Pay per Gene

concept for an intelligent ambient interface

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1 introduction

Pay per Gene is a initiative within the Master of Digital Architecture "Passaggi Sensibili" at the National Architecture Institute of Rome. The goal of this project is to construct a concept for an Intelligenct Ambience Interface - a genetic structure is aware of the intelligence and ambience surrounding it, and has its own orientation within that space.

The time for developing the concept is 1.5 months.
Research goals are to:

1 Investigate theories and projects about Swarm Intelligence, Genetic and Topological Architecture/spatial intelligence and spatial genetics.
2 Learn from the design project itself: How will we incorporate these theories into our design? How will we deal with technological aspects of our design?
3 Learn from the organizational aspect of the project: How will we collect our information and who will give us feedback?

The Pay per Gene began as a research interest in Intelligent Ambience. Current work by Timoty Kohler, George Gummerman from Santa Fe Institute and others has influenced the concept's development.We own much toPlancton Art Astudio and the DARC from Rome– technical and theoretical feedback from its members will allowed the concept to evolve naturally. The project is not about the application of theory to any interface design – it is the result of a holistic development process in which theory of Intelligence, Ambience, Topology and Genetics have been given equal value.

2 abstract

The Pay per Gene is a Defragmented Installation interface. Genetics is projected from inside the people and users onto its corporeal surface. The Pay per Gene is a genetic container of our orientation and position in the surrounding space. These characteristics create a wide range of possibilities for genetics input, and navigation.

We can divide our concept into three parts:

1. The use of genetic space to store and interact with architectural information.
2. The use of a genetic object and its environment as an intelligent interface to digital genetics.
3. The use of the "*Pay Gene*" in combination with other *genetic objects*, and architectural systems.

3 design setup

The Pay per Gene is an open architecture which needs to topologically interact with other genetics to be complete. It's design includes re-design of other digital genetics devices such as genetics monitors and genetic printers.

The activity on which we want to focus is browsing genetics, as we do in most of our ambience relationships. Browsin activities include saving, moving, grouping, importing/exporting and printing genetics. We want to see how a Pay per Gene could be used to access and manipulate genesis of genetics.

4 t h e i n t e r f a c e

4.1 intelligence ambience b e h a v i o u r

Genetics is projected from the inside of people onto its surface. The genetics of the user stays in the same location even as the user moves on different locations, (as in figure 1); therefore, genetic manipulation of users will not interfere with topological feedback. However, if the location of people in space changes, genetics move to face other intelligent ambients in space., (as in figure 2).

figure 1 figure 2

All Pay per Gene functions are activated by genetic manipulation of the user. The heritage can be divided into two categories:

-local operations
-genetic operations

4.1.1 Local operations are in-user manipulations of genetics: isomorph, heritage, isotropics

figure 3: local-genetic operations

4.1.2 genetics operations are the manipulations of genetics within its environment: moving the gene, *spiral clock timing strategy*.

figure 4: context-ball operations

4.2 Gene structure and metaphor

There are four basic modes for accessing and manipulating information within the ball:

mode 1: the room-gene view
mode 2: the gene-environment view
mode 3: the gene-view
mode 4: the editing genetics