## *"Ex-cite: an unconference on Citation in Digital Environment"*
DigitalPreservationEurope Workshop
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## Participants

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## Overview

In today's digital environment scholarly publications are increasingly reliant on networked sources (e. g. through web citations or URLs). The problem of stability and persistency with these resources over time is well established. This causes serious problems in ensuring veracity in the field of referenced citations in scholarly research.

These issues relating to citation in the digital environment were discussed in a DPE Workshop, which took the innovative form of an unconference[1]. The discussions were lead by Professor Seamus Ross.  The focus of the Workshop was to investigate and discuss how the instability of Web resources, and the corresponding lack of reliability for Web resources citations, can affect the evaluation of scientific work. The possibilities of digital preservation procedures addressing these issues were also a main focus for the Workshop.

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[1]  http://en.wikipedia.org/wiki/Unconference

## Discussion

The following is a synthesis of the discussed topics:

- Relationships between different citation styles or systems. For example between bibliographical citations (pointing out the importance of users' information literacy for improving their skills of finding and evaluating the documents' quality), and citations by locations, through Open URL systems, rather than URL or URI.
- The minimal attributes for citations. For example in an Open URL context: domain, defined as the context of responsibilities for publishing, authorship, content, date, size.
- What is a document? The "nature" of a document affects citation styles and systems: the definition of digital resource is broader than that of paper-based resources. In addition to this digital documents are significantly different: a digital document can be continually changed and updated.
- The nature of documents. A document is a file, a sequence of bits stream. A pragmatic approach is needed as everything can be a digital resource. A service-oriented architecture (SOAP; RTF) seems more suitable than a hierarchical approach adopted by traditional Library Management Systems.
- The role of cultural institutions. Trustworthiness of digital repositories is essential.
- Trust in authorship in the digital domain. Authorship is changing but readers need still need to trust authors.
- Both authors and readers need validation of knowledge, assurance of actually finding the cited documents, certification of repositories, information about moving of files or changes in their content.
- The relationship between text permanence and document transformations.
- The role of semantic webs and ontology in knowledge organisation.
- The role of search engines and good metadata in finding documents.
- The role of legal deposit rules and practices.
- The new shared and collective forms of creating knowledge and content. This could become a revolutionary environment for citation rules and practices. Traditionally the evaluation of scientific work is closely related to the citation system. However in open web communities new shared and collective quality control systems are emerging.

At the end of the unconference all participants were asked to summarise which issues essentially characterise the domain of "Citation in digital environment".

The most common themes identified in the responses received were the role of trusted repositories for certification, preservation, selection criteria, the development of services to act as persistent ID generators/resolvers, in legal deposit and in the legal framework to certify the digital document's integrity and authenticity.

Related to these themes are the user-focused issues that were raised. For example the availability of tools and services for researchers at the time of citation, which could be provided by trusted repositories. Other user-focused issues raised were information literacy skills and the needs and expectations of users and how these evolve over time.

In addition to this the specific attributes for citations in the digital environment was highlighted. Issues such as the ability to verify citations across space and time, citation reference linking based on NISO OpenURL and persistent identifiers were identified.

Finally the developing topics of automatic generation of machine-readable citations and collaborative user approaches were also prominent issues amongst the responses from the workshop participants.

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