

UiT

THE ARCTIC  
UNIVERSITY  
OF NORWAY

# Institutional transformation towards Open Science

## Experiences from UiT The Arctic University of Norway

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Kenneth Ruud

Prorector research

Photo: Jo Inger Aarseth



# Huginn and Muninn

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# The Tromsø Study

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[The Tromsø Study goes open access](#)

# UiT The Arctic University of Norway

## Strategy of open access/open data

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- **University strategy 2009-2013**
  - Open Access should be the preferred dissemination channel for research results
  - Open Access Policy approved by the University board in 2010
  
- **UiT 2020: Developing the High North**
  - No explicit mention of Open Access/Open Data
  - Policy on Research Data approved by the University board in March 2017.
  
- **UiT 2022: Developing the High North (to be approved)**
  - UiT shall be nationally leading on Open Science and research articles should be made openly accessible whenever possible

# Open Access



# Munin Open Research Archive



🏠 Home

## Communities

Select a community to browse its collections.

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[Avdeling vernepleie \(Harstad\)](#) [7]

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[Fakultet for naturvitenskap og teknologi](#) [1481]

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[Universitetsbiblioteket](#) [226]

## Recently Added

**What is the impact of underweight on self-reported health trajectories and mortality rates: a cohort study**

Loem, Geir F; Schirmer, Henrik; Emaus, Nina (Journal article; Tidsskriftartikkel; Peer reviewed, 2017-10-02)

## Doctoral presentations

Doctoral presentations of current interest, where the thesis is available in Munin:

**22 Nov 2017: Tore Christoffersen**

*The influence of birth weight, childhood fractures and lifestyle factors on peak bone mass in Norwegian boys and girls between 15-18 years of age. The Tromsø Study, Fit Futures*

**28 Nov 2017: Espen Waage Skjeflo**

*Harnessing Innate Immunity - Complement and TLR Inhibition in Experimental Models of Gram Positive and Polymicrobial Bacteremia and Sepsis*

# PhD thesis, master thesis and articles

Filter by Document Type
Master thesis (5591)
Mastergradsoppgave (5591)
Journal article (3648)
Tidsskriftartikkel (3612)
Peer reviewed (3314)
Doctoral thesis (870)
Doktorgradsavhandling (870)
Forskningsrapport (387)
Research report (387)
Conference object (250)

Filter by Date Issued
2010 - 2017 (8373)
2000 - 2009 (2679)
1990 - 1999 (139)
1980 - 1989 (56)
1973 - 1979 (23)

År	Masteroppgaver				Ikke ferdigbehandlet – fordelt på innleveringsår	Doktoravhandlinger		
	Antall godkjente oppgaver	Antall i Munin	% i Munin	Antall godkjente avhandlinger		Antall i Munin	% i Munin	
2016	905	690	76,2 %	41	92	88	95,7 %	
2015	827	662	80,0 %	4	95	80	84,2 %	
2014	743	618	83,2 %	2	102	88	86,3 %	
2013	611	467	76,4 %	0	122	104	85,2 %	
2012	626	460	73,5 %	0	110	97	88,2 %	
2011	568	384	67,6 %	0				
2010	553	368	66,5 %	0				

# An active university library staff



Leif Longva

Kari Skirbekk; Karin Andreassen; Katalin Blix; Kathrin Helen Hopmann; Kazi Asrafal Alam; Kenneth Ruud

Friday 24 February 2017 at 14:35

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Action Items

Manage Add-ins...

Dear author,  
Below please find a list of your articles from 2016 in subscription journals. These articles should be self-archived in accordance with the university's open access policy, and in accordance with what the publisher permits. By 21<sup>st</sup> February, these articles were not uploaded to [Cristin](#) for self-archiving, to be made available in [Munin](#).

If the article is marked «Published» in the column «Permitted version», you are allowed to self-archive the published version, and we ask you to upload this version to [Cristin](#). If it is marked «Final draft» in the column «Permitted version», the publisher will not allow you to use the published version for self-archiving. But the publisher allows you to self-archive the final manuscript version submitted after peer review. We ask you to upload a PDF of this manuscript to [Cristin](#) to be made available in Munin.

The University Library will perform a final check to make sure that making the uploaded version available is in accordance with what the publisher permits.

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If you want more information or need help, ask your Cristin contact or contact us by replying to this e-mail.

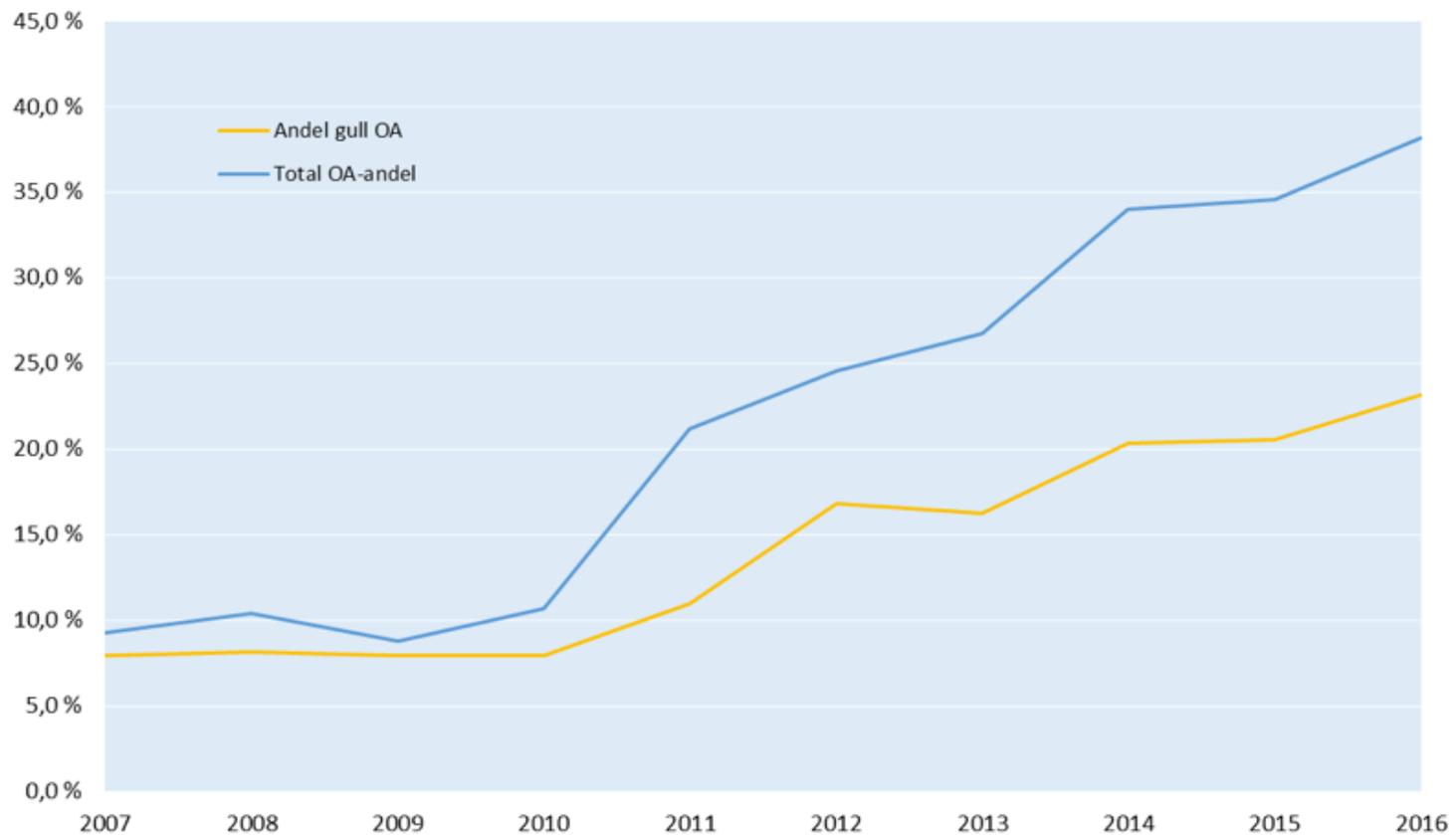
Yours sincerely, The Open Access team of the University Library

Leif Longva  
Tel 7764 6255

Kenneth Ruud	Angewandte Chemie International Edition	Mercury Methylation by Cobalt Corrinoids: Relativistic Effects Dictate the Reaction Mechanism	Final draft
	Journal of Chemical Physics	Indirect NMR spin-spin coupling constants in diatomic alkali halides	Published
	Journal of Chemical Theory and Computation	Acceleration of Relativistic Electron Dynamics by Means of X2C Transformation: Application to the Calculation of Nonlinear Optical Properties	Final draft
	Journal of Physical Chemistry A	Structure, NMR and Electronic Spectra of [m,n]Paracyclophanes with Varying Bridges Lengths (m, n = 2-4)	Final draft
	Molecular Physics	Four-component relativistic density functional theory with the polarisable continuum model: application to EPR parameters and paramagnetic NMR shifts	Final draft
	Physical Chemistry, Chemical Physics - PCCP	Analytic calculations of anharmonic infrared and Raman vibrational spectra	Final draft
		Chiral recognition by fullerenes: CHFClBr enantiomers in the C82 cage	Final draft
		Complete analytic anharmonic hyper-Raman scattering spectra	Final draft
		Magnetic properties with multiwavelets and DFT: The complete basis set limit achieved	Final draft
		NMR absolute shielding scale and nuclear magnetic dipole moment of 207 Pb	Final draft
		Three-photon circular dichroism: towards a generalization of chiroptical non-linear light absorption	Final draft

# Where are we today?

**Utviklingen i open access**  
**UiT Norges arktiske universitet 2007–2016**  
Andel av alle publiserte artikler



# Key elements for success

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- Firmly secured in the leadership of the organisation at all levels
- A service-minded library that cares (passionately) about Open Access, Open Data and Open Science
  - Makes it easy for researchers to upload articles in the institutional research archive
  - Checks that we as researchers comply with the requirements of publishers for uploaded manuscripts
  - Reminds us about the importance of Open Access publishing
  - Provides supports for Gold Open Access publishing
- Open access fund to help support OA publishing
- Open access journals of high international standing

# Open Data

# Principles and guidelines for research data management at UiT: Researcher responsibility

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- For research at UiT that is not organised as a project, the employee carrying out the research is responsible for the research data. For research projects, the project manager is responsible for the research data unless otherwise agreed and regulated by contract.
- The researcher shall write a data management plan in an early phase of the project and preferably within six months of the start of the project.
- The researcher shall ensure that the research data is securely stored, backed up, and archived, in accordance with the Information security management system at UiT
- The researcher shall make the research data openly available for future use by all relevant users, providing this is not prevented by any legal, ethical, security, or commercial reasons.
- The research data shall be made openly accessible as early as possible.
- Research data shall be equipped with standardised metadata that enable other researchers to search for and use the data.
- The research data shall be equipped with licenses for access, reuse, and dissemination. These licenses should be internationally recognised and set as few limitations as possible regarding access, reuse, and dissemination of the data

# Principles and guidelines for research data management at UiT: Postgraduate and supervisor responsibility

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- Postgraduate research students and their supervisors shall ensure that research data management is planned and documented at the start of the research project in the form of a data management plan.
- The supervisor has the main responsibility for ensuring that research data funded by UiT or a third party is delivered to the supervisor when the student completes his/her programme of study at UiT.

# Principles and guidelines for research data management at UiT: Institutional responsibility

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- UiT shall offer guidance and support in the development of data management plans.
- UiT shall offer the data archiving and publishing service UiT Open Research Data, which makes research data openly available for reuse, providing legal, ethical, security or commercial reasons do not prevent open access. UiT shall offer training and support to researchers so they can archive and openly publish their data in UiT Open Research Data or in other reliable external repositories, and advise the researchers how to equip each deposit with standardised metadata.
- UiT shall facilitate that research data is made openly accessible for use as early as possible and at the lowest possible cost.
- UiT shall offer guidance and support to set licenses for access, reuse, and dissemination of research data.
- UiT shall offer guidance and support to researchers who have third party agreements and contracts
- All training, support and guidance UiT offers shall aspire to meet best practice.
- UiT is responsible for assessing the sharing of and access to research data resulting from research at UiT.

# UiT Open Research Data



## UiT Open Research Data

support transparent and reproducible research

DataverseNO > UiT Open Research Data

 Contact  Share



Search this dataverse...

 Find

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 Add Data

 **Dataverses (2)**

 **Datasets (96)**

 **Files (1,106)**

### Dataverse Category

Research Project (1)

### Publication Date

2016 (32)

2017 (32)

2014 (22)

1 to 10 of 98 Results

 Sort ▾

Seabird monitoring counts in Sør-Varanger, NE Norway 1966-2012 

Nov 14, 2017



Barrett, Robert T., 2017, "Seabird monitoring counts in Sør-Varanger, NE Norway 1966-2012", doi:10.18710/OHW4MR, DataverseNO, V1

Field counts of cliff-breeding seabirds in Sør-Varanger, 1966-2012

Diet of Northern gannet in North Norwegian colonies 

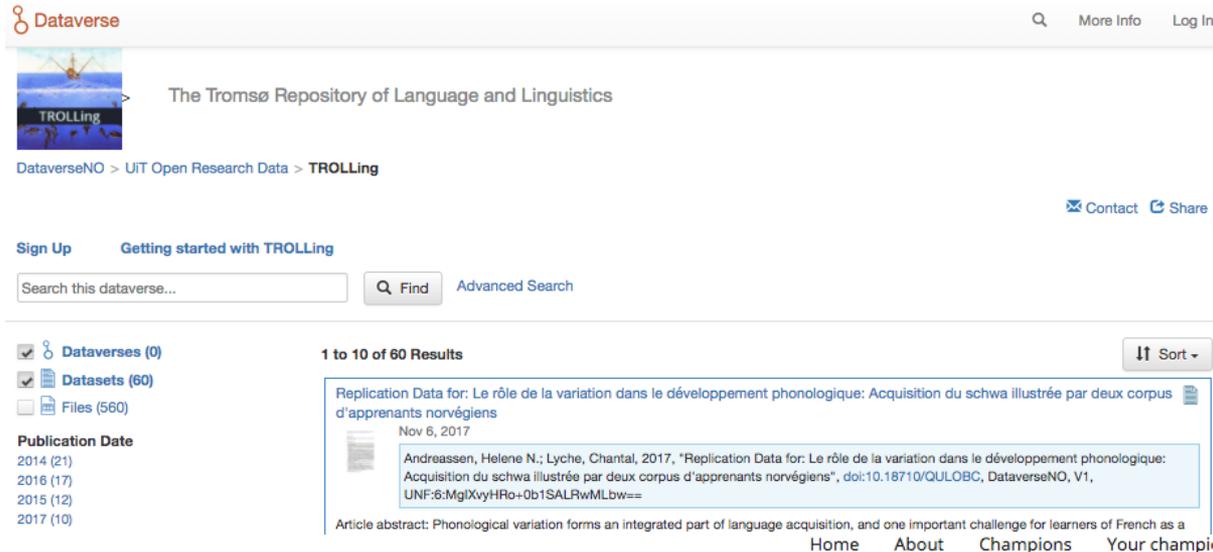
Nov 14, 2017



Barrett, Robert T., 2017, "Diet of Northern gannet in North Norwegian colonies", doi:10.18710/CQTI4G, DataverseNO, V1,

# TroLLing

## Tromsø Repository of Language and Linguistics



The screenshot shows the Dataverse interface for the Tromsø Repository of Language and Linguistics. The page title is "The Tromsø Repository of Language and Linguistics". Below the title, there are navigation links: "DataverseNO > UiT Open Research Data > TROLLing". There are also links for "Contact" and "Share". A search bar is present with the text "Search this dataverse...". Below the search bar, there are filters for "Dataverses (0)", "Datasets (60)", and "Files (560)". A "Publication Date" filter is also visible, showing a list of years: 2014 (21), 2016 (17), 2015 (12), and 2017 (10). The main content area shows "1 to 10 of 60 Results". The first result is a dataset titled "Replication Data for: Le rôle de la variation dans le développement phonologique: Acquisition du schwa illustrée par deux corpus d'apprenants norvégiens" by Andreassen, Helene N.; Lyche, Chantal, dated Nov 6, 2017. The abstract for this dataset is: "Article abstract: Phonological variation forms an integrated part of language acquisition, and one important challenge for learners of French as a".



## European Open Data Champions

Inspiration from influential European academics and information professionals on Open Data

[Home](#) » [Champions](#) » By sharing our data, and doing this in an open, public, community fashion, we can determine the best practices for our field

**Name:** Prof Laura A. Janda  
**Position:** Professor of Russian Linguistics  
**Institution:** UiT The Arctic University of Norway  
**Country:** Norway  
**More info:** [Home Page](#); [Other](#)  
**ORCID ID:** <http://orcid.org/0000-0001-5047-1909>

*"By sharing our data, and doing this in an open, public, community fashion, we can determine the best practices for our field"*



# DataverseNO

 Dataverse 🔍 More Info Log In

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 **DataverseNO**  
Dataverse Network Norway

>

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 **UiA Open Research Data**  
UiA Open Research Data

 **UiT Open Research Data**  
UiT Open Research Data

Search this dataverse...  Find [Advanced Search](#)

**Dataverses (4)**

**Datasets (96)**

**Files (1,106)**

**Dataverse Category**  
Organization or Institution (2)  
Research Project (1)

**Publication Date**  
2017 (2)  
2014 (1)  
2016 (1)

**Subject**  
Arts and Humanities (3)  
Chemistry (1)  
Earth and Environmental Sciences (1)  
Medicine, Health and Life Sciences (1)  
Physics (1)

**1 to 4 of 4 Results**  Sort

 **UiA Open Research Data** (University of Agder)  
Jul 19, 2017

 **UiT Open Research Data** (UiT The Arctic University of Norway)  
Jul 19, 2017

 **Arctic Language Technology** (UiT The Arctic University of Norway)  
May 20, 2016 [UiT Open Research Data](#)  
Dataverse for Arctic language technology data, code and resources

 **TROLLing** (UiT The Arctic University of Norway)  
May 19, 2014 [UiT Open Research Data](#)  
[Sign Up](#) [Getting started with TROLLing](#)



Open source research data repository software



# Saving Data for the Future



 Dataverse

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## UiT Open Research Data

support transparent and reproducible research

[DataverseNO](#) > [UiT Open Research Data](#) > [Seabird monitoring counts in Sør-Varanger, NE Norway 1966-2012](#)

 Metrics 2 Downloads

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### Seabird monitoring counts in Sør-Varanger, NE Norway 1966-2012 Version 1.0

Barrett, Robert T., 2017, "Seabird monitoring counts in Sør-Varanger, NE Norway 1966-2012", doi:10.18710/OHW4MR, DataverseNO, V1

 Cite Dataset

 [Learn about Data Citation Standards.](#)

<b>Description</b>	Field counts of cliff-breeding seabirds in Sør-Varanger, 1966-2012
<b>Subject</b>	Medicine, Health and Life Sciences; Earth and Environmental Sciences
<b>Keyword</b>	Seabirds, Monitoring, North Norway
<b>Related Publication</b>	Barrett, R. T. 2003. The rise and fall of cliff-breeding seabirds in Sør-Varanger, NE Norway, 1970-2002. – Fauna norv. 23: 35-41.

# Research Data Portal

## Research DataPortal UiT

Contact: [research-data@support.uit.no](mailto:research-data@support.uit.no)



Denne siden på norsk

### Quick links:

[Template for Data Management Plans for UiT employees](#)

[Principles and guidelines for research data management at UiT](#)

..

(legge til de eksterne også her?)



**UiT Open Research Data**

Share, Cite, Reuse, Archive Research Data  
Scientific data for reproducible research



**God forvaltning og deling av forskingsdata** er sentralt for å fremja transparens og kvalitet i forskinga, og for at UiT kan fylla samfunnsoppgavene sine som breiddeuniversitet i nord.

**Forskningsdataportalen UiT** skal gje informasjon om lagring, handtering, arkivering, tilgjengeleggjering og deling av forskingsdata til studentar og forskarar ved

# Training

## Take control of your PhD journey From (p)reflection to publishing

Academic integrity and the transparency of  
science

Searching for literature

Open access publishing

Research data management

Reference management

UiT / THE ARCTIC UNIVERSITY OF NORWAY University library

## Data management plan

Key research funders, such as the Research Council of Norway and the EU, set requirements that a research project must have a good plan of how data will be collected, handled and archived.

Consequently, before commencing a project, you should have a plan for how you are going to manage your data. UB can help you to write a **data management plan** that satisfies the requirements of your research funder and – perhaps even more importantly – makes it easier for you to keep track of your project.



The essence of a data management plan (Universität Bielefeld)

photo: private

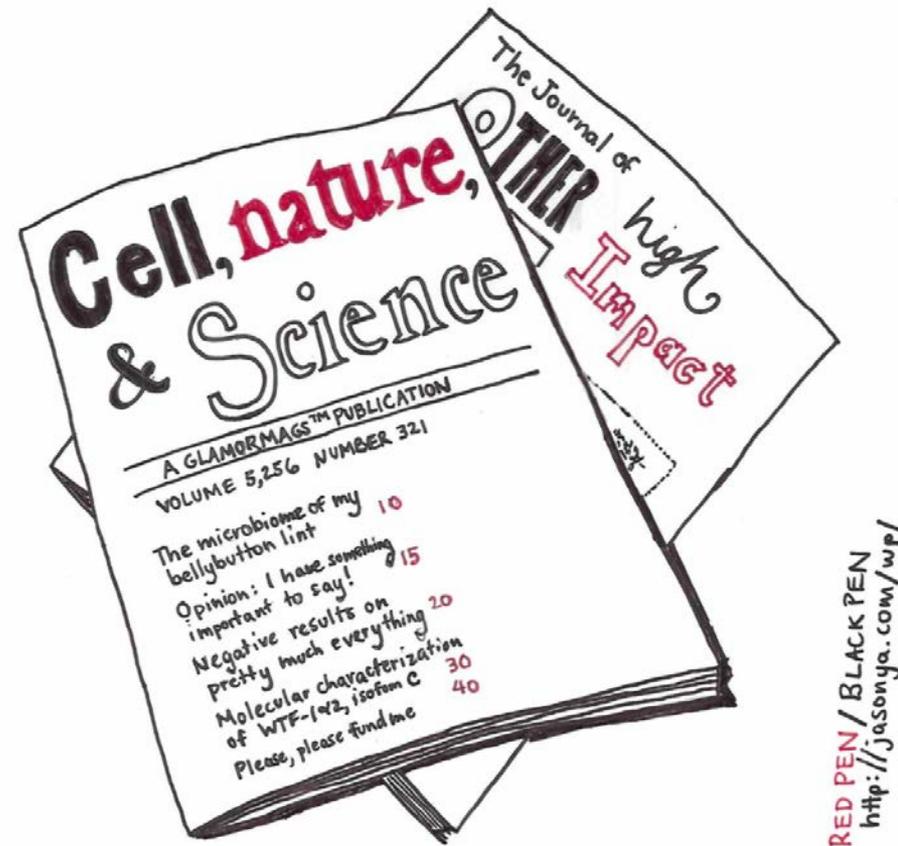
Slide: Helene N. Andreassen and Lene Østvand, UB-UiT

# Steps to success

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- Firmly secured in the leadership of the organisation at all levels
- Unified solution, close collaboration between the research services units, the university library and the information technology services at the university
- A service-minded library that cares (passionately) about Open Data
  - Makes it easy for researchers to upload data
  - Helps create a data management plan
- **Train the new generation**
- Data storage solutions should be made available from the start of the project, as described in the data management plan
- Assign DOI to data to make the data citable
- Use open (institutional) data repositories for storing the data for a research paper (supplementary information). Both paper and data become citable.

# How actively and frequently do I encourage our staff to publish OA?



My latest career strategy: Start my own strategically titled journals.  
"Why yes, I publish extensively in Cell, Nature, and Science and Other High Impact journals."

# ”Your outstretched hand, the Russian’s wave, appear ambiguous. Forgive my bluntness.” \*

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## Research Council of Norway’s (RCN) policy on Open Access

The RCN demands Open Access of all scientific publications arising from research funded in part or in full by the RCN. All such publications should be deposited in institutional archives.

The rights of researchers to freely choose publication channel for scientific publications is an important part of academic freedom. [...] The RCN therefore encourages researchers funded by the RCN to choose journals with Open Access.

The RCN wants to encourage full open access to scientific publications (“gold open access”).

## Position of the Norwegian Government

- Scientific publications from publically funded research shall be made openly accessible. Researchers should explore the possibilities for OA publication and choose OA journals when **scientifically appropriate**. It should the exception that publically funded research is not made accessible in research repositories.
- [...]
- Institutions and consortia that negotiate agreements with publishers must ensure that these agreements promotes OA without an increase in cost, and that there is transparency about the content of the agreement.
- [...]

# ”Your outstretched hand, the Russian’s wave, appear ambiguous. Forgive my bluntness.” \*

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Midterm Evaluation of  
Thirteen Centres of Excellence  
(SFF-III)

Evaluation  
Division for Science



“This is an excellent centre with an outstanding programme of research that is ambitious and yet fulfilling those ambitions. The scientific outcome in published papers is impressive, there are many papers in high-impact journals such as Nature and Science.”

\* From the libretto to John Adam’s opera “Nixon in China”, libretto by Alice Goodman

**”Your outstretched hand, the Russian’s wave,  
appear ambiguous. Forgive my bluntness.” \***

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\* From the libretto to John Adam’s opera “Nixon in China”, libretto by Alice Goodman

# San Francisco Declaration of Research Assessment

DORA makes one general and 17 specific recommendations.

## General recommendation:

Do not use journal-based metrics, such as Journal Impact Factors (JIFs), as surrogate measures of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

### For Organizations That Supply Metrics

- Be transparent
- Provide access to data
- Discourage data manipulation
- Provide different metrics for primary literature and reviews

### For Publishers

- Cease to promote journals by Impact Factor; **provide an array of metrics**
- Focus on article-level metrics
- Identify different author contributions
- Open the bibliographic citation data
- Encourage primary literature citations

### For Research Institutions

- When hiring and promoting, state that scientific content of a paper, not the JIF of the journal where it was published, is what matters
- Consider value from all outputs and outcomes generated by research

### For Funding Agencies

- State that scientific content of a paper, not the JIF of the journal where it was published, is what matters
- Consider value from all outputs and outcomes generated by research

### For Researchers

- Focus on content
- Cite primary literature
- Use a range of metrics to show the **impact of your work**
- Change the culture!

- Only Norwegian institution that has signed: UiT The Arctic University of Norway
- A promise from UiT to applicants applying for positions at UiT
- Gives no safety for our own researchers in how they will be evaluated by funding bodies (or other institutions)
- In principle not difficult to implement in routines and practices
- Challenge to ensure full compliance in practice

# Thank you for your attention!

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[www.audunrikardsen.com](http://www.audunrikardsen.com)