

WHO SHOULD “CUSTOMISE” THE KNOWLEDGE CONTENT ?

PUBLISHING SCHOLARS OR ON LINE EDUCATORS ?

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Introduction°

Both learners and On Line Courses Facilitators need easy to access scientific texts which make the knowledge content of a course. But too many interesting texts fail into categories like :

- texts lost in the ocean of the Internet,
- texts imbedded in expensive books or reviews,
- texts chunked into smaller sub-texts,
- etc..

We think that this issue has to be clearly represented. There is a lot to do to make a picture of all this categories, to imagine the solutions for each, to demonstrate the necessary processes to decision makers.

In the present paper, we draw a first sketch of this wide picture.

1._The context : scholarly publications as knowledge content for on line learners

1.1._The crisis of scientific publication

The scholarly publishing practices are heavily challenged by three evolutions.

First, the academic credentialing system -the evaluation of faculty members up to the quantity of publications- “encourages faculty members to publish some work that may add little to the body of knowledge” -Magner (2000)- This leads to a saturation of the publishing area. For example, “young scholars have reported increased difficulties getting their first books published” (op. cit.).

Second, the relative shortage of university libraries’ budgets –increased number of publications plus high prices- have different kinds of consequences. Among them, “the “death” of the scholarly monograph in the humanities” (op. cit.).

Third the development of the movement for free availability of publications over the Internet leads to copyright problems and more.

1.2._Great expectations for On Line Education

Concerning On Line Distance Education, a radical change in the availability of documents was expected. “The world of coalface flatfile html markup would begin to disappear in favour of collaborative working, managed workflow, document versioning, on the fly pages constructed out of application independent xml chunks, site management tools and push-button publishing via multiple formats - html, xml, pdf, print, etc. Text appearing in more than one context would be stored in a central repository and repurposed according to particular requirements.” Hunter (2001)

This age of “dynamic text” is yet to come. Here, we shall limit our reflection on the availability of “plain text” over the Web.

Our concern is about the Knowledge Content and the form of these texts and who should improve them.

1.3._When texts are in publicly accessible archives

We consider as “out of scope” the writings that go through journal publishers. These journals have still relatively “rigid” formats that allow little creativity from authors. On the contrary, free publication through personal pages or community pages allow for creativity.

“E-prints are seen as a catalyst for the freeing of the scholarly and scientific literature from the cost barriers imposed by journal publishers. Supporters of the self-archiving concept (as it is sometimes known) argue that the easiest, fastest

and cheapest way for authors to make their papers available is to store electronic copies of these (both pre-prints and reprints) on e-print servers.” Day (2001)

“It is a simple subversive proposal that we would make to all scholars and scientists right now: if from this day forward, everyone were to make available on the Net, in publicly accessible archives on the World Wide Web, the texts of all their current papers (and whichever past ones are still sitting on their word processors' disks) then the transition to the PostGutenberg era would happen virtually overnight.” Harnad and Hemus (1998)

1.4. _A new peer review practice

Of course, out of this practice of self publication , the upstream “peer review” quality control is lost.

But PostGutemberg thinkers have imagined that peer review can be reintroduced downstream through “comments by peers” that could be added to each document. Moreover, any document can be equipped by a visits counter etc. and track can be kept of the quantity of visitors and even of their appreciation which is pretty absent from classical paper reviews.

1.5. _New practices and technical issues

1.5.1. _Alternative practices give ideas to “groups”

For example, we could take a look to the SPARC initiative. “SPARC is a worldwide alliance of research institutions, libraries and organizations that encourages competition in the scholarly communications market. SPARC introduces new solutions to scientific journal publishing, facilitates the use of technology to expand access, and partners with publishers that bring top-quality, low-cost research to a greater audience. SPARC strives to return science to scientists.” This text may let the reader “perplex”. The beginning says “alliance of institutions... encourages”, the end says “return science to scientists”. In fact, it looks like scientists have not the maturity for managing their contents and that they need an “alliance” to do it for them.

1.5.2. _The technical obstacles, if any...

On the feasibility matter, Inger gives few chances to a researcher to establish “alone” his publishing system. “If you are serious about building a server network that can deliver your content to a global audience then you have two simple choices. The first is to invest in the expertise needed to build such a service and the infrastructure capable delivering your data. The cost of performing the tasks necessary in doing this can vary quite widely depending on the market you are trying to reach, the amount of data that you need to move around the world to and from users, and the sophistication required of the access control and security features. ... The second option is to subcontract the effort to one of the companies who have already gained experience in what it takes to deliver a genuinely international service.” This has to be questioned too.

2. _The core issue : On Line Students “starving” for pertinent documents

A large number of practitioners and researchers underline that Online Distance Education Courses should be learner centred –BOIS (1999)-. Radically, this means that only the framework of the course is established in advance. And that the content is accessed “à la carte” by learners through browsing the Web or the local university Intranet. This content should be made of “pertinent” documents.

First, the documents shouldn't be too short. But “some professors publish research results in a handful of small articles, rather than a single large one, in order to make their record of scholarship look more prolific.” -Magner (2000)-. Second, they shouldn't be too long. Too often, the key article is embedded in a book, “lost” in a bunch of generalities of the sub discipline.

The original ideas play the role of an “attractor” to have the book sold. The efficient way of publishing “strong” ideas – i.e. in electronic format in “mid length” paper- is avoided.

Third, texts should be “clear”, which brings us to the next question.

3. _To whom does a publishing researcher writes?

Attending scientific conferences shows that there are different “styles” of publications. Some tend to orient to “encryption”, some tend to develop didactic qualities. But didactic qualities is only being attentive to the matter which is transmitted. The next step is to re-write according to the audience interest. This once was called pedagogy or, for adults andragogy and better anthropology. But there is a wide range of potential audiences :

- The audience that will be present the day of the conference,
- The colleagues i.e. people of the same level of knowledge,
- Eventual doctoral students working on the matter,
- Master students,
- Bachelors.

The “big market” for a text is neither the colleagues – a handful of persons- nor the doctorate students – a little more than a handful-. The real market is the bulk of On Line masters and even bachelors students who form a growing “crowd”. This market should be aimed by researchers :

- Either for their own interest of being “known”,
- Or for the interest of the undergraduate on line students working on personal projects-action learning, learner centred education, etc. - who need the information.

4._Customizing upstream or downstream?

4.1._Motivations and obstacles upstream

A scientist, as well as the university or institution which she/he belongs to, has interest to have most people understand the produced texts. This is one of the way to get visibility and reputation.

Writing “easy to read” texts should be an important concern. But “cryption” keeps its charm for writers “not so sure about the truth they deliver”.

4.2._When the job is done elsewhere

Who are the “customisers” of knowledge in 2002?. Shall we take the example of the word “boustrophedon” through Google search engine -boustrophedon is the name for an ancient way of writing one line from left to write as in European writing and the second from right to left with letters mirroring like in modern Semitic writing and so forth alternatively.- Boustrophedon was used for example in Greece 650BC or for original writing of the Ten Commandments or for Easter Island's Rongorongo script.

The first link with “boustrophedon” is to the site of a guy who is impassioned about the subject and has developed a software to transform an European text into a boustrophedon writing –claiming boustrophedon can be read more rapidly than single direction lines-.

Links number 3,4,13,14 are by dictionary providers. Many links in between are to jargon dictionaries providers.

We must wait for two links around document n° 60 to have academic reference to “boustrophedon”.

If we search “boustrophedon research” we get links to a maths and robotics use of the word.

Number 25 refers to “‘Curse tablets' and other documents on metal from Roman Britain”.

As a second example, shall we search for a word like “globalisation”. We find mostly militant sites and documents.

A third example with the apes named “Bonobo” gives mostly links to “initiatives for saving”. A search on “Bonobo knowledge” allows to find “Popular science” site.

So, the knowledge customisers we identified are :

- dictionaries and encyclopaedias, the first customisers of knowledge available on the Internet,
- impassioned people, militants and initiatives which are supposed to miss objectivity,
- popular science sites.

“Popular” translation of scientific papers, among other transformations, tend to blur the controversial aspects. If an author says “Chapter one, it is so” then “Chapter two it may be different” the second chapter is often skipped or smoothed not to confuse the “simple” reader.

This doesn't fit with the need of students who have to develop a sense of truth and proof.

The student must have access to the certitudes and in-certitudes of the method.

This is rarely fully present in popular translations.

The "basic" learner will tend to rely on what was found at first in this three categories of texts.

It takes a lot of effort to the learner to search ahead, in the ocean of texts, the scientific ones.

4.3. Motivations and obstacles downstream

If the work is not done upstream, how should it be done downstream by the On Line Educators who need matter for the learners? It is a huge work to customize the bulk of texts corresponding to the wide range of questions a cohort of learners could ask within the framework of a course.

Only very motivated course facilitators would do that.

5. The need for transnational knowledge customisation studies and actions

Henderson and Browne as well as Raitt (2000) stress on the role of learned societies and transnational projects to make as much texts as possible available in a digital form. But the labour is so vast that there are choices to do. In each discipline, there are key texts that must be identified.

Conclusion

The issue of the availability of scientific texts for On Line Learners is at the articulation of many problematic fields. First, there is the issue of the motivation for publishing :

- one about scholars who are evaluated upon the quantity of texts,
- one about the roles learned societies play and how they have subcontracted their publications to editors.

Second issue is about the correspondence between what is written and what Eco calls "the typical reader" :

- how authors have a clear view of the need of learners,
- how readers manifest their needs.

Third issue is about alternative ways for disseminating scientific texts :

- how individuals would organise in networks for mutual peer review,
- how disciplinary portals would interface learners with available texts,
- etc..

The scientific text is at the cross roads of cognitive, economical and social axes.

The study of such a matrix should be done through a Systemologic, Interdisciplinary and Complexity approach. This would allow for a clearer representation needed for coordinated actions by decision makers. This enters in the broader issue :

- what part of education direct and indirect matters should be left to the market laws?
- what part should be organized by the public bodies?

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° The oral version will be illustrated and lively presented

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