

## Chapter 29

# Participatory Design Experiment: Storytelling Swarm in Hybrid Narrative Ecosystem

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### ABSTRACT

*This chapter describes a participatory design experiment that is influenced by the swarming activity. The chapter introduces a new approach to writing narratives in virtual learning communities of the social Web 2.0 and contrasts it with traditional storytelling approaches. In the participatory design experiment we developed a hybrid virtual storytelling playground that augments the real world – a hybrid ecosystem of narratives. It consists of social software tools freely available in the Web, such as microblogs, social repositories of images, and blogs, the real locations in the city, and the storytellers who leave their digital contents. The results of writing narratives as a swarm in a hybrid ecosystem are presented. In our experiment, instead of bending old novel formats into the hybrid ecosystem, the evidences of new evolving narrative formats of this hybrid space were explored.*

### INTRODUCTION

The explosion of social software – blogs, wikis, social repositories and -networks – started the era of the participatory Internet, or the so called Web 2.0, that enables participants to actively reflect, publish and share their experiences; gain awareness of and monitor other individuals, communities and networks; publicly store and maintain their artifacts; and personally retrieve

socially gathered information online (O'Reilly, 2005; Constantinides & Fountain, 2008). Such environment is hybrid in many ways – it interconnects people virtually, unites their everyday experiences in geographical and web places, and combines their personal selection of social tools into networks that enables the peers to monitor their daily activities and meaning-making that goes across such environments. The particular activity, gaining popularity in the participatory web, aims at creating personal and collaborative narratives. This chapter introduces a participatory design

DOI: 10.4018/978-1-60960-040-2.ch029

experiment of writing narratives in the new hybrid environment. It was investigated how people write narratives using the uncoordinated behavior of swarming. Using the swarming approach highlighted certain aspects in the participatory design methods. The results concretized new storytelling standards emergent in social web, which are in contrast with traditional storytelling approaches.

## HYBRID ECOSYSTEM

The concept of hybrid ecosystem consists of two parts. First, *hybrid* refers to the structural property of the world that is achieved by deliberate blending of geographical spaces with collaborative environments such as blogs, microblogs, wikis, social repositories and -networks. In this new environment the borders of geographical spaces and participatory software environments can be blurred or eliminated whenever purposeful, allowing embedding artifacts across the borders to create an augmented and more interactive world in the context of community activities.

The second, *ecosystem* term together with its explanatory sub-concepts *place* and *niche* describes how such hybrid geographical places and participatory software environments together with their users also represent a complex functional system. *Place* is a personally meaningful spot in the surrounding environmental space. The place involves conceptual construction and knowledge building. The augmented concept of *place* not only refers to a geo-position, but to the holistic conglomeration of events, objects, emotions and actions of an individual in the place, and includes both natural, e.g. geographical elements. In our experiment we constructed a setting in which individuals defined *places* by associating artifacts such as impressions, historical content, images etc. with geographical locations. A feasible method of associating contextual metadata with space information is *artifact-centered*, in which the contextual annotation is added to the artifacts

that are simultaneously geo-located. With *tags*, that is, descriptive terms associated with content items by members of the community, geographical positions can be related with meanings and activities shared by the members, and places can be searched by such aspects.

It is possible to create immediately such *locative content* using GPS-equipped mobile devices that are situated simultaneously in a physical and a virtual environment (Tuters & Varnelis, 2006). Locative content can also be accessed from virtual environment and used to trigger social interactions with a place (Tuters & Varnelis, 2006; Kaipainen & Pata, 2007). Many common social Web applications have integrated locative functionalities, e.g. Flickr.com, Google.maps.com, Brightkite.com, while most of the blogs and wikis still lack this possibility. For a community this kind of link between geographical and virtual spaces and meanings is a way to build their identity, determine their particular territory as a place, and distinguish themselves from other communities. Notable is, that this community territory is not defined only by their location in geographical or software places. This territory is also defined by meaning- and activity aspects, which bring in extra dimensions to the space. For marking this abstract space we can use *niche* term.

Niches may be conceptualized as particular abstract spaces for taking community specific actions, holding and recreating community meanings. Thus, niches contain meaningful community places. The concept of niche is used in biology to describe an abstract space in which certain species have optimal living conditions for performing actions related to their life. Hutchinson (1957) defined niche as a region (n-dimensional hypervolume) in a multi-dimensional space of environmental factors that affects the welfare of a species. Niches appear as generalizations and they become evident if many similar individuals live, interact and evolve in certain conditions. Each individual keeps constantly adapting itself to the niche of the species. A *niche* in our context is a

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