Women's Participation to Free and Open Source Software Development Projects

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About the presentation

Objective : to sensibilize researchers and activists

about gender imbalance in FOSS community, and to

present a few research results

Three parts :

Women in IT and FOSS development principles

Women in FOSS – main challenges

The current research – some preliminary results

Gender gap in technology

◆ Gender division in technology which imposes different roles to men and women

◆ Factors: children's education, different socialization models, gender division of labor and domestic work

◆ ICT redefine hierarchies, discriminations and disparities, introducing 2 problems:

- Unequal access to technology
- Imbalanced participation in the innovation process between men and women.

Women in Computer Science

25 % of women in computer departments and 8 % of engineers (Quebec, 2003), and diminishes each year

Male presence in the machines exposed by social stereotypes

Male language, male logic of work, which results in lower women's participation

"We talk about machines invented, assembled, installed, configured and repaired by men and used by women and men. But when someone controls the process of production, they control the use. In the computer use the gender divisions are still visible – men keep the most powerful and better configured machines for themselves"

Isabelle Collet,2006. L'informatique a-t-elle un sexe? Hackers, mythes et réalités.

Free Software Development

◆FOSS – social and technical phenomenon

◆Role of the community – sharing of values, norms, principles which keel them together for a shared objective

◆Principles of code development which allow fast evolution and quality high result

◆Collaborative principles between users and programmers

◆Social and communication structure of FOSS projects

◆Research made so far: based on small number of projects, quantitative research, a community in its globality

A double context

1) Unequal participation of women in software development and decision-making process of technology production.

2) Free and Open Source Software – a specific form of innovation, with community based on principles of sharing and inclusion, but with reputation of being masculine and homogeneous

What about women in FOSS?

1,1% of women in free software development (Flosspols, 2002) (*What do we mean by software development?*)

Challenges:

    Education gap: steeper learning curve in FOSS

    Male norms in the hacker/geek culture

      "If you don't focus on the machine,

    you don't really belong to the computer science."

    Specificities in the FOSS community: volunteer job,computer jargon, sexist behavior.

The forces that discourage women from CS, work much more powerfully in FOSS

Misconception of the coding skill

- ◆ False concept that software development is equal to programming
- ◆ Nowadays, we don't need to program to use the computer
- ◆ Less than 30% of computer scientist profession is based on programming. The rest includes : project coordination, testing, bug fixing, documentation writing, translation.
- ◆ For a software to be successful, it does not be written, it needs to be made user friendly, implemented in different contexts, maintained overtime...

"Documentation can be a means of quality insurance, and this power is far too seldom used, not only in Open Source development. The people who write the best code I know write documentation alongside or even before coding: The code has to follow documentation, otherwise it's a bug :), at least documentation and code are never allowed to get out of sync. Which means documentation _is_ development, not just something subordinate."

Patricia Jung on Debian Lists, 2005.

In result...

◆ We need both social and technical activities in the innovation process

◆ If we accept this, then this could be a way to value the work of women in FOSS development

◆ Misconception of the coding skill leads to false impression that FOSS is too technical and therefore difficult to use.
=> It discourages people to join the movement.

◆ **Research question: where are women in the FOSS social structure? What specific contributions do they make to the development process?**

A field research

- ◆ A portrait of Free software in Quebec, Canada, 2006-2008

- ◆ Objective: to make a collection FOSS projects in Quebec, to see people's engagement in this project, to make a list of recommendations for further research

- ◆ Diffused on 28 diffusion lists related to Free Software

- ◆ 90 participants in an online questionnaire"

- ◆ More than 150 projects collected, and recommendations in the form of a book contents for further research

A portrait of women

◆ 14 participants (from 90) = 15,5% participation

◆ Half are coming from the most alienated regions of Quebec

◆ Types of activities (by women's priority):

· Training and promotion activities

· End users, migration, server administration

· Participation in social groups and FOSS communities

· Software development

Calculation game

End user (personal, professional activities) – 8 out of 14

Trainer (basic and specialized) – 7 out of 14

Participant in conference (presenter, listener) – 5

Technical adviser, analyst – 4

System administrator, technical support – 3

Document writer – 2

Conceptor (developer) – 1

Translator – 1

Conclusion

- ◆ Women do valuable work in FOSS development, which is often informal, therefore invisible

- ◆ Majority of women do the "boring job" in FOSS projects, such as usability, training, documentation...

- ◆ Women have low confidence in their work, coming mainly from the fact they are not developers by education

- ◆ Need for minimization of the importance of programming, in order to value the work of "other contributors" and of users, for producing a better and widely spread code.

Thank you for your attention!

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