

Project Name: The Hub

Premise: The Hub is an interactive crossroads at the center of North Campus. It is literally a hub of social activity, bringing together food and people in a comfortable outdoor environment. But it is also a hub of information which displays data in an engaging plaza designed to resemble the spokes of wheel. The Hub improves life on north campus because it provides a gathering place with games, art, and information.

Concept: Spatial analyses and student surveys led us to a concept that combines food and interactivity in a programmable plaza. The Hub is a destination, and a place for self-expression.

Lighted bricks subtly illuminate in intricate patterns responding to the activity of people nearby. Food, seating, and sunlight attract.

The Hub collects **data** from sensors on campus as well as from sources online, shapes it using a **design**, and then sends it to the **display**. Because the system is open, students can build new designs to display, and an annual contest promotes student involvement.

The Hub also integrates north campus life into the broader University of Michigan community. Like the painted rock, or the rotating cube, The Hub is a symbol, that provides a common place and connects people across space and time.

Essential Elements: **Data → Design → Display**

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Data: The Hub uses data streams to drive its displays. Although these streams could come from only online sources, such as RSS feeds, it is important to our proposal that sensors be distributed on campus to actively monitor and collect data for The Hub.

Design: A “design” is a program for aggregating data and sending it to a display. The Hub uses a secure website to allow

people to build new designs through a convenient and intuitive interface. Without this interface, The Hub could only utilize designs installed by its administrators.

Display: The Hub itself is an interactive display. Lighted and pressure-sensitive bricks communicate and respond to plaza occupants. The Hub's "key" shows what programs are active in the circle. Although The Hub's data could be displayed via other mechanisms such as fountains, the plaza is the core of the proposal. Because the interactive display relies on the presence of people, food and seating are essential.

Realization: The Hub is a simple expression of a powerful idea -- a truly social, programmable space. Only a small number of design patterns are necessary to launch the initial plaza, which includes the lights and the pressure-sensitive bricks. Moreover, because it is only one possible display mechanism it represents merely the first of a potential network of sites and sensors. As the network evolves, it emerges as a digital layer that unites the physical spaces of the campus.