Free/Libre Open Source Software users’
local Face-to-Face Meetings in
career-related activities

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Abstract. While prior studies on Free/Libre Open Source Software (FLOSS) users have mainly looked at FLOSS users in the context of FLOSS communities, little is known about whether and how FLOSS communities play a role in the context of its users’ careers. This study takes an inductive approach to investigate the phenomena that are emergent and poorly understood. As promising themes emerge from a pilot study on Drupal users’ local face-to-face meetings, the author proposes research question and research design. The proposed study plans to investigate local LAMP (Linux, Apache web server, MySQL, PHP/Perl/Python) users who attend local face-to-face meetings. The proposed study pays attention to: what role do FLOSS users’ local face-to-face meetings play in the context of their career-related activities. It is expected that the proposed study will contribute to FLOSS research by giving a new insight into FLOSS users in their careers, how FLOSS projects fit into local FLOSS users’ careers, and how to manage offline activities for FLOSS users.

1 Introduction

A majority of studies on Free/Libre Open Source Software (FLOSS) have looked at FLOSS users in the context of FLOSS projects. From this perspective, researchers studied what motivates FLOSS users to seek out communities [20] and to participate in FLOSS user group activities [2,14]. In that study, researchers found that new FLOSS users seek out communities due to a need to solve problems [20] as well as specific personal motives [2,14]. Study on Apache web server user groups [14] found that participants who posted answers to questions in Apache online help system gained direct learning benefits. Researchers on Linux user group [2] suggested that FLOSS users are motivated by a combination of social and psychological factors such as identification with the open source movement. In a similar vein, researchers have looked at how FLOSS users join FLOSS projects [13,22,25], how they are socialized in FLOSS communities [7], and why they stay or leave FLOSS projects [8].
While prior studies have mainly looked at FLOSS users in the context FLOSS projects, few studies [5,15] investigated FLOSS communities from the perspective of users’ lives. Crowston et al. (2007) investigated the role of face-to-face meetings in the rest of FLOSS developers’ lives by observing and interviewing FLOSS developers at the several formal annual events such as Apachecon 2003 and 2004, as well as, OSCon 2004. The authors in that study suggested that the value of face-to-face meetings within FLOSS context lies in face-to-face socialization which facilitates developers’ interactions through developing and maintaining social ties, and helping build shared mental models. Furthermore, the authors found that FLOSS conferences helped FLOSS developers set aside time for the FLOSS projects. Marlow and Dabbish (2013) in a recent study [15] investigated how potential employers utilize activity traces on GitHub for hiring software developers and how job seekers attempt to manage the impressions in GitHub as prospective employees. The authors in that study suggested that GitHub provides employers with the detailed information for recruitment, for example, activity level in FLOSS projects, code styles, and project management abilities. Furthermore, it was found that job seekers attempted to promote their presence in order to supplement their job applications by providing a link to their GitHub account. Those findings indicate that GitHub is employed by FLOSS users in the context of their careers.

In sum, a majority of studies on FLOSS investigated FLOSS users mainly from the perspectives on FLOSS projects rather than on their lives [5] or careers [15]. In the pilot study, however, the author identified FLOSS users’ career-related activities in FLOSS users’ local face-to-face meetings, based on the qualitative data collected from multiple sources. While face-to-face meetings of FLOSS users appear to occur more today than in the past, there is little research that sheds light on them. The following section starts with a pilot study in which the promising themes emerge.

2. A pilot study

As a pilot study, the author has studied three types of local Drupal users meetings, two regular meetups and the annual Local Drupal Day. The period of the pilot was from September to December in 2012. The Drupal project was chosen because 1) Drupal project is mature, 2) local Drupal meetups have two types of meetup: Newbie meetup for beginners and Drupal user group (DUG) meetup for advanced users. It was expected that the researcher could meet a diverse range of local Drupal users.

A local Drupal user group (DUG) meetup was created by two big Drupal-based companies in a local city in 2009 since two companies wanted to get together and to exchange ideas face-to-face. One of the two companies has supported local weekly

1 Drupal [6] is a free and open-source content management system written in PHP. Drupal was initially released in 2001 and current version is 7.22. Its uses range from personal blogs to corporations, the government sites, and universities.
DUG meetups as well as local monthly Drupal events such as the local meeting on Local Drupal Day, which is an annual event where Drupal users gather in cities across the world. The weekly DUG meetups have been held at the local pizza store in the open space. In this weekly meetup, DUG meetup attendees sat around the table with meals and shared the individual Drupal issues with other attendees.

The monthly Drupal events have been held at the local co-work space in which presentations or workshops are available. The monthly events had the presentations on the latest issues or special issues in Drupal and presenters stood in the front stage. In the middle of the presentation or after the presentation, attendees asked questions to the presenter and discussed the issues.

A local Drupal newbie meetup was created by the individual Drupal developer working in the local college. This meetup aims to help Drupal beginners learn the basics of Drupal from the installation to customization. The newbie meetup has been held in the seminar room of the local college. This meetup had the presentation on the basics of Drupal as well as the question and answer sections.

In the observation, the author participated in local meetups and a local event as a Drupal beginner and a Drupal meetup member, spending a total of 10 hours. Approximately 60 members attended local Drupal Day, 12 members attended local Drupal newbie meetup, 5 members attended local weekly DUG meetup at the first observation, 4 members attended local weekly DUG meetup at the second observation.

In the course of observation, the author joined in conversations among Local Drupal Day attendees regarding the local event itself. Also, in the local meetups, the author asked questions regarding terminologies used in Drupal, third-party tools to help start learning Drupal, as well as, questions about the projects that meeting attendees were developing and how meetup plays a role in their projects based on Drupal. By engaging in observation, the author wrote detailed field notes and audiotaped conversations when meeting attendees speak too technically. In addition, the author took photos of what local DUG meetup attendees worked on.

In addition, the author conducted two semi-structured interviews with the organizer of Drupal newbie meetup and the organizer of DUG meetup. The interview protocol was developed in advance, however, the question was modified and added, depending on the interviewee’s interests. The interview questions mainly addressed: the motivation to use/develop Drupal, the overall information about local meetings, the motivation to attend other local meetings for Drupal users, and whether the interviewee has been involved in other FLOSS projects.

The author also collected a total of 273 meetup members’ online introductions from local Drupal newbie meetup website and local DUG meetup website. DUG meetup members’ introductions included answers to the questions: 1) what would you like to learn from and/or contribute to the local Drupal community?, 2) have you done a project in Drupal, and 3) if so, describe the project. In addition, the author paid attention to the local Drupal meetup’s message boards, including a total of 52 messages posted by local commercial companies and organizations looking for
Drupal developers. Several business cards the author received in Local Drupal Day were also collected as artifacts for the study.

To analyze the qualitative data collected, the author used ATLAS.ti [1], a qualitative data analysis software, in the course of coding. In the 1st round of coding, the author identified and developed concepts by a line or a paragraph of field notes, interview transcripts, and artifacts. This stage of coding resulted in naming and categorizing phenomena. Then, in the 2nd round of coding, the author focused on the context of local face-to-face meeting attendees’ career-related activities. In this stage, the author made connections between a category and its subcategories. For example, the code, Career-related activities were developed in the second stage of coding by making connections among sub-codes developed in the 1st round of coding: job requirement, looking for a new job, the use of Drupal at workplace, and job advertisement. As promising theme such as Career-related activities emerges in the course of coding, the author plans to focus data collection on it.

3. The Research Question emerges

In the field notes, interviews, and local Drupal meetup members’ online introduction, the author identified FLOSS users’ local meetings in terms of career-related activities. For instance, local meetup attendees brought to the meeting individual specific problems encountered in the course of developing the content management systems for their own customers. In the meetup, attendees discussed their technical problems to look for the solutions. For example, one attendee learned that the part he wanted to modify was hardcoded and he should submit a patch or create a new module from scratch for completing his commercial consulting services. Such an episode accompanied that attendees mentioned that they couldn’t find answers by googling or by posting the problem in online community. These episodes reveal that Drupal users’ local meetups seem to be the place in which meetup attendees share or solve the technical issues of their job requirement. This theme also appeared from the analysis of local Drupal meetup members’ introductions. Furthermore, in the preliminary interviews, the organizer of local Drupal newbie meetup noted that he uses Drupal since there are local communities in which somebody can help him. The organizer of local DUG meetup also mentioned:

*I have talked about some problems, like I have to do this for client. Have you been using this module before? The same questions of other people come here to ask and I have the same question as well.*

64 Drupal meetup members specified their careers in online introductions. Also, 5 business cards the author received at local face-to-face meetings helped the author identify their careers. The analysis of those data showed that many of the attendees are employed locally. The background of Drupal meetup members as employees appeared as a developer, a system administrator, a web designer, a company owner.

From the analysis of online introductions, themes looking for a new job and the use of Drupal at workplace emerged. The theme looking for a new job was defined
as the cases when the member introduced oneself as prospective employee who was seeking for a new job with Drupal. For example, one member introduced oneself:

(I'm a) Web designer with Drupal experience looking for work! Enjoyed being a part of the Neighboring town Drupal group from 2008-2012, but looking forward to getting to know the local Drupal users.

Meetup members also introduced themselves as workers who use Drupal at workplace at Drupal meetup website as well as at local DUG meetups. Meetup members mentioned what they’ve been working on Drupal in the workplace. In local DUG meetups, each meetup attendee introduced that the individual has worked on the development websites for non-profit organizations, for online gamers, for one’s own customers, and has worked as an administrator with Drupal. The following online introductions are the examples of this case:

New to the local city, have been doing some heavy duty Drupal implementation for the company. I work for since late last year. We implemented the Drupal 7(version) site.

I'm a Linux systems administrator who's been developing Drupal sites for about a year.

The analysis of online introductions showed that attendees included local employers. A total of 9 meetup members’ introductions were identified as employers who were looking for Drupal developers. These introductions specified the technical skills needed for the job, information about the companies and where to contact. The example of introduction is as follows:

We are 'local Marketing’, a marketing and development firm based in a beautiful local city. We're looking for LAMP/Drupal developers...please contact us!

Local Drupal meetup members who work for local companies (e.g., two big local Drupal-based companies), local non-profit organizations, local universities, local state agencies, or local staffing firms posted a total of 52 job advertisements in the message boards of local Drupal meetup websites. These job advertisements described the work modes as either in-house or telecommunication and the positions as either temporary contract work or regular full-time work. For example, one job advertisement described that local Drupal developers were immediately needed to complete the development of two custom modules in the next 2 weeks. In contrast to this case to look for temporary workers, one of the two big Drupal-based local companies posted a total of 7 job advertisements to look for local full-time workers such as Drupal developers, Drupal web designers, and architect.

Two local DUG meetups were financially supported by the commercial company that was looking for senior software developers who know Drupal. In these meetups, meetup attendees repeated the job description again and again and exchanged information so that potentially interested developers can contact the company. In the middle of conversation, meetup attendees noted that the company’s main base is not the US and started to talk about the Drupal-based local companies in terms of their technical interests such as programming languages and operating
systems. Furthermore, meetup attendees shared the perspectives on the local context including weather, the city as a tech city, and its cultural features.

Those emerging themes job requirement, looking for a new job, the use of Drupal at workplace and job advertisement emerged in the 1st round of coding, and the author made a connection among them by creating a theme career-related activities in the 2nd round of coding. However, those sub-codes of career-related activities might vary according to FLOSS project.

To focus on the promising themes career-related activities, the author proposes the research question: What role do FLOSS users’ local face-to-face meetings play in the context of their career-related activities?

4. Research Design

4.1 Research Setting

To further investigate FLOSS users’ local face-to-face meetings in their career-related activities, the author proposes to collect data from FLOSS user groups in a local city of the US. In this study, local face-to-face meetings include active local FLOSS users’ meetups held on a regular basis, local FLOSS conferences, and local FLOSS events etc. Based on a preliminary study on Drupal users, the author proposes to investigate other FLOSS user groups with the following criteria: 1) FLOSS project is mature, 2) the use of FLOSS is common at commercial software companies, 3) local FLOSS user groups have had local face-to-face meetings on a regular basis. The user groups that best match these criteria are local meetings focused on LAMP (Linux, Apache web server, MySQL, and PHP, Python or Perl). Choosing multiple, though similar, cases should provide a basis for comparison and give more insight to the proposed study. The researcher will seek recommendations for participants for other relevant meetings.

4.2 Data collection

4.2.1 Qualitative interviews

The author proposes to conduct qualitative interviews with a diverse range of FLOSS users who attend local face-to-face meetings. To recruit respondents from a variety of cases, the author uses two methods. Firstly, the author will start with respondents from members of local FLOSS meetups held on a regular basis and then, ask each respondent to recommend others who could be interviewed and who attended the local face-to-face meetings, known as snowball sampling [23]. However, using only snowball sampling creates a risk that only participants from the same networks will be sampled. Accordingly, the author will use theoretical sampling in
order to mitigate a biased sampling, depending on a set of the respondents. Theoretical basis will be developed, based on the FLOSS survey [9]. In that survey, the authors reported occupational background of FLOSS developers as software engineers, programmers, consultants, executives/marketing/product sales professionals, university staffs, and students. The feature of employment status will also be useful to construct the sample. Following these two features of occupational backgrounds and the employment status, the author will ask the respondents to recommend the individuals in this set of theoretical sampling.

In the interview, the author plans to develop the interview protocol with the following main questions: 1) what was the first/recent local meeting the interviewee attended and what motivated him or her to attend the meeting, 2) whether the interviewee have exchanged business cards with other attendees and if so, what prompted this exchange and whether the interpersonal relationship evolves or not. 3) the degree of working with FLOSS at workplace and how it relates to attending to local FLOSS users’ face-to-face meetings, compared to online venues. In addition, interviews will include questions for FLOSS users as employers about the ways of looking for FLOSS developers for recruitment and whether and how the hiring process relates to local FLOSS users’ meetings such as local FLOSS conferences and local FLOSS users’ meetups.

4.2.2 Observation

The author will collect data by observing local face-to-face meetings, taking notes that will describe the settings, the activities that took place, the people who attended, and the meanings of what was observed [18]. The data collected from observation will enable the author to comprehend new dimensions of meeting attendees’ actions [11] that might not be captured in interviews since the respondents could be unaware of their behaviors. Observing local FLOSS users’ face-to-face meetings will enable the author to understand the nature of each local FLOSS communities as well as individual meeting attendees. In these observations, the author will take field notes in detail and record conversations with permission, when meeting attendees talk too technically for the observer’s immediate comprehension.

4.2.3 Public Documentation

The author will collect artifacts from FLOSS user groups’ websites as well as local face-to-face meetings. In the local meetup website, job advertisement from commercial companies and meetup members’ introduction are the examples of artifact for analysis. In addition, public messages among local FLOSS users’ meetup members will be analyzed.

By collecting multiple data of multiple sources, this study increases validity through triangulation, enabling the researcher to both confirm understandings from individual sources of data and to discover aspects perhaps not included in one source of data.
4.3 Data analysis and procedures

In the proposed study, the purpose of data analysis lies in discovering and understanding the relationships among FLOSS users who attend local FLOSS users’ face-to-face meetings and how FLOSS projects fit into careers [10]. That is to say, the author moves towards explanation [19] by engaging in several coding processes [21]. In the 1st round of coding, the author labels phenomena and discover themes from labeled phenomena. In the 2nd round of coding, the author makes a connection between a theme and its sub-theme regarding a set of relationships indicating context, actions, and interactional strategies etc. In this stage, the data collected both in the pilot study and in the future study put back together in new ways by making connections. Accordingly, it is expected that new themes will occur and existing themes will be likely to be modified, as the author collects the qualitative data from multiple FLOSS users’ local meetings. The number of processes to make connections between a theme and its sub-themes cannot be fixed since it depends on the properties and dimensions of contexts from the data collected. After this process, finally a core theme will be formulated to explain the relationships among conceptual constructs or stories.

4.4 Future Plan for Validity

The author plans to discuss about the findings with the key informants for the validity of this study, known as “member checking” [11]. To be specific, the researcher plans to check the interpretation in the course of coding the qualitative data. In addition, the author plans to finally send my final writing to the key informants.

The researcher will re-visit pertinent literature [21] on networking events for careers outside FLOSS [3,4,16,17,24]. Returning to existing literature, the author will investigate how findings on networking for careers [12] outside FLOSS appear in similar ways and in different ways in the context of FLOSS by pointing out a set of conditions or concepts in FLOSS communities.

5. Expected Contribution

The proposed study is expected to contribute to FLOSS research theoretically and practically. Theoretically, it is expected to develop a way of thinking about FLOSS users in the context of their careers. A recent study on employer’s use of github for recruitment and hiring for software developers [15] suggested a new perspective on the use of GitHub, a collaboration tools for FLOSS projects, in the context of its users’ careers. The proposed study will provide the new perspective on 1) FLOSS projects in the context of FLOSS users’ careers and 2) how FLOSS projects fit into local FLOSS users’ careers. The proposed study investigating multiple FLOSS projects in local FLOSS events will give researchers an
understanding of how experiences in FLOSS projects relate to FLOSS users’ job seeking, satisfying job description, and hiring processes.

Practically, the proposed study is expected to help further understandings of FLOSS users’ offline activities. While few studies [2,5] have looked at what FLOSS participants do in their face-to-face meetings, the proposed study investigates how local FLOSS users’ face-to-face meetings play a role in their activities beyond socialization. The author expects the proposed study would provide FLOSS communities with insight that will be useful in managing offline activities in their communities.

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References


