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**The Challenges of Technology for
Information Professionals**

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The Challenges of Technology for Information Professionals

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Abstract

This paper intends to reflect about the changes in the work of information professionals. We are, according to Baudrillard (1991), living "in a universe with ever more information and ever less meaning". In this universe, reality may be understood through the numerous social, economic, and political dimensions that modify human knowledge and action. This movement has led to the rise of new occupations, the transformation of others and the destruction of many. It has also meant that fields that were previously distinct, such as specific work areas in a professional category, are now converging. Technologies change work situations and machines perform routine tasks. It is clear that the group of information professionals is a very heterogeneous one. Nowadays, the ability to work more efficiently entails the use of technology, and requires individuals to be effective participants in the information society. What we are actually seeing is not a change in knowledge, but a change in the object of information professionals' work – information and its processes. One of the various challenges faced by information professionals regarding technologies is that of visibility, and the openness of net information services. While in general, everything is on the net, sometimes users lose track of it. Understanding user behaviour and their needs, and providing the skills necessary to seek information are a basic requirement for information professionals. Everything suggests that the fundamental values of information professions will continue as they are for at least the next few years: values associated with quality services, universal access and cooperation. This all leads to believe that the intelligent use of technologies by information professionals will feed this circle of change and of knowledge sharing.

Keywords:

According to Baudrillard (1991) we are "in a world in which there is ever more information and ever less meaning", and in which the "inflation of information" corresponds to "deflation of meaning."

This world, actuality can be understood through multiple social, economic, and political dimensions that modify human knowledge and action. Although fascinating, this reality is also problematic. It is fascinating because of the potential of the information society in which the virtual and instantaneous are concrete facts.

However, it is problematic because of the inequalities that this society brings with its promises of change. It is also problematic because this new environment questions our paradigms and certainties. Just as we break from previous thought models, we add new "layers" (to use Levy's expression) which can signify either rupture or consolidation.

It seems that while we may be able to recognise palpable paradigmatic changes, we are ill-prepared to face them at the point that the virtual and instantaneous nature of information has become a concrete fact.

In addition to this, new strategies for cooperation and a new organisational architecture demand specific skills in working environments and have led to a need for different forms of information organisation. These changes are inherent to an economic model that has introduced forms of work and social management that value team work, inter-disciplinarity and continuous training. As we all know, this information revolution has come about through the globalisation process – which, according to García Marco (1998, p.9) is one

of syncretism and cultural integration that has developed out of the hegemony of industrial societies since the 16th century, and is characterized by the expansion of the modern state, global commerce, industrialisation and human rights, and with all the contradictions that these interactions bring.

This is a complex system that shows the acceleration of changes at all levels of society, and in every kind of information communication process. In this sense, according to Garcia Marco, informational flow increases exchange between cultures, institutions and social groups, and leads to transformations in the structure of personal and social life.

One should remember that the concept of the information society is based on the increasing recognition of the importance of acquiring, creating, managing and assimilating information in all areas of society. These practices are closely connected to the activities of information professionals, particularly librarians.

This movement has led to the rise of new occupations, the transformation of others, and the elimination of many. It has also instigated the convergence of areas that were previously separate, such as specific working fields within professional categories. As Cronin (1998) states, all progress brings with it destruction, and the process of integrating technology initially disturbs the operation of economic activities. This process then requires structures and

behaviours to be adapted. According to Picón, "only gradually does one technical system expel another and this is never a purely technical system: certain elements of an old system always remain while others perhaps herald the next." (1996, p. 31)

Thus we see the development of new working spaces that are fundamentally connected to universal and cultural properties of information that lead to change and new forms of intermediation and re-intermediation. In addition to this, these professional spaces create a hazy area between the professional borders and limitations that are part of the process of fragmentation and dispersion in the world of work. This implies that the professional system, its articulations and working structures, and roles and relationships have changed.

Newer areas of expertise and occupations have arisen from the margins of these professional fields, and from the confluences and limitations between the different professions. New ways of seeing and thinking have emerged from these confluences and limitations. What often comes from these margins is something new, something that arises from different spaces of cohabitation that are frequently ill-defined, plural, and are a rupture – and which represent a dialectic between rupture and continuity, nucleus and periphery. The margin of something new means going beyond, crossing borders, discovering new paths, working together and exchanging ideas.

From this perspective, creativity and openness to constant training are highly valued. Technology modifies working situations and machines are able to perform routine tasks. In this environment

knowledge construction is no longer a unilateral product of isolated beings, but a vast distributed cognitive cooperation, in which human learners and artificial cognitive systems participate together. This leads to profound changes in creative approaches to intellectual activities. (ASSMANN, 2000).

It is clear that the group of information professionals – one of the groups most affected by these changes - is a highly heterogeneous professional group that includes classic information professionals like librarians, archivists, museologists and documentalists, as well as journalists, IT professionals and managers. These professionals work in a range of fields but the focus of all their work is the processing of information. It is also possible from the literature and activities of information professionals particularly within Europe, to note a trend towards cooperative work between different specialisations, and this is a trend present in several other professional groups. This trend is visible in the EU with the creation of Information and Documentation courses in Spanish universities, which include Librarianship, Archiving and Management, and the formation of associations like the ADBS – the French Association of Information and Documentation Professionals, BAD – the Portuguese Association of Librarians, Archivists and Documentalists, and IABD - the French Inter-association of Archives, Libraries and Documentation.

According to Accart (2008), "in practice, the borders between different specialisations (specifically with regard to information professionals) are not as clearly defined as they were several years ago; this is a positive change that embraces convergent activities." For Accart, training for information specialists should most importantly lead to more open approaches to concepts, models and methodologies. However, in Brazil these are still nascent.

For Fonseca and Oddone (2005, p. 4)

the term information professional is fragmented and it has become a profession that is divided according to the type of, or way that information is studied; it is merely a guideline for debate on what it is to be an information professional.

The diversity of the activities of information professionals requires a plurality of inter-professional skills. This also means that the development of information systems and units should not be entrusted to any single professional, but rather, to a team of professionals from several fields, with a combination of skills.

The world of work increasingly expects greater productivity, efficiency and efficacy from professionals – particularly those connected with the field of information. To be able to work efficiently nowadays entails the use of technology and being an effective participant in the society of information. This means that day-to-day living needs to be reconciled with a complex informational universe within a globalised world. It also means that skills and expertise need to be constantly evolving. Levy suggests that new methods of transmitting information do not lead to a suppression of the previous method of transmission, but, rather, to a new "layer" that heralds new channels of knowledge transmission. (LEVY, 1997).

In this complex reality, activities of search, analysis, management and diffusion of information play a strategic role in a range of environments, and attract professionals from various fields of knowledge within a dynamic context that creates the space to share ideas. This evolution appears to be leading to a re-organisation of information systems where professionals from diverse backgrounds can work interactively in a variety of roles, and which can lead to new relationships between occupations. These new relationships mean new ideas, expanded viewpoints and new world visions, all of which are boosted by the contacts that the internet provides.

In truth, what we are seeing is not a change of knowledge, but a transformation of the object of information professionals' work – information and its processes - to a virtual world. This means that continuous development is necessary in order to understand this world in all its complexity. It signifies that, among other things, there is a need to forge new allegiances and to take part in interdisciplinary projects.

For Accart (2009), over the last ten years we have been witness to a range of phenomena that he summarises as the "age of access"; an expression first

used by Rifkin in 2000. According to Rifkin, it is possible to summarise these phenomena as:

- the open file initiative, made possible through the creation of the OAI-PMH norms;
- the ever greater visibility of information on the Internet
- the personalisation of information products. For example, Google offers Google Scholar, Google BookSearch, Google Actuality, Google Alert, Google Knol;
- the convergence of the information market;
- the complexity of information laws, which develop legal models and licensing contracts such as Creative Commons and other consortia.

Michel (1995) highlights that this reality of technological cohabitation should lead to developing the following skills:

- understanding and knowledge of how to handle information on monitoring, discovering, inventing and opening for the world;
- enabling efficient, creative and selective navigation in cyberspace;
- knowing how to develop and explore helpful information, reference information that accompanies and enables routine activities for individuals and companies;
- valuing information produced by organisations, primordial information;
- valuing live information, communicative information, short-term information, divulged through networks and electronic messages that are growing all the time.

Among the several challenges faced by information professionals regarding technology is the visibility and accessibility of network information services. This visibility is, without a doubt, one of the key factors in working in information units and systems.

Additionally, one should mention the open access movement, which involves

free-of-charge, non-profit, open access to scientific literature through the Internet or in print, without barriers or technical and financial restraints, that allows this to be read, printed, copied and distributed. (ACESSO ABERTO BRASIL, 2011)

The core function of information professionals involves enabling information and making it available and transparent. Information professionals can play an important role in making this open access information available

through regular contact with users, particularly researchers, and encouraging them to make their own work available on-line.

In principle, everything is available on-line, but on occasion users can lose their way. Understanding user behaviour, making adaptations to information services and their needs, and providing the skills necessary to seek information is a basic requirement for information professionals.

The amount of information available on-line requires these professionals to be intermediaries, analysing and evaluating sources so as to reconcile requirements with resources. Everything suggests that the foundational values of information professions should continue as they are over following years: values that are linked to quality service, universal access and cooperation. The most evident changes appear to be in how these values are transmitted.

In summary, professional activities that are underpinned by technology tend to demand collective activities and transparency, and these are more than ever translated through universal access, which for its part requires adaptability and compatibility.

To conclude, a quote by Levy (1997:27) seems appropriate:

Through our interactions with things we develop skills. Through our relationships with signs and information, we acquire knowledge. In our relationships with others, we bring knowledge to life through initiation and transmission. Competence, knowledge and wisdom (which can be applied to the same objects), are three complementary methods of cognitive transaction. These three forms tirelessly circle one another. Each activity, each act of communication, each human relation leads to some form of learning. Through skills and knowledge, the trajectory of a life can always feed a circle of change and feed a culture of knowledge.

All this leads me to believe that the intelligent use of technology by information professionals will feed this circle of change and knowledge sharing.

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