



PEER D9.8 Annual Report - Year 2

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PEER

Annual Report – Year 2

September 1st 2009 (M12) – August 31st 2010 (M23)

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eContentplus

This project is funded under the *eContentplus* programme¹,
a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

¹ OJ L 79, 24.3.2005, p. 1.

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2 Project Objectives

PEER (Publishing and the Ecology of European Research), supported by the EC eContent*plus* programme, is investigating the potential effects of the large-scale, systematic depositing of authors' final peer-reviewed manuscripts (so called Green Open Access or stage-two research output) on reader access, author visibility, and journal viability, as well as on the broader ecology of European research. The project has recently been granted a nine month extension and will now run until May 2012.

Peer-reviewed journals play a key role in scholarly communication and are essential for scientific progress and European competitiveness. The publishing and research communities share the view that increased access to the results of EU-funded research is necessary to maximise their use and impact. However, they hold different views on whether mandated deposit in open access repositories will achieve greater use and impact. There are also differences of opinion as to the most appropriate embargo periods. No consensus has been reached on a way forward so far.

The lack of consensus on these key issues stems from a lack of clear evidence of what impact the broad and systematic archiving of research outputs in open access repositories might be, but PEER aims to change this through building a substantial body of evidence, via the development of an "observatory" to monitor the effects of systematic archiving over time.

To provide the observatory with content, participating publishers have collectively provided 241 journals which provide EU authored manuscripts for the project either by publishers directly submitting accepted manuscripts (& metadata), or by publishers inviting authors to self deposit their accepted manuscript, with the publishers providing matching metadata. By the end of year two, publishers had submitted almost 25,000 manuscripts of which ~10,000 have EU corresponding authors.

Publishers are also providing over 200 additional journals which provide a background measure of usage activity at the publishers' platforms.

The PEER Depot which has been developed and is hosted by INRIA serves multiple functions within PEER. It receives all publisher and author submitted content which it processes (including the transformation of metadata), filters for EU research content which it holds for a specified embargo period prior to distributing to participating repositories. Additionally, it acts as a dark archive for PEER.

With the exception of one social sciences 'subject repository', each of the participating PEER repositories hosts all valid PEER content, providing multiple mirror sites for the project.

The Observatory has commissioned and manages behavioural, usage and economic research which collectively are addressing such central issues as:

- How large-scale archiving will affect journal viability
- Whether it increases access
- How it will affect the broader ecology of European research
- Which factors influence the readiness to deposit in institutional and disciplinary repositories and what the associated costs might be

And will inform the development of:

- Models to illustrate how traditional publishing systems can coexist with self-archiving.

Behavioural research surveys the attitudes of authors and readers for a scenario in which stage-two manuscripts are archived in repositories. Usage research investigates actual usage of publishers' journals and repositories as evident from logfiles. Economics research examines the cost involved for publishers and repositories in making stage-two manuscripts available in open access.

The aim of the eContent*plus* programme is to make digital content in Europe more accessible, usable and exploitable. This can only happen when the publishing, library, and scientific research communities work together towards this end in a spirit of openness and mutual respect. PEER has brought together a consortium of partners representing the key stakeholder communities involved in academic research and scholarly publishing and has established a framework for these communities to collaborate on the specific issue of archiving in open access repositories.

3 Consortium

The PEER Consortium consists of seven partner organisations representing the key stakeholder communities involved in academic research and scholarly publishing: the library & repository communities, scholarly publishers and research communities including research funding bodies and researchers both as authors and readers.

3.1 International Association of Science, Technical and Medical Publishers (STM)

STM represents a membership of around 100 scientific, technical, medical and scholarly publishers, collectively responsible for more than 60% of the global annual output of research articles. The mission of STM is to create a platform for exchanging ideas and information and to represent the interest of the STM publishing community in the fields of copyright, technology developments, and end user/library relations.

Role in PEER: STM as coordinator takes a leadership role for the success of the project and the collaboration between the partners representing the publishing, library and research communities. STM also interfaces with the publishers providing the journal content for the project, keeping them engaged and informed, and ensuring that they participate with other stakeholders in debates about issues and future scenarios raised by the project.

3.2 European Science Foundation (ESF)

ESF is an association of 79 research organisations in 30 European countries. Its members are major research funding agencies, research performing organisations and learned societies who created ESF in 1975 to foster collaboration between researchers and between research organizations Europe. ESF produces authoritative strategies and visions in all research fields, develops and manages funding schemes on behalf of its member organisations and facilitates consultative processes to allow its member organizations to develop common or compatible policies and operational procedures when dealing with issues of common concerns.

Role in PEER: ESF participates in the project on behalf of research organisations (research funding organisations and research performing organisations) and the research community. It facilitates a dialogue between those groups with a view to finding a common position on key issues relevant to the project. ESF will consult with and act as interface for those organisations and the project.

3.3 Göttingen State and University Library (SUB) UGOE

SUB is one of the largest libraries in Germany and a leader in the development of digital libraries. It plays a key role in the EC-funded DRIVER project that is building the digital repository infrastructure for Europe. SUB is one of the leading open access institutions and is very engaged in open access discussions. Its expertise includes usage statistics, reference linking, citation analysis etc. SUB also hosts the secretary of DINI (German Initiative for Networked Information). It has collaborated with the other group members to develop the DINI guidelines, "Certificate Document and Publication Repositories" and "Electronic Publishing in Higher Education".

Role in PEER: Göttingen is the strategic coordinator for the library/repository community and acts as communicator vice/versa to and from other institutions into the project. Its key role has been to coordinate the work of the PEER and DRIVER projects and plan a framework for interfacing the publishers and repositories within PEER. This will have benefits for both projects, with PEER populating DRIVER repositories and DRIVER facilitating access for the user community.

3.4 Max Planck Digital Library (MPDL)

MPDL is a new central service unit established by Max Planck Society (MPS) early in 2007. The MPDL coordinates the web-based management and supply of scientific information for the research of the Max Planck Society as a whole. This includes not only the operation of the electronic infrastructure, but also the development of new components necessary to tie individual Max Planck institutes into the global scientific communications network.

Role in PEER:

MPDL functions as an immediate entry point to the publication archives of the 78 institutes of the MPS, where specific disciplinary or generic observations could be realised. MPDL will see how the concept of observatory within the project can be made sustainable by involving forces within the MPDL and the MPS Information Retrieval Services. It provides both editorial support and technical development to facilitate the easy upload of publications on the eDoc and PubMan archives (the two

central repositories of the MPS). MPDL is to lead on the definition of the PEER research studies, providing expertise on methods and indicators to be used in the behavioural, usage and economics research.

3.5 Institut national de recherche en informatique et automatique (INRIA)

INRIA is a world-class research institute in computer science and control operating under the dual authority of the Ministry of Research and the Ministry of Industry. It is dedicated to fundamental and applied research in information and communication science and technology (ICST). The Institute also plays a major role in technology transfer by fostering training through research, diffusion of scientific and technical information, development, as well as providing expert advice and participating in international programs. INRIA now has more than three years experience in open access repositories through a strong partnership with CCSD-CNRS (Centre pour la Communication Scientifique Directe).

Role in PEER: INRIA has developed and hosts the PEER Depot, a dark archive which forms the central hub of the PEER Project. The role of INRIA is to facilitate a connection between the PEER project and the French national archive HAL, which, following a national agreement signed in September 2006, is now the central repository infrastructure for the universities and the main research institutions in France (CNRS, INRIA, INRA, INSERM, CEA, etc). Through an agreement with CNRS, INRIA has been involved in technical developments and will contribute to the interface of the national archive and editors, thus providing a platform immediately operational from the start of the project

3.6 Stichting SURF (SURF)

SURF is the collaborative organisation for higher education institutions and research institutes aimed at breakthrough innovations in ICT. SURF provides the foundation for the excellence of higher education and research in the Netherlands. SURF collaborates with a number of partners abroad to share knowledge and to profit from advantages of scale. The results that SURF achieves are also guiding examples in an international setting. SURF foundation is the initiator for innovation in higher education and research. SURF initiates, guides and stimulates ICT innovation through sharing knowledge and partnerships.

Role in PEER: SURF has played a key role in development of Guidelines for set up of open access repositories and deposit content in the institutional repositories. The Guidelines form the basis of harvesting mechanisms in synergy between PEER and DRIVER projects. This will have benefits for both projects, with PEER populating DRIVER repositories and DRIVER facilitating access for the user community. SURF also supports the helpdesk function to establish a workflow for repository ingest.

3.7 Bielefeld University Library:

Bielefeld University has contributed significantly to shape the German landscape of digital research libraries and electronic information and is heavily involved in international initiatives for research infrastructures for processing digital information.

Role in PEER: Bielefeld University provides the technical interfaces to DRIVER and to repository networks and aggregations. UniBi is a full technical partner in DRIVER and DRIVER-II and specializes in the aggregation aspect of distributed document repositories. Through this expertise and 5 years of experience operating the scientific search engine BASE which predominantly builds on repository contents, UniBi is facilitating the implementation of the required repository interfaces for the PEER project.

4 Project Results/Achievements

Now at the end of its second year, PEER has created a robust infrastructure, with substantial volumes on content flowing into the project and out to repositories in support of the research. Independent research teams have been engaged to undertake the three principle areas of research: usage, behavioural and economics, with all three research aspects now underway.

4.1 Observatory infrastructure

PEER Publishers:

PEER benefits from the active support of twelve participating publishers:

BMJ Publishing Group; Cambridge University Press; EDP Sciences; Elsevier; IOP Publishing; Nature Publishing Group; Oxford University Press; Portland Press; Sage Publications; Springer; Taylor & Francis Group; Wiley-Blackwell

Collectively the participating publishers are providing content from 241 journals for active participation in the project. These journals cover the following four broad subject areas: life sciences, medicine, physical sciences and social sciences & humanities. A listing of the journals can be found in section 9 of this report.

Publishers are also providing a group of over 200 control titles, which will allow a background measure of usage at publisher platforms.

The actively participating journals have been allocated to two pathways for the project:

Publisher submission – whereby publishers deposit both accepted manuscripts and associated metadata into the project

Author submission – whereby publishers invite authors to self-deposit their accepted manuscripts into the project where they will be matched with publisher provided metadata. A special author submission interface has been created at the PEER Helpdesk to guide authors through the submission process. (<http://peer.mpdl.mpg.de/helpdesk/wiki/PEERdeposit#PEERAuthordeposit>)

PEER Depot:

All submissions are deposited in the **PEER Depot** (a dark archive) where they are processed, undergoing file integrity checks and filtering including:

- Valid journal title / ISSN – is it participating in PEER and is it submitted for the correct pathway?
- Is the corresponding author based in the EU?
- Is the article type valid? (book reviews etc. are removed at this stage since the focus is on research manuscripts)
- Does the manuscript have a publication date associated with it? (required for embargo management)

So far, the PEER Depot has processed:

- nearly **25,000** publishers submitted manuscripts (with metadata) for the publisher submission pathway
- more than **5000** publisher submitted metadata files for matching with author submissions
- **85** author self-deposited manuscripts (resulting from **>5500** invitations sent by publishers)

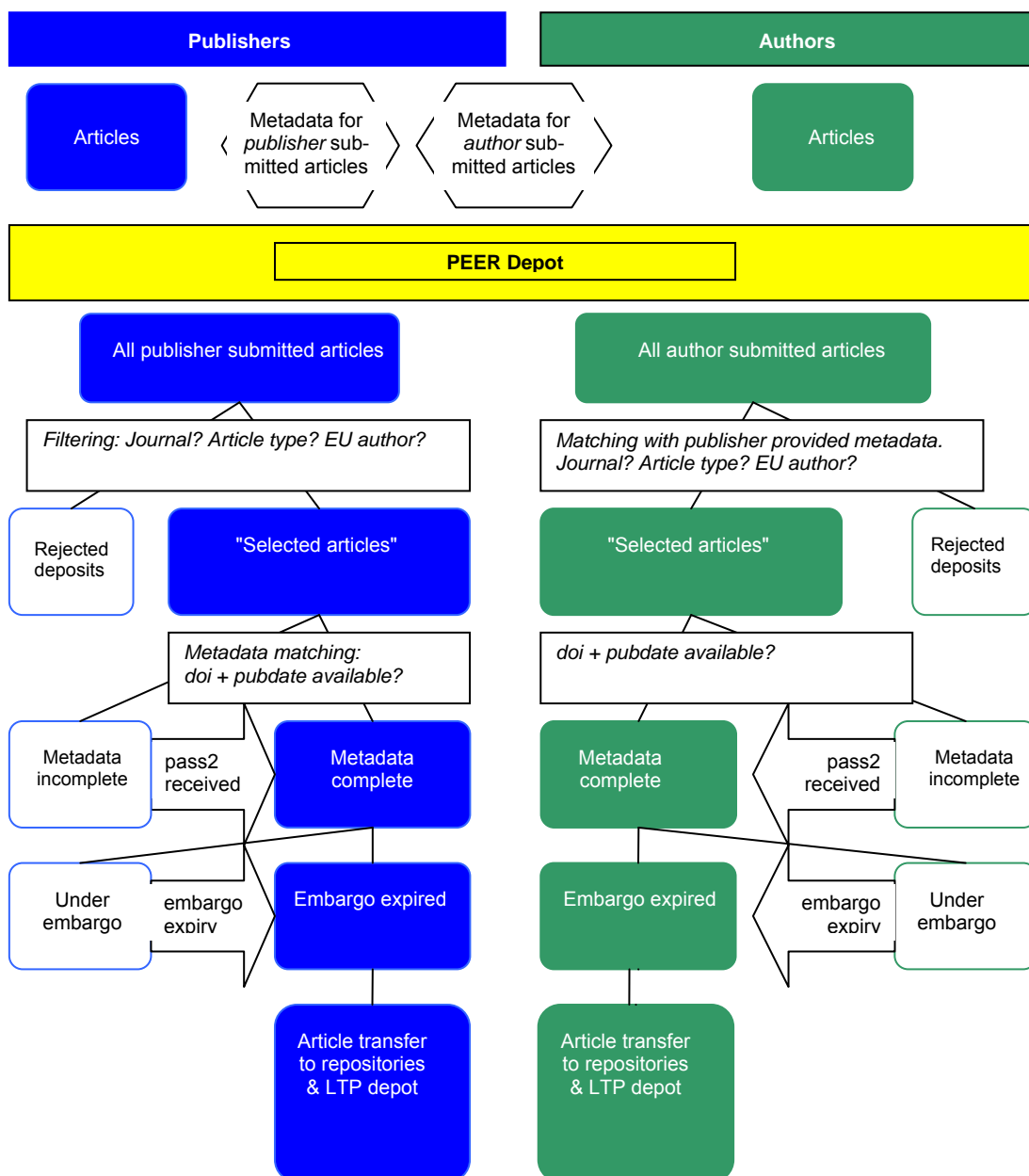
The PEER Depot has also developed tools in support of the PEER Observatory infrastructure including:

- Establishment of a unique exchange format of metadata (publishers / repositories) by means of a TEI customisation plus the mapping of different metadata schemas (e.g. NLM and proprietary schemas)
- The creation of a specific author deposit interface
- An embargo management facility to manage the different embargo periods assigned to each journal

- Implementation of the SWORD protocol to allow application-level deposit of material into repositories
- Additional filtering of social sciences content only for ingest by SSOAR, a participating subject repository
- The ability to extract metadata from manuscript PDFs
- The development of a bug tracking & reporting workflow

After successful processing, the PEER Depot retains valid manuscripts throughout their assigned embargo period, after which they are distributed to the participating repositories.

Schematic of PEER Depot Workflow



PEER Repositories:

At present, seven repositories from across the EU are participating in PEER, with four currently fully integrated into the project and three completing the necessary technical developments:

Participating repositories: eSciDoc.PubMan.PEER, Max Planck Digital Library (MPDL), Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (MPG); HAL, CNRS & Institut National de Recherche en Informatique et en Automatique (INRIA); Göttingen State and University Library (UGOE); Kaunas University of Technology, Lithuania; University Library of Debrecen, Hungary;

SSOAR - Social Sciences Open Access repository (GESIS – Leibniz Institute for the Social Sciences);
TARA - Trinity College Dublin (TCD), Ireland

Archival services for the repositories are being provided by Koninklijke Bibliotheek (National library of the Netherlands)

Fully integrated PEER repositories are receiving all qualifying PEER content following embargo expiry (currently >4500 unique manuscripts), with the exception of SSOAR, a subject based repository which is receiving only social sciences content. The inclusion of a subject based repository was recommended by CIBER, the usage research team and SSOAR was welcomed on board and fully receiving content within year 2. Similarly, PEER is pleased to announce the recent addition of TARA – Trinity College Dublin, following the recommendation from CIBER to have a participating repository located in an English speaking country. TARA is currently completing the final aspects of implementation and is expected to be fully operational soon.

Guidelines:

Procedures for the provision of usage data (logfiles) and manuscript deposit for repository managers and publishers were addressed in great detail during the first year of PEER, resulting in the preparation of the following reports which are available via the PEER website <http://www.peerproject.eu/reports/>.

D2.1 Draft report on the provision of usage data and manuscript procedures for publishers and repository managers

D3.1 Guidelines for publishers and repository managers on deposit, assisted deposit and self-archiving

4.2 PEER Research

In parallel with the consolidation of the PEER infrastructure, and also based on the flow of content, significant progress has been made with behavioural, usage and economics research. The Research Oversight Group has been actively involved in validating the research and advising the PEER research manager.

An open tendering process for the economics research resulted in a number of high quality tenders. The Research Oversight Group evaluated the tenders and provided recommendations to the PEER Executive, which awarded the tender to a team from Bocconi University (Milan).

The main achievements and results of the second year for the different areas of research were as follows:

- Behavioural research: Delivery and acceptance of a baseline report on authors' attitudes and behaviours, based on a series of focus groups, followed by a representative survey with more than 3000 respondents.
- Usage research: Delivery and acceptance of a (confidential) interim report, followed by a comprehensive proof of concept that demonstrates the possibility of extensive logfile analysis, by which data at the article-level may be aggregated and compared across repositories and publishers.
- Economics research: Delivery and acceptance of a (confidential) interim report based on the collection of data about the cost of making Stage 2 manuscripts available in open access, leading to the identification of major models, their value proposition and cost drivers.

The Research Oversight Group (ROG) of PEER has seen a change of membership. Henk Moed and Justus Haucap accepted new positions, which made it impossible for them to continue in the ROG. As their replacements the PEER Executive nominated Dr Cherifa Boukacem (Lille University) and Dr Tomas Baiget (Barcelona).

The second year closed with a two-day meeting of the research teams with the Research Oversight Group, which the PEER Executive also attended. The following day, all research teams presented their interim results to the PEER Advisory Board.

5 Target Users & their Needs

PEER has a number of target user groups. The table below identifies the various target user groups and describes their needs which have been identified in relation to Green Open access and which will be addressed by PEER.

Representatives of these groups are participating at various levels within PEER, from Consortium partners and Advisory Board members, to those taking part in the research studies. This may be by direct participation in market research, or via usage counts as they access information at repository sites or publisher platforms.

The following target user groups and needs were identified at the outset of PEER.

Target User Groups and Needs

| Target user description | Needs |
|---------------------------------|---|
| Researchers as authors | The opportunity for authors to deposit their research outputs more widely in open access repositories Methods that facilitate deposit on behalf of the author, e.g. publisher-assisted deposit |
| Researchers as users | Access to research outputs where their institutional library does not subscribe |
| Other users of research content | Access to research outputs where their institutional library does not subscribe Access to research outputs where the user does not have a library |

PEER is exploring attitudes, actual behaviours and costs relating to these needs through the following research activities:

Behavioural research:

The baseline report has established authors' general attitude and behaviour vis-à-vis repositories and journals for a scenario of Green OA, and further research will seek to widen and deepen our understanding of author's attitudes as well as finding out more about users perceptions.

Usage research:

Usage research has begun collecting evidence about the actual usage of repositories and journals, thus enabling an analysis of how often, when and from where scholars and other users access content.

Economics research:

Economics research has begun collecting evidence about the actual cost for repositories and publishers in providing Green open access.

6 Underlying Content

The project centres on 'stage-two' articles: the author's final manuscript that has been accepted for publication by a journal and incorporates all the changes required by the peer review process.

The publishers participating in PEER have nominated 241 journals to participate in the active deposit part the project covering four broad subject areas: life sciences, medicine, physical sciences and social sciences & humanities.

The specific selection process for the journals is described in Appendix 1 within Section 9 of this report, the outcome of which is as follows. Overall, the largest group of participating journals are the top 'tertile 1' level as measured by 2 year Impact Factors, followed by tertile 2, then 3, then journals currently without an Impact Factor. On average, the participating journals are expected to have >40% EU content.

Each participating journal has an embargo period set by the publisher taking into consideration factors such as subject discipline and individual journal economics.

The selection process used has gained approval from both of the independent research teams appointed for the behavioural and usage research for PEER.

As indicated in section 4, an additional, similar group of over 200 journals has also been identified by the publishers. These will not participate openly in the project, but will be providing logfile information to the usage research team. In this way, the project benefits from being able to distinguish between background effects in the real world and any specific effects seen within the PEER Observatory.

Quantity of content:

As reported in section 4, so far publishers have submitted nearly **25,000 manuscripts** for processing and filtering by the PEER Depot, which has resulted in approximately **10,000 EU manuscripts** for the project so far. Of these, nearly half have passed their allocated embargo expiry date and have been sent to the participating repositories.

Publishers have also **invited approximately 5,580 authors to deposit** into the project and have been submitting metadata for matching with any author deposits received. So far, **only 85 authors have deposited**, giving a **response rate of ~1.5%**.

In support of building the volume of content available to PEER, with a focus on meeting the needs of the usage research team, a number of actions have been taken during the past year. Following consultation with participating publishers, the following steps were implemented:

- 2 new publisher submission journals were added to the project, including back-content
- embargo periods for 25 participating publisher submission journals were reduced (in some cases by up to 12 months).
- additional back-content (manuscripts and metadata) was sourced from participating publishers

Further steps for increasing the content available within the project will be considered should this prove necessary to meet the needs of the usage research team.

Quality of content:

As outlined in section 4, PEER has paid particular attention to defining the formats and attributes of the content (full text articles and metadata) which are being used for the project. These are documented in the following reports which are available from the PEER website (<http://www.peerproject.eu/reports/>):

D2.1 Draft report on the provision of usage data and manuscript procedures for publishers and repository managers

D3.1 Guidelines for publishers and repository managers on deposit, assisted deposit and self-archiving

Based on these guidelines, full text articles are being provided as PDF, with PDF/A-1 the preferred format. The metadata requirements have been derived from the DRIVER Guidelines (<http://www.driver-repository.eu/DRIVER-Guidelines.html>). Mandatory metadata elements identified for PEER are:

- Title
- Creator
- Date
- Identifier
- Type

Additional metadata elements are recommended. Most participating publishers are providing a broad metadata set exceeding the mandatory elements listed above. In one case, however, the metadata set while adhering to the mandatory requirements, is not as extensive regarding provision of 'recommended' elements. Using this as a test case, the PEER Depot has successfully developed the capability to extract metadata elements from PDFs. Following successful trials, this is about to be implemented as part of the live feed for PEER.

As well as the filtering undertaken as described in section 4, the integrity of each file is checked at the PEER Depot as part of the standard processing along with checks to ensure all necessary metadata elements are present.

Usage logfiles:

All participating publishers and repositories are providing CIBER, the usage research team, with logfile data which adheres to certain criteria specified by CIBER.

7 Summary of Activities

The second year of PEER has seen the continued collaboration of PEER's extensive range of participants from various stakeholder groups, many of whom provide their time and expertise on a voluntary basis. On the technical side, the guidelines prepared throughout year 1 have been successfully implemented, which in tandem with the PEER Depot developments have resulted in a robust and scalable infrastructure for the PEER Observatory. Technical issues continue to arise, but all participants continue to work collectively to explore options and provide solutions which ensure the continued viability of the project.

All three strands of research continue in their efforts to gather empirical evidence. The Research Oversight Group has validated the approaches and evaluated the interim results. The PEER project is thus confident that the large-scale research on the behavioural, usage and economic aspects of green open access scenarios will yield new and significant insights.

In the summer of 2010, PEER held its first face to face meeting with representatives of its Advisory Board. This provided the opportunity to update the board on all aspects of project activities, with a particular emphasis on research developments. The event was very positive for PEER with broad support from the board for the project's objectives, activities to date and future plans and provided valuable input to the next phase of the three key areas of research.

During the second year of PEER, partners have continued to raise awareness via conference presentations and articles, a listing of which is available at <http://www.peerproject.eu/publications-presentations/>.

News releases and announcement have continued to be disseminated via STM's extensive publishing and media network, the DRIVER network and the research networking programmes of ESF plus additional direct contacts which have been made with the research community. Announcements have also been circulated to other Open Access related projects in which partners all over Europe are involved (i.e. IP-OA II, OA-Netzwerk, OAPEN, Open Access Statistics, PARSE.insight, CARPET, SHAMAN).

The PEER website (www.peerproject.eu) has been enhanced to include a Helpdesk, available to all, but aimed in particular at the key stakeholder groups, especially authors who have been invited to submit their accepted manuscripts to a PEER via the PEER author submission interface which has been established for the project. All news releases and public reports continue to be made available via the website.

With the PEER Observatory infrastructure now in place, facilitating the continuous growth of volume of content for the project, and the three key areas of research fully underway, PEER is well placed to enter its final phase.

8 Impact & Sustainability

PEER has brought together a collaboration of stakeholder groups (publishers, libraries/ repositories and the research /funder community) who collectively have successfully developed an Observatory to monitor the effects of the systematic archiving of stage-two research outputs (accepted manuscripts) in open access repositories.

With all key stakeholder groups represented within PEER, the aim is for the data gathered by the observatory to be used to provide an evidence-based foundation for discussions on future policy by stakeholder groups within the EU. Sustainability for PEER therefore focuses on disseminating and exploiting the evidence based project results with the aim of informing future open access policy decisions. PEER's role is not to recommend what these future policies should be, but to deliver credible data (observables), insights into the impact of self-archiving and models that publishers, libraries and funding agencies can use to develop consistent and workable policies that benefit researchers.

Interest in PEER has been growing, as evidenced by the extensive referencing of PEER in submissions to the US White House Office of Science & Technology Policy in the US as an evidence based approach to resolving issues in scholarly publishing. This included a specific mention of PEER in the Report and Recommendations of the 'Scholarly Publishing Roundtable', an expert panel of librarians, library scientists, publishers, and university academic leaders convened by the U.S. House Committee on Science and Technology, in collaboration with the White House Office of Science and Technology Policy (OSTP). (The Report and Recommendations are available at <http://www.aau.edu/WorkArea/DownloadAsset.aspx?id=10044>; the reference to PEER is on page 2).

In support of PEER, partners are undertaking a programme of dissemination via conference presentations and publications. This initially focussed on awareness raising, but is now evolving into a strategy of informing, engaging and ultimately encouraging take up of the evidence gained from the research results.

Participating publishers have confirmed that all research content delivered to repositories during the project can remain in these repositories after the project ends and continue to be used by the research community. Participating repositories will sustain this content as part of their normal role.

Tools & technologies:

In creating the Observatory, PEER has been developing and adopting a range of tools and technologies which have potential applications outside of the finite duration of the PEER project including:

- Implementation of the SWORD protocol to allow reliable deposits into repositories
- Automated metadata extraction from manuscript PDFs
- Metadata mapping of different metadata schemas (NLM2.0, NLM 3 and proprietary formats)
- Use of TEI customisation for an exchange format of metadata (publishers / repositories)
- The creation of viable workflow models for content submission, filtering, processing and repository ingest
- Author submission interface
- The ability to match author manuscripts with publisher provided metadata

The helpdesk set up for PEER is also likely to be adopted for use by the repository community following the end of the project.

The volume of logfile data for usage research being provided from so many publisher and repositories within PEER is unprecedented. Because of this, and the unique research opportunity provided by PEER it is anticipated that some of the techniques being created and implemented by CIBER for the usage research within PEER will also have applications beyond PEER.

9 Appendices

Appendix 1: Participating journals selection process

Appendix 2: PEER Author submission journals by publisher

Appendix 3: PEER Publisher submission journals by publisher

Appendix 1: Participating journals selection process

The publishers participating in PEER have nominated 241 journals to participate in the active deposit part the project. This core group of the journals participating in PEER were selected from a starting list of journals with a Thomson Reuters *JCR* Impact Factor and >20% EU content ('EU content' is defined as having at least one author from an EU country). In each of the four broad subject disciplines (*life sciences, medicine, physical sciences and social sciences & humanities*), the listing was divided into tertiles^{2*} based on 2 year Impact Factors. Publishers then selected a spread of tier 1, 2 & 3 journals, where tier 1 journals have the highest Impact Factors. For one publisher, this selection process was random, while others had to make more pragmatic selections.

Additional or substituted titles arose from a number of factors including:

- Technical issues (production systems not compatible with PEER submission requirements)
- Decision to include or exclude certain society titles
- Non-Impact Factor journal but anticipated high % EU content
- Non-Impact Factor journal, but adding an interesting subject field
- Non-Impact Factor journal, but providing non-English content
- Matching with non-participating 'compare and contrast' titles for the project

The outcome:

Overall, the largest group of participating journals are the top 'tertile 1' level as measured by 2 year Impact Factors, followed by tertile 2, then 3, then journals currently without an Impact Factor. On average, the participating journals are expected to have >40% EU content.

Each participating journal has an embargo period set by the publisher taking into consideration factors such as subject discipline and individual journal economics.

The selection process used has gained approval from both of the independent research teams appointed for the behavioural and usage research for PEER.

² tertile = one third of the overall group

Appendix 2: PEER Author submission journals by publisher

| Publisher/ Journal | ISSN | Broad Classification | Embargo* (months) | Language (if not Eng) |
|--|-----------|------------------------------|-------------------|-----------------------|
| BMJ Publishing Group | | | | |
| Journal of Neurology, Neurosurgery and Psychiatry | 0022-3050 | Medicine | 6 | |
| Journal of Medical Genetics | 0022-2593 | Medicine | 5 | |
| Sexually Transmitted Infections | 1368-4973 | Medicine | 5 | |
| Cambridge University Press | | | | |
| The Journal of Agricultural Science | 0021-8596 | Life Sciences | 12 | |
| Bilingualism: Language and Cognition | 1366-7289 | Social Sciences & Humanities | 12 | |
| Journal of Biosocial Science | 0021-9320 | Life Sciences | 12 | |
| Journal of Helminthology | 0022-149X | Life Sciences | 12 | |
| Science in Context | 0269-8897 | Social Sciences & Humanities | 12 | |
| Urban History | 0963-9268 | Social Sciences & Humanities | 12 | |
| Elsevier | | | | |
| Annales d'Endocrinologie | 0003-4266 | Life Sciences | 18 | French |
| Annales de Dermatologie et de Venerologie | 0151-9638 | Medicine | 18 | French |
| Annals of Pure and Applied Logic | 0168-0072 | Physical Sciences | 18 | |
| Applied Acoustics | 0003-682X | Physical Sciences | 24 | |
| Biomass and Bioenergy | 0961-9534 | Physical Sciences | 24 | |
| Blood Cells Molecules and Diseases | 1079-9796 | Medicine | 18 | |
| Brain and Language | 0093-934X | Life Sciences | 18 | |
| Cell Calcium | 0143-4160 | Life Sciences | 12 | |
| Computers and Geotechnics | 0266-352X | Physical Sciences | 24 | |
| Energy | 0360-5442 | Physical Sciences | 18 | |
| Enfermedades infecciosas y Microbiologia Clinica | 0213-005X | Medicine | 18 | Spanish |
| European Journal of Radiology | 0720-048X | Medicine | 18 | |
| European Journal of Soil Biology | 1164-5563 | Life Sciences | 18 | |
| European Journal of Surgical Oncology (EJSO) | 0748-7983 | Medicine | 12 | |
| Fire Safety Journal | 0379-7112 | Physical Sciences | 24 | |
| Immunology Letters | 0165-2478 | Life Sciences | 12 | |
| International Journal of Antimicrobial Agents | 0924-8579 | Medicine | 12 | |
| Journal of Pragmatics | 0378-2166 | Social Sciences & Humanities | 24 | |
| Journal of Theoretical Biology | 0022-5193 | Life Sciences | 12 | |
| Materials Science in Semiconductor Processing | 1369-8001 | Physical Sciences | 24 | |
| Nuclear Engineering and Design | 0029-5493 | Physical Sciences | 24 | |
| Radiotherapy and Oncology | 0167-8140 | Medicine | 18 | |
| Solar Energy | 0038-092X | Physical Sciences | 24 | |
| Telecommunications Policy | 0308-5961 | Physical Sciences | 18 | |
| IOP Publishing | | | | |
| Classical and Quantum Gravity | 0264-9381 | Physical Sciences | 12 | |
| Journal of Physics A: Mathematical and Theoretical | 1751-8113 | Physical Sciences | 24 | |
| Journal of Physics: Condensed Matter | 0953-8984 | Physical Sciences | 12 | |
| Nature Publishing Group | | | | |
| Bone Marrow Transplantation | 0268-3369 | Medicine | 6 | |
| Embo Journal, The | 0261-4189 | Life Sciences | 6 | |
| Gene Therapy | 0969-7128 | Life Sciences | 6 | |
| Genes and Immunity | 1466-4879 | Life Sciences | 6 | |
| Leukemia | 0887-6924 | Medicine | 6 | |
| Nature Genetics | 1061-4036 | Life Sciences | 6 | |
| Nature Structural & Molecular Biology | 1545-9993 | Life Sciences | 6 | |
| Oncogene | 0950-9232 | Life Sciences | 6 | |
| Oxford University Press | | | | |
| Family Practice | 0263-2136 | Medicine | 12 | |
| Molecular Biology and Evolution | 0737-4038 | Life Sciences | 12 | |
| Systematic Biology | 1063-5157 | Life Sciences | 12 | |
| Annals of Occupational Hygiene | 0003-4878 | Medicine | 12 | |
| Sage Publications | | | | |
| Active Learning in Higher Education | 1469-7874 | Social Sciences & Humanities | 6 | |
| Concurrent Engineering | 1063-293X | Physical Sciences | 12 | |
| Cultural Geographies | 1474-4740 | Social Sciences & Humanities | 12 | |
| Ethnicities | 1468-7968 | Social Sciences & Humanities | 24 | |
| European Journal of Cultural Studies | 1367-5494 | Social Sciences & Humanities | 18 | |
| European Journal of Industrial Relations | 0959-6801 | Social Sciences & Humanities | 12 | |
| European Journal of Women's Studies | 1350-5068 | Social Sciences & Humanities | 18 | |
| European Union Politics | 1465-1165 | Social Sciences & Humanities | 24 | |
| Global Social Policy | 1468-0181 | Social Sciences & Humanities | 6 | |
| Group Processes and Intergroup Relations | 1368-4302 | Social Sciences & Humanities | 18 | |
| Health | 1363-4593 | Social Sciences & Humanities | 12 | |
| History of Psychiatry | 0957-154X | Social Sciences & Humanities | 12 | |
| International Journal of Damage Mechanics | 1056-7895 | Physical Sciences | 12 | |

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|---|-----------|------------------------------|----|--------|
| Journal of Biomaterials Applications | 0885-3282 | Physical Sciences | 12 | |
| Journal of Plastic Film and Sheeting | 8756-0879 | Physical Sciences | 12 | |
| Journal of Thermoplastic Composite Materials | 0892-7057 | Physical Sciences | 12 | |
| Public Understanding of Science | 0963-6625 | Social Sciences & Humanities | 18 | |
| Second Language Research | 0267-6583 | Social Sciences & Humanities | 24 | |
| Time & Society | 0961-463X | Social Sciences & Humanities | 12 | |
| Vascular Medicine | 1358-863X | Medicine | 12 | |
| Springer | | | | |
| Biotechnology Letters | 0141-5492 | Life Sciences | 12 | |
| Cancer Chemotherapy and Pharmacology | 0344-5704 | Medicine | 12 | |
| Celestial Mechanics and Dynamical Astronomy | 0923-2958 | Physical Sciences | 6 | |
| European Journal of Clinical Microbiology & Infectious Diseases | 0934-9723 | Life Sciences | 12 | |
| European Journal of Epidemiology | 0393-2990 | Medicine | 12 | |
| European Journal of Wood and Wood Products - Holz Als Roh und Werkstoff | 0018-3768 | Physical Sciences | 12 | German |
| Journal of Ornithology | 0021-8375 | Life Sciences | 12 | |
| Journal of Molecular Modeling | 1610-2940 | Physical Sciences | 12 | |
| Neophilologus | 0028-2677 | Social Sciences & Humanities | 6 | |
| Nonlinear Dynamics | 0924-090X | Physical Sciences | 12 | |
| Queueing Systems | 0257-0130 | Social Sciences & Humanities | 24 | |
| Rheumatology International | 0172-8172 | Medicine | 12 | |
| Taylor & Francis Group | | | | |
| Applied Economics Letters | 1350-4851 | Social Sciences & Humanities | 18 | |
| British Journal of Guidance and Counselling | 0306-9885 | Social Sciences & Humanities | 12 | |
| Civil Engineering and Environmental Systems | 1028-6608 | Physical Sciences | 12 | |
| Communications in Statistics – Theory and Methods | 0361-0926 | Physical Sciences | 12 | |
| Ergonomics | 0014-0139 | Physical Sciences | 12 | |
| International Journal of Environmental Analytical Chemistry | 0306-7319 | Physical Sciences | 12 | |
| International Journal of Psychology | 0020-7594 | Life Sciences | 12 | |
| International Journal of Remote Sensing | 0143-1161 | Physical Sciences | 12 | |
| International Journal of Systems Science | 0020-7721 | Physical Sciences | 12 | |
| Journal of Engineering Design | 0954-4828 | Physical Sciences | 12 | |
| Journal of Modern Optics | 0950-0340 | Physical Sciences | 12 | |
| Journal of Natural History | 0022-2933 | Life Sciences | 12 | |
| Journal of Sports Sciences | 0264-0414 | Social Sciences & Humanities | 18 | |
| Optimization Methods and Software | 1055-6788 | Physical Sciences | 12 | |
| Phase Transitions | 0141-1594 | Physical Sciences | 12 | |
| Philosophical Magazine Letters | 0950-0839 | Physical Sciences | 12 | |
| Psychotherapy Research | 1050-3307 | Social Sciences & Humanities | 12 | |
| Wiley-Blackwell | | | | |
| Applied Cognitive Psychology | 0888-4080 | Social Sciences & Humanities | 24 | |
| Applied Organometallic Chemistry | 0268-2605 | Physical Sciences | 24 | |
| Biomedical Chromatography | 0269-3879 | Physical Sciences | 24 | |
| Biopharmaceutics and Drug Disposition | 0142-2782 | Life Sciences | 12 | |
| Computer Animation and Virtual Worlds | 1546-4261 | Physical Sciences | 24 | |
| Concurrency and Computation: Practice & Experience | 1532-0626 | Physical Sciences | 24 | |
| Contrast Media and Molecular Imaging | 1555-4309 | Physical Sciences | 24 | |
| European Law Journal | 1351-5993 | Social Sciences & Humanities | 24 | |
| European Transactions on Electrical Power | 1430-144X | Physical Sciences | 24 | |
| Forest Pathology | 1437-4781 | Life Sciences | 12 | |
| Higher Education Quarterly | 0951-5224 | Social Sciences & Humanities | 24 | |
| Hippocampus | 1050-9631 | Life Sciences | 12 | |
| Infant and Child Development | 1522-7227 | Social Sciences & Humanities | 24 | |
| International Journal for Numerical Methods in Engineering | 0029-5981 | Physical Sciences | 24 | |
| International Journal of Adaptive Control and Signal Processing | 0890-6327 | Physical Sciences | 24 | |
| International Journal of Applied Linguistics | 0802-6106 | Social Sciences & Humanities | 24 | |
| International Journal of Osteoarchaeology | 1047-482X | Life Sciences | 12 | |
| International Journal of Systematic Theology | 1463-1652 | Social Sciences & Humanities | 24 | |
| Journal of Advanced Nursing | 0309-2402 | Medicine | 12 | |
| Journal of Clinical Periodontology | 0303-6979 | Medicine | 12 | |
| Journal of Molecular Recognition | 0952-3499 | Physical Sciences | 24 | |
| Journal of Sociolinguistics | 1360-6441 | Social Sciences & Humanities | 24 | |
| Luminescence | 1522-7235 | Physical Sciences | 24 | |
| Marine Ecology | 0173-9565 | Life Sciences | 24 | |
| Modern Theology | 0266-7177 | Social Sciences & Humanities | 24 | |
| Particle and Particle Systems Characterization | 0934-0866 | Physical Sciences | 24 | |
| Polymers for Advanced Technologies | 1042-7147 | Physical Sciences | 24 | |
| River Research and Applications | 1535-1459 | Life Sciences | 12 | |
| Zoo Biology | 0733-3188 | Life Sciences | 12 | |

Appendix 3: PEER Publisher submission journals by publisher

| Publisher/ Journal | ISSN | Broad Classification | Language (if not Eng) |
|--|-----------|------------------------------|-----------------------|
| BMJ Publishing Group | | | |
| British Journal of Ophthalmology | 0007-1161 | Medicine | |
| Journal of Epidemiology and Community Health | 0143-005X | Medicine | |
| Tobacco Control | 0964-4563 | Medicine | |
| EDP Sciences | | | |
| ESAIM: Probability and Statistics | 1292-8100 | Physical Sciences | French/ Eng |
| The European Physical Journal - Applied Physics | 1286-0042 | Physical Sciences | |
| Elsevier | | | |
| Annales Medico-Psychologiques | 0003-4487 | Medicine | French |
| Applied Thermal Engineering | 1359-4311 | Physical Sciences | |
| Astroparticle Physics | 0927-6505 | Physical Sciences | |
| Biochemical Pharmacology | 0006-2952 | Life Sciences | |
| Biochimica et Biophysica Acta (BBA) – Molecular Basis of Disease | 0925-4439 | Life Sciences | |
| Biophysical Chemistry | 0301-4622 | Physical Sciences | |
| Composites Science and Technology | 0266-3538 | Physical Sciences | |
| Computer Speech & Language | 0885-2308 | Physical Sciences | |
| European Journal of Mechanics - A/Solids | 0997-7538 | Physical Sciences | |
| Experimental and Toxicologic Pathology | 0940-2993 | Life Sciences | |
| Experimental Gerontology | 0531-5565 | Medicine | |
| Human Movement Science | 0167-9457 | Life Sciences | |
| Icarus | 0019-1035 | Physical Sciences | |
| International Journal of Impact Engineering | 0734-743X | Physical Sciences | |
| International Journal of Non-Linear Mechanics | 0020-7462 | Physical Sciences | |
| Journal of Econometrics | 0304-4076 | Social Sciences & Humanities | |
| Journal of Economic Behavior & Organization | 0167-2681 | Social Sciences & Humanities | |
| Journal of Economic Dynamics & Control | 0165-1889 | Social Sciences & Humanities | |
| Journal of Experimental Social Psychology | 0022-1031 | Social Sciences & Humanities | |
| Journal of Geodynamics | 0264-3707 | Physical Sciences | |
| Journal of Physics and Chemistry of Solids | 0022-3697 | Physical Sciences | |
| Marine Environmental Research | 0141-1136 | Life Sciences | |
| Molecular and Cellular Endocrinology | 0303-7207 | Life Sciences | |
| Physics of the Earth and Planetary Interiors | 0031-9201 | Physical Sciences | |
| Pulmonary Pharmacology & Therapeutics | 1094-5539 | Medicine | |
| Speech Communication | 0167-6393 | Physical Sciences | |
| Statistics & Probability Letters | 0167-7152 | Physical Sciences | |
| Veterinary Microbiology | 0378-1135 | Medicine | |
| IOP Publishing | | | |
| Journal of Physics B: Atomic, Molecular and Optical Physics | 0953-4075 | Physical Sciences | |
| Journal of Physics D: Applied Physics | 0022-3727 | Physical Sciences | |
| Journal of Physics G: Nuclear and Particle Physics | 0954-3899 | Physical Sciences | |
| Nature Publishing Group | | | |
| Cell Death and Differentiation | 1350-9047 | Life Sciences | |
| European Journal of Clinical Nutrition | 0954-3007 | Medicine | |
| European Journal of Human Genetics | 1018-4813 | Life Sciences | |
| Molecular Psychiatry | 1359-4184 | Medicine | |
| Nature Immunology | 1529-2908 | Life Sciences | |
| Nature Neuroscience | 1097-6256 | Life Sciences | |
| Neuropsychopharmacology | 0893-133X | Life Sciences | |
| Prostate Cancer and Prostatic Diseases | 1365-7852 | Medicine | |
| Oxford University Press | | | |
| International Journal of Epidemiology | 0300-5771 | Medicine | |
| Journal of Plankton Research | 0142-7873 | Life Sciences | |
| Portland Press | | | |
| Clinical Science | 0143-5221 | Medicine | |
| Biochemical Journal | 0264-6021 | Life Sciences | |
| Bioscience Reports | 0144-8463 | Life Sciences | |
| Springer | | | |
| Agriculture and Human Values | 0889-048X | Social Sciences & Humanities | |
| Annals of Hematology | 0939-5555 | Medicine | |
| Breast Cancer Research and Treatment | 0167-6806 | Medicine | |
| Crime Law and Social Change | 0925-4994 | Social Sciences & Humanities | |
| European Child & Adolescent Psychiatry | 1018-8827 | Social Sciences & Humanities | |
| European Journal of Clinical Pharmacology | 0031-6970 | Life Sciences | |
| European Journal of Population | 0168-6577 | Social Sciences & Humanities | |
| European Journal of Wildlife Research | 1612-4642 | Life Sciences | |
| Formal Aspects of Computing | 0934-5043 | Physical Sciences | |
| Helgoland Marine Research | 1438-387X | Physical Sciences | |
| Journal of Public Health | 0943-1853 | Social Sciences & Humanities | |
| Journal of Seismology | 1383-4649 | Physical Sciences | |

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|--|-----------|------------------------------|------------------|
| Linguistics and Philosophy | 0165-0157 | Social Sciences & Humanities | |
| Review of World Economics | 1610-2878 | Social Sciences & Humanities | |
| Revue de Synthese | 0035-1776 | Social Sciences & Humanities | French |
| Taylor & Francis Group | | | |
| Aids Care | 0954-0121 | Life Sciences | |
| Applied Economics | 0003-6846 | Social Sciences & Humanities | |
| Avian Pathology | 0307-9457 | Life Sciences | |
| British Poultry Science | 0007-1668 | Life Sciences | |
| Communications in Statistics – Simulation and Computation | 0361-0918 | Physical Sciences | |
| Engineering Optimization | 0305-215X | Physical Sciences | |
| Ethnic and Racial Studies | 0141-9870 | Social Sciences & Humanities | |
| Europe-Asia Studies | 0966-8136 | Social Sciences & Humanities | |
| Food Additives & Contaminants (Part A) | 0265-203X | Life Sciences | |
| International Journal of Computer Integrated Manufacturing | 0951-192X | Physical Sciences | |
| International Journal of Computer Mathematics | 0020-7160 | Physical Sciences | |
| International Journal of Production Research | 0020-7543 | Physical Sciences | |
| International Journal of Science Education | 0950-0693 | Social Sciences & Humanities | |
| Journal of Development Studies | 0022-0388 | Social Sciences & Humanities | |
| Molecular Physics | 0026-8976 | Physical Sciences | |
| Molecular Simulation | 0892-7022 | Physical Sciences | |
| Philosophical Magazine | 1478-6435 | Physical Sciences | |
| Psychology and Health | 0887-0446 | Social Sciences & Humanities | |
| Quantitative Finance | 1469-7688 | Social Sciences & Humanities | |
| Regional Studies | 0034-3404 | Social Sciences & Humanities | |
| Supramolecular Chemistry | 1061-0278 | Physical Sciences | |
| Technology Analysis & Strategic Management | 0953-7325 | Social Sciences & Humanities | |
| Wiley-Blackwell | | | |
| Alimentary Pharmacology & Therapeutics | 0269-2813 | Medicine | |
| Allergy | 0105-4538 | Medicine | |
| American Journal of Hematology | 0361-8609 | Medicine | |
| Bioethics | 0269-9702 | Social Sciences & Humanities | |
| Biotechnology Journal | 1860-6768 | Life Sciences | |
| British Journal of Haematology | 0007-1048 | Medicine | |
| Cell Biochemistry and Function | 0263-6484 | Life Sciences | |
| Clinical Endocrinology | 0300-0664 | Medicine | |
| Corporate Governance | 0964-8410 | Social Sciences & Humanities | |
| Developing World Bioethics | 1471-8731 | Social Sciences & Humanities | |
| Developmental Science | 1363-755X | Social Sciences & Humanities | |
| Electrophoresis | 0173-0835 | Life Sciences | |
| Fuel Cells | 1615-6846 | Physical Sciences | |
| Global Change Biology | 1354-1013 | Life Sciences | |
| Haemophilia | 1351-8216 | Medicine | |
| Histopathology | 0309-0167 | Medicine | |
| Human Brain Mapping | 1065-9471 | Life Sciences | |
| Human Mutation | 1059-7794 | Life Sciences | |
| International Journal of Clinical Practice | 1368-5031 | Medicine | |
| Journal of Clinical Ultrasound | 0091-2751 | Medicine | |
| Journal of Medical Virology | 0146-6615 | Medicine | |
| Journal of Physical Organic Chemistry | 0894-3230 | Physical Sciences | |
| Molecular Microbiology | 0950-382X | Life Sciences | |
| Oral Diseases | 1354-523X | Medicine | |
| Pediatric Anesthesia | 1155-5645 | Medicine | |
| Pediatric Pulmonology | 8755-6863 | Medicine | |
| Phytotherapy Research | 0951-418X | Life Sciences | |
| Social Development | 0961-205X | Social Sciences & Humanities | |
| ZAAC - Zeitschrift für anorganische und allgemeine Chemie / Journal of Inorganic and General Chemistry | 0044-2313 | Physical Sciences | German / English |

Note: Embargo periods ranging from 0 months to 36 months are being applied