

Synopsis

Preparing for exam in Participatory innovation course

Bringing user studies into the team as a game by using methods from participatory innovation approach

User studies are important in innovation. To be commercially successful, new product and service ideas must, of course, meet a real- or perceived-customer need [4, p.103]. There are often many assumptions about users in teams which are supposed to innovate a product. There is nothing bad about interpreting information and making use of it in design decisions. However, when assumptions about users hinders the motivation to gather real data about users, that lowers the quality of design decisions. Low motivation to perform user studies is likely to happen if most of team member's don't have practical experience with them. The problem is how to make user studies perform into such project teams teams. How to coordinate the process?

In Participatory innovation (PIN) course work with Dimaps and other projects I have met many assumptions around innovation and users that lowers a motivation to do a user research. *First assumption* is that innovation comes from a lone genius instead out of a team-work. What some people want is an approval of their own assumptions and ideas about what the user needs. And some persons whose assumptions about users are strong, could consider other converse ideas as a threat for them. *Second assumption* is that users know what they want, and instead of extensive user studies, it is better just to ask them – interpret material 1:1. *Third assumption* was that functionality of product is more important than user studies and users are going to adapt proposed functionality if it will be “good”. *Fourth assumption* is that there industry standards and specifications are more important than user studies. I have experienced that in software development field.

In order to perform user studies well in the team, it is essential to challenge those assumptions about users, increase motivation of conducting user studies and lead it in a way that everyone understand and enjoy. However, there is also a need for the right strategy on picking user study methods at the right time in order to be efficient.

There are different user study methods used in PIN and other approaches empowering both capturing data about users and interpreting users. One type are *data methods* (like interviews, surveys, focus groups and usability tests in lab), gained from capturing mostly numbers and text (objective data). These methods relates more to traditional marketing approaches. Another type are *empathy methods* (like field observations and role playing), where team-members try to experience user practice by themselves in users' environment. In other words they could be called *implicit and explicit methods*. Explicit techniques are based on special skills or qualifications in the area of defining or interpreting consumer representations ; and implicit techniques, which rely on statements made on behalf of the users [1. p. 169]. And by other authors [4] such methods are called as traditional marketing methods and empathic design.

My criteria for a performance in the team

Personal assumptions about user is a guess and it can be either right or wrong. By conducting acceptable quality user studies, risk of having ideas that users wouldn't accept is reduced. But the question still remains how to make user studies perform in a team that is not familiar with such?

First, there should be a motivation to conduct user studies. Members should be open-minded, interested in fostering ideas rather taking ideas from others as a threat. Challenging above mentioned assumptions about innovation, having a clear goal, understanding PIN methods and talking in common a language could help to achieve that. Referring only to theory or personal experience while explaining PIN methods didn't get a credibility in Dimaps project.

Second, all team members should be coherently involved into creating innovation and clear responsibilities should be decided. *The bringing together of market and technology, through which both*

inventions and the outlets which transform them into innovations are patiently constructed, is more and more a result of a collective activity and no longer the monopoly of an inspired and dedicated individual [2, p.189]. Team has larger capacity to generate and develop ideas. However this works only when team members are more or less evenly motivated. As it was in our case, less than a half of team were really inspired to innovate in consistent manner. A dilemma raised from that - **should it be one or few persons deciding on ideas or should it be all team having extensive discussions over each idea?**

Third, it should be defined who are the users? From what facets users going to be looked at (consumer, family member, employee or other)? In our Dimaps case we had a lot of arguing about our project plans, because we spoke in two different user languages - the ones who are using the software and making routes, and others – who are using routes – the output of a system. And there we had a dilemma - **should we concentrate on first type of users by improving software that exists, or start from scratch by concentrating on user work practice and make a radical innovation (new software/interaction)?**

Finally, methods should be picked up and performed in acceptable quality. **What kind of methods (data / empathy) to use and when?** There should be also a way of how to monitor all knowledge that team have.

How mentioned criteria could be fulfilled

Having a framework of user studies in the beginning of project would help to get common understanding and language of user studies and expected outcomes. That would ensure that everybody is on the same page and would have a common aim and expectations. Running through all PIN methods in the beginning would help to understand the whole arsenal of approaching user studies. There should be feeling in a team that user studies is a building process. *Each new option will rely on decisions taken at an earlier stage, but in most design processes there is enough latitude to neglect (some) elements of earlier decisions* [1, p. 176]. As an example that building on earlier decisions matters I can mention our user workshop. After video experiment and shadowing we conducted workshop involving engineer and user of product. We were able to show our videos and spark discussions. However, in my opinion by conducting user interviews before this would help us to trigger deeper discussions, because our knowledge about route planning systems at this point was basic and part of discussion time was spent on gathering technical information about feasibilities.

Framework suggested by *Akrich* is so called **project phase chart** showing all the states of the user representation and how they have been constructed [1, p. 182.]. In our project we tried to make staging and project evolvment visible with a **project milestone plan** that had partly an empirical content that modified plan along the way. It helped to have all team more or less on the same page, but it lacked consistent explanation of methods and expected outputs. I propose to improve above mentioned staging visualizations by having phase chart in a form of a game as this is something that everyone like and understand. User studies could be made as a puzzle (being a framework) and methods (puzzle parts) ensuring making user studies a knowledge building process (more about that in next section).

Next thing that would be needed is dividing the team competencies not only by previous experience and training, but also personalities. Person, who has a natural curiosity and ability to ask educated and open-ended questions would be a good choice for observations on field. However in our project we experienced that it is not always skills that matters in choosing competencies. As only part of our team were sufficiently motivated, most enthusiastic people where having most responsibilities, even if their skills were not appropriate. For example person, who was known of not being open-minded had to make interviews that resulted in small amount of material and contained only what interviewee had said.

It also should be decided who are making main decisions and how ideas should be evaluated. I propose that if possible, there should be a tryout to motive all team members (puzzle game, lecture etc.) and in this case all team could participate in evaluating ideas. However, it should be ensured that all team members are open-minded and have relevant argumentation for and against other ideas. Competent project manager that everyone accepts in the beginning should help in coordination of all process.

As the next step would be choosing right methods for fulfilling a framework of user studies. In our project we had trouble of getting consensus about methods and what are expected benefits, however, when we had made **ideas “tangible”** (scenarios) of Dimaps future product directions, motivation increased dramatically. I think that simple representation (puzzle game) of project and methods since the beginning would made a team work higher quality. But it should be also decided who are the users being built as later knowledge will be built upon this decision.

There are different arguments for and against both user study method types (data and empathy methods). *When questioned about users, the authors of an innovation immediately quote the market survey as a pillar supporting their perception of the future users of their systems. When pressed for specifics, however, they become more evasive and produce nothing more than a few broad generalizations hinting at the potential strong demand for products of a certain kind.* [1, p. 169]. Empathy methods are capable of giving richer results, but ideas got from it should still be tested scientifically.

When a product or service is well understood, traditional marketing science (or data methods) provides amazingly sophisticated ways to gain useful information from potential customers and influence their purchasing decisions [4, p.104]. As it was in our workshop, users were able to talk because we exposed them real life problems (videos, HK mock-up, silver toolkit) that opened their minds to share their ideas how to solve these and other problems. Sometimes users find it difficult in to articulate their needs as they are so accustomed to their existing work practices that they can't imagine anything radical that could be improved. *The problem is, customers' ability to guide the development of new products and services is limited by their experience and their ability to imagine and describe possible innovations* [4, p.103]. That's where empathy methods could come in.

Market researchers generally use text or numbers to spark ideas for new products, but empathic designers use visual information as well [4, p.104]. I can draw a relation to our **shadowing experiment** when two of our team members had to deliver parcels to difficult location. This seemingly simple task appeared to return a lot of benefits. It not only gave us rich material for basic understanding of problem area in delivering business, but also helped to gather team together for a project and show that going out and conducting user studies can really foster new ideas. As it turned out, prototypes of user studies like video and scenarios mentioned before can really improve team's enthusiasm and common understanding of methods. And regarding to challenging assumption about prototypes being always tangible (physical) - *simulations are also useful prototypes and role-playing is also a form of simulation.* [4, p.104]. However, we didn't check our prototypes with users, so I expect that many refinements would be necessary. *The first prototype created is occasionally, but rarely, sufficiently convincing. In general, several passes are necessary. The innovation transforms itself at every loop, redefining its properties and its public* [3, p. 213].

Empathic-design techniques cannot replace market research; rather, they contribute to the flow of ideas that need further scientific testing before a company commits itself to any full-fledged development project. [4, p.108]. By doing a shadowing pizza delivery we have observed their primitive route handling system (post its, memory, mistakes) that triggered discussions about market of software and gave us an idea to dig deeper.

Drawing up arguments and suggestion

In order to increase a motivation of conducting user studies and coordinating activities I propose a user study framework in a form of a game. Everybody likes games and I think that it is a good way on how to bring everyone on the same page for a common aim. This game wouldn't have enemies that I observed during a project where some people perceived other ideas as a threat. *Innovation is the art of interesting an increasing number of allies who will make* [2, p.205]. In a game everybody would be an ally working towards one aim (building a user) not an enemies fighting for their own ideas. Involvement and motivation of the whole team is important as good team work increases a capacity of innovative ideas. Visual framework like that would also be a reference point of the knowledge that have been gathered before.

The idea of a game would be building a user and ideas of product (or service) with the outputs from different PIN methods being conducted. Way of building is posting notes with lessons learned either on user field or idea (prototype) field with a reference to a particular method. That would require choosing relevant methods in the beginning, conducting them and then interpreting outputs that would build a user from perspective of innovation being made. Methods would be printed on special game cards with relevant picture, description of process and expected results. That would let to run through methods fast in the beginning of project and would give tools and a common language for everyone. As methods would be available at a glance, it would be a responsibility of a team to discuss most relevant ones. Interpreting results and generating ideas would be also a task of a team along the way, however – selected team manager should be the one who would gather all arguments and decide on the ideas that should be taken as a parts of the puzzle if team would have problems with consensus.

Literature

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