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Research Assessment in the transition to Open Science

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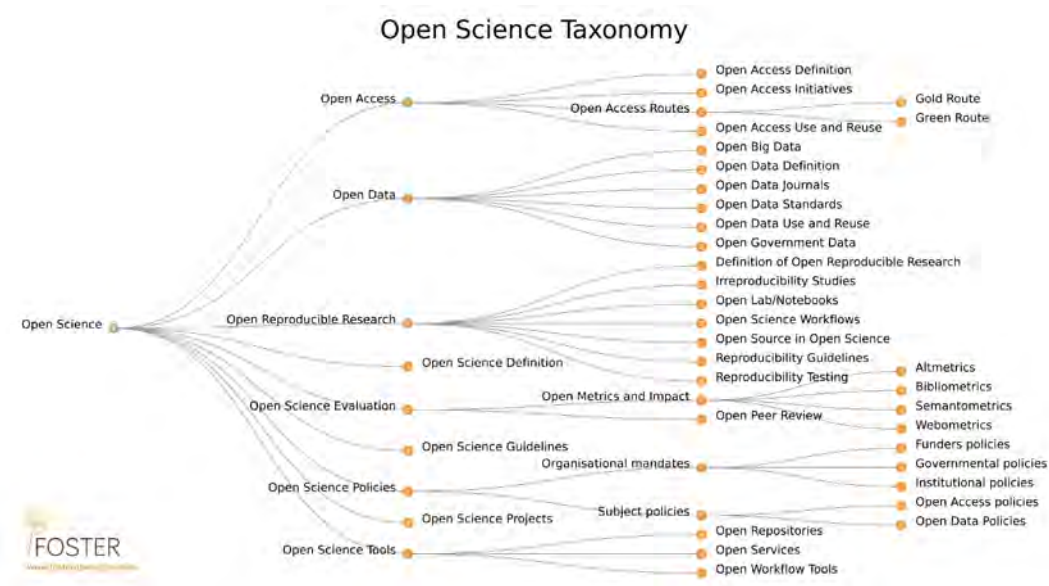
Agenda:

- The Times They Are a-Changin'
- Politics of Open Science in Norway
- Research assessment and open science

The Times They Are a-Changin'

Open Science is about many things:

- Open Access
- FAIR Data
- Open Source
- Open Evaluation

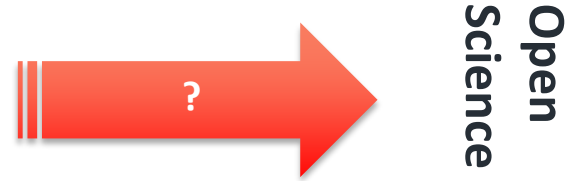
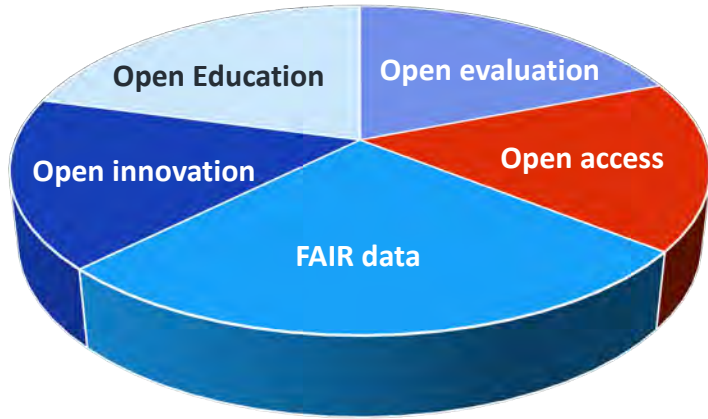


All things are interlinked!

Slow train to open science?

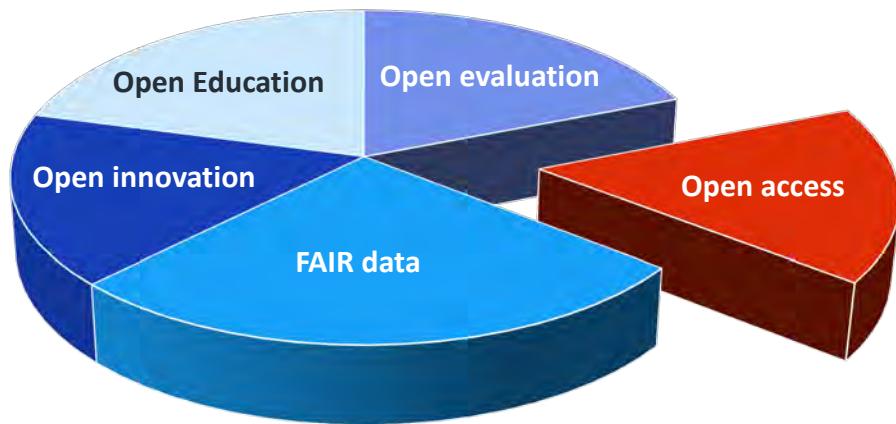
Open science and open access has been on the agenda for 20 years....

But little changed....



Slow train to open science?

Open science and open access has been on the agenda for 20 years....



But little changed....

- *until sept 2018...*



The ecosystem of knowledge production is in transition

The politics of Open Science in Norway

Actors and drivers

Cooperation between:

- The Ministry
- The institutions (Universities Norway)
- The (new) agency for infrastructure (Unit)
- The Research Council

As well as international counterparts:

- > EU/European Commission
- > EUA
- > Agencies in other countries
- > Science Europe/cOAlition S

Several systematic arenas for cooperation since Fall 2018:

- Universities Norway's Action plan for Open Science
 - National Forum for Open Science
- Unit's strategy for digitalisation
- RCN' Policy for Open Science

Negotiating Open Access

- May 2018: Mandate from Universities Norway to negotiate with the publishing houses, - with a possible *no deal* option
- Rectors take active part in the negotiations



Results so far....

- ✓ Wiley
- ✓ Elsevier
- ✓ SpringerNature
- ✓ Taylor & Francis
- ✓ Sage
- ✓ CUP



Percentage of peer reviewed journals most used by Norwegian researchers where open access/Plan S compatible

- 2018: 3%
- 2020: 58%, and counting...

Proactive role in Plan S

- Director of RCN key role in cOAlition S
- Universities Norway in close dialogue with RCN and with Science Europe
- Linking negotiations with Plan S; Active coordination and information sharing through EUA (Big Deals Group)

Active researcher involvement

- Always take the researcher's perspective!
- Taking tough and open debates with critics and
- Bringing some of the critique back to the cOAlition to improve the process

Updating the statistics

Developing webpages where academics and libraries can check which channels are open/Plan S compatible

NPI NORSK PUBLISERINGSINDIKATOR

NSD NORSK SENTER FOR FORSKNINGSDATA
UHR Universitets- og høyskolerådet

Forside Fagfeltoversikt Forlag Organisering Om NPI Vidar no

Du er her: Forside / Fagfeltoversikt

Information on open access

Biologi
Ansvarlig fagorgan: Nasjonalt publiseringsutvalg for MNT fag

ISSN Kanaler ISBN Forlag Nomineringer Kommentarer Simulering

Søk i listen på navn eller ISSN

Nivå 2019	Nivå 2020	ISSN	e-ISSN	Publiseringskanal	Sherpa Romeo	DOAJ	Unit avtale	Prod (NO)	Prod (V)	Sitering	Nivå DK	Nivå SF
2	2	0171-8630	1516-1599	Marine Ecology Progress Series	GR			55.6	1310	0.97	2	1
2	2	0021-9258	1083-351X	Journal of Biological Chemistry	GR			39.4	6518	1.06	1	2
2	2	0962-8452	1471-2954	Proceedings of the Royal Society of Lo...	GR			30.7	1733	1.59	2	3
2	2	0099-2240	1098-5336	Applied and Environmental Microbiol...	LC			27.8	2117	1.27	2	2
2	2	0962-1083	1365-294X	Molecular Ecology	LC		U	27.6	1318	1.54	2	3
2	2		1554-462X	Frontiers in Plant Science	GR	DOAJ		27.4	5333	1.33		1
2	2		1471-2105	BMC Bioinformatics	GR	DOAJ		23.5	1678	0.85		1
2	2	0022-0302	1525-3198	Journal of Dairy Science (JDS)	LC			22.8	2677	1.56	2	3
2	2		1471-2148	BMC Evolutionary Biology	GR	DOAJ		20.1	827	1.15		2
2	2	1354-1013	1365-2486	Global Change Biology	LC		U	19.7	1096	2.61	2	3
2	2	0030-1299	1600-0706	Oikos	LC		U	18.9	529	1.34	2	2
2	2	0014-3820	1358-5646	Evolution	LC		U	18.1	729	1.22	2	3
2	2	1553-734X	1553-7338	PLoS Computational Biology	GR	DOAJ		17.9	1754	1.35	1	2
2	2	0022-0949	1477-9145	Journal of Experimental Biology	GR			17.1	1498	1.22	2	2
2	2	0999-193X	1297-9686	Genetics Selection Evolution	GR	DOAJ		16.7	288	1.20	1	2
2	2	0012-6958	1939-9170	Ecology	GR			16.4	1067	1.57	2	3
2	2	0021-8790	1365-2656	Journal of Animal Ecology	LC		U	16.3	446	1.60	2	2
2	2	0168-1605	1879-3460	International journal of food microbiol...	GR		U	15.8	1022	1.56	2	3

The politics of open science – Status in Norway post 2018

- From an idealistic and abstract goal to a relatively concrete process that no one can escape
- From a topic mostly handled and discussed by librarians to a hot topic at all levels and across sectors, - from ministries, via rectors to the individual PhD-student
- Established national arenas for cooperation, exchange and best practice
- So far, Open Science = Open Access, - but now about to move to next level!
- Key areas now moving into the center field:
 - **Open data**
 - **Research/Career assessment in light of open science**

Open Science is bound up
inextricably with modernization of
the system of recognition and
rewards of academics

Why do we need to modernise career assessment?

- Academics delivers different kinds of results from research that are not (systematically) assessed
- Individual performance are recognised, but to a lesser degree team performance
- Quantitative results (eg. number of publ.) are emphasised over quality work
- Systems of appointment and selection should be more transparent and systematic, - especially important for young researchers
- Necessary to update and align models and framework for career assessment nationally and internationally
- **And not least:** Open Science changes the way new knowledge is produced, documented and shared

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What might count?

- Publications
- Practice in open science
- Open Source
- Fair data and open datasets
- Teaching, mentoring and supervision
- Academic leadership
- Funding
- Impact
- Patient care
- Collaboration
- Interdisciplinarity
- Citizen engagement
- IP and patents
- Artistic results
-

Norwegian working group for research assessment – The mandate:

Develop guiding principles for the evaluation and assessment of research related to hiring and promotion processes, as well as assessing research projects for funding.

- How bibliometric analyses and indicators can be included in the assessment of researchers and research
- How open science principles in different phases of the research process can be assessed as well as what a good implementation of DORA can mean in practice
- How other results than traditional scientific articles, anthology chapters and monographs, as well as datasets, source code, software can be included in an evaluation
- Multilingualism in dissemination of research (the Helsinki initiative)
- How can The Open Science Career Evaluation Matrix (OS-CAM) be used in a Norwegian context?

Evaluation of Research Careers fully acknowledging Open Science practices - Open Science Career Assessment Matrix (OS-CAM)

Open Science Career Assessment Matrix (OS-CAM)	
Open Science activities	Possible evaluation criteria
RESEARCH OUTPUT	
Research activity	Pushing forward the boundaries of open sci
Publications	Publishing in open access journals Self-archiving in open access repositories
Datasets and research results	Using the FAIR data principles Adopting quality standards in open data ma Making use of open data from other researc
Open source	Using open source software and other ope Developing new software and tools that are
Funding	Securing funding for open science activities
RESEARCH PROCESS	
Stakeholder engagement / citizen science	Actively engaging society and research user Sharing provisional research results with platforms (e.g. Arxiv, Figshare) Involving stakeholders in peer review proce
Collaboration and Interdisciplinarity	Widening participation in research through Engaging in team science through diverse c
Research integrity	Being aware of the ethical and legal issi confidentiality, attribution and environme activities Fully recognizing the contribution of o including collaborators, co-authors, citizens
risk management	Taking account of the risks involved in open
SERVICE AND LEADERSHIP	
Leadership	Developing a vision and strategy on how to normal practice of doing research Driving policy and practice in open science
Academic standing	Being a role model in practicing open science Developing an international or national profile for open science activities Contributing as editor or advisor for open science journals or bodies
Peer review	Contributing to open peer review processes Examining or assessing open research
Networking	Participating in national and international networks relating to open science
RESEARCH IMPACT	
Communication and Dissemination	Participating in public engagement activities Sharing research results through non-academic dissemination channels Translating research into a language suitable for public understanding
IP (patents, licenses)	Being knowledgeable on the legal and ethical issues relating to IPR Transferring IP to the wider economy
Societal impact	Evidence of use of research by societal groups Recognition from societal groups or for societal activities
Knowledge exchange	Engaging in open innovation with partners beyond academia
TEACHING AND SUPERVISION	
Teaching	Training other researchers in open science principles and methods Developing curricula and programs in open science methods, including open science data management Raising awareness and understanding in open science in undergraduate and masters' programs
Mentoring	Mentoring and encouraging others in developing their open science capabilities
Supervision	Supporting early stage researchers to adopt an open science approach
PROFESSIONAL EXPERIENCE	
Continuing professional development	Investing in own professional development to build open science capabilities
Project management	Successfully delivering open science projects involving diverse research teams
Personal qualities	Demonstrating the personal qualities to engage society and research users with open science Showing the flexibility and perseverance to respond to the challenges of conducting open science

OS-CAM – on different career stages

	R1	R2	R3	R4
Research output	+	++	+++	++++
Research Process	+	+++	++++	++++
Service & Leadership		+	+++	++++
Research Impact	+	++	+++	++++
Teaching and supervision	(++)	+	++	++++
Professional Experience		+	+++	++++

OS-CAC – in different academic fields


(The Career Assessment Cube)

	SOCIAL SCIENCE & HUMANITIES				EARTH SCIENCE				MATERIAL SCIENCE				LIFE SCIENCE			
	R1		R2		R3		R4		R1		R2		R3		R4	
	D1		D2		D3		D4		D1		D2		D3		D4	
	R1		R2		R3		R4		R1		R2		R3		R4	
Research output	+		++		+++		++++		+		++		+++		++++	
Research Process	+		+++		++++		++++		+		++		+++		++++	
Service & Leadership			+		+++		++++				+		++		+++	
Research Impact	+		++		+++		++++		+		++		+++		++++	
Teaching & supervision	(++)		+		++		++++		(++)		+		++		++++	
Professional Experience			+		+++		++++				+		++		+++	

Joint Dutch initiative between research institutions and funders

- Diversification and vitalisation of career paths
- Finding a balance between the individual and the collective
- Focus on quality
- Stimulating open science
- Encouraging academic leadership





Career Assessment in the Transition to Open Science

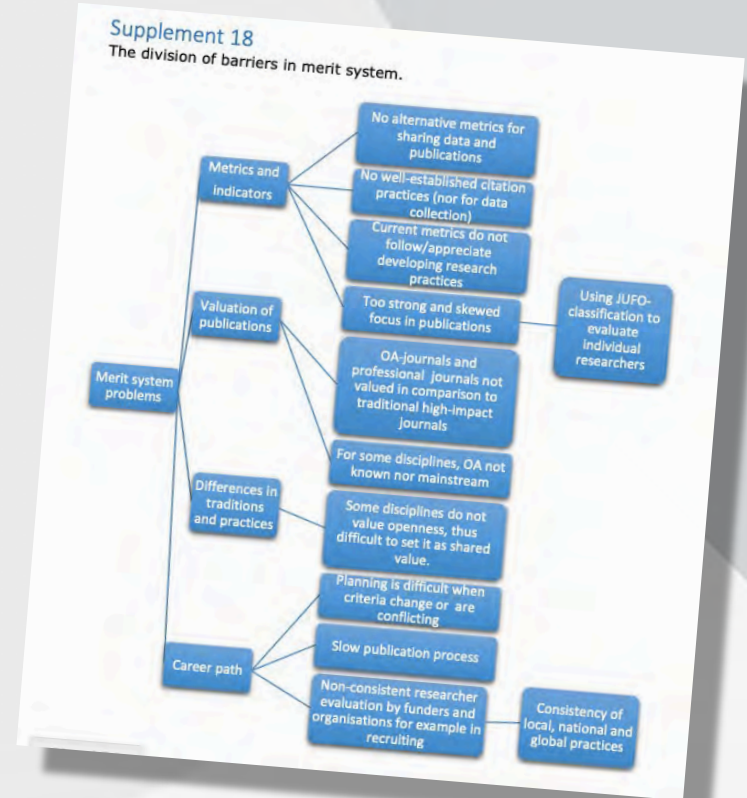
18 MAY 2020 | WORKSHOP

📍 OSLO, NORWAY

Finnish Atlas of Open Science / Declaration for Open Science



Merit system as a barrier for open science:



U:R Universities
Norway