

学術出版の今後を考える

尾城 孝一

国立情報学研究所オープンサイエンス基盤研究センター

OAの現状

「OAの現状：オープンアクセス論文の普及と影響力に関する大規模分析」

Piwowar H, Priem J, Larivière V, Alperin JP, Matthias L, Norlander B, Farley A, West J, Haustein S. (2018) The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. PeerJ 6:e4375 <https://doi.org/10.7717/peerj.4375>

Richard Poynder. The state of open access: some new data. (Q&A With Heather Piwowar)
Open and Shut? August 03, 2017
<https://poynder.blogspot.jp/2017/08/the-state-of-open-access-Some-new.html>

Impactstory

- 学術研究成果をオープンで再利用可能にするためのオンラインツールを開発・提供する非営利団体
 - Clarivate AnalyticsがImpactstoryに対し資金提供
-
- oaDOI
 - 合法的に利用可能なOA論文の発見支援ツール
 - PMC、Crossref、Google Scholar、BASE、DOAJ、DataCite、その他数千の機関リポジトリや出版者サイトからクロールしたデータに基づき、約9,000万件のCrossref DOI付きOA論文のデータベースを構築
 - それに基づき、APIやUnpaywallといったサービスを提供
 - Unpaywall
 - oaDOIをベースとしたブラウザの拡張機能
 - ユーザがアクセスしようとした論文のOA版にナビゲートする機能提供

分析の手法

- Impactstoryが提供する6,700万論文のOAステイタスを特定する無料のオンラインサービスであるoaDOIを使用して分析
- 3つのサンプルを抽出し、各サンプルのOA論文数を調査

サンプル名	サンプル数	サンプルデータ	目的	母数
Crossref-DOIs	100,000	Crossref DOIを持つ全ての論文（全年代）	OA論文の比率を推定	66,560,153
WoS-DOIs	100,000	DOIを持つ全ての引用可能なWoS論文（2009-2015）	最近のOA論文の引用インパクトの測定	8,083,613
Unpaywall-DOIs	100,000	2017年の1週間にUnpaywallユーザがアクセスした論文	UnpaywallユーザがOA論文にナビゲートされた比率	213,323

本分析におけるOA分類

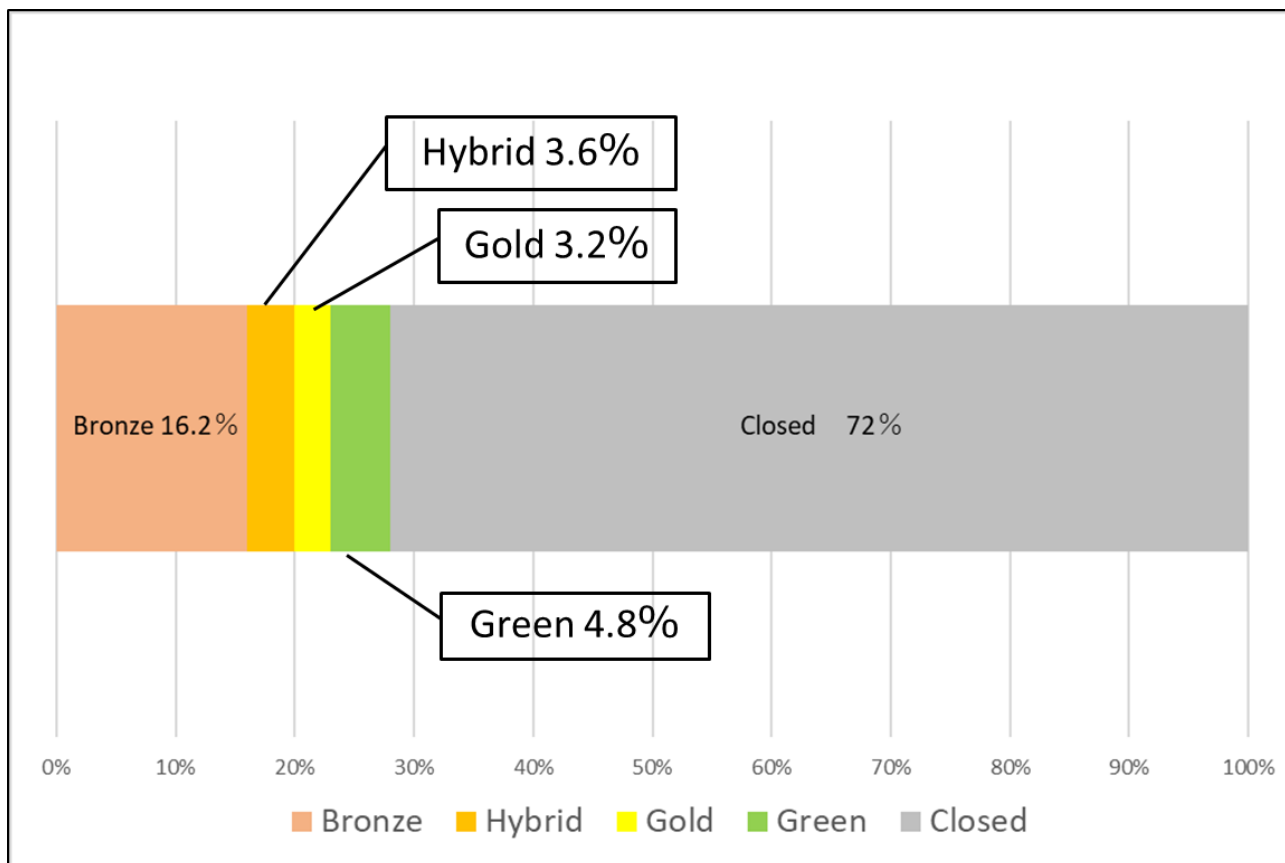
Gold	オープンアクセスジャーナルに掲載された論文
Green	出版者のページでは有料だが、OAリポジトリで無料で公開されている論文
Hybrid	有料ジャーナル（購読誌）上でオープンなライセンス付きで無料アクセスできる論文
Bronze	出版者のページで無料で読めるが、ライセンスを持たない論文（遅延型OA（delayed OA）や出版者が無料公開しているニュース価値の高い論文などが含まれる）
Closed	その他全ての論文（SNSやSci-Hubでのみ共有されている論文も含む）

主な分析結果

- 学術論文の少なくとも28%がOA論文（総数1,900万件）であると推定
- OA論文の比率は年々高くなり、2015年の分析によれば45%がOA
- Unpaywallユーザが読みたいと思った論文の47%はOA
- OA論文の被引用率は平均よりも18%高い

OAカテゴリ毎の論文比率

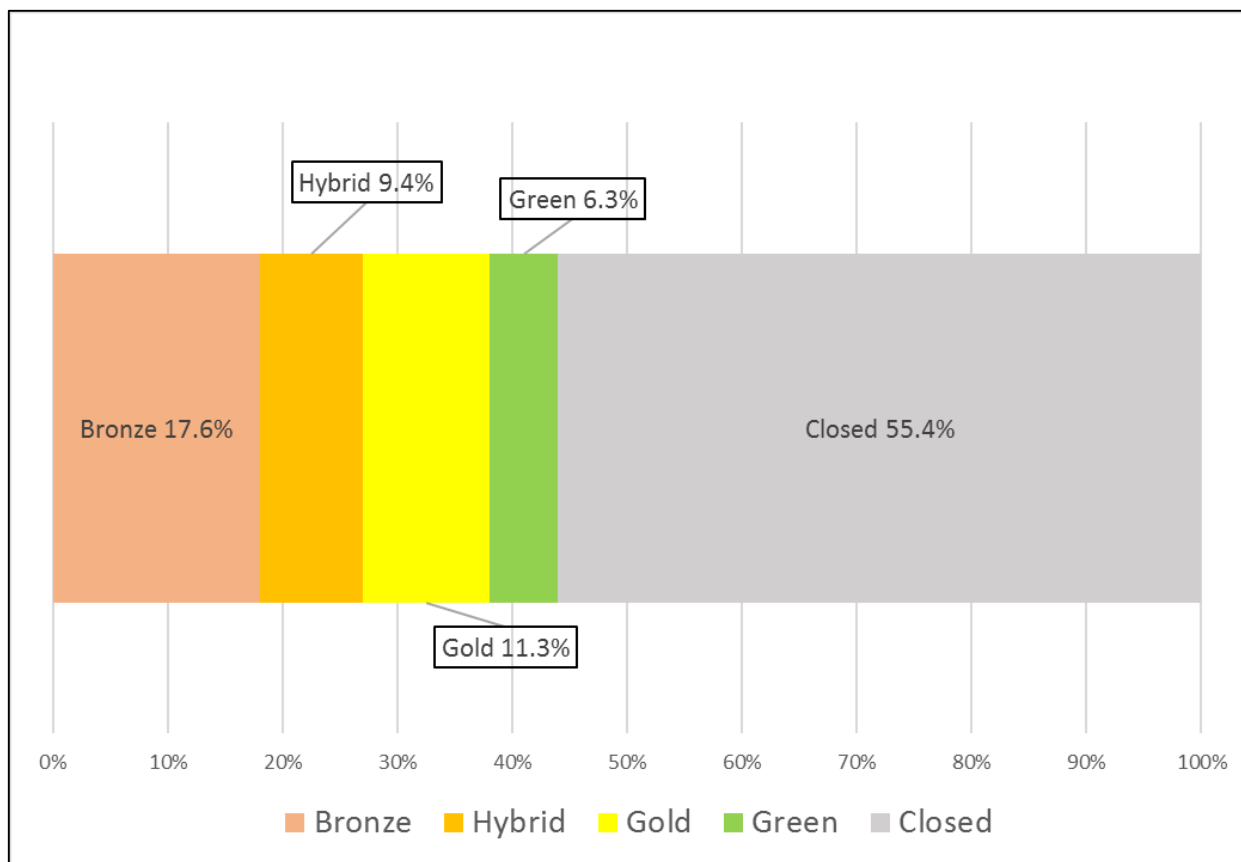
28%がOA



※Greenについては、Gold、Hybrid、Bronzeとの二重カウントはしていない

OAカテゴリ毎の論文比率（2015年出版）

45%がOA



※Greenについては、Gold、Hybrid、Bronzeとの二重カウントはしていない

Piwowar氏の助言

- 図書館員に対して
 - 本調査のデータをカードとして出版者と交渉すべし
 - ユーザがアクセスする論文の半数は無料で読める
 - 全論文を読むための費用を購読料として払う必要なし
- 出版者に対して
 - 今のモデルをフリップすべし
 - コンテンツに対するアクセスを売るのではなく、著者に対するサービスを売るモデルに転換せよ
 - それが唯一の正しい道

OA2020をめぐる動向

購読料の交渉

“We are treating symptoms not causes ...” (Tom Sanville)

対症療法にとどまる

購読モデルにおける価格上昇の原因

- アクセス権販売の独占
 - 出版社はアクセス権を販売しており、著作権の譲渡を受けることにより、その権利を独占
 - 価格競争にさらされない
- 学術雑誌の特殊性
 - 購読者から見た学術雑誌は、代替財ではなく補完財
 - 同じ分野のA誌とB誌は代替可能ではなく、互いに補完し合う関係
 - 両誌を購読しなければならない

APC-OAモデル

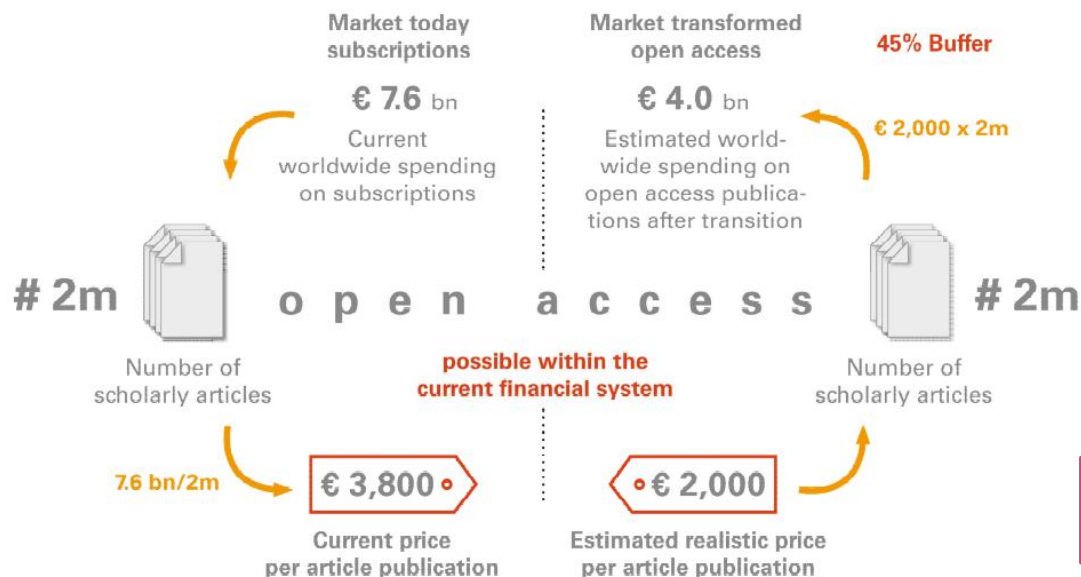
- オープンアクセスのモデルでは、出版社が著者に売るのは**出版サービス**
- 著者から見ると、学術雑誌というのは、補完財ではなく、代替財になる
- より質が高く、より出版費（APC）が安い雑誌に論文を投稿するという
- そこに、競争が生まれ、価格を抑えるメカニズムが働く可能性がでてくる

出版サービスの評価

- QOAM: Quality Open Access Market
(<https://www.qoam.eu/>)
 - OAジャーナルの出版サービスの質を評価するサイト
 - Base Score Card
 - Valuation Score Card
- DOAJ Best Practice Guide
(<https://www.doajbestpracticeguide.org/>)
 - 信頼できるオープンアクセス誌であるか否かを判断するための選択基準
 - 論文の投稿先決定を支援するツール

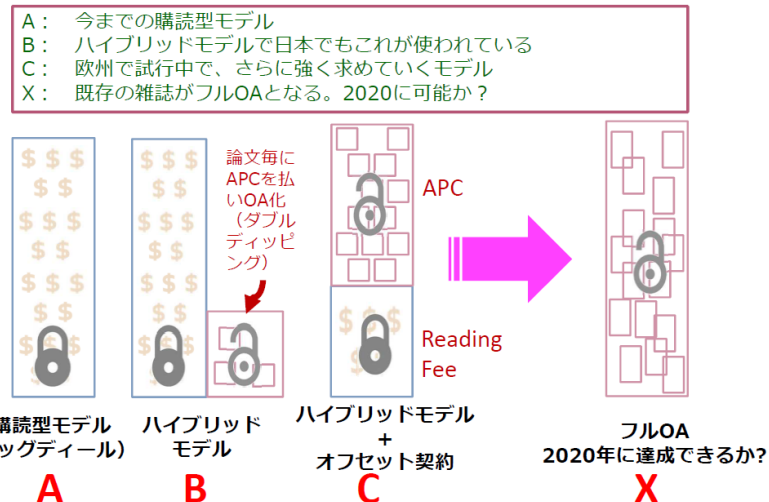
OA2020

Worldwide Publishing Market



- ✓ 購読料をAPCに転換（flipping）することで、追加のコストを発生させることなく論文のOA化は即座に実現できるという提案
- ✓ 世界の100の研究機関やコンソーシアムがEoIに署名
 - ✓ JUSTICE
 - ✓ 物性グループ・物性委員会

購読料とAPCをセットにしたオフセット契約を経て購読料なしのフルOAを実現するためのロードマップ



ドイツとオランダ

- ドイツ (Project DEAL)
 - ドイツ科学機構連合 (Alliance of Science Organizations in Germany) とドイツ大学長会議 (German Rector's Conference) による取組み
 - 大手3社と新たな契約モデル (APCと購読料をセットにしたPublish and Readモデル) について交渉
- オランダ
 - 2024年までにオランダの研究者による論文を100%OA化するという政府方針の下、オフセット契約 (購読料 + APCの一括契約) をめざして出版社と交渉
 - 交渉合意した出版社は、大手3社に加えて、ACS、SAGE、Taylor & Francis、CUP、RSC等

出版社の対応

- Elsevier

- ゴールドOAと購読モデルは異なるビジネスモデルであり、両者をセットにした提案を行わないという姿勢
- 「各国・地域による最適な方法でOAへの移行を進めていくべき。欧州はゴールドOAが最善なので欧州内だけでOAに。日本、アメリカ、中国は購読型／グリーンOA路線」との認識

“Working towards a transition to open access” (Elsevier Connect, 2017/9/26)

- Springer Nature

- OAに関して柔軟な姿勢
- Springer Compact（購読料とAPCを一括支払いするモデル）をオランダ、オーストリア、ドイツ、イギリス、スウェーデンと締結

JUSTICEの取組み

- 論文公表実態調査

- 国内研究者が公表する論文のゴールドOA率やAPC支払推定額の把握のため、WoSからデータを抽出し集計作業を実施（2015.9～）

- 国際連携

- OA2020への関心表明（EoIに署名）（2016.8）
- ベルリン13会議へ出席、運営委員会の市古委員長が日本のNCPに就任（2017.3）

- 活動体制

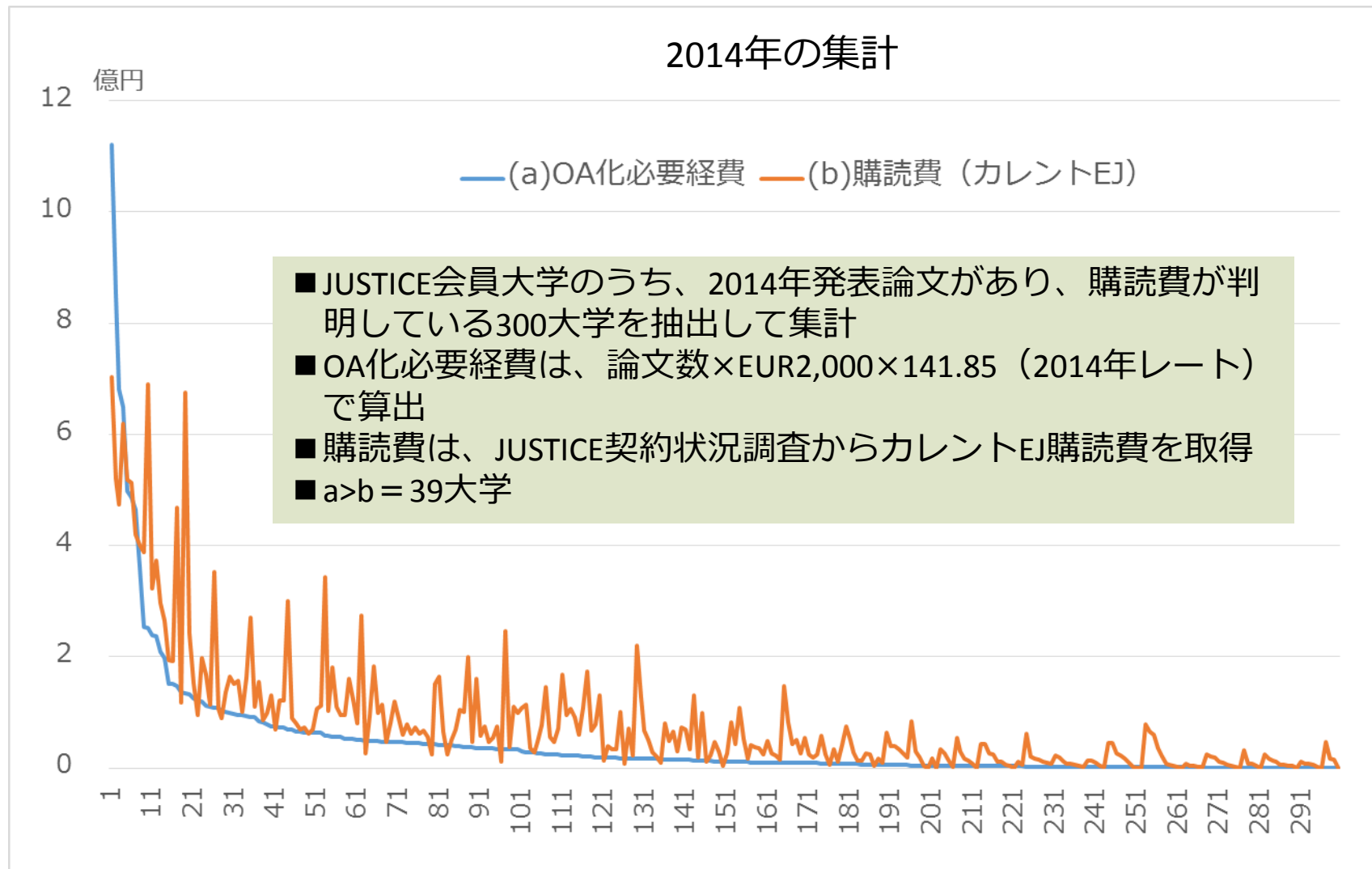
- OA2020対応検討チームの設置（2017.6～）
 - 国内外のゴールドOAの動向に関する情報収集・提供
 - OA2020モデルの実現可能性の検討

フリッピングの試算（JUSTICE版）



OA化必要経費と購読費（JUSTICE会員大学）

2014年の集計



JUSTICEの基本方針

- 購読料モデルでの交渉を継続？
- OAモデルへの転換を図る？

non-APC OAモデル（図書館共同出資モデル）

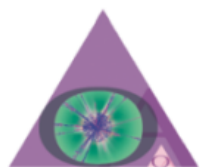
- 図書館のコンソーシアムを作り、参加館から出資金を集め、それを財源としてオープンアクセスジャーナルを発行するというビジネスモデル
- 著者にAPC負担を強いることなく、オープンアクセスを実現できる



Luminos

Lever Press

REVEAL DIGITAL



SCOAP³



OpenBook
Publishers

AAU/ARL/AAUP Open Access Monograph Publishing Initiative

Open Library of Humanities (OLH)

- 図書館のコンソーシアムを作り，参加館から出資金を集め，それを財源としてオープンアクセスジャーナルを発行するというビジネスモデルを採用人文系を中心に20種の雑誌を刊行
- 現在，北米や英国を中心として200を超える図書館がOLHを支援
- 各図書館が拠出する毎年の出資金の平均額は，1,000ドル程度，1図書館が1誌に対して支払う額は，年間約55ドルと推定

<https://www.openlibhums.org/>

Knowledge Unlatched (KU)

- 2012年に英国で設立された非営利団体で、主に人文社会科学系の学術書のオープンアクセス化をめざす
- 図書館からの出資金によって学術書をオープンに出版するモデルを採用
- 参加図書館は、参加出版社が提示する学術書のリストからオープン化の対象とするタイトルを選定し、資金を出し合って、選定された学術書のオープンアクセス化を実現
- 約450のタイトルの学術書をOA出版
- STEM分野の学術書やジャーナルにも範囲を拡大

<http://www.knowledgeunlatched.org/>

プレプリントサーバの拡がり

プレプリントサーバの隆盛



RePEc

Cryptology ePrint Archive



米国化学会

ChemRxiv™

bioRxiv

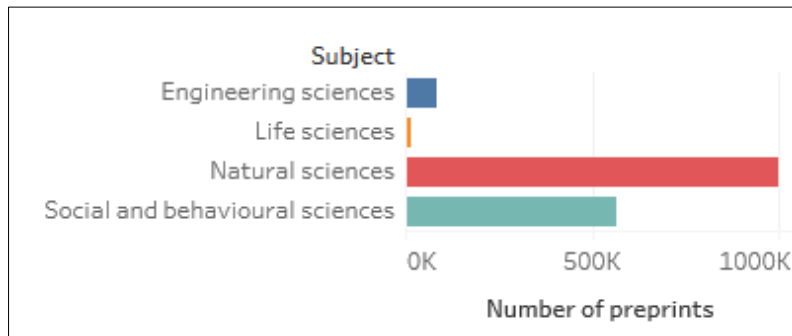
PeerJ Preprint



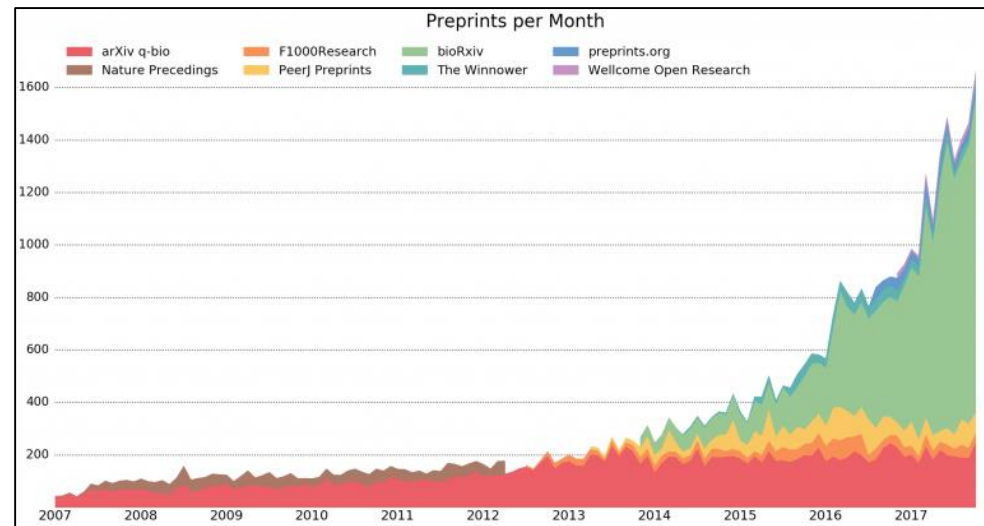
2016年にElsevier
が買収

プレプリントの増加

(主要プレプリントサーバの分野別論文数)



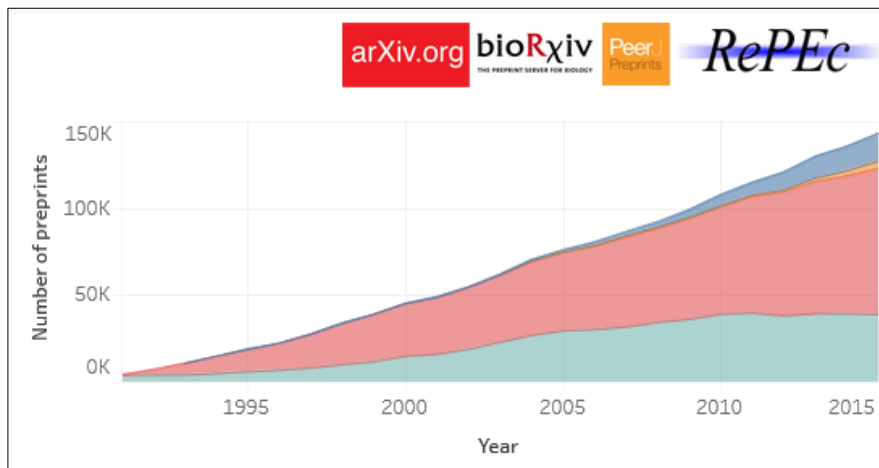
(生物学プレプリントの年間登録数の伸び)



By Jordan Anaya

<http://asapbio.org/preprint-info/biology-preprints-over-time>

(主要プレプリントサーバの年間登録数の伸び)



Open Science Monitor - European Commissionより

<http://ec.europa.eu/research/openscience/index.cfm?pg=home§ion=monitor>

Ingelfinger rule

The New England Journal of Medicine (NEJM) would not publish findings that had been published elsewhere, in other media or in other journals.

かつてプレプリントは一般に先行出版とみなされていたが、

List of academic journals by preprint policy

Publishers with unified policies [\[edit \]](#)

Publisher	Policy type	Policy text	Source
University of Chicago Press	Likely compatible	We place no conditions on posting a paper intended for submission (but not yet submitted) to one of our journals, except to note that posting a paper online may, in some cases, constitute prior publication – for example, posting to a commercial venue and/or to a venue with a formal review and approval process. Please consult the journal's editor if you have questions about whether or not a particular use constitutes prior publication.	[34]
American Chemical Society	Compatible in most cases	"Each ACS journal has a specific policy on prior publication that is determined by the ACS Editor in accordance with their final responsibility for editorial decisions relative to their publications. Details of the respective prior publication policies of each ACS journal is available at [29] ". On August 10, 2016, ACS announced the development of a chemistry preprint server, ChemRxiv, [30] . On August 14, 2017, ACS announced the release of a fully functioning beta site for ChemRxiv developed with strategic input from the Royal Society of Chemistry, the GDCh, the chemistry community, other societies, funders, and non-profits, open for submissions and available for all readers at [31] .	[32]
American Association for Cancer Research (AACR)	Compatible	"Posting of manuscripts on institutional websites or on recognized community preprint servers, such as bioRxiv, is permitted under our publication policy. Authors must retain copyright to such postings and are encouraged to contact the journal's editors to discuss their specific manuscript if they have questions. Please note that the AACR does not support posting of revised manuscripts that respond to editorial input and peer review or the final published version to preprint servers."	[1]
American Heart Association (AHA)	Compatible	All AHA journals share the same policy: "Posting of un-refereed manuscripts to a community pre-print server by the author will not be considered prior publication, provided that the following conditions are met: 1) During submission, authors must acknowledge pre-print server deposition and provide any associated accession numbers or DOIs; 2) Versions of a manuscript that have been altered as a result of the peer review process may not be deposited; 3) The pre-print version cannot itself have been indexed in MEDLINE or PubMed; 4) Upon publication, authors are responsible for updating the archived pre-print with a DOI and link to the published version of the article."	[2]
American Institute of Physics (AIP)	Compatible	"Author-prepared files only may be used; files prepared and/or formatted by AIP Publishing or its vendors (e.g., the PDF, PostScript, or HTML article files published in the online journals and proceedings) may not be used for this purpose."	[3]
American Physical Society	Compatible	From the submission FAQ: "E-print number, e.g., 0804.1718, assigned by the arXiv e-print servers. This can be used at submission to automatically download files from the e-print server."	[4]
American Phytopathological Society	Compatible	From the guidelines to the authors: "Authors are allowed to present and discuss their findings ahead of publication at scientific conferences, on preprint servers (such as arXiv, bioRxiv, or PeerJ preprints among others), in public databases, and other informal communication channels. When submitting a manuscript for review, authors need to disclose preprints, databases, proceedings, or other preliminary communications or depositories. However, abstracts, conferences, or personal communications need not be disclosed. This prior disclosure does not constitute prior publication."	[5]
American Society for Microbiology	Compatible	From the submission FAQ: "ASM journals will consider for publication manuscripts that have been posted in a recognized not-for-profit preprint archive, providing that upon acceptance of the manuscript for publication the author is still able to grant ASM copyright or agree to the terms of an Open Access license and pay the associated fee."	[6]
EMBO Press	Compatible	All four EMBO Press journals share the same policy: "All EMBO Press journals encourage prior publication on recognized non-peer-reviewed, community preprint servers such as arXiv and bioRxiv for commenting by other scientists before - or in parallel with - formal submission to the journal. Articles that have been published in an EMBO Press journal, accepted for publication, or revised to address referee comments should not be posted to bioRxiv (note that doing so would also contravene policy at bioRxiv and Crossref's policy against duplicative DOI assignment). BioRxiv posts will forward link to formally published papers. BioRxiv posts can be directly submitted with minimal effort to any EMBO Press journal. The details of the preprint server concerned and any accession numbers or DOIs must be included in the cover letter accompanying submission of the manuscript."	[7]
Microbiology Society	Compatible	The Society's Licence to Publish requires that articles have not previously been published in part or in whole within a scientific journal, book or similar entity. Deposition of a preprint version on the author's personal website, in an institutional repository, or in a recognized preprint archive (such as BioRxiv) is not viewed as prior publication, provided that: - The version posted has not been peer-reviewed, edited, or typeset. - Upon acceptance of their article for publication the author is still able to grant the Society an exclusive Licence to publish the article, or agree to the terms of the OpenMicrobiology agreement and pay the article processing charge (APC). Authors should inform the journal at the time of submission if and where their article has been previously posted. Authors are required to provide a link to the final published article (known as the Version of Record) alongside the original preprint version. [8]	
Nature Publishing Group	Compatible	The policy states "Neither conference presentations nor posting on recognized preprint servers constitute prior publication," and an editorial explains: "Nature never wishes to stand in the way of communication between researchers. [...] Communication between researchers includes not only conferences but also preprint servers. The ArXiv preprint server is the medium of choice for (mainly) physicists and astronomers who wish to share drafts of their papers with their colleagues, and with anyone else with sufficient time and knowledge to navigate it. [...] If scientists wish to display drafts of their research papers on an established preprint server before or during submission to Nature or any Nature journal, that's fine by us."	[9] and [10]

https://en.wikipedia.org/wiki/List_of_academic_journals_by_preprint_policy

List of academic journals by preprint policy

Individual journals [\[edit \]](#)

Journal	Publisher	Policy type	Policy text	Source
Journal of Biology of the Cell		Likely Incompatible / Unclear	Unclear. When submitting a manuscript to BoC it is understood that the data have been neither published nor also submitted for publication elsewhere in any language (excluding abstracts for conferences of less than one page and without illustrations)	[64]
Journal of Clinical Investigation	ASCI[89]	Incompatible	The JCI considers the following to be prior publication and therefore unacceptable: - any printed or online material describing the findings, methods, or results of a submitted/in-press manuscript in excess of 400 words; - any published tables or illustrations that in any way duplicate the content of another manuscript; - any posters shown other than at a professional meeting and leaflets distributed other than to a professional audience (...)	[90]
Molecular Biotechnology	Springer	Incompatible	Based on personal e-mail communication with Publisher on 2016/12/19. Relevant quote from communication: "No is not compatible (if submitted in BioRxiv) we only publish original articles."	
New England Journal of Medicine		Incompatible	NEJM expects that the articles it publishes will not have been published or released elsewhere before they are published in NEJM. The policy page does not explicitly mention preprints; however, the journal has come under public scrutiny.	[1][2]
FASEB Journal	FASEB	Compatible Compatible	FASEB permits the submission of preprint manuscripts, which will undergo the same review process as "non-preprint" manuscripts. Preprint submissions must meet the following criteria and conditions [...]	[3]
American Journal of Human Genetics	Cell	Compatible	Per AJHG, the following text applies to engagement with media only: Work intended for submission to AJHG, currently under consideration at AJHG, or in press at AJHG may not be discussed with the media before publication. Providing preprints, granting interviews, discussing data with members of the media, or participating in press conferences in advance of publication without prior approval from the AJHG editorial office may be grounds for rejection.	[72][73]
Bioessays	Wiley	Compatible	Wiley believes that in communities where non-commercial preprint servers exist, journals should allow for the submission of manuscripts which have already been made available on such a server.	[83]
Biology Open (BiO)	The Company of Biologists	Compatible	Deposition of research manuscripts (e.g. Research Articles and Methods & Techniques) prior to submission on community pre-print servers, or of conference presentations online, will not be considered prior publication and will not compromise potential publication in BiO. Versions of a manuscript that have altered as a result of the peer review process may not be deposited. Authors should provide details of the deposition in the cover letter accompanying manuscript submission. Authors are requested to update the pre-print server record with a link to the final published version of the article on the BiO website.	[79]
Biophysical Journal	Cell	Compatible	BJ will consider for publication manuscripts that have been posted informally on a private website or on ArXiv or BioRxiv, but will not consider manuscripts that have been posted on other preprint servers or "virtual journal" websites. Questions related to this policy should be directed to the Editorial Office.	[62]
Cell	Cell	Compatible	We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers.	[44]
Current Biology	Cell	Compatible	We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers.	[41]
Current Plant Biology	Elsevier	Compatible	All manuscripts submitted are peer-reviewed before being accepted for publication to Current Plant Biology. By submitting a manuscript to CPB authors state that the manuscript has not been submitted elsewhere, and that it contains unpublished data. Current Plant Biology does not accept work that has already been published elsewhere in the peer-reviewed literature. Activities such as publication of a short abstract; presentation of data to a scientific meeting; posting of the manuscript to any of the author's personal website, in an online institutional repository or on a freely accessible preprint server such as arXiv or bioRxiv, are not considered prior publication and do not exclude consideration of	

https://en.wikipedia.org/wiki/List_of_academic_journals_by_preprint_policy

プレプリントサーバをめぐる動向

- arXivの分野拡大
 - 高エネルギー物理学から数学、経済、統計へ
 - ディープラーニング研究の主戦場
- COSがプレプリントサーバを積極的に支援
 - 18のプレプリントサーバをホスト
- 米国化学会もプレプリントサーバを運用
 - ChemRxiv
- プレプリントの投稿を受け付ける出版者が増加
- プレプリントにDOIを付与する動き（CrossRef）
- ElsevierがSSRNを買収

SSRN

SSRN BROWSE SUBSCRIPTIONS RANKINGS SUBMIT A PAPER BLOG

Tomorrow's Research Today

Welcome to the SSRN Home Page.

SSRN's eLibrary provides 777,095 research papers from 360,554 researchers across 30 disciplines.

[You can subscribe to our newsletter here >](#)

Title, Abstract, Keywords & Authors

Advanced Search

New Networks

Biology	BioRN	Chemistry	ChemRN	Engineering	EngRN
Women's & Gender Studies	WGSRN				

Research Networks

Accounting	ARN	Health Economics	HEN	Marketing	MKT
Anthropology & Archaeology	AARN	Hebrew	HRN	Music & Composition	MRCN
Classics	CRN	Information Systems & eBusiness	ISN	Negotiation	NEG
Cognitive Science	CSN	Innovation	IRPN	Philosophy	PRN
Corporate Governance	CGN	Law	LSN	Political Science	PSN
Economics	ERN	Leadership	LRN	Rhetoric & Communication	RCRN
Entrepreneurship	ERP	Literature	LIT	Social Insurance	SIRN
Finance	FEN	Management	MRN	Sustainability	SRPN

<https://www.ssrn.com/>

- もはや社会科学系のプレプリントサーバではない
- 全ての学問分野をカバー
- 学術出版プロセスの上流で研究者と論文を囲い込もうという試み

SSRN → ScienceDirect

研究データと商業出版社

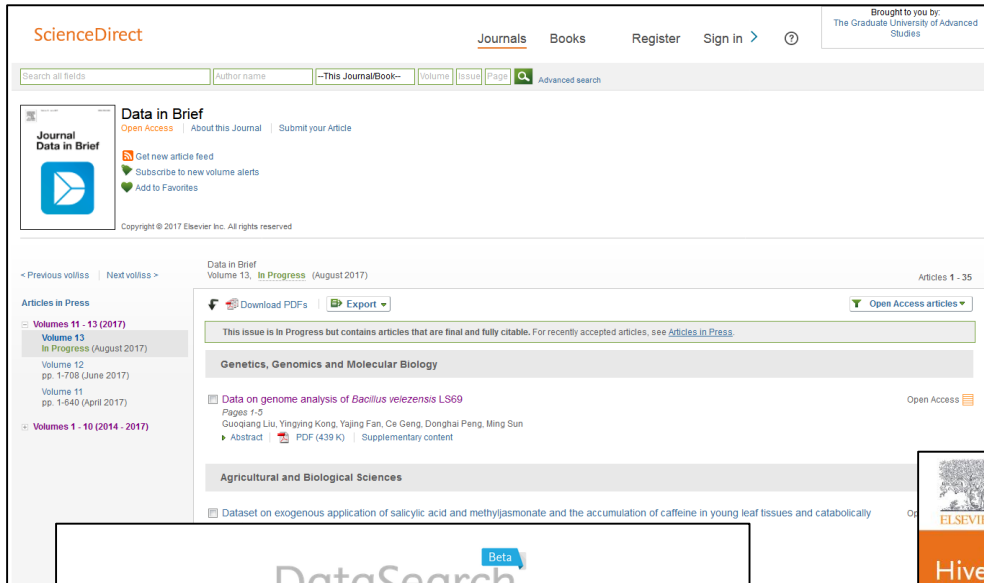
Elsevierの研究データ原則

- 研究データは全ての研究者に無料で利用できるように
- 研究者が自らの研究データへのアクセスやその利用についてコントロールできるように
- 研究分野の要請を考慮
- 研究データの効率的な再利用を促進
- プラットフォーム、出版、ツール、キュレーションサービスによりデータの価値を高める
- 付加価値サービスのコストに配慮

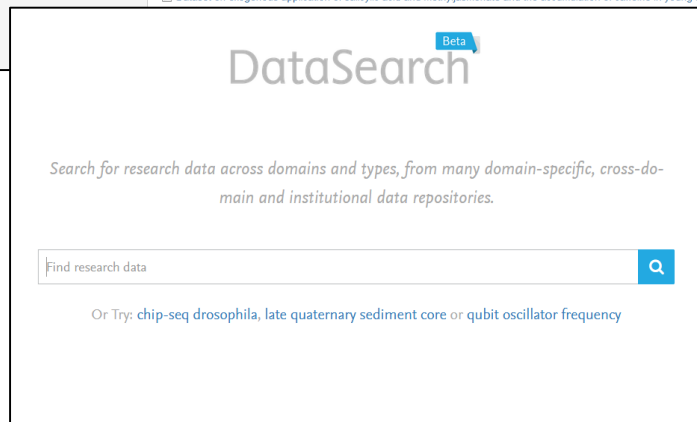
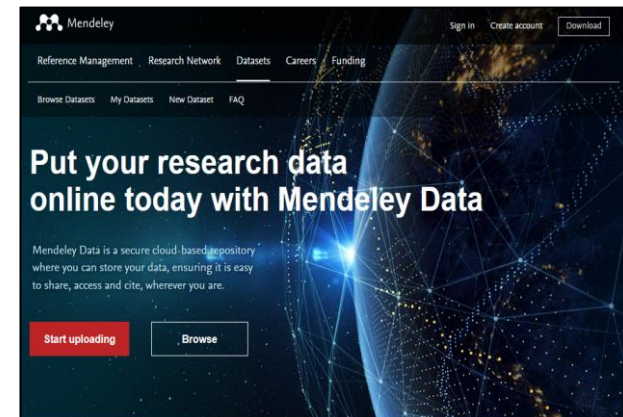
<https://www.elsevier.com/about/ourbusiness/policies/research-data>

Elsevierと研究データ

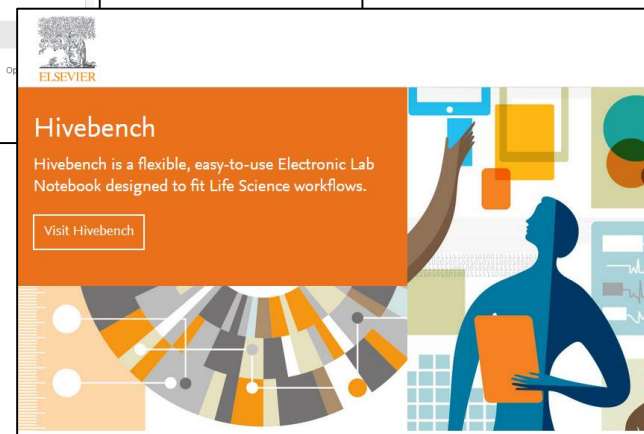
Data in Brief (データジャーナル)



Mendeley Data (データリポジトリ)



DataSearch (データ検索ツール)



Hivebench (電子ラボノート)



Springer Natureの研究データ支援サービス

- ✓ データセットのメタデータを高度化することにより、発見可能性を向上させ、再利用を促進する
- ✓ データセットにDOIを付与し、識別と引用を容易にする
- ✓ データを関連する研究に紐付け、可視性と再利用可能性を高める
- ✓ データの利用に関する文書を作成することにより、可視性を更に高める
- ✓ データセットに加えられたチェックや改良に関する詳細なレポートを提供する

<http://go.nature.com/SNRDS>

出版からワークフロービジネスへ

「私たちは実験から論文発表まで科学者の日常のワークフロー全体を支援する」

(エルゼビア・ジャパン、アンデシュ・カールソン副社長)

日本経済新聞2016年10月10日付記事より

研究ワークフローとElsevier



商業出版社の真の脅威

48 · In Oldenburg's Long Shadow

The strength of large commercial publishers does not stop there. We shall meet them again in their attempts to counteract newer forms of publishing that threaten their monopoly. However, even before we do this, I would like to introduce the notion of panoptic vision. Since Michel Foucault's famous book on prisons,⁴⁹ we pay more attention to Bentham's panoptic architectural structure which was incorporated into the design of prisons in the early 19th century. Not only is such a structure endowed with a strong surveillance capacity, but, in turn, it induces new kinds of knowledge. It is as if Bacon's aphorism had been translated into stone: knowledge can be power exactly as power can generate knowledge.

That publishers own a panoptic site with regard to site licensing negotiations is obvious. Through dozens of negotiations and almost as many deals with various libraries and consortia, publishers acquire a rich stock of experience, elements of comparisons and so on that amount to occupying the center of a powerful panoptic site. And they make good use of it. But they also own another panoptic site that appears even more important—that provided by usage statistics. Scientometrics specialists would die to lay their hands on such figures; governmental planners also. With usage statistics you move faster and stand closer to the realities of research than with citations. Usage statistics can be elaborated into interesting science indicators of this or that, for example how well a research project is proceeding on a line that might prepare the designing of new drugs or new materials. The strategic possibilities of such knowledge are simply immense. They resemble the marketing possibilities emerging from the study of consumer habits and profiles.

It is somewhat disquieting to note that such powerful tools are being monopolized by private interests and it is also disquieting to imagine that the same private interests can monitor, measure, perhaps predict. They can probably influence investment strategies or national science policies. In short they could develop a secondary market of meta-science studies that would bear great analogies with intelligence gathering. Is that the role of publishers?

Compared to the widely advertised "Echelon"⁵⁰ project of global communication surveillance, I find this second panoptic site much more threatening: it deals with cutting edge, fundamental knowledge and publishers are presently unaccountable for it. It is, after all, their database. In short, the movement toward the privatization of databanks of fundamental science that has coincided with the digitization of commercial scientific journals is opening untold new opportunities for the Elseviers of the world. It would be surprising to discover that Elsevier has not thought about such perspectives, and, as we shall see in the

⁴⁹ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, Tr. by Alan Sheridan (New York: Pantheon Books, 1977). French original, 1975.

⁵⁰ See, for example, <<http://www.echelonwatch.org/>>, a site organized by the ACLU in the U.S.

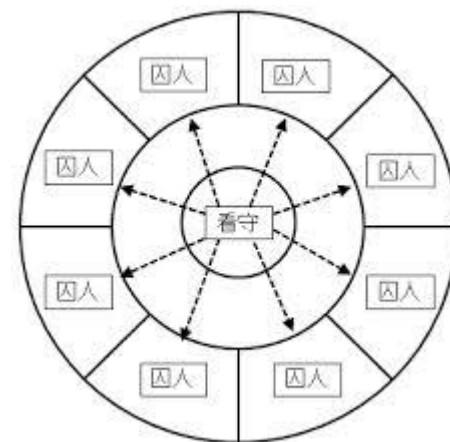
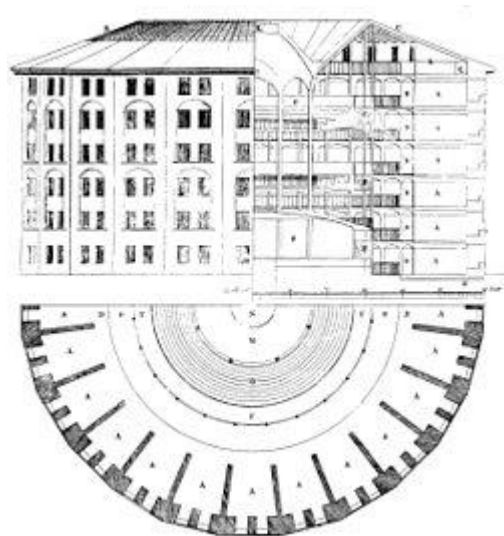
- 大規模商業出版社の寡占の真の脅威は、出版社がパノプティコンを持つこと。
- 出版社は、科学計量学的なデータを占有することができる。
- それにより、大学の研究戦略や国の科学政策を操ることも可能となる。

Jean-Claud Guedon. *In Oldenburg's Long Shadow*.

ARL, 2001. pp. 48-49.

<http://www.arl.org/storage/documents/publications/in-oldenburgs-long-shadow.pdf>

パノプティコン（ベンサム）



抄録・引用文献データベース
電子ラボノート
プレプリントサーバ
研究者SNS・文献管理ツール
ジャーナルパッケージ
研究分析ツール
CRIS（業績データベース）

全展望監視システムの完成

OAを超えて

- OAを実現できたとしても、学術コミュニケーション（学術情報流通）の主導権を商業出版社に握られたままでは意味がない。
- 誰がコントロールするのか、学術コミュニティ自らか、それとも商業出版社に依存するのか？それが究極の問題だ。
- SPARCの当初の理念である「Returning Science to Scientist」がOAを超えた学術コミュニティの使命ではないか。

European Open Access Platform

商業出版社の学術誌システムから完全に独立した
オープンアクセス出版流通プラットフォーム

コミュニティ層
(編集・査読、研究者間コミュニケーション)

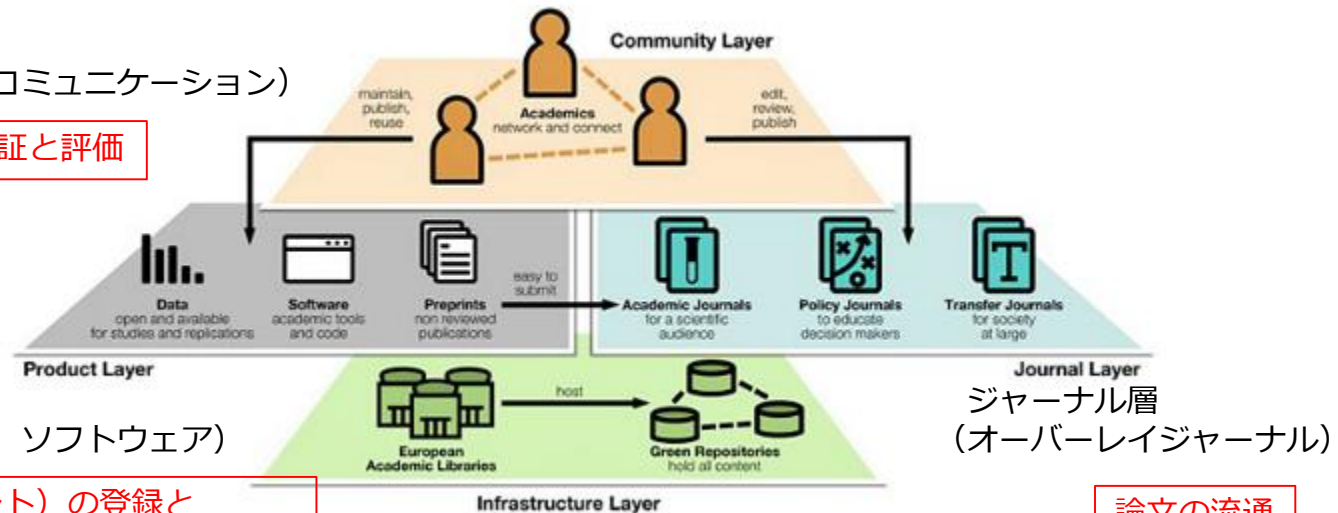
論文の質の保証と評価

プロダクト層
(プレプリント、データ、ソフトウェア)

論文(プレプリント)の登録と
タイムスタンプ(プライオリティ) ;
アーカイブとアクセス

インフラ層
(大学図書館がホストする機関リポジトリ群)

論文の流通



<http://blogs.lse.ac.uk/impactofsocialsciences/2017/04/10/rather-than-simply-moving-from-paying-to-read-to-paying-to-publish-its-time-for-a-european-open-access-platform/>

ECのOpen Research Publishing Platform

- ECはOpen Research Publishing Platformへの出資を提案
https://ec.europa.eu/research/openscience/pdf/information_note_platform_public.pdf#view=fit&pagemode=none
- Horizon2020の助成を受けた研究の査読済み論文とプレプリントのオープンアクセス出版のためのプラットフォーム
- 4年間で640万ユーロを投資
- ウェルカム財団やビル&メリンダ・ゲイツ財団の先例を参考にし、それをさらに発展させる

Wellcome Open Researchの出版プロセス



F1000が運営

<https://wellcomeopenresearch.org/about>

商業出版社に依存せずに、学術コミュニティが主体的に、新しいエコシステムを創り出すことができるか？