The History of the World Library, 2040-2090

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Key note speech to the IGeLU (International Group of ExLibris Users) Conference in Berlin, 8 September 2013

by

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Foreword

Dear Colleagues,

I have been asked to give a keynote speech on the future of libraries.

The major governing idea of my presentation and the one that I believe will be the organizing principle for our future development is that **modern technology will eventually make the traditional, local library obsolete as an instrument for storing and disseminating literature. In one generation, literature will totally migrate to the e-format and become ubiquitous, and a new, global library structure will be developed to handle this situation.**

Instead of presenting this concept to you in a chain of facts, observations, arguments, and projections, I have decided to take a leap of imagination: so, today we shall not be looking at the future of libraries, but at their past, as seen from the year 2090.

That year happens, I fancy, to be the 50 year jubilee of the World Library, and the presentation you will be hearing is the jubilee address of the President of the Board of the World Library to the members of the Board.

You are the members of that Board. During my jubilee address you will, as members of the Board, be asked to vote on a crucial issue. I hope you will enter into to spirit of things and participate in this vote.

I begin.

The address of the President of the World Library at its 50 year jubilee in 2090

1. Introduction

Dear colleagues in the Board of the World Library.

I am truly honoured and pleased to open, today, the celebrations in honour of the World Library's 50 year jubilee.

Others will be speaking about the present status of the World Library and about the next 50 years.

My part is to give a brief overview of its history from its beginning in the year 2040. And at the end of my speech, we shall be voting on the proposal to make it possible for everybody in the world, who so desires, to have direct brain connection with the World Library.

Today, the World Library is so deeply embedded in the structure of the world and in the everyday life of all the world's citizens that people rarely think about it as more than a basic utility, like electricity and heating. And when they do refer to it, they affectionately call it Libby or Libs.

It has not always been like this, as you well know. Before the establishment of the World Library, humankind was, for three millennia, struggling towards something that they only dimly perceived, though from the beginning – or almost – they did call it the Library (from the Latin) or the Bibliotheca from the Greek. We may call this period the prehistory of the World Library. Let us have a brief look at it.

2. The Prehistory of the World Library

There is an awesome drive in thinking. Some have even believed that thought, called Logos by the Greeks, invented the world so that they it might be thought. But this is the realm of religion, and we leave that to the theologians of Her Holiness, Popess Benedicta the 18th. More important is the fact that thoughts will not only be said and heard, they also will be written and read.

So, men had to invent systems for writing, some based on phonetic principles, and some based on pictorial representations of thought content.

They also had to invent something to write with, and something to write on, so that what was written could be read by others, either directly, or through versions or copies kept in libraries.

The oldest texts in the world were written on wet clay that was afterwards baked to become stable. So the first books were baked. And the first known library was Ashurbanipal's Royal Library, in the palace of Ninive.

Since then, men have used a number of different materials for writing and storing texts, using materials that were easily available in their culture. For a thousand years they even used the skin of cows, though it is difficult to imagine.

They also used something called printing. Printing is a process for reproducing text and images, typically with ink on paper using a printing press. But that turned out to be a shortlived technology, lasting only about 500 years.

This whole development ended, of course, with the invention and mass production of the computer in the second half of the 20th century.

During that period, from the baked books in Assyria to the printed books in the 20th century, literature was a scarce and expensive commodity, though it became less and less so, especially in the 20th century.

This scarcity posed the problem of how to organize access to books (we use the term book as shorthand for literature). The solution to the problem is almost as ancient as the book itself: it is the library, a collection of books stored in a building where people could come to read them or, in the latest period, to borrow them for home-reading. Libraries as a solution to the scarcity problem were so efficient, that they proliferated over the centuries. There were libraries in ancient Ephesus, Alexandria, and Rome. They had libraries in medieval monasteries. And when printing developed, and books became more of a mass product, there were libraries everywhere, in cities and parishes, in universities and schools, and even nations had their national libraries, some rather grand.

Rich people, of course, always bought their own books. But as book production became cheaper and cheaper and people's income grew, more and more ordinary people bought books themselves and had their own, personal libraries. These personal libraries, however, mostly contained books they would never read or read again. Not a very efficient system, I think.

After the invention of computers, it did not take a long time before the printed book gave way to the e-book, and not only were all new books e-books, but the whole of world literature was digitized within one generation.

The handwritten book had its own dissemination and library system, and so did the printed book. So it is not strange that the e-book, too, would have its own dissemination and library system. Publishers would no longer send their books, in e-format, to be sold at local vendors and stored in public and private libraries. No, they kept their books on their own servers and gave users access through costly and highly inefficient systems designed to protect their incomes and shareholders' profits. And the company Google, that really started as a search machine, digitized great parts of the world's literary heritage and made it freely or cheaply available through the internet.

The first 40 years of the 21st century was a period of transition, and people were quite aware of it at the time, though they not know what the future would bring.

The old system for dissemination of literature was evidently not working very well.

One major reason was that a great part of literature, i.e. the non-fiction literature, was produced for public money and afterwards given to private companies that sold it back to the public – at great, and sometimes extortionate, profits.

Another major reason was that hesitancy to leave the old system caused a situation where the print-based and the digital systems for disseminating literature coexisted for a long period. The cost of this double system was enormous and meant that huge funds were used to finance an obsolete system, including print-based libraries, and could not be used for developing the new, e-based system.

The situation gradually became untenable. University libraries became clones of the major monopolies in the market, like Elsevier and Nature. Academics everywhere started to rise in protest and tried to invent new systems, with the support of national governments. But at the end of the day, academics did not have the moral strength to break the monopolies of the dominant companies, depositaries of academic prestige and merit. And the well-meaning Open Access initiatives of governments only meant that universities and libraries now paid exorbitantly rising costs, even double costs, for access to scholarly literature produced by universities themselves.

Something had to give.

The catalyst for a radically new solution turned out to be … Google. In the 2030's Google had for more than a generation been one of the major players in the global, monopoly-based information market, and it had by then acquired Evil Empire-status together with Elsevier.

But, seemingly, they had not forgotten their public-spirited origins, and in 2035 they made an offer to the United Nations that if the UN would establish a

global, digital library institution, Google would turn over all its assets and rights to that library. Astonishingly, Google only had one condition: that the new library would not be named after Google, but be called the World Library.

The idea of a world library was really much older. It had been launched by the author H.G. Wells in 1936 as a centrally held collection of microfilms of all existing scholarly works. His idea magnificently prefigured what later came into being.

You know how controversial the Google offer was. It immediately raised violent opposition from publishers who considered the World Library as a Trojan horse and a deadly threat to their business. Actually, many in the library world were against it, too, but by that time the Europeana and the American Digital Library, as well as their Asian and African counterparts, had - after fledgling beginnings - grown so important that the library world had become attuned to radically international models. The booksellers did not count, of course, since by then what remained of bookselling had been taken over by supermarkets and by web-based bookshops offering print-on-demand solutions based on customer's individual preferences.

In the end, opposition to the World Library was overcome by a coalition of academics, and governments, and the international Open Movement, and it was approved and set up by a decision of the United Nations at its General Assembly in 2040.

As first president of the WL was appointed Mrs. Tina Pipa, the chief executive of the World Association of Media Industries. She was indeed a brilliant choice: Mrs. Pipa was 70 when she was appointed, but she one of the first to undergo the rejuvenation procedures that became available in the 2030's. She stayed at the helm for 15 years, and only retired because of an international law limiting the tenure of directors both in the private and public sector. If that law had not been made, the world would now be governed by a class of more than 100-year old rejuvenated bureaucrats and money people, staying on forever!

3. The WL in 2040

In 2040, the new-born WL was really a shambles, of course.

The resolution of the UN had stipulated that the World Library would not be a central collection of e-texts. Rather it would be a networked structure giving easy and free online access to the whole world's publicly produced or funded books, periodicals, articles and texts of all kinds, stored in servers belonging to the owners. Moreover, it would provide free and easy access to all e-literature privately produced and made available on a voluntary basis by all institutions, libraries and other organizations in the world that desired to join the WL. The institutions and organizations joining up with the WL were given Contributing Partnership Status and voting rights for the election of members to the Board.

It must be kept clearly in mind that at the outset the WL did not itself own a collection of literature (apart from the Google book collection): it was an organization giving access to literature. The great contribution of Mrs. Pipa was to effectively join all the contributing partners into one global network where the collections of each partner were made available to the whole world. Though the know-how and technologies of Google helped a lot, it was quite a daunting technological task. Even worse, however, was the plethora of formalistic and legal problems that had to be solved.

Happily, the financing problem turned out to be manageable. Inspired by the generosity of Google, the Melinda and Bill Gates Foundation provided an extremely generous 25-year grant to support the development of the World Library. A number of other philanthropies followed them. And national governments, mindful of the enormous savings possible for themselves, helped out when needed.

By 2050, the technological and organization network was firmly in place. The WL had about 23.000 contributing partners all over the world, many of them international players in themselves, and the number of yearly downloads of

texts through the library was approaching a quite satisfactory figure of 1 billion per year.

4. First crisis: from a federated, distributed library to a centralized, multicopied library

... and then crisis struck!

A small village in Paraguay housed a community of about 100 grown-ups, five men and the rest women. They lived in splendid isolation from the world at large, but seemingly not from each other for the community grew rapidly, producing about 30 babies per year. The group called themselves The New Beginning. Their freakish website proclaimed the overthrow of a world civilisation gone bad and corrupt, the end of the World Library as the main repository of this culture, and the start of new society, from scratch, without being bound by the knowledge accumulated by the former culture. The group was led by a supercharged alpha male, Raoul. They were evidently crackpots, but as they appeared to be healthy and happy, the authorities left them alone which turned out to be a great mistake. For though they may have been crackpots, they were frightfully clever, and a number of the women had higher degrees in information technology. On January 1st, 2051, they launched an attack on the systems of the World Library, actually the most awesome computer virus the world had ever seen. The World Library fought back, valiantly, but after some hours the whole system crashed, and the library was closed for two months, causing absolute havoc in the world community. The group in Paraguay was arrested, and the children taken into custody. Only when the authorities threatened to have the children adopted by army officers, they could persuade the clever hacker women to clean up the mess they had caused.

There were some quite important losses of literature from cooperating WL-partners that had not followed the mandatory protocols. Embarrassingly, one of them was the digitized collections of a major English university. As luck would have it, the Vicechancellor of the university died about the same time, for it turned out that he had kept the superstorage device containing the complete, digitized version of the library presented to him when the

digitization of its collections was finished. His Majesty, King Willliam V., publicly praised the foresight and dedication of this great scholar, but unofficially the story circulated, in rather exclusive circles, that the Vicechancellor had gone potty and kept the device together with a number of priceless manuscripts in his bathtub. Fortunately so, as apparently he did not bathe.

The outcome was a fundamental change in the concept of the World Library. It was evident to everybody that it was necessary to take frequent and many backups of all the collections connected with the library and to ensure their safe storage in different places. In the end, it was decided that all the cooperating partners would deposit copies of their materials, on a permanent basis, in the World Library and have that library take care of security copying and all that. It would cost a fortune, but it was by far the cheapest solution to have a central agency take care of these matters, instead of thousands of cooperating partners each having their own parallel and sometimes inadequate procedures. Thus, before the year 2060, the World Library had ceased to be a distributed network connecting thousands of digital libraries and had become a central library with thousands of frequently updated copies scattered over the globe, not for use, but for security.

Among the depositaries are, as you know, all the national libraries of the world.

The hacker problem was solved rather effectively: every year since 2052, the World Library has organized an international competition inviting hackers of the world to try to break into the Library. The prize goes to the best attempt and consists in a large check, a very well-paid job in the security department of the library, and huge street cred in the international computer community. Only twice in eighty years have hackers managed to break the security protocols of the World Library, and both times the library was up and running in hours - due to the safety copying procedures.

5. Second crisis: integration of the commercial book sector and other media

When the World Library was restored after the great crash in 2051, the world breathed a sigh of relief. Gradually the library regained its credibility and status, to the extent that after five years, the organizations of commercial publishers submitted a petition through the UN that the WL should also comprise commercially produced literature.

By then commercial publishing had gone e-only, as had most of the reading public. People who wanted to, and there were some, could order Print-on-Demand copies according to their own specifications in terms of font, size, binding, etc. but this function had given rise to a special niche industry that was not part of the publishing industry itself.

In all countries, legal deposit of printed literature had been replaced by legal deposit of e-literature, and the national libraries were responsible for receiving, cataloguing and storing the files received from publishers. However, they were only allowed to make such e-books available to patrons in their own reading rooms, not through remote access, and publishers retained the distribution via the web of their own products.

Eventually, it dawned on the publishing industry itself that the World Library had made this distribution system obsolete. So, in 2063 they submitted the aforementioned petition to the UN that national libraries should turn over a copy of their e-books received through legal deposit to the World Library. The WL would then have the responsibility for selling the books through a specially developed pay module, at prices determined by the publishers. The WL would retain one dollar of the price of each book sold, and the publishers (with the authors) would get the rest. Production and marketing would continue to be the responsibility of publishers.

The UN approved this motion. The whole procedure turned out to be fairly simple and by the year 2068 the World Library had become an all-comprehensive library and seller of the whole world's literature. The new

model turned out to be huge success, publishers' profits rose significantly – mainly due to cost savings, users had easy access to all literature in the world, and everybody was happy, for a time!

Afterwards, it did not take long for the movie industry and the music industry to follow suit, and their motion to the UN to be included in the WL were voted through, though with a very small majority.

By 2075, the World Library had gained such momentum that there was minimum fuss when the digital world archives of the world as well as the world's digitized museum collections were integrated into it. The younger staffers of the library then started to call it LOE, the Library of Everything, and as you know this name has quite caught on.

For some years, there was some talk of merging the global web with the World Library, but since all metadata of the library are searchable through the web anyway, it stopped eventually. As you know, the problem of creating metadata for subject and object description for a collection as large, varied and complex as the World Library is highly challenging. The Discovery Department of the World Library today is the biggest department of the library, and it permanently has more than 1.000 people working on cleaning up metadata and developing the algorithms for creating them on the basis of the full texts and other information.

As for searching full texts themselves and not just metadata, the problems of searching this enormous collection without being drowned in search results have not been solved satisfactorily until now. The Discovery Department is working intensely on them and expect to come up with something workable during the next decade.

6. Third crisis: the rise of a new publishing order

In the late 2070's two convergent developments, in fictional and professional/ academic publishing, had led to a rather difficult situation in the global publishing system.

6.1. The publishing of fiction

Let us look first at the publishing of fiction.

When the commercial publishing of fiction went e-only, and publishers started storing and selling through the World Library, it became extremely easy for all to enter the market. Independent publishers (or indie publishers as they are called) and self-publishers flourished as never before, in a society where people had lots of education and leisure time and wanted to write and read books, many books.

Unavoidably, self-publishers overran the market with a flood of novels, in all kinds of shades, but eventually the public got tired of the many badly written novels. In response indie publishers developed effective, attractive and reasonably priced editorial services. Small scale publishing has by now become a viable industry, but only if you are not in it for great profits. Shareholders and money people have lost interest, and the big publishers have either left the market or adapted to the new market conditions.

About 100 years ago, many thought that this century would see the death of the book. That turned out not to be true at all: this century has seen the great takeoff of the book – together with the onset of the creative age that – thanks to the computer – is coming to replace the industrial age.

6.2. Scholarly publishing

The second development concerns scholarly and professional publishing.

The publishing system developed in an earlier age could not cope with the massive increase in the scholarly output during the 21st century. And the ongoing fight between commercial interests and the Open Movement had led to a profusion of different publishing models and systems.

In the hands of commercial – and even other - publishers, the Golden Open Access system had turned out to be a great money machine for publishers, at the cost of ensuring the scholarly quality of publications: the temptation to earn more money by publishing more and more articles paid for by authors turned out to be irresistible.

Traditional peer-reviewing had been a vital element of the traditional scholarly publishing system. It contained two elements: one was the assessment of soundness of research methodology and reporting, and the other was the evaluation of interest and importance. Though this peer-review system had its problems and its critics, it functioned reasonably well. However, it was so cumbersome that it could not be maintained unchanged if the scholarly publishing system should cope with the truly enormous rise in the number of scholarly articles to be processed. Eventually, a new peer review system was developed where the pre-publication peer review only comprised the first part of the traditional peer review, the assessment of methodological soundness. The assessment of importance etc. was left for new forms of post-publication peer-reviewing.

This development was highly successful in terms of making the publishing system run smoother. However, the post-publication peer review did not work very well.

So, eventually the result was a great increase in articles that were methodologically sound, but otherwise insignificant. The situation was really not tolerable, something had to happen.

And it did.

In 2081 the Board of the WL received a letter from the Nobel Committee in Stockholm that appeared innocent enough. The Nobel Committee offered to develop and administer a system for quality certification of all new scholarly publications entering the World Library within the fields covered by the Nobel Prize. As the result of a review, the papers submitted by authors would get the Nobel Quality Grade A for eminent scientific contribution, B for valuable scientific contribution, and C for acceptable scientific contribution. The whole process would be transparent, the reviewers would work for free, and there would only be a small fee covering costs of administration.

The World Library gratefully accepted the proposal, and it became a smashing success. Obtaining the Nobel Quality Grade A became a guarantee for life long tenure at universities. Obtaining a B became a highly sought after academic distinction.

When the Nobel Committee's idea turned out to be working, a large number of organizations and institutions set up similar systems, under many different names. Inevitably, a fair amount of quack systems were set up too, with high-sounding names, but eventually the World Organization of Universities created a list of quality certification agencies for academic publications accepted by the Association. The quack organizations disappeared again.

It turned out that many scholarly publications were relevant in different contexts, and therefore authors started to obtain quality certificates from various agencies. In a very short time it came to be that the first thing you looked at when retrieving a scholarly publication in the World Library was not the author, but the profile of quality certifications obtained for the publication.

An outcome of this was that the dissemination and profiling of scholarly articles as part of "periodicals" was replaced by dissemination and profiling through the system of quality certification. For example, instead of publishing your article in a review of cancer studies, you would publish your article through the World Library with the quality certificate of the International Association of Cancer Studies. The quality certificate and not the periodical would be the link between articles on the same subject.

Very quickly commercial scholarly publishers went out of business since their traditional function of adding value in terms of quality assurance and academic prestige was taken over by the quality certification agencies. The great winners were the scholarly associations that had the basis for easily setting up a quality certification system. In a sense, quality assessment of scholarly articles reverted to the scholarly associations – who had themselves invented the system around 1750. When Elsevier went bankrupt, the academic world drew an enormous sigh of relief, and at many universities there were quite unseemly manifestations of joy. Without wanting to, the Nobel Committee had completely changed scholarly publishing. "But we just wanted to create a Nobel Quality Tag," the chairman of the Nobel Committee said – sheepishly. Like Mr. Gutenberg is reported to have said back in the 15th century: "But I just wanted to create a smart way of making manuscripts!"

As for textbook publishers, so many went into the business of offering excellent interactive online courses created by university teachers that universities started to massively outsource bachelor courses to such publishers.

In the end, the WL helped publishing industry to flourish, but the days of the hugely profitable megapublisher were gone.

7. Fourth crisis: connecting brains to the World Library

After this upheaval in the international publishing system, the World Library has had a long period of tranquil growth. Right now, however, we are facing the fourth crisis that some consider to be the most important of them all. It is certainly the most controversial of them all, and I am informed that right at this moment supporters and opponents of the motion are clashing in the square outside the building.

Briefly, the proposal is that world citizens who so desire should have direct brain connection with the World Library so that they can directly send search and retrieve commands to the WL, and the WL can send retrieved documents (and absolutely no other data) directly into the brain. You have the formal text of motion 2090/7 and the technical papers before you.

The process will be using technologies and an interface developed by the Kulu Corporation. I am talking about the Kulu ANI-5000 Interface. Later on, other firms, products and interfaces will be allowed, subsequent to approval by the relevant international agencies.

The technology has of course been tested, successfully so, and I quote a report from one of the test persons who gave a vivid impression of her experience of being first hooked up with the World Library:

The program's visualization took the form of a three-dimensional spider's web that filled the entire universe. Strands were all primary colours, crossing and recrossing against each other, a weave that stretched away to an infinity where they blurred into null-grey uniformity. My mind hung in the center, looking in every direction at once.

Information taxis were flooding back towards me, silent sparkles of light galaxy[1] *… of texts, pictures, and sound.*

Quite fascinating.

Before proceeding to the vote, I have asked two members of the WL staff to summarize reasons for and against the motion.

First is Mrs. Kira Stine Hansen, Head of the WL Marketing Department, who will speak for the motion.

Mrs. Hansen, please step up to the podium!

KSH

Esteemed Members of the Board of the World Library!

As responsible for marketing, I usually have the job of pointing out advantages and disadvantages with regard to the World Library's outgoing communication: its reputation and the ways in which we can ensure that the wonderful intention behind the formation of the Library is implemented worldwide. The world needs to know about the Library's great work for setting knowledge free and its efforts to make it available to all people without ulterior motives like profit or world domination.

Today, I have been asked to speak, from my personal beliefs, about the something that is vitally important for our future. The proposal you are about to vote on will, if the result is a "YES", give access to knowledge in

[1] Peter F. Hamilton: *The Naked God.* Pp. 466-467.

the widest sense. We will fundamentally strengthen innovation and development. A great political leader, known for his foresight, Sir Winston Churchill, once said: "*The empires of the future are the empires of the mind*". What better way to ensure this than by giving our brains access to the sum of human knowledge.

We must not let old superstitions or fear of change stand in the way of development. By opening up for man to receive direct, unmediated knowledge, you will boldly support the creation of a new knowledge order and thus a new world. You will lift the World Library from being just a "knowledge bank" to a "right to knowledge" on par with the "right to live".

Yes, there are technological challenges, of course; they must be taken very seriously. But give it a thought: by direct brain connection with the World Library, individuals will achieve a higher level of intelligence that can work for a world with fewer conflicts, better physical/mental health and …. You name it! This is my passionate opinion.

As to marketing: Do not worry - the World Library's reputation will not be damaged as this proposal is only about making knowledge available. It has never been our role to determine what man does with knowledge – just as it should not be our role in the future.

I will give you a final quote from Dr. Seuss whose work reflected a passionate resistance to any kind of oppression.

You have brains in your head.

You have feet in your shoes.

You can steer yourself

Any direction you choose.

You're on your own.

And you know what you know.

And YOU are the one who'll decide where to go....

Vote yes for humankind and civilization!

Next comes Mr. Christian B. Knudsen, Head of the Engineering Department of the WL, who will be speaking against the motion.

Mr. Knudsen!

Christian B. Knudsen

It is the recommendation of the WL Corps of Engineers that direct loading of data to human minds be not approved by the board.

We present the following two objections:

The first concerns the risk of two-way communication between library and brain. Due to the limited understanding of non-localized quantum communication, the theory behind the Einstein-Podolsky-Rosen suppressors, we cannot guarantee that we are able to avoid at least partial duplex communication between WL and an arbitrary brain. Two-way communication between WL and even a small number of human brains, might lead to the emergence of nonlinear, intelligent behavior in the WL Hyperframe. The consequences of a massive, intelligent computer system are unclear, and the risks are completely unacceptable.

The second objection concerns security: Security is not absolute. In the last 50 years, security around WL-computers has been compromised three times. Even a single breach of security could give hackers the ability to upload data to human brains. This could be relatively benign, for example giving the global population an irresistible urge to buy a certain product. Or it could be catastrophic, for example reprogramming autonomous functions in the brain. In the latter case, humanity might face an extinction level event, leading to the complete collapse of human civilization.

Therefore, do not do this!

Thank you, Mr. Knudsen.

8. Vote on the motion to allow individual brains to be connected directly to the World Library

And now, dear colleagues, the momentous moment is finally here. As you are aware the proceedings are transmitted not only to the megascreens outside the library, but to the whole world whose eyes are on you.

As President of the Board of the WL, I now ask the members of the Board to vote on motion 2090/7 concerning the right for all world citizens who so desire to have to direct link-up between their brain and the World Library.

I ask all those in favour of the motion to raise a hand …

Vote counters, please!

I now ask all those who are against the motion to raise a hand …

I finally ask all those who abstain from voting to raise a hand…

[The vote counters approach the president and inform him of the result.]

Dear colleagues I declare that motion 2150-7 has been defeated in a vote by the Board of the World Library and will not be put into effect

God help us all!

9. Conclusion: the WL is the ultimate victory of the idea of the library

You may find it curious that in the generation before the creation of the World Library many librarians were wondering whether libraries had a future. Well, as it turned out, the Library – with a big L – actually had a great future. The library history before the World Library was simply one long lead-up to the fulfillment, the blossoming, and the final realization of the library idea. The defining event was the transition from local libraries to the ubiquitous, digital library.

Evidently, the success of the ubiquitous library meant the death of the many local libraries, established in the book-scarce period, and having the responsibility of storing print literature for the use of a localized user group. National libraries and the great cultural heritage libraries have survived, but their function is not really to serve a specific local user group, but to preserve and make national or historical collections available to the world community through the World Library or on the spot, as needed.

After the World Library came into being, most local libraries were integrated into or formed the basis for other types of service facilities, for example the culture centers of local communities and cities, and general academic service centers developed at universities, under many different names. Embedded in the services of such centers are assistance and courses in using the World

Library and more generally in the retrieval, use and management of information and data in that library.

And, as you know, the profession of librarians had a glorious revival when Mrs. Pipa established The World Library School as one of her last acts of office. The WLS grants three degrees: Elementary, Intermediate, and Advanced. Thousands of young – and elderly – people graduate from the school every year. Many of those with E- and I-levels soon find employment in the centers mentioned above, in private industry, and in universities where they have proven, among others, to be excellent research assistants due to a well-planned and innovative study program at the school. And graduates with A-levels are eagerly picked up for senior positions mostly in the information and media industries, but quite often in other areas too, depending on their individual profile of professional and scholarly competencies.

In brief, you could say that the local, physical library had to give way to the ubiquitous, digital library, and the librarians of old had to become the World Librarians of today.

And on this note I should like to finish my World Library Jubilee Address.

The next speaker is Mr. Underhill, the Deputy President of the World Library, who will be talking about the future, or more precisely about the next 50 years of the World Library.

I confess that I am personally amazed that people dare to make assumptions and predictions about the future. Just think of how wrong all predictions about the future library made in the beginning of the century have turned out to be!

And I should like to quote the words of an otherwise unknown Deputy Director General of the Royal Library in Copenhagen, Mr. Michael von Cotta-Schönberg, from way back, in the year 2013. He said: ”The past is an everchanging theatre of interpretation; the future is a stormy sea of potentialities; only the present stands firm, but it just lasts one second - fortunately!”