Are rewards and evaluation key to Open Science?



Panel discussion, Open Access week Torino 2020, POLITO-UNITO 23 October 2020

Organisers





Open Access Week Torino 2020 #oaweek2020_torino

Prof. Federica Cappelluti

- Associate Prof. of Electronic Engineering at PolitTO
- Researcher in (opto)electronic devices, photovoltaics
- Rector's advisor for Open Science (since May 2018)



Open Science benefits & challenges

- The <u>internet of FAIR data/software/services</u>: digital tools enabling collaborative, transparent, reproducible, re-usable research --> impactful to science and society – not just to academics' rankings
- Doing **FAIR science** is a tough job: it requires **researchers new skills & a lot of time**; it demands institutions to create **new research support services**.

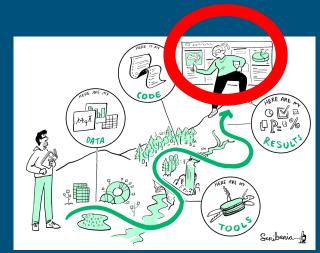




what we reward

The researcher dilemma

- Mismatch between what we (hopefully) value and what we evaluate and reward
- How can we educate the future researchers and doctors to Open Science practices if we assess their research based on <u>quantitative</u> -<u>recognizably flawed</u> - <u>indicators</u> mostly based on publications?
- How could we change the evaluation system to push forward Open Science but avoiding the errors from the past?...Once metrics are accepted as a way to gauge value, they start to lose meaning as objective measures...



The Turing Way project illustration by Scriberia. Zenodo

Prof. Gianluca Setti

- Professor, Electronics for Signal and Data Processing @Polito
- Rector's advisor for Research Quality Evaluation (VQR)
- Volunteer for IEEE (420k members, 200+ publications, 1900 conference/year)
 - Editor-in-chief IEEE Transactions on Circuits and Systems Part II (2006-07), Part I (2008-09),
 Proceedings of the IEEE (since 2019)
 - IEEE Vice President for Publication Services and Products (2013-2014)
 - Worked to establish correct use of bibliometric indicators for assessing publication and researchers impact (see <u>IEEE Statement on Appropriate use of Bibliometric Indicators</u>)
 - Instrumental in introducing Research Reproducibility (RR) framework for IEEE Authors (see report IEEE-NSF Research Reproducibility Workshop): "Definition of RR Badging"
 - Represented IEEE at two presentation at US National Academy of Engineering (see report in https://www.nap.edu/read/25303/)





How can we promote RR?

- Advantages in RR are obvious: Increase collaboration and reuse
 - Information will be more visible and directly usable:
 - Researchers will advance technology more easily
 - Practitioners will develop new products faster
 - RR can reduce the quantity of "noise" (very important in the era of information curation)
- What can we do? we need a culture shift
 - 1. A well-prepared RR contribution requires time and effort, which may be in opposition to the publish or perish pressure: we need to reduce the metric pressure and evaluate artifacts as primary research products in tenure, hiring, promotions
 - 2. We need to reward the positive efforts of authors contributing to RR (badging, awards, ...)
 - 3. Publisher should facilitate the highlighting of papers with RR content
 - 4. Publishers should facilitate artifacts upload and reuse

Dr. Yasemin Turkyilmaz-van der Velden

- PhD in Molecular Genetics
- Data Steward at TU Delft since 2018
 - Each faculty has one
 - First point of contact for any research data related questions
 - Support, train and inspire researchers:
 - Research data management
 - Reproducible Research
 - **Open Science**
 - Research Integrity
 - Act as consultants and not police
- Previous Community Manager of TU Delft Data Champions
- Current core team member of Open Science Community Delft (OSCD)





Open Science Community Delft (OSCD)



- Part of the international network of Open Science Communities
- Shared Code of Conduct and Guiding Principles
- Anyone interested in any aspect of open science can join - not only researchers

Benefits:

- Network building
- Learn and practice new skills
- Increased impact and visibility
- Inform development of relevant policies and the TU Delft Open Science Programme

Dr. Annalisa Montesanti

- PhD in cancer biology and 13 years experience in research
- Programme Manager at Health Research Board, Ireland since 2005
- Leading the portfolio of Health Research Careers
 - Developed and implementing a coherent framework for the capacity building of health researchers in Ireland
 - Designing a suit of career development schemes from PhD to leadership
 - Leading the implementation of the DORA principles across several funding schemes
 - Co-Leading the implementation of FAIR data management and stewardship practices in HRB funded awards and nationally in health research



A more qualitative assessment in grant applications

HRB signed the DORA declaration in 2018 at same time of launching the HRB Open Research Platform

We have started implementing the principles since 2016

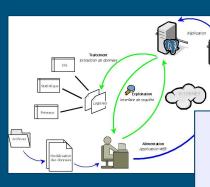
- HRB recognizes a variety of research outputs in addition to research articles, including data, research material, databases, national or international reports or policy briefings, audio/video products, and more. No impact factor or H-Index.
- In all the individual/career development grant schemes applicants are requested to fill a more narrative based
 CV addressing their contribution to (1) knowledge, (2) training and career development of other researchers and
 (3) wider research community and society in addition to (4) a personal declaration/statement.
- HRB guide reviewers by (1) referencing DORA; (2) emphasising they should to assess the content, quality and impact/influence of the research conducted; (3) pointing they need to consider active research experience of researchers and (4) tackling gender and unconscious bias in reviewing panels.

Dr. Francesco Beretta

Digital history research team

(LARHRA, CNRS-Université de Lyon) – Papers

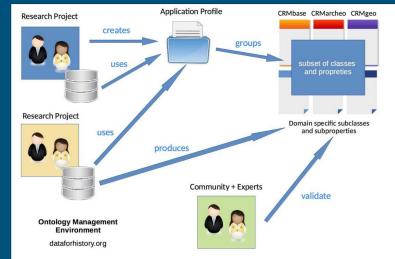




Geovistory (2020)

Open, modular, collaborative platform for storing, analyzing and publishing historical data and texts

Individual Linked data Users input Users output or collective https://bhp.ish-lyon.cnrs.fr projects retrieving publication www.patronsde SPARQL france.fr endpoint Drupal views **PostgreSQL** Sites publishing publication references symogih.org geo-larhra.org Semantic Analysis Model alignment with already available tools



symogih.org (2008)

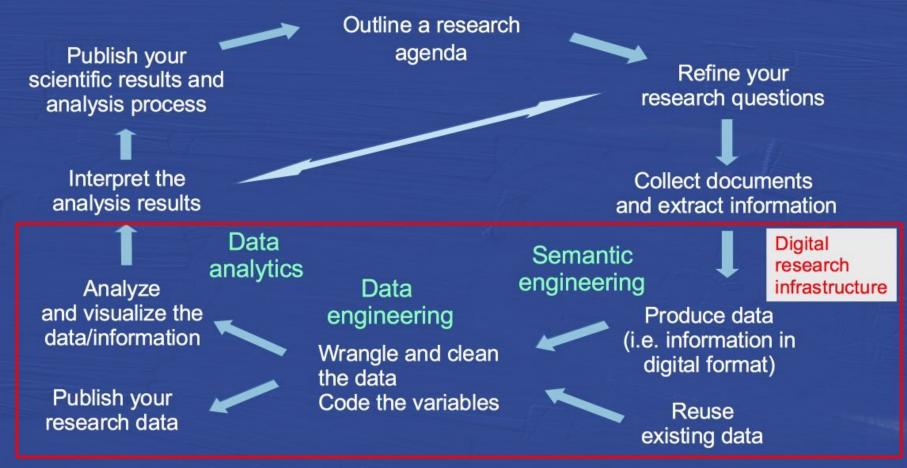
@phn larhra







Cycle of (digital) knowledge production in historical sciences



Dr. Emma Lazzeri

- PhD in Innovative Technologies at Scuola Superiore Sant'Anna
- 10 yrs as a Researcher in the Photonic Technologies field
- Since 2017 Researcher and Open Science Manager at CNR
 - European Commission Open Science Monitor advisory group member
 - Member of the European Open Science Cloud <u>Working Group on</u> <u>Training and Skills</u>
 - Chair of the Italian Computing and Data Infrastructure <u>Task Force on</u> <u>Competence Center</u>
 - OpenAIRE <u>National Open Access Desk Coordinator</u>
 - Coordinator of the <u>Research Data Alliance Italian Node</u>



Actions Towards a new evaluation system



- Horizon Europe anticipation embracing and incentivizing Open Science as modus operandi: appropriate metrics for better assessing the impact of research output and the engagement in open science, project evaluation, EOSC use
- The new <u>Open Research Europe</u> publishing platform will not get an Impact Factor!
- EUA <u>working</u> on <u>research assessment in OS era</u>
- Current version of the <u>Strategic Research and</u> <u>Innovation Agenda for EOSC:</u>
 - Evaluation and promotion criteria should recognise openness and FAIR practices
 - Monitor the research evaluation schemes and check whether they include OS principles and OA schemes.



- Italian <u>National Research Plan released in august</u>
 2020 contains the National OS plan
 - Recognise researchers contribution to FAIR data
 - Overcome the current evaluation system based on commercial based bibliometric indexes, and by rewarding OS practices
- ICDI to create a <u>National EOSC Competence</u>
 <u>Center for training and support</u>
- Research communities involved to have their say!



Thank you!

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