Dynamic contextualization

Four major innovations:

- With existing software applications, create an entirely new, solely electronic journal. In comparison to an online version of an existing paper periodical, but also to IT-competence, extremely low cost and without the need for special personalization, and administration of a dedicated Web site at easy-to-use and elegant layout, it permits the installation, for researchers in the Humanities and designed according to an administration of academic journals on the Web. Conceived hyperJournal (Hyperjournal) is a web application that facilitates the traditional resistance for the use of computers and the Internet as research tools.

This situation has potentially devastating consequences over the publicly founded research field and threatens the freedom to share scientific knowledge (Guédon). During the last 5 years the Open Access movement has proposed some solutions to the problem (Suber). Some of the Open Access initiatives gained wide acceptance in natural sciences (Public Library of Science; Los Alamos ArXiv). Unfortunately within the Humanities the situation is worst than in the natural sciences, as the Open Access movement received only partial attention and little have been done for the cause (Di Donato). A point of peculiar interest is the small number of humanities-related open access journals if compared with its natural science counterpart. The reasons for the little adoption of open access journals could be identified in both the less founding the Humanities receives and the traditional resistance for the use of computers and the Internet as research tools.

HyperJournal (Hyperjournal) is a web application that facilitates the administration of academic journals on the Web. Conceived for researchers in the Humanities and designed according to an easy-to-use and elegant layout, it permits the installation, personalization, and administration of a dedicated Web site at extremely low cost and without the need for special IT-competence. HyperJournal can be used not only to establish an online version of an existing paper periodical, but also to create an entirely new, solely electronic journal. In comparison with existing software applications, HyperJournal introduces four major innovations:

1. Dynamic contextualization automatically transforms cross-references contained in journal articles into hypertextual, bidirectional links. When the reader views an article published in HyperJournal, 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.

2. The HyperJournal Network. Dynamic contextualization is not limited to one journal only: it connects all the journals that use the HyperJournal software in a distributed, semantically structured and scaleable peer-to-peer network (Hyperjournal). Additionally, Compatibility with the Protocol for Metadata Harvesting of the Open Archives Initiative ensures maximal interoperability between the HyperJournal Network and other electronic publications. The HyperJournal Network thereby creates a space in which knowledge is freely shared and readily accessible. Rather than using mere keyword searching or importing artificial conceptual tables to organize this space, HyperJournal transposes the time-honored system of scholarly citation into an electronic environment.

3. HyperJournals versus core journals. By clicking on an author’s name, the HyperJournal system automatically searches the entire HyperJournal network and produces a citation list that includes all the articles written by the author, all the articles the author has cited, and all the articles that cite the author. Comprehensive bibliometric lists can thereby be composed without the need to rely on the manual consultation of a small set of core journals, often exclusively in English. In this system, by contrast, it will be the actual give-and-take of academic discourse, registered automatically on the network through citations, which will signal the prestige of a journal (even of small niche journals written in so-called minor languages) and establish the reputation of scholars. In addition, through the use of (Semantic Web) RDF describers, bibliometric lists can be constructed that distinguish, for example, between positive and negative citations (Barbera and Di Donato).

4. Structured vs. Opaque Formats. Although HyperJournal let the editorial board choose which document formats are acceptable for submission, HyperJournal offers to the authors all the tools they need to use structured formats for writing their articles. The adoption of structured formats such as XML has enormous advantages over unstructured or opaque ones (such as MS Word or PDF) (Hockey). One of the major advantages is that structured formats are machine understandable thus perfectly suited to be used in conjunction with Semantic Web technologies. The most widely adopted structured format is undoubtedly LATEX which is wide spread within the scientific community. Unfortunately its usage within the Humanities is very limited. On one hand this is a disadvantage, on the other hand it leaves space for the diffusion of XML (who has even nicer computability properties then LATEX) as the format of choice. Initiatives such as TEI has already gained wide

HyperJournal

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During the last decades a market failure known as serial price crisis has led to a market configuration where the major editorial groups retain oligopolistic control over the editorial market. This market situation is reflected in the research community which largely depends on public founding.

The access to research output in form of articles has become difficult because articles are often not easy to find and (even worst) subscription fees are often unaffordable for a large number of libraries.

This situation has potentially devastating consequences over the publicly founded research field and threatens the freedom to share scientific knowledge (Guédon). During the last 5 years the Open Access movement received only partial attention and little have been done for the cause (Di Donato). A point of peculiar interest is the small number of humanities-related open access journals if compared with its natural science counterpart. The reasons for the little adoption of open access journals could be identified in both the less founding the Humanities receives and the traditional resistance for the use of computers and the Internet as research tools.

HyperJournal (Hyperjournal) is a web application that facilitates the administration of academic journals on the Web. Conceived for researchers in the Humanities and designed according to an easy-to-use and elegant layout, it permits the installation, personalization, and administration of a dedicated Web site at extremely low cost and without the need for special IT-competence. HyperJournal can be used not only to establish an online version of an existing paper periodical, but also to create an entirely new, solely electronic journal. In comparison with existing software applications, HyperJournal introduces four major innovations:

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acceptance among Humanities Scholars. TEI and other XML
dialects such as DOCBOOK have the potential to be used
directly to author articles, not only to encode existing texts
(Piez). For this reason the HyperJournal developer’s
community is customizing and adapting some XML editors
to facilitate the authors in their work. If the adoption of XML
as a format for writing articles will be successful we can
expect searches to be easier and more powerful than
today’s heuristic search techniques and even to greatly reduce
the cost of paper publication, as transforming XML to other
formats suited for paper printing is a trivial task.

Free access and respect for copyright: legal framework

HyperJournal aims at contributing to academic research on
Internet publishing and encourages the birth of scholarly
communities on the Internet. In order to achieve this goal,
HyperJournal not only delivers IT solutions, but also tries to
offer models for the independent organization and governance
of scholarly communities, to develop systems for Internet
peer-review, and to establish a legal framework for the free
diffusion of knowledge on the Web that respects the principles
of copyright. The documentation accompanying the software
describes and comments on several models for the statutes of
scholarly communities (the presence or absence of an Editorial
Board; the constitution of the scholarly community by election
or by other means; peer review and anonymity policies; criteria
for publication; etc.), the administration of which is supported
by the software. In addition to the licences provided by the
Creative Commons initiative(<http://creativecommons
s.org/>) HyperJournal contains three models of copyleft
legal licenses (FreeKnowledge, OpenKnowledge, LimitedKnowledge<http://www.hyper
ernietsche.or
g/licenses/en/index.html>) designed to reconcile
the goal of open access to scholarly articles with the need to
protect against plagiarism and to respect the moral right of the
author.

Founding and Distribution

The HyperJournal Software has been initially founded by
the Groupement de Recherche Européen (GDREplus)
Hyper-Learning. Modèles ouverts de recherche et
d’enseignement sur internet which is a multidisciplinary research
infrastructure promoted by the Centre National de la Recherche
Scientifique (CNRS) regrouping 29 partners of 9 countries
(universities and research centers, a large corporation (IBM),
and three small enterprises). The software is currently being
developed by both project members and volunteers and it is
supported by Dipartimento di scienze della politica, University
of Pisa. HyperJournal is scalable modular software distributed
freely with an Open Source license. For these legal and technical
reasons it is free to use and easy to modify and so can be adapted
to the exigencies of a large number of scholarly communities.
A prototype of HyperJournal has been released in February
2005.

Bibliography

Barbera, Michele, and Francesca Di Donato. "Open Access and
Semantic Web. Software applications for Open Publishing."
Proceedings Semantic Web Applications and Perspectives
g/archive/00002858/>

Di Donato, Francesca. "Verso uno "European Citation Index
for the Humanities" Che cosa possono fare i ricercatori per la
comunicazione scientifica." Bollettino Telematico di Filosofia
.uniplt.it/rete/ecih.html>

Guédon, J.C. "In Oldenburg's Long Shadow: Librarians,
Research Scientists, Publishers, and the Control of Scientific
Publishing, Association of Research Libraries." Proceedings of
.html>

video available at <http://www.hum.gu.se/allcach
2004/> Hyper-Learning. Modèles ouverts de recherche et
d’enseignement sur internet. Groupement de Recherche
.hyper1.org/>

Piez, Wendell. "Authoring Scholarly Articles: TEI or Not TEI?"
Paper delivered at the ALLC/ACH Conference 2004, Göteborg.

<http://www.earlham.edu/~peters/fos/overvi
ew.htm>

Tummarello, Giovanni, et al. "RDFGrowth, a P2P annotation
exchange algorithm for scalable Semantic Web applications."
_Ready/1568938872.pdf>