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The city as a playground

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Concept

The 'CitiTag' project is focused on social experiences and group play in public spaces, based on the awareness of other peoples' presence, through the use of mobile technology.

Presence awareness, a key concept in this work, is simply knowing, being aware of other people's existence, for example whether one's friends and colleagues are online or not. With the advent of mobile technologies presence becomes a richer concept, integrating virtual presence with physical presence through location information. In CitiTag these are the boundaries we explore: what kind of engaging social experiences can emerge in the real world based on the awareness of individuals participating in a parallel virtual experience? Does virtual presence penetrate physical presence in any way?

Previous online studies (Vogiazou and Eisenstadt, 2004) have shown that spontaneous social behaviours can 'emerge' among groups present in multi-user environments, even without explicit and verbal communication. We also know that wirelessly internetworked groups of humans can exhibit emergent prediction capabilities (Rheingold, 2002) and thus demonstrate self-organizing dynamics.

Play has always been inherently social even before the advent of mobile phones, computers or any communication technology at all, as we see from school playgrounds. Our CitiTag game has been inspired by the simplicity, spontaneity and instant fun of 'playground tag' (Opie and Opie, 1969). We have further developed the 'tag' concept, as described in the following paragraph, to encourage emergent social behaviours in an urban context. City space is used as a

playground and passers-by can become the usual or unusual suspects in a novel experience.

Design

CitiTag is a wireless location based game, played using GPS (Global Positioning System) and handheld, iPaq PocketPCs connected to a wireless network. As a player, you belong to either of two teams (Reds or Greens) and you roam the city, trying to find players from the opposite team to 'tag'. You can also get 'tagged' if one of them gets close to you. If this happens, you need to try and find someone from your team in vicinity to set you free, 'untag' you. Each game event (e.g, someone is close and you can tag/untag them) appears as an alert on the iPaq with a sound (Fig. 1).

Figure 1. Three different game states. Figures on top of the screen show the number of free and tagged players for each team.

The project is motivated by the hypothesis that very simple game rules based on presence states (e.g. I am Green and 'tagged') can result in an enjoyable social experience, stimulated by real world interaction among players. Another hypothesis is that certain interactions develop once a critical mass of users has been achieved, making the experience different every time as it is stirred by group dynamics.

User Experience Studies

We carried out a pilot trial with 9 participants in an open field space at the Open University campus in Milton Keynes. Participant interaction during the game was particularly interesting as they demonstrated various emergent tactics while trying to identify their friends and foes, for example, using gestures to attract attention from a distance, following others secretly or running, trying to surround a person in pairs, keeping eye contact and observing player reactions while paying attention to on screen indications and sound alerts. All nine participants enjoyed the game a lot and agreed on its great potential for the future. One participant also mentioned that 'it's different every time' you play. However, they found the space too open, as they were all always exposed and that caused the game to finish too quickly, not allowing enough time to explore the full potential.

Fig 2a and 2b. CitiTag trial

Further work

Pilot trial results are very encouraging and in accordance with our hypotheses, indicating clearly the need to run a trial in a city space with more participants,

which we are currently planning. One part of the project also focuses on how such experiences can become part of the fabric of daily life and the use of video in the interaction design process. With CitiTag we aim to identify design implications for future technology mediated social experiences and create models of experience. Comparing with results from other Mobile Bristol projects will help us define the experience design process.

Acknowledgements

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