

The Confluence in Digital Humanities: the Computer Scientist, the Digital Humanist, and the Final User

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1 The Confluence of Competences in Digital Humanities

Some of the computational methods and techniques that have been proposed in the diversified area of digital humanities have contributed to the creation and development of different types of information management systems that manage and preserve digital resources of cultural heritage.

Issues related to the conception and implementation of these types of information management systems concern the need to create new models to automate processes for representing and processing specific cultural heritage resources that we want to represent and manage in digital form. Depending on both the type of cultural resources of interest, represented in digital form, and the operations that we may want to perform on them, a new information management solution may need to be envisaged; this new solution can only result from effective collaboration between experts in the specific cultural heritage domain, computer science experts, and the users of the solution. In fact, experts in the specific cultural heritage domain – such as archives, art history, library science, archeology, linguistics or history just to name a few – are able to appreciate the characteristics and peculiarities of the resources of the specific domain, whereas the computer science experts have experience in methods of digital representation and automatic management so they can conceptualize new solutions in order to make available the innovative functions requested by the final users of the digital resources of interest. It is this synergistic cooperation between the computer scientist, the digital humanist and the final user that produces effective new methodological solutions. Once the new resource representation and the management model has been created and formalized, a corresponding new information management system can be de-

vised. Computer science is only one of the necessary cultures where new systems can be envisaged and designed.

We may wonder why we need to devise new models and systems. Our answer would be because we want to consider aspects of reality that are different and more complex than those that were previously addressed. As the aspects of reality that we want to address and manage become increasingly diversified and complex, we need to devise new methods and systems capable of dealing with and managing them.

The functions, that a new system provides are presented to final and professional users through a user interface – this is the external level of the system that users interact with. The intermediate level implements a method or the methods useful for supporting necessary functions on digital resources of interest. The innermost level serves to represent and manage the data that correspond to the digital resources of interest together with tools to assist in the storage of data (e.g. indexes and tools for efficient and effective data management).

2 Presentation and Critical Analysis of Relevant Case Studies

Some relevant case studies are presented and critically analyzed to show that when cooperation is lacking between the diverse skills required, mistakes can lead to a failure to capitalize on the innovative digital humanities solutions available; when, on the other hand, cooperation is effective, then the solutions that are made contribute to advancing the sector.