The Use and Domestication of Computers by Women in the Private Sphere: Exploring the Gender Technology Relation

Debasraba Chattopadhyay

Abstract

Studies on technology and society in India neither throw enough light on the issue of the relation between gender and technology nor do they problematize the private sphere which in common parlance is considered to be the sphere of women. Keeping this lacuna in mind, the present paper explores how women use, domesticate and relate to computers in the private sphere. It throws light on ICT related behaviour of women. It explores the different uses to which women put computers at home. It finds out how and why women assign different gender identities to the computer. It also explores the kind of activities which women perform on the internet. This paper throws light on whether the so-called relation of women to computers at all creates any empowerment for women. It reveals an interesting phenomenon of how the computer is domesticated in the private sphere. It shows how differential use and access to computers by women at home can create stratification along lines of gender. In order to serve its purpose the paper depends on in-depth interviews and narratives of women in Kolkata who are educated, married but not in paid jobs, belonging by definition to a privileged section of the society. These women are neither academically nor professionally associated with this technology. The study shows that women share a relation with computers which is at the same time empowering as well as disempowering. Computers have only in a few cases brought about positive changes in their lives.

Keywords: *domestic sphere, home computer, gender stratification, gender identity.*

Introduction

The literature on Technology Studies in India does not throw enough light on the issue of the relation between gender and technology. Along with this, the domestic or the private sphere too is hardly problematized in Science and Technology Studies in India. Almost all the studies in the area of gender and technologies including those on home computer have been done in Europe and North America. Studies on issues of gender technology relation are not many in India.[1] Only a few studies exist. These are studies

on gender inequality in work environments in technology institutes in India;[2] studies on women academic scientists in higher learning institutes in India;[3] and studies on women research scholars in IITs in India.[4] Women have always been excluded from the process of production, design, innovation and use of technology.

The issue of the relation of women and Information and Communication Technologies is addressed in the present paper. Researches on gender differences with respect to access to computers at home may be said to be almost absent in India. Studies in the west concentrate on how males are more likely than females to use their time in computational activity. Some studies concentrate on ownership[5] and some on how differently men and women relate to computers.[6] Most of the studies on women and computers deal with women's lack of access to ICTs in the public sphere. But the different ways in which women use the computer at home are not addressed.

The objectives of the present paper can be summed up in the following manner: i) to explore the different uses to which women put computers at home, ii) to find out how and why women assign different gender identities to the computer, iii) to explore the kind of activities which women perform on the internet, iv) to throw light on whether the so-called relation of women to computers at all creates any empowerment for women and how the computer is integrated in the domestic space, v) to reveal an interesting phenomenon of how the computer is domesticated in the private sphere i.e., whether women consider it domestic or un-domestic and vi) to show how differential use and access to computers by women at home can create stratification along lines of gender.

Methodology

In order to serve its purpose, the paper depends on in-depth interviews and narratives of women who are educated, married but not in paid jobs and they belong by definition to a privileged section of the society. These women enjoy a relatively privileged status of belonging to families with decent family income without which they would not be able to afford certain domestic technologies. These women are neither academically nor professionally associated with this technology. Verbal and non-verbal dispositions of these women are also recorded. A number of methods are used to add depth and rigour to the data collection process. The units of observation are 56 households of Kolkata and units of analysis are

housewives belonging to these households. Narrative analysis has been used because it is believed that these narratives would yield useful data on the different aspects of consumption of the technology at home. According to feminist methodology it is believed that women's experiences cannot be captured by quantitative data alone.

Brief review of literature on the relation between gender and technology in India along with the issue of women's work in the private sphere and the notion of domesticity

The few studies on gender and technology which do exist in India are mainly concerned with the impact of technology on society and on the lives of women. Most of the studies on technological developments are descriptive in character. The theoretical developments in the West have already taken into account that gender and technology are mutually constitutive of each other. Such a theoretical perspective is still lacking in India. Thus, one can say that in India, 'the weight of empirical research is on how technology shapes gender relations, rather than on how gender relations are shaping the design of technologies.[7]

According to Banerjee and Mitter 'there is considerable confusion in the women's movement about how to view the inroads made by technologies into women's lives and works.'[8]

A few works in India deal with the impact of ICTs on the lives of women and especially working women in India.[9] Studies dealing with the home computer usage are almost non-existent in India with the exception of Urmani and Ghadially.[10] They studied the adoption of computer technology by urban Indian women by using psychological variables of perceived usefulness, perceived ease of use, subjective norm and computer self-efficacy.

In the recent past few studies were conducted on the different ways women use the internet[11] and the role of cybercafés in bridging the gender digital divide in India.[12] All these studies emphasize the issue of use of internet by women in the public sphere. They do not address the issue of use of the computer in the private domestic space.

The domestic space is associated with women. Household is essentially recognized as the primary space for women in spite of criticisms from feminists all over the world. Any appealing image of women in the house consists of how efficiently and quickly she is able to

perform a number of household jobs single-handedly. She is assisted by a number of technological gadgets which promise to make her housework easier and time-saving. But feminist researches all over the world testify that women continue to retain the major and exclusive responsibility of housework. It is their overriding responsibility to see that housework is completed.[13] According to Dempsey men continue to get the best deal from marriage as women take the responsibility of the home.[14]

The issue of household work is associated with the issue of domesticity. The concept of domesticity deals with all the different tasks and practices that are associated with the correct reproduction of the home and family. The idea of domesticity is also associated with the concept of familial ideology. According to Beechey familial ideology considers that the nuclear family is desirable and, in this family, the sexual division of labour between men and women is expected.[15] The ideals of domesticity prescribed the proper roles and duties of women in the family. This paper would examine how the ideology of domesticity actually affects the access and use of computers by women in the private domestic space.

Theoretical Framework

The present paper uses the Social Shaping Approach to Technology(SST). This approach to technology seeks to open the black box of technology. It aims to show that technology and society are in interaction with each other. Thus, technological change is not governed by its own internal logic. The factors influencing the rate, direction and specific forms of technical change are both social as well as technical. Economic, cultural, political and organizational factors all of which can be termed as social actually shape technology.[16] A variety of scholars find a meeting point in this approach and so it is a broad church for incorporating all constructivist approaches to technology.[17]

This approach can be seen as a tradition, which goes beyond the simple study of impact of technology. It shows that 'technology does not develop according to inner technical logic but is instead a social product, patterned by the conditions of its creation and use.'[18] This paper uses the SST approach to show how gender interests play a major role in shaping the access and use of computers by women at home. It shows how gender ideologies associated with dominant patriarchal power enhances the gendering process and continues to create some disadvantages for women.

111

Data analysis

Before analysis the basic demographic information about the respondents is noted.

Table 1 Age Structure of the respondents

Age in years	Frequency	Percentage
25 —30	4	7.14%
31—36	4	7.14%
37—42	17	30.35%
43—48	15	26.78%
49—54	6	10.71%
55—60	8	14.28%
61—66	1	1.79%
Beyond 66	1	1.79%

N=56

From the data represented in Table 1 it is clear that the respondents belong to a wide range of age, ranging from twenty-five years to seventy years.

Table 2 Monthly Family income of respondents

Income in rupees	Frequency	Percentage
20000 —— 29999	5	8.92%
30000 —— 39999	11	19.64%
40000 —— 49999	10	17.85%
50000 —— 59999	12	21.42%
60000 —— 69999	5	8.92%
70000 —— 79999	2	3.57%
80000 —— 99999	2	3.57%
Above 1 lakh	7	12.5%
Above 2 lakhs	2	3.57%

N=56

Table 2 shows the range of family income of the respondents. The income ranges from mere Rupees twenty thousand to as much as Rupees two lakhs twenty thousand. As far as educational qualifications of the respondents are concerned, the interesting fact is that most of them have postgraduate degrees and yet they do not have an employment of their own. This also hints at the fact, though peripherally, that education and employment are not necessarily correlated.

The Use of Computer

Now we can throw some light on the issue of use of computers at home. Here it must be clarified that this study does not include the issue of usage of android phones. It is true that android phones form a major part of the share of web traffic but this particular study concentrates on other web devices like the desktop computer and the laptop because accessing the internet through the laptops or computers form only 22.9 percent of the total internet access and usage in India as per data on digital India in January 2021.[19] According to the NFHS (National Family Health Survey-5)[20] **there were 626 million internet users in India in January 2022. India's internet penetration rate stood at 47.0 percent of the total population at the start of 2022.** Internet use amongst adult women (15 years & above) is at 33.9%, and for adult men (15 years & above) is at 57.1%. So the gender digital divide is quite obvious even in the year 2022. This digital divide continues to exist even when 77percent of the population access the web through mobile phones. So the most important question is what is the status of usage of computers by women at home?How inevitable do the respondents consider the computer to be in their lives? All 56 of the respondents possessed computers at home. A computer used in the public sphere for office work and one kept at home are two functionally different gadgets. Access to the computer at home depends on many factors. Some of these factors can be summarized as knowledge about operating system, knowledge about its configuration, leisure for sitting at the computer, availability of the technology without affecting its use by others at home and using the technology without any kind of technophobia. Among these factors knowledge about operating the machine is one of the most important factors behind its use. The extent of use of computers at home is summarized below.

Table 3 Extent of the use of computers by the respondents at home

Those who did not use the computer at all	Those who used the computer as and when they got time	Those who used the computer a lot.	Those who had knowledge only about some basic operations.
18 (32.14%)	32 (57.14%)	2 (3.57%)	4 (7.14%)

N=56

Table 3 summarizes the extent of use of the computer at home.

Not using the computer at all (Computer very unpredictable and unfamiliar)

Out of the 56 respondents 5 did not have internet connection at home. The reason for not having an internet connection was that they were afraid that their adolescent children would surf unwanted sites beyond their capacity to control. But their children accessed the net through mobile data. So, the parental control at home did not translate into controlling their children on using the internet. Of the 18 respondents 5 wanted to learn how to use the computer but none of the members in the family had the time to teach them. Those who did not use the computer had a very ambivalent attitude towards the gadget. They considered it as a foreign, unpredictable and unfamiliar object. Their attitude towards a computer can be summarized from the words of forty-three years old Dalia. She said,

> I don't touch the computer. Only my son and daughter use it. I only clean the machine and its cables from the outside. We do not even have internet connection. We have disconnected it because of huge bill. Moreover, my children are too young and it is difficult for me to control their surfing habit.

The oldest respondent Krishna said,

> I am afraid of the machine. I am afraid that if I use it, I would destroy everything inside. I am more comfortable without computer.

Thirty-eight years old Rumki said,

> I do not use the computer not because I lack knowledge about its operation. In fact, I have a diploma in 'computer applications in business' from London. But I once had a quarrel with my husband over using the computer. From then on, I have stopped sitting at the

machine. If I do not use the machine everything is peaceful.

That indeed was quite unfortunate. Rumki's comment indicates that there is a gendered competition at home over the right to use the machine. Such a competition ends only with the woman sacrificing her right to use the computer. That is how the use of the computer is stratified along gendered lines. Forty years old Gargi had to learn the basic operations because she found the computer vocabulary quite unfamiliar.

Infrequent Use of the Computer

There were 32(57.14%) who used the machine when they got time. To them the computer was a familiar, technology. It was not unpredictable or erratic or even foreign. On the contrary the computer was a very familiar and empowering technology for them; 2 of the respondents were very enthusiastic about the appropriation of the technology that helped them to widen their knowledge base. To them the computer was a reliable gadget the use of which had to be incorporated in their daily routine. Those who used the computer infrequently,mainly undertook the task of sending e-mails. They also took instructions from their husbands and performed various tasks for their husbands on the computer.

Thirty-four years old Soma said,

> I help my husband in his business from home. I receive e-mails, reply back, and collect information for his business. I consider this as an important contribution on my part. At the same time, I listen to music, play games, and watch television on the computer.

Thirty-six years old Sushmita said,

> I use the computer to type letters for my husband. I also type other things for him. I help my son to play and draw on the computer. I do not use the computer for myself but only for my husband and son.

Table 4. Factors affecting the use of computers by the respondents

Knowledge about the operating system	Knowledge. about configuration	Internet availability and accessibility	Leisure from housework to sit at the computer	Access to the computer without affecting the use by other family members.

Table 4 shows the different factors behind use of computers by respondents. One factor affecting the use of computers is knowledge about its operation

and configuration. One aspect, which is significant, is that when it comes to the issue of the computer, the respondents feel the need to learn about its operation from others. They did not feel the same for other domestic gadgets. Without knowledge of computers, they feel technophobic. Moreover, they did not think that computer operation is essential for them and so knowledge about the machine too is not essential knowledge. They could very well do without the computers.

Leisure is another essential factor behind the use of computers. As the use of computers is not a priority they could be used only when the women find time from other tasks. Other domestic tasks are more important than using computers or sitting at the internet. Spending time at the computers would not help them perform their domestic duties. Another factor which affects the use of computers by the respondents is using the machine without affecting its use by other members in the family. Thus, the housewives consider their use of the computer not as important as its use by other members of the family. Thus, they would wait for other members to leave the machine for them.

Table 5. Attitude of the respondents towards the computer

1. Those who do not use the computer or are unaware of the mode of operation.	Consider the computer very unfamiliar, unpredictable and foreign object.
2. Those who use the computer sometimes when they are free.	Consider the computer a familiar, predictable, non-erratic and non-foreign technology, though not as indispensable as the refrigerator or the washing machine.
3. Those who use the computer often.	Consider the technology to be familiar, empowering, highly useful, reliable, friendly and indispensable technology. They are enthusiastic about incorporating the technology in their daily routine to widen their knowledge base.
4. Those who do not use it at all but are willing to learn.	They are curious about the various operations related to the technology.

Table 5 illustrates the attitudes of respondents towards computers

The issue of not using the computer at all is a very serious one. The respondents are housewives from economically sound families. They possess computers at home and yet they do not use them. They do not even feel the need to use computers. Moreover, they also feel that computers are not at all indispensable for them. That shows that they are unaware of the potentials of ICTs in daily lives.

Table 6. Types of operations on the computer

1. Those who use the computer sometimes when they are free and those who consider it indispensable.	They mainly e-mail, play games, surf tourism sites, cookery sites, sites on home decoration, sometimes medical sites, type letters, lists, watch television, help their husband in official work and even draw on the computer.
2. Those who have knowledge only about basic operations	They mainly perform the turning on and the shutting down operations and only sometimes handle the mouse.

Table 6 shows the types of operations on the computer.

Those who did not use the computer first and foremost are too busy with housework. They hardly get time. But those who manage to use it during leisure surf cookery and interior decoration sites. Forty years old Sharmishtha said,

I use the computer to surf cookery sites. I also surf medical sites. But I do not read much or write at the computer. Actually, I do not get the time at all.

Forty years old Indrani said,

I use the computer to chat with my son. I surf cookery sites. I like to collect new recipes. I also surf home decoration sites.

The above two narratives show that the ideology of domesticity is so pervading that the respondents use the most modern gadget to satisfy their ideological needs. To them computers would indirectly help to become better housewives and better cooks and better caregivers though they agree that computers are not as indispensable as other domestic gadgets for them.

Activities on the Internet

Those respondents who browse internet mainly do so to send e-mails. They sometimes surf cookery sites and sites of tourist interest. One of my respondents considered the internet connection very useful as she could chat with her sons who were abroad on the webcam. Some of the respondents surf the net to help their children with their school project work. Only 2 respondents consider the internet a source of empowerment. They take pride in collecting information, gathering knowledge, communicating with their near and dear ones and networking with old friends on the net. These women consider the internet as a reliable and indispensable technology. They want to incorporate this technology in their daily routine. But for majority of the respondents internet is not a source of empowerment. In fact, for them the cyberspace is an ambiguous location and they are unfamiliar with it. They are unable to take advantage of the empowering potential of the internet.

Gender Identity of the Computer

Now we can consider how the respondents conceive of the computer at home and why most of the respondents consider the computer to be male. But 3 respondents considered it to be female. The reasons are summarized in the next table.

Table 7

Reasons for considering the computer Male	Reasons for considering the computer to be female
1. Computer is an office gadget and it is usually men who go to office.	1. Computers are only gadgets which speak a lot like women.
2. Computers are not easily comprehendible. They have to be operated by experts. Men too are not comprehendible.	2. Computers only do mental work and not hard physical work.
3. Computers are unreliable and data stored can be lost any moment. Men too are unreliable and not trustworthy.	3. Computers are friendly enough and listen to the user. The computer is like an understanding boss who listens to her employees.
4. Computers are operated by men. Women hardly use computers.	
5. Computers are erratic and enigmatic at the same time. They generatecuriosity in the minds of the respondents	

Table 7 summarizes the different ways in which the computers are considered to be male or female. Those who consider the computer to be male associate the computer with office. They consider computers to be erratic and unreliable and enigmatic at the same time. All these qualities according to the respondents are male qualities.

Forty-three years old Dalia said,

> The computer is like a man. I do not understand anything associated with the machine. Everything about it is so foreign. It generates curiosity but at the same time I am afraid to touch it lest I should harm it. It is unpredictable like a man.

Forty-three years old Swati said,

> Computers store important data. But that data is also lost easily. So, I cannot say that computers are reliable. Even men are very unreliable like computers. Moreover, computers are not easy to comprehend. Men too are very difficult to comprehend.

The belief that the computer is a male gadget influenced the nature and extent of use of the technology by women. The very consideration of a computer being a male gadget restricted its use by the female members of the family. Many believed that the computer is a male gadget because it performs a lot of office work.For them the computer is an un-domestic gadget. There were 3 respondents who considered the computer to be a woman and thought that the process of domestication changed the imageof a computer. It is the only gadget which speaks a lot like women.It is docile and listens to many instructions and takes orders like a woman. It can store many things in its memory like a woman does. Most of the times, it is controlled by a man.Thus, while conceiving of computers the respondents were influenced by their existing gender ideologies.

Domestication of the Home Computer

The respondents considered the domestic technologies as private technologies because they occupy a private space in their homes. But the computer is very much a public gadget because it occupies a public space. Only when women use the computers at home, they domesticate the gadget to suit their purpose. Thus, they mail their friends, surf cooking sites, fashion sites, sites related to home and interior decoration, sometimes travel sites, sites on successful homemaking, and sites of music etc. That is the way computers come close to them. This is true for respondents who

use computers.The place where domestic appliances are kept is demarcated as a private space. But the place where the computeris kept is not a private space. The computer becomes a private gadget only when the woman is using it for some time in the afternoon. She uses it mainly to send mails or sometimes to browse cooking and travel sites.

Computer use and Gender Stratification

The kind of gender identity that the respondents gave to a computer reveals a lot about the kind of gender ideologies which they have. Their gender ideologies make them attribute different gender identities to the computer. All of them have some gender stereotypes which are socially constructed and shape the different ways in which they use or do not use technologies at home. The social construction of the notion of private sphere being the sphere of women is too resilient to any change.Differential use of and access to computers not only creates a gendering of the household space but also a new techno-digital domesticity reestablishing the notion of the private**.** The domestic space is stratified into male and female space depending on the consumption of the technology at home.

Conclusion

Although my study concentrates on a section of privileged women in society it throws some light on the relation that women have with computers in the domestic sphere. It tries to explore in its own way whether women are taking advantage of the internet to empower themselves or whether they consider the net to be a disempowering space. Most of the women are unaware of the risks of going online. I am optimistic enough to say that computers have the potential to empower and benefit women in the private sphere. But it all depends on whether women themselves consider it to be a source of empowerment and the way in which they use different knowledge and techniques that they can acquire from the internet.

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