Gender in Norwegian Computer History

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INTRODUCTION

"From the very birth of computing machines, women have made substantial contributions," according to Denise Gürer (2002). Augusta Ada Byron Lovelace wrote the first sketches for a computer program. Grace Murray Hopper constructed the first compiler, and the first electronic computing machine, ENIAC, was programmed by six women during World War II. When the computer first started to invade the market in the 80s, it fitted an image of women's work tasks: it was about handling a keyboard inheriting the typewriters place in office work, and it matched feminine qualities, like nimble fingers (Wajcman, 1991, p. 150). Female secretaries and office workers were among the first and most extensive user groups of computers. Yet, computer technology is regarded a male domain today, and the traces of women's contributions and participation are not easy to discover (Corneliussen, 2003a). This article presents a research project which looks for discursive traces of gender in debates about computer technology in Norwegian culture in the last decades of the 20th century.

BACKGROUND

Recent research on gender and technology has documented that the discourse of computing is dominated by a masculine norm (Corneliussen, 2003a, 2003b, see also Corneliussen, this book). The images of the "user" and "correct" use are tied to images of boys and men (Gansmo, Lagesen, & Sørensen, 2003). However, the link between men and computers is socially constructed, and there is no "natural" or essential about this link. Thus, it is important to ask, "how we got here." How has the discourse of computing developed in favour of masculine values and male contributions, making feminine contributions invisible?

This question calls for an analysis of the construction of cultural meaning related to the computer (cf. Berg, 1996; Lohan, 2000). The dominating theoretical perspectives in this project are inspired by discourse theory (Laclau & Mouffe, 1985) and the concept of domestication. Discourse theory provides tools for analysing construction of meaning[1], while the theory of domestication focuses on the co-construction of technology and culture in the process of adopting new technology in the household (Silverstone, Hirsch, & Morley, 1997 (1992)). A household has its own "moral economy"; routines, values and practices which are already established, and the new technology enters this "already filled" space. It is also possible to see Norwegian culture as an arena for domestication of technology (cf. Gansmo, 2004). New technology brings new elements into the culture, at the same time as it needs to be translated into the "moral economy" of culture, and to acquire meaning in and through already meaningful cultural stories (Pfaffenberg, 1988).

Norwegian culture is not homogenous. It is rather a series of different arenas, situations, and groups, and the domestication of computer technology might be different in different contexts. The main focus in this project is the construction of meaning which has taken place on the "surface" of society–the discourses in the public sphere. A variety of empirical sources are studied; the daily press, computer magazines and political documents with the intention of describing, controlling or shaping the status of computer technology in Norway. These various contexts have their own qualities, arenas, and institutions, but they also intersect with each other, and use each other as reference, "inter-discursive authority," or opponents in the debate.

The computer did not represent a new technology around 1980, still, something new happened: While computers had been a technology for those with a special interest or need prior to 1980, the development of "personal computers" in the begin-

ning of the 80s made computers potentially available to more people and to different groups. Changes did not happen overnight, but this new availability marks a new era for public debates concerning the social and cultural meanings related to the personal computer. Historical studies of computer technology in this period in Norway have so far primarily focused on pioneers, entrepreneurs and the development of the technology itself. We know less about how these developments affected and were affected by the "main" culture, or the larger society, which is the focus of this research project.

As this is a work in progress, this article reports from the preliminary analysis of one particular computer magazine, *Datatid* ("Computer Age"). *Datatid* was published between 1979 and 2000 in Norway, and was one of the first and most important in this genre at the beginning of this period, while other magazines dominated the market later in the period. All (available) issues of *Datatid*, from 1979 through 2000, have been examined in order to single out material discussing the technology in relation to culture, society, social groups, or individuals. The next section will give some examples from the analysis of the "domestication" of the computer in the Norwegian culture as it can be seen through *Datatid*, with a special focus on how gender was involved in this process.

GENDER IN THE COMPUTER MAGAZINE *DATATID*

Even though *Datatid* aimed at an audience with an interest in computer technology, the magazine was clearly addressing an inexperienced computer market in the first part of the period. In the first issue in 1979, it was emphasized that the magazine was not for computer specialists, and the focus would not be purely technical, but would also include social perspectives on the technology (*Datatid,* 1979, no.1). In the beginning of the 80s, computer technology was discussed as a "revolutionary" technology causing a "new technological and social revolution" (*Datatid,* 1979, no.1), which would fundamentally change society, both in the private and the public sphere. The content of the magazine changed during the period, and in the last years of the publication it was dominated by a focus on technical matters. The debates about the "social construction" of the computer in the first decade illustrate that the technology had not yet acquired a "natural" position in the culture. Its position had to be defined, and it did not even have a proper name, according to *Datatid's* editor. New names and concepts had to be invented and the magazine initiated a name contest in 1979, asking readers to come up with a "better name" for the "Personal Computer" (*Datatid,* 1979, no.1). Several names were suggested, and one of them, "husdat," was even recommended by a language committee (*Datatid,* 1979, no.7). But it was not easy to "construct" a name for the new technology, and a wide variety of names were used in the magazine throughout the period, while the recommended "husdat" was only infrequently used, and disappeared altogether after 1983. During 1984 the concept Personal Computer (or PC) became a concept in use in *Datatid*, parallel with IBM's Chaplin commercials for the IBM PC, which became available in Norway in 1983 (Nerheim & Nordvik, 1986).

These examples illustrate that the technology was about to acquire a place in the culture in the 80s, a place that was not predefined, but had to be created in and through a collective process of domestication, which involved adjustments to Norwegian culture. During the 80s, the computer was frequently discussed in relation to work, school, education, and to all age groups. The discussions about the relation between society and technology concerned contexts and groups that involved both genders. However, in most cases, gender was not explicitly mentioned. In this article we will look at the cases where gender *was* perceived as an interesting category, and we could start by looking for the cases where gender was mentioned under various labels.

Occurrences of Gender Labels

In the period 1979-2000 there are 44 examples of gender being explicitly mentioned in *Datatid*, distributed as shown in Figure 1. The intensity of the debates concerning gender decreased in the last part of the 90s, similar to debates about the social or cultural perspectives on technology in general.

Figure 1 distinguishes between articles with the main focus on "gender" as an unspecific category, "both genders," "men" and "women."[2]