

PRODUCT NAME	CLASS	YEAR
Space-Aware PDA System: Designing the Dino Explorer PDA	Prototyping Interactive Media	Spring 2006

PROBLEM SPACE

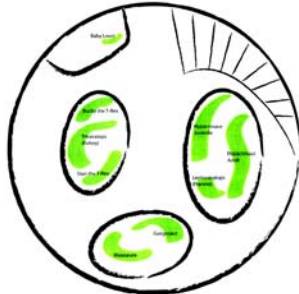
The purpose of this product is for users to be aware of events, activities, or information in ubiquitous form. Information is embedded in objects in the environment and downloaded into hand held devices through WI-FI or phone signals. The device had to be pre-dominantly right-brain, i.e., it should be heavily dependent on visual and audio output and input. The idea is to create a device that helps the user do things without being distracted from the information experience at hand. It should provide audio, visual, or sense responses to the user as they approach an information-rich location. It should offer "glanceable" information, i.e., information that you do not need to read, just to glance at, i.e., you should avoid the traditional text-heavy interface.

GOAL

The goal of this project was to create a system that works in an environment of "enhanced reality," where 'on-the-go' information about new places, buildings, landmarks, or social situations is delivered to the user with little or no user effort. The target use is for libraries, tourism, museums, general travel, and small local settings, e.g., universities campuses, etc.

THE PRODUCT

Dinosphere is a new \$25 million immersive technology exhibit at The Children's Museum of Indianapolis that features the largest collection of real juvenile dinosaur fossils in the world. These dinosaurs are displayed in immersive environments with labels and an immersive sound and light environment. The **Dino Explorer PDA** system allows visitors to experience the exhibit on a new and more personal level. As they move around the environment they encounter hotspots where information on the specific dinosaur in front of them will pop up and as they experience the view they can also review a set of detailed information on the PDA. The PDA will be used by an individual family without sound or on a more personal level with sound through a headset.



Dinosphere Environment Map



Dinosphere Scene

Note: This project is an extension of an ongoing study at Purdue University that is investigating social communication devices and the socio-psychological effects of location (space) aware information delivery devices. (Also, see embodied computing or context-ware computing (Dourish, 2001). Such a system locates the user spatially and automatically delivers relevant information through mobile devices (laptops, PDAs or cell phones). (The project is in collaboration with Dr. Sorin Matei, Assistant Professor of Communication at Purdue and the Purdue Discovery Learning and Information Visualization Center.)

PROTOTYPES (Dynamic Prototypes)

