Informatics Best-Practices for Gallery, Library, Archive, and Museum Institutions

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As early as the 1960s, Galleries, Libraries, Archives, and Museum (GLAM) institutions began taking steps to realize a goal of automating many of the human processes necessary to make their collections and associated information easily accessible to members of academia and the general public. This trend has continued rapidly in the six decades since, connecting humans from all corners of the globe to a seemingly never-ending stream of historical artifacts, works of art, and literature. At the same time, widespread adoption of the internet alongside innovation in digitization processes (creating digital records, often of physical objects) has, in the process, evolved the societal role of GLAM institutions into "places of learning that convey knowledge and insights atop of being centers of cultural heritage."[1]

In the process of my bibliographic exploration, the chief goal of the research project, I spoke with the decision makers at world-class GLAM institutions, including The Met, Smithsonian Institution, Wikimedia Foundation, and Bowdoin's own museums, to understand and compile a comprehensive account of the "state of the union," per se, of the role of digital in regards to knowledge sharing. Particularly, I was led to investigate the changing roles of digital asset and collection management architectures (DAMS & CMS) concerning trends presented by a new Semantic Web and how the adoption of standard ontologies in regards to Linked Open Data (LOD) is developing how digital information is written, structured, and processed–a concept especially relevant to advances in Machine Learning (ML) and Computer Vision (CV).

The demands of patrons at GLAM institutions have developed accordingly within a digital society to include online access to collections and interactive digital displays, for instance. Better endowed institutions, recognizing this, have adopted their business models to meet these demands and have grown as a result. As a result, other resource-constrained institutions that are slow to meet these demands lose support, creating a positive feedback loop. Without adequate expertise, resources, and external support, disproportionate gaps in knowledge and accessibility are created. To alleviate underrepresentation, small institutions should reflect on their longtime priorities and unique cultural contexts. If it is deemed necessary to embrace digital to perpetuate a sustainable business model, these institutions are strongly encouraged to consult with third-party experts to develop specific phased approaches that are implemented to bring their digital offerings in line with what is expected of a GLAM existing within a postdigital era.[2]

Finally, many disciplines within GLAM informatics should continue to be challenged. For instance, prominent DAMS and CMS platforms are created and developed by western companies. Little is written addressing whether the ontologies currently used in these programs are sufficient in creating equitable representation for eastern institutions. Furthermore, the proliferation of dynamic, interactive art upends traditional object classification and tagging methodologies. Lastly, innovation in blockchain technology has challenged historical means of proving ownership and provenance. Further examination should be made to measure potential benefits to GLAM business models and the residual knowledge made available to the general public as a result.

Faculty Mentor: Fernando Nascimento

Funded by the Peter J. Grua and Mary G. O'Connell Research Award

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[1] "The Städel Museum's Digital Strategy," Städel Museum, accessed June 16, 2022

[2] *The Postdigital Museum*, Lecture (Bard Graduate Center, 2015)