Open Science Programme

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Content

• Why Open Science
• Open Science Programme at Utrecht University
  • Recognition and rewards
  • Education
• Open Science monitor: Lessons Learned
Transition to Open Science: why?

Just some of the problems of the science system

- Replication crisis
- Competitive and non-cooperative practices
- Massification, competition, embargos, positivity bias → unproductivity
- Monopolized and expensive publication markets
- Privatization of infrastructures and problems of knowledge ownership / knowledge access
- Non-recognition of importance of knowledge commons outside of specialist communities
- Brain Drain and publish or perish...

Katja Mayer, Vienna
The Scientific Field: Professional Interests, Elites, Stratification, Power Struggle, and Economics

Figure 3. The credibility cycle, adapted from Latour and Woolgar (1986). Points at which organizational devices connect to the cycle are shown.

Pierre Bourdieu, Science of Science, 2004
Problems of the Current Reward System in Science

Society is largely absent from the *credibility cycle*!

Hypercompetition for limited funds works against:

- Team-Science
- Multidisciplinarity
- Diversity

Quality in Quantitative terms:
- number of articles, journal impact factor, citations, H-index
- amount of funding obtained

- Most papers still behind paywalls
- Data not shared
Open Science: Open Production and Use of Knowledge

‘The overall aim of Open Science is to increase the quality, progress and scientific and societal impact of research and scholarship. To achieve these goals in the practice of Open Science one does’

- Engage -when appropriate- with relevant and representative stakeholders from society to:
  - define problems to be investigated; discuss ongoing research
  - actively promote that the results of any kind provide guidance for implementation and action(s) in the specific contexts.
- Share research results, if possible, in several stages of the work and publishing these papers, and if possible data and code, Open Access’

TOWARDS OPEN SCIENCE

OPEN ACCESS
FAIR DATA & SOFTWARE

SCIENCE FOR A BETTER WORLD
- Distinction between academic and support staff reduced
- Multidisciplinary and inclusive teams
- Open access of output
- Teamwork
- Leadership
- Involving society
- Co-operation instead of competition
- New evaluation criteria
- Sharing data and code
- Impact
- Transparency

PAST
SCIENCE
SOCIETY

RECOGNITION AND REWARDS
PUBLIC ENGAGEMENT

OPEN SCIENCE PROGRAMME
OPEN SCIENCE RECOGNITION AND REWARDS

TRIPLE: Team Spirit as the default approach to working in academia

FUTURE
Dynamic career paths

Primary focus

RESEARCH
EDUCATION
LEADERSHIP
IMPACT

Output
Quantity
Closed
H-index & impact factors
Funding received

OPEN SCIENCE PROGRAMME

IMPACT
PROFESSIONAL PERFORMANCE
RESEARCH
EDUCATION
LEADERSHIP
TEAM

Quality
Open
Narratives & meaningful metrics
Societal relevance

Organisation
Reshaping the academic self

Manifesto (link)

OPEN SCIENCE IN EDUCATION

1. Open Science Mindset
2. Open Science Skillset
3. Recognition and Rewards
4. Open Educational Resources

Paths
- MA- and PhD-training
- Life Long Learning
- Common Curriculum

OPEN SCIENCE
Open Science Monitor

Goal

❖ Get insight in awareness, attituded and behaviours on 10 Open Science practices of academics

Set-up

❖ Online questionnaire to all academics of Utrecht University
Ethical approval for questionnaire

Demographic and background questions

- Gender
- Age
- Nationality
- Faculty
- Department
- Current position
- Year of obtaining PhD
- Type of contract
- Type of research
First obstacle - GDPR

Informed consent

❖ Use of the word ‘anonymized’
❖ No information on storage location of data

Questionnaire was taken offline for two weeks which lead to a low response rate
Second obstacle – open data

Questionnaire on open science

- Practice what you preach – FAIR and open data
  - Sensitive personal information
  - Multidisciplinary team with different views on sharing data
    (e.g. removal of demographic data yes/no)

Solution we have selected: federated analysis
Questions?

❖ More information on https://www.uu.nl/en/research/open-science

❖ Email to openscience@uu.nl

❖ Sign up for our newsletter

❖ Recognition and reward vision (link)

❖ Manifesto (link)
Transition to Open Science

Open Science Platform

Open Access
- FAIR data & software
- Recognition & Rewards
- Public engagement

Open Science Programme

Utrecht University
- Geosciences
- Humanities
- Law, Economics, & Governance
- Medicine
- Science
- Social & Behavioural Sciences
- Veterinary Medicine
- University College
- UBD/UB

Faculty Ambassadors
- OSCU members

Open Science Community
- Utrecht

Ordered accountabile to

Executive Board