

w.Book & e.Margin. Wired Book and Electronic Margin

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Introduction

This paper aims to present the collective project 'Wired. Book & electronic Margin'. Firstly, we are going to present the objectives and general characteristics of the project; secondly, we will show the various cognitive, technological, educative, connective and informative benefits that are generated by the project, and finally we will analyse the impact of the project on theory of technology, especially focusing on the contributions of the system to e.learning methods.

Objectives and general features

The main objective of the project is to articulate the network's advances with Western cultural traditions linked to reading. There is a need to develop a new concept of reading, and of managing knowledge and data that integrates traditional legacies deeply embedded in our collective imaginary and culture with emerging social changes in order to overcome the limitations of fixed reading of text and accessing of information on paper. We still need to develop an ubiquitous and extended environment for a bottom-up interacting and sharing of information that integrates the analogical frameworks into digital environments.

One of the advances in this direction came from electronic books. However, although e.books give answers to part of our needs other aspects of the tendency for ubiquity, mobility and interactivity remain uncovered. Although

electronic books introduced changes in text reading and comprehension they are not as profoundly inscribed in the Western culture as are books-on-paper. That unequalled historic feature and advantage of books-on-paper could be used to enrich electronic processes of reading.

In order to achieve that it is necessary to technically extend the reading of a traditional paperbook and transform it in a paper interface for computer-aided reading. In this direction we developed the WiredBook system. A wiredBook is a traditional book on paper but connected to wired resources via tag-embedded technologies, that is to say, a traditional book tagged with specific codes that tries to make the most of the cultural intimacy Western culture has developed with the experience of reading on paper, an experience that, although lacking the fluidity of an e.text, is still closer to the human experience than reading from a screen.

It is a product of Cybrid Design. The concept of Cybrid Design comes from the mother-concept of Cyberdesign (de Kerckhove,1995:89), and can be understood as design that combines analogical and digital media, or augmented reality. That is a hybrid situation in which a physical object is connected to the virtual reality, so a w.Book is a cybrid object of design.

A wiredBook is a hyper-node, an interface to the virtual dimension of the book. The virtual dimension of the

book is made out of two parts (1) the electronic Book and (2) the electronic Margin.

WiredBook’s virtual dimension:

e.Book + e.Margin

The electronic Book (e.Book) is the book’s electronic literal version, a virtual copy of the paper book in all manners similar to the printed copy but accessible to and from the e.Margin. The e.Margin is the virtual place where all the benefits from Internet can be inscribed (the author’s process of work, multimedia files, updates and new editions, comments on the book, chats, etc.), as the virtual ‘treasure’ of the book.

Compared to wiki processes, the difference between the wiredBook system and wiki system is that when we add an item in the e.margin, in the place where someone had previously inserted another one, the previous data is not substituted by the new contribution. New data enriches the e.margin but does not take the place of existing data creating bottom-up created and collectively shared dynamic layers of contents.

In that sense the WiredBook system is a bottom-up vehicle to jump from data to metadata because in its core there is no definitive links between people, items and tags. The informational objects (tags) trigger the classification of other informational objects, enabling

Table 1: Paper, electronic and wiredBook

Paper book:	Electronic book:	WiredBook:
1. Analogic support	1. Digital support	1. Hybrid support
2. No electronic device needed	2. Electronic device needed	2. Multi-devices, non necessary
3. High emotional rapport	3. Low emotional rapport	3. High emotional rapport
4. Extended distribution	4. Narrow distribution	4. Extended distribution
5. No possibility of expansion of contents (only bibliography and notes)	5. Predesigned limited expansion of contents (apart from bibliography and notes)	5. Bottom-up organized expansion of contents
6. Personal reading and access without specific interaction	6. Collective reading and possibility of introducing changes	6. Highly interactive collective and connective reading
7. No possibility of updating (a final product)	7. Possibility of updating (not a final product)	7. Automatic updating, dynamic product.

WiredBook, wiki processes and web togetherness

The wiredBook process starts in the paperbook that is tagged with a code. With a mobile device we take a picture of QR-Code or browse the wiredBook website and enter the code. With this code we access the digital version of the book and the “electronic margin” of the printed text. Then we can browse all related resources and add our own.

Users either can add texts, links, notes, comments, files and media, uploading them directly in the platform, by means of external links or browse the entire book and all the media items inserted in the e.margin, that is to say, have access to pictures, videos, soundfiles and geo-referentiation.

users to share their knowledge contents and their tags in an environment of web togetherness. In such environment open groups are organized in graded folksonomies (from narrow to broad).

Transforming e.learning into wired. learning

These benefits from wiredBook system can have a special impact on traditional methods of e.Learning because it creates a hybrid analogic-digital environment that enables the digital and electronic interconnection of any analogic paper resource, overcoming the limitations of a fixed reading of a text on paper. In this sense the system can be used to create a constant follow up of all data, to construct experimental online laboratories, to organize synchronic and asynchronous sessions of collaborative and connective research and workshops,

to link communities of study for georeferentiation and thematic common affinities and to extract and systematize results that can be applied to other fields of knowledge. In the same sense wiredBook is a system that enables the personalization and framing of contents for distribution and feedback, a hybrid management of information that offers possibilities for navigation, analysis, tagcloud, statistics, filters and editions.

Once the concept of e.learning is expanded into the concept of wired.learning it will be possible to (1) trigger new forms of the educational use of reading and stimulate new forms of consciousness, (2) complete educational text books with multimedia images, sounds and images in movement and (3) to bring children back to reading, making the most of their attraction for multimedia images.

While in web.learning (traditional e.learning) we can observe (1) one-to-many and one-to-one formative processes, (2) interactivity limited to a digital framework, (3) distance-learning collaboration (global environment), (4) low perception and difficult construction of a personal digital identity, (5) top down organization and distribution of knowledge and information, (6) hierarchic and graded model of distribution, (7) updating of available resources exclusively on-line and (8) find useful results for personal evaluation of participants, in a wired.learning environment new features can emerge. Among these we can see (1) many-to-many formative processes, (2) immersive interactivity in a hybrid framework, (3) georeferential collaboration (glocal environment), (4) high perception and easy construction of a personal digital identity (5) bottom-up organization and distribution of knowledge and information, (6) semantic and connective model of distribution, (7) analogic (paper) and electronic updating of resources by w-code, (8) useful results for personal evaluation of participants and able to be organized for collective distribution.

Conclusions

WiredBook is a system that allows for the continuity between didactic traditional channels and new media offering a support for students to manage their own formation.

The system makes it possible to have access to a hybrid dimension (analogic and digital at the same time) and to apprehend and perform a collective and connective dimension in the exchange and accumulation of knowledge. Students can connect to electronic texts, all kinds of media contents, collaborative writing researches, forums, hypertexts, streaming and collaborative works, while concomitantly keeping a personal profile and identity.

There are many practical and theoretical consequences derived from the wiredBook system. The most important are linked to its capacity to intensify, and make the most of two human experiences: (1) reading a book on paper and (2) taking full advantage of the already built experience of receiving information through multimedia images. Apart from that there are information, reading, and connective benefits, (1) to integrate multimedia files in a paper book (for art, theater, medicine, engineering books on paper, etc.), (2) to expand the shelf life span of books and information, (3) to unify the cognitive structure and organization of information in a hypertextual way, (4) to complete the cycle of information between two dimensions, the material and the electronic virtual, (5) to add fluidity and real time to paper books, (6) to extend the presence of books, (7) to transform the experience of reading a book from a one-way to a multiple way process, (8) to empower the reader of a paper book, (9) to increase the process of externalizing personal internalized reading (de Kerckhove, 1995), (10) to extend thought processes and shared consciousness, (11) to add to technological convergence, (12) to increase the scope of use of other technologies, (13) to insert the paper book in the context of connected intelligence, shared on-line knowledge, and (14) to use the power of Social Networking.

Practical applications are especially linked to editorial projects in which there is a need to expand and update already printed books, and also to packaging and advertising like cross-selling, promotions, labels, crowdsourced marketing and web developments.

Theoretical epistemological benefits are created in relation to net-folksonomy and bottom-up classification. In a dimension of knowledge distribution in which everything is collectively shared, data organization depends on users not on hierarchical pre-designed structures. Information integration is granted by the wiredness of different devices that create an integral system shared both by real life and virtual environments. The whole system enables the acceleration of processes of social networking, a new way to manage knowledge in the era of tag.

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