Ambient Media for the Third Place in Urban Environments

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Abstract—**As ambient computing blends into the fabric of the modern urban environment developing a positive interplay between people, places, and technology to create enlivened, interactive cities becomes a necessary priority in how we imagine, understand, design, and develop cities. Designing technology for art, culture and gastronomic experiences, that are rich in community, can provide the means for collaborative action to (re)create cities that are lively, engaging, and promote a sense of wellbeing as well as belonging**

Keywords- urban informatics, digital and interactive technologies, ambient technologies

I. INTRODUCTION

Cities are the functional building blocks of contemporary society but face significant challenges not only to provide for the physical needs of their populations, but also to provide lively places and experience that determine quality of life. At the same time, the use of digital and interactive technologies are becoming increasingly embedded in the everyday lives of people. Application of technologies that are real-time, context aware and interactive; augmented and immersive realities; social media; and location-based services are particularly evident in urban environments where technology and socio-cultural infrastructure enable easier deployment and adoption. The potential for these technologies to utilise and interact with arts, culture, and gastronomic experience to enable a (re)creation of the city from a 'grass roots' citizen initiated perspective is substantial. Digital and interactive technologies have the ability to handle small to big distributed datasets, which helps connect and assist individuals to socialise in new and innovative ways. Coming to terms with the city that informs, reconfigures, and enables its citizens presents challenges and opportunities for the lived experience of the city.

This paper presents ambient technologies as a means to support and innovate diverse experiences within and of the city towards a more livable future. The nature of ambient technologies is that they meld into the fabric of the city, providing a means of interaction, navigation, and curation of content [1], and more importantly, opportunities to (re)create

values associated with the people, place, and technology within the city. This (re)creative process in relation to the complex interplay between sensation or contact, the visual appreciation, familiarity, sense of well being and attachment to a physical space builds culture of the space or a sense of 'place' [2]. In order to build capacity for enlivening cities we need to consider the role of place, particularly through community engagement. Central to our sense of community is public life. Public life is created by culture in public space that 'is the stage upon which the drama of communal life unfolds' [3]. The quality of life of individuals and society is significantly enhanced by the quality of a public place [4]. With the additional layer of digital information, augmentation, and animation, the physical public space takes on new forms [5] and new meaning.

But what are the key qualities and the role of the digital and interactivity in enhancing these places? This conscious desire to building an experience of place through the affordances of digital and interactive technologies leads us to think about the key qualities we desire for our urban spaces. Do we seek places, for example, of beauty, functionality, of social connection, of collaboration, of interaction on a range of levels, of sociability, of relationship, of collaboration or exploration, of unique experience, of familiar or belonging? In differing measure perhaps we seek all of these things, or at least over the whole of our urban environment we seek each of these elements in different places. Whyte suggest that 'what attracts people most, it would appear, is other people' [4]. The discussion of a 'third place' draws out some of the social aspects of place that people seek. The third place that is a connection with a place not our home, or our work but another place where we can have a sense of belonging beyond the tasks of life and 'nest' of home [6]. The concept opens our understanding and discussion of these elements of our social urban environments to consider in more detail.

The work of Ray Oldenburg [6] explored and popularized these concepts of third place and looking at some of our innate human tendencies or needs which see us seeking to connect with others, to experience our urban environments in social ways. He suggests a concept of

familiar without the intimacy of family or immediate relationships is part of the attraction of life in public places. The third place provides a setting to connect with strangers in light congenial ways. These community connections or relationships that do not involve personal expectations and/or the commitment of close relationships provide us with the opportunity to 'download,' de-stress and explore our community and its places of common experience. The idea that we are revealing just a part of our persona, but not the whole, provides us a level of knowing with a measure of anonymity, and at the same time gives us a sense of belonging. It also provides a level of acknowledgement within our community, that as part of the community there is a place for us.

Not surprisingly this development of a community connection often focuses around the settings of food, art, and other cultural experience. The coffee shop and library are classic examples of 'third place' and provide a utility function for community. The convivial relationship built in a context of gastronomic experience and culture is a strong foundation for the development of community and quality of life. For every culture the shared experience of a meal and shared knowledge within and of the place is a relationship to the sense of community, sociality, and belonging. Since Whyte and Oldenburg wrote on the relationships between community and place, the development of digital technology has been exponential and the adoption of mobile technologies has seen changing patterns of social behaviour. Changes have occurred in the ways people connect and interact, and the extent of their lives that they share with others both co-located and co-present (distant located). The affordances of these technologies to build a sense of place provide a new set of tools that can enhance and enable discussion, that can motivate and inspire.

Digital technologies create ways to play and connect with information and place in a new way. Co-presence and co-location are dispensed with as no longer the only features required in order to enjoy company and experience. Footprints or transparent digital images of the past are left along with messages for the future. Through this means we have the potential to embellish place, altering the experience and knowledge of our environment, our culture and community. Cities are enlivened by the serendipitous, convivial, spontaneous, and entertaining (re)creation of environments. Ambient media, its content, and application are potential keys to unlock a vastness of shared experience and meaning for place. It allows for the visualization of creative and knowledge resources where they were previously hidden. Data and knowledge made visible makes for opportunity to respond to our cities and our neighbours.

Baalam et. Al [7] looked at the influence of ambient media on non-verbal communications. Their findings suggest that the patterns and influence of social interaction will alter with the further deployment of ambient technologies. The influence of ambient media permeating the much broader context of communication mechanisms, beyond verbal, will further changes in our relationships and communities as digital technologies become more embedded into our everyday lives and experiences.

Ambient media weaves into the very fabric of the city through a variety of distributed and interlinked media [1]. It enables the connection of media and place. It provides new ways to create and interact with art, culture, and gastronomic experience giving colour and quality to the life of the city. With the growing use of ambient media comes an expectation of the ability to interact and become a part of the living city or the lived experience of the city. Individuals seeking involvement with and co-creation of the digital content and curation are fast becoming a public act of collaboration. This interaction and (re)creation of our cities are expected to be integral to the enlivening urban environments of the future as we balance limited resources and growing populations.

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