

Developing a Framework to Enable Collaboration in Computational Archival Science Education

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Abstract: This paper presents the CASES (Computational Archival Science Educational System) web platform which is being rolled out as part of the IMLS-funded “Developing a Computational Framework for Library and Archival Education” project -- [<https://dcicblog.umd.edu/ComputationalFrameworkForArchivalEducation/>]. The approach followed closely tracks the 2019 Research Forum focus on tackling issues of diversity and inclusion as well as models for collaboration across domains. CASES [<http://cases.umd.edu>] is a service for showcasing, sharing, and teaching the computational practices that archivists and researchers are increasingly applying to digital archival materials. The website consists in project descriptions, lesson plans, and CASE files. This will help develop the building blocks of an integrated library and archival Master’s level educational curriculum to educate the next generation of librarians and archivists in the computational treatments of collections. Each contributed CASE file is described in a consistent manner based on Learning Goals that include: (1) Archival Practices, (2) Computational Thinking Practices, and (3) Ethics and Values Considerations. CASE files are based on the open source Jupyter Notebook approach. Educators are rapidly adopting Jupyter for teaching and it is being used in the classroom, for developing teaching materials and sharing lessons, and for creating computational stories. Our framework seeks to promote: (1) open source research and educational platforms, (2) cloud-based student-learning environments, (3) new pedagogies for educating archivists in computational methods and tools, and (4) establishing a community of practice for sharing computational and archival knowledge.

About the Author:

Richard Marciano is a professor in the College of Information Studies at the University of Maryland and director of the Digital Curation Innovation Center (DCIC). He also conducted research at the San Diego Supercomputer Center (SDSC) at the University of California San Diego (UCSD) for 13 years. His research interests center on digital preservation, sustainable archives, cyberinfrastructure, and big data. He is the 2017 recipient of Emmett Leahy Award for innovation in records and information management.