



# HyperJournal

Weaving the Web of Journals

# Open Publishing Made easy!

## Open Access

### Open Access to Scientific Knowledge

**Preface**  
The Internet has fundamentally changed the practical and economic realities of distributing scientific knowledge and cultural heritage. Obviously, these developments will be able to significantly modify the nature of scientific publishing as well as the existing system of quality assurance.

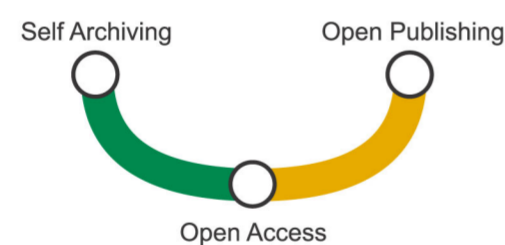
**Goals**  
Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society. New possibilities of knowledge dissemination not only through the classical form but also and increasingly through the open access paradigm via the Internet have to be supported. We define open access as a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community.

In order to realize the vision of a global and accessible representation of knowledge, the future Web has to be sustainable, interactive, and transparent. Content and software tools must be openly accessible and compatible.

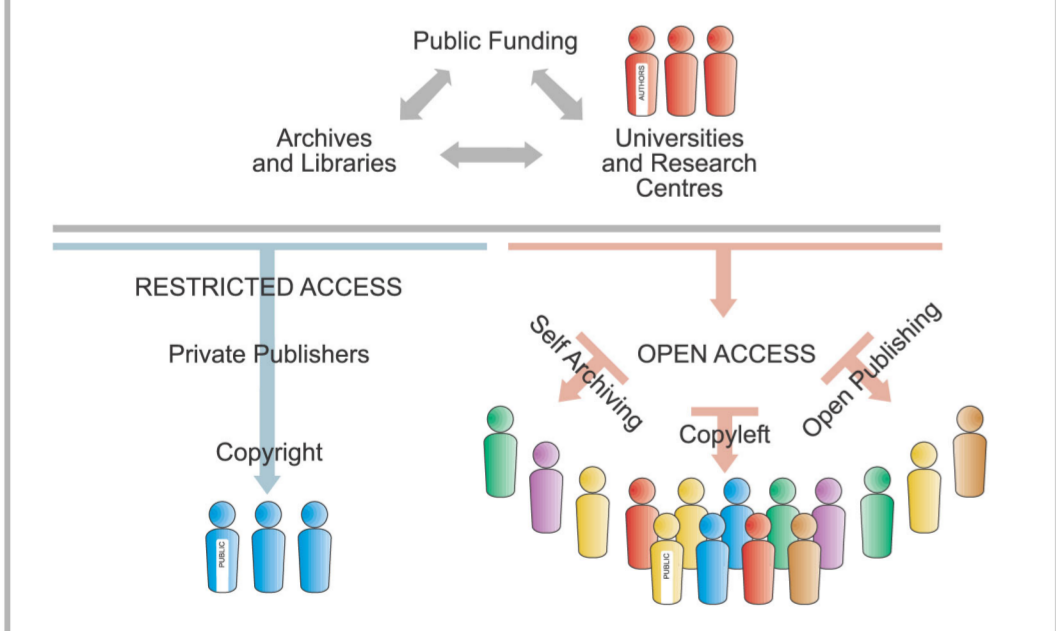
Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities

### Why Fostering Open Publishing?

Journals serve not only to make public the scientific results. Offering particular points of view, which provide specific selections of results, journals are useful instruments for researchers. They are like islands in the ocean of knowledge, and act as hubs in the web architecture.



Open Publishing aims at solving the "serial price crisis"! Open Publishing maximize the "impact factor"!



## Features

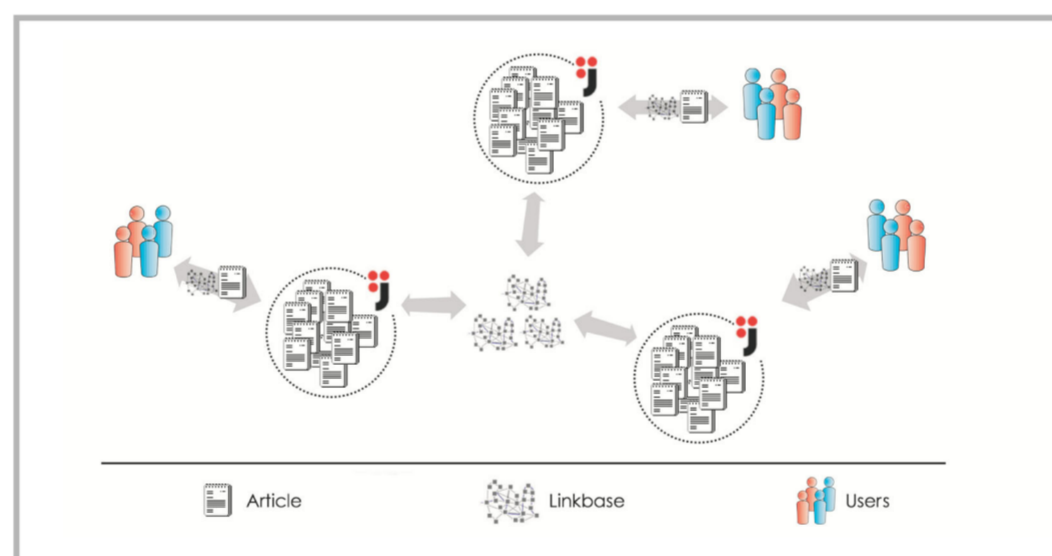
- User Friendly and easily customizable Graphic Design
- Anonymous Article Submission
- Blind On-Line Peer-Review
- Category and Issues Management
- Unlimited number of scientific and editorial committees
- A Plurality of Accepted formats (which can be restricted according to your needs): XML, HTML, Latex, MsWord, PDF, PS, JPEG, GIF, PNG)
- Compliance with the Open Archive OAI-PMH 2.0 protocol
- Highly configurable editorial/publishing workflow
- Entirely Modifiable style sheets for visualizing and printing articles
- Fine grained authentication system with customizable user group/roles
- Availability of RDF semantic metadata for indexing/syndication of contents
- Internal Content Management System with customizable navigation interface
- Easy internationalization of site's interfaces.

### Forthcoming Features:

- Tools for bibliometric analysis
- Integrated conversion of XML and Latex documents into XHTML and PDF
- Graph visualization of social networks between authors.

## Dynamic Contextualization

Dynamic contextualization automatically transforms cross-references contained in journal articles into hypertextual, bidirectional links, transposing the time-honored system of scholarly citation into an electronic environment. Actually, it allows readers to visualize, while reading an article, all the articles quoted by and all those quoting the one they are reading: a contextualization bar provides immediate access to a) all the articles the author has cited, and b) all the articles that cite the article currently being viewed.



- Dynamic Contextualization is a peer-to-peer tool based on semantic web technologies connecting all the journals using HyperJournal in a distributed, semantically structured and scalable peer-to-peer network.



### Furthermore...

The tool enables you to easily carry out bibliometrical calculations such as:  
-the number of quotations received by an article or by an author,  
-citation source groupings by journal, by topic, by period.

### Not only the impact factor!

The lawyer has at his touch the associated opinions and decisions of his whole experience, and of the experience of friends and authorities. The patent attorney has on call the millions of issued patents, with familiar trails to every point of his client's interest. The physician, puzzled by its patient's reactions, strikes the trail established in studying an earlier similar case, and runs rapidly through analogous case histories, with side references to the classics for the pertinent anatomy and histology. The chemist, struggling with the synthesis of an organic compound, has all the chemical literature before him in his laboratory, with trails following the analogies of compounds, and side trails to their physical and chemical behavior.

The historian, with a vast chronological account of a people, parallels it with a skip trail which stops only at the salient items, and can follow at any time contemporary trails which lead him all over civilization at a particular epoch. There is a new profession of trail blazers, those who find delight in the task of establishing useful trails through the enormous mass of the common record. The inheritance from the master becomes, not only his additions to the world's record, but for his disciples the entire scaffolding by which they were erected.

Vannevar Bush

### TECHNOLOGIES

- RDF POWERED
- DB MYSQL
- PHP POWERED
- SMARTY
- PEAR POWERED
- JAVA
- DB SESAME
- OWL

### HOW AND WHO?

#### Core TEAM

- Michele Barbera
- Nicolo D'Ercole
- Francesca Di Donato
- Riccardo Giomi
- Antonio Tolu

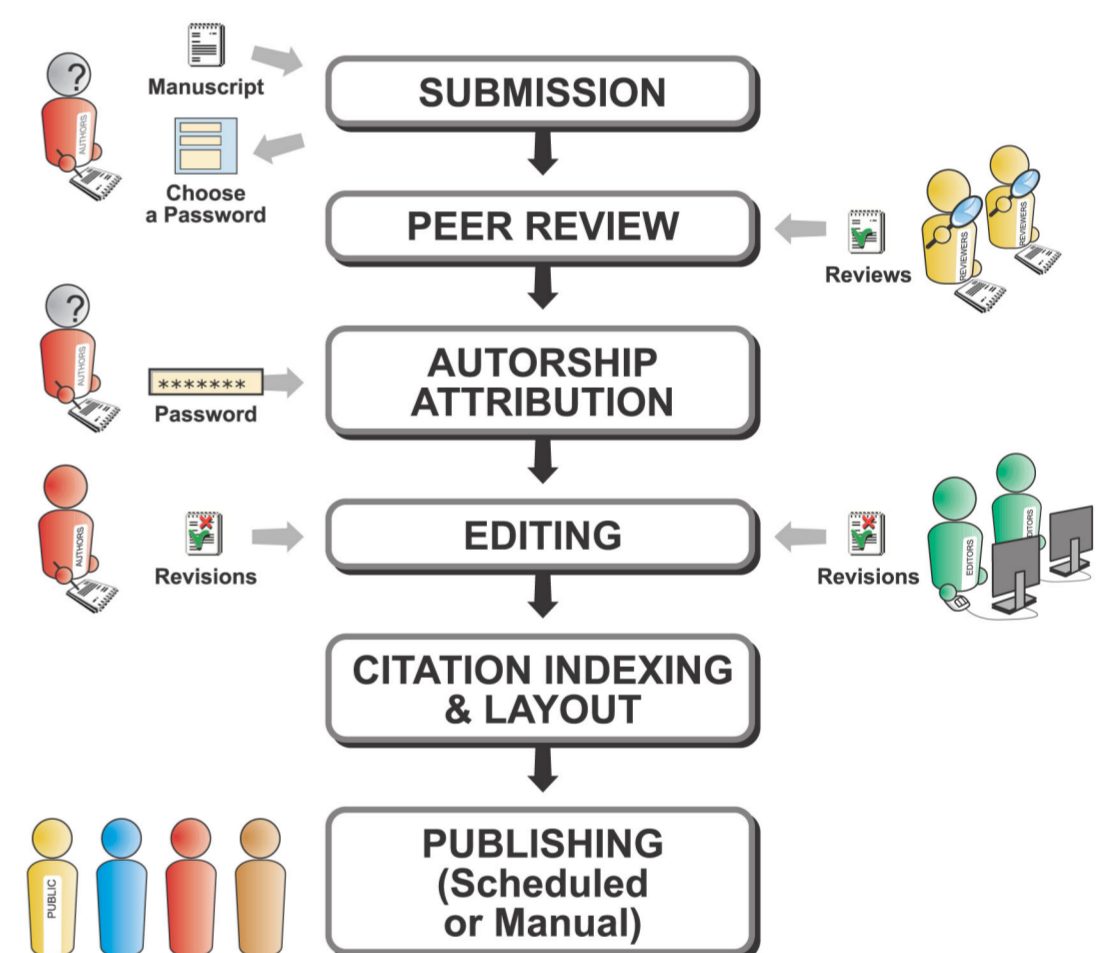
### Contributors

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- Maria Chiara Pievatolo
- Piergiorgio Pirro
- Giovanni Tummarello

### SPONSORS



## Workflow



## Next Steps

### XML

Excluding some very advanced and experimental initiatives, the adoption of semi-structured document formats like xml or latex for written articles is very rare within the humanities as it is usually limited to digitization and transcription projects. The format used to submit articles both to electronic and paper journals are more or less exclusively pdf or Microsoft Word. The widespread use of these closed native or opaque formats poses serious problems to the automatic processing of these documents. The annotation of documents and their compatibility with the Web linking technologies used on the Web is very difficult. Even the html linking mechanism (the <a tag) is insufficient as it requires link destinations to be encoded in the source document. The community is trying to overcome these limitations by developing new technologies such as Xlink, RDF, Xpointer and many others. But we cannot forget that the humanities scholars community is highly resistant to change and prefers the gradual and introduction of new instruments for publications. It is therefore pointless to impose the use of open and structured formats (XML) without a gradual and well-shaped change management plan. Thus, authors submit to the HyperJournal even unstructured and closed document formats but at the same time to offer them an incentive to use xml.

### Trust and Social Networks

Nowadays HyperJournal tackles the problem of selection at a federative level. Indeed each node of the federation acts as publisher and decides whether a contribution can be published or not, according to its own notion of quality. Nevertheless subjectiveness and variability in the idea of quality and the possibility of collaborative annotations request a universal system. This system must be able to filter information according to trust criteria already existing within relationships among researchers. The selection of information happens through trust networks, by word of mouth, acquaintances of colleagues at congresses, trust in a publisher, reviews, or the institution the author belongs to; all those elements are evaluated when the researchers has to operate their selection. If the information is semantically structured on the Web, it is possible to repeat some of these processes or to introduce new ones.

We're currently experimenting with some social networks and trust ontologies to create a recommendation and navigational system based on user own notion of quality. An early testing implementation is expected to be included in the 0.5 version.

### Autonomous Citation Indexing

Besides we encourage authors to use semi-structured formats to write their articles, a heuristic tool able to automatically or semi-automatically extract citations and bibliographical entries can simplify the author's task of encoding references and citations. One of the HyperJournal's subprojects, called "ACT", will add two features to one of the next releases of HyperJournal:

- Citation Extraction  
Semi-automatic (under the author's supervision) retrieval of all the bibliographic references from non-structured documents (PDF, Ms Word, PS)
- Citation Matching  
Mapping of a bibliographic reference to the resource it points to. This will be done by comparing relevant information about the extracted reference against the shared linkbase of bibliographic references.

### SUPPORT US!!

#### Early Adopters

- "Bollettino telematico di filosofia politica"
- "International Journal Of Digital Philology"

### COMMERCIAL SUPPORT

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