Records and Archival Education as Fundamental Requirement for Digital Society Citizenship: challenges to face, risks to govern, knowledge to re-build and implement

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General Remarks

The paper discusses the relevance of qualified education and training programmes in the electronic records keeping and the digital archives preservation as basic tools to support the present and future innovation process in democratic societies. To meet this ambitious aim and to play this new social function the education and training processes are required to develop higher degrees of political awareness and a more comprehensive technical knowledge. The task is also due to the lack of consolidated experience in the technological environment and the inadequacy of a systematic analysis of the conceptual and methodological dimensions make this effort a real and complex challenge. My reflection, based on the analysis of the efforts made at international and national level by the archival professionals and records managers in the last years, tries to identify the changes necessary in the professional curricula at the university and other high educational institutions (like the independent archival schools existing in some countries and those created within the National archives), but also the contents, the tools, the models required to involve a larger community of stakeholders in the area of electronic records creation, use, access and the risks and the benchmarks to be taken into account in the process.

The whole teaching instruments and methodologies are today under pressure to be continuously updated and renovated, specifically when their related disciplines make increasing reference to the digital environment, as in the case of archival and records management sectors. To meet these results a persistent effort is required to the dedicated institutions for ensuring the adequacy of their service in term of new capacities for the education programs:

- to understand the continuing evolution of the digital innovation and techniques for teaching – on the basis of a scientific investigation and a multidisciplinary approach – contents and methods compliant with the most significant challenges involved both in the conceptual and practical RM and archival dimensions, to re-define and make clear in its internal consistency and available to the dedicated communities the basic old and new concepts and the related methodologies, to develop general and accepted terminologies, consistent and easily understandable,to identify and allow the circulation of relevant standards and policies at national and international level, able to become in short terms part of the professional curriculum,to experiment with a critical approach (and not a passive attitude) the e-learning techniques with reference to their efficacy, to their potentialities and their limits,to prepare at any level of the records and archival dimension officials and professionals with flexible attitude but also with strong principles and well stated methodologies, able to play themselves – if required - a distributed training function.

The complexity of all the challenges to be faced and the risks to be controlled implies the existence (and their further continuing monitoring for consolidation) of *basic general conditions*, not at all granted in the recent development of numerous educational programs:

- the robustness of the conceptual and the methodological framework of the traditional educational/training systems,
- a well defined balance among the need for change, the requirements for updating and the guarantee for continuity in the educational contents,
- the monitoring of the programs flexibility within a consistent general model to avoid the risk that the opportunity for a more comprehensive knowledge could be transformed into the certainty of a loose direction in a fragmented environment.

Basic questions have then to be discussed again and redefined by the archival educators community at international and national level, at the same time with open mind and confidence on experience accumulated. Many of these problems have been already listed, critically identified and in some cases also deeply discussed in the last recent international events (where, not surprisingly, the education issues has met increasing interest and new concern), like in the course of the ICA Vienna Congress in August 2004[1] or at the Helsinki seminar organised by the ICA Regional Section EURBICA in November 2004[2].

A synthesis of the main aspects still under debate include the following issues:

– *Who* and at *which level* should be at the centre of a new educational paradigm (*who* should be trained and *who* should be the trainer? *How much* the specific legislation and the institutional environment can influence and determine the model pursued?)
– *Why* a higher level of knowledge and of responsibility is required to be share by a larger community?
– *What* should be taught (in terms of renovation or restructure of traditional contents and in terms of a new multi-disciplinarily approach able to include – if necessary - materials and skills related to content management, knowledge management, business process re-engineering, portal management, but also on the human aspects of the networking)?
– *How* the advanced capabilities can be transferred to guarantee practical skills and theoretical clarity in a continuing changing environment? *How* to balance the traditional archival education content and the new disciplines closed to the technological challenges? Are tools like stages and case studies adequate and sufficient (and at which conditions and costs) analysis to ensure to the students the acquisition of a mature methodological capacity[3]?
– *When* the training process should take place: as post-graduate education? as doctoral study? as long-life training?

First of all, these questions imply the clear and consistent definition of responsibilities for the training/educational process and – at least - the discussion of models developed in the course of the last years at international level, but also in connection with the concrete evaluation of the national and institutional organizational and cultural contexts, their strength and their weackness. In any case audit mechanisms and quality certification are critical to face a process characterized by a huge amount of changing factors and not always adequate products because of:

– the lack of professional basic literature (not only for advanced contents),
– the uncertainty of the existing boundaries with other new closed disciplines, more dynamic but also less consistent (like data mining or knowledge and content management),
– the difficulty to ensure the necessary continuous feedback with the professional and operational environment.

The challenges of the digital innovation in the learning environment

The starting point for a convincing analysis could not focus only on the educational skills and tools, but

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[1] See http://www.wien2004.ica.org with specific reference to the reports presented in the sessions 2. Archives and Knowledge (Creating Teaching Resources Workshop, Experiences from Teaching Records Management to Colleagues in the Developing World) and 2.1. Archives and knowledge – Professional Development (Archival Education and Training Programmes: Planning and Evaluation, Learning and Development for a Competent Workforce, Online Training and the French-Speaking International Archives Portal: Experiences and Lessons Learned, Towards Successful and Relevant Training: the Competency Model, Building New Knowledge for Archivists: Evolving Archival and Recordkeeping Education into the Digital Age, Professional Archival Training around the World: the Results of on ICA Survey, Building New Knowledge for Archivists: Evolving Towards a Common Core Curriculum,), Distance Education: Flexible Access to Professional Education
[2] See http://www.eurbica.org/sections/actualites/seminaire_formation/view: Compte rendue du Séminaire "Formation des formateurs en records management». Helsinki, 11-12 November 2004.
[3] Theo Thomassen and J. Schenkogel have recently stated the relevance of a solution based on a student-oriented method, flexible with reference to the contents provided but strongly based on the effort of transferring methodological capacity. In particular, see H. Schenkogel, *Whose master's voice*, presentation at the ICA Wien Congress, August 2005 (available at www.wien2004.ica.org).

should include the understanding of the present evolution of the RM function with specific reference to the challenges imposed by the digital innovation to the records systems and the archival discipline: in fact, this evolution implies relevant and complex changes deeply debated (even if not yet solved) by the existing literature and, recently, analysed and summarised at the last ERPANET workshop held in Bern in October 2004[4] and dedicated to the exam of the state of art in the area of archival preservation. The professionals (specifically those involved in high education and training activities whose mandate is to translate and communicate into consistent, clear and understandable representations concepts not always sufficiently stable specifically in the digital dimension) are required today to transfer to students theoretical principles and practical tools, standards, policies, methodologies able

–   to manage active records in digital environment,
–   to provide the creators with records as reliable evidence and efficient support to their business activity,
–   to ensure their authentic preservation, when transferred to another environment or maintained over time,
–   to define and monitor new and continuously updated organizational models within the documentary and administrative workflows,
–   to maintain the interrelation between the decision making processes and the record function,
–   to guarantee the immediateness of the records communication and the completeness of their interrelated information and profiles through efficient classification tools,
–   to identify (or coordinate) the responsibilities for the records creation, keeping and preservation by testing models compliant with an increasing general decentralisation process,
–   to control the adequacy and the efficacy of the whole records system.

   In conclusion, the records systems, characterized for the last two centuries by a systematic knowledge, stable methodologies and well developed tools are today at the center of a general transformation which requires at any level the existence of specific, frequently updated and more variegate skills.

   Fundamental requirement to ensure the correct implementation of these new tasks and expertise is the adequate development of professional environments as far as it concerns:

–   a change of accent and a different perception of the RM function, specifically in the case of digital records systems,
–   the need, not yet completely covered, for a comprehensive understanding of this transition period (still open and probably uncertain for long time in the future) with reference to the nature and the relationships of traditional and new models, activities and professional profiles.

   This uncertainty and the present complexity imply – as an intrinsic consequence - the increasing centrality of the training/educational function perceived by the professional themselves as a tool for

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[4] At the Bern workshop researchers of different archival traditions (US, UK, France, Germany, Italy, Canada, Swiss, The Netherlands, Australia) have been invited to discuss the state of art and the main challenges connected to the *Managing and archiving records in the digital era*. The final results of the workshop are in printing on the initiative of the Swiss National Archives. Six main questions were asked to the speakers:

1.   What are the main challenges when managing and preserving digital information and records?
2.   Will the new digital order change user needs or expectations of information, records and/or archives management?
3.   Are the existing archival paradigms adequate to meet the challenges of the new digital order? What impact will the new continuum paradigm have on the way records and archives management are organised now? Do traditional archival traditions still offer us other - additional - different options?
4.   What new organisational or business models does the new technology offer us to organise records and archives management? Will there perhaps be a shift in responsibilities from archives to records management or the other way around?
5.   What impact will the new digital order have on the interaction with related disciplines, such as information management, libraries, content management, knowledge management etc.?
6.   What impact will all this have on the archival or records management discipline?

stabilization and control in a dynamic environment.

The qualification of the archival education infrastructure

As a consequence of this common request for deeper and more consistent knowledge, the development of a professional community is considered strictly connected to the quality of its educational and training infrastructure, whose adequate improvement would consent to the archivists and record managers to play a more relevant role at a qualified level of professional involvement in the IMS/EDMS/ERMS. Even more, if the flexibility could be considered as a basic requirement, as previously noted, a further condition not to be underestimated is that this flexibility should be built on research and scientific methods. The IT development and the "pressure" of its continuing changes imply then an active and exacting investigation to face the records proliferation and a serious confrontation with the interdisciplinary and its difficulties. This evolution has many consequences in developing educational strategies and in defining its correct level of complexity and responsibility. Training and research cannot be considered anymore as separate activities and require a serious and continuing level of integration and a dedicated environment.

As well expressed in 2002 from a more general point of view by Adriano Di Maio, rector of a University of excellence in Italy (Università Bocconi, Milano) the present and even more the future require experts whose main *quality* is not the *quantity* of the specialised knowledge accumulated, but the possess of systematic research methods and tools: the capacity of becoming immediately operational risks not to include the capacity of facing the knowledge obsolescence, while the possess of such a method implies not only the capability of dealing with innovations, but *also to generate innovation*". Similar is the statement – more related to the records dimension - of Carol Couture who wrote in 1994 with reference to the archival students: "we need to train them to learn things more than we need to train them to do things" and of Theo Thomassen who in 2001 recognised that the same archival students "must be trained not only for adaptability but also for the mastery of the processes of change in their work situation, they must be prepared to give shape to a future of which only the outlines can be seen now. Archival education must adapt professionals to changes, but also be an agent of change by itself".

For all these reasons, the archival education cannot be re-placed by a RM training specifically if the dedicated staff will have to play a role interrelated with the other creator's services, a not bureaucratic and passive role, but a central and pro-active approach able to transfer a consistent methodology, not different from the dynamic function of the trainers/educators themselves: in some sense the records professionals will be often asked to play as trainers of the other staff, and for this reason they would receive a high *education* in a research, academic environment and they would possess a strong *archival* knowledge based on well funded theoretical and methodological roots.

Of course the weakness of the discipline development and of the investments dedicated to the educational process could create new challenges and – if not faced - determine more negative consequences than in the previous season of certainties, specifically with reference to

- the young scientific statute of the archival science and the records management theories and their lack for a consistent tradition and a systematic approach,
- the excessive degree of pragmatism that has been the characteristics of the past and also today influences many national communities and their educational and training programs at any level (national archives schools, academic programs, professional initiatives),
- the present delay in developing a comprehensive framework for improving the quality of the learning process.

Quick answers to basic questions

A common process for re-qualification of the education services is present in all the national traditions. This development should be encouraged through agreements and integration between academic and archival institutions with the support of the professional associations. By the way this process has to be

supported by a clear understanding of the overall challenges to be faced. A first step could be the further investigation of the questions previously proposed and here briefly illustrated.

Who should be the central actors of a new educational paradigm? Is a distributed process a feasible solution? Which are the costs and the conditions this enhancement?

Because the professionals are often required to play a training role with reference to the larger community of records users, or an advocacy function with reference to the IT specialists involved in the development of information systems, the trainers today are not only the academic and professional teachers, but more often the professionals themselves responsible for the RM program within the public or the private sector, specifically if the records systems are developed as ERMS. Of course in this case the training of the trainers should become a further field to be examined.

To support this evolution and with reference to the specific European context, to implement the requirements defined according to the Bologna declaration the variety of the past responsibilities for high archival education (independent archival schools, National Archives educational programs, University masters according to the Anglo-Saxon tradition) changes and produces more controlled models based on academic certification process.

The limits and the contradictions of the existing offer are relevant and could/would create a negative impact:

- growth of the RM courses at master level (not only within a university environment),
- proliferation of the teaching actors without any adequate specialization especially in the case of private initiatives (but also in many schools within the archival institutions),
- increasing complexity of the contents developed,
- less control on the methods developed and on the quality of the resources employed.

Why a higher level of knowledge and a more qualified degree of teaching competence are today required?

The answer has to be found by analysing the technological environment and their implications for RM activities:

- decentralization of functions and responsibilities identified as distributed competence for recordkeeping,
- growth of complexity and fragmentation,
- changing roles for records managers which include:
  - defining rules and standards,
  - ensuring quality control,
  - playing training activities,
  - transferring methodology more than exercising directly the RM function.

Another point to be considered is the fact that the long-term instability of the technological environment (and, as a consequence, of the records management function) asks for more advanced capacities and special qualities in the service exercise in terms of:

- solidity of the professional knowledge,
- consistency of concepts and accuracy of the related terminology,
- flexibility of the practical activity as always required in any cross domain as the documentary system.

The complexity is so high that the solution requires a special involvement of all dedicated communities (archival administrations, records creators, academic institutions) in term of an integrated cooperation to create effective educational products and productive environments. Of course this effort is not easy to achieve both for political and organizational reasons, but a system of distributed responsibilities able to increase the general awareness and the quality of the results should be at the center of the education

users and providers worries.

> **What** should be taught (in terms of renovation of traditional contents and in terms of a new multidisciplinary approach)?

To insure quality and consistency of specific contents there is need for stronger theoretical and methodological consistency and operational skills than in the past: an advanced technological environment requires not only a specific knowledge, but also and even more the capacity of being active, and developing a dynamic reactivity to the present and future complexity with an enlargement of the technical expertise area.

The teaching of the record management principles and methods should then focus on both the principles of diplomatic and archival science and record management (concept of record, its constitutive elements, principles for the records creation based on the registration and classification), and the practice of archival functions (description, preservation, appraisal). The new skills acquired in the learning process should include:

- the technicalities related to the ICT development (information systems theory, DBMS, data mining and content and knowledge management systems),
- the understanding of the legal framework from the historical and juridical point of view.
- project management,
- the business procedures control.

> **How** the advanced capabilities can be transferred to guarantee practical skills and theoretical clarity in a continuing changing environment?

New methods have to be investigated but in connection to their costs/benefits and with respect to the crucial ties involved in each choice. Specifically:

- it is crucial for any provider of educational programmes to take into account (on an yearly basis) the changing requirements of the records systems without loosing the consistency of the theoretical framework;
- e-learning methods are integral part of this new environment (specifically as blended systems which require electronic forum and discussions, tutorial tools, chat but also front-desk teaching and stage as requirements for providing direct confrontation with the experience of teachers and skilled professionals);
- the development of complex teaching methods is exhausting and expensive and risks to be useless if not implemented through practical activity, relevant both for RM professionals and RM teachers: the theoretical knowledge and the methods require to be continuously verified in practice, mainly in the digital environment;
- the range of available methods (learning by doing, by using, by searching, by interacting, by monitoring) should be experienced and verified in all the occasions, mainly during the training the trainers;
- case studies and best practice are more than in the past significant tools for acquiring qualified knowledge: the results are rapid and efficient but require controls, tutoring, contacts, etc.

The involvement of the students in the concrete RM activity (of course in a tutorial environment) is generally evaluated as a critical factor for successful programs. A good example is the definition (or an updating) of a classification plan or the participation to a design of an electronic records system.

In any case, as previously already stressed, the relevance of the binomial education-research should be always considered, because:

- the link with the scientific research is a basic requirement within a sector characterised by a

continuing transformation: for this reason an academic environment is required (also in the case of applicative disciplines) both to create the necessary theoretical basic knowledge, and to ensure a continuing updating process;

– the training provided by the professional communities (specifically if the binomial education-research cannot be developed adequately) is not sufficient, specifically in the case of ERMS. In any case it constitutes a relevant element of an integrated approach;

– the teachers themselves, to be authoritative, should be involved in a continuing educational process, but for the moment this experience has not been further and largely developed[5].

The relevance of tools, standards, guidelines should be also considered in this process as necessary to improve the quality of the teaching communities. See, for example the Model requirements for electronic records management systems (MoReq) and the ISO standards elaborated by the Technical subcommittees of the TC46. With reference to national situations a relevant role could be played by working groups which develop guidelines for the ERMS, establish methodology for the classification plans, define policies for the identification of functional requirements (see for example the work done by the Scuola superiore della pubblica amministrazione in the period 2000-2002[6]).

How the main effort should include the implementation of the national and international dedicated networks?

The specific development of national and international networks for research specifically if interconnected with training could play a significant role in this area to provide:

– a context for discussion and exchange (whose lack has been widely recognised),
– tools and guidelines usable as training materials,
– case studies as practical environment and testbed to be further investigated.

The ERPANET experience is a positive example and provides elements to explore the results of a cooperation at international level for educational purposes in special technical areas characterised by a high degree of complexity and innovation (like the digital preservation). The trainers/educators participation at the ERPANET events has been of 17% in the case of expert workshops and 32% in the case of seminars: this high rate of participation to technical meetings (second only with reference to the public sector, that is the main area involved in the digital preservation activity) clearly testifies the need and the appreciation of the trainers/educators for an updating knowledge but also the potential role of a European cooperation in this field.

By the way, the creation of a network for cooperation focused on the exchange of results and recommendations is very complex and time consuming.

Methods are not yet verified even if the recent European experience should be further analysed and better exploited with specific reference to the educational purposes mainly in a period when the complexity of the tasks is not supported by the reduced availability of the resources.

As Theo Thomassen has clearly described in 2001

"cooperation is conditional to the permanent development of new learning tools, which are too costly for individual establishments to produce… An "Open Source"-approach is a necessary condition for making a variety of components of archival education and training accessible and available for the community of archival educators and their students, which in its turn is necessary for facilitating individual providers of archival education and training to cope with continuous change and provide a tailor-made training supply".

When the training process should take place: as post-graduate education? As doctoral studies? as

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[5] A project of mutual educational experience dedicated both to students and teachers is under analysis for implementation by the University of Urbino in agreement with the University of Pavia and Parma and concerns a master degree. Organizational and political issues have at the moment delayed this experience.

[6] The materials are available at www.sspa.it. See also *La metodologia per la definizione di piani di classificazione in ambiente digitale*, a cura di Elena Aga Rossi e Maria Guercio, Roma Scuola superiore della p.a., 2005.

long-life training?

This final question is not less relevant than the others and concerns different levels of training/education activity and the definition of clear responsibilities.

In many European countries the universities and the academic bodies have recently accepted to play not only as educational but also as training bodies with the consequences:

– to qualify the offer and focus more on the theoretical aspects than on the practical skills,

– to develop a better understanding of the professional identity.

Anyway, some contradictions are not yet solved: for instance, it is not yet clear on which basis these initiatives (not necessarily part of the routine and essential university mandate) will have continuity in the future; and also how they ensure an integrated and consistent approach with their institutional aims.

The archival sector has not a consolidated tradition as PhD programs also in the more advanced experience even if this educational degree is necessary to develop a scientific statute of the discipline.

The contents of the existing experience are not well defined and the traditional (in the sense of based on historical focus) nature of these programs affects the results with reference to the needs required for RM sector.

Long life training should be evaluated as a central issue even if it is very exacting for organization reason and with reference to the definition of mutual responsibilities. It requires a high degree of continuity and a high level of awareness to all the actors of the innovation processes. For the moment the level of existing experience is very poor and limited: non systematic approach is taken even if new initiatives are under development, for instance in Italy in the form of an agreement among the universities of Urbino, Parma, Pavia, for developing at least cross-reference summer courses of high level. The advantages to take concerns the strategic role of the life long learning process recognized to it by governments at European and international level as Marion Hoy has clearly described in the paper presented at the ICA Vienna Congress and which is testified by the large and increasing amount of resources dedicated to this task in many countries in the last years[7]. The archivists and records managers could certainly benefit from these opportunities.

Some conclusions

European challenges (as made explicit also in the survey organised by the ICA Committee on professional training[8]) include today:

– a common control on the criteria to define the competencies and to evaluate the recognition of certificates,

– the definition of an infrastructure for exchanging experience at least within the European Union but also – if possible – at larger international level,

– the development of models for ensuring the quality and efficacy of educational and training programmes (at various level of expertise) more and more taken into account as a tool for

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[7] See Marian Hoy, *Professional Development and Competency Standards Unravelling the Contradictions and Maximising Opportunities*, in *15th International Congress on Archives. Vienna, August 2004*, at www.wien2004.ica.org. The paper is enriched by a relevant list of references. A significant example is the large amount of resources dedicated by the Italian government, specifically by the Autorità per l'informatica nella pubblica amministrazione (today Centro nazionale per l'informatica nella p.a.) in the last 3-4 years specifically in the specific sector of the electronic records management systems. A recent and relevant amount of resources have been dedicated to specific projects in the area of electronic records management systems and e-learning activities. See *Avviso per la selezione di progetti di e-learning* of the CNIPA, published on the "Gazzetta ufficiale", 12 July 2005, n. 160 with a section specifically dedicated do the records management systems. The effort done by the Australian government is well described in Hoy's paper and in the report also presented at the ICA Vienna Congress by David Roberts, *Education and Training in a New Regime for Government Recordkeeping: a Case Study* and available on the same site.

[8] See Ch. Martinez, *Professional Archival Training around the World: the Results of an ICA Survey* (available at http://www.wien2004.ica.org).

enlarging the committed communities and the archival knowledge required in the organizations of an Information Society.

Further investigation is required, based on surveys whose main requirement is a common conceptual framework able to ensure the measures for comparison experience and solutions provided both by the universities and other training bodies. The area here investigated requires more efforts at any level, but the budget cuts are increasingly affecting the activity of the European academic institutions. At the same time the private offer in this sector does not ensure enough quality and even less an innovative approach.

An international cooperation is then required, but it is also difficult to achieve (due to the differences between the national traditions and the archival schools, but also because of the existing conflicting interests, not to underestimate, i.e. of the training programs within the archival institutions and the universities courses at master level). The main conclusions of the survey on the professional training conducted by the Section of Archival Education of the ICA have recently outlined the critical aspects of the present situation: the diversity and the fragmentation of the curricula and the policies, the lack of precise definition of standards and assessment criteria, the uncertainty of the contents required, the various levels of teaching and the low quality of the materials provided, the lack of exchange of experience and knowledge among the educators and trainers community[9].

At the same time, these negative results could be compensated by a large common awareness with reference to the need for quality control and certification approach, for the creation of a network system finalized to the experience exchange at least in the most advanced regions and in any case at various levels (bilateral, multinational and international, local) and with a rich and diversified scale of tools (specialization seminars for teachers, special courses and workshops, technical missions, dedicated publications), for the strict interconnection between theory and practice and the related requirements for integrated tools able to build and maintain it. As the contemporary complexity has determined a significant improvement of the conceptual framework for the archival science and the related disciplines, the same process of qualification can be recognized in the specific area of educational and training initiatives, policies and tools. The common concern among the educators communities about the capacity to benefits from the globalization opportunity and enabling technology seem to have – at least in this small and defined environment – a positive return in term of better opportunities "in addressing critical archival emergencies world wide"[10].

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[9] See Christine Martinez, *Professional Archival Training around the World: the Results of an ICA Survey*, in *15th International Congress on Archives. Vienna, August 2004*, at www.wien2004.ica.org. See also the reports there presented by Wang Jian, Janet Foster, Caroline Williams, Anne Gilliland Swetland.

[10] T. Hickerson, *Ten Challenger for the Archival Profession*, in "The American Archivist", 64, 1 (Spring/Summer 2001), p. 9.