

## **Models of Archival Education: One, Two, or a Thousand?**

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The education contemporary archivists receive is extremely varied. It differs from a continent to another, from a country to another, and from a university to another. These differences depend on history (e.g., archivists of countries that used to be colonies of others tend to receive the same kind of education as those of the colonizing country), on archival structures (e.g., archivists of countries where archives are mostly public institutions receive an education focusing on history of administration), on archival materials (e.g., archivists of countries where archives preserve records that are many centuries old and from several different civilizations receive an education focused on philological disciplines and ancient languages), on archival traditions (e.g., archivists of countries that regard archives as research institutions as opposed to bastions of law and administration receive an education focused on information disciplines rather than on law), and on situational factors, such as the specific emphasis of the university delivering the program (e.g., creative and performing arts), the trend of the time (e.g., knowledge management), the availability of educators (e.g., only PhDs in history or library science), or the financial resources available. The latter factor has unfortunately had a determinant weight in North America, which still has only one graduate program of dedicated autonomous archival education, regardless of the many efforts made by the archival profession to change such situation.

Today I will not talk about the kind of education that is delivered to future archivists either as a concentration of courses within a library or history program or as

part of courses within generic information studies programs. I do not believe that either situation can possibly provide adequate education for any archivist of any time and place. I agree with the German archival scholar Lohrer, who stated in 1890: “It is easier to improvise a State minister than an archivist.”<sup>1</sup> Thus, I will only discuss models of dedicated autonomous archival education as they exist today and as I see them developing in the future.

Half a century ago, Sir Hilary Jenkinson wrote: “I become more and more convinced that the apparent complexity of our jack-of-all-trades profession... can be resolved quite simply if we attach ourselves firmly to a few primary and unchanging essentials.”<sup>2</sup> He was echoing the words of one of the greatest Italian educators, who, in 1913, had written: “An archival school must not have the pretence of creating the complete archivist, but must make the student able to continue his education while working in any kind of archives. This is obtainable by reducing the curricula to those components that are really essential.”<sup>3</sup> And, in 1928, another Italian educator, Eugenio Casanova, had reinforced this point by stating: “There is always the risk of demanding and doing too little or presenting exaggerated pretensions.”<sup>4</sup> Vittani definitely thought that little was better. His statement continued: “To include too much in a curriculum makes it superficial and provides students with a superficial attitude towards their work. If students understand principles and methods, when dealing with different materials in different institutions, they are supported by the analogy of various situations. A graduate

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<sup>1</sup> F. von Loher, *Archivlehre* (Paderborn, 1890), 423.

<sup>2</sup> Sir Hilary Jenkinson, “Roots,” *Selected Writings of Sir Hilary Jenkinson*, Roger Ellis and Peter Walne, eds. (Gloucester: Alan Sutton, 1980), 372.

<sup>3</sup> Giovanni Vittani, “La formazione dell’archivista,” *Annuario del R. Archivio di Stato di Milano* 1913, reprinted in Giovanni Vittani, *Scritti di diplomazia e archivistica* (Milano: Cisalpino-Goliardica, 1974), 154.

<sup>4</sup> Eugenio Casanova, *Archivistica* (Siena: Lazzari, 1928), 468.

from a professional school must be armed to deal with problems, to compare situations with what he has learned, and to solve them.”<sup>5</sup>

Of course, Jenkinson, Vittani and Casanova were strictly talking about education. It is important to note however that archivists acquire knowledge also through training and continuing education. It is generally agreed that *education* has the function of forming the professional mind-set and of drawing out the student’s intellect to see the whole of the ideas that are at the root of the profession and to engage in their development. Instead, *training* is a molding according to a replicable pattern, skill building, acquisition of practical knowledge, and development of specialization in a determined area. Thus, education makes students think as archivists, and this enables them to act like archivists once the formation of intellectual capacities is associated with specific experiences and aimed at precise objectives. *Continuing education* builds on the body of knowledge conveyed through education and training, provides new knowledge, and creates new skills. Its purpose is to keep professionals abreast of developments and changes in their field and to provide specialized knowledge in circumscribed areas of archival endeavor. Education, training and continuing education correspond to three conceptually different phases in the making of a professional: formation, specialization and maturation. Although all three phases are necessary to build and maintain the body of knowledge of the archival professional, I will focus on the first, the formation.

The models of archival education today can be reduced to four, which, in the interest of easy communication, I will call historical, philological, managerial, and scholarly/scientific. All four models deliver knowledge related of archival concepts, functions and methods, but each does so in the context of a different framework, linked to

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<sup>5</sup> Giovanni Vittani, “La formazione dell’archivista,” 154.

the image that it has or intends to convey of the identity of the archivist and the role of archives in society.

Reflecting on the *historical model*, one may note that, already in 1913, Vittani had expressed his frustration at the state of archival education by writing: “It is still the opinion of some learned men that some areas of knowledge, particularly the historical one, virtually comprehend archival science, just like a greater whole contains a lesser one.”<sup>6</sup> Almost a century later, several educators in a variety of countries are lamenting the same thing, because still several graduate programs of archival education have a very strong—in some cases, a dominant—historical component. Of course, the need for archivists to study history finds justification in archival theory itself: as archival material acquires its nature from the circumstances of its creation, and archival documents receive most of their meaning from their sociopolitical, administrative, economic and cultural context, every archivist must acquire a knowledge of such context. This is especially true in very old countries that have undergone innumerable changes in their territory, governance, etc, such as Turkey, or Italy, where we still say that a very competent Venetian archivist would be a very incompetent Neapolitan archivist. However, in every old and new country, a special kind of history, history of law and administration that is, should be a component of archival education, because the essence of archival work is to translate records in terms of function, competences, and activities. Therefore, as Jenkinson put it, and as I am sure most European and Asian archivists believe, such study is a matter not of choice but of necessity. Thus, educators who lament the persistence of the historical model do not do so because they object in principle to the fact that historical knowledge is an essential component of the archivist’s intellectual armor, but because the

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<sup>6</sup> Ibidem.

characteristic of the historical model is an absolute preponderance of historical knowledge within the body of archival education that is delivered in any program following it, based on the belief that the identity of the archivist is that of a servant of history and the role of archives is primarily to cater to historical research.

The *philological model* is the most traditional European model (see for example l'Ecole des Chartes in Paris, and the archival program at the University of Rome) and still very valid in old countries that preserve a large body of ancient records not yet identified or processed. It is far too easy to dismiss the value of philological knowledge for archivists who work with contemporary records. All records are the involuntary residue of activities, an instrument for action and a means of communication. An archives can be looked at in two ways, either as a whole with its constituent parts or as the interconnected parts that together make up the whole. Looking at the whole, one can see that its existence depends on its provenancial context and on the interrelationships among the parts. Looking at the parts, one can see that the individual existence of each document depends on its relationship with its purpose, which is embedded in the formal elements, attributes and structure of each document, whose meaning must be understood to understand the document. My personal research since the mid-80s, as well as the research conducted by InterPARES since 1999, has abundantly demonstrated the fundamental importance of diplomatics as the theoretical body of concepts and the methodology of analysis that can best guide the understanding of digital records and the development of methods for creating, maintaining and preserving them in a reliable, accurate and authentic way. I believe that other philological disciplines, like paleography, heraldry and history of illumination, besides having a strong formative value, have the function of

illustrating the parts that make up the whole document and can contribute to an understanding of the function of images, drawings, maps, etc, within digital compound documents.

Philological knowledge supports archival inquiry into the meaning and structure of signs and, in countries where it is necessary for processing ancient documents it turns out to be equally useful for conducting research on typologies of contemporary documents and for understanding the essential components of digital documents to be carried forward from an obsolete technology to another. The issue that several educators have with the philological model is that it focuses on the analysis of archival material and tends to ignore both user needs and society's requirements. It sees the role of the archivist as one of a scientific researcher that has little contact with the external world for which such research is conducted. In its best manifestations, this model is consistent with Jenkinson's view of the primary and the secondary duties of the archivists and it is based on the belief that we serve the users by serving the records. In its worst manifestation, it is the study of the records for its own sake.

The *managerial model* is the most recent one and is typical of relatively new programs. Already in 1817, the archivist of Venice, Michele Battaglia, pointed out that, as "archivists keep close relationships with governments, culture and the interests of the entire society,"<sup>7</sup> they are often confronted with problems that cannot be solved by the theory and methodology of archival science, simply because they have neither a scientific nor a scholarly nature, but belong in the categories of ethics, politics, law, or administration. It is essential that these problems be solved remaining faithful to the

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<sup>7</sup> Michele Battaglia, *Discorso sull'antichità ed utilità degli archivi, nonché sulla dignità degli archivisti* (Venezia: Tipografia di Alvisopoli, 1817), 30.

precepts of the “archival doctrine” (so archival science was called at the time), thus the knowledge related to the categories identified by Battaglia and generally subsumed under the umbrella of “management” should be drawn into archival education to the advantage of the archival mission. This model tends to focus on the user—in direct contrast with the philological model, that focuses on the records—and, while still transmitting the core archival theory and methods, frames them in the context of an information society, emphasizing content related to access, privacy, freedom of information, retrieval systems, etc. Generally speaking, programs so designed are not adequate for archivists who will work in very traditional environments and with ancient records. In its worst manifestations, this model fails to convey the complex nature of archival material and of archival work, reducing the archival endeavor to a question of access. In its best manifestations, this model educates in the management of archival institutions and programs, especially within businesses. The archivist identity is regarded as that of a facilitator, a mediator, at times an auditor, always a communicator. The archives role is seen as that of information provider. A good example of program designed on this model is that of the University of Urbino. However, one must consider that, in Italy, all archivists are required to receive post-appointment education in the archives school of the territorial jurisdiction in which they work. There are 17 such schools in the country and they follow the philological model. Therefore, in Italy, pre-appointment education based on the managerial model presupposes a post-appointment education based on the philological model and the two would complement each other in the same individual.

Finally, the *scholarly/scientific model* focuses on the delivery of education, first and foremost, in the archival science and discipline. In this context, archival science is

regarded as an integrated self-referential system comprising theory, methodology and practice. If theory is defined as the knowledge derived from the analysis of fundamental ideas, archival theory is the analysis of the ideas archivists hold about the nature of the material they work with. Analysis involves examining the meaning of each idea, determining what it is and what it amounts to. This analysis of ideas about what archival material informs subsidiary ideas about how to treat such material. These latter ideas can be distinguished from the former ones by calling them methodological. The term science is useful because it is commonly divided into its pure and applied aspects. The pure side comprises theoretical and methodological ideas, while the applied side embraces the many uses made of those ideas in real situations. Archivists commonly refer to these applications as practice. Thus, theory, methodology, and practice constitute together the pure and applied science of archives.

However, according to the scientific/scholarly model, there is more to archival knowledge than archival science. In fact, when archivists use their theoretical and methodological ideas in their work, they acquire knowledge, because they gain a systematic understanding of what documents were made, received, and kept; how and why this was done; and how and why these activities changed or did not change overtime, and then disseminate this knowledge. If scholarship is defined as the examination of existing things in light of conceptions about reality, the writings about types of documents, their relations with their creators, with documents in the same group or in other groups, and with facts and events are all examples of archival scholarship. Because of this scholarship component, archival knowledge is treated within the scientific/scholarly model as a discipline as well as a science.



A discipline is a form of study with a distinct methodology used to gain knowledge, and encompasses both a way of gaining knowledge (rules of procedure that discipline the scholar's search), and the resulting knowledge itself. What is distinctive about the archival discipline is that the methodology used to gain knowledge derives from archival theory. This relationship between theory, methodology and scholarship implies that theoretical ideas about the nature of records, for example, dictate the archival methodology by which specific record types are examined by the archival scholar. Even the history of archival institutions, of archival theory and methods, and of the archival profession is a form of scholarship, which relies on assumptions about the nature of archival material and as such provides a testing ground for theory as well. Thus, in archival knowledge, ideas come first: they guide both practice and scholarship.

In its best manifestations (and I like to think that the University of British Columbia program is one of them), the scientific/scholarly model delivers knowledge of the archival science and discipline in such a way that the student is formed as both a professional and a scholar, a manager and a philologist, a scientist and a communicator. In its worst manifestations, the focus on the archival science and discipline produces either an academic or a professional very knowledgeable in the archival field but not able to move easily in a multidisciplinary environment and in a fast changing society. This model sees the archivist as the specialist of the records in any phase of their lifecycle, as a developer of systems for record making, recordkeeping and record preservation (and here, by system, I refer to a body of rules that control such activities and a series of tools that enable and result from them), and as a scientific researcher. The role of archives in this model is to serve administrative, legal and historical accountability as well as cultural

purposes and the individual needs of any kind of user. However, there is more focus on the records than on the users, and on research than on practice.

Thinking of the four models just described, the questions that come to mind are:

- Does any of these models satisfy the needs of contemporary archives better than the others?
- If yes, is such model also appropriate for educating archivists who wish to work in traditional archives?
- If not, do we need two separate systems of education for traditional and contemporary archivists?
- If not, is there one model that would serve all?
- If not, is it possible to identify a core body of knowledge that, if present in the curriculum, would allow for a thousand different models?

In order to answer these questions, one has to determine, first, what is the identity of the contemporary archivist and the role of contemporary archives, and second, what model of archival education would not only provide such identity and enable the fulfillment of such role, but also and foremost would have the capacity for the ongoing growth of the programs designed on its basis, and would enable the continuing development of the graduates of these programs even years after they have completed them, a growth and a development that are dictated by the increasing rapidity of change in the way society makes and uses records.

I can only provide my own view of the identity of the contemporary archivist and of the future role of archives and respond to the questions I listed earlier on this basis. My

view is based on the research that I have conducted in the past eight years in the context of the InterPARES project.

I believe that the primary role of the contemporary and future archivist is going to be that of *trusted custodian of society's records*. In an archival environment that is becoming predominantly digital, the archivist will be responsible for taking physical and legal custody of, and preserving (i.e., protecting and ensuring continuous access to) the creators' records as soon as they are no longer needed for the usual and ordinary course of activity. Whether an employee of an archival institution or a professional responsible for an in-house unit, the role of the archivist should be that of an officer who guarantees the authenticity of the record in his/her care. To be considered a trusted custodian, the archivist will have to

- act as a neutral third party, i.e., demonstrate that it has no stake in the content of the records and no reason to alter records under its custody, and that it will not allow anybody to alter the records either accidentally or on purpose,
- be equipped with the knowledge and skills necessary to fulfil its responsibilities, which should be acquired through formal education, and
- establish a trusted preservation system that is capable of ensuring that accurate and authentic copies of the creator's records are acquired and preserved.

The reason for this role is that it is not possible to preserve digital records. It is only possible to preserve the ability to reproduce them. Thus, future archivists will have to 1) assess the authenticity of the records of the creator by monitoring their creation and maintenance, 2) produce an authentic copy of them after having acquired them in the format last used by the creator as its own records, and then 3) migrate a second authentic copy to the trusted preservation system of the archives (always keeping the copy of the

format transferred by the creator).<sup>8</sup> It should be noted that the simple fact of reproducing a record in a preservation system does not make of its result an authentic copy, as such designation can only be provided by the archivist's authority. It should also be noted that the role of trusted custodian requires close collaboration between a records creator and the archivist competent for its records, and it will be the archivist's responsibility to take the initiative in collaborating with the creator to establish acquisition and preservation procedures and in advising records creators on any records making and keeping activities essential to the archivist's acquisition and preservation activities.<sup>9</sup>

Thus, the role of the archives will continue to be, but at a much heightened degree, that of *warrantor* of the authenticity of the records, of the rights of the people that are embedded in them, and of the accountability of records creators, and that of *protector* of the entire cultural patrimony of society. And, when I say "entire" patrimony, I refer to the fact that the use of digital technology in artistic and scientific activities implies that the preservation of the records and data that they produce will be of necessity, rather than by choice, the responsibility of archival organizations and programs very soon in their lifecycle, because the creating individuals and bodies will not have the knowledge and the means to maintain their material, mostly generated in unique proprietary systems. At the same time, archives will have to prepare themselves to deal with creative and scientific material, because, increasingly, also the administrative and legal material they are traditionally responsible for will be visual, interactive, dynamic and even experiential, and there is much to learn from the arts and the sciences, which have generated this kind

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<sup>8</sup> InterPARES 1, *Authenticity Task Force Report* at [http://www.interpares.org/book/interpares\\_book\\_d\\_part1.pdf](http://www.interpares.org/book/interpares_book_d_part1.pdf) and, more specifically, the *Requirements for Assessing and Maintaining the Authenticity of Electronic Records* at [http://www.interpares.org/book/interpares\\_book\\_k\\_app02.pdf](http://www.interpares.org/book/interpares_book_k_app02.pdf), p. 7.

<sup>9</sup> See the Chain of Preservation Model at [http://www.interpares.org/ip2/ip2\\_models.cfm](http://www.interpares.org/ip2/ip2_models.cfm).

of material already for some time, on the characteristics and behaviour of such documents.

An interesting thing that we have observed in the course of the InterPARES research is that creators tend to prefer hybrid records systems, thus their digital records exist together with records in traditional media (also within the same file and series), and their digital systems often serve multiple business processes and contain records that belong to all or some of them; thus, there cannot be a distinction between the digital archivist and the traditional archivist as to education (although of course there can be a distinction as to specific competence assigned to a professional in an institution). In addition, all archival institutions and programs we have dealt with in our research preserve at the same time century old records and contemporary ones, often generated by the same creator; thus, there cannot be a distinction between old records archivist and contemporary records archivist.

These remarks take me back to the models of archival education. All four models may be able to serve the needs of contemporary archives, depending on the context of the university delivering the archival program and the way in which this is designed. I will return on this point later to elaborate on it. First, I want to say that I am convinced that archival education should not be divided into programs for archivists working with ancient/old records and programs for archivists who work with contemporary records. The reason is twofold: on the one hand, the common knowledge would be so extensive that it would be better to embed knowledge that only applies to the one or the other in elective courses delivered in the context of the same program; on the other hand, my three decades of experience have demonstrated to me that the body of knowledge that

directly serves the needs of archivists entrusted with ancient records provides usually the most inspiring guidance to archivists who seek solutions for contemporary records. For example, the InterPARES project would not have been able to develop preservation hypotheses for dynamic and interactive records if we had not gone back to the way medieval notaries kept a type of record called *imbreviatura*, or for Geographic Information Systems without re-examining the records of the Pope's cadastre, or for records of performances without considering the process by which the Chinese produced the "veritable records." Every archivist, no matter the age of the records he/she is responsible for, needs depth of knowledge on the history of records and recordkeeping, as well as philological and juridical knowledge of all records through time. However, it would not be humanly possible to acquire it all in the course of a program of pre-appointment education. Then how? Let's consider for a moment the features of graduate archival education that I regard as essential for any program.

The first feature, already identified by Michael Cook in his 1982 masterful guidelines for archival education, is a recognition in the content of the curriculum of the fact that archivists, on the one hand, have to deal with a universal body of theory and a practice directed towards the development of international standards, and "on the other hand, ...are immediately concerned with the specific, local and unique aspects of the documentation they handle."<sup>10</sup> Thus, it is essential that the curriculum harmonize the universal and the specific by delivering knowledge of archival science on the one hand,

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<sup>10</sup> Michael Cook, *Guidelines for Curriculum Development in Records Management and the Administration of Modern Archives: A RAMP Study* (Paris: Unesco, 1982), 2. These guidelines have largely inspired the Association of Canadian Archivists guidelines, which are still in effect in Canada: The Education Committee, Association of Canadian Archivists, "Guidelines for the Development of a Two-Year Curriculum for a Master of Archival Studies Programme (December 1988)," *Archivaria* 29 (Winter 1989-90): 128-141.

and philological and historical instruction on the local records and their context on the other.

The second feature is a recognition in the structure of the curriculum and of the individual courses of the practical and scholarly nature of archival work. It has to be emphasized that practical experience in the context of archival education is not an exercise to discover theory and methods empirically. Its main purpose is to provide future archivists with a way of applying their theoretical and methodological knowledge in class, and then testing it in the professional arena.

Research is a critical component of a graduate level program because it is an expression of the intellectual nature of the archival discipline, the scholarly substance of the work that record professionals do and the status of archival studies with respect to other graduate programs. Several course offerings can enable students to engage in scholarly enquiry of various kinds. The most obvious example is the thesis. However, students may be given the opportunity to conduct research on a smaller scale through a directed research project or a directed study involving in-depth investigation of a specific issue or problem. They may work closely with a faculty member on an ongoing research project through a collaborative research course, or they may work as paid research assistants on faculty research projects.

In a Master's level program, the cultivation of research skills must be balanced with the development of professional knowledge. So perhaps the most important thing we can do in the context of such a program is to provide opportunities for students to engage in research and to inculcate in them a sense of the relevance of research to their professional lives. This is why the study of research methods should be a required

component of any model of archival education, because it will equip students with the knowledge necessary not only to produce new research but also to understand and interpret existing research.

Graduate programs are judged to a significant degree by the quality and quantity of the research produced by faculty and students. Faculty members in professional programs are expected to conduct grant-funded research like those in other disciplines, and to use their research projects as a means of training students to be researchers. Thus, expanding the opportunities for research in archival programs is vital to their success and growth. Students benefit enormously from the opportunities research projects provide for acquiring research skills and contributing to the advancement of disciplinary knowledge. Once the students graduate and begin their working lives, the knowledge and experience they have gained through their participation in research translates into a benefit to the institutions that employ them. Making again reference to my personal experience as an educator and to my own graduates, I have noticed that, until 6 or 7 years ago, the best archival positions went to graduates who had accumulated a few years of experience, while afterwards they have consistently gone to individuals who were fresh out of school, primarily because of their research experience and consequent leading edge knowledge and potential for continuing growth.

The third and last, but not least, necessary feature of every program is a recognition that there is a body of core archival knowledge that must be delivered, regardless of the context, purpose, and resources of the program. This core knowledge includes the archival science and discipline as described earlier, inclusive of philological-



diplomatic concepts that enable an understanding of records and of their management from creation onward.

Keeping in mind the identity of the contemporary and future archivist, the already stated inappropriateness of separate programs for old records archivists and contemporary records archivists, and these three essential features that every program of archival education should present, one can begin answering the questions still left open.

Would one of the four models of archival education presented earlier provide a better formation than the others for the trusted custodian of society's records? I do not think so. I believe that, as there cannot be two standard models of archival education, there cannot be one that serves the needs of every country, and within each country, of every archival institution, program, or in-house unit. All models are valid in the right context. The important thing to remember is that graduate archival programs do not or at least should not exist in isolation. They should belong in a system that comprises pre-appointment and post-appointment education, training and continuing education, and in an educational network that has a local, national and international character. Yes, the problem identified by Vittani, Casanova and Jenkinson still exists: how can we weave the many elements of the intellectual armour that every archivist should have into the whole cloth of archival education? But today we are much better equipped to solve it.

It might be interesting for you to know that, in my program, as the body of professional knowledge has grown, the amount of required instruction has proportionally diminished and has been reduced to those primary essentials that demonstrate the unity at the root of our profession, that is, to that core knowledge identified as the third necessary feature of every program (mind you, required courses still takes up 24 of the 48 units of

instruction). Around the courses delivering this core knowledge, we have built a large choice of electives that reflect the 4 models outlined in this paper, but the intention has not been to create a specialist in history of recordkeeping, diplomatics, management, archival science or some elements of each. Students can take courses in all those areas or only in one, or they may choose to take research-based courses investigating aspects of any of those areas that are not part of regular courses. The essential point is that students can investigate every aspect of the archival endeavour on the basis of and with the guidance provided by the core knowledge that they all share. And further, they can go on exchange programs and internships abroad; they can participate in the coop program going to work for a term or more in a private or public organization or institution (of course, this would lengthen their enrolment of a period equivalent in length as coop experience is not given academic credit); they can acquire professional experience at the same time they are taking academic courses—a few hours per week—in organizations close to the university; and they can take part in faculty members research grants that, in addition to provide them with research experience, send them to conferences to present their own research.

On the basis of my own experience and understanding, I believe that the key to the right education for the new archivist is *flexibility*, aimed at providing a holistic learning experience that at the same time provides an archival mind-set, operative capacity, and scholarly awareness and allows to follow one's own inclinations, interests, and aspirations. This flexibility is possible for two reasons: first, because, in programs presenting the three necessary features I have identified earlier, graduates will be armed with the ability to both gain existing knowledge that they have not had the opportunity to

acquire while in the program, and develop original knowledge; and second, because the opportunities for complementing the education received in graduate programs through training courses, seminars, continuing education and conferences, without even talking about the large body of archival literature, the findings from research projects available on the Internet, the innumerable web sites of archival associations, archival institutions, etc. exist in such an abundance that Casanova and Jenkinson would have never dreamt of. What we must teach students is how to exploit and use all these resources in an intelligent way. Of course, it must be recognized that there are countries which have limited access to all these resources. In these countries, the most useful model of archival education will have to incorporate some of the characteristics of all four models, have a smaller research component, and consist of mostly required instruction.

Thus, also in light of the latter remark, what we really need is not one or two, but an indefinite number of models with a common core made up of universal archival concepts, principles and methods, of international standards, and of a series of research methodologies. I believe that it is entirely appropriate that each country then embed in its curricula historical and philological knowledge of its own records and archival traditions, administrative and legal knowledge of its own system, and managerial knowledge based on its own social and cultural outlook. As to technological knowledge, I dare say that our future students will be able to teach us most of it, and what we will need to do is to instil in them the conviction that it is archival concepts and principles that must guide technological choices and not vice versa. I believe that all archival programs should integrate discussion of records in all media in every subject matter presented, as well discussion of records created by all sorts of activities and of archives in all sectors. This

kind of *holistic model* is not only inherently capable of growth and change, but is also the most economical and effective model for empowering our graduates and give them the confidence of working in every environment, not because they know everything there is to know, but because they have the fundamental knowledge and the intellectual tools for learning all there is to know and, if such knowledge does not exist, of producing it.