IU’s Advanced Visualization Lab enables interactive iteration of Places & Spaces: Mapping Science.

Exhibit in the CDC Museum in Atlanta enabled by IU’s Cyberinfrastructure open until June 17, 2016.

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IUTS Research Technologies’ (IUTS) group involved: IUTS’s Research Technologies, Advanced Visualization Lab

RT system: IUI-Table

The staff of Indiana University’s Advanced Visualization Lab (AVL) collaborated with the Cyberinfrastructure for Network Science Center (CNOSC) to present interactive data visualization in a multi-touch kiosk. The visualizations were submitted to the CNS by experts around the world as examples of "microscopes," interactive tools that help the user to see data or insights in data that one way or another are not obvious to the naked eye.

The microscope kiosk debuted at the David J. Sencer Centers for Disease Control (CDC) Museum in Atlanta on February 4, 2016, as the 11th iteration of the traveling exhibit, Places & Spaces: Mapping Science.

Interactive data visualizations, or microscopes, have great potential as tools for exploring, understanding and communicating science. They empower individuals to interact with data and to make their very own maps. In the first 20 days of Places & Spaces, the exhibit was shown at 296 venues around the world and generated nearly 3.5 million website visits. In its 11th year, the exhibit will spend five months at the CDC Museum, which hosts about 90,000 visitors each year.

The microscope kiosk was based on the design of the AVL’s IUI-Table v2 (version 2), a low-cost multi-touch table built with commercial, off the shelf hardware and open source software. AVL staff provided guidance on hardware purchase and assembly, and created software to allow users to explore the microscopes. The microscope kiosk is the first deployed instance of the AVL’s new multi-touch software framework, an approach for building touch applications with modern web development tools.

AVL is a group within University Information Technology Services’ Research Technologies, an affiliate of the Peripheral Technology Institute.

Dr. Kathy kter will help formally open the Places & Spaces: Mapping Science exhibit on February 4-5, 2016, at the CDC Museum in Atlanta. In a time when people long to find answers to health questions, the exhibit explores ways to find answers through tools of information visualization.

Here are excerpts from the Centers for Disease Control and Prevention announcement:


Drawing from across cultures and across scholarly disciplines, the Places & Spaces: Mapping Science exhibition demonstrates the power of maps to add vital questions about the contours and content of human knowledge. Created by leading experts in the natural, physical, and social sciences, visual arts, and the humanities, this exhibition is a multimedia tour of the human experience. The maps in Places & Spaces allow us to better grasp the abstract concepts, relationships, and dynamics of science, technology, and innovation. Individually and as a whole, the maps of Places & Spaces allow data to tell stories which both the scientist and the layperson can understand and appreciate.

Complementing Places & Spaces are some recent examples of CDC’s mapping and data visualizations for use by public health professionals and policy makers, as well as infographics designed to communicate with the general public.

Places & Spaces is organized by the Cyberinfrastructure for Network Science Center at Indiana University. In 2015, it was expanded to be visible at the CDC Museum and later at Carnegie Science Center in Pittsburgh, Pa. This project was presented by the David J. Sencer CDC Museum and CDC’s Office of Public Health Scientific Services, with additional support from Thomson Reuters through the CDC Foundation.

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