

# TANGIBLE MEDIA INTERFACES

At the seashore, between the land of atoms and the sea of bits, we are now facing the challenge of reconciling our dual citizenship in the physical and digital worlds. Our windows to the digital world have been confined to flat rectangular screens and pixels, or 'painted bits'. While our visual senses are steeped in the sea of digital information, our bodies remain in the physical world. The vision of tangible bits, developed by Hiroshi Ishii and his team at the Tangible Media Group, MIT Media Lab, is to provide seamless coupling between these two very different worlds of bits and atoms. Tangible Bits give physical form to digital information, making bits directly manipulable and perceptible and blurring the boundary between physical space and cyberspace.

the resultant effects of computational analysis are generated and projected on the model surface in real-time. The project demonstrates an alternative form of computer interface (tangible user interface) that takes advantage of our natural ability to understand and manipulate physical forms while still harnessing the power of computational simulations.

transitions between thousands of colors to show changes in the weather, the health of your stock portfolio, or if your boss or kid is on instant messenger. Imagine if you had to go to your computer and type in your zip code whenever you wanted to check what time it was. Your important information should be as accessible as looking at a clock; now the Ambient Orb can make a variety of information just a glance away.

The five Ambient Orbs here are connected to the Real Time Rome data and indicate the level of traffic congestion at different traffic intersections in Rome. Average, glowing more green or red indicates vehicular traffic congestion up or down, and yellow indicates the traffic is calm.

## PINWHEELS

Pinwheels spin in a digital wind from cyberspace (such as network traffic). They demonstrate how physical information can be communicated at the periphery of human perception within an architectural space in subtle and aesthetically pleasing ways.

The five sets of pinwheels here are connected to the Real Time Rome data and indicate the number of people visiting five well-known historic monuments of Rome: Colosseo, Piazza San Pietro, Piazza Navona, Forum Romanum and Pantheon. Faster movement and stronger wind indicates a higher number of people at the monument at the current moment.

## AMBIENT ORB

Ambient Orb, a frosted glass ball, glows a color to indicate information. The Ambient Orb slowly

## SANDSCAPE

SandScape is a tangible interface for designing and understanding landscapes through a variety of computational simulations. Users view these simulations as they are projected on the surface of a sand model that represents the terrain. The users can choose from a variety of different simulations that highlight the height, slope, contours, shadows, drainage and aspect of the landscape model.

The users can alter the form of the landscape model by manipulating sand; at the same time,

### CREDITS

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