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To the attention of the senior manager.

I will try to describe how a Hybrid library should work, considering the current IT requirements.

I will put myself in the shoes of a professional user, not the librarian's since I have never occupied such a position except for a three month internship during my early university days. We should not forget that this work aims to focus on Italian Libraries, therefore we should consider the different level of e-education of our country compared to England and the other countries. I will talk here of a country which hosts one of the biggest paradoxes in Europe. We have some of the hugest Internet Providers in Europe such as the "Sardinian" TISCALI, VIRGILIO, TIN, KATAWEB, SUPEREVA, JUMPY, EXCITE, INWIND; INFINITO ecc. The Access to the Internet is not for free for a private independent citizen who does not belong to any private or public institute. So, even though between 1998 and 2002 the trend was of a 20% rise in the access of the Italians to the Internet, we should consider that many citizens whether they be students or people working in the independent professional field still use only SMTP services to convey files¹. Nine million users use Internet habitually, whilst at least eleven million people use Internet more than once a month.; if we go further and include all the people who use an e-mail service we must conclude that thirteen million and a half people use Internet in Italy nowadays. If we compare our users to Europe's, we can see how Italy has climbed the ladder and from 2002 to August 2003 it has become the top country using Internet for work activities². At first I didn't clearly understand why nine million of these users use Internet only at home. The Broad Band was implemented no sooner than three years ago, and small and medium size

¹ <http://gandalf.it/dati/dati3.htm>.

² Ripe Network Coordination Centre.(Ripe Réseaux IP Européens.) www.ripe.net

cities, especially in the south, were reached by this service only last year. Until March 2003 We counted 1,7 million broad band accesses in Italy, 700.000 more than in December 2002. We may add, Cable Internet is another facility which is spread out over a very large area but still with few users as the costs do not appear to drop despite the increase in the purchase of broad band services in the first semester of year 2003. Despite the fact that 72% of Italian enterprises have got on-line access, and despite the good cover in terms of clients and area of Internet, people still connect at home instead of in the office or at the University library. Still we may consider that the broad band and the cable have reached the firms and the University some years before the private users could have access to it.

According to the data provided by the Minister of Innovations no later than on the tenth of October, after ten years(the data covers from October 1992 to 2002), Italy on average spends 4,26 percent in Information Technology(which puts us at the third last in Europe, ahead only of Spain and Greece) and about four hundred euro are spent for each person employed in that field.. The worst thing is the digital divide in our country³. Lombardia(Milan) spends 22,7% of its PIL⁴, whilst some Southern(but Northern too such as Valle D'Aosta and Liguria)regions spend less than 1% of their Pil. The paradox lies in the fact that Southern Italy has got the highest percentage of "New Born Firms," 8,3% compared to the national average of 4,9% . Still 2/3 of the population⁵ seems to know nothing about Internet.

I was not aware of this data when I carried out a survey no later than last month⁶, that shows how the majority(more than 90%) of the University students use Internet at home rather than in the relatively few workstations provided by the University Libraries.

If we start from this data, we immediately understand that the potentiality of an Internet focused library service is huge. When I think about how a Hybrid Library should look, I always think about ICELAND. Between the eleventh and the fourteenth centuries A.D when Iceland was homeland for many tribes of Norsemen settlers, people would gather a couple of times each year (especially at Jöl in December) on the Farm of the richest free land owner. The richest owner had to host their guests and organize banquets, trials, competitions, magic ceremonies where either good or bad harvests were forecast and closer to our current interests, they also hosted written knowledge. In fact, the only books available in that period were to be found in the farms. The farms were like today's giant

³ <http://www.unionesarda.it/unione/2003/NZ1010/ECON/ECO01/navipdf.html>

⁴ The Pil(Prodotto Interno Lordo) is the Gross Domestic Production in a year(GDP).

⁵ We must remember the percentage of elderly in our country is raising, and in a few years it will cover more than 60% of the whole.

⁶ See also my second paper on Applied Research in Information Studies.

mainframes which are stable systems able to manage a large number of peripherals and interfaces. The ancient Icelandic guests were like the users at a workstation, or a terminal, which are configured with a software which allows the user to have access to a specialized range of information.

This kind of software is going to be replaced as soon as a new platform is developed allowing users to have personalized menus to get the information they need. Icelandic farms were spread out over a huge territory and someone had to row come rain or shine for two weeks all the way from one bay to another every time a big gathering was decided. So, Italian users seem to prefer staying at home and not rowing to a Farm-Library to borrow books or to surf the net looking for books or information. Do our users think wisely? Do we need to develop a type of software enabling us to share contents with other libraries or Institutions? I think yes is a good answer, still, my small survey showed me there are plenty of users who like the paper format of books, in spite of the slow lend-out services and the lack of a platform for library users widespread all over the country and why not, worldwide.

My assignment allows me to look into the current technologies found in Italian libraries. I will then explain why some technologies can be considered preferable to others, according to their relevance that permits libraries to reach a better internal and external access organization, and what's more, a sensible cut in the expenditure, and last but not least, to please the users' eyes.

From FTP(File Transfer Protocol) to Proxy Server, some ideas to develop a Quick Delivery Service.

According to *News From Sla & Sla*⁷, almost anything from the British Library will be delivered to a desktop within two hours whether this item be digital, in print or microform in origin. This new electronic delivery service is based on Adobe Reader 6.0 and Release International's scanning and delivery technology. This technology is easy to cope with and more secure than the former ones. Why security?. For instance, the current login systems do not grant full security. Anybody could hand over her/his username and password to anyone or, the passwords could be easily lost. In this very moment there isn't anything comparable to Blackboard 6.0 in Italy. Italians are trying to develop different systems to grant a high level of security to the Hybrid Libraries, but, some of these systems turned up

⁷ "British Libraries Unveils Electronic Delivery Service, New 'Turning the Pages' technology" in *Computers in Libraries*, Sept 2003, Vol 23, Issue 8, p.8.

to be a failure, or a partial failure. Given the difficult situation in which e-librarians are working, sometimes this flaws had to be restored by implementing other devices on the run. I will try to describe two kind of security systems. How will the first system work? Well, let's say, there is no student in Italy able to manage his/her net space from a University portal. This portal will be able to manage all the users whether they surf in the library or outside it. For the external users a "firewall" will be activated to check at first if their IP appears in the database of the portal. We could develop the security in a main direction, by using a simple **cookie**, which is nothing but a text-file containing a "key"(which will be related in our case to the couple USERID/PASSWORD). Our browser will store the cookie in a directory made for it. So, the user, whether internal or external can unplug and plug in later; or maybe he will just surf another site and then come back to the library homepage: the server will then check if a "homemade-library" cookie is present. If the answer is positive, and if the cookie hasn't expired the system will grant me access without asking a second login. Why cookies? Well let's say that HTTP, the master protocol on which the Web hinges, was projected without thinking about the possibility of "maintaining the State", or we can define it "Maintenance of different work sessions." Many portals can be defined CMS(Content Management Systems) and/or CRM(Customer Relationship Management) and they use either a PHP Nuke platform available for free, or the "old" Oracle system which was widely used by banks and public offices in the past and cost many thousands of pounds. In my opinion Ultra Access, which is more a project that a ready-to-use system should develop not into a Mega Portal but should become a Meta Portal. We shouldn't try to organize the whole universe of information inside a site, but we should make sure every portal can give access to another portal, each portal keeping its own identity, its style, its written and visual layout, still integrating at a **vertical** level with the technology of all the portals.

The Proxy Server.

The second system , which is similar in some ways to the former, is based on a **Proxy Server**. The Proxy's "ancestor" was the LAN, which was divided into the client(the workstation asking for data) and the server, or the station answering to the client's requests. Nowadays a Proxy server can grant an intelligent and secure access to Internet through one gateway. It is a server-process similar to the previous back-end-front-end system that carried out all the processes partly in the Server and partly in the Client; in this same way we see the SQL process being carried out in the Server, but the application could be easily called on by the Client to question the Sql-Server.

Now, why do we need a **Proxy Server**?

It allows clients to provide one useful gateway to the users inside the LAN of a library in our case. We could not for example have a single access to Internet from every and each desktop, therefore we concentrate our access in a “cross-road” in the net. In this way we only need a modem, and we can set up the whole system configuration on that “knot”, that is our gateway which it is in the net. Surely we must set up the Proxy client but it is not difficult as we can configure our “traffic” as a particular kind of HTTP, a web only protocol, which has been modified over the years to allow the introduction of a *cache*. The **Caching** system was implemented to optimise the functioning of the LAN especially when we don't have the broad band at our disposal. So what are we to do? We will cache the Proxy by storing all the data. I'll try to simplify: the Client asks the remote server for some documents; the Remote Server gets the answer and the Proxy Server processes it before handing it in to the Client. The file requested will now still be present in the Cache inside the Proxy Server. So the next time someone asks for the same document the LAN won't need to connect to a Remote Server.

Security

A **Proxy Server** can be working teaming up with a Firewall.

A Secure Access.

Our user will have access to the server only through the Proxy which is a shield between our internal Lan and Internet. Once again, like in the case of the cache, we will use a program called **Wrapper**, which will play the broadcaster, re-sending the users' requests to the Proxy.

We could use the same process from a desktop anywhere once the Proxy has recognized our IP and checked out if our password has not expired. Anyway I am no sure a normal firewall is enough. Many hackers, or more simply, the intruders are able to individuate the Lan, the numbers of the various Ips, and stealing some passwords they could bash in the “Bastion Host” and rush into the Net. We need a Proxy easy to handle and it should start its work from the Firewall. machine. So our Library users will be “inside” the firewall and they will use a HTTP protocol, so the Proxy Server installed on the Firewall machine will make sure whether the requests from a Remote Http server, a FTP server, a news server, or whatever, are suitable or not. The thing I want to emphasize is the fact that by leaving the checking to the Proxy server, we can virtually develop any software paying attention only to the functionality of the HTTP process from the Client to the Proxy Server. All the protocols with whom the Proxy Server “meets”, can be adapted to the main HTTP

protocol. The Proxy Server allows us to define the Hosts where the HTTP commands are allowed.

Anyway, nobody yet has invented a system one hundred percent secure. We should provide limited passwords and limited time before these expire. We could add some software such as the so called **Trusted Third Party**. This system will crypt our password avoiding its passage “in clear” through the net.

There are some other devices called, **Sockets**, or more informally **Socks!**

These are types of communication channels(TCP). We could imagine them as real pipes, even though they are virtual ones, which are very useful to link two systems in the HTTP protocol. These Socks are made of two parameters: the **machine address**(an IP address), and the number related to the **entrance** which characterises the type of service; for example number twenty-five for the e-mail service, and number eighty for the Web. With these two parameters set up on the web-machine, working like coordinates, X=address, Y=entrance, we are able to link to the same address(the same machine) more than one service at a time.

Planning

I will provide here a real example of the functioning of a small library

I have chosen the Central Library of Humanities which is one of the Plexus of Humanities which also includes Biblioteconomy, Italianistic, Latin & Philology.

Should Librarians become Factotums?

Problems related to the transition of a Traditional Library into an E-Library.

Managing a Hybrid Library could be a very hard nut to crack, especially if the front staff is forced to keep old technology processes and to acquire and teach the new ones.

I had the possibility to observe how the Front Staff of the small library “Centrale di Lettere” does the work that with a better organization, members of back staff should do.

Reference

According to the Referee in charge, (the staff includes three persons who act both as front and back staff), the service of reference is a much appreciated one. About a hundred and twenty-five students asked for a reference within the last sixteen months. We must take into consideration that this service is almost totally used by graduating students. Yet, although positive, I think this service must be reformed. The problem is not with the person in charge who is very skilled, although in a traditional way, but I think the problem

lies in the time wasted. As we will mention, the library has got a database at its disposal. Parma University itself provides an Opac which helps us to find whether a book exists or not within the Parma provinces. This service hinges on WEBSPIRS a platform we can find if we link to the ERL service. This is a database offering all the sixty five databases belonging to the libraries of Parma and its provinces. Few electronic journals complete the sight. Incomparable to Northumbria, as I will point out later there students are able to have access to these resources with the Desktop Anywhere service. The main distinction here in Parma, and in Italy, is that there is no off-library access, and sometimes there is no off-librarian access, so it seems all the resources should be handed in to the students by the librarians. If a student who pays his/her tuition fees does not have access to the e-journals, and/or if this possibility is not clearly advertised time is wasted, as, any student who knows a few key-words can surf a database in English. It's true that many students do not know English, but we don't need the knowledge of the DEWEY code to search an e-journal. The same thing applies to the tattoo service.

Tatoo(spelt with one T)

This service works only on the Plexus LANs. It is one of the best Learning resources of the Plexus, yet it works only on Intranet and students cannot have an easy access to it.

It consists of a system which supports cd roms and copies them onto large files. It is not like the Proxy system since there is no "contact" between the internal LAN and Internet users who may be external. We may refer to it as "Transition and modern technology" because it is a blend of old legacy, such as manuscripts or laws etc, which are then digitalized and sold as common cds. Once the cdrom is put into this LAN, it is copied and stored. We are not talking about multimedia dvds or dvxs, but text files with hypertexts. The security access to this database lies solely within the range of IP numbers, it is managed by an external department, called "Centro di Calcolo Elettronico," IP 160.78.48.68.

I wrote twice to the manager of that unit to have some information about the functioning and the managing of the software but, after five working days, I had no response. A simple program, which is, according to the manager of the Central Humanities Library, hardly requested by the users; at the department of Latin and Philology I had exactly the opposite response: it seems the program represents one of the top requests. So there is evidence that each small library plays a role shaped by the users. In fact although many works are available for lend-out, as well as the books which are part of the reading lists for the

exams, the Central Humanities Library is mainly used for surfing the Internet and for the study room.

A Small Triangulation.

With the help of some data collected in Parma, as well as the questionnaires I had given to many students in Rome, and with the help of a small “follow-up”, after the first screening, I was able to compare the services offered by Parma libraries to those offered by some of the major faculties of two universities in Rome, “Roma Tre,” and “La Sapienza.” In Parma, the access to the Intranet databases is regulated by an IP ranging between 160.78.48.68. and 192.135.11. The “Centro di Calcolo” department is in charge of the whole intranet system for Parma University. That means a student should apply to the administrator to have a password, which is normally one of the managers in charge of the functioning of the whole server. Once we have this password we could try and use it as an INTRANET password, easy to say, desktop anywhere service doesn’t exist. I think a wider service could be implemented once we can really “detect” each user from any desktop. The lack of an high security standard causes less facilities for off-campus users. This is Parma. The worst service I could report from my Survey, and my small follow-up, is the Humanities Library of University Roma Tre. This University has got new study rooms, but it is almost impossible to have access to any librarian service on-line not on a Intranet LAN. Electronic databases are mentioned on the site, but they are not available. In this case you cannot even surf an Opac to see whether a work is available or not if you are not identified as a student. Other E-resources, such as e-journals aren’t available for the students who aren’t physically inside the faculty either. As some students have reported, it seems that no Reference Service exists. The last Library I could report on, is the Psychology Library of the University La Sapienza. The plexus is divided into three rooms which make only one library. The study room is reported to be overcrowded and many tables do not have any facility such as a light or even a chair. There is a traditional lend-out service managed by front staff, whilst the Reference service, although present, is managed by young students. These students are not students of biblioteconomy and are in charge of the highest service offered. Leaving the reference service to younger students can mean either that the qualified librarians have the luck to be focused on more important tasks, such as developing the e-library system, but this is highly unlikely as it is all left to old

traditional librarianship know-how, or, maybe they simply do not understand anything about the databases which are mostly in English. The fact that many documents and e-journals are being issued in English is drawing a deep divide, added to the digital divide between young and older generations. So, exists in the Psychology faculty a service of quick delivery by mail. This service is for free, whilst in Parma, quite rightly, every printed page found by the referee will be charged to the student (5 cents per page). I think we could enhance the services by paying for them. But the bad thing with our university Libraries, a part from the Psychology Library, is the total lack of even a handy-to-use service like e-mail quick delivery.

I think if many students had the passwords to access anywhere, they could search the database themselves and leave the reference services for something more useful. So, I hope we understand how important the renewal of our security system is, so as to make things easier for students.

Assessing the Value after Investigating the Demand.

Once William Y. Arms wrote: *“Libraries are expensive and research libraries are particularly expensive. Even in the United States, few people can afford good access to primary scientific, medical, legal and scholarly information.”*⁸

We must clear up one point; users may not be aware of the services which a modern electronic and/or digital library should provide.

The question is whether or not the e-manager should bring about a demand for new services, and if the answer is yes, to what extent should it go beyond the immediate needs of the average users.

The focusing on these matters turns out to be of vital importance for the development of Hybrid Libraries which is the task of this paper. We should check the outcomes of our surveys to decide whether the expectations of our users are poor or average or on the contrary they may be too futuristic if compared to the technologies in our possession.

As a consequence we don't know if we could create any demand in the immediate future. For this reason we could try to “guide” the demand, otherwise users may be too unpredictable, given the fact that they may not have clear in their minds the whole

⁸ William Y. Arms, “Automated Digital Libraries”, in *D-Lib Magazine*, July/August 2000, volume 6 number 7/8.

functioning of a modern hybrid library. Many of them could come face to face with services they have never heard of, or even dreamed of, and being only dreams, they may be unable to articulate these needs. So, first of all, we should provide information to all users; after that, we could start and check if the services provided are useful in part or totally.

In order to raise new demands I think we need two things to begin with: autonomy and motivation for our users.

Before I carry out a small scale research to investigate the needs of our users at the university, we should assess users' readiness for an autonomous bibliographic research whether it be manual or digital. Is autonomous investigation present and available for all users? I am quite sure that only ten years back the libraries whose categories were considered modern did not offer a precious facility: autonomy.

Generally libraries tend to prefer e-mail services in their attempt to reduce expenses. In Italy a good part of this technology is being developed by independent web communities which concentrate either on a single or on many different subjects. We will see how the differences between Britain and Italy work, since, the Italian tendency is to avoid developing internal technology and choosing technologies implemented by private service providers.

Starting from the Host.

A good hybrid library should have a homepage from where distant users can start their research.. Many independent service providers or small private libraries use technology called Php Nuke. It's a platform technology available for free. This platform is quite similar to the ASP platform provided by Microsoft. Seventy percent of the students forming my sample subgroup which answered my survey on-line and hundred percent of those off-line weren't aware that an e-mail quick delivery service already exists in our libraries, and although some of them lamented the fact that in order to get books one is obliged to go to the library, nobody came out with a proposal to install a Delivery Service to begin with, in order to improve the whole thing.

I didn't expect them to ask for a more secure system, but there was a general demand for GUIDANCE, PERSONALIZED TUTORING, SPECIALIZED FRONT STAFF, and a wider RETRIEVAL. Still, the majority of our users do not feel that an electronic library could solve their problem of access to information resources. So, I think we must grant

absolute freedom inside the library, but we should guide the demand for new services otherwise new services won't be ever improved.

Hosting Visual Contents

Visual contents must play an important role in the development of a Hybrid Library, both for those who surf the database inside the library and even more for those who can have access to the library only or almost from its digital version. This visual motif should enrich the written sections made by the FAQ, FORUM, JAVA CAFÉ etc. In speech visual language helps the speaker to check and have some control over someone else's speech. According to Van Leeuwen & Kress⁹ :

writing itself is of course a form of visual communication. Indeed and paradoxically the sign of the fully literate social person is the ability to treat writing completely as a visual medium—for instance, not moving one's lips and not vocalizing when one is reading, not even 'subvocalizing'(a silent 'speaking aloud in the head', to bring out the full paradox of this activity). Readers who move their lips when reading, who subvocalize, are regarded as still tainted with the culturally less advanced mode of spoken language.

This kind of attitude towards visual literacy does not exist anymore. It's time to give back to writing and reading its visual component. It was just like when we moved from Dos to Windows, the only thing that puts users at ease, and actually makes things easy, is by visualizing it. A modern Hybrid library should not lose its power of pleasing. Entering an old building and finding it very comfortable inside may please the reader and put him at ease, still everything could be spoiled if the digital soul of a Hybrid Library is not handy, if we see the front staff as disconnected from the digital work station. So we must please the eye making things fully understandable as well as enjoyable.

Therefore many modern bookshops on-line, which sometimes provide some useful librarian references too, apart from trading, decided to go for platform similar to Microsoft Asp. Asp is a development of Php technology. ASP alone doesn't work, but the package needs an engine to start, a server which normally is either Internet Information Server(IIS) or Personal Web server. All of them were provided by Microsoft with Windows NT and Windows 95/98, which are the systems in use in the majority of the Italian libraries. I expect that in a few months as soon as Windows XP or the coming up Windows 2003 arrive, a new system called Windows ASP Net will be working. It can give the

⁹ Theo Van Leeuwen, Gunther Kress, *Reading Images, The Grammar of Visual Design*, London, Routledge, 1996, p.4.

programmer new possibilities to net working with other interfaces. British libraries are developing the TPP, Turning The Page 3D system which we have already mentioned . It is touch screen technology and animation. In this way users can “turn the pages” of manuscripts and books which appear now as real books. I thought we needed something similar and without actually knowing it, I wrote about this earlier this year when in my “entry-paper” I explained how manuscripts and out-of-print books are not lent out, nor photocopied(it happens in Monteverdi Library at La Sapienza.). I had suggested that libraries could produce multi-media cdroms with the old manuscripts or the books copied into it. Many universities had already started to do it, among them Cosenza and the Romance Philology department at Roma La Sapienza, and there were good blueprints in this direction such as “Reti Medioevali” or “Rialc”-(www.riale.unina.it). So, the British Library eventually implemented this script and visual system for reproducing and showing either on line or by intranet an entire catalogue of both new and old books. I think this is exactly what our Hybrid Libraries need from now on. We mentioned how some independent web communities operate as service providers, yet, many service providers did not start as “open source” services for students. There are many small enterprises which provide private services to the libraries, selling them to libraries which in this way can count on a great variety of databases. To these kinds of service providers, belongs for example IFNET¹⁰. This is an example of how private providers furnish their services to public libraries, special libraries, academies, private research institutes, etc.

Someone may think that not developing technology could be helpful to maintain a library available for a whole range of users, from the specialized one to the regular reader, who can easily turn into a regular customer or subscriber and distant learner. Still, I think a library should develop its own technology as well, and re-sell it to a large public. I am sure the ULTRA NET European system, which is the primitive form of the new TPP British technology, could help the libraries to become stakeholders and editors of their own publications. Libraries could develop some small publishing department, related somehow to the public or partly-public institutions such as the universities. A library could develop its own technology and sell it to other libraries, but it is not sure whether a good deal would come out of it. Still, a library could lend out its own databases to other libraries, and I mean here University libraries. We could come back now to the old ULTRA NET or the new TPP technology. If the front staff of the library can develop projects in order to provide at low costs electronic copies of old manuscripts, in quick delivery version as well

¹⁰ For further references see www.ifnet.it

as intranet open texts, universities could allow users from the whole intranet librarian system to work on a hypertextual manuscripts or any digital version of a book, keeping the foreword, the comments and the footnotes of that book open to changes and further developments, for free.

The Web is changing the nature of our relationships.

I thought in Italy there are some web communities which offer some of the services a public hybrid library should be able to offer. I contacted the management of the biggest of those, The OPSONLINE web community which has developed a system based on credits. Users can get their credits by taking part in forums, by providing news and suggestions as well as developing their own homepages; with these credits, they download documents such as e-journals or abstracts, or they can take part in courses held by specialists to whom they would have had to pay real money otherwise. This is only an example of how contemporary public life reforms our old conceptions of attendance and communications. Our workspace has become a continuum of links between our former presence in the physical world of relationships either personal, formal or informal, and between a new space which gives us the “Utopia” of a possible ubiquity, because it multiplies our possibilities to communicate outside our “social area” and inside a new space for digital based interactions. Still, these interactions are really just like the former ones, because they are “Hybrid” which means that they can be digital to a certain extent but human curiosity pushes us to try and get to know the people we work with better. Leisure time or job relationships which are totally digitalized could work but many parts of our social sphere would still be missing. We could take and blend the whole thing; a digitalized world is a prompt as long as it works to acquire information, but on the other hand we can choose to live part of our lives in a web community. What counts are the relationships which are going to be implemented on line. Either with the librarians, or with the other members of web communities(which in a future time and space, as soon as everybody has access to web surfing will be a synonym for the “world community”).It is not so much the physical part which counts for the world to exist, as the sense of community and belonging to a group. These feelings emerged in the forms I was given back after I had carried out my survey among the University students who are used to having access to the internet shared resources. It’s surprising how 100% of the sample group which was divided into two subgroups of 20 subjects each, haven’t ever heard the terms “Hybrid Library”, even though from the open answers to the questions we can conclude that there is a high rise in the

demand for e-services and personalized reference, which are some of the aims of the Hybrid Library. There are some scholars who wrote that non electronic libraries, at least in terms of their support systems, could not be named libraries anymore¹¹. I think this is true, and it is also true that PCs have become cheaper, but we should not forget that many libraries in the developing countries cannot raise enough to buy new technologies, so it doesn't seem possible for Hybrid Libraries to exist where there isn't any money to build even a traditional library. For these countries, developing a complete digitalized access to information at low cost should be a must and western countries should play a part by providing easy access to databases for free together with the possibility of getting terminals at low cost, given the fact that many PCs we buy now could be sold out at half price in a year or so, so we could give relatively new PCs for free or almost for free. By storing paper data belonging to these countries we will achieve three goals. First, we will preserve old cultural materials otherwise at risk. Second, these countries could develop their own digitalized "new" material. Third, by broadening the access to information we enrich both the offer and our pockets as anyone who surfs a site pays the phone bill, or a fixed fee, however low, for any single access.

Apart from that, many people, including librarians, working in the services are asking themselves how we could keep the same number of employees in a digital services age.

Conclusion.

Many of the things mentioned before could have been considered part of the conclusion. There is no conclusion to a Library focused work. I hope to have made clear that our country has got the know-how to develop splendid Hybrid and Electronic libraries. We lack team-work and public money. We are now able to offer second level degrees (Master degrees) in Biblioteconomy, and further specializations too (called second level masters degree) in the Biblioteconomy and Knowledge Management. Yet, each University can decide whether a course will have many credits for the students to get into the biblioteconomy field or not. As Professoressa Tammaro has pointed out recently¹², the same degree in biblioteconomy can be awarded with few credits in spite of other

¹¹ Owen, Tim, "Guest Editorial" in *The Electronic Library*; 2002; 20, issue1, p.5.

¹² Tammaro, Anna Maria, "L'insegnamento universitario delle discipline dell'informazione dopo la riforma della didattica." in *Vent'anni di AIDA: la documentazione fra teoria e applicazioni*. Roma, 2003.

universities which grant up to one half of the entire amount of the credits to be acquired by the students towards a Librarian's degree. Until these degree courses were activated, Italy was the only nation where the Information professionals were trained only in their workplace. I came to the conclusion that technology is not the main innovation in forthcoming libraries. It is the librarian. Some awful librarians I had to face in my student days are still etched in my mind. A library should be an active cradle for young researchers to pursue their studies and for young librarian-researchers which will develop the library itself. I foresee departments devoted to the implementation of new software as well as those which will manage the web-publishing. I foresee the customer's satisfaction as one of the priorities to achieve. I imagine there will be more cooperation between the e-professionals and the university staff, and many technicians will be hosted now and then to assess the quality of the service provided and to do their follow-ups after the previous screenings. For instance there are many public companies which do not make any screenings to evaluate customer satisfaction.

Yet, the old books won't disappear. We will keep the physical location of our libraries, therefore old books will be still available although digitalized and free to borrow for the students. A library will have two souls, one linked to its physical state, an important space that will be hosting all the services available nowadays, plus, in the case of a huge building more services such as lectures, shows, and training will be available on the premises. For those living faraway or that cannot reach the library directly, the digital soul will furnish a new setting for a community where social values will be kept and maybe enhanced. Many studies are being made about how easy it is becoming to get involved in a feeling of participation when a group is made on-line. The formal divide between the librarians and the students seems to vanish in the net world. Less formality improves the level of cooperation, so that is a good thing either for those people who work and want to take part in HYLIFE learning, or for those students who cannot spend much time in queuing up for a slow overcrowded traditional service, or for those who are just too distant from a library.

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