Negotiating gendered positions in the discourse of computing

Hilde Corneliussen
Post doctor
Department of humanistic informatics
University of Bergen
Sydnesplass 7
N_5007 Bergen
Norway
hilde.corneliussen@huminf.uib.no

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"I don't understand computer programming, because I'm a woman!" This statement from one of the informants of my Ph.D. project gives an example of how gender is used as an indication of what to expect from a person’s relation to computers. The title of my Ph.D. thesis is The power of discourse - the freedom of individuals: Gendered positions in the discourse of computing, and based on my findings in this project, I will discuss how expectations towards men and women’s relations to computers create certain gendered positions that individuals relate to or negotiate when they create their own relations to computers.

I worked with this project from 1998 until 2002, and the empirical material was collected at Department of humanistic informatics in this period. At this department, which also is my work place, we offer courses in technical, practical and theoretical subjects related to ICT. In the work with my Ph.D. project, I followed 7 male and 21 female students in a programming course for first term students. During a period of 3 months I observed them in the computer

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1 Based on Corneliussen 2002.
2 In my understanding of gender, I have been inspired by the historian Joan W. Scott’s insistence that gender should be investigated as a discursive category based on “perceived differences between the sexes” (Scott 1988), and by Simone de Beauvoir’s description of gender as ‘what we do about what the world does to us’ (Beauvoir 2000 (1949), ref. in Moi 1999). It is this dual understanding of gender that I have wanted to investigate through the questions of ‘how men and women perceive that gender has importance in relation to computing’ and ‘how men and women treat the perceived importance of gender in relation to computing’.
3 Corneliussen 2002.
lab, corresponded with them on email, and interviewed most of them. It should probably also be mentioned that unlike most other departments offering computer courses, we normally have a small majority of female students.

Through the analysis of this material, I found that all the informants support one particular understanding of gender and computing, and I discuss this as a dominating or hegemonic discourse of computing. By discourse I refer to a limited and temporarily fixed meaning within one particular area – like the discourse of computing. Another important concept is ‘subject position’, which is a discursive point of identification within a discourse. The individual can associate with or negotiate a subject position.

The hegemonic discourse of computing that I revealed through this project has two subject positions, which describe some basic expectations towards men and women; Men are expected to have more interest, experience and knowledge about computers than women. Men are expected to be motivated by playing with or being fascinated by the technology, while women are expected to be motivated by an understanding of computers as something useful, practical and needed. When it comes to activities, men are associated with computer games, programming and technical tasks, while women are associated with communication, information and writing.

It is important to stress that a subject position is not a description of real men and women. In the following, I will illustrate how I found that the hegemonic discourse has a certain power – all the informants refer to this discourse. At the same time they illustrate the individual’s freedom to negotiate the discourse. And that is what I’m going to discuss here; how the informants create their own relations to computers, with the hegemonic discourse as a frame of reference. By looking at how they articulate their relations to computers, it is possible to see a pattern of 7 different positioning strategies; 3 among the men, and 4 among the women. I will start with the men.

**Positioning strategies among the men**
The first positioning strategy among the men is called “Rooted in a ’room for men’.” The men articulating this strategy have experience, knowledge and an interest in computers which seem
to be in harmony with the hegemonic discourse. They articulate this in relation to the fact that they are men or boys: “... as a boy I have been involved in computing of some form or the other, since I was in elementary school.” (Jon) It is described as natural to expect that boys master computers, and one of the men even thinks that “...people almost expect that a boy studies computing.” (Jon) The men articulating this strategy conform to the expectations towards men in the hegemonic discourse; they have roots in the room that the discourse opens up for men; and they use the expectations towards men as positive descriptions of themselves.

The next group of men can not prove the same harmony with the masculine subject position, but they use this as a positive reference for themselves – they aim at a room for men in their positioning strategy. One of them believes that he can learn tasks on the computer faster because of “the ‘taken for granted’ assumption that computers-are-something-I-can-handle, because I am a boy...” (Terje) The assumption about men’s computer knowledge acts as a positive motivation in his own learning process, and he aims deliberately at a ‘room for men’ by working persistently to learn as much as possible – to acquire the same knowledge as a hacker, as he says.

One of the other men describes how annoyed he gets when he tries to help the female students;

“If I’m explaining something to a female student, or if I say that she has to do this or that in order to solve a problem, she seldom does exactly what I say if she does not understand WHY.” (Knut)

The irritation that he expresses over his experiences with the female students seems to have something to do with how he is able to slip into the position of a computer competent man, without really being qualified for this position. And so he is not taken seriously by the women, because he is unable to give the whole explanation – he can’t answer this big ‘WHY’. And so he gets annoyed, apparently because the women sort of challenge him as he enters this position that he is not qualified for. At the same time, he is aware of this duality:

“I think it is good that there are so many women at humanistic informatics, [...] If men had been in the majority, you would have to (I feel) pretend all the time that you know more than you actually do, in order not to appear “stupid”.” (Knut)

He illustrates how he has access to the masculine subject position associated with computer knowledge, without really being qualified, while he on the other hand wants to be associated with this position, in order to hide that he does not have the knowledge that he expects to find
among men. The masculine subject position is a goal for these men. They use this position, either by trying to make themselves qualified, or by using the position without being qualified, and thereby illustrating how men easily can be associated with computer knowledge.

The last positioning strategy among the men is articulated by one man alone, and he does not want to be associated with the masculine subject position. His goal is to be positioned ‘outside the room for men’. In the computer lab, he did not appear to be used to working with computers, and this was further strengthened as he several times spoke of himself as poorly skilled: “I have a PC with a sound board that does not work, that probably tells you how much I have acquired in that area.” (Arild)

He also described how he deliberately refrained from introducing himself as a computer student in front of others. So he both positions himself as and appears as a person with limited computer experience and knowledge. At the end of the term, I found out that he had studied computing before. I had asked the informants about computer experience, but he had never mentioned this before.

This man clearly did not want to be associated with computers or computer knowledge. He was pointing to his lack of knowledge, he was keeping some of his computer experience hidden, and he seems to illustrate how he, as a man, needs an active strategy in order to disqualify himself for the masculine subject position.

The different positioning strategies among the men illustrate that men can position themselves in relation to computing in different ways. However, the positions they describe also illustrate how they use the hegemonic discourse – they identify with it, aim at it or distance themselves from it. This discourse gives the guidelines for which qualities or characteristics to emphasize or to tone down, in order to associate with or reject the masculine subject position. Even though this position involves some expectations towards computer skills, the connection between men and computer skills are so close, that being a man in itself can function as a sign of computer competence.
Positioning strategies among the women

We will move on to the female students. We remember that the subject position associated with women was described as *limited* in different ways compared to the masculine subject position. And in the first positioning strategy, the women aim at ‘a limited room for women’. To be interested in computers is associated with boys, and is perceived as *’boring, masculine and a bit nerdy’* (Marit). It is described as natural that women understand less about computers than men do:

*It’s quite obvious that the boys have the best understanding of the technical stuff. [...] The fact that the girls don’t quite get it and need to have the information spoon-fed is not quite as accepted. It is, after all, men that teach (those topics), or very highly educated women!!* (Lillian)

And this difference between men and women is described as a general difference; the lack of computer knowledge applies to every woman – except those with higher education. Women with computer skills do not stand out as positive role models to these women. Instead they seem to belong to a special category of women that have stopped seeing the world with a female view – they can’t see the special needs that girls have anymore. And it is precisely this gap between women and computer skills they point to when they position themselves: “*I don’t understand computer programming, because I’m a woman!*” (Lillian) This woman illustrates how she uses gender as a signal to activate one particular meaning – which is that women don’t have that kind of knowledge. It is sufficient to use gender to explain her relation to programming – it is ‘natural’ that she – as a woman – does not understand this.

These women want to learn to use the computer, but they want a very restricted amount of knowledge, and they have a clear opinion of what kind of knowledge they don’t want:

*“I am not going to be an engineer, I’m not going to poke about in a machine at all - I don’t understand any of those things .. [...] – I don’t want to understand it. I don’t want to learn that.”* (Lillian)

The subject position associated with women in the hegemonic discourse is seen as a valid understanding of women in general, and they use the expectations about women’s limited interest, knowledge etc. in order to explain their own relation to the technology.

They also seem to confirm the expectation that women need to see some kind of usefulness in technology. Usefulness is however a relative concept, and while these women are critical to topics concerning the technical side of computers and programming, many of the other
women point to precisely these things when they describe what they have found most interesting to learn about, as in the next positioning strategy, where the goal is ‘a more open room for women’.

Also here the difference between men and women is central, and a starting point for these women seems to be a limited relation to computers. “To me it was a conscious decision to enrol in a computer class. I did not want to continue being the illiterate that I felt I’d become.” (Marte) Through their own experience during the course, these women expand the limited room for women. All of them had experience with computers, but it is as computer students they ‘realize’ that they actually can learn about computers, and that they actually enjoy working with computers. These women express pleasure in learning more about computers:

“I started at the bottom when it comes to computer knowledge, really – but I feel that with every new day I master new things […] It feels like a new world has opened up to me … and every day I think “How on earth is it possible to walk around and cope without knowing what I know today!??” It has to be a feeling close to something like going from being illiterate to being able to read… I think that I have become addicted to the computer!!)” (Helga)

Many of these women express a surprise that they suddenly have found computing both fun and useful, and many of them describe themselves as ‘addicted’. One of the things that seems to fascinate most, is exactly to enter this world where women do not have a natural position. Programming is one of the activities that most exclusively are connected to men, and Bente is one of the women who see programming as a masculine activity, and she says:

Maybe that is why I want to do programming, because it is so masculine […] I feel sort of as if I were in a world that’s a little bit forbidden. That is probably why I find it especially exciting. […] I think there is some status symbol connected to it.” (Bente)

To Bente, programming is an exiting world because it is a forbidden world. Some of the other women find working with hardware most fascinating. In both cases their fascination derives from a feeling of having knowledge in and authority from a field dominated by men.

These women are about to enter a new field for women. They are satisfied and happy about the computer knowledge they have got through the study, and they are about to create a room where women are interested in computers, and in this perspective, they describe themselves as untraditional women. However, in relation to men in the masculine field of computing,
they still describe themselves as ‘typical women’ – in a forbidden world. So while these
women expand the room for women, they also maintain the borders between men and women;
they use the computer, but not the way that boys do.

In the third positioning strategy among the women, the goal is a shared room where gender
has no affect upon possibilities or abilities. These women have a lot of experience in
computer related work, and seem to be confident in their work. However, they have also
experienced being treated in accordance with the common expectation that women have
limited computer knowledge.

If I am sitting and trying out something, installing something and sitting poking about
a bit, and then a boy comes and says ”No, look here, I will show you”, then I just get
annoyed and say “Excuse me! I can do this just as well as you. Just leave me alone
and let me do it”. At least they often believe that they know more because they are
men, even though I can’t see why that’s so.” (Bjørg)

These women do not think that gender should mean anything related to computers, but they
still experience that gendered expectations are used against them. And they protest against it.
Bjørg, who is talking here, claims that she feels that she is equal – gender does not mean
anything, but at the same time she finds that gender does mean something, and she fights
against this, and she claims that what makes the difference is how she behaves when she is
confronted with these attitudes – here in the interview, together with Sara who disagrees with
her:

Bjørg: … no boy is allowed to tell me that I am not worth as much as he is, because
then I’ll tell him what I really think about that.

Sara: Yes, but I think it doesn’t matter what you say.

Bjørg: Yes, it does in fact matter what I say, because if I just accept that’s the way it
is, nothing will happen. But if I put my foot down and say “Hey you, listen,
that’s not how it is!” Then the person sooner or later, depending on how
much you nag and make a fuss about it, will understand …”

Here she illustrates that she needs an active strategy in order to protest against the meaning
that is ascribed to gender. She needs to nag and make a fuss in order to get the message
through. The equal position these women describe does not exist, but has to be created, and it
has to be created by the women.
Even though these women claim that gender should not mean anything, they also emphasize that men and women have different relations to the computer:

“I have a partner [...] and every time he passes the study where the computer is, he just has to go into the room and just press a few keys, for instance if he is on his way to the kitchen to get some coffee, he passes the study and just has to go in [...] It’s like ‘schwoop’ – as if the computer drags him in. It’s the same with my brother and my father, and two other men I know. [...] I manage to go passed a computer without having to press some key.” (Bjørg)

Men are being associated with an unhealthy and uncontrolled relation to computers, in contrast to women. Men and women do different things with the computer, but according to these women it has to do with control, and with conscious choices that the women make; they just don’t care for the same things as men – without reducing women’s abilities as computer literates. This strategy is not about abolishing gender, but about being treated as equals to men.

*We are not men. We don’t think as men. But we have values that are just as good as men’s values, but we have to show that we’ve got them, and show that we dare to think in a different way...* (Bjørg)

These women do not consider themselves as ’strangers’ in relation to computers. They do not consider women as inferior to men in any way, and they aim at ‘a shared room’ with room for both a masculine and a feminine subject position. The starting point is however that the hegemonic discourse exists, and that is why they need an active strategy – an active protest.

In the last positioning strategy, the women position themselves in a room for men. It is the eldest among the women who articulates this strategy, and these women also strongly express how men in general have advantages before women.

*These thoughts reflect the structure of our society, where masculine values are always treated as better and more serious, yes, more ‘human’, than female values. As a woman, you have to prove your abilities, even if your grades show high results.* (Sara)

Perhaps this opinion of a general gender inequality is the motivation for the women to not position themselves in a room for women, but rather to point to how they qualify to enter a ‘room for men’: "Since I did not have a brother, my sister and I had to fill that 'gap' by learning practical tasks that traditionally often are performed by men." (Lise)

These women use their experience of performing practical tasks associated with men when they are telling about their relations to computers.
Tone: Both Lise and I are atypical women – have managed for years without a man, and become more and more masculine, I think.

[...]

Lise: [...] Both of us are raised so that we should know how to saw and ..

Tone: .. different things. My father is a craftsman, and I have worked a lot together with him, and still do.

Partly because of the absence of men, and partly because the men have brought them along, these women have learnt to do things associated with men, and the activities they talk about are generally connected to operating machines and technical equipment.

It is clear from these women's articulations that performing tasks associated with men contributes to their qualification for a positive position in the discourse about computing; they already have a tradition for crossing gendered borders through their experience with masculine practises. They do not reject or protest against the hegemonic discourse, but rather use this as the basis for their articulations; it is within this they define themselves, as women, in 'a room for men'.

The power of the discourse – the freedom of the individual

This has been a very short presentation of the different positioning strategies among the men and women that I have studied. I'm quite sure that we could find other subject positions that are more important, and other positioning strategies among other social groups, in other contexts, but what I have wanted to illustrate with my material is the possibilities that these informants perceive as valid to themselves. Within these possibilities there are some gendered patterns which seem to open up or restrict their perceptions of themselves as gendered computer users. At the bottom of these patterns we have the hegemonic discourse, which all the positioning strategies use as a valid frame of reference. Not valid as in ‘always accepted’, but valid in the meaning – seen as existing, as something they meet and argue for or against, or want to change. That is how they produce their positioning strategies – they negotiate with what they perceive as available subject positions. Thereby they also propose that being a man or a woman with a relationship to computers can have other meanings than those described by the subject positions of the hegemonic discourse.

However, the tendency shows that it’s easier for men to be associated with computer competence. Based on gender, men can be ascribed a positive relation to computers. Women
on the other hand, have to negotiate in order to be ascribed a positive relation to computers. In this landscape, women are ‘the others’ – outside the masculine norm. To some of the women this seems to act as a shelter (“I don’t understand computer programming, because I’m a woman!”), while it is more problematic to others, who raise a protest against being excluded. And if we compare the strategies among men and women, we can see there are greater varieties among the women in how they negotiate their own positions than it is possible to see among the men. The women introduce more new elements in their discursive negotiations than the men, who rather seem to line up in a continuum after how well they conform to the hegemonic discourse.

Both in academic discourses and in everyday discourses we refer to myths about gender and computers. These myths have been a rather unclear area, treated either as unsettled questions or as myths that we need to fight. In my research project it has been important to take such myths seriously – not as myths meaning something which is not true, but as cultural stories about the relation between gender and computers. As long as these cultural stories are perceived as a valid frame of reference to men and women who are trying to find their own positions in relation to computers, they also have real effects on real people. The importance of taking these myths seriously is one of the things I want to stress here.

Another thing I find important is the enormous pleasure and joy these women express when they talk about their new relationship to the computer, about the computer in general, about programming or hardware – things that are closely connected to men in the hegemonic discourse. During the last years there have been a number of attempts to get women interested in computer science with slogans like ‘Women have a special communicative skill. Computing is about communication between people. Computer science needs women.’ The naïve question that I have is ‘why can’t women’s pleasure in working directly with the technology be used to recruit women?’ It is as if the stories about women’s pleasure in this field don’t stick, they are drowned in the hegemonic discourse which claims that ‘women don’t care for computers’. And that’s one of the challenges for the future, I think, to make the stories about pleasure in computing stick to women.
Literature