

Chapter 11

Model-Based Interview Method Selection Approach in Participatory Design

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ABSTRACT

Participatory design is a technique which is being used by system designers to involve the end users and product owners throughout the design process. Even though utilizing this approach brings customers to the design process, implementing it requires a budget, a place, time, and other resources. This chapter demonstrates a model-based approach to facilitate the selection of interviews for each design phase such as listing elements for the interface, choosing location for components, making decision for the general look of the component, finally making the component interactable. Interface designers can use the model to choose different type of interview method for different design phases such as interface components, sketching, lo-fi prototyping and hi-fi prototyping, according to their resources. The research focus is on four different participatory design interview method, which are GUI-ii face-to-face, GUI-ii screen-sharing, GUI-ii Ozlab, and traditional face-to-face interview.

INTRODUCTION

A user-friendly designed interface is essential for engaging more users to use applications and software, especially if there are various applications serving the same goal. Most people interact with different applications in their daily life, and it is a reasonable assumption that they prefer the applications which are easiest to interact with. Therefore, having a graphical user interface to satisfy users' needs is a requirement. One of the critical aspects of designing interfaces is to find out what are the most vital end-users'

DOI: 10.4018/978-1-7998-2637-8.ch011

needs and their knowledge of using a system. There are multiple cases where it is essential to gather information from the end-user during the designing process. To obtain information from the end-users, as co-designers in a co-design environment, designers combine participatory design techniques (Simonsen and Robertson, 2013; Spinuzzi, 2005) with interview methods. The process includes involving the users or owners of the products in some or all phases of the design.

There are different participatory design interview methods, one of the most basic ones is the traditional face-to-face interview, where the designer meets the co-designer in person, and use paper and pencil to gather information according to the design phase prerequisites. This interview method is not the most efficient way to have everything on paper, it may slow down the process of gathering information, mislead the test participant or even make them tired (Heintz et al., 2015). There are other interview methods developed such as think-aloud (Nielsen et al., 2002), post-task, and survey-based (Baauw et al., 2004) interviews. In this chapter some more recent interview methods are presented, and they are analyzed and compared with each other and with traditional Face-to-Face interview, to demonstrate why choosing the most efficient interview method is beneficial in participatory design.

GUI interaction interviews (GUI-ii) (Pettersson et al., 2017) is a new interview method where interviewees are creating user interfaces and interact with them. It is interesting to evaluate its benefits under different conditions, to find out its limitations, advantages, and disadvantages. There are various approaches for using the GUI-ii interview method, such as face-to-face interview, interviewing via screen-sharing and interviewing using the *Ozlab* web application (Pettersson and Siponen, 2002; Pettersson and Wik, 2015) which provides Wizard-of-Oz (Steinfeld et al., 2009) (Schlögl et al., 2015) functionalities to enhance the interactive experience (Pettersson et al., 2018).

Majority of designers go through different interview methods to get the necessary information from the users according to their needs, whether it is remote, face-to-face or combination of interview methods. Nonetheless, wrong selection of interview method may lead to inaccurate data collection, and eventually designers will encounter with an ineffective and impractical user interface, or an unfinishable product.

To assist designers choosing the most efficient interview method for each or every design phase of participatory design procedure, a mathematical model has been developed. This model will help and facilitate designers to list their parameters such as resources, design phases and interview methods and determine how to continue with test participants. This chapter provides a model-based approach for designers to improve their collaboration with end users by utilizing resources, phases and interview methods as input parameters. The output parameter returns different values for each interview method, the highest value determines if the interview method is suitable for the design phase.

BACKGROUND

Related Works

In this section, some of the research works which has been conducted previously, will be briefly described. These researches are related to participatory design techniques, interview methods, and their analysis criteria in the field of human-computer interaction. There are researchers who perform an empirical study on interview methods which are slightly different from the ones covered in this chapter. Their research was mostly focused on gathering information before starting the design phase (i.e. listing necessary requirements), the information gathering phase (i.e. who are the end users), or after finishing the design

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