



og åpen vitenskap – en nasjonal nettbasert forskertjeneste

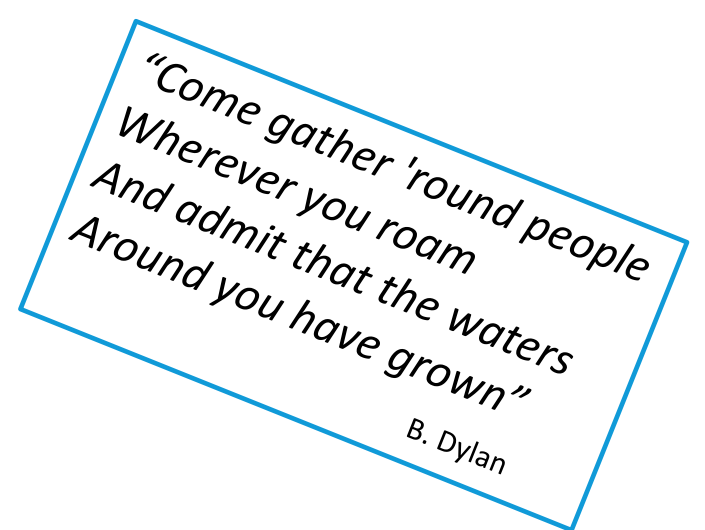
Nasjonalt seminar for UH-bibliotekenes nettverk for ph.d.-støtte, 10. april 2019

PhD on track-redaksjonen, ved:
Hege Charlotte Faber, NTNU
Torstein Låg, UiT Norges arktiske universitet

Diskusjonsspørsmål

- Hvordan bidra til at nettstedet er til nytte?
- Hvordan best forankre det i institusjonene?
- Hvordan best bruke det i undervisning?
- Er balansen mellom det generelle og fagområdespesifikke godt ivare tatt?
 - For generelt (og intetsigende)? For snevert, passer kun for noen?
- Er balansen mellom overordnede prinsipper og finurlige detaljer ok?

Tidene forandrer seg



Den gang da...

Open access hvafor noe?

Dele data? Uhørt!

Tellekant? På forskning!?

Vi stoler på forskningen

Nå

OA krav, løsninger og kontroverser

Krav om datadeling

Poenger og nivåer, eller DORA

Replikasjonskriser, rovdyr, fake science

Gjennomstrømning i organisert doktorgradsutdanning, hentet fra NSD

Institusjonstype	2017					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Universiteter	862	4,78	0	180	0	764
Sum	862	4,78	0	180	0	764

Institusjonstype	2016					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Universiteter	835	4,98	3,84	103	0	776
Sum	835	4,98	3,84	103	0	776

Institusjonstype	2015					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Universiteter	816	4,92	3,71	220	814	743
Sum	816	4,92	3,71	220	814	743

Gjennomstrømning - universiteter

Start ► Universiteter

Institusjonsnavn	2017					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Nord universitet	15	4,61		10		25
Norges miljø- og biovitenskapelige universitet	65	4,18		20		30
Norges teknisk-naturvitenskapelige universitet	285	4,59		55		325
Universitetet i Agder	25	4,96		5		10
Universitetet i Bergen	135	4,95		30		160
Universitetet i Oslo	220	4,8		35		140
Universitetet i Stavanger	35	5,06		10		25
Universitetet i Tromsø - Norges arktiske universitet	85	5,42		15		50
Sum	860	4,78	0	180	0	765

Gjennomstrømning – NTNU

Start ▶ Universiteter ▶ Norges teknisk-naturvitenskapelige universitet

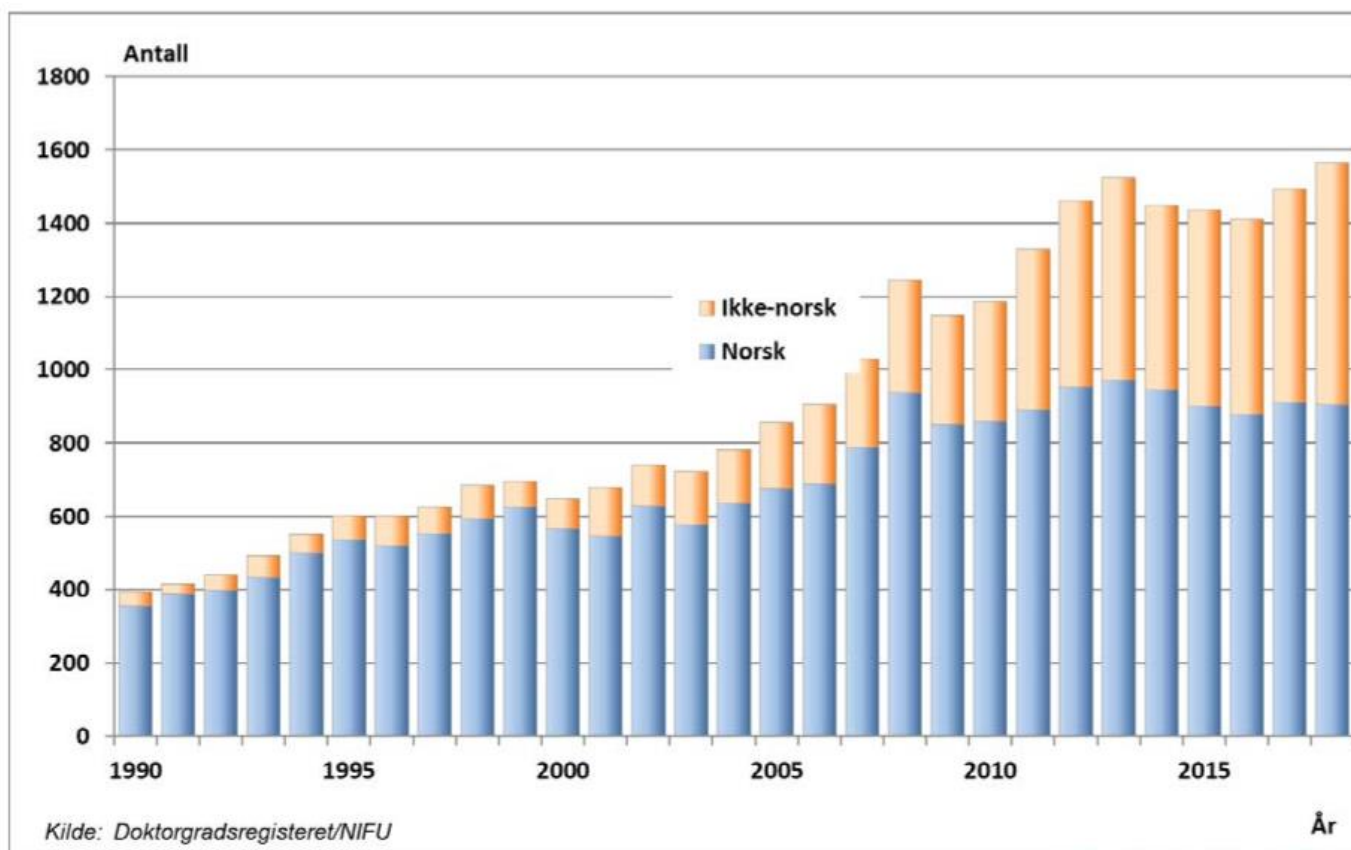
Fakultetsnavn	2017					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Det humanistiske fakultet	15	4,76				30
Fakultet for arkitektur og design	5	7,03				15
Fakultet for informasjonsteknologi og elektroteknikk	60	5,1		20		60
Fakultet for ingeniørvitenskap	65	4,43		10		55
Fakultet for medisin og helsevitenskap	55	4,17		5		70
Fakultet for naturvitenskap	60	4,26		15		30
Fakultet for samfunns- og utdanningsvitenskap	15	5,48				40
Fakultet for økonomi	10	4,75		5		15
NTNU (uspesifisert underenhet)		3,94				5
Sum	285	4,59	0	55	0	325

Gjennomstrømning - UiT

Start ▶ Universiteter ▶ Universitetet i Tromsø - Norges arktiske universitet

Fakultetsnavn	2017					
	Avlagte doktorgrader	Avlagte doktorgrader, brutto årsverk (gj.snitt)	Avlagte doktorgrader, netto årsverk (gj.snitt)	Doktorgradsavtaler, avbrutte	Doktorgradsavtaler, eldre enn 5 år (høst)	Doktorgradsavtaler, eldre enn 5 år (vår)
Det helsevitenskapelige fakultet	30	5,07				10
Det juridiske fakultet		4,98				
Fakultet for biovitenskap, fiskeri og økonomi	15	5,03		5		5
Fakultet for humaniora, samfunnsvitenskap og lærerutdanning	15	6,86		10		15
Fakultet for ingeniørvitenskap og teknologi		3,14				
Fakultet for naturvitenskap og teknologi	20	5,08				5
UiT (uspesifisert underenhet)	5	7,19				15
Sum	85	5,42	0	15	0	50

Økende andel utenlandske ph.d.-kandidater (NIFU)



Figur 9 Doktorgrader 1990-2018 med norsk og ikke-norsk statsborgerskap på disputastidspunktet.

Kildehenvisning

Doktorgrader 2000-2018 etter statsborgerskap og region

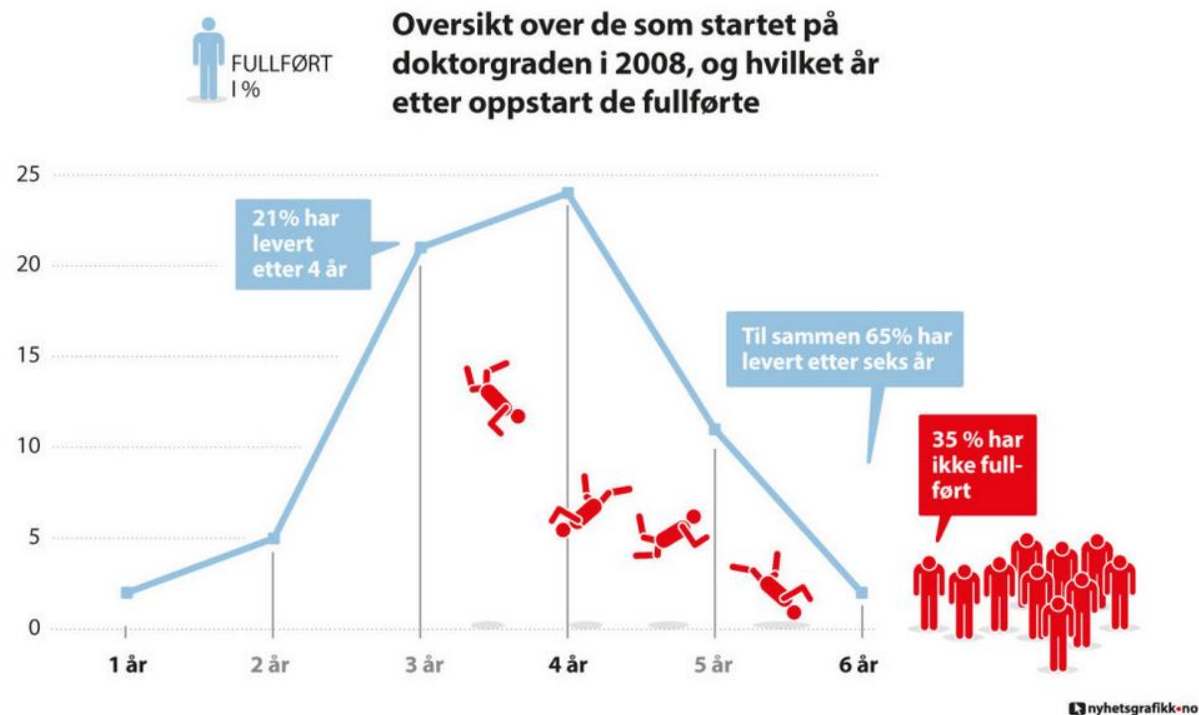
Statsborgerskap	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Sum 2000-09
Norge	566	548	628	577	636	675	688	789	937	851	6 895
Norden	13	21	17	27	27	34	37	43	42	37	298
Vest- og Sør-Europa	19	29	22	30	36	40	48	53	77	70	424
Øst-Europa	12	15	16	17	15	22	25	40	46	41	249
Nord-Amerika	4	3	5	6	5	7	8	7	11	12	68
Latin-Amerika	2	1	6	4	3	3	6	6	3	11	45
Afrika	15	27	17	31	30	37	38	42	54	46	337
Asia	15	33	28	31	29	36	54	49	74	80	429
Australia og New Zealand	1	-	-	-	1	1	1	1	1	-	6
Totalt	647	677	739	723	782	855	905	1 030	1 245	1 148	8 751
Prosentandel med utenlandsk statsborgerskap	13	19	15	20	19	21	24	23	25	26	21

Statsborgerskap	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Sum 2010-18
Norge	859	890	954	972	945	902	878	912	906	...	8 218
Norden	45	45	47	56	52	44	48	58	68	...	463
Vest- og Sør-Europa	88	107	132	113	125	139	135	163	179	...	1 181
Øst-Europa	45	60	51	64	65	71	77	95	100	...	628
Nord-Amerika	12	14	6	19	18	15	22	28	15	...	149
Latin-Amerika	13	13	17	18	13	23	22	20	28	...	167
Afrika	41	51	89	78	64	68	68	56	75	...	590
Asia	79	148	165	202	161	170	157	157	186	...	1 425
Australia og New Zealand	3	1	-	2	5	4	3	4	7	...	29
Totalt	1 185	1 329	1 461	1 524	1 448	1 436	1 410	1 496	1 564	...	12 850
Prosentandel med utenlandsk statsborgerskap	28	33	35	36	35	37	38	39	42	...	36

Kilde: Doktorgradsregisteret/NIFU

Kildehenvisning

Skjermdump fra artikkelserie (2015) på forskning.no



2007 menn og kvinner startet på doktorgraden i 2008. 1298 har fullført på normert tid eller overtid. Mens 709 har ikke fullført - det tilsvarer 35 prosent. Til sammenligning er det 29 prosent som dropper ut av videregående skole. (Tall fra NSD). (Nyhetsgrafikk)

Mer frafall fra doktorgraden enn fra videregående skoler

Kildehenvisning

Nye PhD on track

PhD
ON TRACK

I'm looking for...

New to PhD?

SEARCH AND REVIEW
learn about:

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- [co-authorship](#)
- [copyright](#)
- [the Crstin system](#)
- [citation impact](#)

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- [open archives](#)
- [research data](#)
- [data management](#)
- [sensitive data](#)
- [preregistration](#)

Den nye Open Science-delen

I'm looking for...



SEARCH AND REVIEW

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OPEN ACCESS PUBLISHING

OPEN ARCHIVES

RESEARCH DATA

DATA MANAGEMENT

SENSITIVE DATA

PRE-REGISTRATION

[PhD on Track](#) » Open Science

Open Science

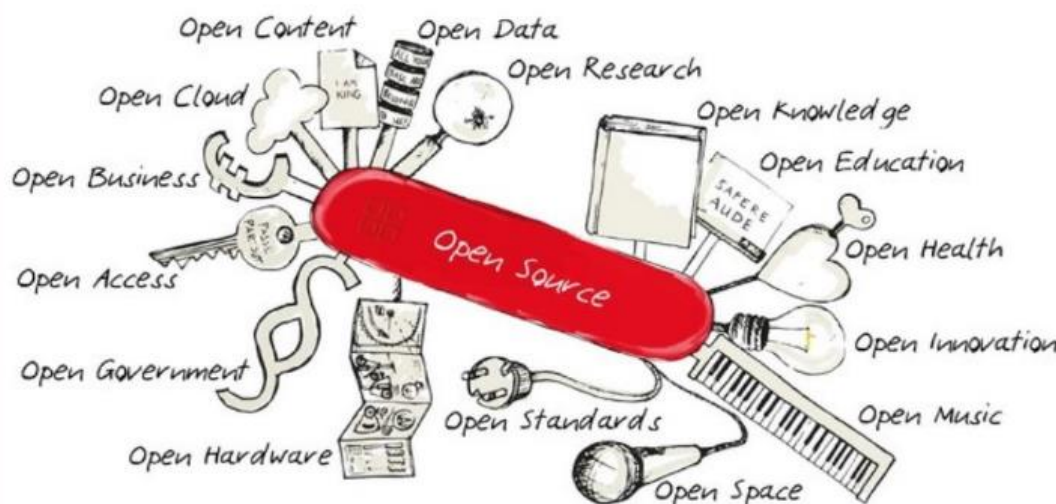


Illustration adapted from Johannes Spielhagen, Bamberg, Germany
CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/>), via Wikimedia Commons

Open Science is the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods (fosteropenscience 2017).

In this section, you will learn more about

- open access publishing and open research data
- how to apply for open access funding
- how to archive your articles and other results at your institution
- research data and research data management in general

Den nye Open Science-delen

PhD on Track » Open Science » Open Access publishing

PAGE CONTENT

Main principles

Publishing in an open access journal (gold) step by step

Open access mandates

Funding for open access

Useful resources

References

✓ My content

Open Access publishing



Open Access (OA) is a publishing model that provides free online access to research publications.

Open access is highly encouraged by the Norwegian government, the Research Council of Norway and research institutions in Norway. In 2017, the Norwegian Ministry of Education and Research provided [goals and guidelines](#) for open access to research articles: the main goal is that all publicly funded Norwegian research articles should be made openly available by 2024.

On this page you will find information about

- what open access is
- how to publish your work open access
- how to comply with open access policies

“Open-Access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions”.

Suber (2013)

Main principles

Open Access implies unrestricted access to and unrestricted reuse of research publications. The main principles of open access are:

Open Access mandates

FIND OUT WHICH POLICIES APPLY TO YOU

National guidelines in Norway

The government aims to make the results of all Norwegian research openly available, by publishing gold or self-archiving (green open access). The government has established [national goals and guidelines](#) for open access to research articles.

The Research Council of Norway

If you have funding from the [Research Council of Norway](#), it is a general requirement to self-archive peer-reviewed scientific articles in an institutional repository. Research funded through agreements signed after 1 January 2020, must be published in an open access journal or on an open access platform that complies with the principles of [Plan S](#).

The European Union

The European Research Council ([ERC](#)) has been supporting the principle of open access to the published output of research as a fundamental part of its mission. If you are a grant recipient from ERC or the [European Framework Programmes](#) (FPs), you are required to deposit your publications into the open access institutional repository of the research institution with which you are affiliated.

'How to publish'

SHARE AND PUBLISH

OPEN SCIENCE

S

CO - AUTHORSHIP

COPYRIGHT

THE CRISTIN SYSTEM

CITATION IMPACT

How to publish



Publishing your work is an essential part of research life, and choosing where to publish is therefore an important consideration. Your choice will be influenced by traditions and preferences in your scholarly community, and by requirements and policies of funders, authorities and your host institution. Your institution, and funders like the Research Council of Norway, encourage you to publish open access, or to archive your publications in an open repository.

'How to publish'

HOW TO IDENTIFY A RELEVANT JOURNAL?

Questions to consider when looking for a suitable journal:

- Is it a peer-reviewed journal?
- What is the subject area of the journal?
- Is it aimed at the audience you want to reach?
- Is it open access?
- To what extent does it allow self-archiving?
- Do you yourself read articles from this journal?
- Will it help you make your work read and cited?
- Is the journal ranked in the Norwegian Scientific Index?
- How quick is the process of acceptance and publication?
- What are the copyright policies?
- What are the journal's ethical profile and aims?
- Are the editor and members of the editorial board respected researchers in your field?
- Beware of predatory journals

Preregistration

Preregistration



Preregistration involves specifying your hypotheses, study design and data analyses before writing up your final report. Sometimes, preregistration takes place before any data are collected, while in other cases (when using pre-existing data), it takes place before the data are analysed.

Preregistration is typically done in a time-stamped, non-editable file, which is then deposited in a secure online archive. While not yet equally relevant in all disciplines or to all types of study, the practice of preregistration is currently expanding.

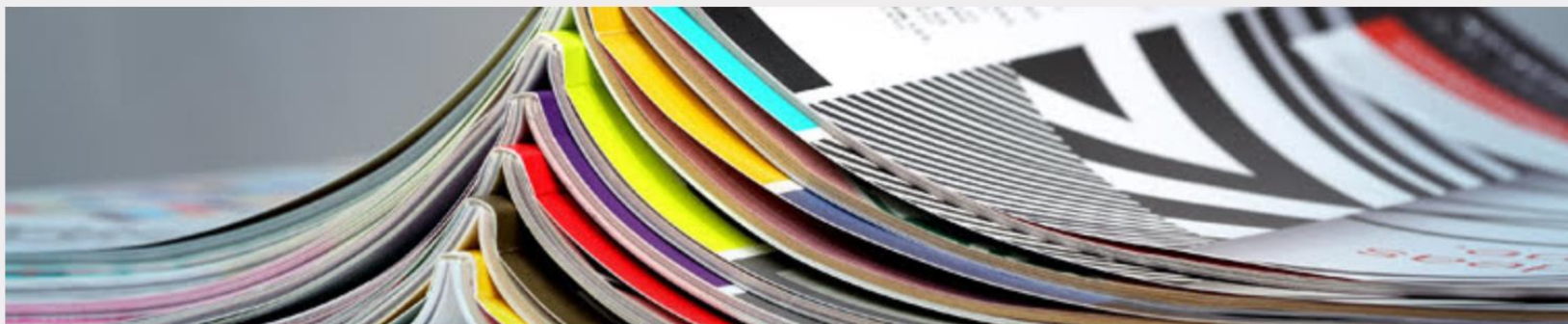
On this page you will find information about

- why preregistration may be a good idea
- the two types of preregistration
- what preregistration involves
- where to submit your preregistration

" (...) preregistration combats the natural human inclination to craft a post hoc story (...) "
(Gehlbach & Robinson, 2018, p. 303).

Citation impact & DORA

Citation impact



Hopefully, your PhD research will make an impact by advancing knowledge in your field or by contributing to real-world applications. While these kinds of impact are difficult to measure validly, more or less useful approximations of the degree of impact originate in data on how often and how broadly research is cited. There are, however, important aspects of research beyond those captured by citation-based metrics, and recent initiatives have spurred a growing interest in a broader and fairer basis for research assessment. On this page you will learn about

*“Whether a text is interesting and you get something out of it is more important than whether it is published somewhere important”.
PhD candidate,
humanities*

Citation impact & DORA

On this page you will learn about

- the Declaration on Research Assessment (DORA) and the recent movement to find fair and robust ways of evaluating research that do not rely on impact factors
- how bibliometric indicators, such as journal rank (e.g. the impact factor) and h-index, are calculated
- criticisms voiced against bibliometric impact measures and their application
- the possible roles of citations in research and in research evaluations
- possible implications of bibliometric indicators for your research and your career
- how practising open science may improve your research impact

Citation impact & DORA

CALCULATING SOMEONE'S H-INDEX

The h-index for a given author (Karen) calculated step-by-step:

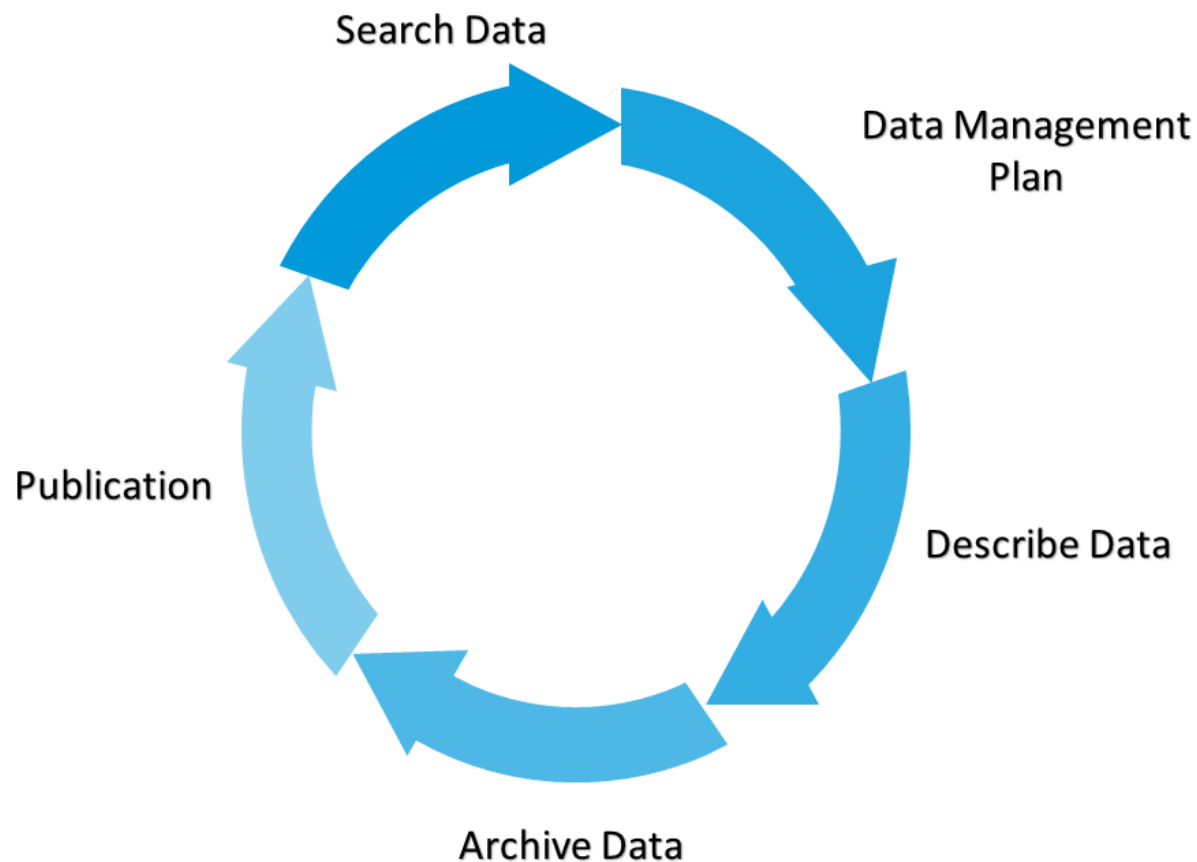
[Show less ▲](#)

Step 1: Search for author *Karen* in a given database

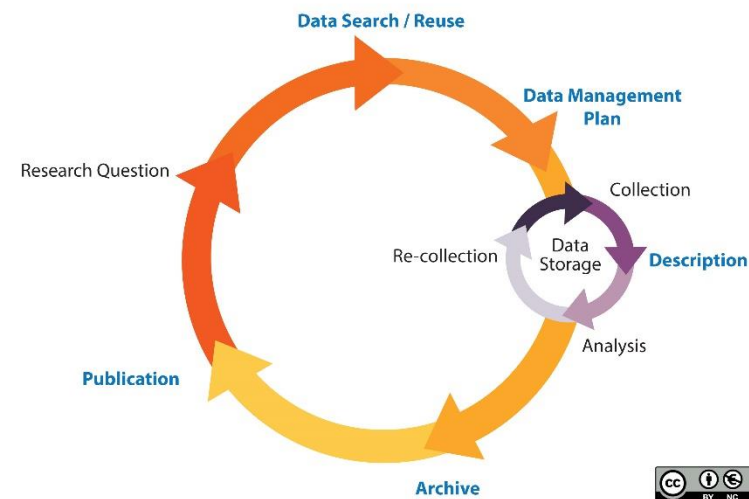


Figure 3: Search result for author Karen's publications in a given database

Forskningdata (og sirkelen)



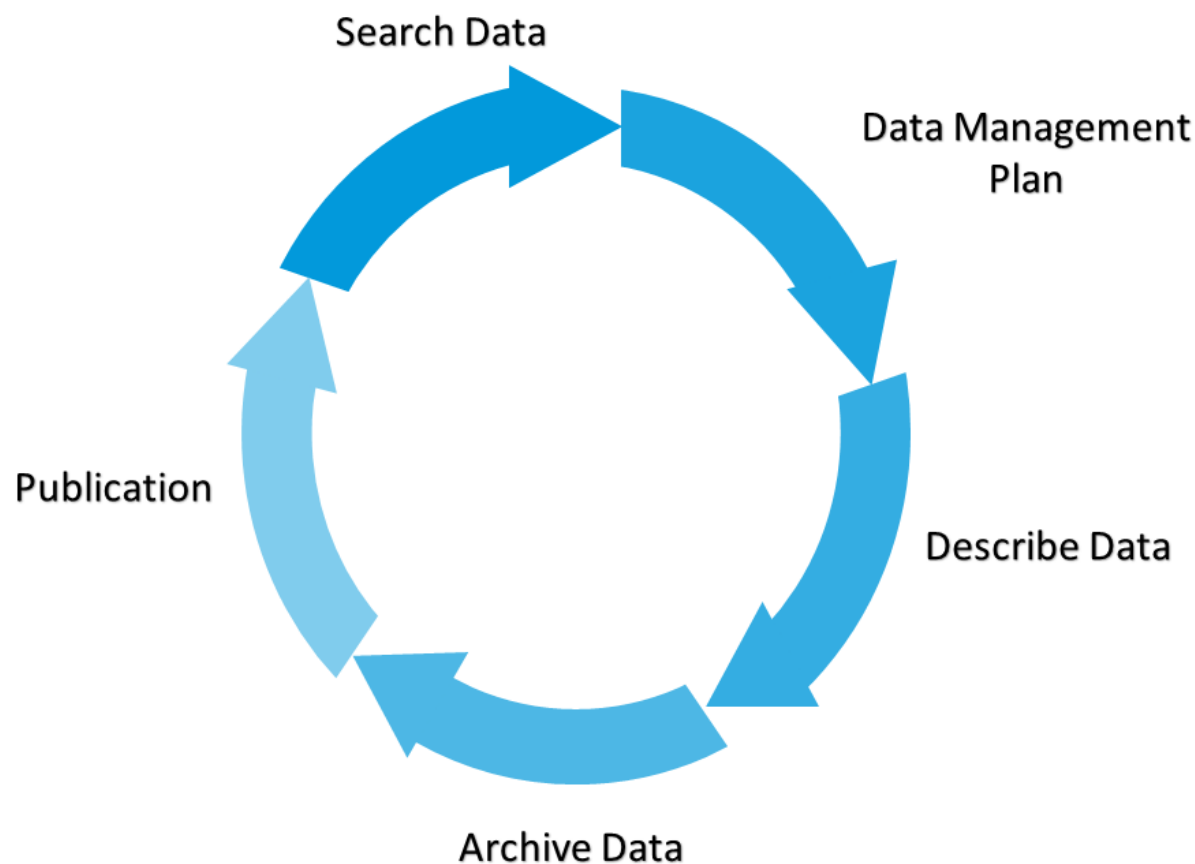
The Research Data Management Lifecycle



Forskningdata (og sirkelen)

Search Data

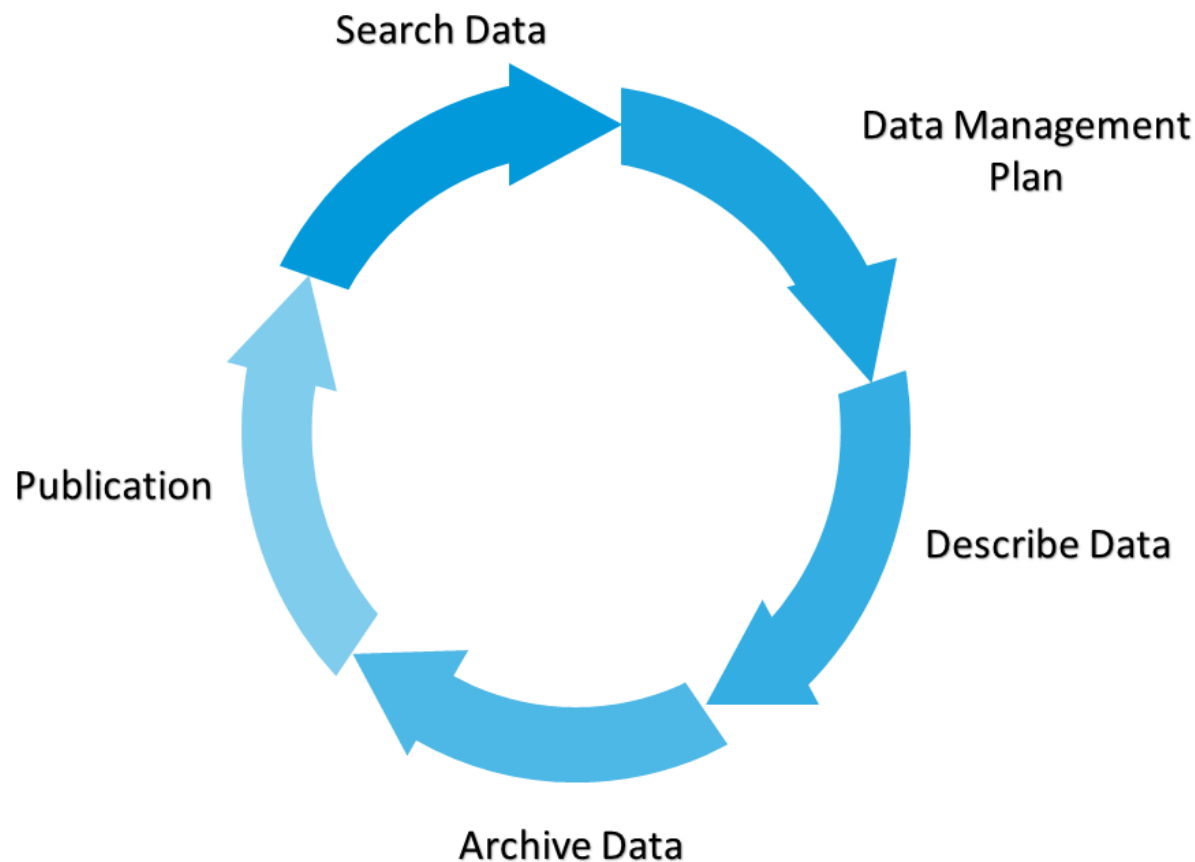
- [PhD on Track: Search for research data](#)
- NSD's sources for [free Norwegian data](#)
- Norwegian Institute for Public Health provides [Health-related datasets](#)
- Statistics Norway (SSB) offer [data on personal level](#)
- Browse the [Data Archive Registry](#) for Open Access datasets.



Forskningdata (og sirkelen)

Data Management Plan

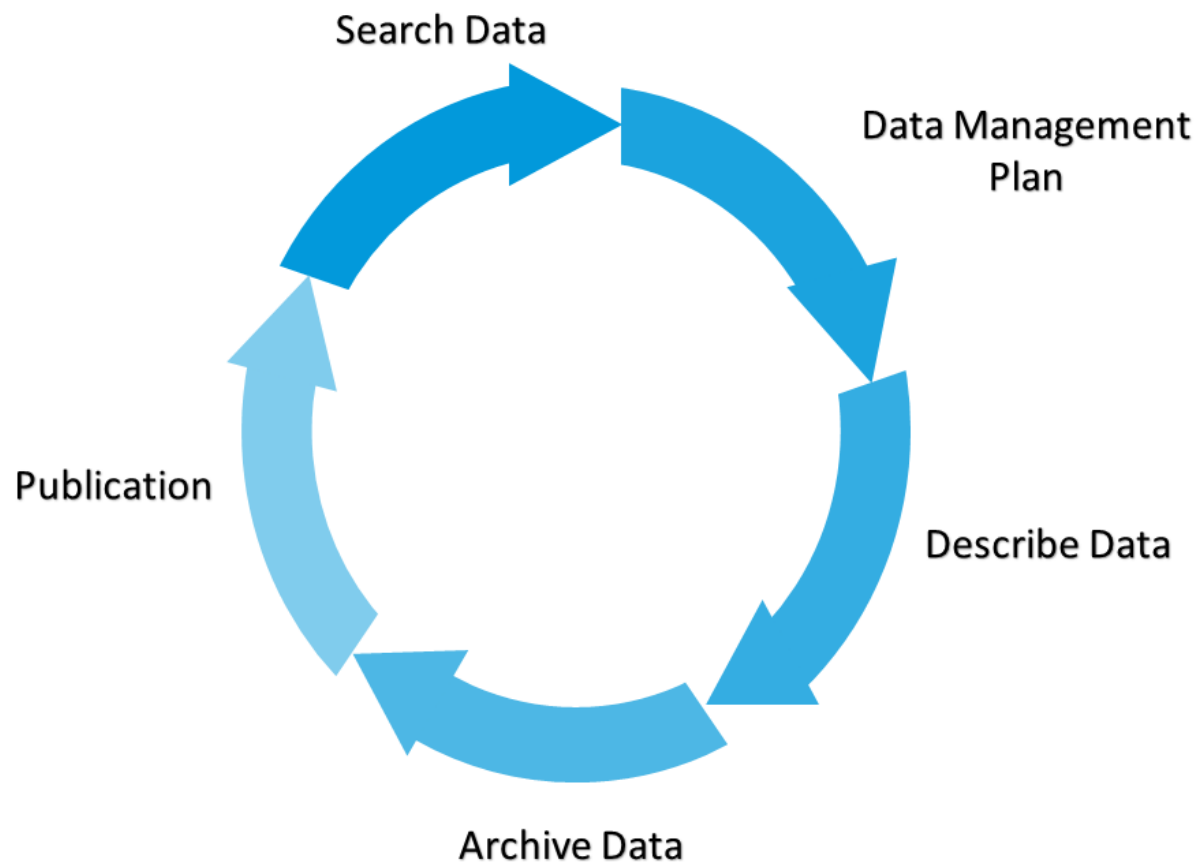
- PhD on Track:
[Data Management Plans](#)
- Guidelines on Data Management Plans:
 - [Horizon2020](#)
 - [The Research Council of Norway](#)
- Data Management Plan templates:
 - [Norwegian Center for Research Data](#)
 - [Digital Curation Center](#)
 - [Horizon2020](#)
 - [Uninett](#)



Forskningdata (og sirkelen)

Describe your Data

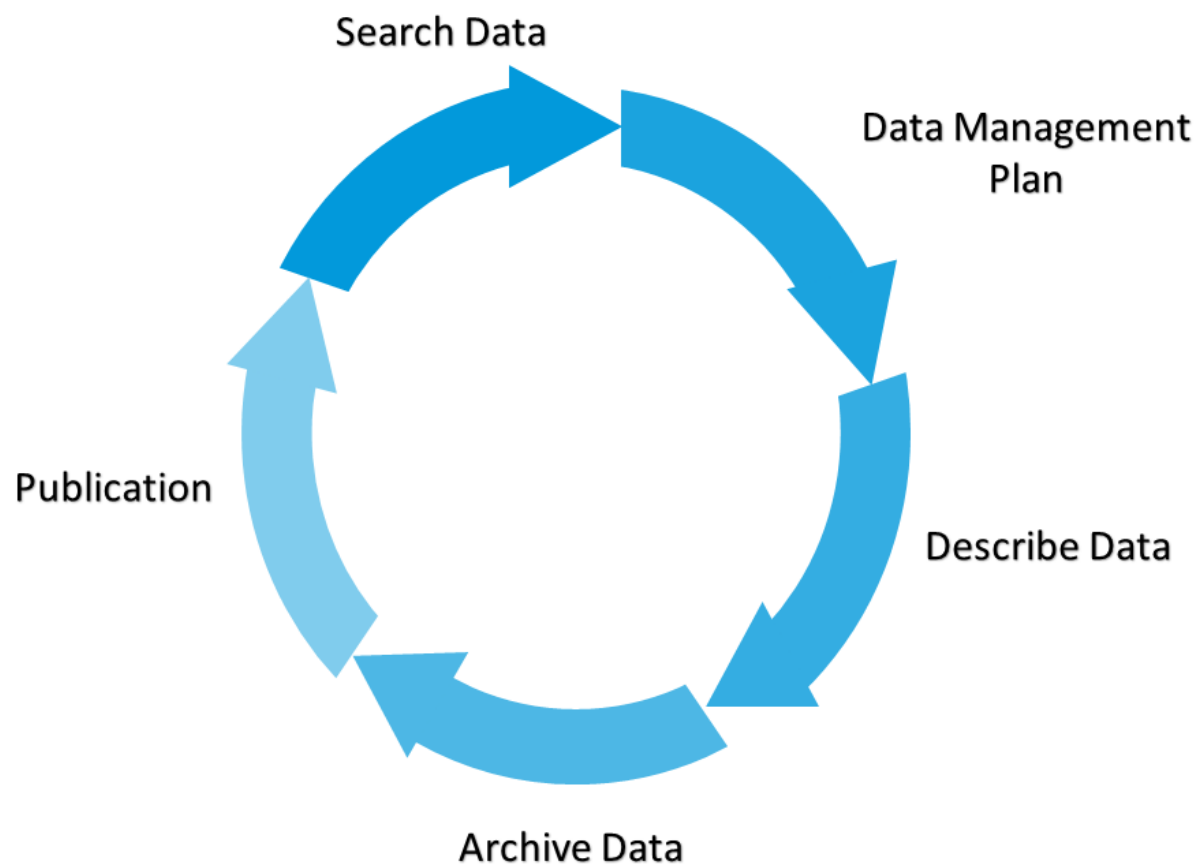
- PhD on Track: [Documentation and Metadata](#)
- [the "I" of FAIR](#)
- [Examples of Metadata Standards](#)



Forskningdata (og sirkelen)

Archive your Data

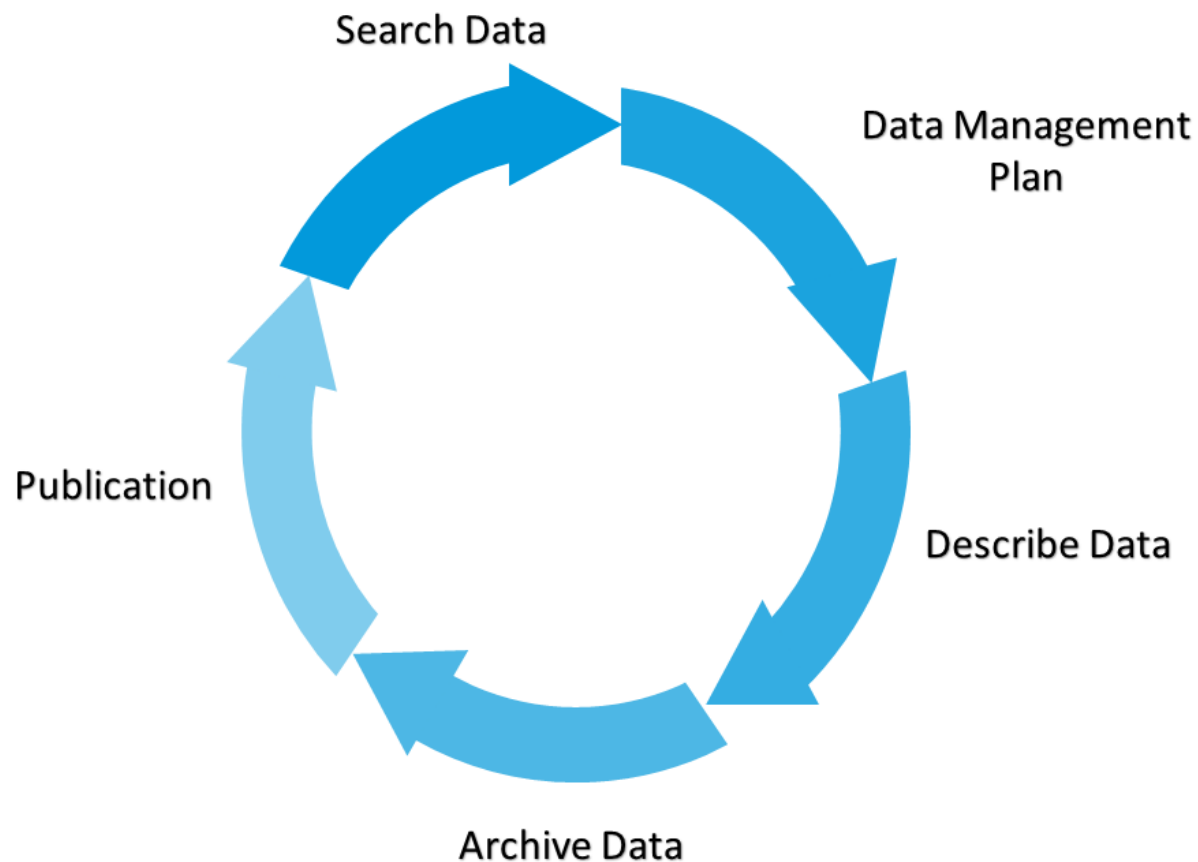
- [PhD on Track: Share your data](#)
- [Norwegian guidelines on data sharing](#) (Norwegian text)
- [PhD on Track: what is FAIR?](#)
- [The FAIR-principles](#)
- [Archiving possibilities in Norway](#)
- [Sensitive data](#)



Forskningdata (og sirkelen)

Publication

- PhD on Track: [Open Access Publishing](#)
- [Institutional Repositories](#)
- [Directory of Open Access Journals - DOAJ](#)
- Foster's open Science: [list of open data journals](#)



Copyright + lisenser

PhD
ON TRACK

SEARCH AND REVIEW

SHARE AND PUBLISH

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HOW TO PUBLISH SUBMITTING ARTICLES CO – AUTHORSHIP **COPYRIGHT** THE CRISTIN SYSTEM CITATION IMPACT

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Authorship and copyright

Copyright policies

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Using other people's work

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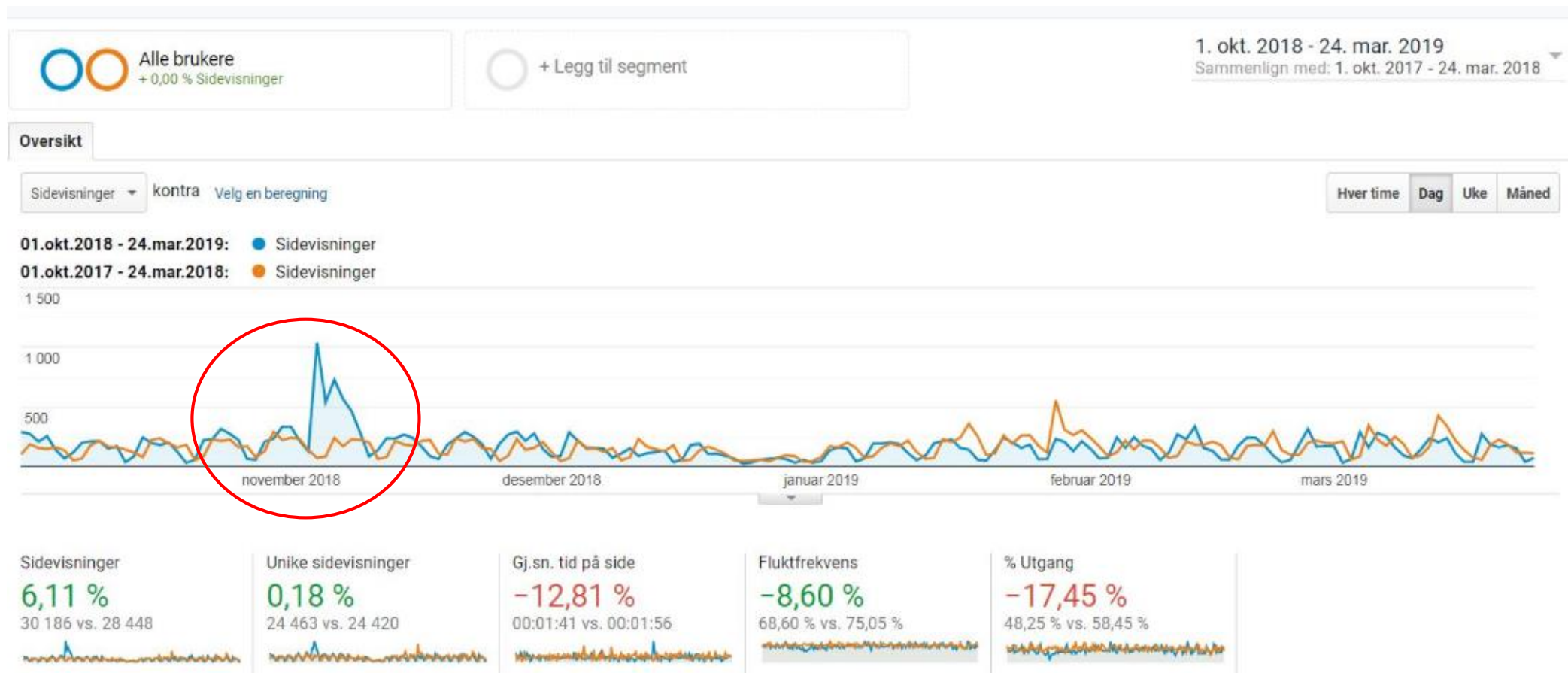


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På grunn av fotografers ideelle rettigheter skal fotografer etter loven **alltid navngis** ved bruk av deres bilder.

Google analytics



Mer Google analytics-statistikk...

1.	/	9 236	30,60 %
2.	/search-and-review/reference-managers/	1 813	6,01 %
3.	/share-and-publish/co-authorship/	1 392	4,61 %
4.	/search-and-review/searching/	1 320	4,37 %
5.	/search-and-review/writing/	1 157	3,83 %
6.	/about-phd-on-track/	969	3,21 %
7.	/review-and-discover/systematic-review-searching/	883	2,93 %
8.	/share-and-publish/	856	2,84 %
9.	/search-and-review/reviewing/	846	2,80 %
10.	/search-and-review/types-of-reviews/	843	2,79 %
11.	/search-and-review/	819	2,71 %
12.	/share-and-publish/submitting-articles/	649	2,15 %
13.	/share-and-publish/citation-impact/	616	2,04 %
14.	/search-and-review/search-examples/	554	1,84 %
15.	/review-and-discover/reference-managers/	548	1,82 %
16.	/open-science/	527	1,75 %
17.	/open-science/open-access-publishing/	497	1,65 %
18.	/review-and-discover/reviewing-literature/	457	1,51 %
19.	/review-and-discover/discovering-your-field/	436	1,44 %
20.	/search-and-review/workflow/	432	1,43 %

Bruk i ulike deler av landet i 2016-2017 og 2017-2018

Region ?	Trafikk	
	Brukere ? ↓	Nye brukere ?
	7 576 % av summen: 26,38 % (28 714)	7 404 % av summen: 25,97 % (28 514)
1. Oslo	2 764 (35,61 %)	2 637 (35,62 %)
2. Hordaland	1 626 (20,95 %)	1 559 (21,06 %)
3. Sor-Trondelag	1 033 (13,31 %)	1 000 (13,51 %)
4. Akershus	453 (5,84 %)	415 (5,61 %)
5. Rogaland	300 (3,87 %)	289 (3,90 %)
6. Troms	252 (3,25 %)	235 (3,17 %)
7. Buskerud	173 (2,23 %)	161 (2,17 %)
8. More og Romsdal	166 (2,14 %)	158 (2,13 %)
9. Vestfold	162 (2,09 %)	156 (2,11 %)
10. Vest-Agder	127 (1,64 %)	121 (1,63 %)

Region ?	Trafikk	
	Brukere ? ↓	Nye brukere ?
	10 993 % av summen: 25,46 % (43 173)	10 978 % av summen: 25,62 % (42 842)
1. Oslo	3 698 (32,48 %)	3 581 (32,62 %)
2. Hordaland	2 356 (20,69 %)	2 293 (20,89 %)
3. Sor-Trondelag	1 888 (16,58 %)	1 850 (16,85 %)
4. Akershus	619 (5,44 %)	575 (5,24 %)
5. Rogaland	430 (3,78 %)	412 (3,75 %)
6. Troms	395 (3,47 %)	375 (3,42 %)
7. More og Romsdal	278 (2,44 %)	276 (2,51 %)
8. Buskerud	260 (2,28 %)	246 (2,24 %)
9. Vestfold	239 (2,10 %)	230 (2,10 %)
10. Vest-Agder	195 (1,71 %)	180 (1,64 %)

Diskusjonsspørsmål

- Hvordan bidra til at nettstedet er til nytte?
- Hvordan best forankre det i institusjonene?
- Hvordan best bruke det i undervisning?
- Er balansen mellom det generelle og fagområdespesifikke godt ivare tatt?
 - For generelt (og intetsigende)? For snevert, passer kun for noen?
- Er balansen mellom overordnede prinsipper og finurlige detaljer ok?