

## **INTOCONTEXT: Creating appropriate solutions for peer to peer microfinance in East Africa**

### **1- Introduction**

Kiva.org is an online marketplace for microfinance that is connecting lenders primarily in the developed world directly with microentrepreneurs from the developing world. Kiva's online lending platform [www.kiva.org](http://www.kiva.org) is allowing existing microfinance institutions (MFI) to market their borrower's stories in order to access inexpensive capital from individual lenders creating a person to person connection between borrowers and lenders.

Funded by Microsoft Research's 'Digital Inclusion Initiative' the six month project [www.intocontext.org](http://www.intocontext.org) is a collaboration between TUDelft and Kiva.org concentrated on improving both the efficiency and scalability of Kiva's system on the ground. Particularly the difficulty MFIs are having overcoming connectivity issues which limit their ability to operate with Kiva. Located in East Africa, the project centered around four MFIs actively partnered with Kiva. The principle concern of the project was to research which technology interaction forms are most appropriate for integration into the operational context of these MFIs to facilitate entrepreneurs accessing micro credit through Kiva. The challenge for the design team in this multistakeholder project was to involve the developers in the context research phase and the users in the development phase.

Guided by a design approach, the project entered East Africa asking a question rather than arriving with an answer convinced that technology should fit people rather than the other way around. The project went on the assumption that the East African context, specifically the people, would reveal details necessary to create an appropriate solution. The methodology is defined by its flexibility, depth, consistent collaboration, and engagement. Ultimately a design was tested in context to determine the success of the insights gathered during context research.

### **2- Context research**

In order to investigate which technologies are most appropriate for supporting Kiva activities a deep understanding of the reality of where and how the user works is necessary. This demands a method for identifying the most important issues related to those operations. Context research uses tools specifically designed to elaborate the context within which users are working in order to identify characteristics of their environment that are important to consider in the development of an appropriate solution. The primary aim of this phase was to capture behaviors and occurrences, as they occurred in real time, which reveal information about people, their activities and their environment. A toolbox was created for use during this phase. Tools were developed based on a review of existing practices both in the design practice and usability testing field like: focus groups, generative sessions, observations, interviews, cultural probes, shadowing, role-play etc.

Key insights from the context research phase follow below.

- Plan for a flexible use of research tools, they may need to be transformed, modified and used in the most unpredictable ways
- Communicate the schedule of activities clearly and insist on the research plan, if not the time required to complete research may be prolonged or goals may not be achieved
- Be aware of the hierarchy of the organization. Hearing everybody's opinion in an open environment may be difficult
- Some of the most interesting insights come during unexpected times during the research process. Be prepared to capture them.
- The presence of outsiders, particularly white people or 'muzungus', can be disruptive to day to day activities. The addition of recording equipment can exaggerate this.

### **3- Translation**

Translation principally operates as a bridge between the context research phase and the design development phase, giving character to the content. Observations and details gathered in the first phase are transformed into materials that are approachable, familiar and useful. These materials are developed through the use of several tools, including tools adopted specifically for this project, and

presented to the development group in California. These materials aid in connecting the two phases of the project. Some of the tools used were: profiles (people, organization, technology, infrastructure etc.), briefs and a 'blog'.

Profiles proved effective for creating common ground for the discussion of particular user needs. The profile is a method for distilling several sets of information into one set that communicates those issues consistent amongst the different cases using factual elements that provide rich, unique content such as anecdotes, quotes and situations that have actually occurred. Similar to a program of requirements briefs identify needs, but what distinguishes them from a simple list of requirements is that they specify at once an identified need while also suggesting a method for responding to that need. As a design tool the blog demonstrated the ability to effectively create an open well source for all stakeholders to draw updated information regarding the project and respond as necessary. In a situation where consistent communication is difficult due to coverage, connectivity or cost and direct contact is scarce or broken up into different phases the blog can provide a space to create a consistent narrative that can be followed by all parties from beginning to end.

#### **4- Design collaboration**

As a formalized method for solving problems, design has identified several techniques for understanding the needs of the user and responding through the development of solutions. The process is flexible and accommodates distances between partners as well as the back and forth exchange of ideas known as "ping pong" development. Design is the optimal method for use in developing improved technology interaction forms based on the insight gained during context research. Collaboration between users and design team, reflecting elements of a co-creation approach, were used to engage and take advantage of each stakeholder. Co-creation emphasizes the role that the user plays in developing solutions that relate to their needs, context and values.

##### **4.1 – Collaboration with the user**

Users were engaged both as an opportunity to take advantage of their experience and insights regarding problems that were identified. A second benefit of the engagement was to create 'buy in'. Successfully run brainstorming sessions helped lead to good insights valuable for developing a final solution. A solution that reflects contributions made by users proved to be an opportunity to establish a degree of ownership of the idea amongst the users. Ownership may help to encourage the adoption and longevity of a solution.



**Figure 2 – Creative results of collaboration with the user**

##### **4.2 – Collaboration with Kiva**

In addition to being a service provider Kiva is also a user of their own product. Creating a solution required their input to ensure that the solution would function well for their own needs. The producer has their own requirements in addition to those of the user, and through their participation during the development phase those needs can be consistently represented and incorporated into the final solution.

#### **5 – Reflection**

At the core of the project was a commitment to a design approach to solution creation. This approach revolves around people and adopted methodologies in line with human driven design development. The project was exploratory in terms of methods used during context research and collaborative development work as well as 'translation'. It was not only essential to engage on the ground but also to be able to effectively translate insights back to Kiva necessary to understand what key user requirements were essential to meet in order to create interaction that will be sustainable in the long term for their users.

