# OPEN SCIENCE AT UIS

# Webinar: Sharing and archiving data

Elin Stangeland and John David Didriksen, Stavanger University Library

# Agenda

- Introduction
  - What data sharing entails and why this is good research practice
  - The FAIR principles
  - Routes to data sharing and archiving
- 10 min break
- How to prepare for and archive data with UiS Open Research Data
- Q&A



# As open as possible, as closed as necessary...



Openness and knowledge sharing is a prerequisite for all research. It is an important research policy objective that the results of publicly funded research should be as open as possible. The University of Stavanger (UiS) aligns itself with the principles of the Norwegian Research Council and the EU with regards to managing research data.

Data should be "as open as possible, as closed as necessary". All research data should be made openly available, unless there are factors which dictate limits on the availability.

Furthermore, UiS expects the research data management to be in line with the FAIR principles Guidelines for managing research data at the University of Stavanger

2020



# Horizon Europe

- O In Horizon Europe, beneficiaries must manage the digital research data generated in the action ('data') responsibly, in line with the **FAIR principles**, and should at least do the following:
- Prepare a Data Management Plan (DMP) and keep it updated throughout the course of the project
- Deposit data in a trusted repository and provide open access to it ('as open as possible, as closed as necessary')
- Provide information (via the same repository) about any research output or any other tools and instruments needed to re-use or validate the data



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Scientific Reports has a 2-year impact factor of 4.6 (2022), and is the 5th most-cited journal in the world, with more than 738,000 citations in 2022\*. \*2023 Journal Citation Reports® Science Edition (Clarivate Analytics, 2023).

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# THE LANCET

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FAST TRACK - ARTICLES | VOLUME 366, ISSUE 9494, P1359-1366, OCTOBER 15, 2005

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# RETRACTED: Non-steroidal anti-inflammatory drugs and the risk of oral cancer: a nested case-control study

Dr J Sudbø, MD A 🖸 • Prof JJ Lee, PhD • Prof SM Lippman, MD • J Mork, MD • S Sagen, MPH • N Flatner, DDS • et al. Show all authors

Published: October 07, 2005 • DOI: https://doi.org/10.1016/S0140-6736(05)67488-0



This article has been retracted at the request of the Editor-in-Chief. Please see http://www.elsevier.com/locate/withdrawalpolicy.

Introduction
Methods

Results

Discussion

References

Article info

Figures

Tables

Linked Articles

Reason: We have received confirmation from Professor Anders Ekbom, who chairs the investigating commission appointed by the University of Oslo and Rikshospitalet, that the paper published by Jon Sudbø and colleagues in The Lancet contains fabricated data. This information supersedes our earlier expression of concern (R. Horton, Expression of concern: non-steroidal anti-inflammatory drugs and the risk of oral cancer, Lancet 367 (2006), p. 196; doi:10.1016/S0140-6736(06)68014-8) and we now retract this article in full.

## Introduction

Squamous cell carcinoma of the oral cavity is associated with severe disease-related and treatment-related morbidity and a poor prognosis that has not improved greatly over the past three decades.<sup>1</sup>, <sup>2</sup> Tobacco smoking is the major cause of this disease.<sup>3</sup> Patients who have oral leucoplakia with the genetic instability marker aneuploidy have an 80% risk of developing oral cancer<sup>4</sup> with a high relapse rate and a 70% risk of death in 5 years.<sup>5</sup>, <sup>6</sup> Complete surgical excision does not reduce the high risk of aggressive, lethal oral cancer associated with aneuploid oral leucoplakia.<sup>6</sup> Smoking cessation could offer some protection in this setting,<sup>3</sup>, <sup>7</sup> but is often difficult to achieve or sustain.<sup>3</sup>, <sup>8</sup>, <sup>9</sup>, <sup>10</sup> Therefore, there is an unmet medical need for new treatment strategies, such as





FALSK KUNNSKAP: – Med sosiale medier og internett kan «fake science» snart utgjøre en alvorlig trussel, skriver kronikkforfatterne. Foto: Sait Serkan Gurbuz AP

# Fake Science kommer for fullt

Alle snakker om fake news, men mye tyder på at vi har et vel så alvorlig problem i anmarsj - nemlig fake science.

#### AV VG DEBATT

Oppdatert 9. mai 2017



## 'Data available upon request'



7:24 PM · Feb 28, 2021







Journal of Clinical Epidemiology 150 (2022) 33-41

### **ORIGINAL ARTICLE**

# Many researchers were not compliant with their published data sharing statement: a mixed-methods study

Mirko Gabelica<sup>a</sup>, Ružica Bojčić<sup>b</sup>, Livia Puljak<sup>c,\*</sup>

<sup>a</sup>Department for otorhinolaryngology, with head and neck surgery, University Hospital Centre Split, Spinčićeva 1, 21000, Split, Croatia <sup>b</sup>Institute of Emergency Medicine of Karlovac County, Ul. Dr. Vladka Mačeka 48, 47000, Karlovac, Croatia <sup>c</sup>Center for Evidence-Based Medicine and Health Care, Catholic University of Croatia, Ilica 242, 10000, Zagreb, Croatia Accepted 24 May 2022; Published online 30 May 2022

#### Abstract

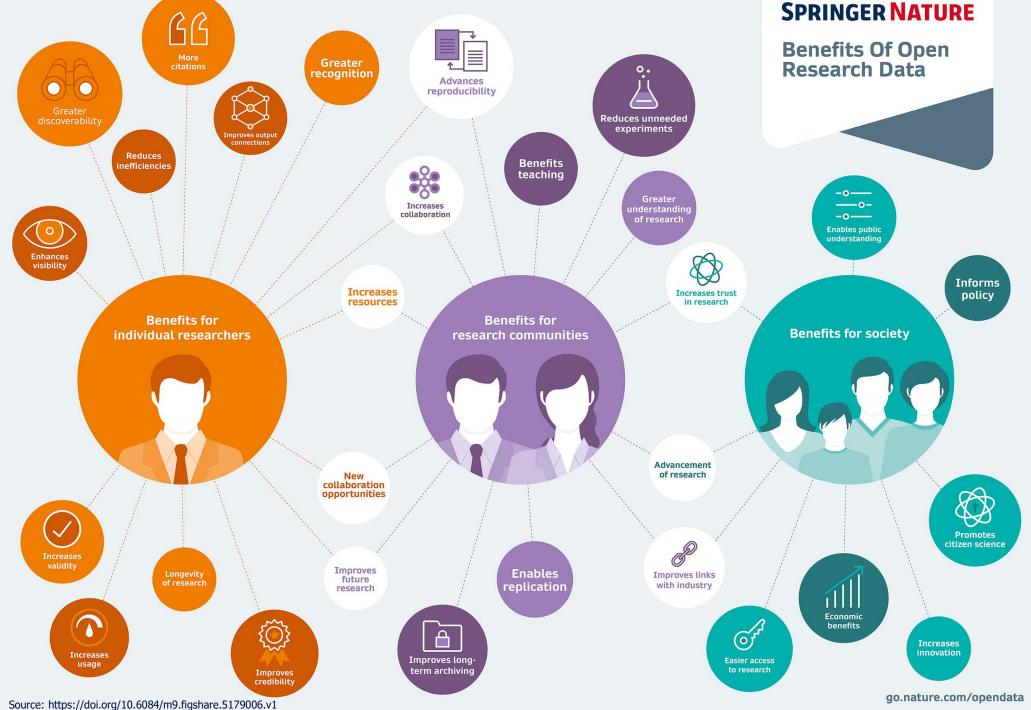
**Objectives:** The objective of the study was to analyze researchers' compliance with their data availability statement (DAS) from manuscripts published in open-access journals with the mandatory DAS.

**Study Design and Setting:** We analyzed all articles from 333 open-access journals published during January 2019 by BioMed Central. We categorized types of the DAS. We surveyed corresponding authors who wrote in the DAS that they would share the data. Consent to participate in the study was sought for all included manuscripts. After accessing raw data sets, we checked whether data were available in a way that enabled reanalysis.

**Results:** Of 3556 analyzed articles, 3416 contained the DAS. The most frequent DAS category (42%) indicated that the data sets are available on reasonable request. Among 1792 manuscripts in which the DAS indicated that authors are willing to share their data, 1669 (93%) authors either did not respond or declined to share their data with us. Among 254 (14%) of 1792 authors who responded to our query for data sharing, only 123 (6.8%) provided the requested data.

**Conclusion:** Even when authors indicate in their manuscript that they will share data upon request, the compliance rate is the same as for authors who do not provide the DAS, suggesting that the DAS may not be sufficient to ensure data sharing. © 2022 Elsevier Inc. All





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# FAIR

# • Findable

- Accessible
- Interoperable
  - Reusable

Source: Engelhardt, C. (2022). How to be FAIR with your data. https://doi.org/10.17875/gup2022-1915



#### To be Findable:

F1. (meta)data are assigned a globally unique and persistent identifier

F2. data are described with rich metadata (defined by R1 below)

F3. metadata clearly and explicitly include the identifier of the data it describes

F4. (meta)data are registered or indexed in a searchable resource

#### To be Accessible:

A1. (meta)data are retrievable by their identifier using a standardized communications protocol

A1.1 the protocol is open, free, and universally implementable

A1.2 the protocol allows for an authentication and authorization procedure, where necessary

A2. metadata are accessible, even when the data are no longer available



#### To be Interoperable:

 (meta)data use a formal, accessible, shared and broadly applicable language for knowledge representation.

I2. (meta)data use vocabularies that follow FAIR principles

13. (meta)data include qualified references to other (meta)data

#### To be Reusable:

R1. meta(data) are richly described with a plurality of accurate and relevant attributes R1.1. (meta)data are released with a clear and accessible data usage license

R1.2. (meta)data are associated with detailed provenance

R1.3. (meta)data meet domain-relevant community standards





COPY

# Metadata and documentation

# **Metadata** are data about data.

# Three types O Administrative O Descriptive or citation O Structural

# Documentation

#### - 🗆 🗙

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<DataverseNO README File Template --- General --- Version: 2.3 (2023-04-14)>

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#### GENERAL INFORMATION

// Title of Dataset: // DOI: // Contact Information <The person to be contacted for questions about the dataset>

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- // Name:
- // Institution:
  // Email:
- // Email: // ORCID:

Whenever applicable, the following information should be registered in the metadata schema of DataverseNO. In the text below, remove fields/lines that are not appl // Contributors: See metadata field Contributor.

- // Data Type: See metadata field Data Type.
- // Date of data collection/generation: See metadata field Date of Collection.
- // Geographic location: See metadata section Geographic Coverage.
- // Funding sources: See metadata section Grant Information.

// Description of dataset:
<(Short) description of what the dataset is about, including reference to related project(s) and publication(s), if applicable. Should correspond to the information</pre>

METHODOLOGICAL INFORMATION

<

<Note! If the documentation referred to is not openly available through a persistent URL, it must be added here or uploaded as file(s) to the dataset.>

KNote! It may generally be considered appropriate to have overlap in the methods section of a research data README file with citation of the original article. See C

// Description of sources and methods used for collection/generation of data: <Include links or references to sources, publications, reports or other documentation (e.g. survey questionnaires, interview protocols, Preregistrations or Register

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# Selecting data for archiving

- O Does your dataset have a potential for reuse?
- O (Inter-)national or historical importance
- O Data quality
- O Uniqueness or originality
- O Size, scale, cost
- O Innovativeness

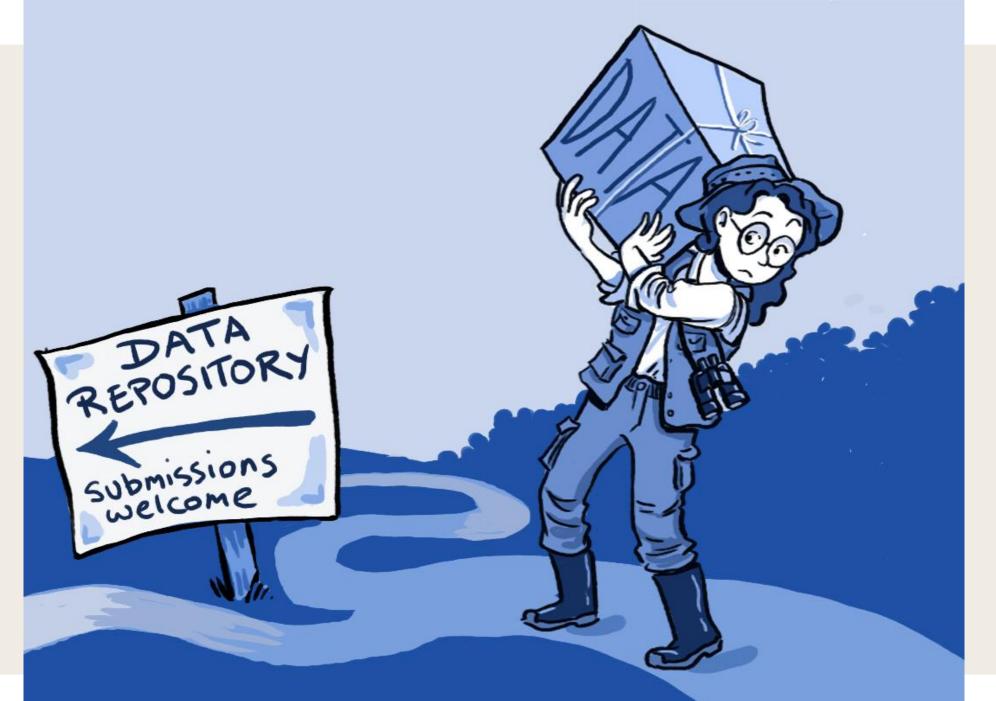
Source: Live Kvale, UiO



# Preparing for data archiving

- O Choose a data archive
- Ascertain that your documentation and metadata (if relevant) are up to date and enables reuse
- O Consider which license is appropriate
- O Upload data and documentation
- O Collaborate with data curator
- O Remember to cite your data!







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# Depositing quantitative data

Data format✓File name✓How to prepare the data file?✓

# **Data submission**

Use this data submission wizard to find the right archive for your data in a few simple steps.



Other biological research data

#### Why submit data to an archive?

- Submission of primary data and derived information to public data repositories is an essential step in the scientific process.
- Through submission, the scientific community is fed the raw materials for the building and maintenance of the complete and up-to-date data sets that support searches and analysis on the latest sequences, structures and molecular profiles of living systems.
- Serving as a complement to the literature publication process and supporting early data sharing, the EMBL-EBI offers a number of submission services appropriate for different types and scales of data.

#### Need help?

D If you need help with your data submission, please contact support.

#### All EMBL-EBI data repositories

Array Express: functional genomics data BioImage Archive: bioimaging data BioModels: computational models BioSamples: reference sample data BioStudies: biological research data ChEBI: chemical entities DGVa: structural genetic variation data EFO: experimental variables EGA: human data that requires controlled access EMPIAR: raw image data ENA: nucleotide sequence data EVA: genetic variation data GO: Gene ontology annotations GWAS Catalog: Genome-wide association study data IntAct: molecular interactions IntEnz: enzyme nomenclature MetaboLights: metabolomics data Metagenomics: raw sequence data & associated meta-data

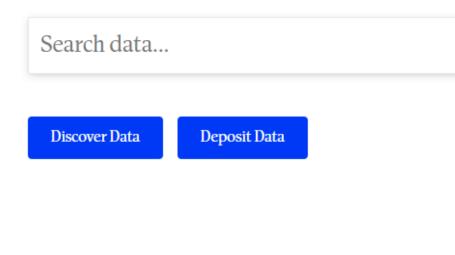
OneDep: electron microscopy, X-ray crystallography & NMR data





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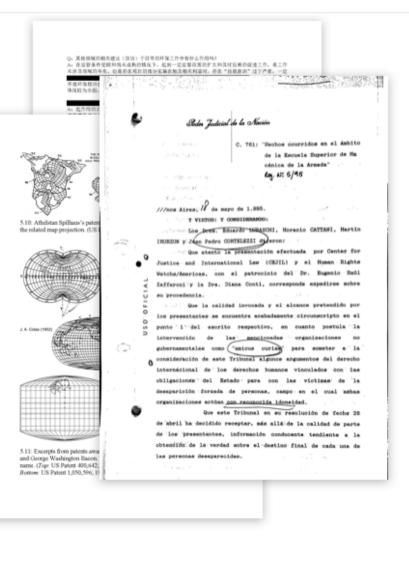
# The Qualitative Data Repository



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Materials from the re3data COREF / CoreTrustSeal Workshop on Quality Management Happy 10th Anniversary, re3data!

In this post, the authors celebrate the 10th anniversary of re3data, sharing insights

Registration closed: re3data COREF / CoreTrustSeal Workshop on Data Quality

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<ul> <li>∠</li></ul>	Supplementary materials for: Urban Density and Accessibility: A methodological approach Nov 1, 2023 Hernández-Palacio, Fabio; Kesarovski, Todor, 2023, "Supplementary materials for: Urban Density and Accessibility: A methodological	
<b>Yublication Year</b> 023 (1) 022 (2) 021 (2)	approach", https://doi.org/10.18710/XO6FG7, DataverseNO, V1 The built environment's impact on human behaviour is well-documented. Still, quantitative research on the topic usually focuses on a large scale with few studies at the neighbourhood level. This study presents a method investigating the correlation between the local built enviro	
ubject locial Sciences (3)	Covcom test videos Mar 3, 2022 Lungu, Daniel Adrian, 2022, "Covcom test videos", https://doi.org/10.18710/EZQR78, DataverseNO, V1	۵
Aathematical Sciences (1) ledicine, Health and Life Sciences (1) Other (1)	12 videos about pandemics (in Norwegian) used in a experimental design study aiming at investigating relevant video factors for pandemic video communication. The experiment adopted a factorial design, with three factors being manipulated. The three factors are: - the	
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Igorithmic trading models (1) Frent crude oil (1) Fuilt environment (1)	Kvia, Aasa, 2022, "Background data for: Recovery is up to you", https://doi.org/10.18710/KGXEBH, DataverseNO, V1 The data set measures participants in a course and their experience of 5 important elements in a recovery process. The elements measured are Hope, Quality of life, Empowerment, Loneliness and Confidence. The scope is to examine the participants experience of the	
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Campbell, Janine Anne (1) Hernández-Palacio, Fabio (1)	Replication Data for: A Comparison of Price Fluctuations Between Brent Crude Oil and Retail Fuel Prices in Stavanger - An Algorithmic Model for Refueling Jun 15, 2021	

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Curated by: nasatransformtoopen

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March 27, 2023 (vauto-2023-03-27) Software Open Access

#### starschema/COVID-19-data: Autorelease 2023-03-27

Földi Tamás; piglerp; Chris von Csefalvay; Peter Pigler; williamwash; Atsidir; william-wash; zem; Kapronczay; Szilárd Huber; grglyb; suommynona

Unpivoted and cleaned data sets on the COVID-19 pandemic

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Elise Kole Aspray, Timothy A. Mies ... Elizabeth A. Ainsworth Data Descriptor 20 April 2023

#### Announcements

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Scientific Data is open to submissions for this special collection: Meteorology and hydroclimate observations and models

Open for submissions



Research Data Journal for the Humanities and Social Sciences





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