Internet-Of-Things for The Twenty-First Century Archivist: Innovative Technologies for Environmental Monitoring

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Abstract: Environmental monitoring devices, commonly known as dataloggers, serve a vital purpose in archival organizations to ensure collections are preserved effectively. Prior research has identified several issues with the currently available commercial environmental monitoring systems, including prohibitive costs, lack of networked features, and inflexibility. This poster presents a research project exploring the suitability of popular Internet-of-Things devices, standards, and technologies, applied in the context of environmental monitoring needs of archivists. The developed system has been usability tested with archivists, and will be deployed in a library archive in a case study approach. The system developed provides a prototype for cultural heritage organizations desiring a fuller-featured, lower cost environmental monitoring system for archival collections, one in which archivists can be empowered to modify and shape to their specific needs.

About the Author:

Monica Maceli is Associate Professor at Pratt Institute School of Information, focusing on emerging technologies in the information and library science domain. She earned her Ph.D. and MSIS from the College of Information Science and Technology (iSchool) at Drexel University. She has an industry background in web development and user experience, having held positions in e-commerce, online learning, and academic libraries. Her research areas of interest include end-user development, human-computer interaction, and information technology education. Dr. Maceli is co-director of the Environmental Sensing Lab at the Pratt Research Accelerator which explores the applications of micro-controllers, single-board computers, sensors, and other physical computing devices in monitoring environmental conditions within cultural heritage organizations.