Open Source for Microfinance: A Biography in Three-Stages

Abstract

Ideally, Open source for Microfinance is about establishing and sustaining a technology-enabled ecosystem where powerful institutional actors among the microfinance global NGOs, software corporates and sponsors in the North can cater to the lack of resources among the grassroots by mobilizing developers and facilitating participation. To understand how this type of cross-disciplinary collaboration between developers and non-developers can lead to the ‘becoming’ of open code for microfinance, I examine here the micro-practices and mechanics of OS code through one major OS platform for microfinance, named Mifos.

First, I explain the design of a three-stage qualitative research. This answers how the Mifos community, including microfinance NGOs, volunteers, development agents and professional developers, create a technology-enabled community network; It also reveals how members’ incremental socialisation, information sharing and peer support over time have leveraged OS code development and extended participants’ capabilities. This methodology uses a large repository of mail archives to unravel the community social dynamics and the trajectory of the OS code. Going through the three stages of the research design, I present next, three complementary methods that constitute this approach, namely visualisation, longitudinal narrative and messages’ content analysis.

Visualisation is about mapping relations between community members. It represents the first step in my study and is realised using an online data repository amounting to 20,000 messages that were sent by 500 members during five years of project activity. This stage reveals relevant patterns in the data in terms of members’ posting strategies and knowledge divisions. Visualisation outputs in particular (sociograms) show the ‘stuff’ the Mifos community is made of and captures a sense of belonging – highlighted by the structure of the network, its density and clusters of relations between community members (who is connected to whom). A series of static visual outputs show meaningful relations between clusters and highlights knowledge profiles and cross country information flows.

These results are exploratory in nature – meaning they only aim to lead the investigation to the second stage – that is to account for the Mifos history. The second method shows a longitudinal and thick photomontage, including time waves (periodic sociograms), multiple stories and pictures. It contextualises post-exchanges within the broader social dynamic of the Mifos project and gives a voice to several participants and code contributors. This stage reveals multiple modes of users’ engagement with the Mifos code and processes of collective
negotiation and knowledge building. It also shows the trajectory of the Mifos platform, as code versions and releases are defined and re-defined over time.

Finally, the third stage builds on the results of these two previous analyses to conduct messages’ content analysis. As the first two stages have revealed the extent of members’ interactions: different forms of participation and plurality of voices, the third analysis is about examining the ‘quality’ of members’ interactions and how the latter build knowledge ties over time. It shows some of the mechanisms of communication, peer support, negotiation and knowledge sharing. More importantly it shows how members’ discursive strategies, writing skills and the capabilities of the mailing lists (search, links and asynchronicity) have co-enabled continuous participation, collaboration and the continuity of code design, maintenance and upgrade.

To conclude, I argue that this methodology is relevant in the social sciences and humanities as it uses visualisation and a quantitative filtering of text in large data repositories in order to create a platform for exploration and qualitative exploration. Based on that, researchers can dig deeper in the data, identifying relevant patterns and pertinent mechanisms of social behaviour. Finally, this approach was applied to a unique instance of community network and participation at the crossroad of OS and microfinance, but it not tied to OS platforms; it can be extended to investigate the emergence of collective identity online, the building and sustaining of technology-enabled communities and distributed organisational forms.