

# The FLOSS History in Japan: An Ethnographic Approach

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## ABSTRACT

This paper reports an overview of the Internet history project which especially focuses on Free / Libre / Open-Source Software (FLOSS) history. The project adopts an ethnographical approach and it aims to compose a chronicle on the growth of FLOSS history in Japan. An outcome of the project is expected to be not only a record but a compass for younger generations. The project has already started and conducted several interviews. In this paper, an interim report of our analysis based on the interviews is presented.

## Keywords

FLOSS, oral history, ethnographic research

## 1. BACKGROUND

In the late 2013, a project named 'FLOSS stories in Japan' has been started. The main purpose of the project is to compile oral histories on the free software and open-source software (Free/Libre/Open-Source Software; FLOSS) into a record or a book.

The year 2013 is the memorial year for some communities of FLOSS engineers in Japan; for example, the 30th anniversary of the foundation of Japan Unix Society (JUS), the 20th anniversary of the programming language Ruby. Also it has been two decades since the time when commercial use on the Internet was open to the public in Japan.

## 2. THE FLOSS HISTORY PROJECT

We face a problem that FLOSS engineers in Japan are getting older[5] and retiring from active engineering. Recent information, regardless of technical, economical, or political, is archived in the Internet. However, historical issues, especially the information during the late 1980s and the early 2000s, do not tend to be preserved. Therefore, it needs to keep records of the information on the dark age by interviews with elderly engineers and researchers in this field.

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OpenSym '15, August 19-21, 2015, San Francisco, CA, USA

ACM 978-1-4503-3666-6/15/08.

<http://dx.doi.org/10.1145/2788993.2789834>

There have been similar studies in the world. Kilnam *et al.*[2] gathered the information on the history of the Internet development in the Republic of Korea (South Korea). They have conducted "Korea Internet History Project" and made a website<sup>1</sup> that shows the information they gathered by a large number of interviews. We can find several internet history project, such as "The Internet History Project"<sup>2</sup> and "Hobbes' Internet Timeline"[6], as well. In addition, Ryan[4] wrote a book on the comprehensive history of the Internet.

In the year 2013, Japan Network Information Center (JP-NIC) has also started a similar project on compiling a history of the Internet in Japan, as an anniversary event previously mentioned. In complement to their activity, our team started the project focusing on FLOSS instead of the network issues.

## 3. METHODOLOGY OF A SURVEY

In this section, our methodology of the investigation is explained.

The survey is conducted in the following steps.

1. Important technologies which were developed intensively by Japanese OSS communities in the 90s were listed. And several enterprises which played important roles in such development were added to the list.
2. In each category, several key persons were nominated as candidate for interviewee. The first set of interviewee was far from complete even though all the members of our project have broad connections with famous developers in IT industries and OSS communities in Japan. Therefore, one person led us to another and that was how we conduct the project.
3. After the interviews, two or three hours of interview minutes are typed out. The analyze of these records reveals the history of the OSS activities in the 90s.

Figure 1 shows the mind map which indicates the hierarchy of "{technologies, enterprises} - (subcategories) - candidates of interviewee." The project members discussed the nomination of interviewees using a mind-map tool like this.

Red nodes represent the key technologies, such as, Linux, BSD, GNU, Ruby, Emacs, PostgreSQL, TeX, and Japanese Input Method Engine (IME). Japanese IME is divided into three major products, canna, SKK, and Wnn. In the map, only PostgreSQL is listed but MySQL is not. The reason

<sup>1</sup><https://sites.google.com/site/internethistorykreg/>

<sup>2</sup><http://www.nethistory.info/>

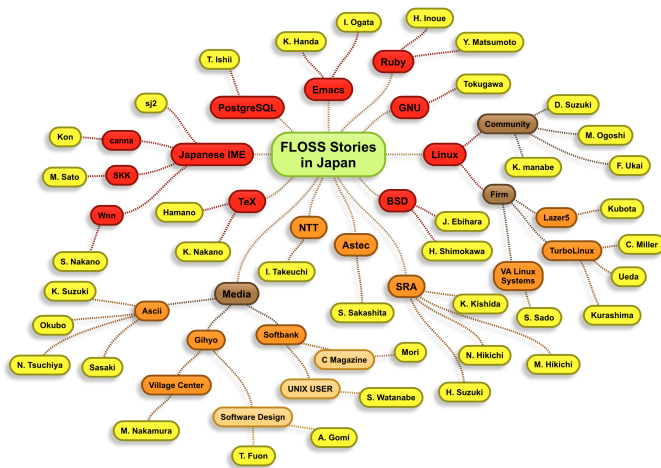


Figure 1: Listing key persons in the Japanese FLOSS scene using a mind-map.

for that is, in Japanese OSS market in the 90s, the former was more popular among the developers than the latter.

Orange nodes are companies getting involved in the OSS development and promotion; NTT, Astec, SRA, Laser5, TurboLinux, VA Linux Systems, Ascii, Gihyo (Gijutsu Hyouronsha), SoftBank Publishing, and Village Center are listed. In the sequence of these companies, the last four companies are publishers. Although the Internet had been spreading into Japanese society in the 90s, technical magazines had still kept a power to influence new technologies into developers. Therefore, the publishers are considered as important part of storytellers in assembling a chronicle of Japanese FLOSS history.

Yellow nodes, which are the leaves of the tree, show the name of candidate of interviewees. As shown in Figure 1, there are many candidate of interviewee. Therefore, we are conducting interviews with them one by one.

## 4. SOME FINDINGS

In FY2014, we have conducted seven interviews. After conducting interviews with seven persons who has been actively participating in FLOSS projects since 90s, the project team has discovered several unknown facts according to the records of interviews.

Here, this paper reports typical two topics, which are the trends of Linux and BSD in Japan and a hidden impact of Sigma Project.

### 4.1 Trends of 90s' Linux and BSD

The first topic that the project treated is how the Linux and \*BSD (Free / Net / OpenBSD) were popularized in Japanese Unix engineers. In further investigation, interviews with some key persons who played an important role in spreading these technologies into Japanese engineering communities were conducted.

Their testimonies highlighted that there were apparent distinction between the growth of Linux community and that of \*BSD community. The former had strong characteristics labeled as a “grass-roots-basis” community. On the other hand, the latter was based on orthodox community, typically derived from academic organizations.

## 4.2 A hidden impact of “Sigma Project”

The second topic might be able to shed light to the dark part of Japanese IT business.

The project named “Sigma project[1]” was planned by the Ministry of International Trade and Industry (MITI) which began in 1985. Under the slogan of “By 1990, there will be a shortage of 600,000 software engineers,” the project was conducted to make software development more efficient.

In the history of Japanese IT industries, it has been described that the Sigma project failed. In the project, although the project member firms tried to develop Unix compatible machines and the software libraries to accelerate development of software systems, no good result could be found. As the results of that, the story of the Sigma project is regarded as a kind of untouchable story in the Japanese IT industries.

However, several testimonies from persons involved revealed that the project had played an important role in the human resource development especially in the FLOSS technologies. GWM and Wnn[3] were developed in the community which supported Omron software, and Omron provided its funding for the development from a part of sub-project of Sigma. This is a little known fact in the Japanese IT industries.

## 5. COUCLUSIONS

In this paper, the interim report of the 'FLOSS stories in Japan' project is presented. Several findings which had not yet unveiled previously were disclosed from our survey.

The project does not only focus on the FLOSS operating systems. Currently, the project members are collecting oral histories from key persons who are actively committing their efforts in Japanese communities of several major FLOSS projects. Moreover, additional interviews have to be conducted. In addition to the further interviews, we are planning to make an in-depth record from the collected minutes.

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