International Research on Permanent Authentic Records in Electronic Systems (InterPARES) 2: Experiential, Interactive and Dynamic Records

INTRODUCTION
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The “International Research on Permanent Authentic Records in Electronic Systems (InterPARES): Experiential, Interactive and Dynamic Records,” hereinafter called InterPARES 2, was carried out between January 2002 and December 2006. Its goal was to develop a theoretical understanding of the records generated by experiential, interactive and dynamic systems, of their process of creation, and of their present and potential use in the artistic, scientific and governmental sectors, and, on the basis of that understanding, to formulate methodologies for:

- ensuring that the records created using these systems can be trusted as to their content (that is, are reliable and accurate) and as records (that is, are authentic) while used by their creator;
- selecting the records that have to be kept for legal, administrative, social or cultural reasons after they are no longer needed by their creator;
- preserving the selected records in authentic form over the long term; and
- analyzing and evaluating advanced technologies for the implementation of these methodologies in a way that respects cultural diversity and pluralism.

InterPARES 2 built upon the findings of a previous research project, “The Long-Term Preservation of Authentic Electronic Records,” hereinafter called InterPARES 1, which produced: (1) requirements for authenticity for electronic textual records generated in administrative environments in databases and document management systems; (2) methods for appraisal and preservation of such records; and (3) an intellectual framework for the development of preservation policies, strategies and standards. Therefore, an additional objective of InterPARES 2 was to further develop some of the findings of InterPARES 1 to test and/or extend their applicability to the new types of record-creating environments that fall under the scope of this second Project. For example, one of the primary findings of InterPARES 1 was that the chain of preservation of digital records has to begin with records creation, and this is the reason why InterPARES 2 dedicated most of its research efforts in the first half of the Project to the analysis of the creation of the records that it aims to preserve. At the same time, InterPARES 2 sought to avoid the problems incurred in the course of InterPARES 1 that resulted from that project’s pre-established epistemological perspective on the concept of record. Thus, the InterPARES 2 researchers decided not to define at the outset the concept of record, instead leaving it completely open to any possibility as presented by the research findings and, consistent with this stance, to accompany the deductive approach with an inductive one.

Due to the highly interdisciplinary nature of the Project, the objectives of InterPARES 2 were addressed since the beginning with the active participation of all stakeholders: records creators (scientists, artists, government bodies, corporations and industry), members of the information technology sector, and the archival and information science and conservation professions were involved with scholars of Archival Science, Chemistry, Computer Engineering, Computer Science, Dance, Diplomastics, Film, Geography, History, Information Studies, Law, Library Science, Linguistics, Media Studies, Music, Performance Art, Photography and Theatre in the formulation and selection of case studies and general studies, the gathering of empirical evidence and analysis. This tight research collaboration was meant to ensure that the Project’s results would find ready acceptance within the targeted communities. The countries actively involved in the Project were: Canada, the United States, Australia, Singapore, China, Belgium, France, Ireland, Italy, The Netherlands and the United Kingdom. In addition, a member of the Advisory Board was from South Africa; thus, researchers from five continents provided input to the research.
InterPARES 2 was led by myself, Luciana Duranti (The University of British Columbia, School of Library, Archival and Information Studies, hereinafter SLAIS), and included the participation of the researchers, research assistants, advisory board members and staff listed in Appendix 1.

The researchers belonged to one or more research units and, in the course of the Project, often moved from one unit to another as needed. The matrix in Figure 1 depicts the various individual research units, and their relationships, that comprised the InterPARES 2 Project team. Each focus and each domain comprised three working groups that conducted research jointly as a Focus Task Force or a Domain Task Force. The cross-domains were composed of representatives of each task force and of individuals whose activity was entirely dedicated to the specific area of investigation, both of whom conducted research jointly as Cross-domain Research Teams. The purpose of this complex structure was to enable the gathering of the relevant knowledge from each specific area of endeavour (focus), share it within each record related function (domain), and from this cross-fertilization build new knowledge, applicable to all areas of endeavour and expressed in common terminology, policies, descriptive schemas and models (cross-domains). To maximize the outcomes of these dynamics, each research activity within each focus, domain or cross-domain was carried out according to the most appropriate methodology for that activity as identified by the specific team responsible for it.

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Figure 1. Matrix depicting Focus Task Forces, Working Groups and Cross-domain Task Forces

Indeed, the various InterPARES 2 methodologies were inspired by the following principles:

1. Interdisciplinarity

The Project was interdisciplinary in the measure in which its goal and objectives could only be achieved through the contribution of several disciplines. For example, one of the methods
chosen to develop recommendations for creating records whose accuracy and reliability can be protected over time was to conduct an exploratory study of cases in each of the areas of activity identified. To analyze the nature, characteristics, behaviour, relationships and process of creation of the interactive, dynamic and experiential records produced in the course of artistic, scientific and electronic government activities, we needed to gather a deep understanding of those activities, their purpose, their phases and the component actions, their by-products and their structure, and their context, but also their technological environment and their use. Thus, to understand the records generated in the course of producing digital music, for example, we needed music theorists and composers, as well as computer engineers and scientists, and music historians. Afterwards, to analyze the results of the case studies, we needed the contribution of methodologies, such as text analysis, diplomatic analysis and statistical analysis, developed in the context of several other disciplines.

2. Transferability

The ultimate goal of the Project was archival in nature, being concerned with the development of trusted record-making and record keeping systems and of a preservation system capable of ensuring the authenticity of the records under examination over the long term. This meant that the work carried out throughout the Project in the various disciplinary areas had to be continuously translated in archival terms and linked to archival concepts, which are the foundation upon which the systems intended to protect the records are to be designed. However, for the outcomes of the Project to be of value to each of the disciplinary areas, the findings, recommendations and archival systems envisioned by the researchers needed to be made comprehensible to the many interested stakeholders. In other words, the research outcomes had to be translated back into the language and concepts of each discipline that needed to make use of them.

3. Open inquiry

InterPARES 1 had its epistemological roots in the humanities, specifically in diplomatics and archival science. In contrast, InterPARES 2, while planning as one part of its research to test some of the outcomes of InterPARES 1 in a range of applied settings, espoused no epistemological perspective or intellectual definitions a priori. Instead, researchers in each working group identified the perspective(s), research design and methods that they believed to be most appropriate to their inquiry. Thus, each research team was, to a large degree, free to carry out its research using whatever methodology and tools—surveys, case studies, modeling, prototyping, diplomatic analysis, etc.—that the team considered to be the most appropriate to be able to collect and analyze the data needed to address the Project’s core research questions.

The reason for this openness is that InterPARES 2 was conceived to work as a “layered knowledge” environment, in the sense that some of the research work intended to build upon knowledge developed in the course of the UBC Project1 and InterPARES 2, some took

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knowledge of similar issues developed in other areas of endeavour and brought it to bear on records creation and preservation, some reconciled knowledge about records and their attributes, elements, characteristics, behaviour and qualities existing in various disciplines and developed it for archival purposes, and some explored new issues and studied entities never examined before, thereby developing entirely new knowledge.

4. Multi-method design

Each case study as well as each of the other research activities was carried out using the methodology and the tools that the dedicated investigating team considered the most appropriate for it. For this reason, the methodology of the Project is not presented in this book as a chapter but is discussed in the context of each activity described in each report.

The organization of the InterPARES 2 Project findings in this book reflects the structure of the research units. An integrated Focus report opens the series of the reports because it contains all the basic research upon which the work described afterwards has relied and built. The Domains’ and Cross-domains’ reports follow in logical order. The individual products of each research unit are attached as appendices to the end of the book. Likewise, all references cited in the individual reports are consolidated into a single bibliography attached as an appendix to the end of the book.

The appendices following the reports include several documents that are in themselves major products of the InterPARES 2 Project, such as the *Creator Guidelines—Making and Maintaining Digital Materials: Guidelines for Individuals*, the *Preserver Guidelines—Preserving Digital Records: Guidelines for Organizations* and the *Framework of Principles for the Development of Policies, Strategies and Standards for the Long-term Preservation of Digital Records*. Among the many useful appendices, however, I wish to draw your attention at this point to the second appendix, which contains a reprint of an article written by Ken Thibodeau and myself on the concept of record in the environments studied by the Project as it finally emerged from all the case studies and general studies carried out in the context of the various focuses. The conclusions of the article are linked to the evidence offered by the research described in the Focus report and included in the many resources on the DVD that accompanies the book. Because the article serves, in a way, as a condensed summary of the key findings of the Project as regards the concept of record in the environments studied, some readers may actually find it helpful to read the article first.

Although the content of each report is the result of the research of several co-investigators and graduate research assistants, the reports are authored by the individual researchers who took responsibility for assembling all the findings in a coherent narrative and for telling you the story of all our tribulations and successes. It is my hope that you will find this story not only instructive but interesting, challenging and stimulating as it was for us living it together day after day for five years.

Luciana Duranti
InterPARES 2 Project Director


2 All of the InterPARES 2 documents, reports and resources cited throughout the book are available on the InterPARES Web site ([http://www.interpares.org/](http://www.interpares.org/)) and most are also included on the DVD that accompanies the book.