Defining Digital Curation through an Interactive, Informal Critical Delphi Approach

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ABSTRACT

Digital curation may be thought of as a set of strategies, technological approaches, and activities for establishing and developing trusted repositories, and ensuring long-term access to digital assets. It spans many disciplines and communities, as well as individuals seeking to maintain, preserve and add value to the ever-expanding body of digital content. This diversity has given way to ambiguity in defining digital curation, particularly in consideration of potentially synonymous terms, such as digital stewardship, preservation, and archiving. This poster will provide a forum for participants to challenge and engage in the dialogue that defines and describes digital curation.

Categories and Subject Descriptors

H.1.1 [**Information Systems**]: Systems and Information Theory – *information theory*

K.3.2 [**Computers and Education**]: Computer and Information Science Education – *curriculum*

General Terms

Management, Measurement, Documentation, Theory.

Keywords

Digital curation, preservation, archives, definition, consensus.

1. INTRODUCTION

Digital curation rose out of the limitations that were being found within digital preservation [1]. In a 2002 survey conducted on the meaning of preservation, respondents wrote that preservation had become antiquated when describing the actions and processes undertaken to preserve, manage and make accessible digital information, and subsequently suggested digital curation and digital stewardship as alternative terms [1]. In this context, multiple orientations exist as curation may be a process, a state of being for the record, or a statement about the properties of the record. These orientations transfer into the scope of the foundational framework along with the best practices and general procedures that make up the everyday duties of the curator.

Communities of digital curation professionals, including archivists, librarians, data scientists, and computer programmers, may perceive the key concepts underlying digital curation differently. These foundational building blocks provide the uniform conception within a discipline or study as it establishes the theoretical base [2]. In turn, these inform a consensus of operational terms that formulate a comprehensive definition spanning disciplines and communities. In the case of digital curation, the commonly cited definition comes from the Digital Curation Centre (DCC). The first part of the definition describes what is digital curation; whereas, the latter paragraphs address the motivations and benefits of digital curation. The DCC website states the following:

> Digital curation involves maintaining, preserving and adding value to digital research data throughout its lifecycle.

> The active management of research data reduces threats to their long-term research value and mitigates the risk of digital obsolescence. Meanwhile, curated data in trusted digital repositories may be shared among the wider UK research community.

> As well as reducing duplication of effort in research data creation, curation enhances the long-term value of existing data by making it available for further high quality research. [3]

The DCC was instrumental in focusing the direction and mandate of digital curation, providing, so the speak, the roots to this new field of research and practice. Playing upon the description of these roots, it may be helpful to visualize digital curation as a tree. The DCC's definition of digital curation [3] may be seen as the root, with synonymous terminology and alternative or derived definitions as the branches. Preceding and on-going research and practices form the concepts and principles of digital curation, which then moves towards, that is grows and matures, the theory on digital curation. This theory gives the tree its balance and shape, which references that important texture and context in understanding and describing digital curation.

2. RESEARCH NEED

The different branches of the digital curation tree have led to different conceptualizations of digital curation. In his research, Smith II demonstrated how various definitions led to ambiguity and confusion over the meaning of digital curation, and thus advocated for a "common nomenclature" [4]. He argued for stabilization in the meaning and scope of the term digital curation, which is important for efficient work and communication. A decade ago, Cloonan and Sanett also acknowledged a similar concern in their study of preservation strategies activities and the evolution of the definition of preservation [1]. One finding concerned the fluidity of the terminology, such as when digital curation and digital stewardship are used interchangeably [1]. A later study by Bastian, Cloonan and Harvey expanded on this interchangeability of terms in their examination of the etymology of digital curation and digital stewardship to best capture the scope of digital preservation, care and administrative responsibility of digital collections [5]. In both studies, the activities and functions have evolved beyond that of preservation,

and should account for resource management, access and the ability to present information, at the very least.

Lee and Tibbo [6] and Yakel [7] have provided alternate definitions of digital curation that do not explicitly include the concept of value-added. Lee and Tibbo describe digital curation in terms of the historical etymology of curation and the work and subsequent contribution of archivists [6]. In this example, the emphasis in the DCC definition on scientific data expands to that of cultural, social, historical and scientific material. Yakel omits both the term value-added and scientific data as she defines digital curation as the "active involvement of information professionals in the management, including the preservation, of digital data for future use" [7]. Beagrie [8] expands upon the DCC definition and incorporates the notion of adding value when he views the term as not only "being used for the actions needed to maintain digital research data and other digital materials over their entire lifecycle and over time for current and future generations of users," but also "all the processes needed for good data creation and management, and the capacity to add value to data to generate new sources of information and knowledge." These examples highlight the trends that focus on key terms, such as "adding value" and "archiving" or "preservation" of digital assets. Yet concurrently, they also demonstrate how the operationalization of these terms is vague, potentially contributing to uncertainty in how to implement digital curatorial activities.

In respect to the variety of stakeholders working in the area of digital curation, representing different disciplines and communities, the foundational building blocks of the core definition for digital curation may be defined differently by practitioners, researchers and educators. Furthering the understanding of how key terms are used synonymously and in practice will aid in learning how the definition of digital curation is evolving. Additionally, while previous research has strongly focused on the root of digital curation, the branches of related professions has been limited, and thus opportunities for richer, contextual meaning and descriptions are still outstanding.

3. METHODOLOGY

In order to present the various definitions of digital curation, a formal literature review has been undertaken. The literature review reflects the perceptions of academic experts in the field of digital curation and information studies. Presented will be a brief summary on the emergence of the term, digital curation, and the key concepts and principles underlying it. This includes an examination of digital curation's relationship to other related terms, such as digital preservation and digital archiving, and key concepts, such as value-added. In addition to the summary, the poster showcases other definitions of the term from various disciplines for iPRES attendees to review along with the core definition from the DCC.

The poster is intended for high interactivity. Through an informal Critical Delphi technique, to facilitate and moderate discussion,

iPRES attendees will be invited to share their own perspectives on the terminology around digital curation [2]. Participation will be voluntary, based upon those who visit the poster session. The community of the iPRES conference provides a diversified set of experts and professionals to further inform a diverse definition of digital curation. Their perspectives will be added directly to the poster, creating an interactive media on which to simultaneously gather, discuss, collaborate and analyze the concepts around digital curation, allowing participants to immediately comment on the emerging data and provide feedback during the poster session.

As the poster session progresses, key concepts and terms, including the foundation building blocks, will start to be categorized and indexed. These links will then be transferred to a concept map to highlight areas of commonality and divergence in the various definitions. The use of concept mapping had been used in similar projects. For example, the SHAMAN [9] project explored the literature and identified four categories of needs in digital preservation. These categories were then mapped to demonstrate the role information behaviour research played in the information system design. This level of participation provides greater opportunity for clarification of discussion during data collection, as well gaining feedback on both the data and the approach during the early stages of the research.

4. INTENDED OUTCOMES

A solid understanding of digital curation and an agreement on the foundational building blocks will lead to a cohesive definition. Consensus towards a cohesive definition will also be a strong tool in establishing clear objectives and promote a stronger identity and practices. Until then, the term digital curation is at risk of being misappropriated and, potentially, leading towards fragmentation within the professional and academic communities.

The end goal of this poster session will be to stimulate discussion and interest that moves towards a proposed, collective definition of digital curation. The data gathered during the poster session will be used to frame subsequent data collection. Following from the session, those attending will be asked if future contact will be permitted as the Critical Delphi technique employs a methodology in which information is gathered through a series of questionnaires, in which each subsequent round informs the next. This poster session will serve as a first, preliminary round of a planned, subsequent study to map an ontological tree of digital curation.

5. REFERENCES

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