
Laura Hokkanen and Kaisa Väänänen-Vainio-Mattila

Department of Pervasive Computing, Tampere University of Technology, Korkeakoulunkatu 1, 33720, Tampere, Finland
{laura.hokkanen,kaisa.vaananen-vainio-mattila}@tut.fi

Abstract. Startups are creating innovative new products and services while seeking fast growth with little resources. The capability to produce software products with good user experience (UX) can help the startup to gain positive attention and revenue. Practices and needs for UX design in startups are not well understood. Research can provide insight on how to design UX with little resources as well as to gaps about what kind of better practices should be developed. In this paper we describe the results of an interview study with eight startups operating in Finland. Current UX practices, challenges and needs for the future were investigated. The results show that personal networks have a significant role in helping startups gain professional UX advice as well as user feedback when designing for UX. When scaling up startups expect usage data and analytics to guide them towards better UX design.

Keywords: User experience · Startup · Lean

1 Introduction

A startup is a team of people that try to find a scalable business model, and is also defined to be only a temporary organization [3, 17]. Startups are getting a lot of attention and are seen as a way to create new opportunities for work and business. Startups offer an interesting domain for research to understand what methodologies and ways of working are helping the success of these small teams with limited resources. Startups work in a fast-changing environment and what matters to UX work is that they do not have the possibility to spend a lot of time working on design when the whole product might still change significantly.

Software development practices in startups have gained some attention [16] but research on UX practices is lacking. The traditional approach to UX design based on the principles of human-centered design [10] has a lot of upfront work before starting the implementation. Some books [12, 8] have been written to offer tools for UX design in lean startups but the past academic research is limited to some case descriptions with UX practices [15, 18].

Research that would recognize the best practices for UX work in startups is missing. It could offer valuable information on how startups could optimize the resources put to UX work for creating UX that would enable growth. It is also of interest to
understand if these ways of working are transformable to be used in established companies when they need to innovate fast. This paper presents the results of our research that aimed to understand the role of UX work in startups developing ICT products. UX work includes user needs gathering, designing UX and user tests for feedback collection. Designing UX covers both choosing the right functionality and designing the user interface for the product. In this research we wanted to understand (1) what practices startups currently have for UX work, (2) what challenges startups have in UX work and (3) what kind of needs the startups expect to have regarding UX research and design in the future when they scale up.

To address these questions, we conducted an interview study with eight startups on their approaches to UX work. As a conclusion, we will propose implications for startups on how they could incorporate UX practices in their product development. The results can be used to further investigate and develop UX practices that would help startups succeed.

2 Related Work

Previous research on the specific topic of UX work in startups is very limited. In this section we briefly go through the related work on UX practices in industry, lean UX and product development in startups.

2.1 UX Practices in Industry

Practical work towards good user experience – often also referred to as usability – is rooted in human-centered design (HCD) approach, as defined for example by the ISO standard [10]. This approach emphasizes upfront user research and design activities, strong user involvement, iterative design and multifunctional design teams. While such approach has been well adopted in the research of user experience, industrial product development projects have often used more limited practices.

In their survey of user-centered design practice in industry [20], Vredenburg et al. found out that iterative design is a widely used approach and that usability evaluation is the most commonly adopted user-centered method in industry. Analyzing user tasks and conducting field studies were also often used in user-centered design. A survey by Gulliksen et al. [9] conducted in Sweden revealed that usability professionals appreciated low-fidelity prototyping, field studies and think-aloud tests with end-users the best methods to use. The survey furthermore indicated that management support is essential for the usability professionals and that user involvement often has low priority in the projects. In a more recent study in Italy, Ardito et al. [1] found out that several companies still do not conduct any form of usability evaluation, because they require a lot of resources in terms of cost, time and people. The advantage of usability work for the usability of software was still clearly recognized in the studied companies.