

Project **DEAL**: Plans, Challenges, Results

Martin Grötschel
Berlin-Brandenburg Academy of Sciences and Humanities

6th IFLA ILDS Conference
-11 October 2019
ational Library of Technolog
rague, Czech Republi

BEYOND THE PAYWALL



Day Two, October 10, 2019 10:10-10:40: [Keynote Two]

resource sharing in a disruptive ecosystem

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
- 6. Summary

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
- 6. Summary

Some of my (current/former) OA activities



German Academies & Politics

- President Berlin Brandenburg Academy of Sciences and Humanities (BBAW)
- 2001 Telota Initiative of BBAW (The Electronic Life Of The Academy)
- 2015 Open Access Strategy of the State of Berlin
- 2016- Chair of Open Access Strategy Working Group Berlin
- 2019 Open Science Strategy of BBAW

DEAL related activities (since 25 years)

- Current Member: DEAL Negotiation Team
- Former President: Zuse Institute for Information Technology
- Former Member: Committee of Electronic Information and Communication of the International Mathematical Union
- Former Chair: IuK-Initiative (Information and Communication Initiative)
 of German Scientific Associations
- Former Head of the organizational office of the Kooperativer Bibliotheksverbund Berlin-Brandenburg (KOBV)

Some of My Convictions



- As a scientist, I am paid from public (taxpayers') funds.
- Therefore, I consider the results of my publicly funded research as a "public good".
- As a consequence, these results should be made available to the public free of charge and without use restrictions (subject to legal constraints).
- Now is the first time in the history of mankind that this is possible.
- Let us do it!
- Let us achieve Open Access, Open Data, Open Source, Open Science, Open X....

For more details, see:

Martin Grötschel: "Elektronisches Publizieren, Open Access, Open Science und ähnliche Träume"

https://edoc.bbaw.de/frontdoor/index/index/docId/2513

My Scholarly Paradise



What do I want (and probably everybody else)?

All scientific material (publications, data, software,...) I am interested in should be

- electronically available at my fingertips
 - easily findable, accessible, interoperable and reusable (FAIR)
 - with an excellent user interface and searchable,
 - with functioning links to supporting material,
 - including quality guarantee (peer reviewed)
- everywhere
- anytime
- without cost (for myself)
- perpetually.

Predictions 20-25 Years Ago



The Internet will make

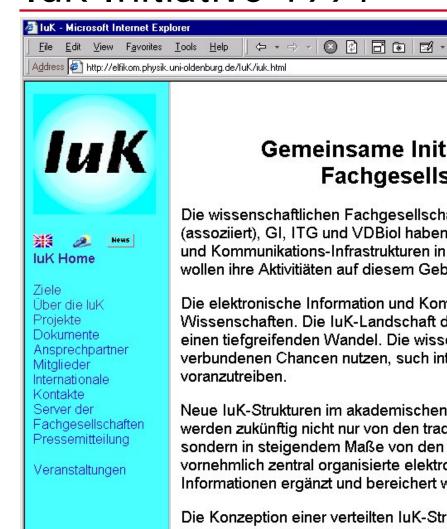
all these dreams come true

No! Hard work is needed. and even much more!

But it is possible!

IuK-Initiative 1994





luK

Gemeinsame Initiative der wissenschaftlichen Fachgesellschaften in Deutschland

Die wissenschaftlichen Fachgesellschaften DGFE, DGPs, DGS, DMV, DPG, GDCh, GDM (assoziiert), GI, ITG und VDBiol haben beschlossen, beim Aufbau elektronischer Informationsund Kommunikations-Infrastrukturen in ihren Wissenschaften gemeinsam vorzugehen. Sie wollen ihre Aktivitiäten auf diesem Gebiet koordinieren und aufeinander abstimmen.

Die elektronische Information und Kommunikation (luK) ist von strategischer Bedeutung für die Wissenschaften. Die luK-Landschaft durchläuft gegenwärtig besonders in den Wissenschaften einen tiefgreifenden Wandel. Die wissenschaftlichen Fachgesellschaften wollen die damit verbundenen Chancen nutzen, such international die Entwicklung mitzubestimmen und voranzutreiben.

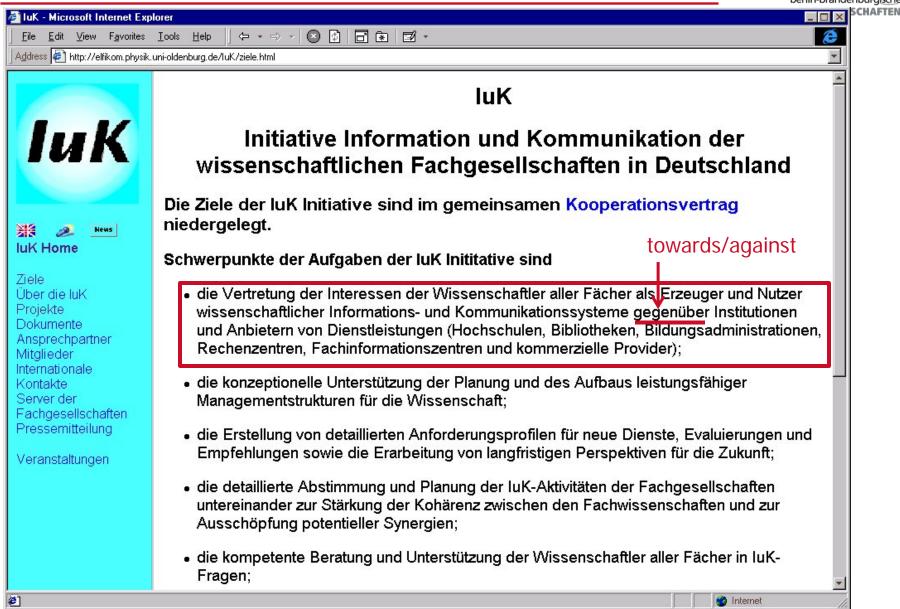
Neue luK-Strukturen im akademischen Bereich sind nur "verteilt" zu organisieren. Informationen werden zukünftig nicht nur von den traditionellen Informationsanbietern bereitgestellt werden, sondern in steigendem Maße von den Wissenschaftlern selbst. Das gegenwärtige, vornehmlich zentral organisierte elektronische Informationsangebot soll durch dezentrale Informationen ergänzt und bereichert werden.

Die Konzeption einer verteilten luK-Struktur beinhaltet nicht nur eine Ausweitung der Anzahl der angebotenen Informationen. Vielmehr kommt es auch darauf an, neue Informationsstrukturen zu entwickeln, die effizientes Suchen sowie einen einfachen und kostengünstigen Zugriff auf die gewünschte Information erlauben.

Internet

IuK-Initiative 1994





What is the Real "Ware"?



Reader gives Interest, receives Originality

Author provides Quality, gets Acknowledgement

Publisher provides Dissemination, gets Profit

Librarian provides Access, gets Budget

Editor provides Quality, gets Influence

Money and ware are decoupled to a great extent. Primary exchange object:

Prestige, Reputation

What is the Real "Ware"?



Money and commercial value are by far not the only driving forces. There are also:

- prestige
- vanity
- influence
- quality aspects

They are of at least equal importance.

The "players" on the academic side were not aware of the complexity of this "market".

It took (and still takes) time to understand the "cost of knowledge".

CEIC (1998 in Berlin – 2002 Paris)



COMMITTEE ON ELECTRONIC INFORMATION AND COMMUNICATION

Recommendations on Information and Communication

Best Current Practices: Recommendations on Electronic Information Communication (2002)

Endorsed by the IMU Executive Committee on April 13, 2002 in its 69th session in Paris, France

OA Declarations everywhere



Max Planck Society and Max Planck Institute for the History of Science

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities

The "Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities" issued at an international conference in Berlin on 22 October 2003 represents one of the milestones of the Open Access movement. For the first time it advocates open access not only to current research results but also to cultural heritage:

The Internet has fundamentally changed the practical and economic realities of distributing scientific knowledge and cultural heritage. For the first time ever, the Internet now offers the chance to constitute a global and interactive representation of human knowledge, including cultural heritage and the guarantee of worldwide access

 advocating the intrinsic merit of contributions to an open access infrastructure by software tool development, content provision, metadata creation, or the publication of individual articles.

We realize that the process of moving to open access changes the dissemination of knowledge with respect to legal and financial aspects. Our organizations aim to find solutions that support further development of the existing legal and financial frameworks in order to facilitate optimal use and access.

(Berlin Declaration on Open Access to Knowledge in Sciences and Humanities, October 22, 2003)



Goals:

Continued 2013

List of Institutions in Berlin that signed the Berlin Declaration:

Nr.	Date	Institution
637	25.06.2019	Universität der Künste Berlin
631	24.01.2019	Beuth Hochschule für Technik
628	11.12.2018	Hochschule für Wirtschaft und
		Recht
617	23.05.2018	Charité – Universitätsmedizin
567	15.08.2016	Technische Universität Berlin
311	13.07.2011	Hochschule für Technik und
		Wirtschaft
162	09.05.2006	Humboldt-Universität zu Berlin
142	17.01.2006	Freie Universität Berlin
003	22.10.2003	Berlin-Brandenburgische Akademie
		der Wissenschaften

Mission Statement at the Berlin 11 Open Access Conference of the Max Planck Society

Ten years after the "Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities" a mission statement has been drafted to be used as a guideline for future activities of the Max Planck Society towards the goals mentioned in the "Berlin Declaration" a decade ago:

We believe that the most important goal for the coming years is to ensure that 90% of the scholarly research literature is published with an OA model, in order to exploit the innovative and transformational potential of OA. OA at this level will not only greatly benefit research; experience with the Internet has shown that open information will also stimulate a great deal of new information-based economic activity. It is of paramount importance that this transition to OA must preserve or even improve on the quality standards of the present subscription-based model. [...]

We believe that a stable, competitive, and quality-assured OA research publishing system offers immense benefits not only to scholarship but also to society as a whole. Scholarly publishing is a global activity, and organizations that perform and support research, particularly those using public money, have a responsibility to work together globally to realise these benefits. It is time to return control of scholarly publishing to the scholars.

(Mission Statement at the Berlin 11 Open Access Conference of the Max Planck Society, 2013)

13.10.2015: Berlin's OA-Strategy



Open-Access-Strategie für Berlin

einstimmig verabschiedet vom Berliner Abgeordnetenhaus am 13.10.2015

- Mit diesem Strategiepapier will das Land Berlin dazu beitragen, dem Ziel eines für alle offenen Zugangs zu digitalen Wissensressourcen einen Schritt näherzukommen.
- Das Land möchte mit seiner Open-Access-Strategie auch erreichen, dass die vom Land für Bildung, Wissenschaft und Kultur aufgewendeten Steuermittel die Wettbewerbsfähigkeit Berlins nachhaltig sichern und größtmöglichen Nutzen für Wirtschaft und Gesellschaft erzielen.

Passed unanimously by the Parliament of the State of Berlin

AG Open-Access-Strategie Berlin



- Alice Salomon Hochschule Berlin Berlin Institute of Health
- Berlin-Brandenburgische Akademie der Wissenschaften
- Beuth Hochschule für Technik Berlin
- Charité Universitätsmedizin Berlin
- Evangelische Hochschule Berlin Fraunhofer-Gesellschaft
- Freie Universität Berlin
- Helmholtz-Gemeinschaft
- Hochschule des Bundes für öffentliche Verwaltung
- Hochschule für Musik Hanns Eisler
- Hochschule für Schauspielkunst Ernst Busch
- Hochschule für Technik und Wirtschaft Berlin (HTW)
- Hochschule für Wirtschaft und Recht Berlin (HWR)

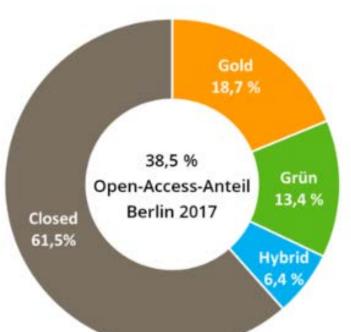
- Humboldt Universität zu Berlin
- Katholische Hochschule für Sozialwesen Berlin (KHSB)
- Kooperativer Bibliotheksverbund Berlin/Brandenburg
- Kunsthochschule Berlin (Weißensee)Hochschule für Gestaltung
- Landesarchiv Berlin
- Leibniz-Gemeinschaft
- Max-Planck-Gesellschaft
- Senatskanzlei Wissenschaft und Forschung
- Senatsverwaltung für Kultur und Europa
- Staatsbibliothek zu Berlin
- Technische Universität Berlin
- Universität der Künste Berlin (UdK)
- Zentral- und Landesbibliothek Berlin
- Zuse-Institut Berlin

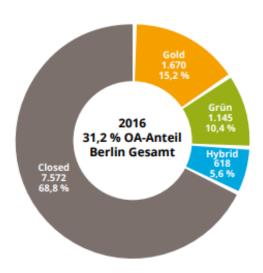
Open-Access-Publikationen, Ziel 2020: 60%



Die Erhebung der Daten war schwierig: eigene Arbeitsgruppe. Vor 2015: nur Schätzungen

Gesamtanzahl Zeitschriftenartikel:	11.005
Gesamtanteil Open Access:	31,2%
Open Access Gold:	15,2 %
Open Access Grün:	10,4 %
Hybrid Open Access:	5,6 %





Verbesserung des Zählund Berichtswesens

OA-Anteil Berlin 2017

http://www.open-access-berlin.de/news/2019-01-23-Open-Access-Zahlen-Berlin-2017.html

Open Access Activities



And so on...

Contents



- 1. About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
- 6. Summary

A declaration of ALL European Academies



Open Science for the 21st century

A declaration of ALL European Academies

presented at a special session with Mme Neelie Kroes, Vice-President of the European Commission, and Commissioner in charge of the Digital Agenda

on occasion of the ALLEA General Assembly held at Accademia Nazionale dei Lincei, Rome, on 11-12 April 2012

Martin Grötschel 20

ALLEA declaration



Towards an Open Science Culture

- Academic assessment and reward systems should see merit in participation in the culture of sharing, in enabling online collaboration and reproducible e-science. Those producing or reusing scientific information should comply with codes of conduct and conform to the standards of scientific integrity in their discipline, subjecting publications and also datasets to peer review and quality assessments.
- Commercial and security interests are to be considered, but the existence of scientific data that arises from privately funded research or that is security-sensitive should also be registered, when it is in the interest of the public good, with sector- and field-specific licenses on limited or delayed release of such information subject to time-based expiry.
- Open science should facilitate access to quality educational tools and should allow citizens to benefit from advanced technologies. It is hoped that the young will find inspiration for new discoveries and entrepreneurship, joining the ranks of scientists, engineers and innovators in far greater numbers than is currently the case.

Approved in May 2019



Das Leitbild Open Science der Berlin-Brandenburgischen Akademie der Wissenschaften

Leitlinien

Mit dem Beginn der TELOTA-Initiative im Jahr 2001 hat die BBAW die Digitalisierung ihrer Forschungs-, Kommunikations- und Präsentationsprozesse zu einem Kernanliegen ihrer Arbeit gemacht. Die von der Akademieleitung eingesetzte TELOTA-Steuerungse der Publikationssauschuss sowie der Vorstand der BBAW haben mit de wiss Die Berlin-Brandenburg Academy of Sciences and Humanities och Die Ergelon emer

Ergebnisse nachhaltig zu sichern und für eine breite Öffentlichkeit nutzbar zu machen. Diese

Open Science



- Open Access
- Open Research Data



- Open Research Software
- Open Innovation are going to change research approaches and methodologies.

Important topics:

- Creation of data standards
- Standardisation of methodologies
- Worldwide cooperation necessary
- Implementation of the FAIR Principles
 see https://www.go-fair.org/fair-principles/

FAIR Principles



Findable

The first step in (re)using data is to find them. Metadata and data should be easy to find for both humans and computers. Machine-readable metadata are essential for automatic discovery of datasets and services, so this is an essential component of the FAIRification process.

- 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 they describe
- F4. (Meta)data are registered or indexed in a searchable resource

Accessible

Once the user finds the required data, she/he needs to know how can they be accessed, possibly including authentication and authorisation.

- A1. (Meta)data are retrievable by their identifier using a standardised communications protocol
- A1.1 The protocol is open, free, and universally implementable
- A1.2 The protocol allows for an authentication and authorisation procedure, where necessary
- A2. Metadata are accessible, even when the data are no longer available

Interoperable

The data usually need to be integrated with other data. In addition, the data need to interoperate with applications or workflows for analysis, storage, and processing.

- I1. (Meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- 12. (Meta)data use vocabularies that follow FAIR principles
- 13. (Meta)data include qualified references to other (meta)data

Reusable

The ultimate goal of FAIR is to optimise the reuse of data. To achieve this, metadata and data should be well-described so that they can be replicated and/or combined in different settings.

- 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

The principles refer to three types of entities: data (or any digital object), metadata (information about that digital object), and infrastructure. For instance, principle F4 defines that both metadata and data are registered or indexed in a searchable resource (the infrastructure component).

edition humboldt digital





- Die Amerikanischen Reisetagebücher
- Die russisch-sibirischen Reisetagebücher
- Themenschwerpunkte
 - Briefwechsel
 - Dokumente

Die Amerikanischen Reisetagebücher Die Tagebücher der Amerikanischen

Bevölkerung, Gesellschaft und

Politik. Diese Aufzeichnungen liegen

hier erstmals in einer Edition vor.

Reise (1799-1804) sind die Schlüsselquelle zum Verständnis von Humboldts Reisewerk und Grundlage zur Aufarbeitung seines 3500 Seiten verbinden Beschreibungen des Reiseverlaufs mit Messergebnissen, literarischen Reiseskizzen, wissenschaftlichen Essays, Zeichnungen und Skizzer

Die Russisch-Sibirischen Reisetagebücher

Humboldts hemisphärischen Reisen

stehen. Der erste Schwerpunkt ist der

Themenkomplex Biowissenschaften. inshesondere Humboldts Aufzeichnungen zur

Zu den derzeit edierten Korrespondenzpartnern im Die Tagebücher der Russisch Schwerpunkt 'Pflanzengeographie Sibirischen Reise (1829) bestehen aus zählen Karl Sigismund Kunth, Franz drei Konvoluten: die »Fragmente des Sibirischen Reise-Journals 1829« Julius Ferdinand Meyen, Samuel sowie zwei Bände mit später Ludwig Willdenow, Das angefertigten Messungen zur nenregister erfasst alle edierter Geodäsie und zum Erdmagnetismus Briefwechsel. Die Aufzeichnung dieser Reise bilden die Grundlage für Humboldts dreibändiges Werk über Zentral-

Briefe und Personen

Alexander von Humboldt-Chronologie

Alexander von Humboldt (* 14. projektierten Akademienvorhabens besteht in der vollständigen September 1769 in Berlin; † 06. Mai Herausgabe der Humboldt schen 1859 in Berlin) war ein preußischer Manuskripte zum Themenkomples Reisen an der Schnittstelle von Naturnhilosoph, Kosmopolit und Kulturtheoretiker, kritischer Kultur- und Naturwissenschaften, Sie bilden nicht nur die lebenslange Intellektueller und königliche Grundlage für die Redaktion der Kammerherr und zählt zu den hekanntesten Persönlichkeiten und ebenso für die Entfaltung des produktivsten Wissenschaftlern gesamten 29-bändigen Amerikanischen Reisewerkes sowie zur Arbeit an Asie centrale (1843)

Das Vorhaben Die Hauptaufgabe des auf 18 Jahre

oder am Kosmos (1845-1862)

Über die Edition

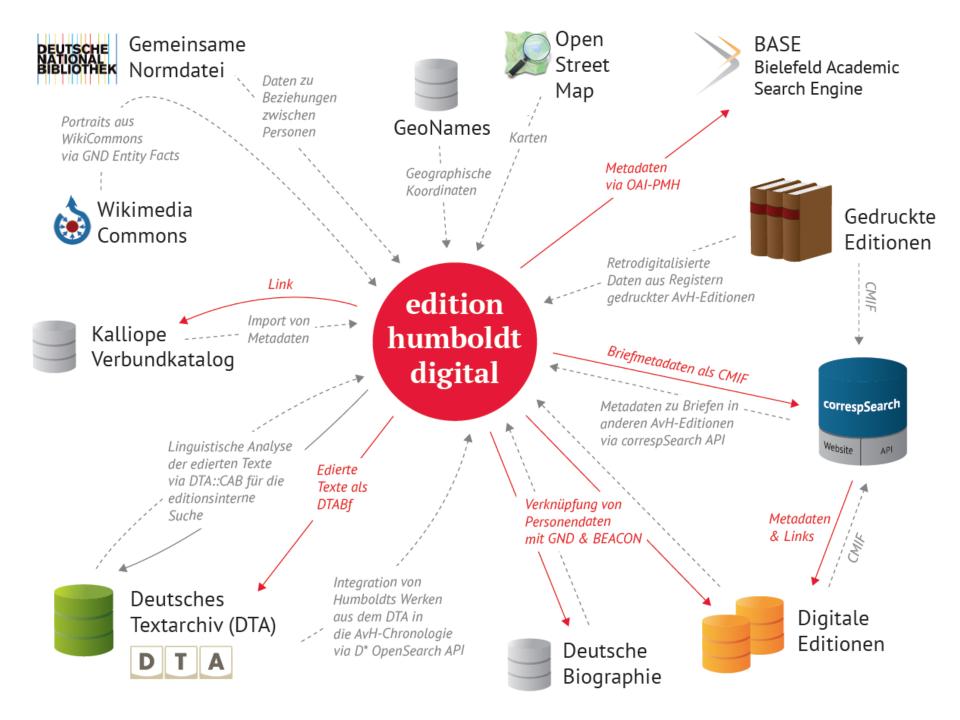
Auf Grundlage eines in TEI-XML erstellten Textkorpus' erarbeitet das Vorhaben sowohl eine Print- als auch eine digitale Edition. Die Printedition der Tagebücher konzentriert sich auf eine Rekonstruktion des originären Reiseverlaufs und ist als Lesefassuns konzipiert. Die digitale Edition zielt auf eine möglichst umfassende Kommentierung der Handschriften sowie auf eine intelligente Nutzung normdateibasierter Webdienste und Informationsangebote. Die digitale Edition wird in Umfang und Darstellungsform über die Möglichkeiten des Drucks hinausgehen und bereits von Drucklegung den aktuellen Stand de Arbeit an den Texten als work in

http://edition-humboldt.de





CC BY-SA 4.0 Namensnennung - Weitergabe unter gleichen Bedingungen 4.0 International



CENTRO HUMBOLDT in Havanna

berlin-brandenburgische
AKADEMIE DER WISSENSCHAFTEN

- 14.09.2016
 Memorandum of Understanding
 BBAW Academia de Ciencias
- Dezember 2017Trip to Havanna
- Januar-Mai 2018
 Application phase
 Gerda Henkel Stiftung
 Fritz Thyssen Stiftung
 Foreign Office
 Financial Support: ca. 1.2 Million Euro
- 2019-2023
 CENTRO HUMBOLDT
 Zentrum für digitale Kulturerbeforschung
 Berlin Havanna
 Opening: 19. November 2019



Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
- 6. Summary

My basic opinion (in line with the DEAL concept)



After a long struggle with myself and many others I have become fully convinced that our goal for the publication of scientific articles should be:

Gold Open Access

(Authors pay, free access for everyone)

- This removes (almost) all legal dangers/pitfalls.
- The new publication system will be transparent and cheaper.
- But:
 - The habits of the scientists and librarians have to change.
 - Many people and institutions have to be convinced that the financial flows need to be redirected.
 - What about the publishers?

https://www.projekt-deal.de/about-deal/



Projekt DEAL

Bundesweite Lizenzierung von Angeboten großer Wissenschaftsverlage

About DEAL

News ▼

About DEAL



Breaking news:

August 22, 2019:

A Memorandum of Understanding (MoU) was signed by DEAL and Springer Nature today in Berlin.

A **press release** can be found here. For further information on the key elements of the MoU, see **here**.

Martin Grötschel 30

Who is behind Project DEAL?



DEAL is a project supported by the "Allianz", i. e., the Alliance of all German science and research organizations:

Alexander von Humboldt-Stiftung

Deutsche Akademie der Naturforscher Leopoldina

Deutsche Forschungsgemeinschaft

Deutscher Akademischer Austauschdienst

Fraunhofer-Gesellschaft

Helmholtz-Gemeinschaft Deutscher Forschungszentren

Hochschulrektorenkonferenz (all German universities)

Leibniz-Gemeinschaft

Max-Planck-Gesellschaft

Wissenschaftsrat

Challenges



- Before negotiations with publishers could start, DEAL needed to overcome internal hurdles in Germany due to the federal structure of Germany which does not enable national agreements easily.
- Before DEAL was able to negotiate a national agreement, the Alliance of German Research Organizations had to join forces and build a new type of national negotiation body.
- This was important as it was clear from the beginning that a shift to open access (OA) could only be successful on a national level, not on institutional or consortium level.
- And the negotiation body needed to specify the goals!

DEAL: Project Structure





Martin Grötschel 33

Negotiation Group



The DEAL negotiation group consists of

- (former) President of the university presidents organization (HRK),
 Horst Hippler (head of the negotiation group)
- 5 further negotiation experienced scientists
 (slight changes over time, e.g.: Gerard Meijer, was an excellent
 "acquisition", former President of Radboud-Universität in Nijmegen and
 formerly member of the corresponding Dutch negotiation team)
- 7 supporting library heads (Projektgruppe),
- plus an office supplying statistics and more, etc.

The objectives of Projekt DEAL



- Immediate open access publication of all new research articles by authors from German institutions
- Permanent full-text access to the publisher's complete journal portfolio
- Fair and reasonable pricing for such services articulated with a simple and future-oriented model based on the number of articles published.

These objectives are in line the **LIBER principles** for publisher negotiations, the **principles of Plan S**, and the objectives of the global **OA2020 Initiative** to accelerate the transition to open access.

More about international initiatives and negotiating strategies are at the **ESAC** webpage.

The DEAL Project – Principles



1. One New Contract for the whole of Germany

(we have to determine fair prices "ab initio", not a reduction)

2. Transparency

(one contract for all, and of course it is going to be public),

3. Open Access

(all papers from Germany should be published gold-OA immediately)

4. Fair Prices

(gauged by "per paper published with first author from Germany")

5. Future-Oriented, Sustainable Pricing

(designed for an open-access future; sustainable for the sciences, for the publishers, also in view of pre-publishing, piracy, open access)

The DEAL Project – the price to pay



What should we pay?

We pay for the German share in worlwide publishing

The fair price is

#articles published (with a German first author)

- * (reasonable)PAR("publish and read fee")
- * (possibly) growth factor

The DEAL Miracle



Almost all German scientific libraries (with only very few exceptions) subscribed to the ideas of Project DEAL and joined the project. This appeared to me impossible, and I still consider it a miracle.

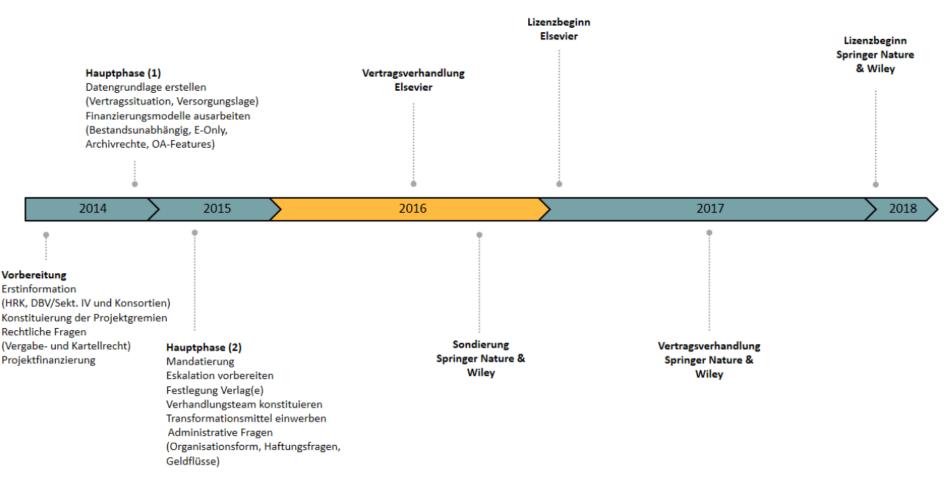
This solidarity (that is still alive) is very important for the project.

There are many (head) librarians involved who spent a lot of energy on the project. I would like to mention just two who played a significant role:

- Dr. Antje Kellersohn, Director of the University Library Freiburg
- Frank Scholze, Director of the KIT Library Karlsruhe

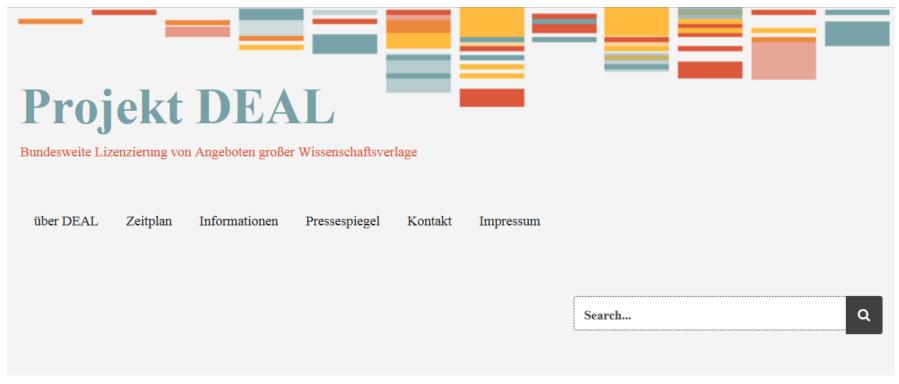
Zeitplan (initial plan, now completely outdated)





Projekt DEAL: https://www.projekt-deal.de/







Pressemitteilung HRK: "Wissenschaftler legen Herausgeberschaft von Elsevier-Zeitschriften nieder" + Liste

Posted on 20. April 2018 by Wiebke Beckmann

Namhafte Wissenschaftlerinnen und Wissenschaftler treten von herausgeberischen Tätigkeiten für den Verlag Elsevier zurück und unterstützen damit die Verhandlungsziele des Projekts DEAL.

Ergänzend...

Read More









Press Reactions 2016-2017 (a small sample)



No Deal: German Universities Prepare For Cut-Off From Elsevier Journals

16/12/2016 BY MONIKA ERMERT FOR INTELLECTUAL PROPERTY WATCH — 8 COMMENTS

https://www.ip-watch.org/2016/12/16/no-deal-germanuniversities-prepare-cut-off-elsevier-journals/

RELX Group's Elsevier fights open access in Germany

Posted on August 6, 2017

http://kevin.lexblog.com/2017/08/06/relx-groups-elsevier-fights-open-access/



Nature | doi:10.1038/nature.2017.21482

German researchers resign from Elsevier journals in push for nationwide open access

By Gretchen Vogel | Oct. 13, 2017, 3:30 PM

http://www.sciencemag.org/news/2017/10/germanresearchers-resign-elsevier-journals-push-nationwideopen-access

Science, 23.8.2017





The library at Berlin's Humboldt University is one of many that won't renew its Elsevier subscriptions. HUUBOA/WIKIMEDIA COMMONS

A bold open-access push in Germany could change the future of academic publishing

By Gretchen Vogel, Kai Kupferschmidt | Aug. 23, 2017, 12:15 PM

Science, 23.8.2017



BERLIN—In a third-floor conference room here overlooking the famous Potsdamer Platz, once bisected by the Berlin Wall, the future of academic publishing is being negotiated. The backdrop is fitting, because if the librarians and academic leaders at the table get their way, another major divide will soon fall: the paywall that surrounds most research papers.



The library at Berlin's Humboldt University is one of many that won't renew its Elsevier subscriptions. HUUBOA/WIKIMEDIA COMMONS

A bold open-access push in Germany could change the future of academic publishing

By Gretchen Vogel, Kai Kupferschmidt | Aug. 23, 2017, 12:15 PM

Contents



- 1. About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
- 6. Summary

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
 - a) Elsevier
 - b) Wiley
 - c) Springer Nature
- 5. Project DEAL: Future Challenges
- Summary

Negotiations with Elsevier at a glance



- 04/20/16: Workshop with Elsevier including discussions about possible DEAL negotiations
- 05/03/16: Decision by the project steering committee to start negotiations
- 08/04/16: HRK press release regarding start of negotiations (German)
- 08/18/16: Start of negotiations
- 10/11/16: Announcement by DEAL to Elsevier: Cancellation of Elsevier contracts by the end of the year by more than 70 institutions
- 12/02/16: Press release by the Alliance of Science Organisations regarding the current state of negotiations (German)

Negotiations with Elsevier at a glance



- Beginning of 2017: Elsevier cuts off institutions without contract extension from latest issues
- Access is renewed around six weeks later
- 03/24/17: HRK press release regarding the current offer by Elsevier (German)
- 10/12/17: HRK press release regarding editors resigning from their activities for Elsevier
- End of 2017: More than 110 additional scientific institutions do not extend their contracts with Elsevier for 2018; Elsevier does not cut off access (See list here – German)
- 07/05/18: HRK press release regarding the temporary adjournment of negotiations
- July 2018: Elsevier cuts off all institutions without contract from latest issues
- 08/22/19: Project DEAL and Elsevier are still in contact, although formal negotiations have not yet been resumed

Negotiations with Elsevier at a glance



- Beginning of 2017: Elsevier cuts off institutions without contract extension from latest issues
- Access is renewed around six weeks later
- 03/24/17: HRK press release regarding the current offer by Elsevier (German)
- 10/12/17: HRK press release regarding editors resigning from their activities for Elsevier
- End of 2017: More than 110 additional scientific institutions do not extend their contracts with Elsevier for 2018; Elsevier does not cut off access (See list here German)

 Danger?
- 07/05/18: HRK press release regarding the temporary adjournment of negotiations
- July 2018: Elsevier cuts off all institutions With its tactics Elsevier lost about ~40 Millionen Euros.
- 08/22/19: Project DEAL and Elsevier are still in contact, although formal negotiations have not yet been resumed 7 options!

Transformation Dynamics



Elsevier to resigning editor W. Marquardt, Oct. 2017:

- Germany has always been an innovation leader, but other countries are catching up quickly. (...)
- The complexities involved in the negotiations largely stem from Germany's ambition to move to a fully gold open access world. (...)
- Germany's challenge, however, is that the vast majority of research nations – among which the US, China and Japan – do not pay to broadcast their research to the rest of the world like Germany wants to do.
- Instead they prefer to publish under the subscription model, and support green open access (i.e. delayed manuscript sharing). As a result, immediate access to content from the rest of the world is not free.

Nobody wants to change from horse carriage to motor car!

Rough Industry: Elsevier's CEO "retired" one weak after the Wiley agreement was signed.

Transformation Dynamics



Germany makes up 5-6% of the World Science Market (e.g. in terms of publications)

... we are fighting not alone, but more support would be helpful

... this is the time to say we want Open Access (OA)!

And, I (and many others) believe that GOLD OA is the way to go.

However, Elsevier is right: The ideal publishing world (that I imagine) can only be realized if the majority joins the move to GOLD OA. That is why I call for worldwide efforts to achieve this goal.

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
 - a) Elsevier
 - b) Wiley
 - c) Springer Nature
- 5. Project DEAL: Future Challenges
- 6. Summary

Negotiations with Wiley



- 04/20/16: Workshop with Wiley including discussions about possible DEAL-negotiations
- 05/03/16: Decision by the project steering committee to start exploratory talks in 2017
- 01/19/17: Exploratory Talks
- 04/28/17: Start of negotiations
- 09/22/17: HRK press release regarding the state of negotiations and the temporary arrangement for 2018
- 01/15/19: HRK press release regarding the signing of a DEAL-Wiley contract

Publish and Access Agreement Projekt DEAL and Wiley

Signed in Berlin on 15 January 2019



Some Statements on the Wiley deal



Prof. Dr. Horst Hippler, DEAL Chief Negotiator:

"[...] What is for sure: Change will happen and the question is, if you are not creative and participating, you are out of business. The same is true for institutions, but the same is also true for publishers."

Prof. Dr. Gerard Meijer, DEAL Negotiation Team Member:

"We come actually from a situation where those communities that were very much in favour of Open Access were not the best friends of the bigger scientific publishers. And we needed time from both sides [...] to understand each other."

Judy Verses, Executive Vice-President Wiley:

"With the changes in the market going on you basically have to choices: You can decide that you are going to get in the front seat and drive and lead it or you can be in the back seat and maybe not be comfortable with where it's taking you."

The DEAL-Wiley Agreement is public



Wiley Vertrag



Bei administrativen Fragen zum **Wiley-Vertrag** wenden Sie sich bis auf weiteres bitte an **support@mpdl-services.de**,

bis eine differenzierte Ansprechstruktur für die verschiedenen Dimensionen des Vertrags aufgebaut ist.

Der Vertrag zwischen DEAL und Wiley, unterschrieben am 15. Januar 2019 von Wiley und der MPDL Services GmbH, ist von hier aus öffentlich zugänglich:

https://doi.org/10.17617/2.3027595



The DEAL-Wiley Agreement is public



PUBLISH AND ACCESS AGREEMENT

This Agreement dated as of January 15, 2019 (the "Agreement") is between Wiley-VCH Verlag GmbH & Co. KGaA, a company incorporated under the laws of Germany, Boschstrasse 12 D-69469 Weinheim, Germany on behalf of its parent John Wiley & Son, Inc. and affiliates, including without limitation John Wiley & Sons, Ltd and John Wiley & Sons Australia, Ltd. ("Wiley") and MPDL Services GmbH, c/o Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V., Hofgartenstraße 8, D-80539 München, Germany (the "DEAL Operating Entity").

Pricing

Publish and Read Fee

The amount paid for publishing in Hybrid Journals and access to the Licensed Electronic Products for the period from July 1, 2019 until the end of the Term will be the actual number of Accepted Articles in Wiley Hybrid Journals during such period multiplied by the per article publish and read fee of €2,750 (the "Publish and Read Fee"). Given that open access publication in Hybrid Journals under this Agreement will not commence until July 1, 2019, the DEAL Operating Entity shall pay Wiley an interim read fee of €12,512,067 for the period from January 1 to June 30, 2019 (the "Interim Read Fee").

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
 - a) Elsevier
 - b) Wiley
 - c) Springer Nature
- 5. Project DEAL: Future Challenges
- Summary

Negotiations with Springer Nature



- 03/22/16: Workshop with Springer Nature including discussions about possible DEAL negotiations
- 05/03/16: Decision by the project steering committee to start exploratory talks in 2017
- 05/17/17: Start of negotiations
- 10/12/17: HRK press release regarding the current state of negotiations and the temporary arrangement for 2018
- 12/04/18: HRK press release regarding the current state of negotiations and the temporary arrangement for 2019
- 08/22/19: HRK press release regarding the signing of a Memorandum of Understanding
- Negotiations with Springer Nature are under way.

Springer Nature



On 22nd of August 2019, DEAL and Springer Nature signed a Memorandum of Understanding (MoU) in Berlin.

- This sets the scene for the world's most comprehensive open access agreement to be signed in autumn.
- The finalized agreement will be made available in full text whereas the MoU will not be published.
- The agreement is expected to see well over 13,000 articles a year from German researchers published open access (around 9,500 in Springer Nature's subscription journals plus some 3,500 in fully open access journals).

SpringerNature: 22. August 2019





Another Photo





Prof. Gerard Meijer, Frank Vrancken Peeters, Dagmar Laging, Prof. Horst Hippler, Dr. Frank Sander, Daniel Ropers (left to right)

Credits: Springer Nature / Bettina Ausserhofer

- (1) Agreement period: 2020-2022, with optional renewal for 2023
- (2) Entitled institutions: All German research institutions entitled to participate in the Alliance Licenses funded by the German Research Foundation (DFG) are eligible to participate (universities, universities of applied sciences, research institutions, state and regional libraries). Not included: Hospitals (except university hospitals) and private-sector companies of any kind, e.g. pharmaceutical companies.
- (3) Journal access / journal titles included: Access to the issues of around 1,900 journals published during the contract period will be included: all Springer, Springer Medical/Medizin, Palgrave, Adis, Macmillan academic journals.
- (4) Not included journal titles / brands: Nature and Nature branded journals and purely professional journals as well as magazines (including Scientific American, Spektrum der Wissenschaft).



(5) Backfiles, Archives: Participating institutions receive complementary backfile access to issues of licensed journals during the contract period back to 1997 or to the extent Springer Nature's rights in the licensed journals permit.

Springer Nature and DEAL desire to permanently close gaps in journal archive content of certain Springer Nature journals.

(This has been achieved in the meantime.)

- (6) Deep discount pricing for print: Participating institutions may receive discounted print copies of the licensed journals, i.e. 75% on the journal list price (equals a 25% deep discount price), but no discount on shipping and handling charges.
- (7) Open Access publishing in subscription journals: From 1.1.2020, publications by authors from entitled institutions may be published open access in around 1,900 subscription journals of the publisher.

Not included are: Nature and Nature branded journals and purely professional journals (including but not limited to ATZ, MTZ) as well as magazines (including but not limited to Scientific American, Spektrum der Wissenschaft).

For the purposes of determining coverage, the date of reference is the online publication date of the article.

- berlin-brandenburgische
 AKADEMIE DER WISSENSCHAFTEN
- (8) Publish and Read Fee (PAR-Fee): 2750 € per article.
- (9) Publishing in Gold Open Access Journals: The agreement will enable open access publishing by authors from entitled institutions (submitting corresponding authors) in around 600 Springer Nature fully open access journals (including Nature Communications and Scientific Reports).

Springer Nature offers 20% discount on list price for BMC and Springer Open titles for all institutions.

List price increases of article processing charges will not exceed 3,5 % per journal title per year.

Springer Nature Deal: German output



The expectation is that "more than 13,000 articles by German scholars and scientists" will be made openly available by this deal.

This will represent about 15% of Germany's annual research output which, coincidentally is the same as Springer Nature's overall global market share.

Articles published OA by authors at participating German institutions will be open to everyone around the world to read, use and reuse, while researchers at all German institutions will be able to access all articles in Springer Nature journals in the agreement regardless of whether they are published OA or not.

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
 - a. The Challenges DEAL is facing
 - b. What do others do?
 - c. Concerns of others
- 6. Summary

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
 - a. The Challenges DEAL is facing
 - b. What do others do?
 - c. Concerns of others
- 6. Summary

New Financial Architecture needed





PRESSEINFORMATION

GERMAN U15 E. V. I 17. September 2019

Forschungsstarke Universitäten zu DEAL: Wissenschaftliches Publizieren im Zeitalter von Open Access erfordert neue Finanzarchitektur

** Die Position von German U15 zur neuen Finanzarchitektur für Open Access-Publikationen finden Sie unter folgendem Link: – noch nicht freigeschaltet – **

German U15 fordert eine neue Finanzarchitektur für wissenschaftliches Publizieren. Das am 22. August 2019 unterzeichnete Memorandum of Understanding zwischen dem Projekt DEAL und dem Verlag Springer Nature begreifen die forschungsstarken deutschen Universitäten als wichtigen Meilenstein des Übergangs in eine Open Access-Publikationskultur. Diesen Übergang und das Projekt DEAL begrüßen und unterstützen die U15-Universitäten nachdrücklich. Gleichzeitig macht German U15 deutlich, dass der erfolgreiche Übergang in eine Open Access-Publikationskultur eine stabile und verlässliche Finanzierungslösung voraussetzt, die insbesondere die Herausforderungen für forschungs- und publikationsstarke Universitäten berücksichtigt.

How DEAL did it?



The Max Planck Society stepped in and brought the MPDL (Max Planck digital library) into the "game".

The CEO of MPG decided to take a significant risk and founded the MPDL Services GmbH which acts, on behalf of Project DEAL, as the unit that handles all financial contacts with Wiley and Springer Nature and has the task to collect the funds necessary from the libraries "to pay the deal".

This is a non-trivial task!

Currently: Solidarity at work! But new financial structure is needed.

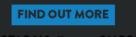
Concerns







COLLABORATE. INNOVATE. COMPETE. TALK TO US.



PODCAST

What's Hot and Cooking In Scholarly Publishing

Will Transformative Agreements Unravel Library Consortia?

By LISA JANICKE HINCHLIFFE | MAY 20, 2019 | 6 COMMENTS

BIG DEAL | BUSINESS MODELS | LIBRARIES | OPEN ACCESS

The Scholarly Kitchen (quotes)



Library consortia are prioritizing open access publishing in their publisher contracts, which they have stated clearly must be cost neutral or at least cost controlling overall.

Underneath the importance of cost control in the aggregate lies an extremely important question — how is the cost of a transformative agreement distributed within a library consortium among its members?

I observe today that cost share distribution within consortia is a substantial risk to the ability of transformative agreements to take hold for the long term and may threaten the cohesion of consortia as well.

The Scholarly Kitchen (quotes)



Many consortia rely on a cost share model based on institutional FTE, but considerations of historic spending, overall library budget/size, the availability of central funding if any, and other factors can come into consideration.

Also relevant is whether a given contract is mandatory in the sense that all consortia members must contribute vs. those that are optional in the sense that the consortia negotiates the terms but then each institution decides whether to participate. These are sometimes also termed "all-in" vs "opt-in" for consortia members.

buchreport

29. August 2019 Legal dangers





WISSENSCHAFT

Börsenverein legt »Deal«-Kartellbeschwerde ein

Ist der bundesweite Bibliothekseinkauf der "Deal"-Allianz ein Fall fürs Bundeskartellamt? Der Börsenverein hat bei den Kartellwächtern eine Beschwerde eingelegt, bestätigt der Verband auf **buchreport-**Nachfrage.

Aktuell wartet man auf Rückmeldung, ob ein offizielles Verfahren eingeleitet wird.

Dass der Börsenverein die gebündelte Abwicklung à la "Deal" kritisch sieht, hat er bereits in der Vergangenheit deutlich gemacht. Er war 2017 aber im ersten Anlauf mit einer Kartellbeschwerde gescheitert.

Der Börsenverein des Deutschen Buchhandels ist ein Verein, der die Interessen aller drei Handelsstufen im Buchhandel vertritt (Verlag als Hersteller, Zwischenbuchhandel als Großhandel, Sortimentsbuchhandel als verbreitender Buchhandel).

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
 - a. The Challenges DEAL is facing
 - b. What do others do?
 - c. Concerns of others

13 May 2019 European University Association



2019 Big Deals Survey Report

An Updated Mapping of Major Scholarly Publishing Contracts in Europe

By Rita Morais, Lennart Stoy and Lidia Borrell-Damián

The Second EUA Big Deals Survey Report is an updated mapping of major scholarly publishing contracts in Europe.

Conducted in 2017-2018, the report gathers data from 31 consortia covering an unprecedented 167 contracts with five major publishers: Elsevier, Springer Nature, Taylor & Francis, Wiley and American Chemical Society. Readers will discover that the total costs reported by the participating consortia exceed one billion euros for periodicals, databases, e-books and other resources – mainly to the benefit of large, commercial scholarly publishers.

https://eua.eu/resources/publications/829:2019-big-deals-survey-report.html

Helmholtz Open Science Report



Open Access an wissenschaftlichen Einrichtungen in Deutschland. Ergebnisse einer Erhebung im Jahr 2018. Bericht. Heinz Pampel

http://gfzpublic.gfz-potsdam.de/pubman/faces/viewItemOverviewPage.jsp?itemId=escidoc:4550890

This report presents the results of a quantitative survey on Open Access among research institutions in Germany. 701 German universities, universities of applied sciences and non-university research institutes were invited to take part in this survey. From September to November 2018, 403 academic institutions took part. Hence, it is the most comprehensive survey on Open Access practices in Germany to this day.

```
40.45 \% (n = 163) of the institutions have an Open Access policy.
```

- 31.27% (n = 126) do not plan to adopt a policy on Open Access.
- 23.82% (n = 96) of the institutions y plan to establish an Open Access policy.

```
58.81\% (n = 237) operate an Open Access repository.
```

- 23.57% (n = 95) do not plan to install an OA repository
- 13.90% (n = 56) plan to build an OA repository in the future.

Zotero / Helmholtz Open Science Group / Top-Level Items, List of related articles: https://api.zotero.org/groups/238631/items/top?start=0&limit=25&format=atom&v=1

Helmholtz Open Science Report



A partial list of findings:

- Open Access article processing charges are financed by various means
- Open Access publication funds are only available at a few institutions
- Various criteria for operating Open Access publication funds
- Various accounting procedures for Open Access publication fees
- Different contract models for Open Access
- Monitoring of Open Access publication costs little established
- Only at a few institutions OA publications exceed 40% of all publications
- Few institutions have an Open Access transformation strategy
- Funding policy as well as consortium Open Access agreements are named as key external measures for the success of Open Access transformation
- Financing by third parties and national cost-cutting agreements are seen as central to the future financing of Open Access

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
 - a. The Challenges DEAL is facing
 - b. What do others do?
 - c. Concerns of others
- 6. Summary

There are Critics



406 PUBLIKATIONEN

Forschung & Lehre 5|18

https://www.wissenschaftsmanagement-online.de/system/files/downloads-wimoarticle/1805_WIMO_DEAL_Woisetschlaeger_Von%20der%20Oelsnitz.pdf

Ist DEAL mit den Bezahl-Portalen ein guter Deal?

Mögliche Wege aus dem Dilemma

I DAVID M. WOISETSCHLÄGER | DIETRICH VON DER

OELSNITZ | Wissenschaftler benötigen in immer größerem Umfang valide Daten und qualitativ hochwertige Forschungsliteratur. Beides ist teuer – und dies auch, weil monopolisierende Wissenschaftsverlage mit ihren Online-Portalen erhebliche Profite generieren. "Guerilla Open Access" und illegale Schattenbibliotheken sind die Folge. Wie könnte man das System zugunsten von Wissenschaft und Forschung umgestalten?

achdem Elsevier, der größte Wissenschaftsverlag der Welt, Ende 2015 vor einem New Yorker Gericht die Löschung der "grauen" Literatur-Plattformen Sci-Hub, Lib-Gen und BookFi erwirkt hatte, schien die Schlacht verloren: Viele Universi-

und machten so weiter wie bisher. In den Foren der Sozialen Medien sprechen sich die neuen Gelegenheiten in Windeseile herum. Zu Recht wird darauf hingewiesen, dass es doch letztlich die wissenschaftlichen Autoren sind, die als "Content-Produzenten" Fachnischen Marktplatz und sind umso wirkmächtiger, je exklusiver ihr Angebot bzw. je intransparenter der Markt ist. Die Produzenten einer Leistung – hier die wissenschaftlichen Autoren – sind in der Regel zahlreich, die Zahl der Plattformen überschaubar. Aus dieser Grundkonstellation resultieren differente Ziele und unterschiedliche Machtpotentiale. Nicht zufällig ist es einigen Verlagen zuletzt sogar gelungen, fixe jährliche Preissteigerungsraten von bis zu zehn Prozent durchzusetzen. Dass dies nicht nur für Nutzer in zahlungsschwächeren Ländern ein Pro-



With APCs we identified the following problems that directly affect researchers, libraries, and publishers:

- Researchers that do not have funding for APCs are denied their right to publish (e.g., in developing countries or underfunded research areas).
- To secure or increase profits, quality may be sacrificed, both in terms of editorial selection and production quality.
- Intransparent pricing models may lead to increased costs.



During the ICIAM congress in July 2019 its member societies and their publishing houses agreed on the following basic principles for their publishing models:

- They will guarantee high quality publications without any compromises.
- They guarantee long-term availability and access to all publications.
- They manage costs responsibly in transparent pricing models while maintaining quality.
- They serve the mathematical community and not unrelated shareholders and surplus funds are used to support the community (e.g., publishing of books, support of conferences, prizes).
- Community based publishing houses see themselves as a part of a wider community where the stakeholders (publishers, editors, authors, reviewers, and libraries) collaborate.



At the moment there are several possible alternative models discussed in the community.

Examples of such models are:

- 1. Subscribe to open: existing subscription payments from libraries continue but the publications are made open access if sufficient libraries subscribe and continue to renew.
- 2. A national or even global funding pool is formed where library organizations or funding bodies (or even companies) fund open access publishing.
- Virtual mirror journals are formed that guarantee open access and avoid the hybrid character of a journal.
- 4. Classical publishing based on subscription continues and immediately before publishing the content of the article is posted on servers of the journal, the arxiv or national servers.
- 5. Complete open access publishing based on voluntary work of the community without revenue for the publisher.



Compared to APC-based models we see the following benefits of new OA publishing models (such as 1. and 2.) for universities, research organisations, and libraries:

- Costs are kept low.
- No financial risk due to a varying publishing output.
- Less administrative work without fee handling.
- Maintenance of high quality.
- Stronger cooperation with the scientific community.

Contents



- About me
- 2. Open Science
- 3. Project DEAL: The Plans and Challenges
- 4. Project DEAL: The Current State
- 5. Project DEAL: Future Challenges
 - a. The Challenges DEAL is facing
 - b. What do others do?
 - c. Concerns of others
- 6. Summary

The DEAL Position/Experience



- The market will decide whatever we do! (States do interfere!)
- The market is oligopolistic/monopolistic (with some small and powerless additional players) on the publisher side.
- The author/reader/user side is atomistic and therefore very weak.
 The publishers know that and play the associated power game.
- Plain message: Scientists and librarians must work together and build a cooperative team that forms a strong player. Unfortunately, too many focus on the difficulties and not on the opportunities that arise.
- Germany has managed to form such a team. It still needs effort to keep the groups together. It is worth the effort!
- Even publishers believe/state that gold open access is the way to go.
- Main problem: Transition phase from subscription to Gold OA.

Finally



The German effort is but one exercise in the attempt to change the world of publication. It is hard work but seems to be successful.

Such efforts need to be made elsewhere too. Worldwide cooperation and coordination is more than necessary. Concentrate on the initial big steps, solve small details later. I do often hear:

- Our situation is different. We need to consider this and that.
- We do not have the power to do that.
- It is too difficult.

No, this is not true. These are excuses for inactivity, laziness, and missing vision. The world of publication can be operated in better and much cheaper ways. We just have to keep going.

And we should not stop with Open Access!

Remember my dream of the scholarly paradise?

There is still to achieve: Open Data, Open Source, ..., i.e., Open Science in general.

I am not giving up (although I have to retire in one year).

Thanks for your Attention



Project **DEAL**: Plans, Challenges, Results

Martin Grötschel
Berlin-Brandenburg Academy of Sciences and Humanities

loth IFLA ILDS Conference 9-11 October 2019 Vational Library of Technolog Prague, Czech Republio

BEYOND THE PAYWALL



Day Two, October 10, 2019 10:10-10:40: [Keynote Two]

resource sharing in a disruptive ecosystem