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NEW INFORMATION TECHNOLOGIES TRAINING, QUALIFICATIONS AND PROFESSIONAL PROFILES

CULTURAL PRODUCTION AT A TURNING POINT: WHAT DOES CONVERGENCE REALLY MEAN?

*T*his material was presented at the International Conference organized by the Council of Europe and the Town of Rome on the

Cultural work within the information Society
Rome (Italy) 22-23 October 1999

*I*am indebted to

> Dr. Berardi
>
> Dr. Campioni
> Soprintendenza per i beni librari
> della Regione Emilia-Romagna
>
> Dr. Chiocci
> Cliomedia
>
> Dr. Cosenza
> Horizon
>
> Dr. Cossetto
> IpL
>
> Dr. Franchini
> Cliomedia
>
> Professor Giannarelli
> Archivio Audiovisivo del Movimento
> Operaio e Democratico
>
> Professor Ortoleva
> Cliomedia

*F*or their suggestion on what is happening in the field of cultural work

InI.

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INTRODUCTION

*T*he Council of Europe issued a draft Recommendation (October 1998) on Cultural work within the information society and began a broad consultation process (December 1998 – February 1999) to gather opinions on it. On this basis the Recommendation was redrafted and issued on 9 July 1999. The scope of the Recommendation comprised the cultural industries as well as the cultural institutions, which are formally defined; the scope was also extended to the audio-visual and the museum sectors.

This background paper, specially prepared for the Conference in Rome in October 1999, which deals with cultural institutions and the audio-visual sector, will analyse more deeply and assess the formally declared goals in the light of the results of the consultation process, of the outcomes of the many different experiences and research in this field all over Europe and in the rest of the world, set against the background of an ongoing process of research (to be issued in February 2000) into the changes in cultural work in the Emilia–Romagna region of Italy (see Appendix 1).

This paper will be organised in such a way as to follow the articulation of the updated version of the draft Recommendation:

1. Definitions

2. General Recommendations

3. New professional profiles and key competencies for information professionals and knowledge workers

4. Public Powers

5. Explanatory memorandum

and will lay down its arguments in a general way; specific illustrations, according to the nature of the topics and to the knowledge resources available can be found in Appendix 2. A critique of the general conceptual framework of the draft Recommendations will be the starting point of the paper.

In the light of the comments included in this text, we would like to propose the following amendments to the Recommendation:

Point 2 – General Recommendations of the Draft Recommendation

To add one recommendation:

vii.   *develop Organisations supporting co-operation between people with different culture, skills and mental attitudes;*

and to redraft the current points iii) and iv):

create awareness for, and adapt their policies to a joint design and implementation of technological and organisational renewal with a full exploitation of ICT potential and a full development of human skills;

actively encourage and support the creation of a framework for organisational renewal and development of cultural industries and institutions to make possible the creation of new work attitudes which complement old ones to accomplish the goal of a successful joint implementation of ICT technologies and brand new organisations.

Point 3 - New professional profiles and key competencies for information professionals and knoweldge workers

To add after point iv):

All these profiles should be considered as building blocks of specific, broad and, if necessary, cross-cutting career paths congruent with the specific branch of cultural activities at stake.

Point 4 - Public Powers

To add:

Public powers should enact a policy of citizenship extended to the networks: the opportunity for each citizen to use network, as a claim to citizenship within his/her local communities, such as Cities and Regions;

4.7   Public powers should provide publicly available points of access – such as libraries, cafes, clubs, etc. - for a proactive and productive use of the networks to make possible, as an educational and promotional scheme, for everyone, namely young people, to design, to produce and to distribute web-based products on the net.

General concepts and definitions.

The importance of the Recommendations must be underlined and this was indeed the case in the consultation process. This stems from two concurrent factors: the very low political status of a public discussion more concerned with the labour implications of ICT than its business or technological aspects and the risk of purely reactive policies in this field. The importance of this political act will not be diminished by the necessity of a clear re-positioning of part of the analysis as to the three main issues concerning **globalisation**, **convergence** and **new organisational patterns**. This necessity was also stressed in the consultation process and the arguments of this criticism were clearly stated; the reason why this paper will re-examine some of the points already dealt with, namely **the convergence hypothesis**, is that a strong bias over this key analytical point can be found in strong technologically-based policies as those presented in the Green Paper on Convergence issued by the European Commission in 1998.

Convergence and persistence.

The process of technological convergence has been envisaged ever since Norbert Wiener's seminal work in the 1940s[1].

What remains completely undemonstrated is that the process of technical convergence, that is the development of a common support for different communication media (radio, TV, books, newspapers, etc.) implies that:

✓ the same tool, whether it be a TV set or a PC, will be utilised to use different products;

✓ a new unified cultural industry will rise up blurring the boundaries between "old" cultural industries;

✓ a new unified economic regime will rule the new unified sector;

✓ a common system of regulation has to be implemented because of this unification;

and lastly, relevant for the Recommendation,

✓ the new "productive" sector, based on a common technology, following a common set of economic rules and obeying the same set of market regulation rules, will lead the way to a new set of common skills and a new class of specific workers and professions.

In a recent discussion in Italy many main objections were raised to this interpretation of the convergence process, which was ironically labelled as *the "great" convergence* (Ortoleva, 1997):

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[1] Norbert Wiener, Novembre 1947, Introduction to the book 'La Cibernetica'.

(a) epistemological. The systemic nature of the media (Ithiel De Sola Pool) does not imply that blurring the internal articulation of the system will improve its performance. This idea means, for instance, that for us to read a book from the screen of a PC or a TV set has proven unrealistic and that there has been a truly systematic underestimation of the new possibilities of system's evolution as a whole. In regional research what seems to be a real trend is a different positioning of the "old" media in McLaughlin's map. What was, for instance, in the past, in the quadrant of content, is now in that of services, meaning, for instance, that a book is no longer only a product but can also be a service; this evolution, in turn, implies a different regulatory scheme, different economics of production, different systems of distribution and, for the user, different modalities of use. It also implies different skills for the workers. For this reason the draft Recommendation should also take into account the problem of the 'progressiveness' of the process of change and its bilateral nature, that is the need to maintain the basic "identity" of "old" professional activities, such as that of the graphic designer in audio-visual work.
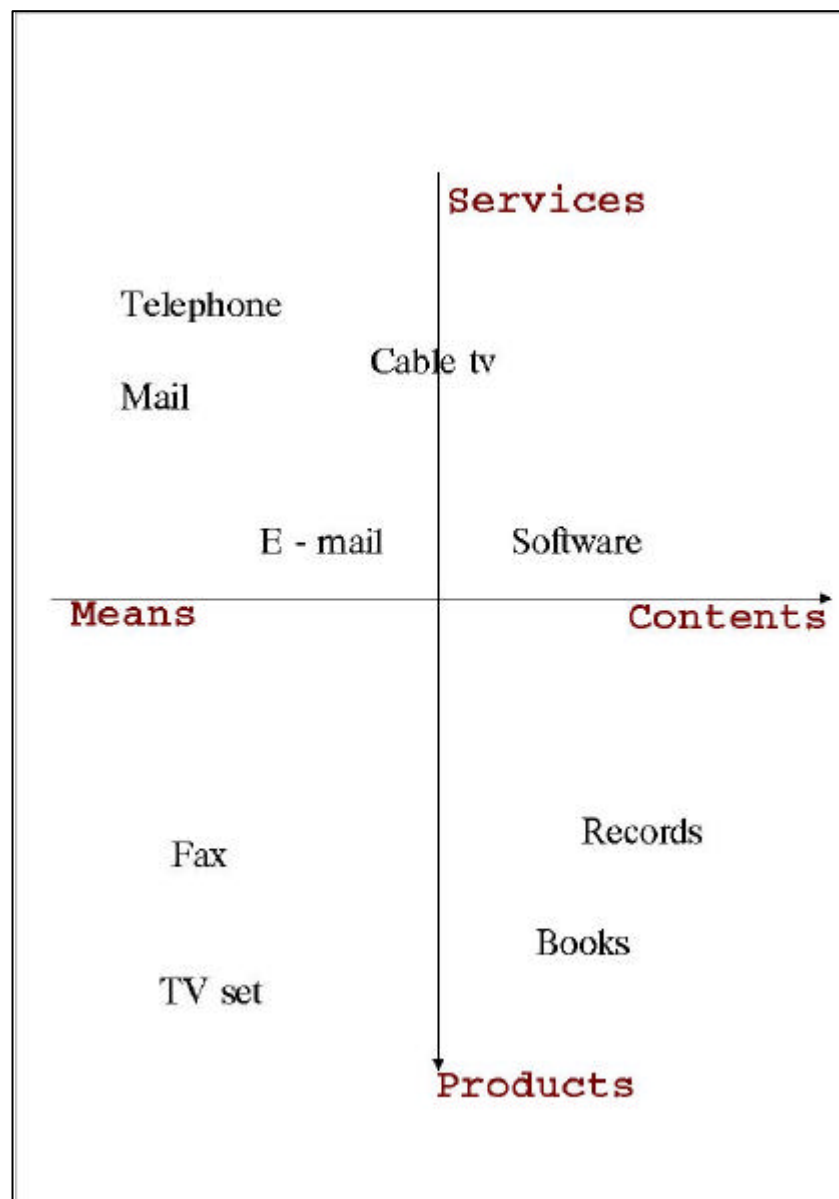

TABLE 1.1 MCLAUGHLIN'S MAP

(b) juridical. The *Communications Act* (1996) proves that the lack of a system of rules and values that somehow makes the behaviour of the actors at play less uncertain, runs the risk of triggering off a 'war without rules' destroying the market itself. The case in point is that of cable TV: - it grew in the US (in the '70's) because of a specific market regulation forbidding other players to enter in this business segment; deregulation was carried out when this sector was strong enough to compete on its own. To choose a proper juridical and economic framework for the media system is not a natural market outcome but a very artificial and policy-oriented choice. It implies that there is a very great responsibility for Public Powers in drafting policies and strategies and the liberalisation option is only one of a very complex set of options. When this responsibility is unfulfilled what happens, and the US situation after the Communication Act is once again a case in point, is that courts and judges have to step in to regulate the market.

A specific problem of public regulation is that of the access to this New World both as an entitlement and a capability for everyone. This implies specific policies (Garibaldo, 1998)[2].

(c) strategic. The idea that the most successful strategic idea underpinning mergers and acquisitions in this field is to control your "next of kin", that is other communication industries, is wholly questionable. It is very easy to list (Charles Goldfinger, 1994)[3] more reliable and profitable couplings: for instance, considering the intelligence in the network, mobility and telecommunication or tourism and media, as in the case of Walt Disney in Paris; but, considering the economics of networks, supplying public utilities, gas and water, and communication, such as the case of *Suez General des Eaux - Vivendi*, the French-owned multinational, or electricity and communications, as in the case of *Wind* the new Italian fixed and mobile telecommunications operator. This point is very relevant for Cultural Institutions and their relationship with local society. Cultural institutions must be considered also as an economic resource for other economic activities and *vice-versa*; a classic coupling is the one with tourism but others could and should be considered.

(d) managerial. Is it so evident and successful to try to manage different businesses uniformly? Or do still they differ? This implies that the managerial careers and the work organisation schemes for cultural institutions must be designed in a strongly participative and specific way. Catching up and mimetic strategies are normally a disaster. There are many cases in point in recent years, normally in the case of mergers and acquisitions of firms rooted in different businesses, such as the case of unifying Time and Warner and the one of Sony with CBS and Columbia film; in the latter case Sony had to give up the claim to manage the two Hollywood media firms according to its managerial schemes;

(e) Market success. "Patrice Flichy, director of *Réseaux,* which is perhaps one of the best European observatories on media trends argues that the great manoeuvres on convergence are based on an implicit premise: i.e. that it is possible to launch new products and (above all) new services on the market in a short time being as large as the telephone and the television markets, corresponding to nearly the whole population of the developed countries. But this hypothesis, says Flichy, is a not a wholly proven one. The truly skin-deep success of television is a unique case in the history of industry and not just of mass media, and is tied up with, perhaps unrepeatable, economic and social

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[2] Garibaldo, F. – Networks and Nodes – IPL, working paper n. 3 also available in http://www.ipielle.emr.it/ita/index.html.

[3] Goldfinger,C. – L'utile et le futile – Editions Odile Jacob,1994

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circumstances, or at any rate ones that are greatly different from the ones we are currently experiencing. Television and telecommunications are actually two largely saturated sectors, and the most likely thing, at least in the West, is that the convergence will simply lead, on the one hand, to alliances, and on the other, to a strong mutual competition, between companies that used to operate in parallel in the two sectors, in the attempt to appropriate each other's respective market. The great unified multimedia market does not exist yet, and its expansionary potential which most people take for granted has yet to be proved."[4] It is also for this reason, as was stated in the case of Strategy, that the Cultural Institutions must become aware of a systematic analysis of their dynamic and strategic positioning in the media system.

To sum up, the systemic nature of the media world and the pervasive nature of ICT in this field, due to the process of digitalisation, are the two engines of a complex set of interactions; but the interaction is between different realms which are impossible and which it would not be useful to try to turn into one. The interaction will affect both sides: the media world is undergoing restructuring and the most relevant effects are its re–positioning in the McLaughlin map and, also because of this, a redefinition of professions and professional skills. The change in professions and skills is a mix of the redefinition of the relative weights in the "old" ones and the creation, from scratch, of brand new ones. What must be stressed is that the divide between more traditional situations and brand new ones also depends upon factors other than technology alone, as in the case of *Logos*[5], probably the most important European on-line company for translation work.

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[4] Ortoleva, P. – *La grande convergenza* – in OPSI, 1998, 2, p. 10

[5] The LOGOS Group: The Translation Superhighway (http://www.logos.it)

LOGOS began business in 1979 in Modena, in the heart of Italy's most prosperous region, Emilia-Romagna. The company grew steadily, along with the flourishing of many Italian companies. Over fifteen years have been invested in building relationships with customers and translators, and in developing the optimal process for project management. Today LOGOS is one of the world's leading translation companies, with offices in Modena (headquarters), Athens, Barcelona, Kracow, Madrid, Belgrade, London, Montpellier, Munich, Oporto, Santiago, São Paulo, Tel Aviv, and a production centre for Chinese, Sinologos.

The basic staff comprises 160 translators, desktop publishing specialists, project leaders and production managers working full-time at LOGOS. Every year, they handle an average of 300,000 words per day, in 250 domains and 300 language combinations. What makes the LOGOS Group unique?

Process control: LOGOSYS, the LOGOS operating system

Stable relationship with translators and customers

Terminology Database:

Web Citations

The living dictionary

Process control: LOGOSYS, the LOGOS operating system

Logos has put to use over fifteen years of experience in the proprietary software LOGOSYS. This system helps the LOGOS staff to keep track of every job, every document and every word. It guarantees absolute and uniform control over all work in progress throughout the LOGOS Group. The LOGOS Translation Superhighway

At LOGOS the Translation Superhighway does not stop at the front door. A team of multilingual account managers operates our system to retrieve all reference information (glossaries, corporate reference material or previous translations) and to channel your project as quickly as possible to the translator or team most skilled to do the job.

New organisational patterns.

CO-OPERATION VS. HYBRIDISM

Some patterns of organisational change have been ongoing for a very long period of time and are enhanced or "magnified"[6] by ICT. The overall outcome is an interplay between "old" tendencies and new ICT-based resources; the way in which this interplay is managed is a critical issue for whether there will be a success or a failure in the joint implementation of technological and organisational renewal. This general point is really strategic in cultural institutions; the very strong different pace, extension and pattern of change between libraries, on the one hand, and museums, on the other, is strongly related to a different feeling, among employees and managers in the two institutions, as to the ICT role for their professional skills. The interplay is more evident in the case of team-working. Throughout the last two decades one of the key points in organising people at work has been the creation of co-operative schemes such as teams and groups[7]. According to a widely accepted

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You will be notified about cost and delivery (rates are fixed and always available on-line) and the translation will be delivered to you in your electronic mailbox, by fax or by courier. The process is highly automated, efficient and cost effective. Even payment is made as easy as possible for you through monthly invoices and credit card payment (see order form enclosed).

If you have specific requirements, like software localization or use of specific software on desktop publishing systems for your foreign-language documentation, you can contact our sales staff who will provide you with a precise assessment of the cost and scheduling of your project.

With the support of our technical experts, our sales staff will analyse your specific needs and will help you to standardise your localization projects as much as possible. Our production managers and project leaders in all LOGOS production centres will co-ordinate your multilingual localization projects and act as your single point of contact for all project reporting, problem solving and file delivery.

Stable relationships with clients and translators

Over the past fifteen years LOGOS has built relationships with some 5,000 companies who send their small and large translation jobs to LOGOS.

Among these customers many are high-tech multinationals who have found their way to LOGOS for multilingual translations, often referred by other satisfied LOGOS clients. Translators are carefully selected by LOGOS to ensure their skills and experience are up to the task at hand. Many began their careers after graduation from the best translators' schools in Europe.

Translators must pass a rigorous screening and internal tests before joining the LOGOS staff. Once at LOGOS, it takes a translator at least two years to reach the all-important "level one" designation, changing his status from supervisee to supervisor.

More than half of LOGOS's current permanent staff has been with the group for well over five years.

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[6] Garibaldo, F. – **FINAL REPORT** of the working group *on teledemocracy* of Telecities network - 1998

[7] Garibaldo F. and Rebecchi E. – **Co-operative and team-based work** – in **CO-OPERATIVE WORK AND VIRTUAL CORPORATION: METHODOLOGIES AND TOOLS FOR THE DEVELOPMENT IN SMEs CORPORATE NETWORKS**. Paper by F. Garibaldo and E. Rebecchi - Fondazione 'Istituto per il Lavoro" - "Institute For Labour" Foundation -, and A. Messina, M. Melotti, P. Ciancarin - Dipartimento Scienze dell'Informazione - University of Bologna – Italy:

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distinction, what is relevant in the perspective of the Recommendation is the practice of teaming; in this case, in fact, different people with different culture, skills and mental attitudes co-operate for the purpose of accomplishing a complex task. This is exactly the case in cultural institutions: the problem at stake **is not to create hybrid skills and professions but to develop organisations supporting co-operation** between people with different culture, skills and mental attitudes. In this perspective the main problem in **training** is to enable different people to understand each other not only in the field of ICT but in the working process as a whole and to be educated to working in group, that is a very difficult and sophisticated accomplishment. In this light, points 2,V,b; 2,V,d; 2,V,e (explanatory memorandum) are very important.

ANALYTICAL SEGMENTATION VS. MEANINGFUL AND COMPLEX TASKS

Another relevant issue is to avoid a strong analytical segmentation of complex labour task. The meaningful nature of labour task is a key point in avoiding a process of rapid obsolescence of individual skills and the risk for organisations in managing to accompany the swift change in technology. The case of TV-related activities is very enlightening for this point also according to the regional research. The technological trajectories from AMPEX to BETACAM and, from mechanical to analogical and lastly to digital assembly, AVID, makes it apparent that the automation of functions is only one possibility among others or just one step along the path. To segment complex skills, as happened for the assembly operators in the BETACAM phase, on a basis that this is more congruent with a specific technological phase, may hinder the possibility, in a new or alternative phase, of fully exploiting new pathways. AVID makes it possible for operators to focus on creative tasks and to dramatically improve qualitative outcomes (it is not by chance that also in film making AVID is the new basic tool) but this is possible if tasks, i.e. professional profiles, are not analytically designed and segmented.

ON THE CONCEPT OF KNOWLEDGE WORKERS.

The concept is very useful as a metaphor for capturing and making visible a very broad, contradictory, open and fragmented process of change in the **social division of labour** and in the **real basis of production** of what Smith defined as **the wealth of nations**. Marx described

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In the practice of change in organisations aiming at "group effect" we propose to identify and combine two alternative kinds of conceptualising co-operative units according to quality of the integration of connected jobs:

"group" versus "team"

"group" when co-operating aims at flexibility in using collected means of "production" between several people within a same function or department; in this case abilities will be implemented with a relative autonomy of co-ordination, which is reciprocally adjusted. The degree of innovation will depend on the nature and degree of autonomy.

"team" when co-operating aims at creating an integrated group of people in relation to its work environment; integration within the group will concern the tasks to be ensured, the functions to assume, the roles to share, through each person's commitment to the team. The innovation results from the team's taking charge, by means of self-regulatory process, of the responsibility and the quality of its contracts and relationships with all the actors which surround it, inside and outside its structure, including other teams. In last decades these experiences are mostly located at the shop-floor level, but more and more, with new management practices, we find them at every level of the structure.

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this process as the intellectualisation and the scientific making of the economic process. We welcome the Council of Europe approach which avoids changing its status as a metaphor into an analytical and descriptive concept; a concept describing a social entity such as a new class of workers or an actually existing professional group. Empirical evidence, also taking into account the self-representation of their identities, regarding the would-be professional group, indicates that this is not the case. There are groups of people, formally suitable for the definition in the draft Recommendation, that are in the opposite fields of self-representation and feeling in their social and professional identities. On the one hand, there are people – such as in the case of Logos – involved in a brand new and, analytically speaking, very proper use of ICT that (some of them) feel as though they are exploited workers of a traditional kind; on the other hand, there are people who are not at the leading edge of ICT development who feel they are exactly like knowledge workers and, sometimes, defend their specific professional activity even when, from the standpoint of any indicator of quality of the working life, it is very bad in terms of wages or income, overloading, working time, etc.. Of course the feeling of people and an objective analysis are not the same, but feeling is a key part of the subjective availability to have a proactive role in the process of change. The analytical concept does not fit with social analysis. This is not only an academic dispute but it is also a practical issue. If what this paper posits is realistic, then the practical consequence for designing new professional profiles is to avoid general catch-all definitions, i.e. definitions for all situations, such as cultural industries and cultural institutions, museums and libraries, books and audio-visual products; etc.. What could be done is use the work done in Chapter 3 of the Explanatory Memorandum as a building block to sketch out some career paths in specifically identified areas. This hypothesis is also consistent with the realities of areas with a very different pace of change, also having different problems. The risk of losing the impact of a coherent proposal seems very low: the framework will remain the same; so will the structural challenge and some of the general indications.

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New professional profiles for information professionals in the light of the paradigm of knowledge workers.

Explanatory memorandum of the Draft Recommendation

We would like to propose the following amendments:

Public powers, cultural industries and cultural institutions need to accompany and organise the tendency to a transition from a traditional articulation of the media system to a repositioning of its single elements. This tendency consists of a conversion in the traditional use and the production of media beyond established sector-specific boundaries and among different platforms. As a result:

> **I.** *the world of cultural industries shows an astonishing increase in the role of co-operation: different people with different culture, skills and mental attitudes co-operate for the purpose of accomplishing a complex task.*

> **II.** *A framework of cross sector key professional profiles is developing; they represent brand new activities (such as **web design**) or strongly redesigned old ones (such as **content creator**). These key professional profiles must be designed and implemented in a contextual way, taking into account what is specific for each part of the media system (the specific relationship with "old" professional skills, the interrelations with the overall societal context, the rules and economics of "production", the nature and the extension of subcontracting practices, etc.) and the different pace of change of its parts in order to realise a gradual process of change.*

*As to the **managerial roles** the future professional model for the digital sector will be based on two key roles:*

> **a)** *the **interface manager** who has responsibility for the co-ordination of different steps in the production chain from the idea to the product;*

> **b)** *the **product manager** who has responsibility for the strategic positioning of the product of that industry or institution in the market and in the societal structure.*

So far, cultural industries and institutions subcontracted many of the tasks fulfilled by such profiles to external parties. If they want to take up the challenge offered by the information society, they should now redesign their organisational structure as a whole to create a different balance between internal and external structure. The internal part must be structurally able to manage the "new production chain" through internal positions based on the organisation profiles and competencies the patterns and paths of change described in the following paragraphs.

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Points from 3.1.i to 3.1.iv of the Explanatory memorandum of the Draft Recommendation

Some notes based on our research:

❖ **content and technology**: On this point there is, among our sample a strong general criticism, independent of their condition of SMEs. The argument is that it seems senseless to speak of "content" in general, as related to technology. Contents are very different from each other and SMEs in the multimedia publishing world have to buy them from different experts: they buy "contents" (texts, images, music or – more generally – information) on history of science from historians of science, contents to produce games for children from different experts, etc.. Creative content providers come from all fields and environments; it cannot become a profession in the field of ICT. The only stable role necessary for multimedia production in relation to "content" is that of *Editor for off-line and on-line products* (3.1.i.d) whose tasks also include those of *Content co-ordinator* (3.1.i.c) and *Multimedia developer/story boarder* (3.1.i.b).

❖ **design and technology**: According to our research it is not plausible, as regards SMEs working in the field of multimedia electronic production, to think of these as distinct professional profiles. In a small enterprise working in multimedia publishing it is often the case that the person who is responsible for designing and developing the graphic interface of off-line and on-line (e.g. for the Web) applications (1st profile), is also responsible for designing and developing computer multimedia animation (2nd profile), and for "including stills and moveable pictures and sound in all types of electronic productions" etc. (3rd profile).

This means that this kind of person must be a very creative person, who has traditional graphic competencies coming from typography, good general knowledge on communication styles and strategies of "traditional" mass media such as TV and newspapers, and – as for technology - good knowledge of the multimedia authoring software tools (Macromedia authoring software suit market: Director for off-line products for CD-ROM or DVD, Dreamweaver, Fireworks, Flash, etc. for on-line products for the Web).

❖ **management and technology:** In a small enterprise there often exists only the role of Project manager, who takes care of all the tasks described under the three above-mentioned profiles.

❖ **distribution and technology:** Each one of these profiles should not be imagined as a new profile to be invented but, rather, as a further competence that the respective more "traditional" profiles should acquire in order to stay on the market. Indeed, this is the case of the Multimedia Librarian we have mentioned earlier.

Likewise this can be applied, *mutatis mutandis*, to most of the other professional profiles listed in this section. As regards the Webmaster, it is hard to imagine one that works exclusively as a Webmaster.

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Public Powers

Building an adequate social atmosphere

The chance for public powers to successfully "support and reinforce the adoption and the use of ICTs, which promote and respect cultural pluralism and diversity" (draft Recommendation) and develop social cohesion depends on an institutional framework and an adequate "social atmosphere". The creation of the proper conditions requires two preconditions: 1) **a policy of inclusion, i.e. social cohesion**; 2) **a shared symbolic horizon**, a hypothesis of transformation, i.e. which comprises, among the values and ideologies that accompany it (Musso, 1997), even if conflictually, a declination of the articulation of values and ideologies of the actors at play:

❖ a policy of inclusion, i.e. social cohesion requires the choice of **priorities** and **timing** for the changes that are the fruit of a public and transparent discussion/negotiation, not just between the strong actors - whether social or territorial - and the political power, but one which allows for the inclusion of the weak actors; this is only possible with some specific policies of promotion and safeguarding for those who do not have access - a **voice** - in the political-institutional arena;

> ➤ A **policy of social inclusion** through the development of rights which correspond, by means of specific policies, to the actual possibility to enjoy such rights. Examples of these policies are: the ubiquitous service and the opportunity of overcoming the characteristics of a basic service through specific measures of support and promotion; this can be translated, for example, in the case of electronic networks, into the creation of a network of regional networks (flexible, open, inter-operative and interconnected) with an architecture that allows for the use of an instrument of decentralised communication.

> ➤ A **policy of citizenship extended** to the networks: this could be translated, in the case of electronic networks, into the opportunity for each citizen to use the network, as a claim to citizenship within the Region, with the chance, by paying the dues, to "open" its use on a global scale. But we have also to take into consideration, as a critical issue, the problem of the pace of innovation either for employees or for users.

> The service providers, contrary to the neoliberalist ideas that inspired the 1996 Communications Act[8], do not have much incentive to provide open, ubiquitous services (Garcia, 1996): "Given sufficient demand, network providers will maximise the return on their investments if they restrict network access to a limited number of users. These users will likely be willing to pay a premium for exclusive network access to gain in two important ways. First, they will have greater control over their customers or suppliers, as well as privileged access to market information. Second, they will benefit from the economies of agglomeration that stem from a significant reduction in transaction costs. The benefits of reduced transaction costs will, moreover, become increasingly important with the proliferation of independent

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[8] Garcia, D.L. - **The Failure of Telecom Reform** - Telecommunications, September. 1996, pp. 43-48.

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electronic markets, as products become more customised and complex, and markets are extended further across time and space."[9] This is a risk in Europe too if specific policies of public powers will not be conceived and implemented, as suggested in point 4. These policies, to be realistic and easily managed, should broaden the scope of the cultural institutions. Experiences in this field, all over Europe, are very successful; in regional research many good practices in this field were listed. These experiences are based on a very big change in attitudes and professional profiles of the managers and employees of the institutions involved, along the lines of what was suggested in the draft Recommendation.

Other critical points in the juridical part of criticism are the ones related to some basic rights in the western civilisation: the freedom of expression; the right to privacy; the right to intellectual property. All these basic rights are at risk on the basis of the great convergence hypothesis.

➢ **Freedom of expression**. Electronic editing, for instance, is at the crossroad of the traditional editorial sector, with a long tradition of freedom, information technology, traditionally without restriction and telecommunication with a tradition of very tight state regulation; the risk is that the convergence might become a pretext for applying the telecom regulation on the three sectors.

➢ **The right to privacy**, i.e. : that information on one's life will not circulate without formal permission and the right to restrict access and to limit intrusions both to one's private and work life.

➢ **The right to intellectual property**; it should be redefined to suit the new situation of the on-line publishing but it cannot be deleted without the risk of destroying personal freedom of expression.

❖ a shared symbolic horizon has something to do with identity, both personal and one mediated by the organisations, and thus with the possibility of grasping hold of change, on the part of the majority, a possible route of personal growth; this requires an equilibrium between solidarity and competition that cannot come from political action nor from the market pure and simple.

The role of cities and regions
(see 4.2 of the explanatory memorandum)

Another critical issue for successful public policies in this field is the role of cities and regions and their governments in supporting and enhancing a process of change, namely in the cultural institutions which, in most cases, are related to public choice at that level of government.

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[9] Garcia, D.L. - **GOVERNING ELECTRONIC COMMERCE IN A GLOBAL ENVIRONMENT** - essay in Fukuyama, F. (ed.) - **NEW WORLD ORDER: INFORMATION TECHNOLOGY AND INTERNATIONAL RELATIONS** - Suny press, in press; p.27.

It can be said, even from the cursory analysis of a part of the recent literature, that there is a strategic restoration of the role of the cities in terms of their actual specific historical heritage: the "density" of social relations, professional skills, cultures, in short the economy of agglomeration that they create. The strategic relaunching of the role of the cities in fact results from the combination of the globalisation of the economy, with the relative processes of de-localization of the economic activities and the growing need to govern activities scattered throughout the world or on a widescale, and the creation of global telematic networks capable of enabling previously unthinkable forms of "government", and of territorially dispersed processes. The problem of co-ordinating dispersed resources is a key point not only for the economic activities but also for the cultural resources when they are not mostly concentrated in one urban pole. Cities become crucial because they are the only suitable places - also because of the complex and costly investments that create entry thresholds that discriminate between the successful cities and the unsuccessful ones - to accommodate the complex array of competencies and services needed by the main offices governing those processes that have been scattered around the territory; this is true both on a global scale and on the regional one. We are talking about cities but what kind of city is it that we are talking about? In fact, leaving aside the megalopolises, it is becoming more and more evident that it is extremely difficult to consider the city only by its historical definition. A specific analysis is needed, one that is capable of localising - that is geographically delimiting - the new "urban complexes", i.e. those socio-economic systems that function with the characteristics that we have historically attributed to the city - density of socio-economic relations, mobility networks, shared fixed investments, including those in public utility services etc.. In many European situations, by following this scheme, we can speak of the city-region; this concept is particularly useful because it leads to the problem of the infrastructural investments that are necessary not only for industrial or traditional economic activities but also for a new cultural policy. In other words, finding an equilibrium between "dispersion" and "agglomeration", at the regional and /or local level is a key strategic point in fully exploiting the cultural heritage of a territory in the ICT-based world.

A positive path for city development should thus be sought in the full appreciation of the city's historically progressive character: as a place *par excellence* for social creativeness, that is, the specific form of "production" that arises from the inter-relations among the broadest array of crafts and cultures. This means, for example, the most complete extension of rights as well as opportunities for everyone. This point is a very critical factor for the development and the integration of young artists and the new arts products in the backbone of the cultural resources available in a territory.

From this point of view, every city has its own particular "culture". We do not mean to speak of city cultures in the sense of folklore or of the historical heritage preserved inside museums, imprisoned in the monuments or reproduced in a stereotyped way, but in the sense of a positive combination between historically accumulated knowledge, in short of a process made up of endogenous innovations fuelled by a knowledge in some way imported from the outside - the historically defined physical locations and their diversity still count in the era of globalisation. This process of appraisal must, amongst other things, take account of the paradigm today known as the "information society". We have to ask ourselves, in other words, if among the various possible ways of conceiving the information society there exist some ways that allow for this process of valorisation, while others inhibit it. In order to supply a reasonable answer to such a question we have to come to terms not only with problems of a general nature, such as cultural models etc., but also with more imminent problems, such as the infrastructures and service policies and their accessibility which, in this new field, is accomplished at city/citizen level. To put it in the language of the new telematic culture: - it is a matter of choosing between different network architectures and the

availability of services, keeping one question always firmly in mind: who are these facilities being imagined for? What needs are they responding to?

The prevailing tendency today is towards imagining services and infrastructures that fundamentally serve the institutional actors of the global economy. In such a way the network is not at the service of the city but is accommodated and paid for by the city. The individual is split off from his/her "social being" and is, from time to time, reduced to roles that are passive functions of other activities. It is difficult today to find an idea of network and services architecture thought of as a support for social urban intercourse, as a means for improved, easier and more frequent communication. To use some metaphorical figures of speech that, without forgetting caution, convey a true fact: networks are not constructed as a "production instrument" for "social creativeness". Instead, what is needed are different investment priorities: fewer "highways" and more inter-related networks, fewer speed records for a minority and more mobility for all.

I shall return to this idea of nurturing social creativeness. In order to move along this path it is necessary to develop all the aspects of the agglomeration economy at city level. This implies a series of relevant consequences: the first and least evident is that it is necessary to foster the full integration of all the public and private resources existing at city level. Once they have been integrated they have to be made "operative" even with differentiated and fee-paying accesses, in order to protect the right to private property and data privacy for everyone. Today in most cases it is not like this; the cities accommodate junctions or critical points of a great variety of networks whose principle of integration is not the city, and sometimes not even the host city, but other realities.

Given its technological basis the creation of systems thus made must be founded on demand; not a demand deduced by the experts but a demand constructed with the participation of all the existing social and cultural actors. So we shall also take "weak demand" into consideration, i.e. a kind of demand that has not got much of a hold on the market. The approach, then, will not only be of an economic-mercantile kind, since an investment in the creativeness of the regional society is considered as a wide-ranging investment. It is self-evident that this is the case for non-mercantile cultural activities.

The overall intervention should help the development of local plans for further expansion - for example, "virtual telematic libraries"[10], the "multimedia arcades" as envisaged by Umberto Eco etc. - and a process of profound organisational innovation - on the basis of so-called *organisational learning* schemes - in all kinds of organisation, from public organisations to factories - and different kinds of the organisational networks - from business networks to public and mixed networks.

As will appear obvious from what has been said earlier, while it is thought to be essential that the whole of society should be on the move on the basis of public discussion, the rhythm, the direction and the meaning of such changes must always lie in the hands of the leading actors and, given the wide range of interests at stake, they should be subject to methods of bargaining and consensus.

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[10] This is the case of the Romagna (in the eastern part of Emilia-Romagna) public library pole, made up of many medium and small public libraries spread out among many cities and towns and fully integrated in a digital network.

Policy for the networks

So a policy for the networks is multifaceted, as we have gradually been sketching out, but also requires, as we have just said, a symbolic framework of reference if we don't want to end up as prisoners of inconclusive technocratic options. It does not consist of a mere list of very general values, such as those that we find today in many company declarations on the so-called "missions", but in some guidelines that indicate the choice between alternatives. We can thus say that such a policy must be articulated around these load-bearing axes:

1) A **policy of social inclusion** through the development of rights which correspond, through specific policies, with the real chance to enjoy them; examples of these policies are: the ubiquitous service and the chance to overcome the characteristics of a basic service through some specific measures of support and promotion; this can be translated, for example, in the case of electronic networks, into the creation of a network of regional networks (flexible, open, inter-operative and interconnected) with an architecture that allows for the use of an instrument of decentralised communication;

2) A **policy of citizenship extended** to the networks; this is could be translated, in the case of the electronic ones, into the chance for each citizen to be able to use the network, as a right to citizenship, starting from local communities such as cities and regions, with the chance, paying the dues, to "open" its use on a global scale;

3) A **policy of productive use** of the networks, not only therefore a medium for *entertainment* or the communication between the public administration and the citizens or between the sellers and the clients, but an instrument for economic re-organisation, broadly speaking, and actively managed as such;

4) A **policy for labour**; this means, on the one hand, a complex process of reorganisation of the labour organisations congruous to the new criteria of knowledge and co-operation as engendering the working activities; on the other, it is translated into the fostering of the development of information technology and the electronic networks as a sector of economic activity;

5) A **policy of production of knowledge and support to technological innovation**: this could take place through the creation of pre-competitive centres that allow, in one direction, the visibility and diffusion of international research and, in the other direction, the visibility of the specific problems of the regional context and their utilisation as inputs for product innovation.

A policy for organisational change

A FRAMEWORK FOR CHANGE

A key point that must be considered as a precondition for a **successful**, **long-lasting** and **sustainable** change is the problem of a suitable setting starting from a diagnosis of each concrete situation. This is a very critical step because in most cases people consider the diagnosis of the actual situation only as a functional diagnosis. This means that the diagnosis

is not the way to understand the actual working of a specific organisation but only a way of making a comparison with an ideal situation or with the actual performance of a competitor. The generally weak point of the experiences undertaken is the diagnosis of the situation as it was made at the beginning of the process; it was performed prevalently by taking into consideration the weak points and the strong points of the formal organisation with the contribution of external experts. In general, this is associated to a typically top-down approach in the sense of a complete ex-ante description of the system. To avoid this risk, it is worthwhile re-conceptualising the modalities of a change process to be able to select a modality of analysis capable of capturing the variances. This implies the avoidance of some popular ideological figures.

WHICH PROCESS?

One of the ideological figures we were referring to is that of spontaneity/democracy juxtaposed to organisation/authoritarianism. According to this reading, for a process to be democratic, effective, "good", etc. it must be completely open. All of this discussion is stripped of any empirical checks; all the studies done highlight the fact that an effective process of transformation, able to let everyone have their own say, must have clearly defined objectives, a clear and well publicised structure of rights, roles and responsibilities, etc. The level of democracy of the process, if any, comes after having satisfied these requisites.

Symmetrically, we can state that the top-down transformation processes, that is, with a complete description of the process before its implementation, are more efficient, rapid and reassuring; in fact, the leadership takes on all the responsibilities and is always in time to adjust the process subsequently. Intense training moments will then help a process of adaptation; some problems and a little bit of hardship during the task are a small price to pay for the possibility of "ferrying us from one side to the other" in the shortest possible time. The rhetorical analogy provided by the crossing from one bank to the other clarifies the idea that lies behind this attitude: the quest for stability. We go from one condition of stability to another through a totally predefined and controlled process. Even in this case the empirical observation demonstrates that even in the very tightly managed organisations there is a structural discrepancy between the intentions of the planners and the organisational behaviours and, as a matter of fact, the stricter the control is, the weaker the organisation's capacity to mobilise a potential usefulness towards transformation actually is. In short, there isn't a "normal" way to control a process of transformation once it has been triggered off or to determine its birth when it still doesn't exist.

So how can we escape from the adventure of a process stripped of any control or avoid the risk of losing the capacity to mobilise a potential for innovation? How are we to proceed? From the top or from the bottom?

As will have become apparent from the arguments put forward, the problem is not merely one of top or bottom: an organisation is made of people and groups, apart from the historical actors who are leading actors of the system of industrial relations, with divergent interests, expectations etc. The problem thus lies in defining a method that allows us to find at the top and at the bottom a shared field of action without taking anything from the diversity of roles, responsibilities, rights etc.. The same possibility of existing and operating methodologies capable of managing the problem rests upon a set of social conditions that go beyond the primary tasks of these notes but that must be strongly remembered nonetheless: very briefly, it

is a question of creating a structural situation[11] of reciprocal trust between the parties and the people involved, both in the case of the systems of relations as well as of the relations between the people and the various groups existing in an organisation[12].

These recommendations are more relevant in the case of a joint technological and organisational change, as the case here. In these situations the technology must be flexible and open enough to be shaped to the specific demand coming from the labour experience of people involved; a technology push strategy of organisational change is very unlikely to accomplish the planned targets and/or to be a long-lasting accomplishment or to be able to self-adjust as time passes (sustainability). To allow people in small or micro organisations to reach these standards of organisational change requires a specific public policy based on the creation of intermediate institutions[13] allowing a public availability of suitable knowledge. Professional empowerment and improved forms of qualification.

THE NEED TO CREATE SPECIFIC FINANCIAL RESOURCES FOR SUSTAINING THE CONTINUOUS VOCATIONAL TRAINING (CVT).

The loose link between incentives based on money and corporate policies based on the commitment to a knowledge-based society has been demonstrated under many circumstances[14]. What actually happens is a very traditional way of public spending to support activities so strictly functional to the core goals of the firm that they will probably have be done anyway. Different is the case in which the nature of the process of change - for instance the need for a general restructuring of the whole set of corporate activities, such as in the case of a strong implementation of ICT technologies - calls for a wide and lasting involvement of employees. In this case, the availability of CVT funds seems to be a precondition to help firms to decide to keep on workers or not, and, last but not least, to reduce the degree of discrimination among employees in participating in the process of knowledge transfer and skills upgrading. It seems quite relevant to find the way to strengthen this positive side and to discourage the negative one.

The overwhelmingly active role of big and medium-sized firms versus small and very small ones. It is not only a matter of being able to have access to the funds - still relevant - but of the very fact of conceiving a process of change as a process of learning and because of this to utilise structural funds and CVT methodology as a part of the process. Intermediate organisations could be very helpful in bringing together companies on predefined tracks or in supporting the best way to exploit CVT funds in order to reach the goal they are seeking to achieve, but this is not enough. Normally in Italy these kinds of intermediate organisations are narrowly oriented to the business of organising vocational training or wider education courses, but they are largely unaware or totally unskilled in being the actual drivers of a good process: *a search for change*.

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[11] Based, that is, on rights and duties, reciprocal obligations, expected and predictable behaviours, etc..

[12] See: Garibaldo, F. - **Workplace Innovations : the Making of a Human-Centred Industrial Culture** - in Gill, K. (ed.) - **Human Machine Symbiosis** - Springer, London. 1996 -

[13] see http://www.ipielle.emr.it/inwal/inwal.htm for a definition of the role of intermediate institutions.

[14] See the Italian Report in the Cedefop research - Evaluation of CVT measures and funding models in European Countries through the assessment of costs and benefits - A Search for Change: the Role of Intermediate Institutions – by Belussi, F. ; Garibaldo, F (co-ordinator); Lugli , L. ; Tuccino, F. ; Sbordone F.; Meghnagi S. (Director of ISF – Istituto Superiore per la Formazione).

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The lasting role for technical schools, traditionally well rooted in the local environment.

The lack of evaluation techniques - in the dynamic meaning of the word - as a part of the procedure for accessing funds.

On these grounds a set of policy recommendations can be argued for:

A web of intermediate institutions should be set up based not only on the capability of supporting firms in designing and implementing the appropriate vocational training but, first of all, in designing and implementing a suitable process of change. The space for these policies supporting change strategies must become the Regions. This implies the fact that CVT policies at the European level must be co-ordinated with labour and organisational change strategies that are today developed by DG V; integrated guidelines must be designed and evaluation policies must follow the real implementation at the regional level.

The Regional governments - at least in Italy - must develop the plan as a set of different networked projects among SMEs; each network must have a dimension within a pre-defined range and must define at the same time, like the two sides of the same coin, the pattern of change and the accompanying CVT initiatives; social partners must agree on the goals of the projects that must be oriented to the full valorisation of the skills of the labour force in order to accomplish the general objective of the European Union of a knowledge based society as the specifically European way to global competition.

The need to encapsulate evaluation techniques as a part of the procedure for accessing funds.

Technical colleges must be involved as a specific agency within the general framework. For instance, individuals could have the opportunity to utilise a part of the overall funds by means of specific courses organised by the technical schools.

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Peppino Ortoleva

Cultural production at a turning point: what does convergence really mean?

"The future of the European cultural industries is based on their ability to adapt rapidly and effectively to the structural changes originated by ICT and on their capacity to provide quality and diverse digital contents and services. Governments should therefore ensure that they [...] be aware of the gradual convergence of spheres of cultural activities".

The Draft Recommendation on cultural work is based, in fact, on this and similar assumptions. The idea of a general convergence of technologies, economic sectors, cultural activities is in fact widely shared. It is indeed a powerful representation: such a great convergence seems unavoidable like a natural cataclysm (great technologies or macrosystems are often perceived in this way) and full of promises like a modern, or postmodern, utopia, a revolution that has already started.

My goal, in the short time of this presentation, is that of proposing a *critique* of this representation, in the original sense of the word, i.e. establishing distinctions: a critique that will show many weaknesses of current assumptions and some unexpected truths they may hold. My thesis, in fact, is that a real revolution is under way, but that many of its consequences will be different from the most widely shared expectations; that we should prepare not only to adapt ourselves to technologies but also to choose among different possible technological *and* organizational possibilities; that we should prepare ourselves to new forms of cultural and social conflicts; that we should be able to see some generally unrecognized contradictions which are typical of the present and foreseeable stage- and that this is in any case a very interesting period to live and to produce culture in.

Paradigms of convergence

I shall deal very shortly with my first point. The idea of convergence, in general and as defined in the Draft Recommendation, is in fact a superposition of (at least four) different ideas, or paradigms; much of the confusion in the present debate comes from the lack of clear distinctions among them. Let me then try to define such paradigms rapidly but precisely.

a. First we have a technological paradigm: convergence as a *fruit* of digitalisation, that creates a common language (albeit one understandable, as such, only to machines) among different media. In this interpretation, technical convergence, in this interpretation, is to information (and to culture, we must add) what the universal generator launched by Westinghouse in 1893 was to energy and to electrification: the root itself of the information society.

b. Secondly, we have an institutional paradigm. Traditionally, the media system was based on a division between four different sectors: a content sector, based on the model of the publishing industry, a carrier sector, based on the models of mail and transportation networks, a hardware sector, based on the model of "science-based industries" born in the Second Industrial Revolution, and a broadcasting sector typical of the ending century and based on advertising. This institutional paradigm sees convergence essentially as a political and legislative process, that tends to break the traditional barriers. In Europe, we must add, this means essentially the end of a traditional, "hard" presence of the state-as-owner in many media (and cultural institutions), substituted in fact by the public authorities as regulators or fine tuners.

c. Thirdly, we have a media-centered paradigm. Its first and clearest proposition was set forward by the late I. De Sola Pool in 1983: this is the age in which the one-to-one correspondence between technologies and communication forms (a correspondence on which the idea itself of *medium* is based) is giving place to a plurality of possibilities *and* to a convergence. More recently, the idea of a mix of convergence *and* plurality has been replaced by an emphasis only on the first aspect. The future of communication in the convergence age is generally presented as multimedia, that is as an addition of pre-existing forms of communication, while the other aspect, the multiplication of choices, is generally neglected. On this, more later.

d. Lastly, we have a social-cultural paradigm. The ewpression itself, "cultural work", is based on a convergence assumption. Until ten-fifteen years ago you couldonly find this expression in the Communist propaganda (you can read a delightful satire of that idea in an Italian pamphlet of the late 1950s, *Il lavoro culturale* by Luciano Bianciardi): it willingly challenged the representation of intellectual activities generally shared by the intellectuals themselves, "reducing" them to another form of work. The idea, now widely shared, of finding a common status, and a common name, for authors and editors, for technicians and for marketing experts, the idea that centuries of professions and crafts are now giving way to a unified condition, takes for granted what one should in fact demonstrate: that the classical system of cultural professions is already dead.

What is wrong in the conventional wisdom about convergence

a. Much of what is widely written and said on convergence is based on the confusion among these different concepts: a cultural process is supposed to take place in the same time, and with the same dynamics, as a media change. And this contrasts exactly with what we have learned in the last decades by the sociology of science and of culture, with its emphasis on tacit knowledge and on the slowness of changes in cultural institutions. Institutional change is assumed to be an evidence for the technical tendencies and the other way around, which is ironical since one of the strongest arguments for deregulation, including the media and the cultural industries, is the slowness of institutional change compared to technological change. Moreover, many policy recommendations seem to assume that technology must remain a *given* for political authorities, while at the same time proposing a political intervention in order to create new cultural models and professional profiles. But are we sure we have to exclude technology as such from the fields of possible democratic choices? On the other hand, are we sure we want such a strong political intervention in the field of professions, that have been for centuries, after all, one of the fundamental bases of civil society as an idea?

b. In fact, convergence is represented as a chain: technological change moves institutional change, which in turns favors a change in cultural consumptions and organisation, which implies a different model of cultural work. It is even too easy to state this is technological determinism. What strikes me more is that it is an absolutely linear model, which tends to read differences and contradictions in terms of pure backwardness or "resistance".

c. This attitude is also a fruit of something I have already noticed: the tendency to merge prescription and description. Much of what we read in current literature on this subject is based on the idea that the future is clear, and the role of political institutions is to prepare societies to it. Also the definition of professional profiles is based on this assumption. Quite naturally, policy makers should care about the real job-generating perspectives of their decisions about education. But there are other criteria, for instance in terms of defining ethical standards, that are also very relevant for the future of our societies. From this point of view, defining clear professional profiles may be a *political* necessity, which implies the necessity for something that seems missing or at least very scarce now: legislative imagination.

d. There is something surprisingly simplistic in an idea of convergence meaning simply addition: from media to multimedia, from single sectors to multisectors, from specialised

skills to multiskills. A look to what is really taking place in cultural industries should be sobering: some great "multimedia" mergers have meant years of organisational and economic difficulties, while digitalisation has favored the multiplication of specialised services, from book-on-demand to a small but thriving industry, albeit often illegal, based on sampling.

e. Lastly, I have the impression that much of what is really new in this stage is taking place not in traditional cultural industries and institutions, but in what we should call the emerging cultural subsectors within different economic sectors. In other words, cultural work in non-cultural industries: a typical example is of course the fashion industry; a less typical, but a very important one, is transportation. When we think of the cultural workers of the future, we should consider that the borders of this definition do not coincide with the borders of a specific economic sector.

What is right- but misunderstood

My critique is the opposite of a conservative critique. As I stated in my beginning propositions, I do not just want to show the mistakes implicit in current assumptions, but also many misunderstood truths. Cultural production (an expression that should be better defined, of course) *is* being reorganised, and the falls of ancient technical and institutional walls *is* an important part of this process.

But

a. One of the consequences of this process is that the topography of media industry is now not simplified but often more articulated than before, and open to new forms of competition and conflict.

For instance, the crisis of the rigid distinction between the library, which circulates material that has been already published, and the publishing house, is giving place to a lot of new legal and ethical problems, that have also professional implications: should we favor the training of librarians with communication, that is content-providing, skills? Or should we think of libraries as being forever separated from publishing, which implies establishing a legislative "Chinese wall" between the two sectors? It should be noted, by the way, that the problem is not strictly the consequence of new technologies, it has been posed since the late 1970s by the diffusion of photocopying, a relatively old technology (1939).

b. On the other hand, many small enterprises thrive precisely on the permanence, in the age of convergence, of cultural and professional differences that create a need for

information mediators. These are *translators* in a new sense of the term, we could say knowledge translators, to develop an intuition of Bruno Latour. Translation as a profession is not based on addition (people who know one language plus one) but on the opposite, on the precise perception of distance between two different languages. Educating knowledge translators implies something very different from educating multiskill operators; a rethinking of the education process in which the acquisition of skills is replaced, or supplemented, by the training of a comparing ability. And perhaps, like language translators, knowledge translators require deep cultural roots (I am *not* speaking of "identities") and not just flexibility.

c. As I noticed earlier, this is a period of convergence, and multiplication at the same time. Media merge, sure (even though some of the worst "flops" of the decade have been boxes described as capable to merge computer and TV, film and TV, and so on); but on the other hand media are born every day, and many last. For every form of communication we now have a multiplicity of choices, and possible interfaces: writing to a correspondent is now also a matter of rhetoric and technical choice between media, since the channels available are now many more than twenty years ago, from paper mail (a medium that is still growing) to e_mail, from fax to pagers. You can multiply the examples. When we have to choose a specific medium for a specific function, be it for business or personal reasons, our sensitivity to its peculiarities and differences is heightened, not restricted. What we ask of a communication service is to have each medium at its best and at its most specific. This means that, exactly in the age of multimedia, new specialized markets and new specialized professions are generated every day, while in the same time old specializations are merged. To train flexible cultural workers, and provided with a plurality of skills, is very well; but how can we ensure their sensitivity to the peculiarities of different forms of communication? Should we be thinking also of new kinds of specialized skills: for instance, experts of creative writing able to see the differences between various written media and to adapt writing abilities to them, or specialists of sound communication? In other words, to use Raymond Williams's phrase, specialists of *cultural forms* instead of single media?

d. "The expression 'cultural institutions' refers to public, semi-public or private institutions, which perform a mission beyond mere commercial interests[...] Examples include libraries and information services, museums and archives". Content providers on one hand, content preservers and/or distributors on the other. The definition of the "de-compartimentalisation" implicit in the Draft Recommendation, so triumphalistic in many points, is here singular timid. How about the university? It is never mentioned, although it is obviously referred to when discussing the new educational curricula. For, there is an aspect of convergence that we tend to ignore: exactly as the Second Industrial Revolution brought about a new interdependence between university and industry, between technology

and science, the Third is creating a new interdependence also between social and cultural research *and* production *and* distribution. This implies thinking a model of cultural enterprise that produces not just contents, but ideas in social science and in art.

The professional profiles that we find in the Draft Recommendation seem largely inadequate to this need; to go on with the analogy, the Second Industrial Revolution was made possible not just by the education of technicians that knew something of physics, but by the big companies learning to develop their own scientific (not just technical) research, and by the development of a profession, that of the engineer, which was not just the addition of old skills.

The meaning of professional profiles

In fact, there is another word, widely used in the current debate about cultural work, that needs some critical considerations. Terms like profession or professional profiles are often taken for granted when we speak about the cultural workers in the present and the future of information society. But are we sure we are giving the term its proper meaning?

Historically, a profession is not defined just by a set of skills but by a series of other aspects:

-a process of learning that includes *both* a formal training in a high education institution (after all, the birth of classical professions like the lawyer and the doctor coincides with the birth of the University, and the explosion of university training coincides with the "professionalisation" of all kinds of former crafts) and a practical apprenticeship

-the existence of a peer community, generally organised in the form of a Guild, that on the one hand enhances the negotiating power of each individual professional, on the other hand has the social responsibility of enforcing an ethical code

-the development of a professional identity, based not just on the skills but also on the social role of the profession

-an assumption that professional responsibilities and skills belong to the individual, even when he/she works for a larger organisation.

In the last two centuries, cultural workers have generally been perceived either as professionals (this is the case of journalists, of many film and broadcast professions, of publishing houses workers) or as *intellectuals*, that is partially a different representation, based not on a social role but on a specifically cultural: the real or perceived participation in

the preservation or production of culture as such, the role of creating or conserving art or science, that are generally conceived as independent of specific social needs or interests.

In fact, the development of cultural *professions* as opposed to a more generalist and a-social idea of intellectuals has been a feature of the last few decades. This is due, on one hand, to the needs of the emerging cultural industries, whose ranks required people with both a formal education and a practical training -professionals; on the other hand to a more general trend of modern societies. As Talcott Parsons noticed in the 1950's, the growing complexity of the social division of labor implies a growing need for specialised mediators, a role that is typical of professionals as opposed to great organisations. And this is specifically true of cultural industries, with the growing complexity of their value chain.

It may seem natural, in this context, to think of the future cultural workers as professionals. But are we really sure that we can speak of professions and professionals for social roles for which we preach a multiplicity of skills and for flexibility? Do we really think that in these conditions it will be possible to create solid professional identities, not to speak of peer communities?

To be quite clear, I am not implying that we *should* support the formation of new professions. It may very well be that in this stage the trend described by Parsons is reversing and that we now need not professionals but new kinds of cultural workers. In any case we should be very clear: the end of a professional model for cultural worker means the loss of some institutions (ethical codes, peer organisations or guilds, individual responsibility) that have had an important function not just in cultural work but in the very idea of a civil society.

We may think that the trend toward the end of professions is unstoppable, and in this case we should find substitutes for the institutions I have mentioned, or to use Williams James's phrase moral equivalents for them. This is at least as important for the future of cultural work as defining the skills we think more urgent to acquire. Moreover, it may very well be that the traditional structure of universities is not really fit for the training of cultural workers who are not exactly definable as professionals (like it was not fit to train cinematographers in the early part of this century). If this is true, than projecting the training of new cultural workers means thinking not just in terms of knowledge contents but also of learning processes.

Or we may think that we cannot afford to lose forever the contribution of professions as such to cultural work, and in this case we should think of a series of political moves to save them while modernising them. Or else, we may think that this is just a stage, and that in the foreseable future new professions will be born, and in this case we should try and indicate

which models we may have in mind, to conciliate the cultivation of solid identities, which implies also deeply rooted traditions, with the ability of generating new ideas.

And that ability of creating and transmitting new ideas, better, of having new thoughts growing in the minds of different people, is after all a reason of existance of cultural work; perhaps the real criterion for judging all political projects that concern it.

Appendix 1:
The research on the cultural industry in Emilia – Romagna – a synthesis.

The research in this region was considered to be a useful benchmark, principally in regard to the cultural institutions and the audio-visual sector, of the concepts and aims of the Recommendations due to some of the specific features of this Region's society and economy:

a) The region has an abundance of libraries, museums and cultural institutions (see fig1-1 and 1-2) equally distributed across the regional territory, with a very low degree of concentration. This means that the problem of co-ordinating and integrating this large and territorially dispersed cultural heritage was and still is a real challenge. It has been very enlightening to study the interplay between the new technical possibilities of co-ordination, based on ICT, and the purely organisational and societal solutions successfully implemented before the advent of ICT.

b) Due to the dispersed structure (see 1-1 and 1-3) of the cultural institutions of the Region, ICT has to be shaped in such a way as to allow for a very flexible utilisation; so the path of change and integration, also considering the failures of and/or obstructions to, ICT in the pre-existing structure sheds light on a whole set of problems that can be considered highly typical of many other European locations.

c) Many civic administrations in this Region have been active, from the outset, in the development of ICT solutions for services addressed to the citizenry as well as to enterprises; they have been very successful in the utilisation of the European resources in this field (for instance, Bologna has won a Bangemann Challenge award) and, with some exceptions, they also lead the way for the private sector. This very specific relationship between public administrations and private initiative may be very interesting in regard to the section of the Recommendation dealing with Public Powers.

d) A new ICT-based cultural work in the audio-visual sector, has been developing over the last 6 – 7 years, strongly integrated with public and private initiatives in the cultural sector as well as in broadcasting and in specialised services for economic activities. The average size of these activities is very low both from the point of view of employment and from that of turnover. The small size does not imply a marginal role; normally these small firms are aiming at very specific markets but relevant and strategic markets. The consequences on the labour market (permanent vs. temporary; self-employed vs. company employee, etc.) as well as on the internal composition of the labour force are, in this specific sector, very relevant and very different from the ones in sectors, activities and geographical areas endowed with strong economic organisations.

e) The new ICT-based technologies, particularly in the audio-visual sector, are changing the way in which very old and consolidated cultural businesses are managed.

There are about 1,310 libraries in Emilia-Romagna out of the total of 13,461 present in Italy as a whole, and they dispose of about 18,310,000 volumes, making the E.R. region one of the biggest and most important collections in relation to the national data.
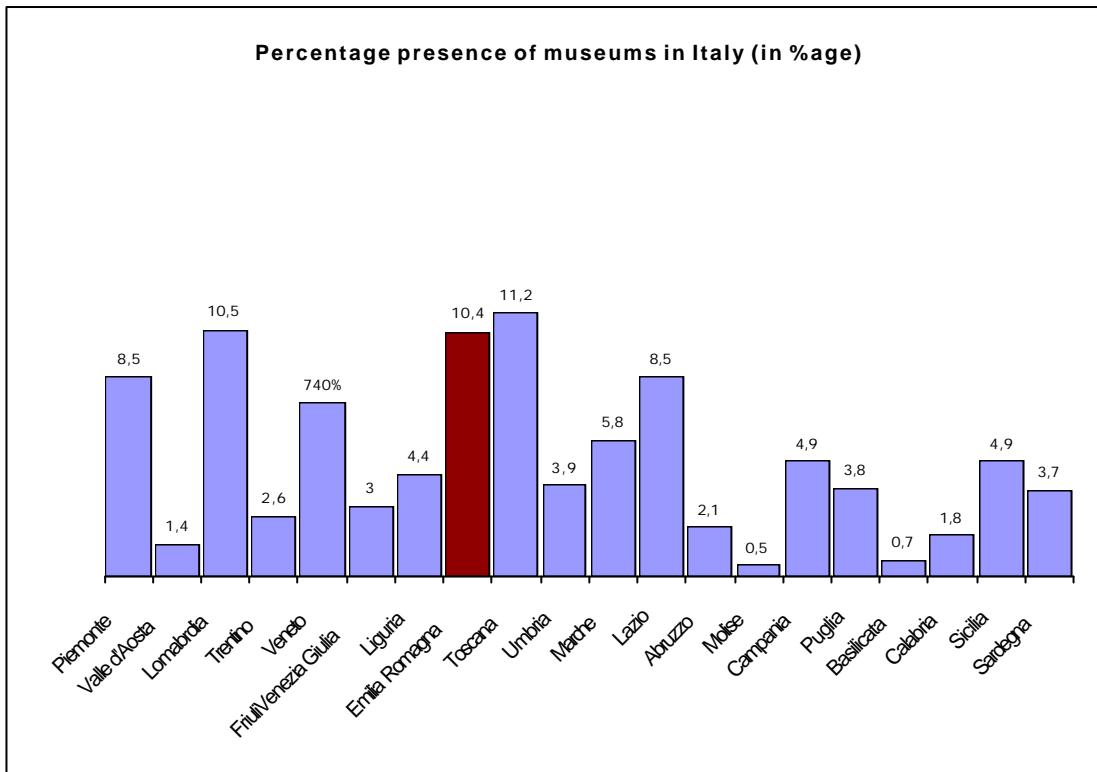
Most of the libraries are located in Bologna although Emilia-Romagna is characterised by a widespread network of archives scattered around the major provincial chief towns; it is worth noting that in the chief towns there is the greatest concentration of books, about 70% of the total of the volumes present, while there are highly differentiated situations like that of Bologna, which in relation to its surrounding provincial territory possesses 90% of the volumes, or, conversely, the case of Forlì which only has 644,000 volumes in the chief town as opposed to 1,332,000 recorded in the hinterland.
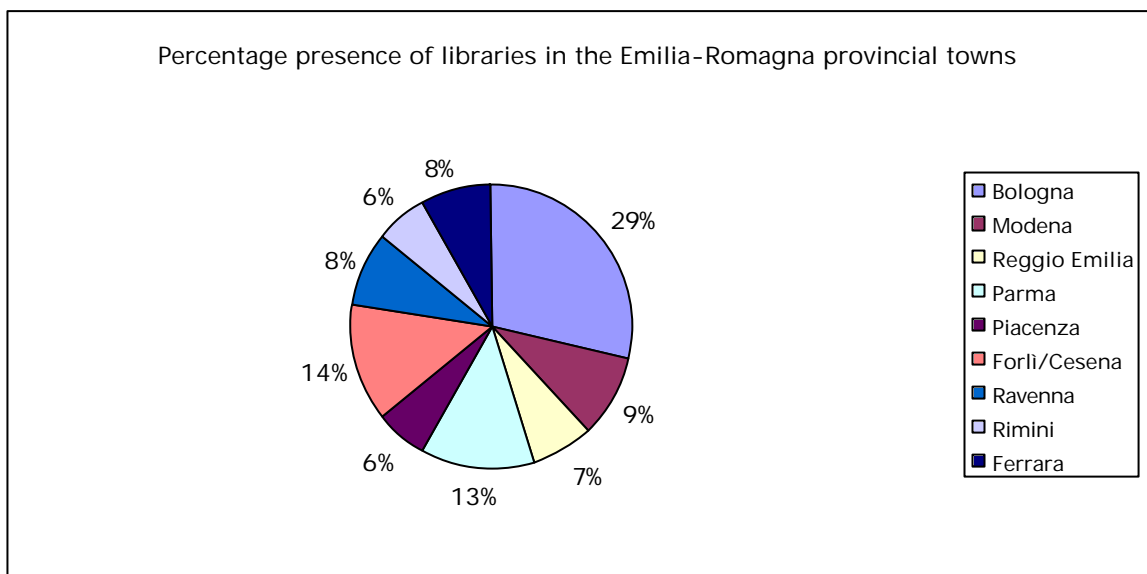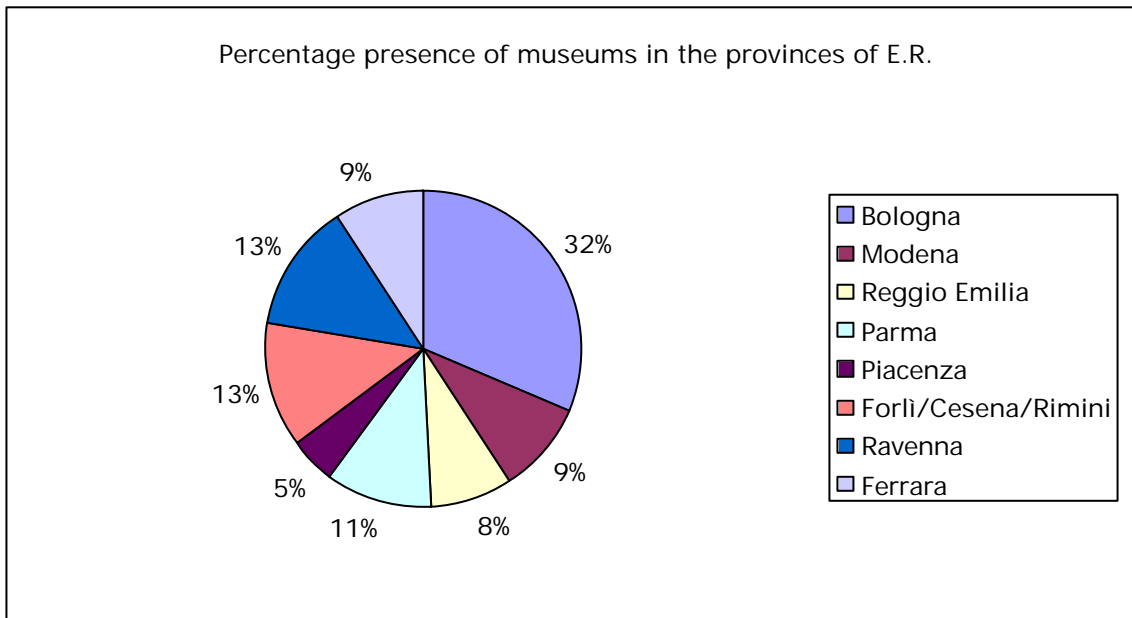

FIGURA 1.1 DISTRIBUTION OF LIBRARIES IN THE EMILIA-ROMAGNA PROVINCIAL TOWNS

The crucial factor has been the socio-cultural and productive activity in nearly all the provincial realities, including associations, private research institutes, professional groupings, which with their archives, quantitatively numerous and often open to the public, ensure a specialised documentation that would otherwise be difficult to find.

The catalographic situation also highlights the widespread awareness of the importance of getting equipped with tools for the retrieval of the stored information in order to facilitate and stimulate its use, by inserting the library in the process of articulation, organisation and diffusion of culture. It is no coincidence that Emilia-Romagna, thanks to its operative technical service, the *Sovrintendenza ai beni librari* (a kind of national trust for books) and some provincial administrations, has already for some time been dealing with the question of automating the library services with a substantial outlay in economic as well as human terms. In the Region the first on-line service of the National Library Service (SBN) has been set up, the one in Ravenna which links all the main libraries in Romagna.

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Percentage presence of museums in Italy (in %age)

Piemonte 8,5 — Valle d'Aosta 1,4 — Lombardia 10,5 — Trentino 2,6 — Veneto 740% — FriuliVenezia Giulia 3 — Liguria 4,4 — Emilia Romagna 10,4 — Toscana 11,2 — Umbria 3,9 — Marche 5,8 — Lazio 8,5 — Abruzzo 2,1 — Molise 0,5 — Campania 4,9 — Puglia 3,8 — Basilicata 0,7 — Calabria 1,8 — Sicilia 4,9 — Sardegna 3,7

FIGURA 1.2 MUSEUMS IN ITALY PER REGIONS

Percentage presence of museums in the provinces of E.R.

32% — 9% — 8% — 11% — 5% — 13% — 13% — 9%

- Bologna
- Modena
- Reggio Emilia
- Parma
- Piacenza
- Forlì/Cesena/Rimini
- Ravenna
- Ferrara

FIGURA 1.3 DISTRIBUTION OF MUSEUMS IN THE PROVINCES OF EMILIA-ROMAGNA

Once again Emilia Romagna appears to be the leading region both in terms of the quantity of heritage preserved and of the quality of the services delivered, increasingly aware of and sensitive to a modern museums policy. In the region there are about 394 museums and like institutions, which contain about 10% of the national heritage.

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APPENDIX 2 :
A TENTATIVE ARTICULATION OF THE GENERAL DESIGN OF NEW PROFILES IN
SOME KEY SECTORS OF CULTURAL INSTITUTIONS AND AUDIO-VISUAL
ACTIVITIES ALSO REFERRING TO THE EMILIA - ROMAGNA RESEARCH.

LIBRARIES AND NON AUDIO-VISUAL ARCHIVES

This area can be considered as homogeneous enough to be treated as a common area. It is distinguished by a very different role in the process of utilisation of ICT technologies and of joint organisational and technical change. Libraries, generally speaking, are the leading part, either awareness or accomplishments will be taken into consideration. . According to the regional research, what must the librarian do in the traditional library? He/she must

➢ acquire information;

➢ process it and handle it (descriptive and semantic cataloguing);

➢ enabling access to information by means of the knowledge of bibliographic tools, catalogues, etc..

The subdivision of the duties depends on the size of the library. In the small council libraries or neighbourhood ones, the librarian performs these functions indiscriminately. However, subcontracting cataloguing to outside staff is increasingly widespread and so the librarian can dedicate more space to the services to the public.

In the very large libraries, or where the financial resources allow for larger staff numbers, there is a *reference service*, that is, the customised assistance service for users going to the library to satisfy a need for information[15] is performed by specialised librarians who have to possess the following Key Competencies:

➢ **cultural and bibliographic grounding;**

➢ **thorough knowledge of the catalogues and of the library collections;**

➢ **capacity to identify external resources**

➢ **sensitivity towards the identification of the document suited to each particular kind of user;**

➢ **learning of the interview techniques;**

➢ **desire for continuing training;**

➢ **inquisitiveness;**

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[15] Aghemo - **Bibliotecario del 2000, come cambia la professione nell'era digitale (*The librarian in the year 2000: how the profession is changing in the digital era*)** - Milan, 12-13 March, 1998.

- ➢ **capacity for synthesis;**
- ➢ **skilled in human relations;**
- ➢ **willingness to listen;**
- ➢ **etc.**

The library is by now a part of the broad information system to which the citizen turns in order to access the new forms of knowledge and culture often not available from home. ICT and in particular the Internet have accelerated the process so much that the new size of the demand for information means that the reference librarian must be able to supply the user with the "compass" in order to orient him/herself in the boundless universe of information: his/her knowledge cannot just be limited to the collection of his/her own library. The librarian increasingly addresses himself to performing a 'mediation' service between the user and the information that must be singled out and selected amongst the plethora of information available on the Web, on CD roms and in all the multimedia products in general . So rather than speaking of a Multimedia librarian (*responsible for electronic products and services in the multimedia section of any traditional library. They administrate products and services of this cultural institution providing on-line and off-line products and carry out initiatives in the field of communication marketing. The multimedia librarian offers assistance and support for the use of multimedia products*) as a new professional profile separated from traditional work, we have to think to a librarian who, in just the same way as he/she deals with books, also deals with CD-ROMs (and Web archives, of course), ordering CDs for his/her library, cataloguing them, recommending them, guiding the library visitors in their use and their consultation. In this case, then, the emphasis on the vocational skills is shifted towards the job of the librarian and towards the need for a professional redefinition that allows him/her to master his/her new role, thanks to a collaboration with computer experts having a broader culture in terms of the more complex technical aspects .

The focus is thus shifted from the possession of the information towards the ways it is accessed: what is necessary is a continuous monitoring of the innovations, an updating, the organisational capacities for arranging the service modalities. The traditional competencies remain, ones which allow for the validity or the obsolescence of the information to be assessed, along with the sources available, the creation of accesses by which to reach the information, the knowledge of new research methods. The librarian must dedicate an increasing amount of time to the user for his/her orientation and to provide 'self-help': the amount of work grows in every kind of library. It is clear that such a prospect presents itself as a possible (not an automatic) process of major enrichment and professional enhancement of the librarian[16]. This explains why the libraries are driving the computerisation process in comparison with museums.

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[16] Some people have noted that: " (..) such innovations in the first place allow for the start-up of more homogeneous and continuing *'professionalisation'* processes, as against a process that essentially favours the component legitimating the role in the organisation of membership (..)" from Minardi, E. - **Da occupazione a gruppo professionale:gli operatori dei servizi bibliotecari tra tecnologie dell'informazione e nuovi pubblici (*From employment to professional group: the operators of library services between information technologies and new users*)** - in «Sociologia del lavoro», no. 70-71, 1998, Franco Angeli: monographic issue dedicated to the *Professional Groups*.

ARCHIVES

Recommendation 3.1.iv f

Archives manager/documentalist for electronic products

The growing use of the digital systems (e-mail, electronic products, etc.) in the public and private organisations requires electronic documentation and archiving procedures that imply the development of a profile with a capacity for the insertion and retrieval of digital information in the libraries, the archives and the enterprises.

The introduction of information technology in the world of archives and in the Public Administration has determined a strong need for training and the identification of new professional profiles both as regards the role of the archives officer dedicated to **current documentation** and as regards that of the person dedicated to **historical** archives.

Common characteristics

There are three main function performed by the State archives and records officers:

the *preservation* of the per-unification State archives and the central and peripheral archives of the Italian State, as well as all the other archives and individual documents that the State owns or holds in deposit by law or for other reasons;

surveillance over the current and semi-current archives of the central and peripheral organs of the State, it performs a crucial role in all of the activities that regard the discarding of documents and their destruction;

safeguarding of the non-State archives (territorial and non-territorial public bodies and private archives)

Historical archivist/Palaeographer

The historic/palaeographic archives manager has undertaken a masters diploma in the State schools for archive studies. S/he mainly deals with preservation, an activity mostly performed by technical staff supervised by archives managers who are not always properly trained in applied technologies. Besides all the activities inherent to the physical preservation of the documents (updating, boxing of the archive units, disinfestation and restoration) the knowledge of the records-management is also required. In addition, s/he deals with the management of documents that more and more often are available on media other than the paper one (photographs, sound documents, microfilms, CD ROMs, electronic documents etc.). There is thus the need to enhance the technical sector and institutionalise the collaboration between archives managers and information technologists, and/or provide for a specific training for information technologist archives managers.

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The physical preservation is linked to the intellectual control of the sources. this activity which consists in identifying the criteria for the description and the representation of the contents of the documents amounts to the peculiarity of the archives manager's profession, and will continue to be so according to a consolidated methodology and tradition. Automation instead acts strongly upon the communication modalities for the results of the records manager's work, and thus in the management of the research instruments: from the written form to digitisation, from the indices of the data banks, the consultation of search tools in the study room to consultation via the Internet.

All this calls for the identification of professional profiles capable of mediating between the specific needs of each sector and the normalisation and rationalisation that the use of information technology requires, hence the introduction of the teaching of Information Technology in the curriculum of the archives manager.

Current archivist

Still absent is a professional profile for people who have to operate in the current archives and deposits who differ from historic archives officers for their way of performing the preservation, management, and dissemination of the information on whatever media it may be on.

The use of the new technologies also makes necessary the introduction of the network manager and the manager of the digital document handling.

The responsibilities required for the management of the documents in the administrations require the capacity to utilise all the information technology and telematic means available in order to improve communication with the internal departments and with the citizens, and to normalise the concrete procedures for the production and preservation of documents. If these were electronic, the challenge would become more complex in that technological obsolescence would make the loss of the document itself definitive.

There is a strong need to provide for the training and updating of the State archive officers and the external archives managers which goes beyond the historical-palaeographic framework of the official courses. We are thinking to the professional profile of the *records manager* who not only deals with the deposit archive, but is the organiser of documentary procedures and of the current archive. On the basis of the study of the organisation of the company s/he identifies the information and administrative needs, the management and communication systems of data and information, managing them also from the technological perspective and that of the use of human resources, in order to easily and swiftly retrieve the documentation with the aim of containing the running costs of the procedures and the upkeep of the archive.

AUDIO-VISUAL ARCHIVES

The problem

The **Documentalist**[17] is the main profile in the **audio-visual archives**, in that *s/he ensures the preservation and the knowledge of the documents on film, optimising their use and applications, in terms of the chiefly reproducible nature of those very same documents*.

Audio-visual material abounds in information, and is thus an extraordinary source of knowledge, and as a whole a precious material for the production of further information and documentation. Besides the actual memory of the event or the original circumstances from which the archived document derived, the audio-visual is a mine of images, sounds, texts, emotional arousal, side-references, which in isolation can in turn enliven and become a part of the new documentary matter.

What thus becomes decisive is the capacity to know not only the intimate nature of the document as a whole, but also to decipher and prefigure knowledge, potential, reflections that can be generated from the single fragments of the document in hand. From here we have the strategic importance of the great wells of memory and documentation that today represents a large part of the heritage of the bodies, the enterprise, organisations, movements, placing themselves in the great relational circuit that embraces every one of our actions, be they personal, economic, cultural or civil. The archive, or as is preferred today, the data bank is thus seen as a strategic resource for every function addressed to the individual or collective user, public or private, economic or cultural, presiding over the past and predisposing the reading of the future. In this framework an increasingly widespread use of the audio-visual document, in an increasingly sensitive way, implies and presupposes the constant updating and modernisation of the types if cataloguing, in such a way as to offer the broadest and most competitive explorative and comparative opportunities in regard to the productive initiatives, the scientific disciplines, public service projects.

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[17] The documentalist can be defined as the specialist in the treatment and transfer of information, that is, the intermediary between sources of information and the users of these sources. The basic knowledge that the documentalist cannot do without include a linguistic and broadly cultural disposition, as well as a bent for records and Information Technology, indispensable in order to operate in the following action fields:

transformation and/or reduction of the document to information units

creation of documentary languages

archiving, retrieval and circulation of the information (ISFOL, 1987)

THE AUDIO-VISUAL DOCUMENTALIST

The indispensable professional profile for performing that work is that of the **audio-visual documentalist**. This professional profile will develop both in relation to an interweaving between the architecture of the new audio-visual archives and their dynamic use, and to the reconversion of more mature figures (film editors, cameramen, traditional archives officers, workers in the automated centres, etc.).

Last of all, closely correlated to the new forms of audio-visual documentation is the role as expert in the methods of utilisation of the documents selected in the archives or retrieved directly from the digital networks. In particular, the chapter on the right to use and exchange the document is growing larger and more complex. Indeed, the increased reproducibility of the original and its rapid dissemination creates new intricate ramifications for the traditional authors' rights that presides over the enjoyment of a work of intellect, as the sought after document generally presents itself. Increasingly often there will be the problem of retrieving together with the documentary form also the related methods of use, which only a skilled professional in the specific branch can supply or compose, with specific combinations of procedures and constraints that weigh upon that very same document. In this direction we can also catch a glimpse of a further development in the profile of the documentalist, which under particular circumstances, could be also configured as a true and proper ***consultant for explorations and retrieval of documents in the new digital networks that will have to be appropriately safeguarded from the legal standpoint.***

The professional profile of the **audio-visual documentalist** is that of a professional for whom are open the roads of freelance, consultancy and training work, as well as work in managing the most delicate apparatus of the private enterprise of public bodies, with a role and qualification as high-ranking administrator with strategic function. In greater detail they are expected to be allocated with different levels and tasks, inside the following: audio-visual archives, films archives, audio-visual facilities for direct production or on behalf of third parties, companies distributing audio-visuals, specialised offices of industrial, commercial or service companies, structures assisting in scientific research and applications, documentation and information distribution offices, publishing and television navigation groups selecting material on the Internet and equivalent networks, public bodies equipped with digitalised or archives or one to be digitalised, etc..

Characteristics of the audio-visual documentalist

TASKS

- to analyse the technical types of an audio-visual product
- to verify its technical conditions and composition

- to ensure its preservation and enjoyment by effecting the necessary reproductions
- to evaluate the possibility to transfer it to the various media available and for its re-setting
- to identify its vital data
- to see to performing and/or directing vital statistics search operations
- to devise codes for the further identification of the complete document or its parts
- to examine and encode the contents and the languages of the audio-visual document
- to single out any competencies to be called in to examine the various aspects or components of the document
- to describe them, adopting or articulating the most suitable methodologies for the cataloguing and the computerised deciphering of the data
- to define the elements of correlation and linkage in the document with any other individual documents or sets of documents
- to provide for guides to contextualise the documents or its parts
- to carry out and/or direct search tasks that can complete or develop the document under consideration.

OPERATIVE SKILLS

* can recognise types of audio-visual products and technologies of production and transfer

* possesses skills in searching, cataloguing and dialogue with digital and computerised networks

* possesses self-organisational and planning skills within the operative time-scales

* can use and/or predispose the use of audio-visual tools and technologies for the viewing, analysis, montage, deciphering, sonorisation and reproduction

* can carry out basic operations of restoration and possesses an awareness of the potential of the evolving sector

* can use a PC and possesses a knowledge of computer languages and keeps and update on the software and hardware products and applications needed to assist his/her work

KNOWLEDGE

◊ possesses notions of contemporary history and sociological, artistic and economic correlations, with a different accent and modulation according to the field of further specialisation

◊ knows the semiology of the cinema, television and computerised networks

◊ knows history, works and products of iconography, photography, audio-visuals and computerised networks

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◊ has a thorough knowledge of the various audio-visual and network technologies, of the correlated recording, montage, diffusion and navigation procedures, as well as of the new telematic technologies

∗ has the rudiments of private and public law, in particular basic elements of property rights and copyright norms, and possesses the tools to deepen the jurisprudence regarding the authors' rights.

BEHAVIOURS

♦ methodically adopts operative procedures

♦ is endowed with initiative and creativity in dealing with non-standardised situations

♦ is endowed with cultural inquisitiveness

♦ can carefully scrutinise documents, developing a professional 'eye'

♦ has acute analytical skills and an aptitude for relating data

♦ has tenacity and patience in following the repetitive and monotonous phases of the work

♦ has the capacity to design research inquiries towards the different possible information sources in the audio-visual documents

♦ possesses an elevated optical and auditory perception, with rapid reaction and memorisation times.

WORKING FIELD AND RELATIONAL CONTEXT

A professional profile that principally operates autonomously and individually, but that must be able to resort to group work or to outside competencies.

MANAGERS AND MUSEUM OPERATORS

Work description

In spite of the introduction of ICT in the sphere of the national trust and our cultural heritage, the duties of the museum operators are still mainly of a conservation kind, linked to the responsibility of safeguarding and servicing the works. These characteristics are essentially dictated by the uniqueness of the works housed inside the museums (whether they are ancient, modern or contemporary art); hence their value is often made to coincide with their actual existence and only secondarily with their communication.

The museum operators with management tasks are very often history of art graduates; in the case of art galleries and very important public institutions (such as the National Gallery of Parma) the museum director and the state supervisor for the architectural and environmental heritage is often the same person (which implies the overlapping of a traditional curriculum such as that of the art historian with a vocational training of a bureaucratic kind; it should be noted that neither the art historian nor the bureaucrat have as such received a specific or adequate training in the techniques and disciplines of communication).

Both the library and the museum are configured not so much as centres of cultural production but rather as bodies that manage services linked to culture and to cultural assets; however, the libraries and the people running them have distinguished themselves (for several decades) not only for their willingness to use the computer technologies (to improve the management of cataloguing and data retrieval) but precisely for the stimulus given to those, while it can be said that nothing comparable has occurred for the museums.

Moreover, it should be noted that the conception of the museum as a means of communication is relatively recent; after the Wunderkammer and the collections belonging to the various noble families of Europe (both structural and not systematic, containing a bit of everything), during the 19th century there was above all a reorganisation (especially chronological) and a specialisation (from which the theme-based museums were born), arriving at the museum as medium only well into the 20th century.

This new conception has, however, led more to a closure rather than to an opening of the museum itself: the museum organisation has undergone the tendency towards becoming a machine for discussing a single theme ("museum-discourse"). The strictly narrative framework which derived from it has given a unitary sense to the collection, which has taken on a markedly sequential appearance (that is, textual).

However, it is precisely an activity launched from inside the museums that has contributed to starting up a substantial change to this situation, in the sense of a 'softening' of the rigid museum structure: this regards the teaching activity (above all addressed to children and young adults, but not only them). The role of the museums' didactic operators

is indeed configured as a delicate mediation between the contents of the collection as such (and not as a predefined sequence) and the knowledge/interests of the students; this mediation is often supported by a series of play activities and the personalisation of the contents illustrated in the museum (e.g. reproducing from memory some of the paintings seen, inventing stories sketched with the characters from the paintings, etc.).

The good fortune of teaching activities (in which many museums invest large amounts of energy) lies then in together 'reopening' the closed set that the museum actually is, in a few words, making it interactive. The demand for interactivity/personalisation from institutions and services has naturally received a strong push with the growing diffusion of ICT (of which one of the main added values is precisely the personalisation of the contents and the search for information); hence it is natural that the two services with a more 'interactive' valency that the museum (the teaching activity and the museum shop) have drawn benefits from it.

(Other signs of personalisation, e.g. the use of headphones that capture 'via radio' recordings pertinent to the museum context, such as at the *Cité de la Musique* in Paris; irrespective of the sequence that is followed during the visit, before every museum piece visitors listen to the description and the historical information etc. about that piece and/or that section of the museum; the recording is interrupted as one leaves the item).

These practices as well as ICT have significantly contributed to the redefinition (at least in prospect) of the museum from single narrative sequence to **montage** (in the film sense, above all as described by Sergej Ejsenstejn: i.e. as a pathway of mental associations).

We can thus note that the advent of the new media strains the museum's sequentiality and suggests a multiplicity of potential experiences to the visitor; this comes about straightforwardly, for example by visiting the web site of the collection or (when there is one) the CD-ROM, which always allow for personalised "visit". But the 'hypertextualisation' of the museum or the collection is most fully realised in the case of operations in which, for instance, individual works are linked to the whole cultural panorama related to them. For example, the page of the site on a work by Guercino contained in the museum that includes links with other works of the artist, other collections that contain his works, archives with documentation on his activities, etc..

In this context the characteristics of the museum operator cannot be limited to a historical-artistic competence but must at least partially lean towards those of the librarian as you described above in this paper. With one difference as yet to be explored: while the communications professions work with reproducible objects (the current case of the librarian, the teacher, etc.), the museum operator not only has yet to acquire solid skills as a communicator, but also as a 'communicator for single objects'.

Skills

The museum communicator thus has to be able to help and stimulate the visitors in constructing their own montage which coherently and significantly integrates the contents they have come into contact with in the museum with their own personal experiences, attitudes and interests.

Pushing matters a little further, but not too much:

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the museum communicator should have ideally, besides an historical-artistic training, a knowledge of cultural practices of the non-linear construction of meanings; as regards the ICT and the non-linear construction of meanings, this profile would certainly draw advantages from learning to use (even in a basic way) the Director software (Macromedia) or other software for multimedia creation. In short, s/he should know how to help the visitors to "hypertextualise the museum", to build his/her own "cultural hypertext", his/her own montage in which the contents of the museum are only one of the ingredients. In regard to the document of the Cultural Committee, the Draft Recommendation 3.2.iii.c is absolutely pivotal (capacity to single out external resources).

The construction of a professional profile capable of realising a task of this kind can easily turn out to be a strategic resource for every museum and collection. One of the chief capacities of the directors of the collections and the museums, along with a strong **design capacity,** as yet not very widespread and hampered by a bureaucratic training, will thus be knowing how to identify and surround oneself with people equipped with these characteristics (cfr. Draft Rec. 3.2.i.a and 3.2.i.b), as well endowing them with real managerial responsibilities having relative autonomy. In this light ICT are simply an extra tool which enriches the potential for design, operations as well as (especially as regards on-line technologies) the visibility and promotion of such activities. Personally, however, I think that mastering the knowledge of ICT is subordinate to the creative, relational and communicative capacities that the operators must necessarily possess (cfr. Draft Rec. 3.2.i.c., 3.2iii.a, 3.2.iii.c).

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SMALL AND MEDIUM ENTERPRISES IN THE AUDIO-VISUAL SECTOR

Design and technology
(Point 3.1.ii of the Draft Recommendation)

➢ Screen designer, Multimedia designer (3.1.ii.a)

➢ Computer animation designer (3.1.ii.b)

➢ Media designer for picture and sound (3.1.ii.c)

Accordingly to our research it is not plausible, as regards SMEs working in the field of multimedia electronic production, to think of these as distinct professional profiles. In a small enterprise working in multimedia publishing it is often the case that the person who is responsible for designing and developing the graphic interface of off-line and on-line (e.g. for the Web) applications (1st profile), is also responsible for designing and developing computer multimedia animation (2nd profile), and for "including stills and moveable pictures and sound in all types of electronic productions" etc. (3rd profile).

This means that this kind of person must be a very creative person, who has graphic traditional competencies coming from typography, good general knowledge on communication styles and strategies of 'traditional' mass media such as TV and newspapers, and – as for technology - good knowledge of the multimedia authoring software tools (Macromedia authoring software suit market: Director for off-line products for CD-ROM or DVD, Dreamweaver, Fireworks, Flash, etc. for on-line products for the Web) which are most widespread in the).

software developer (3.1.ii.e)

This profile can be indeed kept separated from the others mentioned. A software developer who works in a small enterprise must also play often the role of System analyst.

Management and technology
(Point 3.1.iii of the Draft Recommendation)

➢ Multimedia project manager (3.1.iii.a)

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➢ Executive producer(3.1.iii.b)

➢ Legal experts for multimedia products (3.1.iii.c)

In a small enterprise there exist often only the role of Project manager, who takes care of all the tasks described under the three above-mentioned profiles.

Content and technology
(Point 3.1.i of the Draft Recommendation)

On this point there is, among our sample a strong general criticism, indipendent by their condition of SMEs. The argument is that it seems senseless to speak of "content" in general, as related to technology. Contents are very different from each other and SMEs in the multimedia publishing world have to buy them from different experts: they buy "contents" (texts, images, music or – more generally – information) on history of science from historians of science, contents to produce games for children from different experts, etc.. Creative content providers come from all fields and environments; it can not become a profession in the field of ICT. The only stable role necessary for multimedia production in relation to "content" is that of *Editor for off-line and on-line products* (3.1.i.d) whose tasks also include those of *Content co-ordinator* (3.1.i.c) and *Multimedia developer / story boarder*(3.1.i.b) . This profile has to take care of contents in many senses. He/she has indeed to:

a) adapt texts coming from 'traditional' authors to multimedia means and purposes, and to hypertext writing;

b) do hypertext editing (which means traditional editing, plus check/correction of links and hotwords, conception/adaptation of traditional texts to the small spaces of hypertext writing, and to the special formats of hypertext authoring tools, etc.);

c) write storyboards;

d) integrate the different contents of a multimedia product,

etc.

Distribution and technology
(Point 3.1.iv of the Draft Recommendation)

Each one of these profiles should not be imagined as a new profile to be invented but, rather, as a further competence that the respective more 'traditional' profiles should acquire in order to stay on the market. Indeed, this is the case of the Multimedia Librarian we have mentioned earlier.

Likewise this can be applied, *mutatis mutandis*, to most of the other professional profiles listed in this section. As regards the Web Master, it is hard to imagine one that works exclusively as a Web Master.

The Web Master (3.1.iv.d) of the small company is rather like a figure coming from the "graphic area" (that of "Screen designer, multimedia designer (3.1.ii.a) + Computer animation designer (3.1.ii.b) + Media designer for picture and sound (3.1.ii.c), above-mentioned, who is specially Web-oriented and skilled.

The objection already levelled at the figure of the Content Developer is extended to that of the Tele-tutor (3.1.iv.h). The fact that the tutor works at a distance, i.e. that he/she is 'tele' or 'remote' does not in itself constitute a profession; for the tutors it will be a matter of learning to do it at a distance, which implies, for example, training in interpersonal and group dynamics [18].

All the objections made in this Chapter, based on experiences in the field of SMEs operating in multimedia production, are in principle not only restricted to SMEs. In medium and large firms, of course, the prospect of a functional distinction between different profiles is very realistic although it still holds a problem. It is a very 'old' question in organisational design and in the system of industrial relations but, on the basis of historical experience, is very critical in each period of radical change. The point is the degree of professional segmentation that will be effective and efficient in the long-run. Historical experience indicates that what is "stable" and sustainable, over the long-run, is a low degree of segmentation/functional specialisation. This does not imply having few and broad multi-functional profiles but the prospect of an internal career in a broad and low-marked profile. An internal career means that he/she will have the opportunity (entitlements and capabilities) to achieve the full and broad range of the skills involved in that specific broad profile. This is critical in periods of radical change because of the open nature of each profile and competency; they are set within an ongoing process of fast-moving change. The risk of a strong and analytical functional segmentation is to create professional profiles that will become obsolete; to maintain a broad and loose articulation is a way of skipping that risk.

To sum up, then, the outcomes of the inquiry into SMEs in multimedia production:

there are three main professional domains: **software development, contents production, graphics.**

The first domain is specifically ICT-related; the second is based on co-operation between traditional, enriched work activities and new and specifically ICT-related, such as *Editor for off-line and on-line products* (3.1.i.d) whose tasks also include those of *Content co-ordinator* (3.1.i.c) and *Multimedia developer/storyboarder* (3.1.i.b); the third should be considered as a common area in which a profession (i.e. Web Master), depending on the firm size, can either be or a mix of "Screen designer, multimedia designer (3.1.ii.a), Computer

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[18] Part 2 by F. Garibaldo and E. Rebecchi in **CO-OPERATIVE WORK AND VIRTUAL CORPORATION: METHODOLOGIES AND TOOLS FOR THE DEVELOPMENT IN SMEs CORPORATE NETWORKS**.

Paper by F. Garibaldo and E. Rebecchi - Fondazione "Istituto per il Lavoro" - "Institute For Labour" Foundation - ,and A. Messina, M. Melotti, P. Ciancarin - Dipartimento Scienze dell'Informazione - University of Bologna – Italy: http://www.ipielle.emr.it/doc/docvari.html

animation designer (3.1.ii.b), Media designer for picture and sound (3.1.ii.c), with a specific competency on the web, or the co-operation among these different skills.

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