MARK EYLES, ROGER EGLIN AND DAN PINCHBECK   WWW.PORT.AC.UK/GAMES   WWW.AMBIENTQUEST.COM

Ambient gaming or how to play games when you're not playing games

This poster describes a novel way of playing games called ambient gaming. Growing out of ideas in ambient music, ambient gaming is defined as 'ignorable as it is interesting' (Eno, 1978). A low cost simulated ambient game, Ambient Quest, is described. Visit www.ambientquest.com to download and play Ambient Quest.

Ambient music + Computer games + Ambient intelligence = Ambient games

Ignorable Interesting + Role playing mechanisms + Ubiquity Transparency Intelligence = Mood/Behaviour Real/Virtual world
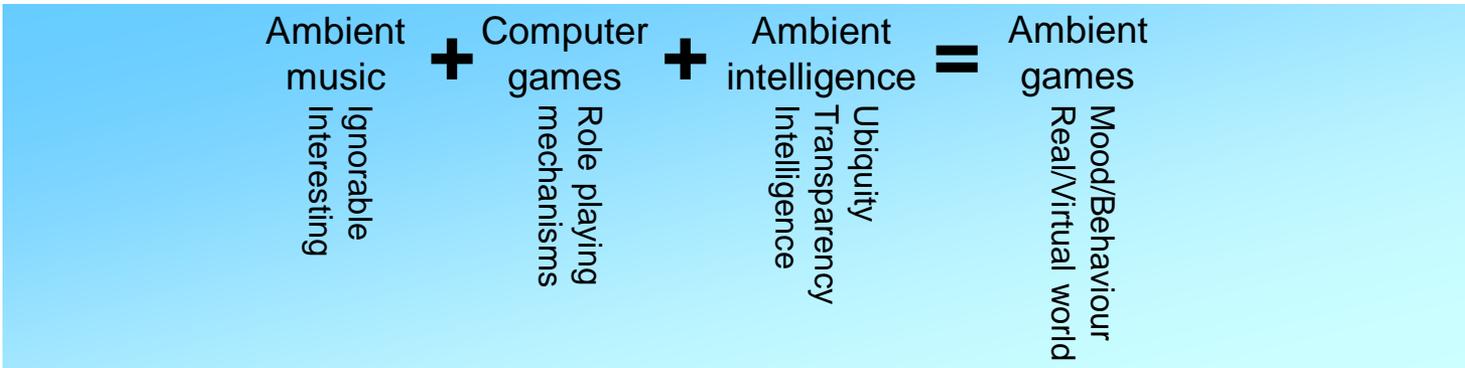
'Ambient games are designed to create a mood in an environment through game interactions with players whose behaviours, mediated by an ambient intelligent environment or similar transparent game interface, create changes in a virtual game world.

Ambient games are persistent and are as interesting as they are ignorable, facilitating a wide variation in player determined levels of involvement, from unaware to intensely attentive play.

In ambient computer role-playing games player behaviours affect one or more characters that gain 'experience', and other character customizations, through the completion of game objectives in a virtual world.'

Imagine a game similar to Progress Quest*, call it Ambient Quest, in which, when the player starts the game, their actions in the real world affect progress in the game world. The player chooses the degree to which they wish to manage events in the game, at one extreme the game runs itself, gathering data from the player's actions in the real world and automatically applying this to the game world, at the other extreme the player can determine how the real world data is applied in the game world, micromanaging game interactions. Ambient Quest should be 'as ignorable as it is interesting' (Eno, 1978) Players can dip in and out of the game.

The game is persistent, running in the background, creating a mood, while players are engaged in other activities, they may respond to the game by modifying their behaviour to affect their game progress. Ambient games may be controlled by everyday actions (i.e. not using a dedicated game input device, mouse or keyboard) in everyday, real world environments that have gameplay consequences in a virtual game world. These game play environments may be facilitated by ambient intelligent technologies that embed the game transparently in the environment.

Ambient games allow the player to have experiences that range from superficially shallow to profoundly deep. The player is able to choose how they focus their attention on the game, and can alter their degree of attention at will

As with Music for Airports an ambient game should accommodate many levels of attention, many levels of involvement or intervention, creating a mood in the environment. The involvement of the player in the game is not determined by the game. This is not a 'push' technology, but is determined by the player who can choose when to 'pull' game experiences from the ambient game.

Ambient Quest the distance walked by the player determines the number of moves available. The moves may be selected by the player or automatically played by the game. Future research is planned in which player data (GSR, pulse and movement) is automatically loaded into the game.

In order to define ambient games it is useful to describe ambient music, computer games, role playing games and ambient intelligence. Ambient games are set in context of pervasive games below. There is also a screen shot of Ambient Quest with a pedometer inset. 'Little, Big' provides a final thought.

Music for airports

If the seminal 1976 ambient music album Music for Airports became a 21st century ambient role playing game, what would it play like?
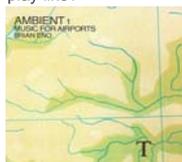
Ambient music informs ambient games. Brian Eno coined the term 'ambient music' on his 1978 album Ambient 1: Music for Airports. In the sleeve notes of Music for Airports Brian Eno gives a definition of ambient music: "Ambient Music must be able to accommodate many levels of listening attention without enforcing one in particular; it must be as ignorable as it is interesting" (Eno, 1978)

What is a computer game?

- An interactive entertainment played against, or with the aid of, computer generated characters or tokens in a computer generated environment.
- A single player game has a series of interesting obstacles to overcome in order to gain rewards.
- A multiplayer game has a series of interesting obstacles to overcome at the expense and/or with the help of other players to gain rewards.

*Progress Quest

A role playing game that requires minimal intervention: once started it plays itself. www.progressquest.com (Fredricksen, 2004)

What is an RPG?

- In computer role-playing games players control one or more characters that gain 'experience' through the completion of game objectives. The 'experience' is manifested as player moderated changes in player character attributes ('strength', 'intelligence' and 'luck' for example) which allow the player character to evolve over the duration of the game.
- Additional player character customization is facilitated through modification of character differentia such as race and class when initiating a player character ready for play and by game-play educed character modification during play, such as development and improvement of a skill by repeated use of that skill, or the spending of 'skill points' gained when levelling up.
- The player character descriptors (attributes, differentia and game-play educed modifications) affect the in-game interactions between the player character, non-player characters and items in the game environment. The environment, objects, characters and interactions are effected in a virtual environment.

Ambient Intelligence

There are a number of different technologies that are enabling the development of ambient intelligence:

  Interconnectivity
  Artificial intelligence
  The proliferation of computers

These technologies support ambient intelligence, which has:

  Ubiquity
  Transparency
  Intelligence

Applications

Imagine a job which involves fairly repetitive actions which are not in themselves especially rewarding. Could an ambient game be designed that ran alongside this work and brought an element of playfulness to the job?

Example:
Ambient Shelf Stacking Game

Imagine a game that drew its data from supermarket shelf stacking: employees belong to different teams that are represented by competing avatars in a virtual world.

GAMES

Pervasive — AMBIENT — AMBIENT QUEST — Role playing

Alternate reality

Augmented reality
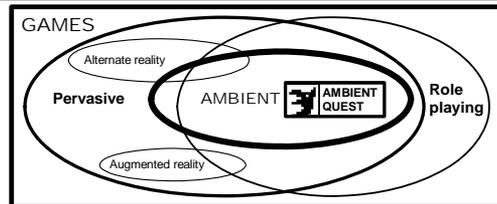
Pervasive games are games which extend gaming experiences into the real world They include locative games in which players move into the real world while playing and their position and actions in the real world affect, and are affected by, events in a virtual world

Ambient Quest V2.1 - (C) Mark Eyles and Determined Software , 2007.   For more info. visit www.ambientquest.com.

HEALTH : (99/100)
STRENGTH (12/10)
TOUGHNESS : (11/10)
LEVEL : 1
EXPERIENCE : 10

INVENTORY:
Laser Baton
No Shield
No Armour
Fungus & Fruit
30 Space Credits

INVENTORY WEIGHT: 6kg
MOVES REMAINING : 3

Press 'F1' to view map legend
Press 'M' to automove player.
Press 'S' to save progress.
Press 'E' to eat food

Ambient Quest

REAL-WORLD STEP CONVERTER

00137

'It is another world entirely and is enclosed within this one; it is in a sense a universal retreating mirror image of this one, with a peculiar geography … composed of a series of concentric rings, which as one penetrates deeper into the other world, grow larger … each perimeter of this series of concentricities encloses a larger world within' Little Big by John Crowley (Crowley, 1981)