driven but is asking fundamental questions about how the work is.

SdS - Thank you.

Interview 6
Academic England
Computer Science
Biology
Senior Lecturer
22 June 2009

Sofia de Sousa (SdS) - In your work context how do you usually present yourself?

Interviewee 6 (I6) - Do you mean present my work?

SdS - No, just yourself. When you are entering a room what do you say?

I6 - The answer to that varies with the context...

SdS - In your work. With your colleagues?

I6 - Well, you are suggesting is if I go somewhere where I am not know but which is essentially an academic institution... That is a very difficult question. I think I would actually say who I was because I wouldn't go anywhere without them knowing what I was before I went... If I go to somewhere different, I would probably be going because they asked me to go and they would have ask me to go because they knew what I did or to do a particular job for them. That makes sense?

SdS - Yes, but imagine this situation. I don´t know... I am not a person who works in your field, I am PhD student for Higher Education Policies, what would you say that you are in this university?

I6 - When I am here I am an academic member of staff.

SdS - An academic? And how would you define being an academic?

I6 - My role is essentially in the furthering of knowledge and assisting students to learn.

SdS - Is it fair to say that your role move between research and teaching?

I6 - Yes. Teaching is not the same here as it would be in a school. I think you spend more time helping people to learn than teaching. It is not the quite the same thing.

SdS - Can you develop on that? What are the main differences?

I6 - The main difference between teaching and helping someone to learn is if you are helping someone to learn they have to take responsibility for what they are doing, rather than the teacher saying this is what you will do and they will simply follow a pathway that you have previous established. It is a bit like the difference between... A simple analogy, if I said to you how do you get from Estoril to Lisbon... If I program the Sat Nav it will tell you exactly which road to go down to get you from the conference centre to your home or whatever it is. So, in other words, doesn´t just say 'follow the main road', it says 'you go down this street for so far, that street for so far', etc, etc. The all thing is totally pre-planed, regulated and you just follow the instructions. That is what teaching is in that sense. Helping someone to learn is where you come in and say 'I want get from Estoril to Lisbon' and I say to you 'well there is a series of maps that you could use but remember there is a rush hour so you probably don´t want use the main arterial road between five and six p.m. or something'... 'Here are the books, these are the problems, that internet site would tell you about road works... Find out!'

SdS - And what do you think that you do with your students?

I6 - You do both. When they start off, in the first year, you are much closer to the conventional teaching, you have to be, but what you have to do is to begin to teach them how to learn for themselves. By the final year you spend much more time setting goals which they have to meet

and you don´t just cut them loose but they need to provide evidence that they learn. How? To be able to acquire information and use it and appraise it.

SdS - And do you like doing that?

I6 - Yes.

SdS - And about research? Do you like research as well?

I6 - Yes. I think, personally... I think in a university the two must be hand in hand. You need to be aware that some universities would consider themselves research institutions whether their students go there to learn and others would say we are institutions of learning or teaching and we happen to do research. This establishment, I think would put itself in the first of those two categories but increasingly I think that there will be pressure, and probably not inappropriately, on staff to actually do more teaching.

SdS - More teaching?

I6 - More time spent teaching.

SdS - And less time in research?

I6 - Yes, I think that will be the consequence.

SdS - And what about the Research Assessment Exercise? What do you think about the impact in your daily life or with your colleagues?

I6 - I think it is a pain in the backside...

SdS - No good thing coming from it?

I6 - No, I don´t think there is. The reason for that is it provides, in my view, a pseudo-quantitative measure of research performance. Therefore is not helpful. It is a game that is played, it is not actually a measure of anything and everybody knows that it is a game but the rules aren´t fixed so you can play the game in different ways. But it is a game! And the reason I am concerned about it is that there are so many consequences of the outcome of the game... It's a game, as I just said, where the rules are flexible... So you have a game with flexible rules but with an outcome that has major consequences for what happens next...

SdS - Such as?

I6 - Money.

SdS - And what about the impact on the nature of the knowledge that is produced in universities?

I6 - I am not sure if it is really had a great deal of effect in science, because where you publish your science has long been a factor of its importance in the field that which takes place, more than anything else. That hasn't changed. I think what has suffered - does not affect me - is the sort of science that takes a long time to undertake. Let me give you an example. If you want to do an experiment which takes a very long time, which is dependent up on you having a lot of information over a number of years, you can´t do that because you won´t get the outcome quickly enough. So, some of those sorts of activities have actually seen the reverse effect. There is a great temptation to do things quickly, so that an outcome emerges. So it does have an impact but I don´t think it is particular major.

SdS - And regarding your work, do usually work alone or...?

I6 - Yes. Usually. I am old fashioned.

SdS - It isn´t old fashioned, is it?

I6 - It is. In science it is. It is very unusual in science.

SdS - Do you work with your students, for instance?

I6 - Yes.

SdS - So you don´t work alone all the time.

I6 - But predominantly.

SdS - And within your own discipline? Or do you use some others disciplines?

I6 - No. I am largely a biologist. I do some editing to a journal. That extends into other areas but for my own research activity essentially I am a biologist, both pure and applied... I mean, I fix problems as well. But essentially, I wouldn´t work with a chemist or an engineer...

SdS - And regarding the interaction between different generations in your disciplines in terms of career and age... Do you think there is an interaction or not?

I6 - Do I talk to the youngsters? Yes.

SdS - And the youngsters talk to you?

I6 - Yes. Amazingly! I don´t see age is actually an issue. I think ability is the issue. I don´t think they care how old anybody is...

SdS - And the position? Is not important?

I6 - No, not to me. At all.

SdS - But do you think that students...?

I6 - I don´t think that students care very much... I think that students... They think we are on the staff, we are on staff, they don´t bother to work out a hierarchy. They can associate much more simply with the younger staff. That is always going to be true. Always has been and always will be, because they like the same pop music... My children are older than the students, are older than some of the staff... In terms of a sort of a casual social interaction obviously they perceive a difference but I don´t think... It has never been an issue that worries me...

SdS - And, in relation to your daily work and the three missions of research, teaching and service, would you say that they interact? Do you like one more than another?

I6 - Do they interact? Yes. Do I like one more than another? Depends on... One of the problems in answering that question is that depends on what you are actually doing. And it is too broad a question to have a simple answer. If you would talk to me in May when I am marking exams scripts I will tell you that teaching is the biggest pain ever but when you get to talk to me in October, November, when I am actually teaching, I quite enjoy it.

SdS - But for your work in general as an academic...

I6 - You would like an answer so that you can put a tick in a box...

SdS - No, not at all. I would like to understand the contribution of these three missions - service, research and teaching - for your identity as an academic because some people say 'I rather only teach...'

I6 - No. My hope when I started... When do you think I first became an academic?

SdS - I don't know.

I6 - You can guess...

SdS - I don't know what is an academic. It is a major question for me.

I6 - Ok. I finish my PhD, then went straight to a teaching position in an university, so I was doing teaching and research from that moment on... When do you think that was?

SdS - I really don't know. I am not guessing...

I6 - Was forty years ago. The world has changed a lot. Nowadays if you talk to the majority of people at that stage they will tell you that they want to do research but that is the part of the changes taking place in the universities over forty years. What I always wanted to do is to do a bit of everything and that is what I have done ever since. Which is not for good for your career but is more fun...

SdS - It is clearly defined for you who is a researcher in England?

I6 - I think you get some very good amateurs still in some parts of the subject. So, I don't think the identification of someone as a researcher is actually the best. Darwin wasn't paid but you could say he was a researcher. Mendel was a monk and yet on the basis of what he did we have genetics. So, what your job is doesn't determine whether you are a researcher or not.

SdS - What determines it?

I6 - Curiosity.

SdS - Only curiosity?

I6 - Yes.

SdS - You mention a lot of changes in higher education. What would you say that were the major changes?

I6 - The major one, as we have approached, was the establishment of what I would call pseudo-quantified league tables. 'Pseudo' because usually the factors which are entered into them are not quantifiable in a simple sense. So, we have to allocate, I don't know what you call them, sort of levels... Then you pretend that you can quantify those, which you usually can't, most of the time you can't. So, the effect of that is being that you introduce an element of competition among institutions and perhaps among individuals as well, to a lesser extent, which are essentially based upon rather false premises and I think that has actually had an adverse impact. I mean, I think it was when I first began, before you were born, I think it was too easy either in teaching or research. I am not sure that the taxpayer got a very good value out of that. I think now they get remarkable value out of that. I think they get far more than before.

SdS - In those changes do you think that the Research Assessment Exercise was a big one?

I6 - It was, not inevitable, but a natural consequence of the sort of changes that had been taken place putting increasing pressure on universities to deliver and the only way which it was perceived by some people that you could do this objectively was to introduce an assessment scheme. The only problem was the objectivity actually is based upon subjectivity in the assessment of merit.

SdS - And do you agree with an assessment based on merit?

I6 - If you could do it, it would be desirable. But... The idea in principle is a perfectly reasonable one. I think doing it is just terribly, terribly difficult. It is, mainly, unhelpful.

SdS - What could be helpful for research?

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I6 - I think if you actually were able to devise a genuine, objective system which you could use across disciplines and between institutions... I think the answer is, you can´t, I will be quite honest, I don´t think you can´t do it... If you could, it would be helpful.

SdS - This university, in the context of some labels that are usually given to universities, could be consider as a research intensive university? What do you think about the others that are, let's say, non-research intensive or some other name...?

I6 - What I would do is not call them universities. Not because I think that they are inferior institutions but they are different institutions and I think you could either go two ways, you could either use the word university as a very broad umbrella and then within it you could have different categories or you could do... You could argue that institutions which are essentially research led are universities and the others would be called something else. That is precisely what happened until 1992... The only reason that we merged the two - polytechnics and universities - and called them universities was because of the rather foolish perception that a polytechnic was a second class university. It wasn´t, it was something different. And that is the basic problem.

SdS - Regarding funding... How do you usually get funding for your projects?

I6 - Personally?

SdS - Yes.

I6 - Usually has been government source, either directly or indirectly, often indirectly through aid agencies. So, the EU... So, fairly diverse but never from research councils.

SdS - Would you say that is difficult?

I6 - Incredible difficult

SdS - And should be easier?

I6 - Yes. Easier, but it should never be easy.

SdS - In what terms would you define the success of your research?

I6 - How would I define success? As I perceive it or as others perceive it?

SdS - As you perceive it.

I6 - As I perceive it. Ok, I think there are two things I want to say. One is the number of things I have done which are still actually cited some 25, 30 years after I did them, which to a certain extent they are the foundation for research which is still taking place now. So, identifying problems and showing that you can actually solve them in certain ways I think it is important for me. And then slightly more applied I think some of the things that I was involved with... I was part of a group that look at trying to solve food storage problems in Africa and showing some of the underlying issues that need to be resolved before you can actually get a practical solution. So, I think there is one sort of pure science which is the first example and one applied which is the second.

SdS - And the success perceived by others?

I6 - They would talk only about impact factors and citations frequencies and that sort of thing which are one of the relatively simple object of assessments... I actually wouldn't too badly with that, but they are flawed because it depends on the size of the field that you are working in. If you are working on HIV you have so many people working in the area since the time when impact factor became an issue, the number of journals and things, the number of citations is bound to be big. If you work on the colour of sauce bottle labels the market is relatively small but in terms of value is very important. So you will never get as many citations but, in the terms of the potential impact on money making, is far greater.

SdS - And when you write and work who would you say that is the audience of your research?

I6 - It depends. If I am writing conventional scientific stuff, the papers. That, again, is twofold because sometimes you are working on stuff which is going straight to applied market - I mean basically things like food storage - and sometimes is looking at issues which are broadly interesting. So, in the former case I would say academics plus government officers and agronomists and people and the latter case they are pure academics.

SdS - And for the public in general? Would you say that they can be an audience for the research?

I6 - I have problems with... I know where you are going...

SdS - Tell me your problems.

I6 - The basic problem is that general public, I am talking here about non scientists... As far as I can see the education system, at least in the UK, but I think more widely than that although I am not entirely sure, actually provides such a poor background in scientific education that the general public is incapable of assessing what is true, what isn´t, what matters and what doesn't... And therefore the so called public debate of issues turn to be so ill informed that they become bandwagons.

SdS - Would you say that a scientist or an academic could contribute somehow for the public in general?

I6 - Yes, they can but rather rarely. If I really push it I suspect there is a number of people who are actually doing that, they are really scientists... And the reason is that most of the general public, actually they don´t want to know about science, they actually want to know about natural history, which I am not sure is science. They like descriptive things, they enjoyed David Attenborough across the television. I am not sure they actually really want to know much more than that and therefore I don´t think on the whole they are equipped to actually understand the arguments and I don´t think scientists are very good at actually explaining them. Because the education system is so awful, there is no questions which they perceives giving an answer.
Do you know what natural history is? If we interview potential undergraduates and ask the question which is essentially 'what is the difference between natural history and biology or zoology', and my answer to that is a very simple one. If you study natural history you are basically answering questions on 'what', 'what is happening?', 'The leopard is chasing the deer.' If you are a scientist you ask the question 'why?' or 'how?'. Now, when next time you are at home watching a television program which is supposed to be science and you find that usually, specially if it is natural history, it will give you an account of what is going on but if you want to ask yourself the question 'why is doing it' or 'how is doing it', you don´t have that answer. That is because the general public is being lead to just take the very superficial 'what is happening', without ever putting the question 'why is he doing that?'...

SdS - And you say the question 'how' and 'why' is science?

I6 - They are the science questions.

SdS - But you are, if I understand it right, talking about just natural sciences?

I6 - Essentially. But I think the same thing probably applies throughout science. If I say to you 'what is that?' and you say 'that is the northern lights' or 'it is a rainbow', the scientist would ask the question, not 'what is it', but 'how is it formed', 'why is it only there for a few hours or a few minutes', 'why is it only there when there has been rain and it is sunny'. But the general public won't ask that question. They will say 'what is it' and you will say 'it is a rainbow'... Full stop, thank you very much, that is fine, all that I want to know...
I think that the problem now is that in the last ten, fifteen years every question has an answer which you can write in that much text in wikipedia.... If it is too long, is longer than that, they don´t want to know.

SdS - Social sciences, for you, are sciences?

I6 - What are social sciences?

SdS - The why and how of social phenomena.

I6 - Like what?

SdS - Like why academics are agreeing with the Research Assessment Exercise.

I6 - Or not.

SdS - Or not.

I6 - Is it science? About social sciences, I have work in universities who have faculties of social sciences but never understood quite what they do and the constituency of the faculties changes as well... In one university you have history in social sciences and the next university you will find it in the faculty of arts...

SdS - Regarding the communication of the research that we are talking about, would you say that is a major important part of the work?

I6 - Until something is being published it doesn´t exist. No matter what you do, however important it is, until it is published it doesn't exist.

SdS - Publication in a journal, right?

I6 - Usually.

SdS - Would you say that dissemination in conferences...

I6 - It doesn´t really count. Not really.

SdS - In classes.

I6 - No. Just publications usually with peer review.

SdS - Do you believe in peer review?

I6 - Yes. It could be better. But it is an imperfect system but that is the probably the best you've got.

SdS - Like democracy I guess.

I6 - Yes. Exactly...

SdS - I am working with the notion of academic community and the notion of knowledge production, being that knowledge production is an idea bigger than science

I6 - Yes, I think that is probably true because it could be knowledge about anything...

SdS - Regarding science, would you say that the knowledge production in science is the same as it was ten, twenty years ago? In terms of what of counts as knowledge?

I6 - Obviously, because of changes in methodology, there are changes in the precise nature of knowledge, but in broad principles it has not changed.

SdS - Do you think that the paradigm is the same?

I6 - Yes.

SdS - When you are doing a project who decides what you are doing?

I6 - Me.

SdS - And, the last question, do you like being an academic? What are the major challenges for you as an academic?

I6 - Would I have done it for thirty nine years if I didn´t like it?

SdS - I can introduce you to some people that...

I6 - Yes, I do like it. I like it more and I like it less at different stages doing it. You have to look at what the options are and broadly speaking it is a very pleasant way of passing your time, you have your bad days, everybody does, a bank manager has a bad day... Yes, I mean I think it is fun on the whole. It is a fun way of earning a living.

SdS - What are the major challenges?

I6 - That is a good question. There is the boring answers, 'get more money'... The most exciting challenges I think are trying to enthuse and convey enthusiasm to students. That is the biggest challenge, the rest is.... Obviously is a chance to get money to do the research that you would like to do. That is self-evident. So, it is a challenge, but that is the job. But sometimes when you look across a group of students... Trying to enthusiasm them to the point that when they leave, they know why they have done it. They may have come because their mom and dad tell them to go to university and do a degree there, so they come here. If by the end of it they leave and they say we are glad we did it... That is good! So there is the challenge.

SdS - Thank you.

Interview 7
Academic England
Management
Senior Lecturer
3 July 2009

Sofia de Sousa (SdS) - I would like to ask you, first, how do you usually present yourself in a context of work? As a researcher, as a teacher, as...

Interviewee 7 (I7) - I normally say that I am an academic because I think if somebody understands that term they understand that you do teaching and research... The way that my job has developed in this university, research is not my primary activity, I actually do a lot of management. So, I think calling myself an academic kind of covers that but then you do meet people who don´t actually understand what it means and then you have to try and explain 'well, I do a little bit of teaching, very little teaching and research and supervision and also management as well'.

SdS - And how do you define an academic? With this three functions?

I7 - I think traditionally would have been three functions. I think I have a lot of colleagues now who don´t perform the administration side of things, I think the pressures to generate research income has enable people who are successful in that area to kind of redefine themselves... So, you get people who were predominantly research focus, they might do a small amount of teaching, or a small amount of organising the research program but then, also, I suppose you have researchers who work in full time research projects but, in terms of the career structure, they often seem people at the start of the career, like post-doctoral staff... So, you do a PhD, you do a research job, to get the publication to get you to get the security that goes with having a lecturing position which is the more traditional academic position.

SdS - And regarding the interaction between teaching, research and service and this four dimension, I don´t know if I can call it like that, the search for money for research... How do you think they think they interact with each other?

I7 - I think that is constantly changing. For example, I have been a Lecturer for ten years and at the start of my career the emphasis was very much on research but because I have come from an economics backgrounds, economics research doesn´t require you to generate money, it is generally analysis of secondary, very largely secondary data sets. So, the emphasis was very much already on external assessment in terms of you having to produce as much published work as possible and it had to go to good standard journals... At the start of my career that wasn´t the emphasis on money, raising money and that seems to raise in the last two or three years, perhaps a little longer. I have been aware of it in terms of career progression for two or three years, that if you want to make a career lather then you have to start raising money and in a way you have to change the focus of your research and attract things that you are interested in in order to justify, try to catch a quite sizeable sums of money. So, it does cause to redirect your research. It doesn´t necessarily impact hugely on teaching, although it is an additional pressure which means is harder to generate new courses or new programs because is less reward on your teaching activity. I think as long as you are satisfactory that is usually good enough and I think increasingly that is unacceptable because students demand more, particularly as they pay more they quite rightly want good services and to see a good education and it is very hard to deal with it and at the same time try to work out how you are going generate hundreds of thousands of pounds of research income.

SdS - And regarding the funding of research, how do you usually get your funding?

I7 - I haven´t generate much research funding as I have said because I didn´t need to, I just bought data sets or got access to publicly provided data sets and so, so far, the only money that I have applied for has been internal university small pots of money to start off with ideas, questionnaire design and sample, in target samples, pilot projects and small field grants which normally covers travel and money towards dissemination but not to cover your time or paying for research system. So, I have been advised by my research director that in order to progress I need to work on a large research grant and that is what I am doing over the summer, one of the things I am doing over the

summer, is to trying generate hundred and fifty thousands which is more than I have generated before but this is a kind of income that is needed to take me from a Senior Lecturer to a Reader and obviously Professor in the British system. So, in order to get anywhere I have to raise this money but this raises new problems because obviously writing a grant proposal to generate that kind of money is much more complicated than writing a small and more specific grant but you also have to come up with a much, a much larger grant idea and you have got to involve one or two Research Assistants in order to justify that sum of money. So, a lot of work goes into writing a proposal but also I am kind of conscious that will be managerial issues in terms for Research Assistants and that was something that I had in early stages of my career. Before I was a Lecturer, I was a Researcher and, while I was doing my PhD, and I was actually in that stage responsible for managing more junior researchers and that is actually a very timing consuming process but also there is a bigger assumption within academia that some have the fact that you are highly educated mean that you can manage people and it has nothing to do with that. We see it widely in terms of academics becoming heads of departments without training and we see it with researchers becomes head of the projects without training in managing their team. So, I have concerns about that and I realise that the extra time I will need to spend managing the team as well as researching and disseminating will have impact on my other activities.

SdS - Do you think that all the heads of departments, projects leaders, etc. do need a management background or some courses related...?

I7 - I think they need to have courses because it is generally accepted that a head of department when they come from just being Professor, which again is what usually happens in the British system, will need some help in order to manage the budget, to understand the budget, they get support for that but they don´t get very much support in terms of managing the personnel and thinking about motivational techniques and equal opportunities and how to avoid nepotism... In my experience what tends to happen is if there is a very serious crisis and the head of department thinks there might be legal implications, they will bring the personnel department to advise but this is obviously something that cannot do on a regular, less critical basis. So, when you see the transition of a head of department you get different priorities and a different working environment and so it is another demand on the academics within the department to retune their behaviour so that it follows the pattern that the new head of department wants because there is no training, there is no recognition of consistency... So, you got different changes. You got a changing on the Research Assessment Exercise, which we kind are in a process in the UK and we know that we will have to hit different targets but we don´t really know what they are and at the same time there is a constant turnover of heads of departments which means that you have got a different regime in which we try meet the external metrics that you don´t actually know.

SdS - You mention RAE as a change. What do you think that are the major changes affecting higher education and academic life?

I7 - I mention briefly the process of students being more demanding and my biggest administrative role for the last four years or so has been teaching and learning quality within our department. So, I am supposed to deal with the development of new courses and new programs, strategic ideas like how we involve our students more creatively, so generating students ambassadors and give them training so they represent our department and our university when we have open days and also externally, looking at things like teaching sessions for established teachers focusing on particular projects but also dealing with students complaints is a big issue and since they have been paying their fees - which is relatively small compare to over sea students pays, is between a third and a quarter - they become much more likely to complain and much more demanding, so they are much more like consumers and so this is a pressure in terms of your teaching and servicing of the students. In terms of other pressures... There is fees, there is research metrics, there is heads of departments... There is also more pressure in terms of trying to make contact with organisations, I mean part of the justification for the expansion for higher education in the UK is been trying to do things that are useful to business and organisations, so another pressure that is put on you is to have relationships with organisations in terms of trying to generate research opportunity, possibly small amounts of research money, trying to get people coming to the department to talk to students, possibly to let students to do their projects there. So there is an additional pressure which again is relatively new. It used to be the case that if you research you generate this new contacts, it was possible for you to exploit as far as as possible but there was not the same

expectation that everybody would develop these contacts. So, again, it is another pressure that slightly change your behaviour...

SdS - Would you say that all of these changes are having some impact in the nature of knowledge being created or not? Is the knowledge different?

I7 - Yes. I think so. The pressure to have relationships with external organisations and companies means that there is a slight pressure on you to do work which has some kind of immediate relevance rather than the traditional ivory tower knowledge means that our interesting and illuminating in some theoretical way, the pressure is to do something more applied, more practical, also in terms of trying to generate research funding because the pressure is to raise more and more money, again, this is focusing people's attention on bigger projects and also projects that use Research Assistant which again might not be the kind of thing that people want to explore early on their careers because they are mindful of management responsibilities that come with a big project but also when is funding pressures, if you look at the organisation like Economics and Social Research Council and other bodies like that that fund research there is a pressure for them in order to involve parties in terms of developing your research but also the dissemination aspect of the research towards the end of the project is under of much more emphasis, so you got to think about how your work is going to translate in something practical for them, something useful and how you are going to be able get those people involved in the development and continuance of the project as well as get them to come along to a conference at the end...

SdS - And regarding your work as a researcher do you work, mainly, within your discipline or among other disciplines and other institutions?

I7 - Other institutions and other disciplines. So, I work in a management school and my research kinds of cross a boundary between labour economics and industrial relations, critical human resource management... So, I work with people within the School of Management, coming from different aspects, counting as background or more straightforward human resource background and I have worked with much more econometrical minded economist both from this university and also other universities. Most of my work tends to be collaborative because I am the sort of person who needs a social interaction of joint work, but also I quite like the pressure of knowing that you have a deadline with a colleague that you have got to meet. So, that aspect... I do find useful other aspects, the pressure probably is not as useful. But I have also recognised that this is another area that I need to address in terms of career progression because when I started nobody really mention the fact that my work was collaborative. People look at me and say 'Oh, jointing articles! Is this person actually ever done anything?' So, now, I am trying to generate a few single authored things just to prove that there is actually some inherent capability and is not just me writing on the ability of other people, but that is something that only be pressed and mention, again, probably in the last two or three years.

SdS - And regarding the interaction between generations? I don´t mean only in ages but in the different levels of the career do you think that people interact with each other or there is a kind of gap or...

I7 - I don´t think that there is necessarily a generation gap. I mean there is a range of influences that makes academics different. Academia is quite a diverse occupation but people are differentiated according to their gender, their ethnicity, the place that they are in hierarchy but also their social class which means that they have different expectations of what an academic should be like. So, while I was in a research centre, there were, that was the job I have before I was a Lecturer, most of the people within the research centre were all of a similar age, mainly post doc people, and there were good opportunities for collaboration and there was a good social life because everybody was pretty much at the same age and stage of the career, there was a lot more social activity, collaborative work kind of spread of a lot more organically and a lot more regularly and within the institution... When new people arrived, it tends to be a period when you try assess both whether the person had research interests that fit with yours which is important but also whether there is some kind of personnel connection because it can be quite hard to work on a project if you don´t have that connection with someone, the chemistry or whatever the word is. So, in my experience, I have had offices from people who are older and people who are more senior. I suppose I haven´t made that many approaches to people who are more junior than me because I

am kind of somewhere in the middle of the hierarchy, but that would probably be down to my lack of confidence, to think that they would want to work with me! So, I don´t think that it is a particular problem, I don´t think that is as a certain pattern. You do see, as with any organisation, patterns of what it looks like favouritism, so Professors become very fond of more junior people and they seem to build a good relationship and this helps the younger junior person to progress, there are instances of that, but then I guess if they are generating publications there is some reason for that. So I haven´t really got a problem in terms of getting people to work with, my problem is more a personal problem which is balancing my priorities, so that is kind of down to me but that is not really something that anybody can help me with...

SdS - Just you.

I7 - Yes. I spend too much time administrating and managing...

SdS - So, research...

I7 - I do research but I don´t do enough to got a chair and I am currently in a process of refocusing my activities with the attempt of getting a large research grant and the attempt to find someone to take over the administrative responsibilities

SdS - This university is called a research intensive university. What do you think that is the value of that label and what is the other side, let's say, a non research intensive university?

I7 - In term of what it is supposed to signal to the outside it is supposed to signal that this university sees itself as being on the top twenty universities, so it sees itself as trying to be more like London School of Economics, Imperial, UCL than a new university, so that is a kind of a stated symbol because the type of students that we want to attract will be students with very high A level or A B qualifications who are looking for the top twenty university to get them a good corporative job. So, it indicates that, in a sense, a kind of curiosity and a dynamic environment and of course it is also something to signal to potential staff that is the kind of university that you can hope to join. In terms of what it means internally, again in the last couple of years, probably more than that, three or four years, there is been a much greater attempt, as the school is become larger, to generate visible research activities, so a lot more seminar programs, a lot more meetings to discuss how to generate research income, how to form collaborative groups to form the research centres, so that there is something tangible to show external viewer that we are doing something which is part of the RAE assessment, also to show again funders and staff that we are doing things and also this also leads to research work. So, it is partly publicity and it is partly actually does lead to research. But I think the downside of it and the problem that I have is that this university as an institution does not focus enough on its teaching and recently one of the questions brought inside was that the university developed a research strategy for boosting our income and our profile and try to generate outputs in terms of research papers, but also outputs in terms of research applications which is research grant applications, which is a pretty meaningless output unless than it generates the money but I thought the all emphasis of the document was wrong because it seems to be suggesting that the penalty for people who did not perform to this new research metrics was more teaching as if the teaching was the boring and unimportant aspect of our job and the research is the fun part of the job which is completely wrong because this university gets 95% of its income from students. So, what I would like to see is advise principle deputy responsible for teaching, responsible for looking at ways to boost the quality of our teaching, for finding ways reward staff for their effort in teaching because promotion is about your research, you have to be satisfactory at teaching to get promoted but you don´t get promoted because you are an outstanding teacher with satisfactory research. We can look at other models, for example the Australian model. They are very much like the British system, which is not surprising as a former colony, and introduce students fees much earlier and it has a similar exercise to the RAE, so it has similar pressures, also went under expansion which I guess is linked to the introduction of high student fees but rather than focus on research and elitism Australian universities, Melbourne and Sidney in particular, have try to innovate and improve their teaching and they try to link research and teaching in a more tangible way by introducing more promotion opportunities for good teachers and asking teacher to innovate and expand and to write and publish in academic journal their experiments, it is pedagogy which is important... So, I runaway this university with this material and within the school of management I am allowed to pursue certain experiments along this line but

there is not really much interest at a wider level. So, the college has an initial training program for PhD students who want to teach and for lectures joining the profession, they have to undergo some professional training, but that is the extent of their interest. And in particular, we talk about research and teaching and at postgraduate level within our masters programs as we had a lot of more junior staff they do try to write courses around their research interests, they are doing something rare in terms of career progression and external recognition there is nothing related to teaching and I think that this university will find that problem in the next five to ten years.

SdS - Specially if the money comes from students....

I7 - Yes. Absolutely. This university has drop in the national student rankings based on their satisfaction and how much money we spend on them after their fees, we are not doing very well, so I think it is a strategic issue that needs to be addressed but, obviously, I am much more interested in that because I have been running teaching and learning within the School of Management for four years, so I probably have more knowledge of it and I am passionate about it which hasn´t really help my research activity because I do spend too much time worrying about teaching and learning.

SdS - And do you think that the rankings of students satisfaction has the same importance, for students, as the rankings of research? What attracts students?

I7 - I think it is a little bit of both. I mean, in terms of rankings you have students satisfaction rankings that come from organisation of students that are undergraduates who have a quality audit for teaching competence and you have the research assessment. So, I think students look at all of these and I guess that at undergraduate level, I would say that the RAE is less important than students satisfaction and the quality audit which tells them what external people though about the standards of teaching. I mean, admittedly we do get more students coming to open days than we used to do, so I think because they are aware of the aspects that are required, the financial as well as time, they tend to bring the parents or even extended family to come and look around at the university and they do actually want to ask a lot more questions then they used to about what is the offer in terms of the program and exchanges and resources. So, I think things are a lot more maturely then they used to, and making a much more balanced and informed decision about where to study. I do not think that is recognised within the university. There is a big discussion about how we falling in this rankings published in the newspapers and what we can do about it but it does not seem to be that immediate connection between teaching... So, one of the things that we do in the School of Management is to look at the student survey and 'look, we did really bad in that area, let's do something', so we have projects around that but it has very much been at a decentralised level.

SdS - Very local level.

I7 - Yes. Absolutely.

SdS - Regarding research again. Would you say that is clear who is a researcher and who is not in England? In higher education?

I7 - I don´t think is terrible clear. I thing we have been... The old university system there is an expectation that everybody does research and almost everybody will teach as well, it is part of being an academic, you do both and there is a say, there is a strand of professional who is a researcher but generally that is in their title 'Research Fellow' or ' Research Assistant' and you know they are at a stage in their career when they are just doing research. I think things are a bit different. I worked in new universities but I think things are a bit different and there is much more expectation that least people would find hard to research and that research is their minor activity if at all, because their teaching burden is much higher than in an old university. So, I think when you are making a judgement about what activities someone is in the first thing you want to know is well 'old or new' and then you make an assumption based on that.

SdS - Regarding, again, the research, when you are starting to write a proposal like you are now, who is the main audience for your research? Who are you writing to?

I7 - When you are doing the proposal generally is an academic audience because it is full of references and theoretical models but because you know that you have got to involve external people and you got to disseminate, you got to try and catch some buzzwords or lat on to an issue that is of general interest and then embed that within the most academic text. So, you have got to be aware that while the main audience will be academic because the reviewers will be academic they have to see some kind of policy based use for this or organisational use for.... So, that again that is more of a change in recent years.

SdS - How would you define the success of your research?

I7 - The success? I don´t know. I mean, I know that there are different ways do to it. Obviously, in a way it is successful if it gets published, it is successful if you get a high google hit rate, which I have never managed to get a very high google hit rate, but some people do, but that seems to be somewhat of a game that you can play and wining by choosing a ridiculous title... I guess the very highest measure of success will be to see some kind of implications that is being used in policy or discussed by policy makers and try to be useful. I guess that is probably the highest, most tangible form of success, I mean not so as quite rewarding if you get something to read for your student and they can actually understand the concept or see the point more clearly than you try to make in a lecture, but that is much more about personnel success because nobody else is going ever see that a student has benefit from the work. So, again, it is the difference between what is rewarding for you and what is linked to your career and your personal status within academic. But is nice if you give something to students and they think I enjoy that or I see the point of that.

SdS - And do you think that we can talk about a sense of a community, an academic community in England, across disciplines, universities or do you think they are more local?

I7 - I think it tends to depends on the issue. I think, generally, academics are quite in looking people and lot of us don´t think to be social very well balanced. When you become an academic, most of what you do is to read books and not talking to people... So, I think the first sense of identity is within your department, then is within your university and in our case is often a University of this city identity if you go to conferences abroad... The only time that ever feel like an academic community is in relation to an employment issue, so it is when the trade union is fighting the government to trying to get us more money or to try do something about the RAE or students fees, that kind of issue gives you a slight sense of academic community, but even in those cases, I wouldn´t say it was universal, because for many years I was active in the trade union in this university, I was a president and a secretary on the campus of the trade union, so people would pay a lot of service for the fight increasing wages or the fight for an attempt to look at the position of women in academia relatively to man but actually gaining to take an active role is very difficult because academics are so independent and self motivated, but also just focus on what is good for them and their career that gaining them to cooperate and take collective action and to identify themselves as part of the community is quite difficult.

SdS - Do you like being an academic?

I7 - Yes.

SdS - And what are the major challenges, advantages or disadvantages of being an academic?

I7 - The answers you get to questions like this would depend on whether the academics actually had a real job and a lot of people I work never had a real job, so they don´t realise how lucky they are and I have all kind of menial jobs before I went to university for about seven years and that constantly reminds you of what the good job is in terms of the flexibility and in terms of the fact that you should never be bored because the freedom to research means that within quite broader parameters you can move from idea to idea and when you have exhausted your interest in one idea you can move to another one. So, that is a reason for not being bored. While there is an expectation that you work quite long hours as an academic, hours that don´t relate or reflect your contract, you can do them when you want, so if you got a small child like I have you play with her in the afternoon and then you can stay all night and catch up the work, so that is great. So, there is kind of flexibility aspects are great but also you got a nice balance between the research, which is relatively isolated and the teaching, and the actually teaching, particularly the workshop teaching

could be great fun. So you have got the opportunity to shape this minds, to trying to get them to think more critically, to introduce them to new ideas and if you have workshops where you build your reports with your students, particularly if you taught them over the undergraduate courses a number of years you can get a really good relationship with them and you can see the progress in them and that is great. You can get really adrenalin from it. So it is a great job.

SdS - Thank you.

Interview 8
Academic England
Management
Teaching Fellow
22 June 2009

Sofia de Sousa (SdS) - How do you usually present yourself in your context of work, of professional activity?

Interviewee 8 (I8) - The first time I meet students...They are usually in the second year because I don't take them in the first. In this university the first year is a common first year pathway so they don't take any specific modules. So, the first time I tend to meet students, most of the other academics in my area meet them, is in the second year... About my teaching... I basically explain who I am, my name, where I have come from in terms of my background, what I have done, what I have not done. Particularly these days, because the students who are studying Business Studies are probably going to want to go on to be managers or marketing managers or whatever else, I emphasise that in my background... I always been an academic in terms of studying things academically, but I was also a practising manager, director of commercial businesses and ran my own commercial business, etc... So what I am going to teach them is not just from a purely academic perspective but also it is how it is applied, and in fact since I have been here, the last couple of years I evolved some of the aspects of the assessment for the degree. So it is not just knowledge that you can remember, but is knowledge that you can use in a context of business. So it is more to do with case studies, etc... So, that is how I explain myself, that is how I explain the course and then go on to tell them these are all the areas that you are going to study, some of them are more important than others and I, not right at the start because they will forget, but when I am teaching through the year then I will stress which areas I think are more important for them to learn.

SdS - You mention that you present yourself as an academic and as a practitioner. What do you mean by 'academic'?

I8 - Academic.... I now study marketing from an academic perspective... So, I look at the theoretical background, I do research, I have written a couple of books on various business things, marketing, marketing relationships, management. I have an MBA, I have a DBA but I am also in the process of getting a PhD, because I haven't got a formal PhD as such. So, although I have been doing this for a long time, teaching for many years, they are sort of saying 'you need to get a PhD'...

SdS - Just because?

I8 - Yes and also... There are aspects of research that I want to go into. So, my particular main area at the minute... I am interested in marketing metrics, how do we measure performance in marketing, what is the right sort of measures, what the wrong sort of measures, how do they relate to a business, how do you structure them into a business and particularly within sports marketing because that is one of my main areas.

SdS - And with your colleagues, how do you present yourself, when you work in a team...

I8 - We tend to introduce each other... If it is with students we actually tend not to use formal titles and we tend to say what we are interested in and, in fact, if you look on the Faculty of Management webpages we don't put a lot of emphasis on titles, we tend to put more emphasis on the areas that we are interested in and what we do. If it is a more formal environment than, yes, we do tend to use the titles but that tends to be non-student specific, tends to be more intercollegiate...

SdS - And you usually work by yourself or in a team?

I8 - It varies. On the undergraduate teaching I am actually the module co ordinator, for both of the two modules I teach. So, I have people who are academically higher than me who actually work for me. And I work for them on others. We actually are much looser in the way that we are organised. We call ourselves the marketing group and we tend to come together to form a team to

solve specific issues or to deliver a specific course. Now, depending upon who is in charge of that course they will take a lead as team leader.

SdS - And regarding research?

I8 - We are very much a mixed bag because we work with each other but most of us also work with external researchers as well. So, for instance, I am the only person at this university who is interested in sports marketing. So, I work with a couple of colleagues who I know from other institutions. We tend to have our own little research groups with people outside of this university who are interested in the same things as we are.

SdS - So you work with different institutions but within the same discipline or you work also with different discipline?

I8 - No, we work within the same disciplines most of the times.

SdS - From what you said early I guess the intergenerational work is happening, right? You work with different people in different status of their careers with different ages?

I8 - Yes, very much.

SdS - And what would you say that is the dynamic in your daily work between teaching, research and service?

I8 - It changes for each of us. I am a Teaching Fellow. So, my main job is teaching. That is the main reason I am employed. In fact, I do a double teaching load, I teach twice as much as any of my colleagues but the corollary is that I don't have to do research, is my choice to do research because I enjoy doing it. My colleagues would probably say that they are probably 30% of the time researching, maybe roughly 50% of the time teaching and the rest of time they are working on service elements or other aspects. Myself, I probably say that I am teaching 60 to 70% of the time, I don't have any formal activities outside of that... So, service probably in the 20%. So, I tend to do research when I have got time.

SdS - But do imagine your academic life without research?

I8 - I don't think I could go a long time without doing the research. Depends, where you are talking about research. If we are talking about pure research as in looking out brand new exploratory type of research, trying to discover new things... That I could actually leave to one side from my teaching for a while at the undergraduate level. I would absolutely not want to do that at the masters degree level because the two subjects I teach are masters degree, both move very quickly so you have to stay ahead of the research...

SdS - Can you clearly identified in England who is a researcher and who is not?

I8 - You can if you can get a copy of what is called the RAE. The Research Assessment Exercise requires universities do declare who is being doing what, levels of research, etc... So, from that, you can see clearly who has been active and which universities have been active in which areas because you get a quality ranking that comes out of that, whether you are good nationally, good internationally, etc. You can also identify who has been active if you have a mechanism to see what has been done. Now we sorts of have, at this university, we have an area on the website which are sort of discussion papers, so they are pieces of research that are heading towards being published but haven't yet been published in an academic journal. On a day to day, week by week basis, probably no, you won't know who is doing what to be honest.

SdS - What would you say that were the major changes in higher education in England in last years having impact in higher education?

I8 - The major changes that are happening certainly in higher education and universities is that they are interested in Teaching Fellows like myself. People who are coming in, whose main aim is to teach. So, they are specialist trained teachers. For instance, I have a masters degree in

Teaching; I have a post-graduate diploma in teaching... A lot of university teachers are academics that have come through and they teach because they are academics in universities, doesn't mean to say they are good teachers. However, it might mean that they are very, very good at research. The way that education is going in the UK you have to have both good teachers and you have to have a good research reputation. So, there is a lot of debate in the UK about which direction things are going go. It looks that what we will end up is having one group of primarily research staff within the university and another group that is primarily teaching staff in the university.

SdS - This university is know as a research intensive university.

I8 - It is. Very much so.

SdS - What would you say that are the major differences between a research intensive university and a, let's say, non research intensive university?

I8 - The main difference is the level of up to date information in subjects that are taught within the degrees. A research intensive university, like this, passes a lot information that has been published, almost that sort of have been published in last year, two years. It allows any of the subject specialists to pass information to the undergraduates, to the postgraduates. Where you don't have a research intensive faculty you tend to find that they teach older theory - by 'older' it might be a year, tow years out of date - but it is not brand new cutting-edge, and they also tend to be more, I would call, vocationally based. Instead of just teaching the academic theory, the big slice of it is on 'how to do things', so it tends to be less what we would in Britain call a traditional, cutting edge, leading edge university.

SdS - And regarding funding... How do you get funding for your research and your activities?

I8 - Well, the largest way is by applying various sources for grants. From government, from private bodies, from... The main ones are really government set up organisations that are set up to actually fund research, but also depending on what it is. Within business schools we might get money from private organisations to go and do a particular piece of research.

SdS - And how would you define the success of your research?

I8 - That is quite a difficult one. Depends what the aim of the research was at the start to be honest. If your aim... You can do some research and what we end up with it is to examine a model within marketing, does it work, does it fit, what you need to alter... If you discover that it fits or it does not fit, your research is successful because you had an outcome of it. Other research might be to help look out planning, future potential, future needs, etc... So, I don't think there is a one single way that you can measure whether you have been successful or not other than do you actually do what you said that you are going to do in the start... And if you didn't was there a very a good reason why you didn't... You recognise that life happens and things don't always turn out how you start off. To me, the most important thing about any piece of research is do you understand why you got the result that you got, if you did research is a success, it might not have achieved what you wanted to but that is a success because when you come to look it again we got some information to alter your world and alter your model, etc...

SdS - And who is the main audience of your research?

I8 - My main audience would be probably academic journals. Some of my colleagues in business school actually have a wider target audience, some of them will be writing a couple of books for instance... In the finance departments, for instance, looking at economic crisis, they are general books; they are not just for academics. Again, for me, most of my research audience is maybe a little bit towards people at fairly senior positions within sports marketing or within sports management. But I have also writing things that are less academic. I am doing a lower level guide to marketing which is an introductory guide that is fairly aimed at students; it is not aimed at academics at all... I am also engaged at the moment in writing a sports management and marketing encyclopaedia, certain sections of it, and in the end that is for a general encyclopaedias for libraries, etc., so it is not an academic piece of writing, and in fact in there we specifically don't use academic references, etc, which is a world apart from writing to a journal.

SdS - The communication of research is an essential part of your work?

I8 - I think it is. It is an essential part of any academic work because part of how the university attract students, attract funding from people who want to do work for them, how do you track funding to do research is to actually disseminate the findings of your research, to actually publish for people to recognises it.

SdS - You mention changes in higher education, the research assessment exercise and other things. Would you say that the nature of knowledge in itself has been changing? What you consider scientific knowledge is the same or there are other criteria in order to recognise knowledge as scientific knowledge?

I8 - I think that there have been changes in the way knowledge can be disseminated because the changing technology... There were changes in the ways that you can look at subjects, analyse subjects trough technology. We have a new area in marketing called neuro-marketing, where we are actually looking at different aspects of how the brain reacts to being shown some tastes and smells, etc, and that wasn't something that was possible ten years ago because we wouldn't have the equipment to do it. We are now able to, shall we say, 'spy' on people in a research environment in a way that is far less intrusive than it was before. So, again, we are getting closer to be able to sort of have true control rooms, so it changed the nature what you can do. I am not so sure that things have changes in the nature of knowledge and research, what has changed is how you can do the research. I mean, in some respects its changed what do you want to do the research into.

SdS - And, speaking again about the Research Assessment Exercise, what do you this about exercise?

I8 - I think it is a very useful tool for, not particularly for the universities themselves, but certainly the way is it intended to be use, is a useful tool for students, to look out where specialities are because it is down to the individual departments, one university might be very, very good at one particular discipline, not very good at other discipline. So, the general overall university ranking is really not very useful... The other aspect of the RAE is if you can really drill down you can end up looking at the individual departments within the business school and see what they are good... It is very useful in that respect. It is very useful in recruiting staff because if you want to recruit the best staff, staff want to come to work to universities that are research active because they will get more value themselves. So, again, it make us easier for us to pull people in. The marketing department, for instance, over the last three, four years - I mean, I only have been here now two years - we increase our reputation substantially to the point where now is easier for people to come in here. Four years ago we really have problems recruiting marketing staff for this university. And students do look at this as well. External bodies look at it, if they are going to make a decision on where to put money for research funding, etc, they want to know that particular part of that university actually has a reasonable reputation from the previous RAE being done.

SdS - It is interesting that you say that students look at the RAE, because it doesn't assess teaching, right?

I8 - Yes. It is odd because the students look at the RAE but then they also look at things like 'The Guardian' and then it is not as specific as the RAE...

SdS - And the last question, do you like being an academic?

I8 - Yes, I worked in commercial business for twenty years. I always been involved with research because of what I was doing, I was actually doing research in a commercial sense for the business I worked. I have always had... I suppose it was the way I was brought up.... I always like studying, it is always been something I did. So, because of that, fitting into an academic environment for me was not that hard. I like to teach. The last main job I have outside of teaching I was actually in charge of graduate training for the group company I was in, so was a sort of teaching there as well. So, I thought seriously about what I was going to do, I enjoy teaching, I actually done some formal teaching at a local university in London where I was working so I decide ok, I will try, I will go and teach properly. That is how I get into it. The thing I really like about

teaching is when you can get to know some of the students enough that you can see it in the face when they suddenly 'bang', they understand what you are talking about...

SdS - Thank you.

Interview 9
Academic England
Management
Senior Lecturer
22 June 2009

Sofia de Sousa (SdS) - I would like to know a little bit about your background and how do you present yourself when you are in an academic context.

Interviewee 9 (I9) - Maybe the best way is to explain how I presented myself when I arrive here. I said that I want to become an academic, I was working in industry for a number of years, in my home country, in Columbia, but then I start asking myself very interesting questions and I realise that you couldn't answer those questions in the business world. I was doing project management at the time and I was working with a lot of people in organisations but then all these questions that I had they couldn't be answered in the project.. So, I decide to come here and do a masters degree in something called Management Systems and from then awards I became an academic. Someone saw a lot of potential in me and encourage me to apply for a PhD and I applied for a PhD, I got a scholarship and then I really became interested in research and, because I have been working with people and I like to work with people, then the teaching part came naturally. So, when I arrived here I said 'well I am sort of person of the world, I have been in practitioners world and I have been in academia and I give a seminar here, so I think'... It causes a bit of reaction because this school is a bit liberal arts but I try to move in between, I speak to people in the industry, I do my research and I like to talk about these big questions.

SdS - But do you present yourself and think of yourself as an academic, right?

I9 - Nowadays, I do.

SdS - And how would you define an academic?

I9 - Well, an academic is someone who is willing to be continuously engaged with deeper questions - the way I see it - but maybe the degree of that has to be defined. For me, those deeper questions has to be society, not necessarily with the work place or with a particular company, has to do... Try to contribute in a better way to society... So, it is a bit of various character if you like, for some of these questions, and as I said in the beginning, people didn't want to answer them in companies, so an academic is someone that has maybe taken a step into a different direction to try to answer these questions. When I say a step maybe, I am very careful, for me is not taking too many steps away from the world, is taking a step and going back...

SdS - Regard you work here, do you work more in an academic community or in a more individual approach? What is your feeling about that?

I9 - My feeling comes out of comparison from where I was working before. I did my PhD and I did my first years of lecturing and research... If I can compare this place to that other place, here there is something more... What they called 'collegial environment'... So, you consider your people academics, you valued their work, not that it wasn't valued where I was before but maybe the kind of relationship is different. At the same time is very individualistic. I always complaint, in my previous job, that I didn't have a mentor when I was beginning my research career, by the end of my period there, which was about five years, I was the mentor of someone! So, I think that is part of what I called academic. Here, that was the first think I ask 'am I going to have a mentor?' and they say 'well, if you like, you trust that you, you have appointed at a senior position so, more or less, you know what to do and no one is going to look at after'. So it is a community of respect, if you like, but the research is very individual and I have tried, we have tried, to set up a couple of collaborations... It is still a going on process but I don't feel that is something completely...

SdS - And you work, mostly, within your own discipline or with other disciplines, from others schools and with other people?

I9 - I tend to work with a lot of people.

SdS - Across all the disciplines?

I9 - Yes. My area is IT, Information Technology, but I work with... I joined a research centre here which is related to sustainability, and that brings people from geography and from political science, management... I sometimes work with my people from IT looking at 'soft' aspects of IT and not necessarily this more technical ones, but if you see my publications it could be in areas like corporate social responsibility, system thinking, that is my research PhD, information systems... It is a kind of spread portfolio.

SdS - And the work that you do.... Do you say that you interact with people from different generations or do you think that there is a gap between the junior and the senior ones?

I9 - There is a big gap perhaps in terms of background. I present myself as someone who has been, if you like, trying to understand the use of technology and coming here, and see different problems, so I think I need first to establish that communication... When I think about I don´t think there is a big divide, some people talk about, but is not... That doesn´t make them isolated, is more like to establish a continuum, if you like, of different issues that have been tackled. And then... The IT community, in that way, is very inclusive. The other communities... The systems communities, in my view, still very recent so everyone is trying to contribute, there is no kind of stratification. In the systems community there might be a bit of generational gap because the old Professors are now retiring and I was call to a meeting a few month ago saying 'well, you are the new generation and all that'... 'Thank you!'... I still feel that I don´t know anything but they want me to take the lead and lead this community... Well, it is fine but I didn´t see the point, I was more a type of encouragement for young people. But that distinction... It depends when you are in your career, how far you have gone, it is experience, it is not really a big divide.

SdS - Regarding institutions, you work only within this university, or would you say that you work with other institutions and collaborating with other projects, works and students?

I9 - I am very open, keep collaborations with people in Spain because we speak the same language, I work with colleagues in the US as well, try to work with people in Colombia. It is a difficult one, I wasn´t an academic there, and come here and become an academic, and try to make your points there is difficult. I tend to work with different people within these university and maybe with another department like geography or computer science... In my previous university I still keep close contacts with people who speak the same language, they have contacts and move forward to a common idea.

SdS - About your daily work here, how is it in terms of research, teaching and service?

I9 - It is a very cyclical thing... During term, teaching takes the majority of time, preparation of the lectures and contact with students, setting up the times. Here, now, this moment, June 2009, we finished all that. So, now, I am doing my research. But, I mean, I just been to India, for instance, in a recruitment trip so I was ten days full non stop recruiting students... So, that is very cyclical and one day I have the administrational stuff, after that I have the act of research, this week I have to have it because I am finishing a few things. Academic time is fluid but is very up and down, where the students time is more they know what... If you can match those, that's fine but sometimes... That is where problems start. Your academic time is not as same as theirs but maybe... I try to balance everything and somebody told me once that probably that doesn´t going to get me a promotion because I try to deliver things but, on the other hand, when I was in my old place and they gave me this farewell speech or whatever, they said 'you have been one of the most complete academics because you do everything, you work with the community, you set up projects with community, you do the administration, you try your best, you have very good relationships with administrators, and then you have really shown that you are a very promising researcher'... It doesn´t come without a price, it has been very hard work, and the grey hair at 39 is not a good sign and the boldness is coming... But I believe in that... Even so, they tell you here, you have to get focus on your research, say no to everything, be very selfish... Is not me...

SdS - Even though, do you think you prefer one of the three missions?

I9 - I know what I don´t like, I don´t link strings. When I do much on research I get crazy, so I have to do something else... When I am doing a lot of teaching I don´t have time to think... I guess if you put circles intersecting, I like to live in the intersection, I wouldn´t like to leave in the boarders of any of those three circles because it is... Some people can do it, maybe its their own vocation, but I think that my vocation is to be in the middle of the intersection. Probably some institutions value that, some others don´t. I believe this institutions values it because we feel that we are a community, more than in my previous institution perhaps. So, if you do research is fine, if you can do a lot of teaching, now is becoming more recognised, but the administration is fundamental. Without good administration the university will not work and then everything will fall, will connect to the other, even your research would suffer if you dont´t have the relationships with people that probably you need something for your research.

SdS - You mention the centrality of research. What do you think that this idea represents for higher education in general? Things like the research assessment exercise?

I9 - Is a challenge... It is an interesting challenge that I am willing to take up, and I did in the previous RAE. I can say that I did a very good job myself to contribute to this. It wasn´t easy but for the future, I guess, the research has to make sense, specifically in a School of Management... Is interesting, gives you a lot of reputation but then doesn´t help to create such community. Here we have very good reputation for instance in international management research and everyone... If you go to other countries they will say 'that university in management is very good', but in fact there is maybe only three or four names. If I have talk to one of them once, I talk enough, they are doing... So, I guess universities will get strategies to go around these things and they will keep these group of people who are very famous, they will keep them happy... If that person goes for a university takes all sort of a research grant and money goes with them, there is nothing left. So, I wish, apart from all this international recognise things, that you could have a process by which this people retire and you could have someone else taking the lead or maintaining good structure, not necessarily reputation driven, reputation driven research is a bit of a... Some people take all research group from the university and they move it somewhere else and then that's it, you know?... So, there is a challenge, there is an opportunity but university will, those who really understand it, these is a more of a continuous process, is not... At the end of the five year exercise you have to show... But is more a process of developing continuously. I think it will be great. I remember the last RAE, I said 'well, I wish we could be an institution where we do our research, we carry on, and where the RAE comes we just take some stuff and this is what we are doing'. In most situations it has been a really bad experience because you have to write reports and show who you are, the all thing stops the rest of the life and it was traumatic. So, I hope it won´t be that way next time.

SdS - And how do you decide what are you going to research? Is up to you, its the institution decision, its up with your colleagues, its an academic community decision?

I9 - I don´t think there is a straight answer to that, Sofia, because things just emerged and I conclude that there is a big difference between rhetoric, what we say that we are doing to do and the reality of we what end up doing... It is a big difference. And, one of the things I learn, in my post-doc, was to try to make a plan, a research plan, what do I want to be, which institution do I want to work for, what sort of articles... And I still do it and I keep it there, but that is in paper. In reality what I do is talk to academic institutions, they give a couple of ideas, we share some ideas and then we start to explore it, that is why we call research, because we explore it, see how far we go. I also talk to business, I have friends in a multinational company, occasionally we meet, we have lunch, and ask what sort of problems, try to give them debates with ideas. Other things come from other people, they ask me to contribute to this book chapter, this project, setting a research group. So, I think it is really, it doesn´t have a single source but is important to recognise that, as one of my colleague said before, it is about how many people you need to put it to work with... If an idea comes along and I think it is fine, maybe we can do it, then I go along with that...

SdS - But would you say that is an individual decision, is up to you as an academic, or is it a decision of the School of Management to decide what research you are going to do as an academic?

I9 - Here is up to the individual. They may decide regarding guidelines and core research areas but in the end they are not very interested... We have a certain boundary, so, but here in this school is very individual.

SdS - How do you define the success of your research?

I9 - There is something called dissemination, which the new RAE is controversially calling 'impact'. They are trying to divide this bibliometric things... God knows where we are going to end up with!... But I believe in how you effectively disseminate your ideas. For me, success is, for instance, how you publish book but is trying also to impress people. I was coming dinner with someone from Mexico on Saturday and we get in touch because she read my thesis and then she was interested and I was like 'Uau, that is good'... So I am going to go and meet her and she says 'that's fine'. She thinks she can continues the research so she was asking me 'have you publish anything' and I said I publish a couple of things but I am going in this direction now and she said 'well I am glad to take your idea and put into practice in my own context'... That for me was really rewarding but indicate that dissemination works. If the RAE wants to count how many people cited your publications is part of it, but is about try to bring these ideas to someone else and try to see that there is value there.

SdS - In relation to funding, how do you get funding?

I9 - I try to get funding for projects: fifteen of them in two years. It was crazy and that is the part of the grey hair, because I was driven by that, you know. I want to get funding, external funding, recognised funding and all of the things that they tell you. When I first join this in my interview, they say well, you have seem to start to get funding. So got funding for my post doc from the government body and that was very rewarding, I am still making use of that and they want me to be 'seen', they have a database and I kind put my articles there. It is a kind of prestige thing. Then I have got very small funding from internal funds of universities. Last year, in 2008, we get from the British Academy Funding with my colleague from Spain - that is one of the collaborations we kept - but that taught me a lot because we got the money, we did the project, he has published maybe two articles, we have published one with him, but it really took me to the direction I didn´t want to go and the worst was that my university didn't recognise that for the RAE because it was a kind of British Academia funding, it is not research council... My strategy is now.. If I can see some amount of money to do something interesting I go for it. I don´t believe anymore in... It could be sad to say, I don´t believe anymore in this grants, they carry a lot of administrative burden, they could give you the possibility to move around, to tray your new job if you like.... To get government funding... I have got it before, fine, it kick off my career, that is excellent!... I am a little sceptical now. If i get it... I have a colleague here, she got funding but she is very good anyway.... And she said, is really important to think twice before doing it... So, the sources are there now, European sources...

SdS - And, speaking in a more general perspective, what would you say were the major changes in higher education in England?

I9 - When I arrive in this country I did a masters degree. So, I have to pay for it like international students. It was the rule but my undergraduate friends... They did not have to pay anything and I couldn´t believe it! And they had this grants for maintenance or subsistence. That has changed a lot. Now they have to pay, so we have to treat them like costumers and you have to pleased them and we are doing this satisfaction surveys. If they want complaint, they can complain and we have to, more or less, listen to everything they have to say. We would listen but, before, it was a kind of a relationship based on trust... We did our best but now that sense of trust fade a little bit. When I was in this recruitment fair we can see the students worrying about funding, the universities... They haven´t got enough funding for everyone come to here, they have scholarships but they are tough... So, funding has become a very treasure asset and everyone is protecting it which in a way could be a good thing, if you are driving to this aim of giving better education but in an other way if it is eroding the trust then we have to ask the question if that is the right strategy... That is a big change. The research has become more important, we are following now the United States model, research is funded privately and governments don´t do anything. Probably, we could be more moving towards in that direction now...

SdS - You mention the question of the lack of trust in the relationship between students and teachers, right? And between academics? Do you think that there is a relations of trust?

I9 - That can also suffer. Because if I get a grant maybe I put my colleagues and good friends there but it always creates a big division. Here we have a colleague in my subject group and when we arrive last year he was on a sabbatical so we cover all his teaching and this year we said 'well now we are going to work more time in research for ourselves'... And now this colleague has got a grant, so he is not available this year either. And, as much as I can understand, that this is a very good thing for him and for the school in general, my own research could be affected because I have to take on the teaching. I can understand that he is more senior than I am, but that means they need to make some provisions for my research grants. I was talking to my friend, who is taking a sabbatical and she was very happy, she said 'I am going to make my sabbatical time available to projects so I can include my colleagues'. And I was like 'Uau! That is really nice!' If I ask you the question if one of your Professors had the same opportunity do you think that they will include you in their sabbatical? I don´t know the answer to that but the culture that has been created because of this funding and research is very individualistic, so there are few individuals who think like my friend who wants to include everyone. I would... I did include people in the past. Now, I am in the position I can include one or two but I need to look after my own interest and that is because in the future I am going to be assessed by my own contribution.

SdS - And would you say that all these changes has impact in knowledge production in itself, in the scientific knowledge that academics are producing? Is the nature of knowledge different?

I9 - Yes, it is very much funding driven. Now, the strategy is to talk to policy makers or to talk to all funding bodies, find out what areas they are going to fund and then, more or less you prepare a research proposal before they launch the funding call, so when they launch it you have an advantage. And some people say, well you can talk to them and define the areas of research but the strategy becomes to do a lot of lobbying, so you have to be among the research council organisers, you have to be there, you have to talk with Professor so and so and who has become the policy adviser and I don´t think that there is anything wrong with that but is their interest, so either you say you go for their interest or you do something else and in my case perhaps I decide not to go with that. I try to do something I consider important and make some sense, and do exploration. That is exploratory research I don´t see anymore in research councils. And they still have what they called responsive mode grants which you can put an idea all that but then... I don´t know, governments goals, whatever... So, I don´t want to sound a little negative but academics has changed. Some people here complaint that some of us are taking decisions... If you want to go for them is fine, if I want to go for a theme that is of interest for me I will do it.

SdS - This university is called a research intensive university. What are the major differences between a research intensive university and a non research intensive university (whatever name it has)?

I9 - I never work in a non research intensive university.

SdS - But what do you perceive regarding it? Do you work with these type of institutions?

I9 - Well, I guess that there is possibilities to work. There are certain individuals and research comes out from individuals working together so that kind of institution can help but it is not the main driver but the non research intensive institutions I think they made a decision, or they have been forced to make a decision (you never know) to be more practical, be more driven towards problems that are not necessarily universal, to be more close to their communities, so I work with another university which is not necessarily a research intensive university and she has been made a Professor. But because she has this small niche area, but she works a lot with the people in the town of the university and they do a lot of community projects, they do workshops to create awareness about certain things, they have a lot of company connections, they gave train to companies, so more or less the research is very practical, is not driven by bigger questions perhaps and the audiences are already there, they are captured. In a kind of research intensive culture what you aim to do, and I say 'aim' because sometimes you cannot achieve it, is to have a larger community of.... A larger audience that could be national or international. That is how RAE has worked. So the research intensive, the way I see this, aims to produce impact outside your

community, your local area and your country. Here we have some of that, as far as I am aware, but we also have international influence and we have some international collaboration. If you ask me about research in this locality I don´t see much. I see some but is not the focus.

SdS - Do you like being an academic?

I9 - I do.

SdS - And what are the major challenges that you have to face as an academic?

I9 - As an academic you have to face a number of things. You have to fight continuously the pressure of having to show something valuable either in your teaching or in the services that you are called to do. One of the masters degree here... I am new to that since I joined and I think I have done a good job but it is continuously challenging because people expect you to lead, so I have to be a   strategic leader in some respects but I have to be a leader of thought in my own area... Or I would like to! So, the challenges... Try to produce something on impact in all these three things. There is another challenge that comes from the way people see. Where I came from, being an academic was seen something not as valuable as being an engineer. I train to be an engineer so I have to fight that and I still have to do it when I go abroad or I will go somewhere. People think that you are like a nun or you like a priest. You made a commitment to certain things. So that is bit of pressure as well, when you interact with someone who is non academic. If you interact with someone from business they will tell you don´t solve problems, you just talk about them and give them the solutions. I am happy to continue being an academic.

SdS - Thank you.

Sofia de Sousa (SdS) - How do you usually present yourself in your work context, as a teacher, researcher, academic...?

Interviewee 10 (I10) - I usually present myself as a Lecturer.

SdS - A formal definition...

I10 - Depends on the context, really... If it is a conference for example, I would say I am a Lecturer of this university and by definition of the very context they know, more or less... For example if it is a consumer behaviour conference it is almost like taken for granted what you are focusing on and that is more a matter of your institutions, where are you from, rather than your area of expertise. In a different level, once you get to talk more to people you start discussing about your research and your research interests. Depends entirely on the situation, depends on the context. If you are in a very specialist conference they almost know by definition where your research lies more or less and that is a matter of providing more detail of how your research work.

SdS - Do you think that the three main functions of an academic, teaching, research and service in some cases, interact with each other?

I10 - They do. Not as much as I think ideally they should but to a certain extent, specially, the link between teaching and research exist. I am not sure about the admin, the administrative side of things because, from my experience, the administrative roles tend to be allocated with a problem, they do not necessarily have much to do with your research expertise. So, let's say, the fact that I am a Lecturer in marketing that doesn´t necessarily mean that they are going to give me an administrative role that has do with marketing communications... But when it comes to teaching, of course there is a direct link and you can definitely bring in your expertise and your background to the lecture.

SdS - In all levels of teaching?

I10 - Yes, I think so. I would say so. I mean, again, it depends on the specificities in the sense that if you are asked to teach something which has a easy connection with your research interests, by the very definition, you are going bring in your knowledge background to the lectures. But perhaps not always... Because sometimes people are asked to teach subjects that don´t necessarily have to do anything with the research background and, in that case, it might be more difficult to bring in their expertise, an up to date research, findings in the lectures in the same way that they would have done if they have been teaching their own topic.

SdS - But, in your own case, do you imagine your work without one of these dimensions... If you could choose?

I10 - I think if I could choose I would definitely choose research. I mean, that's what really appeal to me   and that is why I end up in academia. Teaching, specially at the beginning, was more like one of the things that you have to do as an academic in order to go out the academic life. It is not exactly like as if you have an option to get promoted within an academic institution by doing research only. You can only go up to Senior Research Fellow level and you are stuck, where as you if you actually are dealing with teaching... If you want the tenure at some point of your career... In some ways, at the beginning it was more of a kind of thing that has to be done, where as two years down the line start actually liking it because it is like a learning process in itself. The more comfortable you feel about this thing and more experience you get, I think the more you start seeing good things in teaching as well. But, having said that. I wouldn't necessarily say that's what keeps me in the job in the same way that I will have said that about research.

SdS - In your work, do you think that you work mainly alone or within a community?

I10 - Depends... When I was doing my PhD, obviously I was working mostly on my own, but pass the PhD era I start collaborating with people much more and I reach the state where all of my research projects are collaborative and I really believe in that collaborative environment. I find it more enjoyable and interesting in the sense of exchanging ideas and expertise with other people. So, at the moment, all my research projects are collaborative apart from trying to publish the last papers from my PhD which are not collaborative.

SdS - This collaborative work is within your own disciplines?

I10 - So far it has been within my discipline... With people that have different areas of expertise but within my discipline.

SdS - And with different institutions?

I10 - Yes. Mostly with different institutions and these university as well but the ones that are on a more advanced level are actually from outside this university.

SdS - And regarding generational differences? Do you feel that there is any kind of gap between the junior and the seniors, not only in an age perspective but, as well, in the structure of the career?

I10 - In the nature of the work? When it comes to research?

SdS - Yes.

I10 - I wouldn´t say so from my experience... Because in most of these projects I have been working with more senior academics and my experience is that they absolutely value younger academics and they do acknowledge that you have your own area of expertise as well and it is actually more an equal basis... I mean, I think that might be a British thing as well because from my experience at abroad, the all nature of the academics will be much more hierarchical and I guess that is reflected at the research collaboration level as well. In the UK institutions are not so hierarchical to begin with... I guess that is also reflected in the context of collaborative research.

SdS - This university is usually called a research intensive university. What do you think about a non research intensive university whatever name can you call it?

I10 - Well, I guess it has to do primarily with the resources and how much money goes in providing a good infra structure for academics to do the research work and it also has to do with the ethos of respecting people's time for research. So, I think that in a research intensive university they don´t really overload you with teaching and admin responsibilities because they respect the fact that you do have to have some free time to devote to your research activities where non research intensive universities you turn more like a teacher than an academic in a sense that they load you, I don´t know, five or six courses to teach and by definition you don´t have time to do research. So, you are in a vary vicious circle of try to keep up with teaching and, perhaps, admin responsibilities, and you don´t have enough time left to do anything substantially where it comes to research.

SdS - Do you think that those people that work in a non intensive universities research are researchers?

I10 - Yes, because some of them are still very good academics in these institutions. I don´t know how they manage but I know some that are working not as researchers in their institutions that are, nonetheless, doing quite well in research. But I guess in the grand scheme of things most of them are not as prolific when it comes to publication and getting research grants and so on.

SdS - Looking at England and higher education, what do you say that were the major changes in the last few years?

I10 - I think one of the biggest is the Research Assessment Exercise which is changing to a Research Excellence Framework and that has already started bringing in changes because people are aware that is not about publications anymore only, it is also about getting research money and it is also about publishing papers in journals that have a high citation impact because it is a matter of times that your paper gets cited too. I think that has changed dramatically the way that people think about the research. For example my case, I was strongly encouraged to apply for a research grant... If has not been for that sort of transitory phase, I might have not been pushed to apply for a research grant. So, all of a sudden, you have to start thinking in terms of applying for money too. And, in some ways, it is a period for transition but it has changed the way academics think about their research and of course with that you also get like the... For example, Association of Business Schools External Quality Index, it rates all the journals in terms of quality from one to four and basically it's like the 'bible' of academics at the moment and everyone is just trying to publish as many three star and four star publications as possible because that what really matters. So, it is almost like you are thinking in a very quantitative instrumental way where I think in the past it was more about... Not so much about trying to quantify things as much as trying to be passionate about your work and publications will come as a result of it... Now we are much more instrumental, more strategic in what we focus on and what the outcomes of the research work will be.

SdS - And would you say that those changes affect knowledge in its essence?

I10 - I think it does because it forces you... For example, I have heard that from many colleagues, it forces to focus on areas that are somewhat more main stream because... Let's say, there are three or four stars publications for example that are journals that tend to publish more mainstream topics. So, if you are doing research in ethics or something it might be very difficult to get into a three star, a four star journals so you might have to change your topic a bit in order to fit the journal interests and like wise when it comes to apply for funding... The Economic and Social Research Council has its own agenda of what sort of research projects to fund, so if you really want to go for research funding you have to adapt you research to their priorities basically. So, it definitely has an impact and is not necessarily a good one, because obviously if you are specialising in something very niche that is valid in itself but if it is not recognised you are going to reach a point where you are going to have, at least, leave that aside and focus on something else in order to advance your career.

SdS - How do you usually get funding for your work and projects?

I10 - For my research?

SdS - Yes?

I10 - Usually... Well, it depends. My PhD research was funded by my institution as well the Economic and Social Research Council. Since then is primarily non funded research. Although we do have some, both this institution and my previous institution, we have research accounts where we have access to a small amount of money every year, and I have used that in the past for example for trips to meet with my collaborators and cover that kind of expenses... But we haven´t actually had any big block of money funding any kind of research activity. It has to do very much with our subject because social sciences research is not necessarily expensive research in the same way that physical science is.

SdS - Who is the main audience for your research? Who are you talking to?

I10 - Academics. They are not many practitioners in the conferences I have been to so far. There are some but very few comparing to the number of academics.

SdS - And how would you define the success of your research?

I10 - Being recognised within your academic community is definitely an indicator of success but I am conscious of the fact that you have to move beyond that and reach practitioners too and make sure your research findings - if of value - actually gets translated to managerial practices or that your research findings are disseminated not only at an academic level but also at a more applied practitioner level. And I can´t say I have been particularly good at doing that although there were a

couple of instances there was greater dissemination. In the grand scheme of things I wouldn't say dissemination is as great as I would like it to be.

SdS - This communication of research is a major part of your work?

I10 - Yes.

SdS - But for you as an academic, individually, or/and as a part of the game of RAE?

I10 - I would say for both. People blame the RAE for various things but in the end of the day there is a point being pushed to disseminate your findings. I mean, there is a point in trying to publish your research both to academics and practitioner's audience. It might not be under the circumstances you wanted to, it is a different question, but there is actually some rational behind the RAE that you cannot underestimate.

SdS - Do you like being an academic?

I10 - Yes, some days more than another. I do because it has many advantages compared to working in 'real world', if you like, it is a very independent job. You can work on things for their own sake, in terms of research you still have great flexibility in choosing topics and issues that you are genuinely interested in and you can organise your day in the way you want to unless you have a meeting or a teaching, but of course that is part of the program... It is a good job. I can´t complaint. I wish I was better paid but we all do....

SdS - Thank you.

Interview 11
Academic England
Sociology
Lecturer
Interview made by e-mail

[Academic Community]
1. How do you usually present yourself in a professional context (as a teacher, researcher, student, scholar, citizen…)?

I'm not really sure how I present myself in a professional context. I suppose I think of myself as a sociologist and a Lecturer in sociology, so I like to present myself on those terms. For me that role implies teaching and researching. I'm a bit cautious of terms like scholar, academic or intellectual, they make me uncomfortable and are not really labels I'd used to describe myself.

2. Would you say that we could talk about a English 'academic community'? If yes, by whom it is constituted (how would you define an 'academic' in your country)? If no, what can characterise and gather groups of 'academics' (discipline, institution, profession and generation)? Do you usually work and/or know 'academics' from different disciplines, institutions, professions and generations? What kind of differences and similarities do you feel in that relationship?

There is an imagined academic community I suspect. In reality university are quite diverse I think as are academics. I have a strong connection with my discipline, but sociology is more porous than most and we have quite a few connections with other disciplines. I looks like these connections are becoming increasingly important when bidding for money.

3. How the functions of teaching, research and service reflect in your daily work?

They are my daily work. Teaching, research and administration are how I spend my time and are what I'm paid to do. I try to balance these but I tend to make sure the teaching and admin are done in the first instance. So I try to keep things organised and plan my writing so that when I get chance I can get as much done as possible.

[Production of Knowledge]
4. Is it clearly defined, in your country, who is a researcher (producer of knowledge) and who is not? If yes, how? If not, how do you define research and researchers?

I'm not sure I understand this question. I don't think I can answer it.

5. In the last years, what were the major changes affecting higher education and research in your country? More specifically, what were the major changes affecting the production of knowledge (in the nature of knowledge in itself and in the people who works with it)?

The financial downturn and the reduction in the amount of money paid to departments for money, coupled with a fixing of student numbers and the reduction in research grants available. These are all challenges to knowledge production and will continue for some time yet.

6. Is the communication of the research (production of knowledge) a major part of your work? How?

Yes, all writing is the communication of research (ideas, knowledge, insights, etc). Likewise so is teaching. Making this accessible and sophisticated is an aspiration in my work. Audiences vary so I try to imagine the audience when writing or speaking if I can, this can be quite hard.

7. In relation to funding, what kind of research (production of knowledge) is privileged? How do you usually get funding for your activities?

I've not yet received any external funding for my work. At the moment it is clear that impact is an important factor.

8. Who is the audience for the research? Who or what influences the choice of topics for research? Who or what influences the choice of methods for research? Are you dependent on others for the success of your research? How would you define this success?

Research is often, is some way collaborative, so you are always reliant on collaborators. As I've mentioned audiences can vary, often depending on the imagined audience of the journal you hope to publish in, or the lecture hall of people you have in front of you. Topics tend to come about through a focus on my guiding research areas. I come across things and then try to work up the ideas, some get finished others don't. The methods are chosen to fit the issue, idea or topic I'm working on.

9. What do you think about the RAE or the REF?

I'm ambivalent. It seems to me to be necessary. The problem is how to do it and how to distribute the money afterwords. Assessment of research quality is fairly subjective or course, but I find it actually gives me a bit of a target. I've been trying to plan my work so that I can produce stuff that is suitable for research assessment e.g. articles in particular journals, but this has not been a negative experience for me (as is often made out to be). I'll perhaps change my mind over time.

[Personal Data]
10. Do you like being an 'academic'? What would say that are the major challenges, advantages and difficulties of 'academic work'?

Yes, i like it. There are lots of challenges and in fact i've been writing about these recently. I like the challenges, addressing them is part of the fun of the job. Getting published is a challenge, that's what makes it enjoyable when it happens.

Interview 12
Academic England
Sociology
Lecturer
Interview made by e-mail

[Academic Community]
1. How do you usually present yourself in a professional context (as a teacher, researcher, student, scholar, citizen…)?
Lecturer/researcher/supervisor

2. Would you say that we could talk about a English 'academic community'? If yes, by whom it is constituted (how would you define an 'academic' in your country)? If no, what can characterise and gather groups of 'academics' (discipline, institution, profession and generation)? Do you usually work and/or know 'academics' from different disciplines, institutions, professions and generations? What kind of differences and similarities do you feel in that relationship?
Yes, but it'd roughly be the same as the British 'academic community'. The 'academic' is difficult to sum up – they have more status than school teachers, but they don't get paid as much or get as much holiday. People think they don't work out of term, but of course they have to and many only manage to take 2.5 weeks holiday off a year (although they have 5 weeks holiday in total), not necessarily because they enjoy the work, but because to survive means you have to keep at it. So the job itself is hard and involves long hours and a lot of pressure. I do know and want to work with academics from different disciplines but it is difficult to make that time – being in the same building is really wants sets up collaborative networks. Interdisciplinary work in the UK doesn't seem to be as encouraged in practice as it seems to be in theory. For real interdisciplinary work to take place, then a certain amount of time is required just to learn a 'common language'. This common language may be enough to learn from and work with one another but it tends to be a very 'local' language that becomes difficult to write up as funding applications or articles etc. This is just how it has to be, and if interdisciplinary work was really treasured then there would be a recognition that sometimes 'verbal' communication is everything, i.e. a written grant application will NOT reflect the richness involved in working in the interdisciplinary team.

3. How the functions of teaching, research and service reflect in your daily work?
For me, it's a job, it's not my life. So I try to have weekends and most evenings off. During term time, I'm most involved with teaching and students' needs. However, I also need to keep my research going too, but it generally takes a back seat during term time. Out of term, my research takes the lead and that's the main thing I do. But you can't ever 'switch off' completely from either teaching or research no matter what time of year it is, so the two are kept going throughout.

[Production of Knowledge]
4. Is it clearly defined, in your country, who is a researcher (producer of knowledge) and who is not? If yes, how? If not, how do you define research and researchers?
Yes, all Lecturers have to also do research.

5. In the last years, what were the major changes affecting higher education and research in your country? More specifically, what were the major changes affecting the production of knowledge (in the nature of knowledge in itself and in the people who works with it)?
Increase in student numbers, RAE, and more bureaucracy than ever before. In the UK, it seems possible now to be an academic without being 'scholarly', which is a real shame.

6. Is the communication of the research (production of knowledge) a major part of your work? How? *Yes, we are expected to publish our work. The wider we publish, the better.*

7. In relation to funding, what kind of research (production of knowledge) is privileged? How do you usually get funding for your activities?
Empirical research is privileged. Funding is obtained through application and the process is very competitive. A research proposal can take 1-3 months to work on before it has a chance of getting any funding.

8. Who is the audience for the research? Who or what influences the choice of topics for research? Who or what influences the choice of methods for research? Are you dependent on others for the success of your research? How would you define this success?

The audience of the research really depends on what the research is. But generally, the wider international academic community is among the audience. Topic choices are left to individual researchers; the 'buzz' within the academic community, e.g. current debates, controversies etc within the field, generally help to shape research ideas. Choice of methods is dependent on the topic and research design, but personally I also like to try to include a new method in order to keep advancing my own methodological training throughout my career.

9. What do you think about the RAE or the REF?

Terrible. It is the main reason why I want to leave the UK and work elsewhere as an academic. They do not facilitate what I came into this job for, i.e. learning, interdisciplinary research, reading and thinking. Instead, the onus is on playing a citation game where people are encouraged (as they already are in some places) to cite their friends and anyone else who supports their work. This seems to me to go against the core of why I became an academic, i.e. that I love learning and sharing with others in the excitement of learning.

[Personal Data]

10. Do you like being an 'academic'? What would say that are the major challenges, advantages and difficulties of 'academic work'?

At the moment, I give the job 5/10 satisfaction. In other words, it's just about good enough to keep me doing it, but not good enough for me to love it or make me not look at other possible career paths. The main challenge, for me, comes mainly from the way I work, i.e. I need big blocks of time to think, read and write. I can't get those blocks of time, in term or out of term, so I find my work difficult. I also find the power dynamics within the whole academic infrastructure to be difficult to negotiate as well. That said, the job offers an excellent flexible lifestyle and a general level of autonomy that is unparalleled in other jobs. In fact, I would say that the main reason I am and want to try to stay within this job, albeit not in the UK, is to preserve my own level of autonomy.

Interview 13
Academic Portugal
Computer Science
Full Professor
26 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 13 (I13) - Using my name. Usually I don´t use titles.

SdS - And do you usually use the term "academic"?

I13 - No, I usually don´t.

SdS - Do you think that you work more individually or collectively? Both in teaching and in research?

I13 - It depends. In some situations I work by myself and, in others, I work with other people.

SdS - Would you say that your collective work is mainly within your discipline or with other disciplines?

I13 - Mainly within my discipline.

SdS - And with other institutions?

I13 - Yes in some aspects. In what concerns teaching I work mainly with colleagues from my own institution. When doing research both with them and with people from other institutions.

SdS - Do you think that hierarchies, age differences and different career categories tend to be somewhat of an obstacle to interaction in research?

I13 - I do not think they should be. I understand the need for hierarchies in dealing with some problems, for instance in connection with assessment for career progression. But I do not appreciate hierarchical systems. When I was entering the university career I was fortunate enough to work with people that encouraged me to present my ideas and propose alternatives to what was being done and I think that this is a very good standing to have in academia. Otherwise young people will not have the chance to develop themselves in their career. [...] It is due to that that I have this kind of attitude, which I believe to be quite positive.

SdS - Do you think that we can speak of a sense of community, among researchers and Professors, in Portugal?

I13 - We can only speak of communities by sectors and regions. Broadly speaking we live in a environment characterised by competition. Unfortunately, government research politics have not been promoting collaboration among people. That is awful because there should be more co-operation and collaboration among institutions.

SdS - Do you think that teaching, research and service/admin interact?

I13 - I have fulfilled those three tasks. Until this last edition of the university teaching regulation it was not ensured that management work could count for assessment and career progression. Nowadays, that is being done. Clearly, we do not have the time to do everything and if you have a management post you will have to forgo some of your research work. I mention research, not teaching, because we always have to make sure that our teaching duties are not harmed in the process. There is a greater pressure to make sure teaching duties are not jeopardised. The first thing that will be put aside is certainly research and you can infer that just looking at some academic pathways, like my own. It would be nice if there were some kind of rotation in management in order to have several people fulfilling those roles and not just one or two. Another

issue linked to that is the tendency for not hiring non-teaching staff that could fulfil some of the management tasks that nowadays are being done by Professors. [...]

SdS - And regarding the interaction between teaching and research?

I13 - That is a much debated issue. Usually, people who enjoy doing research do not like teaching that much... Specially if it is the case that the quality of students is not reasonable enough. On the other hand, we are aware that some areas do not have enough teaching staff and that means an overload of teaching work for Professors, which clearly damages research. Those ideas of Portuguese universities becoming research universities are quite interesting, but in practical terms they are but ideas. Professors tend to have less and less time to do research and we can see that from their production.

SdS - You mentioned the concept of research university. Do you think it could be a possible and desirable scenario in Portugal?

I13 - This may raise the problem of turning some universities in some kind of secondary schools, what I believe would be completely wrong. I think there could be different models within certain limits. The problem of a uniform model (at least in Portugal) is that the trend will be to take the minimum quality as the standard. So instead of improving the overall quality of the universities, a uniform model means that some universities will not be given the conditions to improve their quality. I believe that all universities should do quality research. Those that do not should not be called universities.

SdS - What do you think were the major changes in higher education?

I13 - The most recent legal changes, meaning the legal regulation and the statute... The statute didn't bring any deep changes...

SdS - Except that the PhD as mandatory to ingress in the career.

I13 - Yes, but that was positive. I think that nowadays it wouldn´t make sense otherwise. Although, on the other hand, the massification of PhD is causing some quality decrease.
Regarding the legal regulation, I am clearly against it due to its hierarchical and somewhat "military" character. The idea is to have only one person in charge of the university... I do think, on the opposite, that good conclusions come from discussions with very different people, not from only one person.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher education?

I13 - So far, I don´t have an opinion. I do hope that it would be an entity that will stay independent.

SdS - Do you think that research careers can be seen as an alternative to university careers?

I13 - I do believe that all Professors should do research. The opposite may not necessarily be true. To be a researcher in Portugal is, and will be, a high risk profession. A Professor in the university has, in spite of everything, a more stable and secure career.

SdS - Considering all those changes do you think that they have impact in the kind of knowledge and research that is being produced?

I13 - Research is suffering with bad funding conditions, with the lack of staff for administrative support, and the with lack of a proper environment where people were motivated to do something useful. We are living now in a depressing environment and all those factors are having a negative impact in what is being produced and, also, in the quality of the results.

SdS - How do you usually get your funding?

I13 - In my area one can hardly get European funding, in particular due to the bureaucratic load. Regarding FCT, funding is scarce, unpredictable and absolutely chaotic. There are specific lobbies who get the funds and the other researchers are left with almost nothing.

SdS - Who is your audience?

I13 - My peers.

SdS - Is communication of science important for you?

I13 - I have been doing some activity in that area. It is an important thing but it is not something that I would not give a high priority.

SdS - How would you define success in research and in teaching?

I13 - Regarding research, success is when one finds out something really interesting. In what concerns teaching I do not believe that we can measure success through pedagogical questionnaires. I think that pedagogical questionnaires are only a way to students vent anonymously every nonsense that they can think of and I am totally against it. I believe that there is success in teaching when students give a kind of "quantum leap" and understand a new thing. The situation has been getting worse because there is an increase in the number of students not used to work or study by themselves and having severe difficulties in understanding written questions (and texts).

SdS - Do you like you work?

I13 - Honestly, I have liked it more. I have been more enthusiastic about the future than I am now. All these issues about competition are undermining a certain group spirit that once was present here.

SdS - Thank you.

Interview 14
Academic Portugal
Computer Science
Associate Professor
25 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 14 (I14) - I introduce myself as a Professor. It depends on the context. If I am attending a conference I might tend to avoid my title, but I would say that I belong to this university.

SdS - Do you use the term "academic"?

I14 - Yes, I do. If I have to choose between "researcher" and "academic", I would choose the last one because I am also a Professor. Research is a major part of my work and I am assessed by that. Furthermore I really enjoy research, sometimes even more than teaching, but I am an academic. Interestingly enough, when somebody asks me my profession I say that I am a university Professor, not a teacher. I am not sure why...

SdS - Do you think you work more individually or collectively? Both in research and in teaching?

I14 - Collectively. Maybe sometimes I would need to do some research on my own but I honestly have no time for it. My work is done almost exclusively in collaboration.

SdS - And with other institutions?

I14 - With other institutions.

SdS - And with other disciplines?

I14 - Yes, because I work in an area where there is plenty of application.

SdS - What do you think about the interaction between different generations, both regarding career and age?

I14 - I think that it is mostly regarding age. With more senior colleagues tends to be a more formal relationship. Not in all cases, though.

SdS - Do you think that there is any sense of community in Portugal?

I14 - In my perspective there are communities. I feel that I belong to some communities when I am invited, for instance, to doctoral proofs . In my area those kind of relationships and networking really works well. We try to work with colleagues from other cities and universities. So, I really do feel that there are communities. It could be better, but academic work tends to be somewhat individualised due to the nature of academic career, individual strategies and, even, personalities. However, in my discipline I must say that people are very open about their work. I would even say that people have a more open scientific mentality.

SdS - What do you think about the interaction between teaching, research and service?

I14 - My favourite is research. I really would like to have more time to do research. In Portugal we teach too many hours and that gets in the way of research. I wouldn´t say that I would like to have no classes at all, but it would be better to have a few less hours of classes per week. It is very hard to compete with other universities that have less teaching to do. Regarding management, it is even a worse scenario. There is no motivation for management tasks and I think that a major part should be performed by non academic staff.

SdS - Do you think that the research career could be perspective as an alternative regarding university career?

I14 - I am not very familiar with the research career. But I do think that it is quite unwelcome both in universities and in laboratories. In universities because funding regards number of students and there is no point of hiring someone who will not teach. In laboratories, if they can have grant-holders researchers, at low costs, why will they be interested in hiring researchers?

SdS - What do you think were the major changes in higher education?

I14 - The major change was the awareness that science must be done at a global level. We must have publications mainly in journals, not in conferences as it was the main tradition in my discipline. The web access was another major change.

SdS - And do you think that it has impact in research in itself?

I14 - Absolutely.

SdS - In what sense? We are producing more and better or we are producing something different?

I14 - I think we are producing in a different way. I believe that we are producing more and better because we have much more access to everything. There is the inherent difficulty of managing that information. We cannot read everything, we don´t have the time for doing it, we have to be selective. Science has the duty to be better nowadays in this era of diffusion.

SdS - Issues like utility, relevance, impact and value has some impact in your research?

I14 - In my area it does, although I also work in basic science. I believe that basic science is essential and we should not be obsessed with short term application.

SdS - Do you think that funding agencies value such basic research?

I14 - Less and less. Funding tends to focus on technology transfer and patents, which is note the same as saying that we cannot do basic research in an applied project. What we have to do is to design two projects, one for the funding agency, in which we emphasise application and utility, and another for us, researchers, in which we present the research idea without any "mask". Nowadays almost everything has some direct or indirect impact in practice. Anything very basic will not get funding easily

SdS - Do you like your work?

I14 - I do. I would not trade this job for anything.

SdS - Thank you.

Sofia de Sousa (SdS) - How do you usually introduce yourself?

Interviewee 15 (I15) - As a Professor.

SdS - Do you use the term "academic"?

I15 - Not as a noun. I use just it as an adjective, e.g. for classifying a context or a work.

SdS - Do you think that your work is more individual or collective?

I15 - It is both.

SdS - Regarding collective work, would you say that you work more within your discipline or with other disciplines?

I15 - Most of the collaboration work is done within my discipline.

SdS - And within your institution or with other institutions?

I15 - Mainly with other institutions.

SdS - What do you think about the interaction between different generations, regarding both career and age?

I15 - There is some work I develop with my students that is very rewarding and I tend to do it often. For working with people in different career stages one has to take into account the differences in the time they will have available. I believe it is very important to make use of the experience of senior staff.

SdS - How do you think teaching, research and service/admin interact? If you could choose what would you do?

I15 - 99% of people that are in my position would say that, if they could, they would do without admin. I enjoy very much teaching, but it takes too much of my time and I don´t feel recognition from most of the students. This is quite frustrating.

SdS - What do you think about the research and teaching scenario, in universities in Portugal?

I15 - Nowadays, there are universities with a lot of scientific production, others with very few. That is the reality, there is nothing new in that. But I believe that labelling the universities is not the right thing to do. It must be part of career, in any university, to teach and to do research. What I believe should happen is that those universities that don´t have enough scientific productions should increase their efforts in order to reach higher levels.

SdS - What do you think were the major changes in higher education?

I15 - My experience is relatively narrow. I think that scientific research and has been increasing, resulting in more publications. Maybe we should have more contact with the society and business, but I think that will come, as time goes on. There are some changes that are occurring just now, but for these I do not have an opinion yet.

SdS - Do you think that the research career can be seen as an alternative to the university career?

I15 - I can´t see why it couldn´t. But maybe researchers would miss the contact students...

SdS - Do you feel any pressure regarding knowledge as relevant, useful, valued?

I15 - I must say that I don´t share that perspective. When things can be directly applied, they probably shouldn´t be scientific projects any longer. I think that one thing that can be immediately applied with profit shouldn´t be funded as a scientific project.

SdS - How do you usually get your funding?

I15 - From the FCT and from the European Commission.

SdS - And when you are applying for funding the emphasis is on the idea or on what it is valued by the funding agency?

I15 - Both. But I am very bad at that. I have some problems in "selling" things that I know will not happen.

SdS - Do you think that all those changes have impact in the knowledge and science being produced?

I15 - I don´t think so.

SdS - How would you define success?

I15 - Regarding research, success happens when I actually produce something original, different. About teaching, I feel hugely satisfied when I have some kind of feedback from students, when I have good students.

SdS - Who is your main audience?

I15 - I have written for students. Some of my papers can be read by students at a higher level. I have written very little in the context of science dissemination.

SdS - Do you think that there is any sense of community in Portugal?

I15 - Maybe not communities. What often happens is the constitution of closed and elitist groups.

SdS - Do you like your work?

I15 - Yes. I do.

SdS - Thank you.

Interview 16
Academic Portugal
Computer Science
Assistant Professor
26 January 2010

Sofia de Sousa (SdS) - How do you usually introduce yourself in work context?

Interviewee 16 (I16) - This is an interesting question because when somebody asks me about my job I tend to not knowing exactly what to say... Usually I introduce myself as a Professor...

SdS - Do you use the concept "academic"?

I16 - I have used it, because I conclude that was a way of people to understand my work, since it summarises the interaction between research and teaching. It is quite messy...

SdS - Do you think that you work more collectively or individually, both in teaching and in research?

I16 - Regarding teaching, tends to be a collective work in which we try to support each other. Although, in the end, we tend to organise classes individually and don´t rely too much on the help of others. About research, when I start to work I had my supervisor and I work with him in the master and, afterward, in the PhD. While I was doing my PhD I spend some time in England and since then I have a collaboration work with some people from there.

SdS - At the level of the collective work that you do, would you say that it is mainly within your discipline or with other disciplines?

I16 - Mainly at disciplinary level.

SdS - And I assume, then, that you work with other institutions?

I16 - I do.

SdS - What do you think about generational interaction, both in career and in age? Is there some kind of hierarchical rigid structure that gets in the way of research or not?

I16 - I think that happens in departments different from this one. Both the department and the Professors are very young and we all know each other very well having a close relation. We do not have that image of the Full Professor being very apart from the others.

SdS - Do you feel that there is any sense of community in research in Portugal?

I16 - It is more each one for himself... And I think that to be a mistake. Sometimes we establish networks with abroad universities and not with national universities, that are closer, and where we could find people that are working in the same stuff as we are... I think that is a Portuguese mistake, the idea of whatever is done abroad is good. Is almost as if, when we go abroad and interact with universities, we are being learners and not partners...

SdS - How do teaching, research and service/admin interact? Do you enjoy all the three?

I16 - I will totally do without admin. I think it is quite absurd, for instance, schedules being done by Professors. I think one must have a specific price for a service and it is not reasonable paying a PhD for making schedules! It is a waste of money and people´s skills. Nowadays we have a lot of hours in admin and that shouldn´t happen. The same with teaching... Although I wouldn´t remove teaching from my daily life because I really enjoy it. I believe that we should have much more time for research. In my perspective, it is not our function as Professors to teach according to a manual. We should be able to offer students another kind of knowledge, related to the research we do. Otherwise it is enough to hire someone to read the manual and with the ability to transmit and explain it to the students.

SdS - What do you think of teaching and research universities as a possible scenario for Portugal?

I16 - I believe it to be unavoidable. The way things are going will lead us there. That kind of scenario doesn´t concern me, provided that is clearly presented as such. Otherwise, can be problematic.

SdS - Do you think that the research career can compete with the university career?

I16 - If some people had the chance they would choose the research career...
We are all assessed in the same way. Not everybody has the same teaching load and those distinctions are not made. Assessment is, more and more, embedded with errors.

SdS - Do you think that the Agency for Assessment and Accreditation of Higher Education will have some impact in that assessment?

I16 - I don´t know yet.

SdS - Do you think that it is easy to identify who is a researcher and who is not? Or do you think that all Professors are researchers?

I16 - I do not think that all Professors are researchers and that depends on the universities and departments. I think it is easy to identify. Who does research usually talks about it.

SdS - What do you think were the major changes in higher education, both concerning teaching and research?

I16 - Regarding teaching, one of the major changes was the lack of preparation of students. That has increased and is a problem for us. The level decrease that happens in secondary schools has impact in our students and in our work. Regarding research, it think it is very important to mention funding cuts, specially regarding basic science. What is applied and linked with economical value is still funded, not basic science. I believe that money is not well managed, there are some projects that have excess funding and researchers who don´t work with things that has so much impact... Impact is something hardly measurable. We cannot tell what the impact of something will be. Nowadays we strained research in regard with a suppose impact that we do not know.

SdS - Do you think that it has some impact in knowledge production?

I16 - Absolutely. Sometimes, people say that we must do blue sky research, that this kind of research is not being made. But is not being made because we are being strained in other directions. Nobody wants to loose their job... All these pressures about publications and assessments are not promoting blue sky research... But we have to consider the reasons that lead us to ingress in a university career. I am in this career because I want to do research and science... There has been a while since nothing new and risky appears. And this is indeed quite a pity. If this tendency persist, science will disappear. What we are doing now is variations of what already exists and knowledge will loose in that process.

SdS - Do you feel that in Portugal?

I16 - In Portugal and at a global level.

SdS - When you are applying for funding do you feel the under valuation of basic research?

I16 - I do. And, has I have mention already, this is not just a Portuguese issue. I think that, nowadays, basic researchers have to be able to mask their basis science with something appealing in order to get funding.

SdS - What do you think about the PhD as mandatory to ingress in the university career?

I16 - I think that it wasn´t so bad as it was previously, where institutions could promote the training of some persons that were already in the career. Nevertheless, the way PhDs are changing lead to that situation.

SdS - What do you think about the move from universities to foundations?

I16 - We will see in the future.

SdS - Who is your main audience?

I16 - Mainly my peers.

SdS - Do you think that communication of science matters?

I16 - Yes, a lot. It is very important changing the way that society look at Professors as people who, most of the time, aren´t doing anything...

SdS - How would you define success in research and in teaching?

I16 - Regarding teaching, I feel success when I see some enthusiasm and sparkle in students eyes, more than having students with good grades. In regard with research, of course that it is quite nice when you get a publication in a quite demanding journal, but great times, for me, are those when I think I did something beautiful, that it might have no application at al but that it is a beautiful mathematical model. I believe that science should be beautiful.

SdS - Do you like your work?

I16 - I really do.

SdS - Thank you.

Interview 17
Academic Portugal
Biology
Full Professor
18 January 2010

Sofia de Sousa (SdS) - How do you usually introduce yourself?

Interviewee 17 (I17) - It depends on the context. In a general context I introduce myself as a Professor. If it is a more specific context, as a researcher.

SdS - Would you say that you work more individually or in collaboration with other scientist ? Both in teaching and in research?

I17 - I would say that I usually work in a team. But it depends on the people I work with. In teaching, research and, also, in admin I do a lot of individual work but it is integrated in work team.

SdS - Would you say that your work is developed within your discipline or with other disciplines?

I17 - Mainly in my discipline.

SdS - And between several institutions? Or in your own institution?

I17 - Mainly in my own institution. Although there are continuous collaboration with other institutions, specially from abroad.

SdS - Do you think that the interaction between different generation - both in terms of career and age - is important in research?

I17 - Absolutely. It has to be so. There is no other choice. If we want to do research the only way is to interact with younger people. Interaction with younger people - like PhD students, interns or post-doc - is continuous. For me, working with a PhD student or a Full Professor is the same in terms of the relation I establish with them. But I am aware that there are those who often use their title for distance themselves.

SdS - Do you think that research, teaching and service/admin interact? If you could you will choose only one?

I17 - I believe that it depends on the person who is fulfilling each role. I think that are people who are a mess in admin, others in research and others in teaching. Unfortunately, the way that higher education works in Portugal do not allow any kind of specialisation. It makes people to perform all the three roles simultaneously. We see that excellent researchers are awful teachers, but they have to teach anyway, even if they don´t like it. Which, of course, reflects on the teaching. There are very good researchers having to do admin and they don´t do it well because they don´t like it. So, it is a problem when you make everyone to do a little bit of everything. That, in my view, is not very professional, it doesn´t work.

SdS - Do you think that when you are in a class your research....

I17 - Always. My research is always in my classes. Regarding research it is a little bit more tricky because we have classrooms and laboratories in different buildings. If there was only one building the interaction between classes and research would be easier and more continuous. I regularly invite students to have classes here, at the Institute. It is not so bad the interaction we actually have. But It could be better.

SdS - In Portugal there is a research career...

I17 - It doesn´t work.

SdS - It doesn´t?

I17 - No, it doesn´t work because the vast majority of people are not hired as researchers. There are few researchers. None of us is hired as a researcher. There is a career, which is not fulfilled due to the fact that there are little funding to hire researchers in the context of the Universities. There are funds to hire researchers under specific programs like "Science 2007", "Science 2008" and post-doc through projects and grants. Also in the context of the Associate Laboratories.

SdS - And do you feel that it would be beneficial for Portugal to have a research career parallel to the university career?

I17 - I think that there must be a career. People could be hired in either career and what should happen is a kind of continuous transferability between both. The process should be more fluid and not so formalised. I believe that most people do enjoy teaching, but enjoy teaching a small number of classes, not 15 or 18 hours per week! This is not compatible with research because research implies a deep commitment and usually during long periods of time .

SdS - Do you think that it is easy to identify who is a researcher and who is not in Portugal?

I17 - Nowadays, it is. Specially in technical areas, natural and exact sciences and, even, in some parts of social sciences... There are very simple research tools on the "web of knowledge" which allow us to identify who produces results and who don´t.

SdS - What do you think were the major changes in higher education with impact in knowledge production and in scientific research?

I17 - Funding, obviously. Funding and assessment. To have the capacity for support research and to be able to have mechanisms allowing assessment in the most objective way. Assessment culture has now a central role in Portuguese science policy. Nowadays, what is somewhat limited is funding. In my perspective the number of projects should increase because we have many more researchers.
Another issue is that the agency that manages our funding - FCT - has a kind of chronic problem. It does not have enough stuff to be agile, it is very slow. And we need things happening faster. Science happens faster!
There is another problem more structural related to internal mechanisms of funding. Portuguese science has been funded, mostly, from Europe. And European funding implies certain rules of how and when to do research. There are problems related to the transference of money. We spend money without having received it and that could be a major problem for institutions who don´t have enough resources to do support that
I think that what lacks in Portuguese projects is the emphasis in the results - if you have accomplished your goals, if you have published what you intend to, etc - than in formal indicators - if you spend all the money and if you have fulfilled all the reports.
Another issue that is important is to differentiate senior researchers from junior researchers regarding funding, which otherwise is unfair for both.

SdS - Regarding the Agency for Assessment and Accreditation of Higher Education...

I17 - We will see. I agree that it has to exist an assessment, it has to be done and its is being done correctly. What I don´t think is very clear - and it should be - is the clarification and the formalisation of the relationship between teaching in programmes like doctoral courses for instance, and research units. I think that there is still the idea, in more classic universities, that teaching and universities are central and that research is something very residual. We have not been able, so far, to break away with that idea. I think that it will only happen when, for instance, to have a doctoral programme in a university, will be mandatory to have a research unit attached to it. Nowadays what happen is that the power is totally within universities and with teaching. Quality of research of teachers can be important at 1st cycle, it should be more predominant in the 2nd cycle and, even more so in the 3rd cycle.

SdS - And regarding the PhD as mandatory to ingress in university career? Do you think that to be positive?

I17 - Clearly. I have been here for 20 years and at that time it seemed to me as making no sense at all hiring people who didn´t have PhD, given the fact that there were already people with PhD back then. PhD is, nowadays, the beginning of a career...

SdS - Regarding the move from universities to foundations. What do you think about that?

I17 - I really can´t tell. We will see.

SdS - Do you think that all those changes we have been talking about have impact in the kind of knowledge that is being produced? "Good science" is still classified according to the same criteria or something has changed? Pressures like utility, relevance, economic value...

I17 - I think that criteria are more tighten. I believe that more stringent criteria has been important in order to make better science. Before there was a sort of national criteria, nowadays there is much more like and international standards, which turns everything much more competitive. Application has developed hugely in the last few years. Areas of application must be much more developed, though. This is not the same as saying that you should make the researcher who is very good in basic science also to do applied science. It is about arguing that the perspective is now broader and it is possible to make very good basic and applied science. I don´t see any problem in that view! And I do believe that society doesn´t see it either. Previously, there was a common idea of a pure vs. an impure science. I believe that this has changed a lot.
The perspective about the scientist has, also, changed. The scientist is perspective as someone who knows, as someone who handles knowledge. Society looks for scientists in order to answer questions.

SdS - Do you think that basic and applied science is valued in the same way regarding funding?

I17 - I think it varies. In Europe there is the tendency for "stages" or "moments". There are some moments where what is most valued is application and others where what is most valued is basic science. Science should be less political, both in Europe and in Portugal, and more based in consensus. The consensus is, clearly, that it has to exist basic science and applied science. Basic science is the basis in which all the applicability will lay on. However, we have to balance applied and basic research. We don´t have programmes in specific areas of research, for that we would need money that we don´t have...

SdS - Who is your main audience? Who are you writing to where you write a project or a paper?

I17 - Mainly peers.

SdS - Do you think communication of science to be important?

I17 - Yes, it is very important. We spoke in the beginning of the interview of being researcher, scientist and teacher... I would say that here we can applied the same principle to communication of science, meaning not everyone can do it. There are some people who are naturally good at that but others just can´t do it. Communication of science plays a crucial role with students - who need to know what we do in laboratories and in research - and with broader public - who just want to understand. I enjoy very much doing communication of science. I think it is the responsibility of every scientist to try to speak in a manner that is understandable, without being banal, to the public. Otherwise, society will always look at us as something strange.

SdS - What do you think about teaching and research universities as a possible scenario for Portugal?

I17 - I don´t know. There are no structures and no historical pass that could enable such scenario.

SdS - Do you like your work?

I17 - Yes. I like it a lot. The problem is that, and I am here for twenty years now, I still have some problems that I encounter when I first come here regarding the structure of the system. There is no such thing as a regular and stable funding mechanism. Portugal is a very informal country and it shouldn´t be this way. Science needs to become more professional and less political.

SdS - Thank you.

Interview 18
Academic Portugal
Biology
Full Professor
18 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 18 (I18) - I always introduce myself as a Professor of the University.

SdS - And do you usually use the term "academic"?

I18 - Not really. Only when I am referring to an academic post, but I never specifically say that I am an academic.

SdS - Would you say that you usually work more individually or collectively? Both in teaching and research?

I18 - In research, clearly, more collectively. In teaching we will also work collectively, due to the need of discussing classes programmes, but it is not so often.

SdS - In terms of that collective research work, would you say that you work more within your discipline or with other disciplines?

I18 - With other disciplines, absolutely.

SdS - And mainly within your institution or with others?

I18 - Both of them. Nowadays I try to do multidisciplinary work. So, I interact with a lot of researchers from different areas, namely, pathology, medical doctors and also basic sciences.

SdS - In regard to the interaction between different generations - both in career and in age - do you think that there is a good relationship or there are some kind of hierarchy that might difficult...

I18 - Personally, I don´t feel, and I must say I never did, such hierarchy. Of course that, when I was a student, it was different but those were different times. Generally speaking, since I entered university as an assistant Professor, I never felt such hierarchy. And, nowadays, even with students, there is less and less hierarchy...

SdS - Do you think that teaching, research and service have equal value in your daily life?

I18 - They all are important. The percentage of time which I have for each one varies throughout the year. In the last 10 years, I have been increasing the amount of time that I spend on–admin. When I have classes, this is noticed on research and students in my group suffer a little. But there are other times when I do research 100% of my time. Obviously that, even so, we don´t stop thinking about what we have to do in admin and teaching. The three components are always present.

SdS - Do you think that there is an interaction between teaching and research?

I18 - I am really quite lucky because I am teaching students who are very interested in areas I work with. So, there is a lot of communication and information going from the research work to my classes.

SdS - In Portugal, do you think that it is easy to identify who is a researcher and who is not? Or do you think that all Professors are researchers?

I18 - No, I believe that there are differences and sometimes you can feel they exist when you speak to people. Some how, you see that they have much more time…

SdS - What do you think of the scenario of research and teaching universities? Do you see it as a possibility and as being positive?

I18 - I always believed - although I am linked with an institute which is not part of the university - that research should be developed within the university. This is good because it enhances the interaction between students and research right from the start of their training. It also allows a greater interaction between researchers and students, quite often contributing to multidisciplinarity. When we are in an multidisciplinary environment, we meet people with other interests and, in that way, we can share knowledge and different ideas with each other. This seems quite important.

Regarding teaching and research universities... I have indeed some doubts that we will ever be able to implement a real research university in Portugal, because we will always have a very large of students entering the university for the first time. What I really do think is that universities should be high quality institutions with high quality teaching and with high quality research. With the massification that has been occurring in higher education, is increasingly harder to maintain programs with a high level of quality and we observe that it has been effectively decreasing. Nowadays, the Ministry is awarding grants to high quality students in order to integrate them in research teams. However, these grants are only for a few months and I think there is not enough time to be fruitful both to students and to laboratories.

SdS - What do you think were the major changes in Portugal in higher education, with impact in research and teaching?

I18 - I believe that in the past years there were, indeed, major changes regarding research and universities. The research in Portugal is now almost at an European level. -Differences are noticed mainly when it comes to equipment due to lack of funding. There was also a big change in relation to the perception of society in relation to the importance of science. Programmes such as "Ciência Viva", trying to introduce science to young children were very important.

With regard to changes at university level, nowadays, one major change is due to the new legal arrangement. We are all learning how it is going to work from now on. I hope that university uses this opportunity to improve its quality and visibility at an international level. One of the ideas underlying university as a public foundation is that it will be easier for the research institutes, that do not formally belong to the university, to be integrated into university. Although these institutes have been created with a vast majority of university Professors, nowadays they start to have - this institute already has - a larger number of researchers. When they are all part of the university, they may give a major contribute for the improvement of university. I don´t know if this will happen! Only the future will tell us. I am very sorry, though, that this foundational regime occurs in a time of economical crisis.

SdS - Regarding the new regime of university career and the PhD as mandatory to ingress in the career... What do you think?

I18 - In my discipline, I quite agree because it was already a common practice. I am not sure if the same was happening in arts and humanities...

SdS - Do you think that the Agency for Assessment and Accreditation of Higher Education will have a major role?

I18 - I do hope that it will have a major impact. We are all aware that not all courses have the same quality. If the agency works well, it will help to eliminate what is not so good in the system.

SdS - You mention previously the existence of researchers that are at researchers 100% of their time. Indeed there is a research career but there are few researchers who have a real contract without being attached with grants or special programmes. Do you think that the research career in Portugal can be a viable option?

I18 - I think that research career should be as important as university career. If there are people who really like to teach and do it very well, they shouldn´t be penalised for not having a major scientific production. Although I believe that he/she always have to do some research. In the same manner people who enjoy research more than teaching should be able to do it without, or with less, teaching duties. In my perspective, they should be parallel careers.

SdS - Do you think that those changes had impact in the knowledge that is being produced? The fundamental questions of science are still the same or something has changed with pressures such as utility, relevance, social and economical visibility, etc.?

I18 - I think that for a long time researchers have focused on themselves and did not care if society did not understood them. Of course that all areas of science are relevant. Some of them are more obvious, because for example they area related to health and disease. However, basic sciences, which many don´t see as having an immediate application, is essential to develop other areas. Nowadays there is a bigger communication between research and society, although it is not yet as good as it should be.

SdS - And regarding knowledge in itself, do you see any difference?

I18 - I think that it is not very different. Nevertheless there is a greater awareness about the connection with society and business.

SdS - When you apply for funding do you consider those vectors or what counts the most is what the researchers want to study?

I18 - I never think about what will probably have funding or not. The idea in itself is my major concern...

SdS - Is the communication of science a major part of your work?

I18 - Communication of science...There are people with more or less vocation for that. Increasingly, we are figuring out who are the major communicators of science and those are the people who should speak to society.

SdS - Who is your main audience? Who do you write to?

I18 - I write in order to contribute to construction of knowledge, often related with diseases. I do write mainly for my peers. Belonging to a multidisciplinary team means that the overall contribution will lead to a broader knowledge.

SdS - How would you define success in research?

I18 - Good moments appear when we manage to discover something really new, specially when we were thinking that we wouldn´t find that specific result. Nowadays, when we are elaborating a project proposal we are asked us to predict a number of results and the dates when they will show up. This is somewhat incompatible with science unpredictability. I think that projects forms are way too technique. I hope that people come to realise that this is nonsense! If we already knew the answer, we would not need to do the research!. This happens at national and international levels. Indeed, all things tend to be managed in the same way.

SdS - And success regarding teaching?

I18 - Success in teaching happens where we have a student that tell us "Professor, I had so much fun doing this" or when we see them interested in asking questions. Those are the moments that make us happy.

SdS - Do you like your work?

I18 - A lot.

SdS - What is it that you really like and what can you do without?

I18 - I would do without all the bureaucracy that seems unnecessary and is not contributing for the work in itself. What I really enjoy is research and interested students. Maybe I don´t enjoy as

much admin but I also do it with joy, because I believe that we must contribute to a better university. And that is my dream.

SdS - Thank you.

Interview 19
Academic Portugal
Biology
Associate Professor
14 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 19 (I19) - It depends on who I am talking with and what is the best way to make myself clear. Can I make a joke about that?

SdS - Sure.

I19 - If I want to be very objective, what I really am is a Professor. We always have as our main reference who pays our salary. My salary is paid by the university and, more specifically, by the institute. My contract and my career are linked with being a Professor. So, I usually say that I am a Professor. What I was going to say as a joke is that when my nephew - who is 8 years old and when is playing with friends - tells that "my aunt is a scientist", I allow him to say that and I think it is not a lie. So, I see myself, also, as a researcher. Maybe not as scientist, because that word can be a little bit odd... But I am also a researcher. Clearly.

SdS - And the notion "academic"? Is something present in your usual vocabulary?

I19 - Not usually. I don´t see myself as an academic although it is not false to say that I am a member of the academy. But I, spontaneously, don´t use such term.

SdS - Do you think that you mainly work at a collective or individual level? Both in teaching and research...

I19 - I am more aware of a collective work when doing research. In teaching... In fact, in teaching also. It is always a collective work. There are classes in which I have almost full responsibility but there is always a team work. Clearly.

SdS - Regarding that team work, it is developed within your discipline or with other disciplines?

I19 - Both.

SdS - Within your institution or with other institutions?

I19 - Also both. I think it is a very positive thing about my work. It could have evolved in a different manner, but what usually happens is that the projects I am involved in are with several institutions. It tends to be a multi institutional and multi disciplinary work

SdS - Do you think that the interaction between different generations, regarding careers and age, is something that happens smoothly in research teams or it is a kind of an obstacle?

I19 - I think it is a very natural thing. In each project we usually have seniors - who may not be very active in daily tasks but who help and guide us - people in between - is the way I see myself, between long term planning and daily tasks - and juniors - who are more involved pragmatical tasks. Those three levels have to exist in order to get things going on.

SdS - Regarding three major functions of Professors, teaching, research and admin... Do you think they interact, being all essential or, if you could choose, what you would do without?

I19 - In a clear manner, I would do without admin and bureaucracies. There are some management functions related to scientific-pedagogical duties in which I understand the need for being performed by a Professor. I am referring to, for instance, programmes co-ordination, curricula formulation, disciplines contents and so on. Those tasks have an admin part but, also, scientific-pedagogical components. All that is strictly admin I would do without. Regarding teaching and research I consider both as very important. I would like to continue to work in both fields.

SdS - Usually, people tend to say that research is somewhat reflected in teaching, especially if one is talking about post-graduate teaching. And the opposite?

I19 - Do you mean: if teaching impacts on research? It also happens. I would not say that it happens in the same dimension. Research is much more dynamic. Some questions lead to others and we are always trying to transmit some of that enthusiasm and curiosity to our students. Research tends to be very specific and apart from reality. In that sense, students ask questions related to daily life introducing in research some concerns regarding daily life. This process makes research to be more applied and concerned with broader society.

SdS - Would you say that it is easy to identify who is a researcher and who is not in Portugal?

I19 - From my experience I can tell that are some Professors with a very low research activity. I don´t know if that is very easy to signal by people who aren´t in the field. Most of the Professors I know do research. Sometimes, even, in very bad conditions There is a residual number of Professors who don´t research, because they gave up, or because they found some difficulties or just because their personal profile.

SdS - What do you think about the social and scientific value of research career, in relation to university career?

I19 - Few years ago I would personally say that I rather be a full time researcher. Nowadays, I don´t think so because I learned the value of teaching. Socially, is very hard for me to tell... I do think that most of people in Portugal recognises more value in a university career. To say that you are a Professor has more impact than saying you are a researcher. To be a researcher seems something odd. In fact, younger researchers often talk about that. When they try to explain what they do, to their family and friends, they think they are not understood. On the other hand, from the perspective of scientific community, I would say that being a full time researcher is more valued than being a Professor because we clearly know that the first has more chances to do a quality scientific work, with great impact in the scientific community.

SdS - What do you think were the major changes in higher education in Portugal?

I19 - So much has changed. The fact of a research career *per se*. Ten, fifteen years ago nobody would think to do full time research. Funding - although we are always saying that is not enough - is higher than years ago. And there is also - I think we can also find that in broader society - a greater concern with performance, assessment and control on people's work. There is a greater pressure on institutions that I think - although linked with some things not so positive - has a positive impact in holding responsibilities and to stimulate people to produce more. I believe those three things have changed hugely.

SdS - You have referred some things not so positive. What are you referring to?

I19 - What is not so positive? Sometimes we do not have a clear understanding of what is claimed from us and I think that is very bad. One feels that he is being assessed not knowing exactly what are the goals, what the evaluators want from us. For instance - and I was previously talking with a colleague about that - after all, what is wanted nowadays in Portugal from a Professor? Is it teaching, research, both? And if it is both, then we must be given the conditions for that. What else is negative? Some things from daily life. I think that there is a growing control in the current information society. We are constantly filling forms with everything we do. We feel all the time that we are being pressured and controlled.

SdS - In the context of those changes how do you see the move from university to foundation?

I19 - I admit that I don´t understand its impact in daily life, so far.

SdS - Regarding the legislation of university career and the PhD as a criteria to enter career... What do you think?

I19 - I believe it to be very positive. It allows people to concentrate in their research exclusively during the PhD and then, only afterwards, ingress in the university career.

SdS - And regarding Agency for Assessment and Accreditation of Higher Education?

I19 - To be very honest, I think it is one more of those control excesses of our society. On the one hand it is natural to want everything to be perfect and, therefore, according to the same patterns. But I am concerned about that, I think this is not coherent with human nature. So much standardisation, it seems like we all have to be the same! But, apart from this confession, maybe this is important. If this is a way to warranty the quality of institutions, so be it.

SdS - Do you think that all of these changes have a direct impact in the production of knowledge? Meaning, when a person is choosing what to research, how and with whom do you think that what we have been talking about matters?

I19 - I do not believe that there has been a major change in such aspects. I believe that when a person chooses a scientific area that is due to a believe in the relevance of that same area at a higher level than all we have been approaching. It is an important area for society and for humankind. In that choice we can find a few nuances... When choosing a team, we will look for people who have a better quality and productivity. Maybe nowadays it is easier to have access to all that data. Fifteen years ago it was much harder to know who kept a good productivity record in each area.

SdS - Regarding utility, relevance and such fashionable labels, do you think they matter in scientific production?

I19 - I have a double opinion. I believe in knowledge for its own sake and that all knowledge we produce will have some utility at long medium or short course. Nevertheless, it is obvious that we should study things that have some relevance. I don´t believe that each researcher has the right to take public money and start studying anything just for the fun of it.

SdS - How do you usually get your funding?

I19 - In most cases through Foundation for Science and Technology (FCT). We had some opportunities to apply to European funding. Usually they involve very complex projects to which I never have applied as a co-ordinator. I have been invited to participate but, by chance, I have never had a project funded in that manner. So far, it has been only through FCT.

SdS - Who is the main audience of your research?

I19 - Always my peers. I have not written to broader society, although that is something important for me. Usually I write papers for journals with peer review processes.

SdS - Communication of science is, then, an important issue for you?

I19 - I think it is very good having here an office in charge for dissemination of science. I always try to collaborate with them. I know that I should do it more often. I have been involved in some initiatives and I believe their work to be crucial for several different reasons.

SdS - What do you think of teaching and research universities as a possible scenario for Portugal?

I19 - A few years ago I might think that it wouldn´t be a good idea. Nowadays, mainly due to Bologna and the split of courses in three cycles, sincerely, I do not believe that to be such a bad idea. A Professor in a broader first cycle course doesn´t have to be an active researcher. I wouldn´t be shocked with schools teaching first cycles having Professors that were not research active.

SdS - How would you define success in teaching and in research?

I19 - In science is easier to know if we are being successful or not. Because there are quantifiable issues such as funded projects, published papers, thesis supervisions and so on. Success in teaching is very hard to measure. It is very difficult to say what is a good and a bad teacher. That is a continuous anguish of mine. I would like to be a very good teacher. If I have some moments that I feel that I am accomplishing that, some others I feel that I am not being as good teacher as I would like to be. Even in terms of career progression we, theoretically, should be assessed for the pedagogical ability and that has not been applied so far.

SdS - Do you like being a Professor? What are the positive and negative aspects?

I19 - I like it very much. Regarding teaching I really enjoy classes where students participate, ask questions and good communication happens. Regarding research, I love days like yesterday when we had open a bottle of champagne and had some cake because a paper was published. The same when someone concludes a thesis, for instance. Of course there are also good moments in research when you simply look at a surprising experiment result. I believe that there is one particularly bad aspect in science which is the lack of reproducibility in experiments. The negative aspects in teaching, as I have referred, are the moments of anguish. That is what upsets me the most

SdS - Thank you.

Interview 20
Academic Portugal
Biology
Associate Professor
12 January 2010

Sofia de Sousa (SdS) - I would like to ask how do you usually present yourself? As a researcher, teacher, academic?

Interviewee 20 (I20) - It depends on the context. If I am with someone who works in science I think it is quite natural to introduce myself as a researcher of this institution. That doesn´t mean I am not going to say that I am also a university teacher. If I am talking with someone from the university it is natural to introduce myself as a university teacher.

SdS - Do you usually use the term 'academic' for presenting yourself?

I20 - No. It is not a term that I use regularly.

SdS - Regarding your daily life, would you say that the functions of teaching, research and service interact? If you could choose, you will only pick one or you enjoy the combination?

I20 - The three functions interact across the year. I wouldn´t pick just one. Not at this moment. For me, research activity is important for my training and it reflects on my teaching. At this moment the admin that I do is more related with management of research rather than admin related to teaching.

SdS - You have mentioned that research can have an impact on teaching...

I20 - It has. Because there are some modules which are taught in some curricular units, mainly at master level, that reflect the research area I am involved in.

SdS - And the opposite? Has the contact with students some impact in your research?

I20 - It depends. In some works what I teach ends up to be important for the research. But I think that happens almost by accident... Research also develops in the same manner. Often we are working in a specific research project and end up in some unpredictable "places", which is one of the most interesting things that can happens when you are doing research. You never know where you will end up. Often knowledge related to classes is important to understand that.

SdS - Regarding your research work... Do you think that you work more individually or in a broader community?

I20 - In community. Even in the teaching that I do, we are a team teaching several curricular units. I am never on my own. In what concerns research I work in a team with PhD, master students and, also, grant-holders researcher. There is a lot of interaction.

SdS - Would you say that interaction is more disciplinary or interdisciplinary?

I20 - Mainly disciplinary.

SdS - Regarding generational interactions, do you think that there is any kind of gap in the research work or do you think that there are no hierarchical issues?

I20 - Here, in our group, there are no such thing.

SdS - Do you think that it exists in other groups or place?

I20 - Sure, certainly. Nationally.

SdS - Do you think that there are a lot of differences between other countries and Portugal?

I20 - I think that, in a broader sense, Portugal is more hierarchical than other countries. But there is everything everywhere. What I also think is that those "hierarchies" regarding teachers and students - I am talking about research teams - has become weaker in Portugal. People are becoming closer to each others.

SdS - Do you think that one can speak about a community of researchers?

I20 - I think that the sense of community do exist. There are several interactions among different groups within this institute and with other groups from other universities and research centres.

SdS - Regarding research, do you think that is easy to identify in Portugal who is a researcher and who is not? Who produces knowledge and who don´t? Or would you say that all people who work in universities are producers of knowledge?

I20 - I am certain that not everybody who are at universities produce knowledge. There are people who do not research at Portuguese universities. I am sure. What people produce as researcher is easy to assess looking at the level of scientific publications.

SdS - Do you think that through publications is visible who do research and who don´t?

I20 - If people are doing research and not publishing it I really don´t know if they can be called as researchers. Publication is a kind of last step in knowledge dissemination to the scientific community, implying validation by experts on the field. Without that step I don´t know if you can call someone a researcher.

SdS - You mention a scientific community. Who would you say that belongs to it? University teachers or also researchers at full time?

I20 - A few years ago there were a few researchers, in a research career, in Portugal. More recently, I am sure that the number has increased mainly due to incentives to doctorates in order to establish their own research groups. There was a kind of an explosion in the number of researchers.

SdS - Do you think that a person, in the beginning of a career, would look for both careers - the university career and the research career - in the same manner? Do you think that both presents the same level of prestige?

I20 - I think that it has nothing to do with prestige. I think it is related with the fact of liking, or not, to teach. Personally, I quite like teaching and the complementarity between teaching and research. I believe that if the research career would have some kind of tenure system some Professors would prefer it.

SdS - Do you consider that one can be a researcher, at full time, at an excellent level without teaching? Teaching, would you say, is not an essential part to knowledge production? One can do research without having any contact with students?

I20 - Yes, it is reasonably possible, especially if we are talking about students of the 1st cycle. It is usual for a researcher to have post-graduation students, in the 2nd or 3rd cycle. Student of the 1st cycle are also involved in research, primarily during their under-graduation thesis, but they have a lower relative weight. In the case of this university there are some programs of incentive to scientific initiation for 1st cycle students, but it is a quite narrow number.

SdS - Therefore you think that a researcher in Portugal is someone who is in the university career or in the research career? Or PhD students, for instance, can also be considered as researchers?

I20 - They are certainly researchers. They are not main or responsible researchers. Even a student beginning in the field of research is a researcher.

SdS - What do you think were the major changes in the last years in research in Portugal?

I20 - Foremost, I think that without money major changes do not happen. I think that there were major investments and supports to research institutes. There was also the introduction of assessment and accreditation processes - linked to the recognition of very good and excellent institutions. Another major change was the support given to doctorate researchers because the employment of doctorates in Portugal is not very high. In Portugal there aren´t many post for doctorates in industry as it happens in other countries. If research is done in Portugal is, mainly, in the research institutes and universities.

SdS - And regarding knowledge in itself? Can you identify any kind of transformation in the production of knowledge? Meaning the patterns and the criteria according to which you classify "good" or "bad" science" remain the same or there were a change?

I20 - I think that what is "good" or "bad" science in the past is also in the present. What has changed is the level of science due to the improvement of conditions related to research in Portugal.

SdS - When you start a research project what is your main focus? How do you choose your topic and how do you develop your research plan?

I20 - I think that we are always concerned with value and impact of our work but we are also, in the other hand, conditioned by the passions that drive us for that specific knowledge area. We all have some preferences regarding a specific knowledge area. But if we can get more impact, the better, obviously. We will be more recognised and will have better funding chances.

SdS - Regarding funding, how do you get funding?

I20 - Here, I only have funding from FCT (Science and Technology Foundation). So far, I did not have the chance to participate in European projects but it is something that I would like. We need to have good networks and the ability to get in those circles. We already tried but, so far, we haven´t succeed.

SdS - When you are applying for funding, for instance, to FCT what drives you? The passion you have referred or whatever makes the funding viable?

I20 - I think that we do not have to be much worried about it. The FCT funding relies in the project originality, in the goals definition and if senior staff has a good cv. That is what counts for getting funding. The area in itself... As there are plenty of basic research areas supported by FCT, I don´t think that one needs to be concerned with that to get better chances of FCT funding.

SdS - You don´t feel the pressure...

I20 - To change the research area, the theme due to funding chances? I do not think so, because there are plenty of basic research areas and what matters, in the end, is the project and the research team value.

SdS - Who is the main audience of your research?

I20 - Regarding projects?

SdS - Regarding projects, for instance.

I20 - When I am writing a project my main concern is the scientific quality of the project. I believe that researchers, when writing a project, will be concern in convincing the referees of the project, more than anything else. The goal is to get funding. We do not know the referees. There are several referees with different backgrounds. Thus, we need to make sure that the message and the goals of the project are very clear in a way that the value can be recognised by any referee, even if from different areas.

SdS - And when you write a paper? The audience are the referees also?

I20 - I think so. It's the first thing. Again, and in a very objective way, the goal is to get published. Who is going to assess are the referees. So, it has to be scientifically accurate and coherent with the journal patterns. We have to convince our peers in order to get published.

SdS - How would you define success in your work?

I20 - Scientific dimension?

SdS - Scientific dimension.

I20 - I think that the success of scientific work is measured, mainly, by publications. Having more impact brings more value. There are different journals with different impacts. The higher is the impact of a journal, the bigger is its value, it will be read by more researchers, it will be cited more often. So, success in scientific work is defined by number of publications, the prestige of the journal and, also, the number of citations.

SdS - You mention impact. Are you referring to impact regarding the peers or the broader society?

I20 - I was talking about only the scientific community. I do basic research, not applied. Therefore I am always more concerned with basis aspects. Anyhow it is important to do dissemination regarding broader society. That aspect has been valued by research institutes, in the last few years. This institute in particular has done a lot of work in that area, which is very important. Papers are written thinking in scientific community, not in broader society. It is important, however, to do dissemination to the community in order to the public get to know what we are doing.

SdS - And success as a Professor?

I20 - I would be really happy if all the students get approved. I feel satisfied if I get a good feedback from students regarding my classes. This is important for us. The success of teaching also links with the assessment of students. If students get "good grades" associated with good education, that is also success.

SdS - We have talked previously about the main changes in higher education in Portugal. What do you think about the Agency for Assessment and Accreditation of Higher Education and the move from universities to foundations?

I20 - I believe that the process of accreditation is essential. Regarding foundations I do not have yet a clear opinion. We still are in the beginning.

SdS - And regarding the revision of the university career? More specifically, the PhD as a requirement to ingress in the career?

I20 - It is difficult to answer because if, on one hand, a university Professor should do research and teach, being that research activity very important, on the other hand, you can loose the opportunity to integrate younger people in an early stage of their career. In a broader sense, I think that the option of contract only doctorates is positive. But there are many areas in which there are few doctorates. Thus, demanding PhD will be a major obstacle for recruitment and for the development of those same areas.

SdS - What do you think about the idea of teaching and research universities?

I20 - I believe I don´t know any university where research doesn´t exist. I don´t see as a good model to have first league - research universities - and second league schools - teaching universities. I think one should encourage the development of research, abreast with teaching.

SdS - As a basic researcher you don´t feel any kind of pressure regarding utility, relevance and/or impact?

I20 - No, I don´t. I think that researchers, the scientific community have a clear perception that basic research is the one which sets the routs for development. Perhaps it is more difficult for the broader society to understand that. But I don´t feel the pressure as our evaluators are our peers who understand the central role of basic research.

SdS - One last question, do you like your work?

I20 - Yes, I like it very much.

SdS - And what are the main challenges?

I20 - Regarding research, to survive the frustration moments that are largely overcome anytime we accomplish our goals. I think that is the main problem of researchers. Sometimes we say that "99% of what we do is waste and 1% is good". Maybe they are exaggerated numbers but, sometimes, we feel that we have to have much resistance in order to go on.

SdS - And what about teaching?

I20 - The major challenge is to maintain the level of demands of knowledge regarding students. I feel that in universities the level is getting lower, similarly to secondary schools,. I think it is a challenge for universities to maintain patterns of excellence. It is also a challenge to be able to do research and teaching at the same time. It is quite demanding doing both well. They both require great dedication due to the high number of students.

SdS - Thank you.

Interview 21
Academic Portugal
Management
Assistant Professor
4 February 2010

Sofia de Sousa (SdS) - How do you usually introduce yourself? As a Professor, researcher?

Interviewee 21 (I21) - Never as a researcher. In different contexts I introduce myself in different manners. I believe that academic activity is multidimensional. It is broadly acknowledged that university task, specially in underdeveloped countries, is trifold in research, teaching and service... I have some activities in all those three dimensions. Regarding teaching, I never introduce myself as a researcher, and the same happens when I am doing outside service. There are contexts in which introducing myself as a researcher can be a clearly disadvantage. Is only when I attend conferences that I introduce myself as a researcher.

SdS - Do you usually use the term "academic"?

I21 - Personally, I don´t know. I do believe that in Portugal the term "academic" is often used.

SdS - Do you think that we can speak of an academic community in Portugal?

I21 - I think that we have a fewer sense of community than, for instance, in England. Clearly! I think that our identity is more broader. We are still in a context in which we can find very diverse academics having different perspectives regarding university and research. We have some academics that are not concern with research. We act very rarely in a collective way, even when it comes to support our legal rights as workers.

SdS - Do you work more individually or collectively? Both in teaching and in research?

I21 - I do not work individually. Of course that I teach individually but I feel that there is a collective work behind that. Regarding research, after my PhD I have been working with other people.

SdS - Regarding that collective work, would you say that you work more within your discipline or with other disciplines?

I21 - I have always worked in boarder with other disciplines. Nowadays I have more projects of PhD students than of my own. I have not been very active in research. I am not as aggressive nor obsessive as some of my colleagues or as I have witnessed happening in England. I look forward to do research that I enjoy in enjoyable manners. Fortunately, I have some very interesting PhD students.

SdS - When you mention PhD projects of your students, do you consider them part of your own research or more related with teaching?

I21 - Clearly as research. It is an experience exchange with some great discussions and brainstorming. It goes beyond the traditional thesis supervision.

SdS - Do you think that interactions between generations, both in age and in career, matters?

I21 - I believe it depends on people.

SdS - But do you think that we have a strong sense of hierarchy in Portugal?

I21 - The university career has explicitly been, and it sill is in my perspective, very hierarchical focusing in the Full Professor power. Although we deconstruct that power in daily interactions through parity relations, I do feel it still remains. I believe that younger generations starts to have an attitude more based in merit and less in titles.

SdS - You mention teaching, research and service/admin as three major roles of higher education...

I21 - I would not necessarily include admin in service.

SdS - Would it be a fourth role?

I21 - That is a great question. I think that it might be a fourth role that ends up being merge with the others. It is an additional roles that should count more.

SdS - Do you think that research, teaching and service have the same value? In your perspective they all matter? If you could choose one what would you choose?

I21 - Personally, I enjoy the three. It makes sense that way. I do not feel major links between first and master degrees with research, but I can see those links at doctoral level. I do not want to be in a situation where I am totally focus in research and classes are kind of secondary issues. Broadly speaking, what is valued more is research. Even more than research what is valued is the production of papers.

SdS - Do you think that those papers define research in Portugal?

I21 - Increasingly. Many of us are not very useful to community. When we hear about rankings, certain databases, specific impact factors as those that should count for research assessment... All of this "gives me the chills". All of this are linked with specific areas and economical, social and geographic contexts. I do feel that those discourses are entering in Portugal.

SdS - Do you think that utility and application issues matters?

I21 - I do believe so. In my area does not make sense in any other way. I think that there is plenty of useless research and it shouldn´t be as such.

SdS - And who decides what is useful and what is not?

I21 - Great question... There are areas, and ours is one of them, in which the utility criteria are quite simple to infer. If some model or paper is disseminated, not in a hidden academic journal, having impact in daily life in companies, I think we can say that to be useful. I think that impact can be seen in usability in companies, discussions in public forums and in communities. Impact is an issue related with numbers.

SdS - You mention some transformations in higher education in Portugal. Is there anything more you would refer that impact academic life?

I21 - I would stress discourses regarding the superiority of research in assessment. Nowadays, we tend to make this activity much more unidimensional. The same has happened in England. More transformations... Bologna would be an obvious answer, but quite honestly I am very sceptical regarding the impact of Bologna in this school. To be honest, I must say that Bologna is a way to reduce higher education funding. I think that another change is related with the fact that nowadays we have much more doctorates. Being a PhD is a gateway for the career when before it was the goal of the career...

At the end, I think that nowadays regarding funding provided by state to universities the gain is lower. I don´t want to be bitter but I acknowledge very few research which is relevant and strongly linked with community. The pure academic is an image that is prevailing in our society, although we can find some resistance to it. When I look around me I do not see everyone concern just with research.

When you asked me about the sense of a community... If we keep this path, the tendency will be to create a sense of community linked with research. Academics are researchers. I just hope never to see happen here - in some cases I already did - such an attitude of looking at teaching as a secondary thing. I think that to be a huge mistake.

SdS - What do you think about the PhD as mandatory to ingress in the university career?

I21 - It is another dimension that stresses the link between research/academics and university career. It is another technique to implement the discourse that the university career is mainly about research. What distinguishes and identifies such career is research.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher Education and the move from universities to foundations?

I21 - I do not have an opinion yet.

SdS - Do you think that those transformations have impact in the type of knowledge that is produced?

I21 - Occasionally.

SdS - For you... Do you consider change the theme of your research and your principles of research due to the pressure of research valuation?

I21 - I might. I already found myself wondering if I move from qualitative to quantitative research would be better for my progression. I just don´t do it because I am not obsessed with career progression.

SdS - Have you ever ask for funding for your research?

I21 - No, I never did.

SdS - Who is your main audience?

I21 - My peers. Not community, I might communicate with community but in a not straightforward way.

SdS - How would you define success?

I21 - That is a terrible question... Success is not something that I could parcel out. I see success as a totality and answering your question is quite hard. I think that success is about feeling good and making a difference in community.

SdS - Do you like your work?

I21 - I do.

SdS - Thank you.

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 22 (I22) - At conferences, for instance, I usually present myself by my name. When I attend national conferences I also mention that I am from this faculty and, in the case of international conferences, from this university

SdS - And with students?

I22 - I introduce myself by my name.

SdS - Do you usually use the term "academic"?

I22 - No, usually I don´t.

SdS - Do you work mainly individually or collectively, both in teaching and in research?

I22 - Regarding teaching my work has been, so far, more individual. In regard with research, more recently, I have been working more collectively. Moreover, from all the work I have nowadays only one thing is more individual. What is quite nice because doing research individually can be very hard, there are a lot of tasks for being done just for one person. Besides, we can only gain from having other perspectives.

SdS - Do you usually work with other institutions, besides your own?

I22 - Yes, I usually do.

SdS - And more within your discipline or with others?

I22 - So far, it has been within my discipline. Nevertheless, I am trying to expand my work to other areas, applying the techniques I use to other problems.

SdS - Regarding relations between different generations - both in career and in age - do you think that there is a kind of generational gap or not?

I22 - Both in teaching and research, I believe that Portugal tends to a greater detachment than what we can find in other countries like England or United States. Although there are people who are genuinely concern and helping junior researchers, establishing a more informal relationship where there are no places for titles, they are not the majority. However, this is changing mainly due to the entrance of younger people in academy bringing with them another ideas about hierarchies. But, there is still the habit of using titles.

SdS - Do you think that there are researchers community in Portugal?

I22 - It depends on the areas. For instance, in other areas I see a lot more sense of community than in this faculty...

SdS - Do you think that teaching, research and service/admin interact? If you could choose you would pick only one?

I22 - If I could choose I would only do research, because is what I enjoy the most. Although I really do like teaching, I don´t like preparing classes and correcting tests. As far as admin and bureaucracy goes, I think that most of those tasks shouldn´t be made by Professors. We waste a lot of time on them, when what we should be doing is research and teaching. In Portugal there is the idea of Professors as having to be excellent in admin, teaching and in research, but it is very

hard to do all simultaneously. Specially, if we have 8 to 9 hours of classes per week. We are being paid to teach, but assessed by the research we do. Moreover, they still want us to do admin...

SdS - In Portugal there is a research career, although residual. Do you think that it have some kind of prestige and attractiveness?

I22 - I do think that it isn´t developed enough. To be developed it has to have some stability and security, otherwise it is very complicated.

SdS - If it wasn´t precarious, do you think that a research career would somewhat compete with university career?

I22 - I do think so. Some Professors would choose research career instead.

SdS - What do you think about the possible scenario of research and teaching universities in Portugal?

I22 - I am not sure if we have enough market for such scenario. On the other hand, I am afraid that - as it happens with the protocol with MIT, in which the Ministry has decided that it would only apply with Lisbon universities - one could concentrate all research universities in Lisbon. And that would be totally unfair towards University of Porto.

SdS - What do you think were the major changes in higher education with impact in research and teaching?

I22 - I believe that the major change was the growing emphases on research regarding, specially, career progression. This idea is quite recent and, before, the major concern of Professors was completing their PhD. This was due to, on the one hand, an internal pressure and, on the other hand, to external influences. The centrality of research is now a constant presence in our lives. I would say that sometimes it is way too much in the sense that some people even neglect teaching.

SdS - What do you think about the PhD as mandatory to ingress in a university career?

I22 - I only think that it might be too early. But, being that way, I think that there must be someone undergraduate like PhD students to help us with classes.

SdS - What do you think about the move from university to foundation?

I22 - For now, I do think that people are not concern with that. When I do think about that I have some concern with my career stability, it is not as I am afraid of being fired but...

SdS - And regarding the Agency for Assessment and Accreditation of Higher Education?

I22 - Quite honestly, I am not sure about its possible impact. I hope that it contributes to a major quality in programmes and courses.

SdS - Do you think that it is easy to identify who is a researcher and who is not? Or all Professors are doing research?

I22 - I believe that young people are all doing research because they have been socialised in that way. The same cannot be said regarding seniors because, in their time, a Professor wasn´t supposed to be a researcher. I totally understand their struggle to adapt with the current emphasis and valuation of research in the university career.
How can we identify those who research and those who don´t? I guess we can do it through information systems of each department looking at cv and publications.

SdS - Do you think that knowledge that is produced nowadays is the same as before? Is it produced according to the same criteria? What was "good science" before, still is? Issues such as utility, relevance, impact are important in production of knowledge?

I22 - I think that practical relevance... There is basic and applied research. I believe that most research is basic and people don´t really care if it is going to be used or not. I think that - I might be a little cynic saying that - the major concern is, nowadays, to publish regardless of utility. Albeit, we never know what can be useful...

SdS - And in your own work, do you feel the pressure to be useful?

I22 - Quite honestly, so far I didn´t feel that kind of pressure. My goal has been to publish, regardless of the potential utility. However, I do feel that I would like to be useful and somewhat contribute for society. But, indeed, the pressure in the progression and maintenance of the career is so strong that the major concern is research with publication, not application.

SdS - How do you usually get funding?

I22 - Few time ago, this faculty would fund us for attending conferences. More recently, they start to not give any funding except in some particular cases. Regarding FCT the issue is that they approve only a small amount of projects and there are more and more persons applying. That makes very hard to get funding from FCT.

SdS - And, for instance, when you are fulfilling forms to apply for funding your major concern is what you really would like to study or what FCT values?

I22 - So far our priority has been what we would like to research. Only after that we try to compose a marketing cover in order to increase our chances for getting funding.

SdS - Who decides the theme and methods of your research?

I22 - I, and my team, do.

SdS - Who is your main audience? Who do you write for?

I22 - Mainly peers.

SdS - How would you define success in research and teaching?

I22 - Regarding research I feel satisfied each time a paper is accepted. In regard with teaching I feel very glad when I see students interested in classes and when they have good grades.

SdS - Do you think communication of science to be important?

I22 - It always matters to show what we are doing. It can be very useful to other people.

SdS - Do you like your work?

I22 - I really do, except for the admin part since it takes me time for the rest.

SdS - Thank you.

Interview 23
Academic Portugal
Management
Associate Professor
5 February 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 23 (I23) - Usually by my name and, also, as a Professor of this faculty.

SdS - Do you use the term "academic"?

I23 - I have been named as such. I believe that "academic" is more an adjective than a substantive. I am quite academic but I do nor recognise myself as an academic. I am not sure... Member of the academy... I might be. But always member of an international academy, not national.

SdS - Do you think that there are a research community in Portugal?

I23 - No. There are disciplinary communities. People with whom I relate are from my discipline.

SdS - I am guessing that you work in a team.

I23 - We must work in a team. Nobody can work by himself.

SdS - Both in research and in teaching?

I23 - In research the only way to work is in an international team. On the one hand, we are pressured to contribute to the advance of world wide knowledge and, on the other hand, we are forced by companies and business to get out of the "ivory tower". We do not live in an ivory tower, we do live, however, in the academic world, meaning that we live in a world related to business with international dimensions, not national. I think, however, that some universities should deal with that national dimension.

(pause)

SdS - What do you think about research concentration in only some universities?

I23 - I think that research at an international level should be made in some universities and in specific areas. Clearly, other universities should focus in local realities.

SdS - Do you believe that Portuguese context is strongly hierarchical?

I23 - Only legally.

SdS - How does teaching, research and service/admin interact in your daily life?

I23 - I think that admin is a nuisance and makes me waist a lot of time. I will gladly do without it. There is a major part of the work I do that could be done by non academic staff. Not all people have the same skills regarding teaching, for instance, and we should take what is the best of each person.

SdS - What do you think were the major changes of higher education?

I23 - Academic qualification, pressure to publish in international journals and the requirement to attend conferences. Also students mobility, which has the advantage to open students minds. About funding... There are some concerns regarding efficiency from government that I think to be accurate. I do think that is quite doable to spend less money with university if it starts to be less bureaucratic and more agile.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher Education?

I23 - I am not familiar with that.

SdS - And regarding the move from universities to foundations?

I23 - I think it is a kind of obsolete neoliberalism. What comes with that was a legal regulations that is the same, no matter it is an university or a foundation.

(pause)

SdS - Do you think that the changes you have mention has some impact in knowledge production?

I23 - Not in this department.

SdS - Regarding funding...

I23 - Funding focus much more on basic science than in applied science. Absolutely! If applied science - to identify and solve business issues - does not have a broad relevance and it is not visible in the proposal and in researchers cv that it will result in papers published in international journals it will clearly not be funded.

SdS - Who is your main audience?

I23 - Academics and peers.

SdS - Do you think that knowledge production should be relevant or do you believe in the value of knowledge for its own sake?

I23 - Knowledge is always useful for someone. The major issue and what drives science is to try to understand things. There is a broader advantage for society in the operationalisation of knowledge. But I do believe they are two very different processes.

SdS - How would you define success in research and in teaching?

I23 - I am not very greedy. I always fulfil myself doing things I believe in, even when I am not valued for that. I am driven by challenges and even by provocations...

(pause)

SdS - Do you like your work?

I23 - Broadly speaking, I do. I do not like to make and correct exams.

SdS - Thank you.

Interview 24
Academic Portugal
Management
Associate Professor
22 January 2010

Sofia de Sousa (SdS) - How do you usually introduce yourself in a work context?

Interviewee 24 (I24) - I always say that I am a Professor of this faculty.

SdS - Do you use the term "academic"?

I24 - I don´t.

SdS - Do you think that you work more individually or collectively?

I24 - Both, although I enjoy more individual work.

SdS - Regarding the collective work, would you say that your work more within your discipline or with other disciplines?

I24 - Mainly within my discipline.

SdS - And within your institution or with other institutions?

I24 - Due to my pathway so far - I work here for a long time but I had been sometimes away in professional activities - I have not focus, as I would like to, in projects with other institutions. I have not been involved with other institutions.

SdS - Do you think that interaction between generations - both in career and in age - happens in a good and positive way or...

I24 - Of course it has! I believe to be highly recommendable in order to avoid generational issues and because there are specific contributions of every Professor generations.

SdS - Do you think that there is any sense of community regarding research in Portugal?

I24 - In my discipline we are now starting to constitute such sense.

SdS - What do you think about the interaction between teaching, research and service/admin?

I24 - I think that we all have different profiles and different stages in our career. I believe that what matters is the complementarity between all the Professors. As far as I am concern, I have not been doing as much research as I would like but I am quite focus on my teaching and I will never let it down.

SdS - Do you think it is easy to identify who is a researcher and who is not in Portugal or do you think that all Professors are researches and producers of knowledge?

I24 - No, I don´t. I believe that we have, and we should continue to have, Professors who are more focus in research and others in teaching. And I think that is quite positive. Everybody has to do a minimum in both tasks because nowadays that is demanded - in fact, it always has been - and measured with more rigour counting for career progression.

SdS - What do you think of the research career comparing to the university career?

I24 - I think that it is not so visible and interestingly enough even those who focus more on research like to be called "Professors", not "researchers".

SdS - What do you think were the major changes in higher education?

I24 - There was an increase in the number of Professors. More PhDs means more research and schools are now centres of teaching and research. I think that things have changed a lot in a positive sense.

SdS - Do you think that those changes had impact in research?

I24 - I think that we are still in a stage of just doing more research, basic or applied.

SdS - What do you think about the PhD as mandatory to ingress in the university career?

I24 - Quite natural, the opposite would be hard to understand.

SdS - What do you think about the move from universities to foundations?

I24 - We will se in the future. I have some doubts.

SdS - And regarding the Agency for Assessment and Accreditation of Higher Education?

I24 - It will, certainly, bring good results. The idea is quite positive.
Regarding assessment, I think that what could be important is to assess, more than the number of papers in indexed journals, the impact of research, if it has created some change.

SdS - How do usually get funding for your research?

I24 - I only applied once for my PhD.

SdS - Who is your main audience?

I24 - My students.

SdS - How would you define success in your work?

I24 - When the feedback is positive.

SdS - Do you like your work?

I24 - A lot. What I enjoy the most is the classroom but the entire academic activity if particularly relevant for me.

SdS - Thank you.

Interview 25
Academic Portugal
Sociology
Assistant Professor
15 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 25 (I25) - It really depends on the context. In classes I introduce myself as a Professor emphasising the interaction between teaching and research. In a research context I try to focus more in my identity as a researcher. Although one of the characteristics of Portuguese higher education is the junction between teaching and research. It was only very recently that we start to have a research career.

SdS - And even that is a bit residual.

I25 - It is, in quantity at least. It still is residual. However is growing. Teaching is not growing but researchers are. I am still from a generation - and I see myself being relatively young - in which research was perspective linked with research. Those two dimensions end up for being very attached and present in higher education.

SdS - Do you use the term "academic"?

I25 - I do. In an international context using English as main language. I use it at lot, even. In Portugal the term academic have a specific meaning, a symbolic dimension that can limit its use. That meaning is much more broader than its dictionary definition.

SdS - Do you think that you work more individually or in community, as far as teaching and research is concern?

I25 - I believe that our work has those two sides. Until I have finished my PhD I use to complaint a lot of the loneliness of research work. The PhD work can be painful due to that same loneliness. After that I felt a major difference in research because it starts being developed within a team work, through projects and other things. Of course that individual work doesn´t cease to exist after PhD but it gains another sense, it starts making sense as a all. About teaching... Teaching in itself - because it happens in a classroom where the teacher is alone with students - is mainly a individual work. But that has to do with organisational cultures of each department. In our department we emphasise the collective dimension of teaching, meaning having meetings to talk about programmes, teaching and assessment methodologies. So, in the end, teaching is not something that can be said to be very solitaire. My major stage of individual work was indeed my PhD.

SdS - Do you think that you work mainly in your discipline or with other disciplines?

I25 - I often interact with other disciplines. However, I assume that usually research tends to be mainly disciplinary.

SdS - What do you think about the interaction of different generations - both in terms of age and career - in Portugal?

I25 - Having a relevant international background I do have an opinion of my own regarding the Portuguese context. I believe that context to have strengths and weaknesses. Whereas generational issue is most visible is in research funding. Personally, I am in major research projects with international funding and I really struggle to have funding in Portugal. I believe that research funding in Portugal is excessively dependent on researchers seniority. That was acknowledged some time ago at European level. Indeed some European funding differentiate between junior and senior researchers. Otherwise junior researchers will never have the chance to get funding. In Portugal it is not yet the case. The value given to seniority not seem very proportional to a political agenda of investment in science.

Regarding team work I don´t think that seniority represents a major influence. On the opposite, sometimes junior researchers seem to play a more pivotal roles, due to their dynamism, than senior researchers. However it depends, in the end, of the persons you work with.

SdS - Do you think that teaching, research and service/admin interact?

I25 - They are all crucial, absolutely. Nowadays, it seems that the time spending with admin is exaggerated. That has to do with recent changes in higher education, namely with Bologna process. I resent that because it takes some of the time I could be spending in research. This even is more critical in a time where we have much more hours of teaching and classes than we are supposed to. Research is what have been sacrificed the most.

SdS - But, paradoxically, research is what we valued the most, isn´t it?

I25 - It is one of the most important things related with career progression and cv. I have no added value for things I do in teaching. It is a very difficult situation to manage. We manage that, sometimes, taken time away from our personal life.

SdS - What would you say were the major changes with impact in research and in knowledge production?

I25 - The great move was, indeed, the integration in the Bologna process. Particularly, the 3rd cycle, the doctoral courses have introduced the need for a more strong connection between teaching and research. In my perspective this is quite positive and is having also some impact in 1st and 2nd cycles.

SdS - What do you thing about the Agency for Assessment and Accreditation of Higher Education?

I25 - I am currently involved in that process as I am director of a undergraduate course. I believe that is a load of work which hardly can be concretised in a rigourous way by the agency. We are talking about thousands of undergraduate courses all over the countries, and we have to consider, also, master and doctoral courses. So, I have a sceptical view regarding the real value of this accreditation process. I believe it to be important, though! It is very important to develop a culture of accreditation and quality regarding academic products, which induces the development of more rigourous processes within higher education institutions.

SdS - And regarding the PhD as a criteria to ingress in the career?

I25 - This is only new here in Portugal. Indeed, if we consider the PhD as an assessment of theoretical and methodological skills, it doesn´t make any sense to ingress in a university career without it. It is not by accident that we say "higher education". The adjective "higher" is related to a high qualification of teaching staff in universities. The last statistics tell us that we have about 70% of doctorates in university staff, which is within the European average.

SdS - The move to universities from foundations... What do you think?

I25 - It is still very early to have an opinion. The great impact has come from the new Legal Regime of Higher Education Institutions (RJIES) which is something that relates with all Portuguese universities.

SdS - Regarding all these changes do you think that something has changed in knowledge production?

I25 - Honestly, I don´t see any major change. There has been the strengthen of processes. I believe that the parameters of hard sciences have been overvalued and applied, abusively, to social and human sciences. But, and in opposition with what is often sustained, I think that the "guilt" does not lay in hard sciences but is more related with the lack of credibility for the quality and relevance of our own work. Dominant criteria are those form hard science. For instance, the

devaluation of books. However most of changes has been occurring at the level of teaching, much more than on research.

SdS - Do you think that it is easy to identify who is a researcher and who is not?

I25 - I don´t think so.

SdS - And why?

I25 - I think that the border between teaching and research is still very blur. I believe that often - and I have a critical view regarding this - researchers are being exploited. Researchers are been forced to teach, to be assistants of some Professors. This contributes to the mess between those two areas. Nowadays, I do feel that there is some recognition of research as a career in the academic community, not in broader society.

SdS - If one could choose between a university career and a research career...

I25 - Will choose a university career, due to its stability. Most of our researchers are in very precarious conditions. People in their 40s are still paid through grants. It is not very coherent with the effort of research enhancement. This is very negative both to teaching and research. If one ingress in a university career just due to his/her interest in research will never be a good teacher.

SdS - Do you see teaching and research universities as a possible scenario in Portugal?

I25 - I think that there are several forces interacting, making such model more or less doable. Quite honestly, I don´t see that model as very doable in Portuguese context, at least not in a short term. That scenario has implications in diversification of funding and has to do with the centrality of the country - and Portugal is not a central country - and with the ability to attract foreign students - which is not our case. For researchers is a luxury to be in a set like that but we cannot perspective universities as an elite space. Those systems tend to be producers of inequalities.

SdS - How do you usually get funding for your research projects? What do you think is more valued in funding?

I25 - Although I have been invited to be part of project teams with FCT funding I decline due to the fact that, as I have referred, they have been constantly declining my projects. Interestingly enough the projects I am in have European funding.

SdS - Issues such as utility, relevance, impact... Do you feel any kind of pressure in that sense?

I25 - I have a mixed feeling. We are accountable for scientific knowledge progression but, also, for a responsible use of public money. I tend to choose research topics which are somewhat relevant to society and to emphasise their potential utility. Public money should not be used to fund my intellectual delight. On the other hand, knowledge for its own sake is also very important. We cannot measure utility by the immediate impact. There are some impacts which are much more latent but equally relevant.

SdS - In the end, who decides what you should research?

I25 - I do.

SdS - Who is your main audience?

I25 - I will be very honest. Due to my career stage, I tend do value academic publications, papers, book chapters and books always aiming at my peers.

SdS - Do you think communication of science to be important?

I25 - Yes, a lot. Science only makes sense contextualised in society.

SdS - How would you define success in your work? When can you say that you feel satisfied with research and teaching?

I25 - Regarding research, success is mainly linked with peers and scientific community recognition. The capacity for feeling satisfied with your own work is something that comes with time. To the extent as we start to gain scientific maturity regarding theory and methods we start to feel more satisfied. I try to keep a critical and vigilant attitude towards my research. Regarding teaching, it is more tricky because satisfaction cannot be measured with questionnaires...

SdS - Do you like your work?

I25 - I like it very much. I see myself as very privileged in such domain. It is not a career with a major economic feedback but I feel very happy because I never feel upset for having to go to work every morning.

SdS - Thank you.

Interview 26
Academic Portugal
Sociology
Assistant Professor
21 January 2010

Sofia de Sousa (SdS) - How do you usually introduce yourself?

Interviewee 26 (I26) - Always by my title. Usually I don´t use titles because is more cordial and, even, more European. It seems to exist a direct link between the overuse of titles with the degree of country underdevelopment. I introduce myself, also, as being a Professor and a researcher. Outside of academia, also, as sociologist.

SdS - Do you use the term "academic"?

I26 - Not to identify myself, but regarding projects.

SdS - Would you say that you work more individually or collectively, both in teaching and in research?

I26 - To be quite honest, I have three different situations. As a Professor, it is clearly an individual work because even when we share a class somebody is in charge. Regarding research, there are two different situations depending on research itself, which can be more individual (such as master or PhD thesis) or collective.

SdS - Regarding those moments of collective work, would you say that you work more within your discipline or with other disciplines?

I26 - I believe that the effort of inter and transdisciplinarity is quite important and we indeed do it. But, for that, is also important to reinforce disciplinarity. I admit that there is a very strong and priority focus on the discipline.

SdS - And do you work more within your institutions or with other institutions?

I26 - Contemporary canons compel us to be open to the exterior as far as possible and, sometimes, that means being open to abroad. I believe that what really matters is to understand that there are different axis of research work that are operationalised in different manners.

SdS - Do you think those canons interfere in your work as a researcher? Even when you consider that is not benefit to work with other institutions you do it anyway to act according that patterns?

I26 - To do research I obviously have to follow the canons. I assume that some partnerships just exists in order to act according canons. I also admit that is easier to establish partnerships in technologies, engineering or in medicine than in social sciences. Social sciences are much more recent and do not have as much international networks as other sciences do. There is a clear and assumed option by FCT for a specific scientific domain - hard and experimental sciences - in detriment of everything else. Personally, I tend to incorporate those contemporary determinism when applying for funding and to find strategies, often more stratagems, in order to create international links and networks.

SdS - You mention FCT... Do you think that forms and calls are more coherent to natural sciences criteria than to social sciences? Do you believe that natural sciences are more at ease with such forms?

I26 - I do. Besides natural sciences having more funding - we can see that on data - I also think that forms devalue social sciences, ignoring its specific. The discourse of openness to business makes social sciences to have to incorporate such logic. I think that there is an objective inequality that is also translated in funding.

This has also implications in assessment. We are being assessed by criteria that are related with natural and physic sciences, such as devaluation of books and thesis supervision in relation to a paper with 25 pages.

SdS - Regarding generations - both in career and age - do you think that there are a "healthy" interaction or we can identify some kind of gap and and strong hierarchy?

I26 - In university, hierarchies are very clear. I admit that, due to the interdisciplinary effort, some of that same hierarchy has been diluted, but it is still there, obviously. Universities are a domain of power that is translated in a strong and rigid hierarchy. University world has an amazing power linked with knowledge, which allows more hidden mechanism of domination.

SdS - Do you think that teaching, research and service/admin interact or not? If you could choose what will you do?

I26 - I have done all those three tasks. I really believe that they all crucial and must be fulfil by Professors, which I think is highly advantageous. It is crucial that teaching and research coexists, in order to each of them to grow with the contributes of the other. Bureaucratic functions are central elements in a modern and manageable university. The issue is that when we are doing management that does not count for assessment and career progression. There is a kind of hierarchy of those three functions. First comes research, in second place is teaching and in the last position is management.

SdS - What do you think about teaching and research universities in Portugal? Do you see it as a desirable and possible scenario?

I26 - It is possible. It is being implemented.

SdS - Do you feel that?

I26 - I do. When we are thinking about doctoral schools, teaching stratification and an overvaluation of research... The inspiration of research universities is there. I do believe to be quite negative, though.

SdS - Do you think that the research career in Portugal can be perspective as an alternative to the university career?

I26 - I believe that a researcher in Portugal, nowadays, is a researcher because it has no chance of entering in a university career. Researcher is a kind of person with a brilliant mind that cannot enter in university careers because it is closed and found in research the only way to fulfil them self. Being ironic one can say that the Professor is the person who knows and the researcher is the grant-holder researcher who, moreover, deals with the bureaucracy and practical aspects of research. Unfortunately, that is the reality. However I believe that we are going to reinforce the roles of researchers in research centres.

SdS - We have already approached some changes in higher education. Which others would you refer?

I26 - I think I have already mention the most important.

SdS - What do you think about the PhD as mandatory to ingress in the university career?

I26 - It is not something that puzzles me. It changes the assumption that younger students could ingress in the career. Nowadays the PhD has changed being shorter and I admit that is better for university to recruit in a higher level. Although it might be another indicator of the overvaluation of research.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher Education?

I26 - I do not have an opinion yet. I think that there are some virtues in foundations although not as much as some people sustain.

SdS - Do you think that the criteria according to which you say that something is "good science" or "bad science" are the same?

I26 - At the level of theoretical and epistemological levels I think that those criteria are somewhat stable. Where changes really matters is on the science technologisation, in the inherent technocracy and some reductionism towards economical and managerial logic that interfere in knowledge production.

SdS - How would you define success in teaching and in research?

I26 - Regarding research, success is when I publish a paper or a book. In regard with teaching. I am quite more subtle and symbolic, valuing the adhesion of students to formative assessment, not exams, their commitment and invitations for thesis supervisions.

SdS - Do you think that communication of science is important?

I26 - Fundamental. Particularly in social sciences. I think we have to be involved in dissemination in order to enhance visibility and utility of social sciences.

SdS - Do you like your work?

I26 - I really like it.

SdS - Thank you.

Interview 27
Academic Portugal
Sociology
Associate Professor
13 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 27 (I27) - It depends on the context. However, there are two dimensions that I usually emphasise. I introduce myself as a Professor or as a university teacher from this department and faculty and, also, as sociologist. Because, in real terms, I have this double profession. On the one hand, I am a Professor and, on the other hand, I am a sociologist while being a researcher. In the field of sociology and regarding the reinforcement of our professional activity, we always feel the need to see ourselves as sociologists.

SdS - And the term "academic"? Is something that you can relate with?

I27 - Yes. I use that term to characterise papers and education. I haven´t a negative perspective in regard of the "academic" since I consider that there are several kinds of academics.

SdS - Do you see yourself as an academic?

I27 - As someone who is linked to research in a university - even if more related with other institutions - I see myself as an academic. I do not have - although I am aware that some of my colleagues wouldn´t necessarily share my perspective - the idea of the academic as someone that isn´t updated and who is strongly connected with a lot of reflexivity and few practical intervention. My intervention is in my teaching.

SdS - Would you say that your work is more individual or with others?

I27 - More individual, regarding teaching. We are a small department. We share classes very rarely. Therefore, classes end up being managed for only one person. In regard to research I work in a team. Nowadays there are no such things as individual research work, except PhD and master thesis. This kind of duplicity has much more to do with the departments organisation rather than to individual choices. It is not something I appreciate but they are circumstances in which we found ourselves. But, again, it is not an individual option...

SdS - Regarding research, would you say that you work mainly in your discipline or...

I27 - No, I work transversally. Although the emphasis is often given to themes such as work, organisations and professions.

SdS - Do you usually work with other institutions?

I27 - I do. From time to time, we do have joint projects.

SdS - Do you think that there is a positive interaction between different generations, in terms of career and age?

I27 - There is a career hierarchy that reflects in daily life. But it depends in the context of each department.

SdS - I was asking regarding your own experience...

I27 - In this department there is a certain democracy and partial annulment of such categories. But, nevertheless, they don´t cease to exist because of that and in some moments they are used. I don´t recognise the "Professor" cult as having an absolute power in my work context. I know that it exists in other situations.

SdS - Do you think that one can speak about a sense of community in Portugal?

I27 - Yes, having as focus the discipline, much more than the institution. For instance, we are in a faculty with eight major scientific areas. There are some collaborative work, but it should be much more. As there are some areas where is very difficult to interact it is easier and more usual to do projects with other schools from the same discipline rather than in our own institutions with different disciplines. Discipline works as a matrix.

SdS - Regarding teaching, research and service/admin... Do you think those three functions are beneficial for professional identity or they are, somehow, in the the way?

I27 - I do believe that they are beneficial, broader speaking. The organisational structure of Portuguese universities demands that Professors act as managers. Nowadays the law has been changed and the rector, but only the rector, can be someone who is not a Professor. If, by one hand, this is what is called an entryism practice, meaning activity control by the profession itself, on the other hand it implies availability from the Professors to perform those kind of tasks.

SdS - Do you think that it is easy to identify who is a researcher and who is not in Portugal? Do you think that all Professors are researchers?

I27 - Nowadays, I do think that all have to be, and indeed are, researchers.

SdS - Regarding teaching and research universities... Do you think that it could be a possible scenario in Portugal?

I27 - All research universities are, also, teaching universities. The difference is that their teaching is mainly post-graduated, more linked with masters and PhDs. There are those kind of universities and then there are what we can call the "mass universities" or teaching universities. That distinction has been, in my perspective, recognised not officially but through some measures within universities and by the government. I am not sure if that will be a very good system regarding career dignity. It will be, for sure, a more productive system regarding science productivity criteria, which have been changing. Not so much in social sciences and humanities, even because production and publication logic are very different from other areas. This is true also to other countries in which some of my colleagues complain that they don´t know how to work with some quantifiable measurements based in specific knowledge paradigms, meaning scientific areas much more pragmatical and much more related with economic value. In the Portuguese case there are rankings (although, not official) based on which students are making some of their choices. There is another aspect, in the Portuguese case, related to the duplicity of our higher education system in which there are polytechnics and universities. Although there was a time where those two sub-systems interact, with Bologna they have started to be, again, differentiated. At least from a legislative perspective. It is also noteworthy that, in Portuguese context, universities are socially differentiated regarding access and public. There are universities and faculties much more elitist than others.

SdS - You were mentioning some changes that happen in Portugal. There are some other changes that you think are worth mention?

I27 - There is a significant change in the research investment made in last years, in terms of projects and grants. Nowadays, Portugal has a greater capacity for production of doctorates, project elaboration and research management. That was a major change. What sometimes happen as politic coming from the Ministry is the rupture between teaching-learning aspects and research aspects in university. Now, most of research happen in a university context. Few universities have research careers, which is something that is becoming a requirement. Most of researchers who aren´t Professors work in precarious and unstable conditions, with some exceptions in health and technology areas. Most of us cannot afford having a research career in our departments. We can argue, then, that there is a distance between teaching and research. It is assumed, which don´t happen in other countries, that a Professor is always a researcher. Nowadays that happens in a very structured way, related to team work and, also, to accountability and assessment in much more quantitative than qualitative terms. There is a major effort in order to balance teaching and research. And, sometimes, one must admit, teaching looses in regard to research due to the fact that what is valued is the researcher, not the Professor.

SdS - In the context of those changes, what do you think about the passage from university to foundation?

I27 - I don´t know. Future will tell, I guess. Maybe it is a risky step.

SdS - What do you think about the new legislative framework of university career, more specifically the PhD as a criteria to ingress in the career?

I27 - I see it as a natural step. Almost everyone have a PhD. There are a few of us who don´t.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher Education?

I27 - Their intentions are, as far as I am concern, correct. We are in an early stage...

SdS - Do you think that all those changes have some impact in the production of knowledge?

I27 - There is a greater acceleration in knowledge production, even if that means a residual and minimum knowledge just to fulfil specific kind of goals.

SdS - We are producing more knowledge?

I27 - Yes, in the sense that we are producing more papers and reports. I am not sure if we are producing something new. It depends of the scientific area, I guess.

SdS - But the criteria used to define "good science" are the same?

I27 - Nowadays, everything is much more accelerated. Knowledge is produced to be published, maybe in some cases to accomplish specific timings... Maybe the deepen and reflexivity are lower and the immediatism bigger.

SdS - Regarding funding... How do you usually get funding for your activities?

I27 - Mainly from FCT.

SdS - And when you are writing a proposal for FCT do you consider such aspects as the visibility and acceleration of knowledge or you write more for yourself?

I27 - No, we have to adapt to the form and to criteria of the referees. Much more than to my individual goals as a researcher.

SdS - Who is your main audience when, for instance, you write papers?

I27 - Mainly peers and students.

SdS - Do you think that communication of science is important?

I27 - Very much. In our department all the projects have public seminars for dissemination of results.

SdS - How would you define success?

I27 - Regarding teaching, I feel satisfied when I can transmit knowledge, motivate or induce specific kind of competencies on my students, when I see that they have learned that knowledge and are developing that competencies. This, obviously, can be translated by grades.

SdS - Do you like your job?

I27 - I do.

SdS - And what is that you really like and what is that you could do without?

I27 - What I really like is teaching, linked obviously with research. But teaching and university are central elements for me. I would do without the excess of bureaucratic problems.

SdS - Thank you.

Interview 28
Academic Portugal
Sociology
Full Professor
12 January 2010

Sofia de Sousa (SdS) - How do you usually present yourself?

Interviewee 28 (I28) - Always by my name. Regarding students, as well as colleagues, I introduce myself by my name. When I am presenting papers and projects in conferences I also mention my institution, meaning department, faculty and university. Sometimes, I also refer my expertise area. But, overall, I never introduce myself by using a title.

(pause)

SdS - You were talking about the manner in which you introduce yourself, not using titles.

I28 - No, I never use titles. Often, in my role as institute co-ordinator I have to contact with my colleagues through e-mails and documents and I make sure to sign just my name, with no title attached. That is something valuable for me since I was a student. While I was a student, this faculty was strongly hierarchical. I am afraid that, unfortunately, one can find nowadays some dimensions of that same hierarchy. I have some colleagues - and this is not a joke - that protested for not having their titles along with their names in the schedules or in the locker. It still has some importance to be called "Professor", it is a kind of "academic nobility". I believe that we are changing. Students, in particular, are having an important role in that transformation calling all the staff who teaches only by "teacher". Nevertheless, in the Portuguese society having a title still is an impressive way for you to introduce yourself

SdS - Do you have any students that treat you only by your name?

I28 - Students that treat me by my name? No, I don´t have. Even students that I already knew previously to the faculty treat me by my name only outside of classrooms. In the classroom they call me by the usual "teacher". Which I think it's nice and, somehow, annuls some hierarchical effects. They treat by "teacher" all the staff, from the Assistant to the Professor. I believe this to be positive. It is a use of language which promotes the dilution of hierarchies. I am aware that some of my colleagues - not from this specific department but within the faculty - don´t feel very happy but they don´t have the courage anymore to demand the treatment as "Professor" in the classroom. Which, by all means, would be caricature by students.

SdS - And the term "academic", do you usually use it to define yourself?

I28 - No. I usually say "I'm a researcher" or "I'm a Professor". By the way, the term "academic" is something that I deeply reject. The notion of "academy" is associated with a hierarchical and somewhat elitist character, as university was an entity apart from society. When we are talking about academics we are projecting a kind of ivory tower which is isolated from the surrounding reality.

SdS - And do you think that doesn´t exist anymore?

I28 - It still exists. Absolutely! In a certain way, students also contribute to that. If we look at academic rituals such as "Queima das Fitas", one can find a kind of exaltation of the academy concept. Indeed those kind of rituals don´t have any kind of meaningful content. Academy is a kind of a form one applies in an attempt to get noticed in a universe which people tends to get unnoticed. Increasingly, the tendency is for students to see their university life as a temporary passage. A passage that is not a warranty of anything. Increasingly, university tends not to be a warranty of a career, stability and the possibility of entering the adult world, constructing a family, having a job, etc. Therefore, that academy exaltation happens in a time where the academy is loosing some of its operational value, for instance, in the job market. So, it is a narrative of loss empty in its content. I don´t even think that those rituals contribute for students proximity. I believe that those strings are getting weaker.

SdS - Do you think that we can speak about a community among Portuguese researchers?

I28 - No, I don´t. That is a major question. I am the co-ordinator of this institute and, interestingly, we had a meeting in which we have tried to make a research balance and we conclude that, although we have a good scientific activity, we do not have a truly collective team work, as our young researchers clearly point out. The idea of a joint enterprise does not exist. The idea of a scientific community stumble in the research individual work, in the individualisation of academic and research careers as well as in the patterns that are imposed, meaning productivity levels and homogeneity of scientific production. So, I do not feel any sense of community. We can find some affinities, closeness and collaborations but the sense of community is much more broader. What exists are only moments and affinities of collective work.

SdS - Do you usually work with people from other institutions?

I28 - I do.

SdS - And from other disciplines?

I28 - Right now, I have just finished a research project with another institute and the work I am now developing is with some other institute. I have that concern. Truly, one must say that concern is related, more than just to affinities, to the fact that we know that projects involving more institutions have more chances for getting approved.
The research pathway is, in my view, strongly hierarchical. We have grant-holder researchers that, often, do all the field work while we just co-ordinate it. This is due to the fact that we have multiple tasks like several research projects, a lot of classes, admin, many tutorial sessions, and so on...This is terrible, this is really awful. This distance from the work field has impact in the lack of inter-subjectivity that could exist if people would share the daily life of research.

SdS - Do you think that the three functions of university teaching - teaching, research and service - are essentials for your identity or you would choose just one?

I28 - I will be totally honest. I think that a I have an excess of teaching duties. Right now, in the 1st semester, I have 14 hours of classes per week. Of course that this is also due to the fact that we perspective, here in the department, the career progression in a certain manner. The Professors who are in the top of the career, like I am, have more classes than the ones who are in a stage of progression. We have a very strong solidarity logic that really works in that respect. Nevertheless, it is too much! The time we have to do research is residual.
The admin we do is also excessively. Universities are not ready to have staff for doing the admin tasks. If there were staff doing the admin tasks we could embrace teaching and research duties in a more reflexive and deepen manner. In that way we could live our careers with some serenity. I truly believe that we lack some serenity, time, silence and retirement. I am not arguing, in any sense, that we should see the researcher as someone recluse or ascetic but, rather, that we need some time to read, to think, to inter-subjectivity between peers. And that doesn´t happen because we are, in fact, in a kind of machinery that is Machiavellian and harmful.

SdS - Regarding teaching and research, do you think that they complement each other?

I28 - I think so. Although, often, due to a bureaucratic logic and due to that solidarity logic I have referred, we are teaching subjects that are not directly linked with our research. If I am teaching 14 hours per week I have classes that don´t necessary reflect my research area. When the opposite happens one could talk about and interaction between teaching and research. Sometimes, also, a kind of obsession with the execution of the program - which is more in line with basic and secondary education - has as consequence a expositive class, rather than a class research based. The Professor is, in that context, and foremost, a kind of "repeater".

SdS - Do you think that it is easy to identify who is a researcher and who is not in Portugal?

I28 - I think it is.

SdS - Do you?

I28 - Yes. Talking with my colleagues I quickly collect some signs that tell me if he/she is a Professor centred in teaching or, on the other hand, is a Professor that links teaching and research, establishing some "communicating veins". We can find another kind of Professor who undervalue teaching. That kind of Professor is, clearly, a torment for students. He/she can be an excellent researcher, having all the basic conditions to be a good Professor, but he/she ends up being a kind of "repeater". I believe that we need to find a critical balance between teaching and research. If I had to establish priorities I would say, from an ethical point of view, that what comes first should be teaching. That is, essentially and foremost, for what we are being paid.

SdS - There is a research career in Portugal, which is very residual. Do you think that the value of the research career is, or could it be, the same as a university career?

I28 - The research career is totally undervalued. We can look at several factor. By one hand, it is well known that research grants from FCT - which, in some manner, regulate research in Portugal - are not updated since 2002. It is very well known, also, that researchers have to go through an entire career in precariousness, from research grants of early stage researchers, to PhD and post-docs research grants. A researcher can easily get to his or her 40s and still be in a precarious position. This is amplified by the sub funding of universities that lead us to use those researchers for minor tasks like lecturing specific lessons or events organisation. For me, this is highly dubious and shouldn´t be happening. Nevertheless this is becoming the norm. So, all this precariousness is clearly devaluing research career.

SdS - And research in itself?

I28 - And research in itself. It waists research. Because, again, those who are more in contact with the fieldwork and have a more intense research experience, end up not being able to establish the "communicating vein" with teaching. "Scientific community" looses with that situation. So, it is my contend that the two careers should exist with the same degree of dignity.

SdS - Meaning, applying what is already ruled by the current legislation?

I28 - Absolutely! Researchers often are a kind of "reservation army" that can be called anytime to overcome the chronic sub funding of higher education institutions.

SdS - You mention the lack of time and the importance of silences...

I28 - Nowadays, that is a major question for me. It can be only a stage in my career but, right now, what I feel is a terrible burden of daily tasks that keep me for being updated and having some voluntary retirement, tranquility and silence. I live in a constant chaos right now.

SdS - Do you think that this is a new aspect in Portugal? That sense of chaos?

I28 - It has become more visible. I believe that is not new. It has accentuate in a strongly manner in the 90s due to Bologna, the "economical crisis" and the consequent choice of seeing higher education as an area of undervalue and under investment. That is very clear for me. Notice that in science there has been progress regarding funding and indicators. Nevertheless the same has not happen in scientific careers. In this faculty, for instance, sixty or seventy Professors were dismissed. Which means a "Damocles sword" over us all. We are aware that we need to be able to create products, using the current jargon, increase the offer, supervising more and more students. It is a logic that is controlling all of us.

SdS - Do you think that logic has some impact in the knowledge that is being produced?

I28 - Clearly. First of all, there is less time for quality scientific work. As I have said, there is less time for being in the work field and to interact with other researchers. Second, the chaos I have mention drive us to think much more in quantitative, rather than in qualitative, aspects. At the same time, it tends to rush what needs some level of development like, for instance, programs of classes and papers.

SdS - Regarding funding... When you apply for funding what is essential is what you think or what others think you should research?

I28 - It is a compromise. There is some marketing in projects. There is a clear concern for social utility, impact. This sometime happens devaluing basic research. I believe, however, that compromise to be beneficial. It can break research logic of closeness and it can, indeed, to promote the dialectic between university and society. I think that we should have moments - and that I relate with the silence metaphor - for basic research, which has not to serve any specific purpose. It is crucial that basic research could exist in order to eventually reflect in applied research.
I believe that the moments of apparent disconnection with daily institutional routines and the detachment from productivity indicators should be promoted instead of punished.

SdS - And do you think that scientific policies in Portugal are valuing basic research?

I28 - No, I don´t think so. I think that there is a great concern, from the Ministry of Science, Technology and Higher Education, with science democratisation, with what is denominated by Giddens as the "double hermeneutic" and with science dissemination. All of this is fundamental but so is basic research, which has not been stimulated enough. On the opposite, in particular in social sciences, we are importing, acritically, patterns, formulas, indicators from other sciences in a transnational paradigm identified with competition rather than co-operation. This has been harming basic research.

SdS - What do you think about the Agency for Assessment and Accreditation of Higher Education?

I28 - I was quite surprised when I see the forms. Considering the high number of courses and the forms, the agency will play a bureaucratic role validating existing degrees, not having a critical role. I believe that assessment should exist, but not as an end in itself. Assessment should be used to correct processes, it should be formative, not for ranking purposes. Although I do not know what will come out of it I don´t think that the assessment will be formative. It is more a status quo maintenance surrounded with bureaucracy. Which is not, by all means, positive. And I don´t agree with the idea of the assessment being made by only experts from abroad. I don´t understand why Portuguese experts cannot also be involved in the assessment.

SdS - Still talking about changes in higher education, how do you perspective the move from universities to foundations?

I28 - I do not yet have a clear opinion on that.

SdS - And regarding the new legal arrangements of university teaching? More specifically the PhD to ingress in the career?

I28 - I tend to agree. Nowadays, with Bologna, I think it makes all sense.
The major problems of higher education are homogeneity having as reference hard sciences patterns, a monolithic internationalisation and the demission of the State regarding higher education area.

SdS - What do you think about the teaching and research universities as a possible scenario?

I28 - I totally disagree. I think students only have advantages with the interaction between research and teaching and that kind of hierarchy will end up having impact on a symbolic classification of students, in the job market and in society, according to the university they attended.
Although we are aware of differences, fortunately, we don´t have an hierarchy such as in France or in England that creates degrees of first and second leagues.

SdS - Do you think that knowledge being produced in the context we have been discussing is the same as it was previously?

I28 - I am very optimist about that. I think we are doing better science. We have a higher number of people doing excellent research. We also have more communication and dissemination. I think the balance tends to be positive. There is also, one must admit, an increase number of resources.

SdS - When you are planning your research who is your main audience?

I28 - I try that all my scientific products - books, seminars, workshops - have the ability to allow a double appropriation by the peers and by a scholar part of society. And, also, for students.

SdS - How would you define success?

I28 - It has to be multidimensional. I believe that success is related to scientific quality and peer recognition. I believe that success is also related to a broader appropriation of research. Finally, there are also dimensions related to personal fulfilment...

SdS - The last question, do you like your work?

I28 - I like it very much. Nevertheless, since I get to the top of career I like it less. Why? I don´t have to worry with issues related to hierarchy, I have much more autonomy, but I feel, more and more waste away by the excessive number of classes and the daily chaos which don´t allow some silence. I hope it is just a stage. And that it goes by quickly...

SdS - Thank you.