

Gender and CMC (Computer Mediated Communication)

Blake E. Hayes

INTRODUCTION :

The purpose of this paper is to look at gender in relation to Computer Mediated Communication (CMC). Much of the literature in the field of language and education holds the view that CMC is a 'level playing field' for 'disenfranchised' groups, one group being women. This paper examines gender issues and how these might have an impact on effective teaching practice.

First the context will be presented along with some definitions. The next section will look at some of the literature on CMC and its potential for an environment of equality as well as a look at the literature on CMC and gender. Next, some findings from qualitative research will be presented. Three areas will be covered : gender and anonymity ; gender and dominance ; and gender, competence and confidence.

BACKGROUND :

The research was conducted in a Japanese university. Students were enrolled in a Computer Assisted Learning (CAL) course and were participating in a 4-week project to learn CMC, specifically asynchronous CMC. CMC consists of human interactions *through* computers. Bates says, "The interaction is not so much with the computer, as *through* it, to other people or sources of information" (1995 : 202). CMC consists of synchronous and asynchronous communication and some forms it takes are given here.

Synchronous (real time communication)	Asynchronous (not at the same time)
Chat environments or Internet Relay Chat (IRCs)	e-mail
Shared whiteboards	mailing lists or electronic discussion lists
Group browsing	bulletin boards
Video-conferencing	computer conferencing
Multi User Domains (MUDs)	intra/internet text based materials
MUDs Object Oriented (MOO) environments.	Web pages

Students ranged from second to fourth year university students, both female and male. They were put into small groups of similar language ability based on their TOEIC scores, paralleling face-to-face language classroom conversation groupings. Groups ranged from four to seven students and they were arranged into different combinations : all female, numerically male dominant (more males than females), and numerically female dominant (more females than males). This was to allow a comparison of small group dynamics to see if gendered communication differed in each of the three different types of groups.

Students were requested to not divulge their university, year, age and gender in order to allow them to experience the anonymity that CMC offers. Students in general operated under the assumption of anonymity. This allowed them to avoid cultural issues of overt sempai/kohai or fe/male dynamics that might have adversely affected their communication.

The research was based on transcripts from students' postings over the 4 weeks, totalling 37,008 words in 693 postings. Research was also conducted through a pre-use questionnaire, post-use questionnaire, and student perceptions from open comments on the bulletin board. A general overview of some of the findings is presented

in the section on research.

GENDER AND CMC-THE LITERATURE :

Mason & Kaye's (1989) early work focused on the positive possibilities of CMC. Warschauer mentions a "strong equalizing effect of computer-mediated communication. In other words, whereas face-to-face discussions tend to be relatively unbalanced, with one or two participants dominating the floor or determining the topics, computer-mediated communication features more balanced participation" (Warschauer, 1996 : 7).

Along with the general description of CMC as positive for all 'disenfranchised groups, (see for example Warschauer, 1999 ; Barlow, 1996) positive gender implications have also been mentioned. Smith and Balka (1988, cited in Herring, 2000) herald the ability of the Internet to connect geographically dispersed women, with the resultant benefits of distance education. Graddol and Swann (1989, cited in Herring, 2000) "noted that participation by men and women tended to be equalized in an anonymous computer conferencing system used in a university setting, in contrast with the traditional pattern of domination of mixed-sex discourse by men." Bellman et al (1993, cited in We, 1993) mention non-native English-speaking women posting more assertively in CMC than in face-to-face interchanges.

Some of these early claims of a 'level playing field' for all disenfranchised groups have been questioned by recent research. Warschauer more recently stated, "the Internet can heighten unequal access to information and power" (in press : 4). In another study Rakow states, "technologies are merely an effect of a particular social order, reflecting the values..." found in society. (Rakow, 1988, cited in Stewart et al, 1999 : 2). These "social practices 'extend the construction of two asymmetrical genders'" (Balka, 1996 : 57, cited in Stewart et al, 1999 : 2). Yates explores gendered communication and access to CMC and the implications for education. Social issues and inequality have generally been ignored in research and "the problems faced by women, as well as other groups, in gaining access to and making the best use of the opportunities provided by CMC, both in education and elsewhere, need to be addressed" (Yates, 2001 : 3).

In examining CMC and gender, the education literature looks at : whether women might be disadvantaged as a group; gender differences in perceptions of usefulness; and gender differences in affective factors and motivation. Gendered differences in discourse might have an impact on learners' adoption of CMC as a learning environment.

The literature mentions the potential for learning might be negatively impacted by lower communication in the medium by female students resulting in lower practice opportunities, lower motivation, less direct and indirect feedback, less feelings of accomplishment and negative affective factors such as feelings of alienation, and less control over the learning environment. Additionally, expectations in terms of acceptable CMC practice might differ according to gender, creating different comfort levels in participating in certain types of discourse patterns.

Awareness of gender issues itself though, does not guarantee more effective practice. Teachers who have tried to achieve gender equality in the classroom have been surprised at how the 'equal' classroom feels too focused on the female students. This can be explained by the fact that it seems normal when males take up more space and we are so used to this that the 'equal' classroom feels abnormal. Spender (1995), among others, mentions that even when she perceived she had given female students more attention than males, she found that when her teaching was evaluated, she had not. Her own perceptions were not an accurate guide.

Pagnucci and Mauriello (1999) found other gender perception problems. Ninety eight (98%) percent of their 140 students surveyed said gender did not influence their responses on the web. This contradicted the students'

actual practice, which strongly favoured males in terms of who they responded to, though they themselves said they did not want to be influenced by gender.

The acceptance of the idea that the dominant face-to-face discourse was male in certain public arenas, including higher education, took time, but is now considered to be common and at times problematic. Pagnucci and Mauriello express concerns for women's education in cyberspace. "Dismissive readings of female work, low response to genuine female identities, consistent alteration of female personas, and appropriation of denigrating female stereotypes should never be accepted in the classroom. In traditional face-to-face classrooms some progress has been made in these regards. In our haste to teach writing using the Web, however, we may have taken a step backwards" (Pagnucci and Mauriello, 1999 : 146).

THE RESEARCH :

1. Gender and Anonymity

One of the advantages of CMC is that it can be relatively anonymous; there are no visual cues. What is being said is important, not who says it. This section on anonymity discusses students' perceptions, which were generally positive. It also looks at students' choices of handles and how these generally were gender-transparent. Almost all the students said they liked the anonymity. They felt it gave them more freedom to express their views. They were also able to discuss topics they otherwise wouldn't broach. Only a couple of students said they found it frustrating to not know who their group members were or to not have visual cues. When given the option to meet their group's members after the project ended, it was almost unanimous that they didn't want face-to-face contact. One student, however, expressed a strong desire to meet the other members of the group.

Example phrases on anonymity

- "...it is difficult for some persons to talk by FtF, so it is good way, CMC is"

- "...when we use CMC, we can have much time to think for the problem or other people's opinion. As a result, we can tell our opinion clearly to other people"

- "CMC is not shameful, So, I like CMC than F2F"

- "I think I like CMC better (than F2F) cuz it's more easier to say my opinion and getting know the person without seeing face is fun!!!!"

- "I'm not brave enough to use my real name"

- "I don't use my real name, either☺"

The second factor relevant to anonymity is handles. Students were asked to not use their own names and use a handle of their choice. While this potentially allowed their gender to be invisible, in general students chose gender-transparent handles. The female students chose names such as Bell, Piglet, Ginger, Bubble, Cinnamon, Kitty, and Babydoll. The male students chose names such as The Beatles, Bluesbreakers, Kcal 148, Pilot, and Takashi. All participants were surveyed on whether they thought the list of names they'd all chosen as handles belonged to female or male students. Their guesses were quite gender accurate. By choosing gender-transparent names students inadvertently divulged their gender, which potentially affected communication.

In the post-questionnaire, almost all the students stated that gender was not an issue for them, that they didn't care what gender someone was. They also stated that gender did not affect how they communicated with their group. However, from their communication with group members, students did form opinions about gender. These perceptions came from both the handles and perceptions of group members' communication styles. When

the project ended, all restrictions on what could be divulged were lifted. While most students had said in the questionnaires that they didn't care what gender their members were, the majority of students wanted to know someone's gender and let others know their gender. A few of the many example statements from the students are listed here.

Example phrases of interest in asking or telling gender :

- “I am female”
- “Are you man or women” Me?? Oh, I am... (never says)
- “I don't care about who you are, whether you are man or woman. Just enjoy talking.”

Example phrases of gender perceptions from handles and communication styles :

- “-“I never expected that you were a man!! Oh, Jesus... Sorry for my misunderstanding...But the way you wrote English was very womanish! I cannot still believe it”
- “I think that you are (all) female except M. Is it true?”
- “I am a woman. Was your idea correct? I guessed man or woman from the handles.
- “I thought you are a man by your handle name !!!”
- “wow, you are man :) I thought you are girl.

2. Gender and Dominance and Aggression :

The second part of the research to be presented here looked at dominance. Research on gender and CMC has shown that males often dominate conversations and that some female participants feel ignored and frustrated by this (Herring, 2000 ; Spender, 1995). Does this occur in the language-learning classroom also? From my teaching experience, this can be the case. Where I have offered CMC as a place for free conversation males often dominate the conversations. Additionally, male students use aggressive language and flaming much more than female students. By using a highly structured project, however, it was hypothesized that there would be less dominance and aggression, which was partially the case here.

Number of words posted :

Using the number of words, appeared female and male students were compared. Examining the small groups separately some trends appeared in the research. Savicki et al (1998) looked at the impact of gender composition of small groups and found that the communication styles were affected in groups where one gender was numerically dominant. In face-to-face mixed gender conversation groups, males invariably dominate the conversation, which can cause women to feel frustrated and ignored. However, in groups where females are numerically dominant, discussions tend to be more equal with personality and context determining who speaks.

In this research, one indicator of dominance was where the word count was 25% above the group average. In groups where males outnumber females, one male dominated. In no group where males outnumber females does a female dominate. In groups where females outnumber males or there are only females, none, one or more female students dominate. This is consistent with the literature on mixed-sex face-to-face conversations (Kramarae 1988; Stewart et al 1999).

Aggression and Flaming :

While free conversations in CMC can often lead to aggression and flaming, it was hypothesized that a

structured, focused CMC project would have lower incidences. This, for the most part appeared to be the case. There were only two flames, both by male students. There was only one incidence of strong aggression by a male student towards a female student. She dealt with the aggression by responding back to him :

-“It might be a stupid dream for YOU, but for ME, it’s very important! I don’t want anybody to say such a things like “Is that so important?”...What if I say “Is UR dream that much important?!” What do you feel? : -[It’s fine if you never give up your dream...but please don’t intrude your opinion on me. Gosh! : ’ G2G”

Anonymity combined with clear goals and directions may have created a more ‘civil’ on-line environment with less aggression and flaming creating an environment more conducive to learning.

3. Women and Computer Technical Competence and Confidence :

In this final section, two areas from the research will be covered related to gender: confidence and competence. There is a general perception here in Japan that computers are a “guy thing”. A show of hands at the beginning of every course I’ve taught has quite a few students raising their hands in support of “guys beings better at computers” or “guys are naturals in computers”, with almost never the reverse happening, i.e. “women are better at computers” or “women are naturals in computers”.

While the literature seems to support the fact that male students study the technical aspects more than female students, the *use* of computers is a different matter. Female students seem to show less confidence initially, but are equally competent as male students and in many cases, outperform male students (McSporran & Young, 2001).

In the questionnaires, a number of students did state that male students were just naturally better at computers and none stated female students were better. Additionally, women expressed their lack of competence much more often than males. It would appear, then that in this context the women stated they felt less *confident* than males when it came to computer use. From this we could hypothesize that women are less *competent* using computers, which will be discussed next.

The research looked at two things, number of errors and independent computer use outside the classroom. If female students were less competent, it was hypothesized they would make more errors. Also, if they were less competent, it was hypothesized they would use the computer less outside the classroom away from the help of technical staff and the teacher. This, however, was not the case.

Errors were calculated based on mistakes in postings either by sending postings that repeated exactly the same message, or postings with a zero word count. Average errors for women were less than men, around 1.6 for females versus 2.7 for males. In this context, female students were not less competent than male students and actually made fewer errors.

The second factor, postings away from the assistance of staff and teacher also contradicted the hypothesis. Almost all the postings outside of the class were done by female students. While all students were advised to continue the bulletin board throughout the week during non-class hours, few male students did so. From the tone of the postings it appeared that those who favoured using the bulletin board in their free time did so because they enjoyed their group members, these groups being female only or groups with only one male in them. The communications in these mostly female groups appeared to be friendly and positive with a lot of support and community building. This is supported by a lot of the literature that states that women tend to use computers for communicating and socializing and are comfortable doing so.

Finally, in terms of academic accomplishment in mastering CMC technology and producing an academically sound final report, women equalled male students, showing equal and sometimes superior accomplishment of

integrating virtual learning environment resources and the CMC environment. Additionally, all students voted on each group's final outcome and there was no indication that numerically male dominant groups were more successful in task accomplishment. While gender differences in communication style did appear, the more "on-task" sounding postings of some groups did not ensure a superior result. There is a case to be made that communication which engenders a sense of community and solidarity leads to superior results, though more research needs to be done in this area.

CONCLUSION :

There are two main strands to the discussion on gender and technology, much the same as in gender and linguistics : difference or dominance. The difference stance, for example, is supported by Gunn et al (2001 : 33) "Many studies conclude that, as well as having less access and ability to use technology, women are further disadvantaged by dominant and sometimes even aggressive male behaviour in CMC environments. However, deeper analysis of the situation raises questions about whether the existence of such differences actually supports the common conclusion that women are disadvantaged or simply that they use technology in different ways." The dominance stance posits that sociocultural factors create gender imbalance leading to male dominance and that these will exist in virtual environments just as they do in traditional learning environments (Herring 1995 ; Herring, 1999 ; Herring 2000 ; Yates, 2001).

Gender issues, of which this paper explored a few, need to be brought to the forefront of teachers' awareness if effective teaching using CMC is to be developed. The teacher will then be coming from an informed versus an unquestioned position. Matheson (1992) states, "until the nature of gender stereotypes and prejudices is altered extensively in society as a whole, they will continue to play a role in interpersonal interactions no matter what the communication medium". Ultimately, this paper hopes to foster awareness of the issue of gender and CMC use that is presently lacking in CAL education.

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ABSTRACT :

Computer Mediated Communication (CMC) has become a mainstay for many teachers who use computer technology for language teaching. CMC has been heralded as a form of communication that is democratic and minimizes barriers based on factors such as age, race, sex, status, sexual orientation, accent and physical attributes. This paper looks at Japanese university students using asynchronous communication and examines one of these factors, gender. While CMC has the potential to offer a 'level playing field' the reality is that face-to-face communication dynamics often repeat themselves in the virtual world.