

Conference Report

OPEN SCIENCE

Challenges and Opportunities for Early Career Researchers

EURODOC 2017

Conference

26 – 29 April 2017
Oslo, Norway

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(SiN and UiODoc)**

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The European Council of Doctoral
Candidates and Junior Researchers

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Overview

The Eurodoc conference 2017 was themed “Open Science – Challenges and Opportunities for Early Career Researchers” and brought together a blend of Open Science visionaries, international experts and stakeholders relating to Open Science. Speakers were invited from Early Career Researcher associations from all around Europe who shared with us best practices, personal experiences and ways forward to a more open academia.

Open Science means allowing everyone free access to research results. Science must become more accessible, inclusive, transparent, collaborative and cost-effective for it to thrive. Peer-review processes, scientific journals and articles repositories are the main structures that will need to be redesigned to welcome the Open Science innovation in a functional and sustainable way. Researchers of every field, as continuous contributors to the development of science, can increase their scientific outcome via more effective publishing strategies. The Eurodoc 2017 conference provided great insight to the processes behind open access science, highlighting the advantages, risks and problems involved with Open Science.

The conference was open to all Early Career Researchers who are interested in learning more about Open Science and what challenges and opportunities it brings with it. Our speakers gave us a closer look at the problems of today’s scientific communication, and explored how Open Science offers ways to overcome issues of inequality, research integrity and results reproducibility. Much attention was given on the relevance of Open Science for day-to-day working conditions of Early Career Researchers and what concrete steps can be taken by decision-makers and individual researchers to promote Open Science. The presented measures were aimed to have immediate implications for individual researchers and can help contribute solving global challenges.

The conference took place from 26-27 April and was hosted by the University of Oslo. Generous funding from the Norwegian Ministry of Education and several Norwegian higher education institutions (UiO, NIH, NTNU, NMBU, HSN, UiT, UiS, UiB) was received.

Statistics

Number of attending participants:

- Total: 138
- Participants from universities in Norway: 70
- Participants from Eurodoc member associations: 68

Social media:

- 1100 users saw event on facebook
- 288 users responded with ‘attending’ or ‘interested’

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26th - 29th
April 2017
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Open Science

Challenges and Opportunities for Early Career Researchers

Conference Program

Wednesday, 26 April 2017

15:00 – 16:15 Opening Ceremony

Chair:

Rachelle Esterhazy (SiN, Norway)

Speakers:

- **Vegard Stenhjem Hagen** (President, SiN, Norway)
- **Ewelina Pabjańczyk-Wlaziło** (President, Eurodoc)
- **Bjørn Haugstad**¹ (State Secretary at the Ministry of Education and Research, Norway)
- **Ole Petter Ottersen** (Rector, University of Oslo)

16:15 – 16:30 Coffee break

16:30 – 18:00 Session 1: Why Open Science concerns us all!

Chair:

Erlend Dancke Sandorf (SiN, Norway)

Speakers:

- **Pandelis Perakakis** (University of Granada, Open Scholar): *Why True Science is Only Open Science*
- **Fabienne Gautier** (EC, Open Science and ERA Policy): *Why does Open Science concern us all?*

18:00 Welcome Reception

Light refreshments are served in Helga Engs Foyer

20:30 Gala dinner (Restaurant Louise, Aker Brygge)

¹ Last minute replacement of Torbjørn Røe Isaksen (Minister of Education and Research, Norway)

Thursday, 27 April 2017

09:00 – 10:30 Session 2: Obstacles to Open Science and how they can be overcome

Chair:

Katharina Müller (THESIS, Germany)

Speakers:

- **Aidis Stukas** (LSYR, Lithuania) *Lithuanian Young Researchers and Open Science: Perspectives and Scenarios*
- **Ieva Krumina** (ALYS, Latvia): *Latvian Approach to Open Science*
- **Gareth O'Neill** (PNN, The Netherlands): *Open Science from the Perspective of Early Career Researchers*
- **Jan Palmowski** (The Guild): *The European Research Area and Open Science between European vision and institutional reality*

10:30 – 10:45 Coffee break

10:45 – 12:15 Session 3 (Panel debate): What steps can government and university leaders take to promote Open Science?

Debate leader:

Jan Magnus Aronsen (The Young Academy of Norway)

Panelists:

- **Katrien Maes** (LERU)
- **Alexander Jensenius** (The Young Academy of Norway)
- **Fabienne Gautier** (EC, Open Science and ERA Policy)
- **Maja Mise** (Marie Curie Alumni Association)
- **Ole Petter Ottersen** (Rector, University of Oslo)

12:15 – 13:30 Lunch

13:30 – 15:00 Session 4: Academic publishing - Time for a paradigmatic shift?

Chair:

Filomena Parada (ABIC, Portugal)

Speakers:

- **Bonnie Wolff-Boenisch** (Science Europe): *A paradigmatic shift in Open Access publishing models?*
- **Katrien Maes** (LERU): *Towards a new and fair copyright and TDM framework in the EU!*
- **Jon Øygarden Flæten** (Norwegian Research Council): *Open Access from the perspective of a research funder*

15:00 – 15:15 Coffee Break

15:15 – 16:45 Session 5: What we can learn from the Early Career Researcher's community

Chair:

Gareth O'Neill (PNN, The Netherlands)

Speakers:

- **Slobodan Radicev** (Euroscience): *March for Science*
- **Charlotte Teresa Weber** (co-authors Melania Borit & Michaela Aschan; TODOS, Norway): *Innovative PhD Training within an MSCA European Training Network*
- **Filomena Parada & Anna Tschaut** (ABIC, Portugal/THESIS, Germany): *Securing decent work for ECRs: Why the Human Resources Strategy for Researchers (HRS4R) is a good but not sufficient policy*
- **Eva Hnatkove & Fulvio Rizzo** (SK RVS, Czech Republic/FUURT, Finland): *The evolution of doctoral education*

16:45 Closing Remarks

17:15 – 18:00 Training for new Eurodoc delegates (room U31)

20:00 Guided Tour through Oslo

Opening Ceremony

Chair: **Rachelle Esterhazy**, SiN (Norway)

Rachelle (chair) opens the conference and after a brief opening, she goes through diverse technical information. Then, the president of Eurodoc and the president of SiN gave some introductory presentations to welcome the participants and to present the organizations behind the event. We also had the pleasure to hear two distinguished key note speakers during the opening ceremony, namely the rector of the University of Oslo, Ole Petter Ottersen and the State Secretary of the Norwegian Ministry of Education and Research, Bjørn Haugstad. Both presented their views on Open Science and why it matters for Early Career Researchers.

Vegard Stenhjem Hagen, president of SiN (Norway)

Vegard thanks Rachelle and welcomes us to the conference. He introduces SiN, the national umbrella of local interest organisations for PhDs and post-docs. We have 160 participants, over 44 nationalities. He thanks the organising team. He introduces the topic of Open Science and the disappearance of the padlock of the paywalls hiding current Science. He gives a word about the March for Science.

Ewelina Pabjańczyk-Wlazło, President of Eurodoc

Ewelina welcomes everyone to the conference. She stresses the importance of Open Science for everyone, including Early Career Researchers but also society in general. She presents Eurodoc and its implication in the organisation of the conference with SiN. She mentions the 15th anniversary of Eurodoc and thanks SiN for the organisation.

Bjørn Haugstad², State Secretary at the Ministry of Education and Research in Norway

He says that science has great impact on society. Research and Innovation much be conducted. We still have a long way to go. Publishing markets are not well-functioning because their benefits are extremely high, as their cost for society. We have limited power vis-a-vis publishers. We have to promote publication in open-access journals. Note on Open Data. A famous pharmaceutical company tried to reproduce 53 studies on cancer studies. They were only able to reproduce three of them. Open Data should be implemented in order to empower reproducibility of Science. Standards and training should be available. Handling sensitive data and privacy protection should be considered thoroughly.

² Last minute replacement of Torbjørn Røe Isaksen, Minister of Education and Research in Norway. He could not come due to a meeting at the parliament.

Ole Petter Ottersen (Rector of the University of Oslo)

Ole Petter is Chair of the Guild of Research Intensive Universities. He thanks us for invitation and the privilege of being here with our guests. He welcomes us in Norway and the University. The Guild is very concerned about Open Science. He compares the current obstacles and resistance to the revolution of the Printing Press. It did not make everyone happy at the time. 30 years ago, he had to fly to the Sorbone, in Paris, to access certain journals. Open Science is about sharing data rather than publishing it, collaboration, democratization of Science. We have to collaborate with many organisations to achieve the Sustainable Development Goals. He introduces the FAIR data principles (Findable, Accessible, Interoperable and Re-usable). Studies show that only about 10% of Studies could be reproduced, which creates a distrust from Society at large. About half of scientists consider that there is a crisis of reproducibility in research. Open Science has a different connotation in different fields of research.

Session 1: Why Open Science concerns us all!

Open Science is not only about making scientific results available through Open Access. Open Science is about making research more inclusive, transparent, collaborative and cost-effective. This does not only have an impact on science's contribution to solving global challenges, but it also has immediate implications for each individual researcher. In session 1 one Open Science visionary and a representative of the European Commission told us about the problems they perceive in the traditional way of doing research and how Open Science will have an impact on each of us.

Why true science is only open science

Dr. Pandelis Perakakis (University of Granada), Open Scholar

In this presentation, Pandelis attempted to go back to the origins of science to remember how scientific thought emerged and which was its initial purpose. This idealistic view of science with today's reality and argue that if we are still interested in honest scientific enquiry there is no better option than to open science and to take full advantage of modern communication technologies. The main challenges and obstacles to the open science movement is facing and present existing alternatives models for sharing and reusing scientific data and discoveries, were discussed. He tried to transmit his optimism for the future of science once the research community regains control of its own product by exploiting the already available open science infrastructure. We should do science with open-minded scepticism. A scientist should not have investment in the outcome of an experiment. Publishers profit margins are extremely high. It is an oligopoly. They create a distinction between what Scientists and Academics are supposed to do. Gold vs Green Open Access. Peer review, being supposed to be the quality assurance system for science, has failed. Retractions are rising. Examples of 19 articles that ended up giving a Nobel price that were rejected or resisted at the first place. Peer review is not going of the way of innovation. Presentation of different Open Archive (organisation repository): quality control has

to be added. Current repository usually do not allow for reviewing, which is being implemented in some systems.

Why does Open Science concern us all?

Fabienne Gautier, European Commission (EC), Open Science and ERA Policy

Fabienn Gautier, a head of the European Research Area (ERA). She provided an overview of the European Open Science policy agenda and describe ambitions for the future, involving all actors concerned. It was also given an insight into the initiatives that are undertaken at European level to support this policy agenda and how they might need to evolve, notably in relation to researcher careers.

In the context of the Commission's priorities on Open Science, Open Innovation and Open to the World, the presentation focused on Open Science and its impact on research systems. Priorities of ERA are to have researchers, scientific knowledge and technology circulating freely, an open labour market for researchers, and improving intersectoral and interdisciplinary mobility between public and private sector research bodies in both directions and at all career stages. Examples of what has been put in place include the C&C, HRS4R, IDTP, OTM-R, RESAVER, EURAXESS, and Bratislava. Open Science is a bottom-up process. It is an issue on which we have to collaborate. It is a systemic change to the way science is organised and research is done. It is about sharing faster rather than publishing faster. There are major transition of science system which affects the way research is performed, knowledge (shared, diffused, preserved) projects and results are evaluated, research is funded and researchers are trained and rewarded. An ecosystem of services and standards is emerging around open science with pre-prints, open access, science blog, open annotation, open code, etc. The EC has developed an Open Science Agenda and created an Open Science Policy Platform. EU has ambitions about Rewards, Research Integrity, Education and skills, and Citizen Science. The next steps are a ESOC implementation roadmap (2017) and an Open Science Communication (2018).

Session 2: Obstacles to Open Science and how they can be overcome

Open Science presents an idealistic idea of what our research community might look like one day, but the road to its realization is full of obstacles. Early Career Researchers' challenges are often related to financial pressures and precarious working conditions, but also to issues with trust and openness in a highly competitive field. In session 2 will had the chance to discuss openly about the obstacles we face and what concerns us most with regard to the Open Science movement. We also heard about positive examples of how challenges might be overcome and what positive results this can lead to.

Lithuanian Young Researchers and Open Science: Perspectives and Scenarios

Aidis Stukas, Lithuanian Society of Young Researchers (LSYR), Lithuania

The success of research activities is based on the availability of research papers and data. Researcher community is undergoing a transition that changes the way stakeholders interact with each other. The role of young researchers in this process is rather troublesome. To become relevant young researchers will have to both use and produce open science. It seems that Lithuanian researchers have a really basic knowledge on citizen science and open notebooks. It is difficult to motivate ECRs to events on Open Science. Even fewer had deeper, similar policies on Open Science. In this presentation opinions of Lithuanian young researchers and present possible development scenarios were presented.

Latvian Approach to Open Science

Ieva Krumina, Association of Latvian Young Scientists (ALYS)

Latvia is small and open economy with deeply rooted need of Open science: 99 % of all the enterprises are micro or small, employing less than 50 employees. These enterprises don't have resources for buying data base access or having research department of their own. For us Open science is the only way to foster knowledge society and heighten added value of our enterprises. Therefore our policy is Open science oriented and encourages free availability of knowledge. For example, newly developed National information system of scientific activity will contain not only all the information about researchers, institutes, projects, but also will have publications where it is not prohibited with intellectual rights. In Latvia MOOC courses are very popular in the study process and they are used to popularize research results. Many researchers in Latvia publish their papers in Open Access journals and deposit their papers in subject repositories because they recognize that their studies will be accessible to a larger audience than by publishing in conventional journals. Scientists from Latvia are publishing individually in subject repositories such as PubMed Central, ArXiv, Cogprints etc. and in Open Access journals. The publications can be accessed through DOAJ, Open J-Gate, PLoS etc. It is common practice too to publish scientific article and afterwards introduce wider society with the research results by articles in news portals. In meantime there are new solutions developed how to widen the concept of Open Science. It is not enough just to provide access to the information.

There is acute need to inform the society about research and research results. Vidzeme University of Applied Sciences has shown an innovative approach in this area by publishing actual content research results in three languages and as extra preparing five short popular science articles in simpler language and using visualisation in which the essence of the research was explained. As result the research got wide resonance in the society, researchers were interviewed in various media (TV, radio, news portals) both in Latvia and abroad. By this was gained not only publishing of the results of scientific research, but also involvement of the society.

Open Science from the Perspective of Early-Career Researchers

Gareth O'Neill, PhD candidates Network of the Netherlands (PNN)

Open Science aims to make scientific research accessible to all levels of society and to engage society in determining the topics researchers should address. Open Science plays a central role in the European Commission's plans for developing research and innovation in Europe, and constitutes one of the Three O's in the New Vision for Europe, together with Open Innovation and Open to the World. Such policy for researchers is, however, often decided at higher levels of university administration and government. Eurodoc is currently working together with the Working Group on Education & Skills under Open Science at the European Commission to provide input from the viewpoint of early-career researchers on how they feel about Open Science and the skills and facilities they need to practice Open Science. To achieve this, we have conducted a survey aimed at early-stage researchers across Europe on the topics of Open Data, Open Access, and Intersectoral Mobility. The results of this survey in and the consequences of Open Science on the training and development of early-career researchers in Europe were presented. People tend to know about Open Science and Open Access, but Open Education and Citizen Science are largely unknown. It seems that there are not real data management plans in most of the case since a vast majority of respondents said they had to take care about archiving by themselves. ECRs mostly consider that PhD training doesn't prepare for career options outside of academia.

The European Research Area and Open Science between European vision and institutional reality

Jan Palmowski, The Guild of European Research-Intensive Universities

His presentation examined how Open Science affects the drive of the Commission, and of EU member states, towards a European Research Area that aspires to the freedom of movement for researchers and ideas. It identifies some of the key obstacles in the realisation of Open Science from the perspective of EU policy-makers; and it looks at how these relate to the institutional priorities on Open Science at some of Europe's leading universities, taking the example of the Guild's member universities. Does open science exist? Different disciplines engage in open Science differently. But, given that so many of us are working in interdisciplinary ways, it gets more complex. This is about a fundamental difference about the way we do and understand science. The commission should keep its focus on the Open Agenda.

Session 3 – Panel debate: What steps can government and university leaders take to promote Open Science?

We are frequently told that all research should be published Open Access, and that all data resulting from publicly funded research should be made publicly available. But does this actually fit with our current reward systems and career advancement structures? What are structural obstacles to Open Science, and how can these obstacles be removed? In session 3 we had invited influential people and decision-makers from the research and higher education sector to discuss these questions.

Debate leader: **Jan Magnus Aronsen**, The Young Academy of Norway

Introductory facts

Jan gives an introduction. Most studies on cancer research cannot be replicated and about half of the scientists consider that there is a significant crisis.

Presentation from each panellists

Each panellists has a few minutes to introduce their points.

Katrien Maes, chief policy officer LERU

Open Science is Science. There is no close Science. It's just the transition of Science and there shouldn't be an opposition. The Dutch consider it as a transition and we should embrace it. We, as ECRs, have to take charge of the evolution of Science. Universities have a lot to do. Some have mandates to do it, many still don't. There is a developing path towards that but there is still a long way to go. When you have a plan, you need to have the capabilities to implement it. Universities, in general, could do a better job with that. LERU worked with its members on that. It's really important for PhDs and Post-Docs, which are the biggest population of research staff at universities. There is Open Science as a strategy and ERA (part of the treaty). ERA is still important. There is a lot to be done by the member states in their responsibility to implement it. There are legitimate reasons to closing your research. We should be aware of the options are regarding our Intellectual Property.

Alexander Jensenius, the Young Academy of Norway

A lot of Young Researchers want to do OS, but they know that they have to follow the conservative path to secure their career. Believers in OS should develop systems that actually work. There are many problems in the implementation, the tools, the technology and systems. Open Science systems should be open too. Dissertation should be open, as a starting point. Institution could require OS when founding research. Only few researchers do self-archiving. We have to acknowledge that working on software is also part of research. Alternative metrics should be considered

more. We could instruct committees to consider OS. There is a tremendous number of evaluators that are really conservative.

Maja Mise, MCAA

She is a Marie-Curie Post-Doc. She is in humanities, in Archaeological Science. Her data is worth nothing if not compared with other data. People are, however, only sharing some part of data. Mostly processed data that is relevant to published studies.

Fabienne Gautier, EC

From the EC perspective, they are fully committed. It's their priority for the DG. When they launch such initiative, they launch consultations and gather different views. The funding mechanism are used to promote the policies. Fund initiatives can be promoted. Pilots can be used. Promotion is possible through the modalities you use. It's important to see that it's a common endeavour at all level. We should engage at all level.

Ole Petter Ottersen, Rector, University of Oslo

It is nice to see that Open Science is not only about the relationship between Research and Society but also within Research (cf. Maja's experience). Each institutions should have policies in that matter and inforce them. Funding and platforms should be used to point in the right direction. Training is important. International networking is capital. Institutions by themselves have weak voices and should work together.

Panel discussion

Question asked by the chair, answered by the panel.

How big changes are we talking about?

Katrien says that change is not going to happen overnight. There is a lot of work to be done.

Ole Petter is a bit optimistic and want to speed up the process by showing each individual scientist that it is in their interest to follow OS.

Alexander: recruiters have to actually follow it.

Questions from the Audience

The audience asks a few questions.

How could the ideas be implemented in the Policies?

Fabienne: A broad consultation allowed to get a lot of recommendations that are being considered. It's then up to each level to take the relevant measures. There is a responsibility at each level.

Ole Petter: There is an urgent need to change the business model of the publishers. We have to be aware of the gains.

How do we address the senior researcher among in the institutions?

Ole Petter: the founding mechanisms are essential.

Maja: you can't oblige people to share data.

Alexander: we should get it as a mentality. Some push is needed on the middle from the top and the bottom.

We lost the battle on OA to publishers. How to win the one on OS?

Alexander is quite positive. There is a lot of institutional push. Commercial players are up there and we should be cautious.

What about IP?

Katrien: this issue is being take up in the context of OS. We need to be more proactively thinking. It should be discussed in advance.

How to make sure it happens?

Alexander suggest the money to be given after completion.

On collaboration between industry and academia

Fabienne: it's key. There are different views on this sector.

Katrien: it's there but needs to be strengthened.

Session 4: Academic publishing - Time for a paradigmatic shift?

Ongoing debates in academia are questioning whether researchers and research production are too dependent on commercial academic publishers. This brings along questions of whether reviewers are sufficiently valued in this commercial system and whether the highly competitive publication cycles leave enough room for the necessary research quality assurance in form of study replications, data reproducibility and research validation. In session 4 we discussed in what way Open Access proposes viable solutions to those challenges or whether there are good reasons that the commercial publishing model will persevere.

A paradigmatic shift in Open Access publishing models?

Bonnie Wolff-Boenisch, Science Europe (SE)

He is Head of Research Affairs of Science Europe, which includes organisations from 27 countries (different functions, different cultures and best practices). Science Europe answers a need for a strong voice of academic research in Europe and a strategic engagement with and to speak with a common voice to European Institutions and stakeholders, and national governments when required. Science Europe is a collaborator and constructive critic with the EC and its partners. They do advocacy on H2020, FP9, linked policies, directives and regulations. Collaboration platform coordinate and exchanges best practices, establishes principle and works on 9 priorities, among which "open access to publication". Representation at the EC. Up to date, Science Europe works only on Open Access (OA) to publications. But, Open Access to data is another game to play with. We should move from the pay to read

system to another business (gold/green routes). Publication and dissemination of results are an integral part of the research process. The allocation of resources within the research system must take it into account. Re-use of information is also part of Open Access, as defined in the Berlin Declaration (2003). Gold route: some journals contain only Open Access articles; hybrid journals offer a mix, with costs associated with publishing; article are available immediately. Green route: self-archiving after an embargo period. Member organisation have different price caps. The debate on the best way to transition from the transition fee still have to be defined.

This presentation provided us with an overview on some of the recent trends and developments, as well as various business models currently in use which aim to facilitate the transition to Open Access. And we touch on the evolution of the provision of publishing services, and highlight expected benefits as well as underline remaining challenges.

Towards a new and fair copyright and TDM framework in the EU!

Katrien Maes, League of European Research Universities (LERU)

LERU is a strong proponent of Open Science (OS), and all it entails: open access publication of research output, access to research data and proper data management, building and connecting necessary OS infrastructures, as well as other aspects identified as action points in the European Commission's OS strategy, such as research integrity and citizen science. My talk in the session on academic publishing will focus on the issue of copyright and text and data mining (TDM). TDM is the "process of deriving information from machine-read material. It works by copying large quantities of material, extracting the data, and recombining it to identify patterns" (JISC). It has become an important tool for many researchers to work on vast amounts of data and publications; it is essential for better knowledge creation and sharing.

LERU sees copyright and TDM as crucial elements to complement and support a pan-European move to OS. In September 2016, the European Commission presented its legislative proposal to update the current EU framework on copyright, which, dating back to legal texts such as the 1996 Database Directive and the 2001 InfoSoc Directive, is obsolete. There is a legal vacuum on whether the mining of copyrighted material is allowed. It is a very good thing for research that the EC has included in the proposed Directive a much needed EU-level mandatory exception for TDM, freeing it from certain copyright obligations. LERU and others have taken the view that "the right to read is the right to mine", so that anyone with legal access to content should be able to mine it without additional barriers. LERU wants the exception to be even stronger and wider than in the current proposal. A mandatory TDM exception is one of the key components of a meaningful copyright reform. It is vital that an EU-level framework is agreed so researchers do not have to worry about complying with a myriad of national or other regulations.

The EC's proposal also offers better transparency and remuneration obligations for researchers' copyright entitlements. This is much needed to help tip the balance towards a more equitable situation for research, given the excessive amount of profit that publishers have been making from scholarly research for a long time. The legislative process is now in full swing in the European Parliament, and LERU is actively involved to make sure that the new Directive is favourable for research and for OS.

Open Access from the perspective of a research funder

Jon Øygarden Flæten, The Research Council of Norway

They are a founding agency. They found through large open arenas and large-scale thematic programs and founding schemes. There is only one research council Norway. As such, they are a strong advisory body for the government. They have an OA policy since 2009. They are developing their founding schemes going that way. They require Green OA and support Gold OA. A shift it an obvious thing because society is entitled to benefit from the Science it is paying for, and society is increasingly dependent on research and its accessibility. Society is trying to get more of what it is investing in science. Organisations are gathering together to leverage their bargaining power, like it was done in the Netherlands. Research organisation should demand a high standard from the publishers. The need to a transition to OA is established. OA to articles and data will have a strong impact on society.

Discussion

Double founding become triple founding: Green OA, Gold OA, Normal Publishing

Jon: we need to speed up the transition to avoid additional costs.

Bonnie: self-archiving and total green open access may not be a sustainable business model. The question here is whether the price tag on gold OA is correct, which it is not right now.

Katrien: LERU has been keeping pushing arrow to publishers, which are pushing back. We need support of the EC. The EC could become its own publishing platform.

Should Repositories based on the local level or the national/supranational one?

Jon: Norway is going for institutional repositories.

Katrien: There is too much data to deal with for universities to deal with it by themselves.

Katharina: Universities usually have repositories but they may not communicate efficiently yet.

Session 5: What we can learn from the Early Career Researcher's community

This session offered us interesting insights into different projects in the Early Career Researcher's community that reach beyond the topic of Open Science. This demonstrated the diversity and breadth of work done by Eurodoc and its member associations.

March for Science

Slobodan Radicev, Euroscience

Euroscience and Eurodoc both fight for Science. Most people in the room know what it is and quite a lot joined one. Populism strategy should be avoided as well as alternative facts. The establishment of a post-truth society is really concerning. Trump's disdain for science is threatening to society in general. Serbia's ministry of

education wanted to remove Darwinism from the books. Evidence for Science Research is not valued enough. We are living through very puzzling times. Times where the unexpected, the counter-intuitive and the irrational make headlines. One example stands out in the wake of Brexit, as we face the possibility that nations of the European Union should follow the same route! We, as citizens, may be subjected to models of governance edging towards nationalism and authoritarianism principles. In this scenario, political power is built on a populist strategy integrating alternative facts and fake news as the new norm. In such an increasingly polarised world, the abundance of intellectual dishonesty and denialism contribute to the establishment of a post-truth society. This is particularly concerning in relation to issues of scientific relevance, such as climate change, health policy or the origin of our universe.

Innovative PhD Training within an MSCA European Training Network

Charlotte Teresa Weber, co-authors Melania Borit and Michaela Aschan, Tromsø Doctoral Students (TODOS), Norway.

Charlotte presented the innovative doctoral training model implemented through the European Training Network SAF21 - Social Science Aspects of Fisheries for the 21st Century, an EU funded Marie Skłodowska-Curie project. The SAF21 training program has a special focus on training Early Stage Researchers (ESR) both in academic and transferable skills that will increase their rate of successful international, intersectoral and interdisciplinary mobility and, consequently, enhance their employability. The SAF21 doctoral training model has four pillars. All ESRs follow a Personal Career Development Plan (PCDP) whose aim is to identify career development objectives, map skills and competences and plan activities for reaching the career objectives. The PCDP integrates within-network and outside-network training to create effective and individually tailored training paths. Developing PCDPs additionally facilitates self-reflection as well as practicing core competencies such as personal effectiveness, research governance, career management and research impact. Through the mechanism of secondments (i.e. internships integrated in the doctoral training program), the SAF21 ESRs are exposed to three different work sectors relevant for their knowledge, training, skills and competences. A third pillar is mandatory training in a core group of transferable skills, relevant for a broad job market. Special training in inter-cultural communication sets the basis for successful international mobility. The fourth pillar is training and practice in science communication using a wide variety of platforms (e.g. Facebook, personal blog). The ESRs are integrated in an extensive network of academic and non-academic institutions through organized network meetings, workshops and training camps under the coordination of the SAF21 project.

Securing decent work for ECRs: Why the Human Resources Strategy for Researchers (HRS4R) is a good but not sufficient policy

Filomena Parada, Portuguese Association of grant-holding researchers (ABIC)
Anna Tschaut, The Interdisciplinary Network for PhD Candidates and Early Stage Researchers in Germany (THESIS)

In 2005, the European Commission (EC) adopted the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (C&C). By

adopting the C&C, the EC aimed at contributing to the development of an attractive, open and sustainable European labour market for researchers capable of promoting working environments supportive of the development and career prospects of all researchers regardless of their contractual situation and of the chosen R&D career path. The C&C was addressed to researchers as well as research employers and funders in both the public and private sectors, and to date 857 organisations across Europe endorsed its principles.

However, organisations endorsing the C&C were not required to implement its principles. It sufficed to state they were supportive of the recommendations in the C&C. To overcome this unsatisfactory situation, in 2015, the EC launched a new policy, the Human Resources Strategy for Researchers (HRS4R), which aimed at supporting research institutions and funding organisations in the implementation of the C&C in their policies and practices. To date, 297 organisations received the HR excellence in research award, which intends to publicly recognise the progress made by institutions in aligning their human resource strategies with the principles set out in the C&C. However, according to multiple sources of information, including Eurodoc own internal data, ECRs are so far understood as a source of cheap labour and they easily become the object of opportunistic behaviours by supervisors and host institutions. In addition, no one seems to be taking responsibility or being accountable for the career development of ECRs.

While Eurodoc has been a strong supporter of the C&C (including being involved in the development of its recommendations), even among its member organisations there seems to be some mistake or lack of information regarding the topic. In our presentation we will address the question of what impact a comprehensive European-wide implementation of the HRS4R and of the C&C could have on ECRs working conditions. Specifically, we will review what has been achieved so far and what is still lacking, including some data on the current status of the C&C and HRS4R implementation. We will also make clear how the implementation of the C&C recommendations could support a structural change in institutions (e.g., universities), and what Eurodoc and its member organisations could do to further support such change.

The evolution of doctoral education

Eva Hnatkova, Student Chamber of the Council of HEIs (SK RVS), Czech Republic

Fulvio Rizzo, The Finnish Union of University Researchers and Teachers (FUURT)

This presentation highlighted the competencies and outcomes now expected of those completing a PhD. Due to rapid changes in society, including the development of information and communication technology, the growing production of knowledge in the economy, increasing international competition, technological evolution, as well as changes in the occupational structures and in the contents and organization of work, the doctoral programs have to do much more than preparing doctoral candidates only to the academic field. There are more and more emerging requirements that PhD training should include the development of particular skills that can be transferred from academic to other professional settings, and from one professional setting to other skills that enhance graduates' employability, their ability to manage their own careers, and their sense of responsibility for making contributions to society. Development of particular skills should be included in PhD training. Concept of learning outcomes: the concept of learning represents a relevant basis for equitable assessment in the world of education and lifelong learning. Learning outcomes may materialize in the form of knowledge, skills and competencies. They can be the result of any kind of learning whatever the setting, whether formal, non-formal, or informal. The Traditional approach focuses on the content of a course or programme rather than on what learners are expected to know and be able to do after the completion of the programme. Learning outcomes is currently top-down approach and needs collaboration with grassroots organisations. Two external talkers went here to share good practices. Olga Sthyka introduce PIPERS project workshop & Baltic University Programme (BUP). DOSZ did a national survey which was presented by Kata Asztalos.

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