

Chapter 24

A Guide to Online Applications for User Involvement in Living Lab Innovation

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ABSTRACT

The use of Living Labs is gaining importance as an approach to involve users in innovation and development, serving to make users active participants in the development of the networked society. However, Living Labs are currently not taking full advantage of online applications to support user involvement, even though such applications are gaining impact in other fields of innovation. The purpose of this chapter is to: (i) present a framework to classify and relate online applications for user involvement to the Living Lab context and (ii) present a set of guidelines for the usage of such applications within Living Labs. The framework and the guidelines are the results of a collaborative process involving seven Living Lab researchers from four Nordic Living Labs and are meant to guide Living Lab administrators on whether or how to use online applications for user involvement. The framework and the guidelines might also be useful for the designers of online applications.

INTRODUCTION

The use of Living Labs is a relatively new approach to the involvement of users in innovation and development processes (Schumacher & Niitamo, 2008). In the field of ICT development, Living Labs have been defined as environments for innovation and development in which users are exposed to new ICT solutions in (semi)-realistic

contexts as part of medium- or long-term studies (Følstad, 2008a). Consequently, Living Labs are of high relevance to innovation and development in the networked society. The Living Lab approach has received much interest over the last few years. This is particularly seen in the growth of the European Network of Living Labs (<http://www.openlivinglabs.eu/>), which now contains more than two hundred Living Labs across Europe.

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An emerging trend is to see the Living Lab as a way of tapping into the creative potential of users and user communities. At the same time, users are increasingly taking up the Internet as an arena of participation, in which they provide feedback, share and co-create. In consequence, *online applications for user involvement* are becoming ever more relevant to Living Lab innovation. Such applications may include what is typically referred to as social software (Shirky, 2003), social media (Boyd, 2009), or social technologies (Hagen & Robertson, 2010) as well as non-social applications for user feedback. Examples of the latter include applications for online questionnaire surveys, cultural probing, experience sampling and remote usability evaluation.

Early work has been conducted on how online user involvement may be integrated into Living Lab innovation and development processes (Näkki & Antikainen, 2008; Følstad, 2008b; Følstad, 2009). However, the uptake of online applications for user involvement in the field of Living Labs has been surprisingly low, given the potential usefulness of such applications in this field (Følstad, 2008b). One reason for this may be that applications for online user involvement are rapidly evolving, and it is challenging for Living Lab administrators to obtain an adequate overview of (a) existing tools and applications, as well as (b) the high-level Living Lab activities that these may support.

To support the uptake of online applications for user involvement in Living labs, we, in this chapter, contribute a framework for classifying and understanding online applications for user involvement in Living Labs and guidelines for the use of such applications. The framework is intended to support Living Lab administrators in obtaining an overview of application groups and the high-level activities supported by such applications, as well as Living Lab researchers in their study of the performance and characteristics of such applications in varying Living Lab contexts. The guidelines are intended to help Living Lab

administrators when setting up their studies and also designers of online tools that might be used in Living Labs.

The framework was developed within the SocialLL project (<http://socialll.origo.no>), which ran from 2010 to 2012. As an introductory activity in the project, we saw the need to establish a framework to classify social software for co-creation purposes. In order not to be unnecessarily restrictive and thereby possibly limit the relevance of the framework, we scoped the process leading to the framework to include both social and non-social applications for online user involvement in innovation processes.

The structure of this chapter is as follows: We first present the existing background on online user involvement in development and innovation processes. Then, we specify the objectives for the framework, describe the approach for its establishment, and present the framework. This is followed by the guidelines for using online applications within the Living Lab context. Finally, we discuss needs and possibilities for future research and development related to Living Labs and give some concluding remarks.

BACKGROUND

Innovation and the Innovation Process

Innovation has been considered to be one of the cornerstones of prosperity. Its importance has been recognised both by research funding agencies and by companies all over the world. The European Research Council put it this way:

Europe's future economic growth and jobs will increasingly have to come from innovation in products, services and business models. This is why innovation has been placed at the heart of the Europe 2020 strategy for growth and jobs (EU, 2012).

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