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## The future of public libraries in the digital age

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### Introduction

Will the digital kiss be fatal to public libraries, or instead will it be received as a tempting invitation to a fruitful marriage with the Web and robot-librarians? The answer, of course, will depend more on humans than on technology. Quite clearly, we will be facing major new challenges with outcomes that will require that our experts possess considerable common sense and creativity.

Will we become “librarians” of a new planet? Why not? We are dealing with a revolution in our technologies and our mentality, and we must master the obviously complex parameters and the very real risks of this revolution.

The difficulty is all the greater because of increasingly rapid changes. During the 2007 Frankfurt Book Fair, the German encyclopaedia Brockhaus was still investing in the promotion of its multi-volume paper edition. A few months later, it was announced that everything – that is some 300,000 articles – would be transferred online and that there was no longer any guarantee that a paper edition would be issued. That is an obvious sign of the times. Will everything be gobbled up by the Internet?

Actually, libraries have always depended on three important factors that are closely linked:

- communication technologies;
- social structures;
- forms of socialization.

They began by not existing at all in societies with an oral tradition, and it is quite legitimate and prudent to wonder if they will not soon disappear.

## Basic functions and their mutation

Public libraries have always had as a mandate:

- To bring together collections of writings and pictures;
- To preserve them;
- To make them available to various publics.

To that end, they have always come under religious, political or academic authorities or private patronage, and that usually gave them a monumental institutional symbol, as in temples, with architectures that have evolved slowly to this day, more recently by adopting more functional concepts, of an industrial type, for instance.

Such institutions have never, or almost never, lacked great respectability.

## Changing Technology

Nowadays we are witnessing, at least to a certain extent, a transfer from a paper to a digital medium. This technological change is revolutionizing our behaviour and therefore our institutions. The subterranean networks of our public libraries are coming to the surface to find a place in Web networks.

Should public libraries embrace digital modernism and drop the monumental reality of steel, brick, glass and cement and move into virtual dematerialization? Paradoxically, that is simply not happening! New public libraries are popping up everywhere. Of course, their architecture is changing, but without losing anything of their monumentality, often quite the contrary. Actually, governments are investing in both material and virtual architectures.

Libraries are the temples of our written-word civilizations and remain metaphors of the universe. Books have often been metaphors of the city that is linked to their development. Jorge Borges referred to libraries as Towers of Babel and labyrinths. Today, I will rather present the Web as an electric extension of the city on a planetary level, as the digital networks copy the electrical networks of the planet. And I would like to refer to the emblematic work of the Austrian and Dutch artists Jeffrey Shaw and Dirk Groenvald – *The legible city – la cité des lettres* (1998) – in which the public may travel virtually on a bicycle between building façades made of words. Other artists used a similar inspiration; Toyo Ito, for instance, in his futuristic vision of Japan (1991). These Web architectures seem to be taking over metaphor duties from the material architectures of our traditional libraries. And with all the boldness of new citizens of the digital age, we are crossing the *Electronic Frontier* as conquerors of this new electronic world. We are even seeking to create new, virtual worlds. Do you have your card to the Great Public Library called *Second Life*?

Let's all move to a better world!

And yet, down here on Earth, we poor humans continue to take interest, at least those from more privileged backgrounds – and this includes Internet users! – in printed books, little neighbourhood book stores, book shops in little settlements at the other end of the world. Should we conclude that our technologies are changing faster than our archaic habits and behaviours? A few months ago, I was travelling in France and I took a few photos of little book shops that seem quite happy by the Atlantic Ocean, despite the

tsunami force of the virtual wave. “Warning, last book store for 6000 km”, said a sign designed by one of our French cousins. Another book store announced “Book fishing” as a well-known pastime. Another engaged in a little self-derision with an untranslatable play on words “Lis tes ratures – Read what you cross out”. Yet another with a Spanish accent proclaimed, “L’air livre”. Livre como *Libre*. A book is freedom! Quite a program. And here in Quebec City as in Montreal, every year we crowd together like penguins in our book fairs. Each of us continues to build our little personal libraries with pleasure and pride. The author, Tahar Ben Jelloun, said it well: “A library is a room full of friends.” Each of us has such a room. Is that some kind of last-ditch picturesque archaism? Or a precious and promising human treasure?

### **Is the Internet a threat?**

So are we to believe that the Internet is a threat? Are we on our way to a “paperless world” as predicted by futurists like the American Peter Drucker or the Frenchman Michel Serres? Would we thus be achieving ecological progress, we who live in a country of huge forests that we are destroying to print the very significant and the very ordinary? Yet Peter Drucker liked to be photographed for the media in front of his imposing library in recognition of his expertise as a futurologist.

Should we admit that the digital medium is a precursor of a new oral system, a new primitivism, as things were before Gutenberg? After having reduced our conversations to visual communication as analysed by McLuhan, will we return to a multisensorial world, less rational, more emotional and more event oriented? More instantaneous? Perhaps less reflective, but more intense? And more friendly? A world of virtual links, like a planetary and restless hypertext?

In short, a world without paper and libraries? We are digitizing so many books that they seem to be sucked into our computer screens. Will libraries, once their books have been scanned, become undervalued like storage areas housing originals that will perhaps be deserted?

Will the Web and computers increasingly assume the access and service-to-the-public functions that were the sacred mandate of libraries? The importance of the issue becomes apparent when one considers the proliferation of DVDs, online books readable on screen and downloadable, *e-books*, those electronic books whose undeniable success we have been hearing about repeatedly – but always for a later date – for twenty years.

Over time, will multimedia, interactive and enchanting DVDs, full of pictures, films and music slowly replace printed books on our shelves? Amazon, that managed to surprise us by establishing the electronic sale of books, now proposes the magic Kindle, a pocket size electronic book that imitates the mattness of paper and ink with sounds that make us hear the virtual pages we believe we are turning. Will this finally be the perfect book imitation? But now capable of containing about a hundred in the same format, better yet, an infinite number that can be downloaded at will with special effects and enriched multimedia? Is the product still disappointing? Perhaps, but without a doubt in five or ten years it will be considered an unmitigated success. A day will come when you will be able to screen and read on your pocket Kindle all the books, all the manuscripts, all the pictures, all the magazines, all the newspapers in the world and if you are blind, you will

be able to listen to someone reading them to you in your preferred language. Perhaps you still do not like the idea? You can nevertheless be sure that future generations will not have such prejudices.

### **The digital Achilles' heal**

I am with those who are sceptical of any such a radical and naive utopia, even though I have been pushing for digital technology in the arts and in cultural productions since the 1980s. And there is a reason for that. One must also consider the Achilles' heal of digital technology. And the issue is an important one. Our ears are still full of the refrain of the fundamentalists, those who are naively for anything digital and who quite recently were complaining about the fragility of paper and celluloid in a bid to have all books and films produced in digital format. It is like a race against the clock to save our cultural memories through the magic of digitization. We have invested much conviction and money in an area in which our budgets are limited. But today we must admit it: until proof of the contrary, there is nothing more vulnerable and ephemeral than the digital memory. To trust it is to hasten towards a culture destined to be forgotten. That is a major danger, all the more so since we have also lost the memory capacity of oral civilizations. All you who have one of those amazing little digital cameras, remember to print your photos on clear paper or you might have nothing to show your children when they ask to see photos of their early years. In its present state, the numerical format is the least trustworthy of preservation supports. It is amusing to follow the technical evolution of digital machines over the last twenty years: the first scanners now appear totally outdated; the future is what ages the fastest! But this history of technology would be simply anecdotal if it did not illustrate the same acceleration in the progress of software and electronic supports that become obsolete as soon as they are created. Progress cannibalizes technology and destroys whatever we entrust with it. Market laws also play a role here.

### **The good side of digitization**

The good side of digitization is not at all preservation. It lies in access. In this regard, there is no doubt that the Internet is a fabulous individual access tool. Its interactivity, including Web 2.0 and wiki software, has become a kind of magic slogan, with search engines that in a few tenths of a second provide access to words, images, books, films, musical files, its capacity to zoom in, to consult rare manuscripts, to build up personal cyberfolios, its communities of practice, its planetary scope are now unanimously accepted, even in the case of rare languages, for the most specialized sciences, and for elite or popular cultures. We have three-dimensional, real-time images from anywhere on the planet; we can cut, paste and rework all those images and texts on our individual screens. We have toolboxes to modalize, recolour, and rotate all those files. We can put everything online, as well as delete, recover, index and attach to interactive links. As the Argentinean specialist Alejandro Piscitelli noted, the Internet has become the 21<sup>st</sup> Century printing plant, but infinitely more than that. Tim Berners-Lee deserves the

same historical recognition as Gutenberg. No magician could have dreamed of anything better, and yet the extraordinary powers of digitization now leave us almost unmoved. We can connect our computers, cell phones, podcasters, iPods, GPS, watches, and move all that information from one screen to another with a simple click. There are now a billion computers on our planet and 3.3 billion cell phones. High speed, wide-band, secure, multiple connections by satellite. Flexibility, trees and digital speed have produced a revolution that makes the printing press look like a piece of handicraft. Digitization produces and distributes anything globally almost immediately. And all that has appeared over a period of about ten years. Just imagining what there will be in twenty or thirty years boggles the imagination. Those who remain sceptical – we as digital immigrants, we the baby-boomers who hesitate to view the merits of digitization – we must accept for better or for worse the very real ordinariness of digitization for upcoming generations. Those born with the Internet do not even question the issue, except to ask for more real-time speed and more miniaturized power.

So, does that mean the end of paper, writer on paper, printed book and libraries? These last years, did we build those libraries with all those hard-to-get budgets, at cross-purposes of evolution, the new wonders of digitization and the needs of new generations? Will the book become a simple collectible artefact for a museum or be used as a decoration like that column of books at the entrance of the old library in Prague that groups of students photograph with their cell phones like a zebra in a zoo? The man of letters has been replaced by the digital man; will the alphabet itself be replaced by the continuous pressure and omnipresence of the image, the image that henceforth is worth more than a thousand words?

### **A planetary library?**

The curtain has been raised: Google has taken over the whole stage as an opening act. Is it the devil, or God? The jury is still out. The debate is not simple, but preoccupies everyone. Faster than light, Google shows Chinese sites in Italy, Russian sites in Australia; Google seeks, finds and displays. *Veni, vidi, vici*. Google conquered the whole planet before we even noticed it. Only Astérix saw what was coming. The Director of the Grande bibliothèque de France, Jean-Marcel Jeannenay, immediately counterattacked and published a book: *Quand Google défie l'Europe* [When Google challenges Europe – TRANS.], condemning American imperialism on behalf of the Francophonie. He was not against digitization since he immediately took the initiative of launching an online digital library called Gallica, then giving the concept a continental scope with the Europeana project. And he was absolutely right in so doing. Finally, everyone got involved: UNESCO has now joined the American Library of Congress among others to launch the World Digital Library. The challenge nowadays is no longer to balance American imperialism. Indeed, English has retreated proportionately on the Web and its monopoly has decreased under the pressure of Chinese, Japanese and even Spanish, now the third language in importance on the Web. The Internet will increasingly become a powerful factor of cultural and linguistic diversity. And all together we are building a vast planetary hyperlibrary – hypersensitive, hypernervous and hyperactive – hyper being used as in hypertext, multiplying links, trees, semantic levels whose production and

access we share. And the metaphors are coming faster and faster. Many gurus are now hailing the arrival of a planetary cortex, perhaps even a new digital spirituality, in the manner of Teilhard de Chardin's noos. It would seem that digital progress will never fill the bottomless pit of human naiveté.

### **But let's talk about real things!**

Let's come back to earth. We are talking about a worldwide digital library, and yet only between 16 and 18% of humanity can connect to the Internet. We are far from the promises of the worldwide summit of the Information Society held in Geneva in 2003, under the auspices of the UN and the International Telecommunication Union, that predicted that before 2015 half of the population of the world would have access to the Internet. Actually, the digital divide is being reduced much faster than illiteracy. But it will always remain considerable. I often think of a painted wood sculpture by a Cuban artist showing a native woman sitting in front of a computer. In reality, that emblematic figure of development will long remain nothing more than a dream for the majority of the human race. If we consider public libraries as tools for development, education and fundamental progress, it is necessary and urgent at the same time to direct our efforts towards alternatives.

With respect to the inevitable and desirable move of libraries towards digitalization, it requires that the functions of large libraries be rethought. But I will first sing the unconditional praises of their traditional role because those libraries preserve for us inestimable cultural treasures – ancient manuscripts, and out-of-print books that the ephemeral quality of trade has caused to disappear. They offer them to us free of charge as well as advice for the general public and researchers.

Large libraries are developing new intra muros functions. On various floors, silence reigns, but the libraries also house culture. They organize exhibitions, cultural events, conferences and debates on society. They create a warm environment in which to greet families and researchers alike, not to mention immigrants seeking socialization, as I have noted both in the public library of the Centre Pompidou in Paris and in Montreal's Grande bibliothèque. In Paris, they are rebuilding the world; here, we are seeking new cultural roots. Libraries are places of life, meeting places, more necessary than ever in our vast urban solitudes.

But at the same time, great libraries must develop new functions to adjust to the relays of digital networks. That is not easy, because digitizing is not everything. It is important to choose, to index authors, titles and themes, to link fields and trees, and to adapt linguistic, audiovisual and digital tools. We have come a long way from the little drawer with the cardboard files of my student days to digital networks. Google launched its secret weapon: search engines and robot librarians. The challenge is difficult and immediate. It is costly and requires whole new areas of expertise. Will librarians work as well and as quickly as Google's robots? Or will they become useless?

That is not how the question should be asked. Indeed, librarians are needed to set up those robots, to structure the fields of knowledge, to index contents, adjust links, create trees. Those are totally new areas of expertise that great libraries will now need and that require new training; they are obviously complex and have to balance an understanding



of computer programming with cultural depth, knowledge of the collections and of the various clientele. The algorithm, if I may call it that, is uncommon, but henceforth has a strategic value. Not only to know authors, books, the status of knowledge, the various publics, but also to be capable of building Website architectures and of mastering the syntax of links – not everyone can pull that off. We are presently weaving a hypertext that is subject to galloping inflation, while the number of online documents is counted by billions. Not so long ago, we were surprised to hear that 10 million pages were available on the Web. Now we are speaking of 120 billion of online pages! And that is only counting the listed Web. According to Cuil, the most powerful available search engine, in the darkness of the Web depths there are a billion billion pages – which is one trillion – of which only the surface is indexed. In short, great libraries are now subject to the double constraint of rethinking their cultural functions within their walls and going beyond those walls to build virtual networks in co-operation with the other great libraries as part of a gigantic network. We also have to set international standards, make computer languages compatible, create longevity, assess, co-ordinate, think internationally. Those are two global and simultaneous challenges that at first glance oppose each other, but that nevertheless must be met.

### **Singing the praises of public and private service**

I would like to conclude by singing the well-deserved praises of this public service. But in a new way that surprises even me. Because the difficulty is not to recognize publicly the exemplary know-how and commitment of the personnel of our libraries. We all agree on that point. Rather I am surprised to be compelled to recognize publicly that Google has also earned public recognition. Google is not the devil, despite the opinion of our traditional humanists, particularly in Europe, who at first considered it a new Trojan horse, linked diabolically to digital technology and to its capacity to push us all aside. On the contrary, we must accept the dynamics of that enterprise, one of the great successes of American capitalism. It is good that Google chose to invest its energy in knowledge and culture rather than in the technologies of war. Even in France, the Grande bibliothèque de Lyon has just signed a digital agreement with Google and placed online 300,000 of its most prized books. And that was done with the blessing of Jean-Marcel Jeannenay's successor. The agreement seems fair. The City of Lyon retains control of the choice of its books and, to my knowledge, the agreement has no exclusivity clause in Google's favour. I tend to see here the advantages of a public service, of the free availability for the benefit of members of the public of books that would otherwise be difficult to obtain. Is Google not a champion of public service in the name of American capitalism, with a power of initiative that no state could have even considered if Google had not been there to develop this expertise and invest first? Yes, I am among those who, until proof of the contrary, applaud Google, nevertheless reserving the right to criticize many of the high-handed practices of the company, in particular as to respect for intellectual property and the underhanded listing of its users.

And I much prefer the ambitions of Google to those of Steve Jobs, the well-known guru of Pixar, Apple, and now of iPhone, who laughs at Kindle, the electronic book launched by Amazon, stating: "Who cares if the product is good or bad? People don't read any

more.” It is quite probable that in the future people will not read more books on the iPhone than on Kindle, that’s true. But such a provocation is hard to take! Of course, Mr. Steve Jobs is a businessman, but in order to validate his business, does he have to talk like a barbarian and, to push sales, take pleasure in the idea that people will stop reading? He is not the only person with that opinion, but he is wrong because there have never been as many writers and as many books published as nowadays! And even if people don’t read enough, it’s still true that the publishing industry, far from being washed away by the digital tsunami, is restructuring and continues to publish more and more titles, with sometimes spectacular and unexpected commercial success. Given the competition from the digital media, audio and video, the written text is of course weakened, not in the area of production but rather of circulation according to the figures. Yes, there is a digital explosion, but it is increasingly contributing to the production, promotion and distribution of books. Books are holding their own very well. You will certainly have noted that I am a supporter of the digital format and have been for twenty-five years. But my fascination remains very critical. Because it is not the technology that should be demonized or condemned; it is how we use it. And I do not believe in some bleak fatality. I am a defender of the proper use of the digital format. But I am always more than ready to praise books and public libraries. A book is a remarkable technological object that has been transformed many times to adapt to changing situations. It has remarkable qualities in terms of ergonomics, manipulation, conservation and flexibility. It needs no wiring, no other device but itself. Its reproduction is increasingly easier. It circulates; it is resold; it can be traded; it lasts for generations. It can be read on a beach, on the subway or on a desert island. It is less fragile than all the electronic gadgets praised by their supporters. Its inertia, like that of the structures housing libraries, guarantees that it will last. No digital medium will ever replace it. Media can be added to and can specialize, but they do not replace one another. We know that today.

The battle for books and libraries is a basic one. A defence of books and libraries is also a defence of the fundamental values of our critical spirit, our democracies, freedom and human progress. Certainly, the digital format is an extraordinary technology for the creation and dissemination of our ideas; it also spreads democracy. But I am nevertheless wary of a return to the dark days through the digital format because the digital flow stirs up the emotions, is event-based and distributes fragmentary and impressionistic knowledge with all the speed it can. For the development of the spirit and for education, I believe in the calmer and slower activity of reading a book.

But if one day, books really were threatened by the digital world – something I find quite improbable, we would all have to rise and defend them because we owe them everything. I prefer the dust of library bookshelves to that of the digital media. I therefore salute with deep conviction and admiration our friends the librarians, the archivists and all those who are committed to the development of our libraries faced with the challenges they must meet. They will need new skills, therefore new forms of training to take on new democratic responsibilities. Thus, amid all the prophets of gloom and all the dangerously naive gurus, I remain fundamentally optimistic.

Thank you for your attention.



