

# design, hope and utopia

## reflections about freire's concept of hope

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My Thesis work: "Between weft of feminist theories in technology and society for materializing refigurations statements in the brazilian HCI"

Available in portuguese in: <http://repositorio.utfpr.edu.br/jspui/handle/1/27904>

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### Lecturer Professor Pricila Castelini

In the first part I will present a workshop based on participatory design. Next I will present the results and finally my doctoral research.

Gender disparities in Science, Technology, Engineering and Mathematics (STEM) fields involve deeper aspects than just thinking that women traditionally do not pursue these courses. I went through discomforts for entering a predominantly male-dominated course. And in the master's I identified what corroborated this scenario.

Especially in the area of computing in Brazil, I did some workshops with computer science students and graduates in order to understand from their lived experiences what they were going through, what are the social, cultural and economic context involved. These workshops/meetings were based on a Scandinavian Participatory Design (PD) Practice - Future Workshop.

PD involves a set of theories, practices and studies related to users and/or the development of artifacts. It can also be a means to enable the participation of citizen groups in decision making in urban and environmental planning processes.

PD has been related to how people engage in collaborative work, creating a favorable environment for them to discuss, critique, share and think about solutions to a problem.

Future workshop aimed to understand people's perceptions in three phases of development: "Phase 1 - Critic, Phase 2 - Fantasy and Phase 3 - Implementation".

The goal was to engage people in discussions, critiques, experiences and possible solutions about women's participation and permanence in computing.

I will tell you what each of the phases consists of and then some results later:

- 1) The first phase was divided into two stages: In the first stage, people discussed for 5 minutes (in groups) about the current context of the problem presented, and after the discussion the main topics (keywords) were noted on the board. Four groups were formed and they listed topics about women's participation and permanence in computing.
- 2) In the Fantasy Phase, people stayed in the same groups, discussed the points and criticisms raised earlier, and imagined better future situations than those presented in Phase 1 - criticism, contrasting the points presented so far. The fantasy phase is organized to imagine an ideal future for the topics listed in phase 1 - criticism. In this phase, the topic of women's participation in the area of computing was explained and it was suggested that the participants imagine an ideal future for the area of computing.
- 3) The third phase of the technique entitled implementation is subdivided into two stages: a) imagined futures and b) are the imagined futures possible? In this first stage, besides people reflecting on the criticisms of the first stage, and on the ideal future of the second stage, they had to think of changes to achieve the scenario according to the imagined ideal futures. In the second stage, the groups discussed whether the futures thought of were possible and what changes were needed to achieve this scenario? How could such changes be planned?

Using the Future Workshop in research to build with people the ideal future based on the problems generated reflections beyond a structured questionnaire.

This is a sentence from a participant:

There is lack of representation;

Discouragement; social standard; deprivation of freedom; pressure; more content in high school; workshops; subjects; support for biological needs of women in the market; equal wages; paternity and maternity leave.

The ideal future projected by these participants were:

"To undertake in the field of computing and that their contributions appear.

"Fair competition is needed in the job market, overcoming the gender barrier, women being heard, more men in a lecture about women"

Equal maternity and paternity leave and equal pay

Their dream is:

"Digital inclusion for adult women, because it would make our family members participate, see what it's like, and know they could support us to be in university. Because the emotional support for those who are inserted is important".

“To highlight in courses the use of gender bending not only in the description of courses, but also in people's daily lives. To include women in all spaces, but it is not enough, because the change should not be from the outside in, but it is a delicate matter, it involves culture and traditions that are still embedded in society”.

“Create exposure of the theme in technologies since childhood in activities exclusive to boys and girls; and repress prejudice and discrimination”.

“It is important for children to know that women can do computing. Because to change someone's values after they become an adult is very difficult, and it is easier to insert in childhood to change the new generation”

“People are different, men are different, we need to deconstruct stereotypes, categorizations, and work together. Women participate in lectures that discuss topics about men, men participate in lectures about women”

The technique is pertinent for holding discussions about problem situations, with people's participation and interaction. The number of participants changes the way the technique happens. With a larger number of participants there is the possibility of holding groups to later socialize the notes for all the people. This way it is possible to generate material with more discussions that favor a result with multiple perspectives.

People have identified that the changes involve not only women, but the mass of humanity, culture, and the University when promoting changes in curricula and programs.

The area of computing in Brazil, based on the discourse analysis of the documents of the Brazilian Computer Society does not realize the importance of talking about feminism and gender issues. The events talk about bringing women into the area, but do not understand that it is necessary to understand historically what caused the gender disparity in order to propose changes.

In my doctoral research I did a systematic mapping of publications on this topic and it was noticeable that the third wave HCI area has strands in this bias that propose criticism, but also changes, such as curriculum models, agenda with commitments for those who use and develop artifacts.

I will refer the authors and their works to anyone interested in deeper into the topic.

In the area of Science, Technology and Society where I did my master's and doctorate I use the gender base and Donna Haraway, bell hooks and Judy Wajcman.

These authors observe that there are structural barriers in education, family, technologies, society, culture that permeate male values.

According to Wajcman the absence is due to the men's monopoly that comes from the first computing activities with the end of WorldWar II as an important source of power and, thus, lack of women's technical skills to appropriate computing and other activities related.

Participatory Design practices were also used in addition to developing critiques and proposals for change to develop a game called 'Personalities' that aimed to represent women excluded from history.

The article with the result of the game and the process with the Future workshop practice will also be sent as text for discussion.

Some of the results of these discussions went beyond the master's dissertation, but into the doctoral thesis in which I delved into the area of Human-Computer Interaction and the third wave in which it was possible to identify strands of gender, feminism, and intersectionality around participation and equity in HCI.

**For reflection:**

- How can participatory design practices contribute to think about social, cultural and economic problems and propose solutions by thinking about your work/study/research?
- Can design be gender-exclusive? If yes, how?

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