OPEN DATA 4 OPEN SCIENCE
by Enrico De Angelis

At the end of 2011, Europe approved a decision concerning all its documents and information and their reuse. Few less than ten years after it stated (2003/98/EC) that public sector information should be usable by everyone, the EU Commission eventually decided that information must also be made available to users. European Knowledge Economy needed data to nourish innovation (innovative value-added products and services) and European Union should have made all its data (statistics, publications, regulations, ...) available online, free of charge, machine-readable and structured. So the Directorate for Communications Networks, Content and Technology, together with Member States institutions, started giving access to our e-Gov data.

We quote this because it is Open Data history but also to invite you ESRs (“early stage researchers”) to take a look in the catalogue of EU’s Open Data Portal and check if anything is useful to your research work. Data-sets grow continuously, nevertheless, so you might even check with a certain frequency. You can also perform a tour among CORDIS data: they are about European Research projects, and this tour might even enrich the state of art of your topic (here).

Ok, another historical premise.

Scientists started to pose the question of Open Access even before the www, in the early nineties, but it was only in 2012 when European Commission decided to adopt it as policy measure (COM2012-401), to enhance the usability of the results of EU-funded, Horizon 2020 researches. It still took a little to be fully practiced but now it is done. But: once opened the results of a research, what about to open its intermediate products, i.e. research data? Ten years ago (in 2009 for example: see the PARSE.Insight report) the creation of an infrastructure supporting the conservation (for the re-analysis, as well as for just sharing data) was a visionary dream. Only few years later, the idea became feasible (cloud technologies helped), and every serious Scholarly Publisher started to evolve as whole research information providers, allowing researchers to share their data and promoting those who were able and keen to do it.

Open Access is an opportunity since 20 years and now it is a must for most of publicly funded publications. Open Science is still a concept (J.C. Junker used it in its Communication to European Parliament, Council and Committees, in 2015, where he summoned the importance of the access to texts and data in research and innovation activities and «a transition towards a more efficient and responsive 'Open Science'»). Open Data is its first real step and already a practice: Open Data repositories exist also in Humanities, not only in High Energy Physics! And few of them are considered serioun the master journal list of the Web of Science (ex-ISI). For example, see the following ones:

- The Journal of Open Archaeology Data (JOAD)
- Data in Brief, an “all purpose” Elsevier Journal
- The Journal of Chemical & Engineering Data, published by the American Chemical Society

and find your open data journal and contribute to the future open science!

Important! THE 2019 PHD CALL IS OPEN! Spread the news
Politecnico di Milano has issued the call for PhD positions, starting their career in November 2019, for candidates earning their second-level degree by October 31st, 2019. Access to Ph.D. Programmes is by selection. The University selection call is issued annually for all Ph.D. Programmes, and is viewable at the link www.phd-admission.polimi.it All active PhD Programmes will offer positions in the call.

Deadline for application: May 21st 2019 at 2 PM (Italian time)
CALLS AND EVENTS

2019 CONFERRAL OF DOCTORAL DEGREES
Every year, the PhD School confer Doctoral Degrees in an official Diploma Ceremony, during which few invited speakers, among which some ex-PhD Candidates report their post-doctoral experience. Keynote Speaker: Professor Effy Vayena, head of the Bioethics Lab at ETH Zurich.

Friday, May 24th, 9 am, Bovisa Campus, Via Lambruschini, Building BL28
Aula Magna Carassa e Dadda

RESIDENCES FOR “FAR FROM HOME” PHD CANDIDATES
Politecnico di Milano offers to the best-ranked winners of the next PhD call 40 single rooms places, in the following (new: 2018) Residences, in Milano:
- Pareto Residence (via Maggianico).
- Einstein Residence (via Einstein)
The 40 best ranked “far from home” winners will be allowed to live in a new residence pay a discounted price (250 €/month). Further information can be found here. See here for the call and the application procedures.
Deadline: May 21st 2019 at 2 PM (Italian time)

PHD OPPORTUNITIES AT THE CAREER DAY
The PhD School of Politecnico di Milano will take part of the Career Day, organized by Career Service of Politecnico di Milano, an event that offers students and graduates the opportunity of enter in touch with potential employers and the job market. The PhD School will manage one of the booths all day long and will present the PhD opportunities (including the 200+ positions call presently open) at 3:50 PM in room BL27.04.
Tuesday, 14 May 2019 at the Bovisa Campus, Building BL27, from 9:30 AM to 5:30 PM

PARTNERSHIP FOR KNOWLEDGE (PfK)
PfK is a higher education initiative of the Italian Cooperation providing scholarships to researchers, public administration officers, social entrepreneurs and young leaders. It offers a unique opportunity for future professional and academic leaders to experience Italian culture and build lasting, positive relationships with Italy. The programme offers scholarships for specific Masters of Science and PhD fellowships (in English) about three profiles: Sustainable Energy (renewable energy systems, energy efficiency and energy planning), Environment (risk protection and prevention, climate change and water management) and Industrial innovation (the new frontiers of innovation). In 2019-2022, PfK will provide 19 MSc scholarships and 6 PhD Fellowships for Citizens of Kenya, Mozambique, and Tunisia.
Application deadline: 20 May 2019 at 12.00 pm, Italian time
IDEA / ASPIRE LEAGUE SUMMER SCHOOLS
This year, the IDEA League and the ASPIRE league offer you the wonderful opportunity to participate in six high-level summer schools:
- Better Living (ASPIRE League Summer School, Tokyo Tech) 8 - 12 July 2019
- Infrastructures of Science (ETH Zürich/RWTH Aachen Summer School) 15 - 19 July 2019
- First WACQT on Quantum Technology (Chalmers University Summer School) 21 - 26 August 2019
- Ethics in Research (Politecnico di Milano Summer School) 2 - 6 Sept. 2019
- Mobility Concepts 2030 (RWTH Aachen Summer School) 16 - 20 Sept. 2019
- Ethics of New Biotechnologies (TU Delft Summer School) 19 - 25 October 2019

Doctoral Candidates and Masters Students from Chalmers University, ETH Zürich, TU Delft and RWTH Aachen, together with Politecnico di Milano are eligible to apply. The call for application is available here. Its deadline is May 15th 2019 except for is the ASPIRE League’s summer school whose deadline is May 10th 2019. No registration or accommodation fees. Students from IDEA League member universities selected to participate in a summer school only have to pay for their own travel costs.

Deadline: 10 May 2019 / 15 May 2019

ERASMUS+ FOR TRAINEESHIP 2019/2020 CALL
The Erasmus+ for Traineeship call for the academic year 2019/2020 will be issued by mid-May with a deadline by the end of May (approximately). You will receive an email about it, as soon as it is issued. PhD Candidates may ask grants for internship and research visit period (compatible with the scholar-ship increase for periods abroad) at an European company or Institution (including Universities).

NII INTERNATIONAL INTERNSHIP PROGRAM
The NII - National Institute of Informatics of Japan is pleased to announce the launch of the 2019 NII International Internship Program. For developing better research contacts with partner institutions whom NII has signed MOU agreements with, it has been decided to promote the possibility of receiving Master’s and/or Ph. D. degree students from these institutions as interns.

Application deadline: May 31st, 2019 (at 5.00 pm Japan time)

7th INTERNATIONAL SUMMER SCHOOL
TECHNOLOGY TRANSFER IN LIFE SCIENCES
Would you like to check the commercial potential of your research? Do you think you already have the Next Generation Technology or Service in Life Sciences? Then get the expertise how to commercialize it!

Apply for the International Summer School on Technology Transfer in Life Sciences, taking place 16th September to 20th September 2019 in Dresden/Germany! During this one-week training programme, you will learn how to get your research ideas from the lab to the market. You will get introduced to the basics of technology transfer, enabling you to identify the commercial potential within your research, how to patent and license it, how to develop a spin-off, and how to fund all these activities. You will learn about important pitfalls when approaching industry and get expert coaching on pitching in front of potential investors, including a mock-pitch in front of a real expert investor panel!

Participation is free of charge and accommodation costs for all selected candidates will be covered! Interested? Then apply by 23rd June, 2019 latest using the online application form on our website

Deadline for applications: 23 June 2019
SEMINARS AND WORKSHOPS

WE-NEED FINAL CONFERENCE AND INTERNATIONAL WORKSHOP
The Final workshop organized within the WaterJPI project “WE-NEED - WatEr NEEDs, Availability, Quality and Sustainability”. The goal of WE-NEED is to develop new management strategies to assist in the sustainable use of two key components of the groundwater resource: pumping wells, used to obtain water for drinking purposes, and natural springs, typically employed for crop irrigation as well as for recreational use.
PhDs working in the area of “Flow and Transport Processes in Porous/Fractured Media” are encouraged to submit a poster and to present and discuss their current research.
12 June 2019, Auditorium of Politecnico Milano

HOW TO IMPROVE YOUR PRESENTATION
Dr Peter and Lori Miraldi, The Pennsylvania State University
Series of workshops to help you improve your scientific presentations.
- Improving PowerPoint Presentations
- Alternative Slide Design
- Effective Delivery
Flyer + Information and registration here
From 10th to 20th May 2019

STARTING COURSES – PHD SCHOOL

DESIGN THINKING
Prof. Alessandro Deserti, Cabirio Cautela, Francesca Rizzo
The core objectives of the course are: - to introduce a theoretical framework of the Design Thinking (DT) principles showing the main references; - to show diverse perspectives and fields of application of DT; - to position DT in the broader context of innovation and design management, showing the connections with other innovation-related literature streams (e.g.: six-sigma, lean management and engineering-oriented methodologies, blue ocean strategy; NPD school; creativity management; etc.); - to distinguish the different scopes of DT and the different strands to which it is related (e.g.: "Sprint Execution"; "Creative Confidence"; "Innovation of meaning"; "Exploration vs. Exploitation"; etc.) - to illustrate how DT relates with organizational and societal transformation; - to illustrate how DT can support the development of entrepreneurial opportunities; - to illustrate how DT can support academic and non-academic research.
From May 6th to June 19th 2019

INDUSTRIAL SKILLS
Prof. Paolo Biscari
Develop and exploit in the young PhD students a system of skills development and innovation management in industrial and service companies
From 13th to 31st May 2019

INNOVATIVE TEACHING SKILLS
Prof. Giulio Magli
The course objective is to stimulate the participants' awareness of the complexity of the learning/teaching processes, while providing hints and tools for an innovative design and management of the learning experiences.
From May 2\textsuperscript{nd} to June 10\textsuperscript{th} 2019

**SCIENTIFIC COMMUNICATION IN ENGLISH**  
**Prof. Paolo Biscari**  
The aim of the course is to develop and improve the candidates' scientific writing, as well as increase their ability to deliver scientific and technical presentations in English.  
From 3\textsuperscript{rd} to 17\textsuperscript{th} May 2019

**STRATEGIC DECISION MAKING**  
**Prof. Valentina Ferretti**  
This highly interactive course has two main goals: (i) make you discover what are the behavioural traps in strategic decision-making processes (i.e. those systematic cognitive and motivational mistakes we all make when confronted with complex decisions) and (ii) provide you with the analytical solutions to improve the process.  
From 6\textsuperscript{th} to 17\textsuperscript{th} May 2019

**TECHNOLOGY & SOCIETY**  
**Prof. Stefano Crabu**  
The mission of this course is to offer to Ph.D. students awareness of the societal and political impact of new emerging technologies. By adopting a "critical thinking" sensitivity, the course will develop practical skills able to face the challenges of everyday technological innovation activities. Moreover, the course will present actionable tools for the responsible management of the societal impact of technological research projects.  
From 7\textsuperscript{th} to 28\textsuperscript{th} May 2019

**STARTING COURSES – DOCTORAL PROGRAMMES**

**PHD IN INFORMATION TECHNOLOGY**

**DATA AND INFORMATION QUALITY**  
**Prof. Cinzia Cappiello**  
The course introduces the basic concepts, models and techniques of the data quality. It aims to provide the tools to assess and improve the quality of data used in different applications and contexts in order to avoid errors and inefficiencies.  
From 9 May 2019

**VIRTUAL AND MIXED REALITY**  
**Prof. Pier Luca Lanzi**  
Virtual reality (VR) and augmented (or mixed) reality (AR) technologies are effective tools to build immersive user experiences and have been applied to learning, training, simulation, etc. This course provides an introduction to the design of virtual and mixed reality experiences.  
From 14 May 2019

**PHD IN MECHANICAL ENGINEERING**

**INTERFACE FRACTURE MECHANICS**  
**Prof. Ruzica Nikolic (University of Zilina, Slovakia)**  
Aim of the course is to introduce the students the theoretical fundamentals of interface fracture mechanics and to provide the methods and the tools the solve interface crack practical problems.