

MITIGATING THE MATILDA EFFECT ON ELIZABETH BURGE: LIGHT A FIRE, DON'T CURSE THE DARK

Bonnie MARLOW

Bmarlow5@gmail.com

Online Instructor, Course Developer, & Researcher, Canada

Susan BAINBRIDGE

susanbainbridge@athabascau.ca

Athabasca University, Canada

Norine WARK

norinewark@gmail.com

Education, Technology, & Research Consultant, Canada

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ABSTRACT

This paper aims to restore the voice and work of Elizabeth Burge, a historically relevant and underrepresented female pioneer who contributed extensively to the field of distance education (DE) and online distance learning (ODL). Burge's extensive writing and research career spanned over 40 years and covered topics such as innovative educational technologies, gender issues, andragogy, and online learning. As educational technology advanced, she continued to research its ongoing impact on learners. Burge was a leader in providing strategies and theories on how to enhance learning opportunities while still questioning their value. Before her 2012 retirement, Burge was a prolific researcher, writer, editor, and collaborator who provided many literary contributions to adult learning, distance education, and online distance learning. As the technology evolved, so did Burge's research. Like many women before her, Burge's work appears to remain anonymous in the field of technology-enhanced education, while her male counterparts' literary contributions are deemed seminal. This paper aims to reinstate Burge's voice by illuminating her work on gender issues, DE, and ODL to garner her a rightful place in educational history and provide a role model for women in academia.

Keywords: Gender, gender equity, online distance learning, women in online learning, women in distance education, Elizabeth Burge, Matilda effect

INTRODUCTION

In her Foreword to the book, *Toward New Horizons for Women in Distance Education* (Faith, 1988), Elizabeth Burge refers to the work of Virginia Woolf. Virginia Woolf's essay (1929), *A Room of One's Own*, identifies women collectively as a historically poorly paid, silenced underclass, and emphasizes women's right to be acknowledged and valued in society. Woolf rejects the patriarchal hierarchy that values men's voices and writing over women's, and leads to the social and economic suppression of women. Woolf poses that if women do not see themselves represented in the form of a female model, it is difficult for them to develop their voices. Woolf's (1929) essay states that women's work is not represented accurately throughout history, and therefore it is not acknowledged as essential or valued as equally as men's work. The absence of the historic contribution of women in society suppresses them financially and socially, while maintaining the male-dominated hierarchy. As Burge pointed out in her Foreword, Virginia Woolf's writings

reflect the social barriers that continue to restrict women socially, professionally, and financially to this day.

Woolf's work sought to restore the voices of forgotten women writers by returning the authority to women's voices and experiences, and placing historical value on their work (Gildersleeve, 2020). Considering the current systematic barriers, pay inequality, and the hierarchy of importance placed on men's work compared to women's, Woolf's work is as relevant today as it was in 1929. Today, the patriarchal structures that silence women remain intact and manifest in complex, multifaceted reinforcing and subliminal ways (Morgan et al., 2018). The absence of women's voices from history fortifies the status quo of the male hierarchy in society and the value of men's work as being superior to women's, leading to the normalization of gender inequalities and biases. Reestablishing the critical historic contribution of women in the field of technology, which permeates every aspect of the modern world, is a crucial step in establishing a model for future generations of women and the economic and social value of women's work in contemporary society.

During the COVID-19 pandemic, technology-enabled and online distance learning became the focus of educational institutions worldwide. Research on the history and methods of online learning was at an all-time high as educational institutions scrambled to integrate online learning into their systems (Jadunandan, 2022; Sandhu, 2022). Currently, most of the seminal literary references in DE and ODL are by male researchers. Few references acknowledge the innovative work of female pioneers of the same era (Bainbridge & Wark, 2022). This paper aims to look back on the work and experiences of one female pioneer as a model for future women educators and academics specializing in the male-dominated world of technology, distance education, and online learning. As the world transitions to a technology-enhanced education system, the inclusion of women's academic contributions is crucial not only to advance their careers but also to address skill shortages, provide role models and mentorship for future female leaders and researchers, and to increase the innovation potential of the world (Council of Canadian Academies, 2012).

Women have made gains in educational attainment, yet remain underrepresented in full time-faculty and leadership roles in education (Kaufman & Colyar, 2022). In Canada, for instance, women continue to face cultural and structural barriers in academia and encounter gender disparity in appointments and earnings (Cohen & Kiran, 2021; Doolittle & Wang, 2022; Momani et al., 2019; World Economic Forum, 2019).

Systematic barriers prevent many women from rising beyond a certain level in academia. This phenomenon is known as the *leaky pipeline* and refers to the decrease in women's representation as they move up in an organization's hierarchies. The *sticky floor* concept refers to how women are denied opportunities for career advancement, forcing them to remain in lower-level positions within the organization's hierarchy (Bishu et al., 2017). These two concepts highlight the inherent ways that organizational systems discourage or prevent women from moving to positions of power where they could execute change. "These barriers are composed of a set of unstated norms and distorted expectations that obstruct women in their quest to reach their full professorships, deanships, research chairs or university presidencies" (Kaufman & Colyar, 2022, p. 9).

Women often face complex and conflicting professional decisions and either opt out of academia because of systemic barriers commonly related to caregiving or are pushed out of academia on their path to upward mobility. For example, women only make up 39% of all full-time faculty in Canada and are paid, on average, \$13,000.00 CAD less than their male counterparts (Baker et al., 2019; Napierala & Coylar, 2022). This underrepresentation of women in full-time professorship roles, due to gender inequalities and structural barriers, obstructs women from reaching the highest level of academia, thereby preventing

them from making changes that would reduce systematic barriers and enhance gender equality.

Women continue to be significantly under-represented in the Science, Technology, Engineering, and Math (STEM) fields. In the history of science, women's scientific achievements have often been undercut, under-accounted for, or minimized. This systematic undervaluing and underrepresentation of women's contributions to science is known as the *Matilda effect* (Rossiter, 1993). The Matilda effect applies not only to science but also to other male-dominated (or "male coded") areas of academia, such as educational technology and distance education (Schmidt et al., 2021).

The Matilda effect is evident in many areas of academia. For example, males dominate the field of research; female researchers are either forgotten or their work is under-recognized. Studies have shown that women's research is less cited than men's and that women receive less credit for co-authored work when writing with their male counterparts (Morgan et al., 2018; Sarsons, 2017; Zhang et al., 2021). Women professors are also more often targeted for service work (such as mentoring and sitting on committees) than men, which leaves them with less time to do grant proposals, research, and conference presentations that help academics to garner tenure (Sarsons, 2017). Currently, there are not enough women in positions of power to help reduce gender inequalities and systematic barriers, or to encourage women's recruitment, promotion, and retention in academia. Therefore, this paper aims to restore the voice and work of Elizabeth Burge, a female pioneer of DE and ODL, by reflecting upon her experiences as she encountered systematic barriers during her career and by illuminating her literary contributions as a woman pioneer in this field.

ELIZABETH BURGE BACKGROUND

Dr. Elizabeth Burge specialized in gender issues, andragogy, and online learning. Dr. Burge's four decades of research and literary contributions reflected the inception and development of technology-enabled learning, and the struggles and other experiences of women educators as they adapted to, and developed techniques and methods that enhanced learning. Like Woolf's (1929) characters in *A Room of One's Own*, Burge was often dismissed by her male counterparts, yet she forged a path to becoming a female leader in the new era of distance education. However, like the contributions of many other women pioneers of technology-enabled learning research, Burge's research has been lost, overshadowed by the male-dominated work of the same era (Bainbridge & Wark, 2022; Rossiter, 1993). By illuminating Burge's work and firsthand experiences, women researchers and educators are provided with a role model who strove tirelessly in the male-dominated arena of DE and ODL to provide a voice for women in this field.

Dr. Elizabeth Burge was born in Australia and received national professional accreditation from the Australian library association, an undergraduate degree in English literature and history from the University of Adelaide, and a graduate diploma in technology from the University of South Australia. For 16 years, Burge worked in the Australian state library and for various Australian government agencies. During this time, Burge started to manage a distance education library that relied on telephone conversations and mail. This is where she began to think about changing things to help students access information (Bainbridge & Wark, 2022).

In 1980, Burge moved to Canada to accept a one-year government scholarship to look at better ways to provide students with knowledge and improved teaching methods (Bainbridge & Wark, 2022). She took on a position in the adult education department at the Ontario Institute for Studies in Education (OISE). At OISE, Burge completed her MEd (1981) and her EdD (1993) in adult education. Burge worked at OISE until 1993, when she took a teaching position at the University of New Brunswick until her retirement in 2012.

Bainbridge and Wark's (2022) interview with Burge presents a woman who firmly believed in advancing technology to improve education that most benefits learners. Burge's students often commented that she liked to ask "brain-burning questions" (Burge & Haughty, 2001). With the student experience always at the front of her mind, Burge perpetually considered why technology was being used, how it was being used, and how it impacted the end user, the students. In Bainbridge and Wark's (2022) interview, Burge reveals her insatiable curiosity and passion for teaching and learning:

Goals...I didn't think in that way. I just saw opportunities, like where someone was talking at a conference about ethics. Then I'd go home and think about it: "There is no book on this in distance education, so I better get going, etc." I think its more when I hear issues and opportunities popping up, or I see something that I think that is not helpful for the students or for the teachers or for the researcher or whatever (p. 45).

Burge's extensive work includes the evolution of technology teaching and learning strategies, and portrays a historical perspective of DE and ODL learning through a feminist lens.

FEMINIST EDUCATIONAL EXPERIENCES AND RESEARCH

Dr. Elizabeth Burge became interested in distance education (DE) when she ran a Distance Education library for the Australian Government's Technical and Further Education (TAFTE) vocational training programs, where she acted as Director of the Resource Center for the Open College of Adelaide. In this position, Burge was "dealing with people who were posting papers to various people and having telephone discussions." She became interested in finding better ways to manage DE to improve students' learning experiences (Bainbridge & Wark, 2022). In 1980, Burge applied for and received a one-year scholarship to the Ontario Institute for Studies in Education (OISE) in the adult education department. Six years later, Burge completed her adult education doctoral dissertation on exploring how master's students experienced computer conferencing. At the time, Burge's research on computer conferencing was at the forefront of educational innovation.

In 1982, Burge, a graduate student at OSIE, found out about the International Council for Correspondence Education, now known as the International Council on Distance Education (ICDE) developments at the University of British Columbia and decided to attend (Bainbridge & Wark, 2022). At this time, women only made up about one quarter of the attendees. Burge and a group of her female counterparts became tired of the male-oriented language describing all instructors and students as male, so they finally took action. They shocked the men by speaking out and protesting the exclusion of women. "Women delegates (25% of the total) began to express their feelings of trivialization, marginalization, and exclusion—as a result of various linguistic structures, vocabulary, and behaviours indicative of sexism, an unconscious assumption of male power" (Burge, 1990). At this conference, Burge and the other women DE leaders who attended also decided to join together to try and make a change. Burge believed that, to disrupt the status quo, women had to band together, avoid negative ideas, and get things done (Bainbridge & Wark, 2022).

After this conference, The Women's International Network (WIN) of the ICDE was formed to support, network, and provide professional development for women in DE (Burge, 1990). Burge also started to write and distribute a small newsletter based on her continued conversations with other female DE leaders (Bainbridge & Wark, 2022). Consequently, three years later, at the 1985 Melbourne ICDE conference, the DE women leaders were ready to take on the challenges of what they called "the disappearing women" who were

absent in learning materials and instructions, and in references to the terms, “teachers” and “learners.” The Melbourne ICDE was deemed a success when Burge’s male counterparts admitted that they must follow the women’s demands to change; to use more gender-inclusive language within their learning materials, lecturers, and professional conduct. Burge and her female counterparts led the way to removing the normalized language barriers that undervalued women’s work, while providing recognition for the under-represented “disappearing women” who studied and worked in the field of DE and the broader realm of academia.

As a result of the 1985 Melbourne ICDE conference, Burge and the other DE women leaders decided that they had to record and formalize a feminist approach in this field. Burge described how they decided to pursue this initiative to provide women with a voice in the field of DE. She explained that:

We have to start recording what's going on here. These women teachers, researchers, administrators, you name it, what is their experience like in their DE activities?... What is going on out there? How can we help women educators using DE modes? And how can we help male teachers, etc., to consider females’ perspectives? (Burge, quoted in Bainbridge & Wark, 2022, p. 44).

From this initiative, the very first book about female distance educators and their experiences was written. *Toward New Horizons for Women in Distance Education* (Faith, 1988) included articles from women DE educators from around the world, dealing with gender factors, equity, and new challenges for women in distance education. In Burge’s introduction to the book, she used the adage “Light a candle, don’t curse the dark” as a metaphor for the title of her chapter in the book. Burge believed that it was important for women to identify issues of inequality and act on them. Like Woolf, Burge focused on the darkness or the absence of the unwritten history of women in DE, working diligently throughout her career towards shining a light on female educators’ contributions in this field. Rather than complaining about the lack of equity for women in academia, Burge helped to design a space for recording the experiences of women educators and their students.

In the forward of *Toward New Horizons for Women in Distance Education* (Faith, 1988), Burge referred to Virginia Woolf’s (1929) position that women need to have female writers as models to prevent gender bias and promote equality in literature. Like Woolf, she argued that women are different from men and therefore represented a different world perspective. This perspective needed to be acknowledged and recorded to attain gender equality. Having personally experienced the impact of gender inequality, Burge became the driving force for this inaugural book on women in distance education. Then, in her 1989 article, *Women as Learners; Issues for Visual and Virtual Classrooms*, Burge further explained the inherent systematic problems in education and the importance of advancing feminist education by quoting Lenskyi, “...traditional male-dominated educational systems maintain existing gender, race, and social class inequalities, by controlling the construction of knowledge and defining how knowledge should be transmitted” (p. 7). Burge’s recognition of women’s experiences as DE learners and teachers, and her illumination of academic and societal barriers for women in her academic literature improved women’s visibility in DE and ODL.

Burge also experienced the Matilda effect during her career. A self-described incorrigible metaphorical thinker, she wrote a cat analogy to describe the features of learning technology, which became quite popular (Bainbridge & Wark, 2022). Burge grew angry when she learned that a male professor publicly presented her poem as his own, refusing to give her due credit. This illustrative experience represents the systematic under-recognition of women’s accomplishments, and the liberties that some men take with

women's work. Women academics are already at risk of the *imposter phenomenon* (the perception of not belonging and viewing themselves as charlatans in their field)—despite their successes or accomplishments (Clance, 1985; Vaughan et al., 2019). The blatant lack of acknowledgment of women's accomplishments not only leads to the devaluing of their work, but also affects their self-confidence and career decisions, thus contributing to the leaky pipe syndrome that permeates the academic ranks.

Burge's professional career reflects women's perpetual struggles and barriers in academia. She tirelessly fought for the right for women's work, their voices, and their experiences to be acknowledged and acted upon. Before Burge retired, as a final homage to the value of women's work, she designed a free website to record the experiences of women activists over the age of 65 from Atlantic Canada (Bainbridge & Wark, 2022). With support from the library of the University of New Brunswick, Burge interviewed numerous female activists and recorded their experiences for posterity. "The project honours the work of Atlantic Canada elder women activists in various societal arenas (including but not limited to women's issues) and captures the wisdom in their experiential learning" (Burge, 2018). The Women of Social Activist of Atlantic Canada webpage (womenactivists.lib.unb.ca) illuminates the work and social activist experiences of over 30 women activists from the Atlantic provinces. This was the final formal activity that established Burge as a leader in active feminist ideology, a collaborator, writer, editor, educator, and an inadvertent feminist historian who provided a contemporary model for future generations of women.

A PIONEER IN DISTANCE EDUCATION AND ONLINE DISTANCE LEARNING

Elizabeth Burge's research offers a timeline of technology innovation in DE and ODL. Her interests and research changed to reflect the ongoing innovations in learning-enabled technology since the beginning of her career. From the inception of video and audio conferencing to modern online learning, Burge's work followed the development of the electronic highway. Her work focused on how adult learners in distance education could learn better with technology.

In addition to her work on gender issues, Burge, a prolific researcher, also authored many articles and collaborated on research involving innovative models for library management, virtual library environments, and andragogy in distance education and online learning environments (Bainbridge & Wark, 2022).

At the base of Burge's research and teaching was her commitment to her students and their learning. Although she advocated for technology-enhanced learning in distance education from its inception, she always questioned its use. One of her favourite quotes from Neil Postman reflected her feeling regarding the use of technology in education:

Every culture must negotiate with technology, whether it does so intelligently or not. A bargain is struck in which technology giveth and technology taketh away. The wise know this well and are rarely impressed by dramatic technological changes and are never overjoyed' (Postman, 1992, p. 5 as cited in Bainbridge & Wark, 2022, p. 47).

From her experiences with conferencing technologies to online learning, Burge debated the advantages and disadvantages of using advancing technology in distance education. She believed that the intelligent use of technology should support the strengths, learning goals, and learning styles of learners, provide flexibility and choice, and promote interaction (Burge, 1990, 1994; Burge & Roberts, 2012)

In 1993, Burge co-wrote *Classrooms with a Difference: A Practical Guide to Using Conferencing Technologies*, a comprehensive manual that established adult learning

principles of learning strategists, models of teaching, course design, and the use of various conferencing technologies in student learning. This manual provided many learner-centred strategies that are still relevant today. It also reflected Burge's constructivist views, which permeated her work and her commitment to finding effective methods of using technology in DE. Integrating a constructivist perspective into her work, Burge believed that asking first the 'why and when for what' questions before asking the 'how' questions were critical to controlling the timing of interventions in the learning process. She also believed that the 'what' and 'why' questions should connect to learning strategies and outcomes, without denying the learner's choices.

Burge understood that instructors needed to balance the amount of freedom available within a course by moving into a more facilitative role, while providing a flexible teaching and learning environment (Burge, 1995). During her career, Burge also developed and co-wrote several articles and chapters that provided practical solutions and examples for teaching and learning, instructional design, and the systematic development of conferencing and online systems (Bainbridge & Wark, 2022).

At the cusp of the contemporary learner-centred movement, Burge posited that technology should always enhance the learner's experience, putting the students' learning experience first by building inclusionary relationships. Burge wrote:

"My teaching and learning design experience also have reinforced my conviction that adult educators must be more concerned with dialogue about information rather than the delivery of information; with learning processes rather than learning products, with the learner first, rather than with the teacher first" (1991, p. 3).

Whether researching library or distance education topics, Burge's work revolved around the idea of consistently providing a flexible, learner-centred DE environment for adult learners.

Burge was an advocate and true pioneer of learner-centred education as a means for instructors to engage with and design courses that facilitate self-directed, responsible adult DE learners. Burge's continued position on a student-centred approach to DE can be validated with a quick search in Google Scholar, which recently produced over 17,000 scholarly articles on the subject since 2018.

CRITICISM OF BURGE'S WORK

Garrison's (1988) criticized Burge's (1988) work on adult learning in distance education by suggesting that her work appealed to people's emotions and was one-sided. This gendering of emotion by Garrison reinforces the social construct that men control their emotions while women are a product of their emotions. These gender-laden rules are based on stereotypical expectations, and consequently, display of women's emotions results in the depletion of women's interpersonal power in work relationships. "In many ways, this treacherous emotional terrain can be likened to an emotional battlefield. Unsuccessful navigation of the emotional battlefield creates cycles of powerlessness that impede women's ability to develop and leverage power in their work relationships" (Ragins & Winkel, 2011, p. 389).

Burge was acutely aware of the power of Garrison's gendered dismissive language, patiently responding that learner-centred DE is learner-responsible, not learner-directed. She submitted that Garrison provided nothing new in his critique of her work and hid his opinions behind "scholarly scaffolding" (Burge, 1989). When asked what some of the challenges she faced in the field of DE and ODL were over the years, Burge replied, "Men who don't think women are as clever as they are, if not sometimes more" (Bainbridge &

Wark, 2022, p. 49).

CONCLUSION

Ironically, after toiling diligently throughout her career to record and promote the work of female educators in DE and ODL, Burge's own work now seems to be hidden in the dark creases of history. Despite women's best efforts, successes, and contributions to society, much of their work remains shoved to the back of library shelves. Discounting the contributions and perspectives of women in DE and ODL impoverishes the field for all educational stakeholders. Those who seek a richer, more equitable educational system and culture must continue to fight for women's and other minorities' places in the field, striving to replace the historically entrenched, one-sided patriarchal hierarchy and systemic biases that promote inequality and render some work less valuable, simply due to the contributor's gender.

This paper sheds light on Dr. Burge's four decades of research, highlighting her literary contributions and collaborations in gender issues, androgyny, innovative technologies, and online teaching and learning. In addition, illustrations of Burge's firsthand experiences as a woman pioneer in DE and ODL provide a view of DE through a feminist lens. Dr. Burge is a collaborator, facilitator, conservator, volunteer, writer, poet, editor, teacher, and female pioneer in our field. Her legacy of manuals, strategies, textbooks, papers, and newsletters reflect ideas, strategies, and theories that are relevant to this day.

Although the technologies Burge wrote about continue to change, her innovative strategies and ideas have not. Burge's promotion of a DE model that puts the learner first is more relevant now than ever. Her dedication to providing and promoting a gender-sensitive, gender-inclusive learning environment in the field of DE makes her an excellent role model for all academic stakeholders. Looking back on her career, collaborations, and challenges, Dr. Burge muses, "It is lovely sometimes being a pioneer" (Bainbridge & Wark, 2022, p. 47).

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BIODATA and CONTACT ADDRESSES of the AUTHORS

Dr. Bonnie MARLOW is an online instructor and course developer in continuing education teachers' programs and postgraduate courses. She has over two decades of experience as an online and classroom instructor in the K-12 sector. Her passion for improving online learning led to her obtaining her Doctorate in Distance Education (2022), Master of Distance Education (2014), and Graduate Diploma in Instructional Design (2011) from Athabasca University. She earned her B.Ed at Nipissing University. Her research interests include K-12 and postsecondary online learning, instructional design, emerging technologies, and gender issues.

Marlow, Bonnie (Dr.)

Address: Box 22 Weymouth Nova Scotia Canada B0W 3T0

Email: Bmarlow5@gmail.com



Dr. Susan BAINBRIDGE is an instructor and co-supervisor with the Centre for Distance Education graduate/postgraduate programs at Athabasca University in Canada. She holds a Doctor of Education in Distance Education obtained at Athabasca University in 2013. She earned her MA in applied linguistics at the University of Southern Queensland in Australia, and her BA in religious studies at Laurentian University in Canada. Her research interests include online learning in underdeveloped countries, leadership, online pedagogy, and design, as well as gender issues in education.

Bainbridge, Susan (Dr.)

Athabasca University

Address: 1 University Drive, Athabasca, AB Canada T9S 3A3

Phone: 1-800-788-9041 ext. 6179

E-mail: susanbainbridge@athabascau.ca

URL: <https://cde.athabascau.ca/ourpeople/instructors/sbainbridge.php>



Dr. Norine WARK is an award-winning scholar, educator, researcher, and writer, currently working as a freelance educational consultant, researcher, and writer in the field of distance education. Norine's Doctor of Education in Distance Education (2018) and Master of Education in Distance Education (2005) were obtained from Athabasca University. Her Bachelor of Education (5 yr.; 1997) and teaching certificate (1991) came from Simon Fraser University. Norine's research focuses upon historic and emerging theory and practice in distance learning, as well as the technologies that enable such learning.

Wark, Norine (Dr.)

Address: RR 1, S6, C5, Dawson Creek BC Canada V1G 4E7

Phone: 1-250-843-7310

E-mail: norinewark@gmail.com