Authenticity in a Digital Environment*

ABBY SMITH

Introduction

What is an authentic digital object? On January 24, 2000, the Council on Library and Information Resources (CLIR) convened a group of experts from different domains of the information resources community to address this question. To prepare for a fruitful discussion, we asked five individuals to write position papers that identify the attributes that define authentic digital data over time. These papers, together with a brief reflection on the major outcomes of the workshop, are presented here.

Our goal for this project was modest: to begin a discussion among different communities that have a stake in the authenticity of digital information. Less modestly, we also hoped to create a common understanding of key concepts surrounding authenticity and of the terms various communities use to articulate them.

«Authenticity» in recorded information connotes precise, yet disparate, things in different contexts and communities. It can mean being original but also being faithful to an original; it can mean uncorrupted but also of clear and known provenance, «corrupt» or not. The word has specific meaning to an archivist and equally specific but different meaning to a rare book librarian, just as there are dif-

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ferent criteria for assessing authenticity for published and unpublished materials. In each context, however, the concept of authenticity has profound implications for the task of cataloging and describing an item. It has equally profound ramifications for preservation by setting the parameters of what is preserved and, consequently, by what technique or series of techniques.

Behind any definition of authenticity lie assumptions about the meaning and significance of content, fixity, consistency of reference, provenance, and context. The complexities of these concepts and their consequences for digital objects were explored in Preserving Digital Information: Report of the Task Force on Archiving of Digital Information, published by the Commission on Preservation and Access in 1996. There is no universally agreed-upon mandate about what must be preserved and for what purpose. For example, an archivist will emphasize the specifications of a record that bears evidence; a librarian will focus on the content, knowing that it could serve multiple purposes over time. That being the case, there may be many ways to describe an item being preserved and what aspects of that item must be documented to ensure its authenticity and its ability to serve its intended use over time. For certain purposes, some argue, migration may suit the preservation needs of a digital object. For those objects most valued as executable programs, others argue, emulation is preferable. Beyond the technical options undergirding metadata and preservation decisions, numerous nontechnical questions beg to be asked. The issue of authenticity must be resolved before humanists and scientists can feel confident in creating and relying upon digital information.

Creating a common understanding about the multiple meanings and significance of authenticity is critical in the digital environment, in which information resources exist in many formats yet are interactive. From peer-reviewed journal articles to unpublished e-mail correspondence, these resources are integrated; they can interact and be modified in a networked environment. We wanted to know whether the distinctions that have proved to be helpful heuristic devices in the analog world, such as edition or version, document or record, could help us define a discrete piece of digital information. Can we define the distinct attributes of an information resource that would set the parameters for preservation and mandate specific metadata elements, among other important criteria?

We charged the five writers-an archivist, a digital library expert, a documentary editor and special collections librarian, an expert on document theory, and a computer scientist-to address one essential question: What is an authentic digital object and what are the core attributes that, if missing, would render the object something other than what it purports to be? We asked each to address this question from the perspective he found most congenial. We emphasized our interest in the essential elements that define a digital object and guarantee its integrity, but left the writers free to grapple with that question as they saw fit.

In considering this central issue, we asked that they think about the following:

- If all information-textual, numeric, audio, and visual-exists as a bit stream, what does that imply for the concept of format and its role as an attribute essential to the object?
- Does the concept of an original have meaning in the digital environment?
- What role does provenance play in establishing the authenticity of a digital object?
- What implications for authenticity, if any, are there in the fact that digital objects are contingent on software, hardware, network, and other dependencies?

These are some of the issues that we anticipated would arise in the course of the workshop.

In thinking of which communities to include in the workshop discussion, CLIR sought expertise from the major stakeholders in these issues: librarians, archivists, publishers, document historians, technologists, humanists, and social scientists. Because so many concepts of authenticity derive directly from experience with analog information, we called upon experts in the traditional technologies, such as printing and film, to elucidate key concepts and techniques for defining and securing authenticity of information bound to a physical medium.

The authors were given time to revise their papers in light of the discussion and any comments they received from the participants. Some chose to revise their papers, and others did not. The task of writing a position paper on this complex subject (a paper that we limited in size but not scope) was quite difficult. Each writer took a different approach to the subject, and the papers differ greatly one from another. This seeming disparity proved a boon to the discussions. During that time, each writer had a chance to «unpack» the various nuances of thought that the papers held in short form only, and participants were confronted with the diverse ways that such com-

mon words as copy, *original*, *reliable*, or *object* are used. Much of the substance of the discussion is included in the concluding essay.

As one participant remarked, authenticity is a subject we have avoided talking about, primarily because the issues it raises appear so intractable. We are deeply grateful to Messrs. Cullen, Hirtle, Levy, Lynch, and Rothenberg for agreeing to form the advance party as we ventured into terra incognita. They were willing not only to think deeply about a vexing issue but also to commit their thoughts to writing and to careful scrutiny by others. Their papers, together with the oral summaries they delivered at the meeting, marked out several different trails to follow, each of which opened onto ever-larger vistas-some breathtaking, some daunting. We are also grateful to the participants, many of whom came from very distant places. Their thoughtful preparation and frank discussion confirmed our sense that authenticity is important for/many communities, and that they are ready to engage the issue.

ABBY SMITH, Director of Programs, Council on Library and Information Resources