MITIGATING THE MATILDA EFFECT ON GILA KURTZ: A JOURNEY IN EXPLORING PROGRESSIVE, PRAGMATIC, AND PROMISING SOLUTIONS FOR ONLINE LEARNERS

Nandana PRASAD
nprasad1@learn.athabasca.ca
Athabasca University, Canada

Norine WARK
norinewark@gmail.com
Education, Technology, & Research Consultant, Canada

ABSTRACT

The term, *the Matilda effect* was coined to reflect the incongruencies in social equality experienced by Matilda Gage. Gage's work, as an abolitionist and suffragette, has had ripple effects that include the lack of recognition of innovative women researchers and scientists. This paper serves as a launch pad to enhance one female's poignant academic background and blended research interests. This academic is Gila Kurtz. Gila Kurtz's accomplishments are recognized herein through a recounting of her academic background, research questions, and contributions to the field of education.
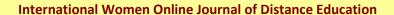
Kurtz has delved into researching and writing about a variety of relevant open and distance learning (ODL) topics, such as popular technology platforms, with possible functions as learning management systems, or online spaces for synchronous and asynchronous collaboration. Her recent focus in the area of human interaction with technology lends insights into artificial intelligence and Internet of Things (IoT). While her career continues to evolve, it remains illuminated by her constant search for pragmatic and promising practices, tirelessly aimed at the betterment of student-centered instruction, whether the learners are faculty or students.

Keywords: Matilda effect, women researchers, distance education, artificial intelligence

INTRODUCTION

In 1993, Rossiter coined the term, *the Matilda effect*, to define the incongruencies in social equality experienced by Matilda Gage. An abolitionist and suffragette, Gage attempted to increase the recognition of women's contributions to the fields of science and art. Ironically, Gage's own work has now fallen into obscurity. Therefore, in the spirit of mitigating the Matilda effect on another intrepid female pioneer, this paper aims to highlight a lifetime of exceptional contributions by Dr. Gila Kurtz to the field of open and distance learning (ODL).

Gila Kurtz is currently the Dean of Faculty at the Holon Institute of Technology, based in Israel. Her academic background was founded in sociology and anthropology, which were furthered with a Master's in Public Policy. After completing a Doctorate in Political Science, she identified the need for distance education in her first position as an instructor at the Open University of Israel. As her own interaction with components of distance education increased, so did the pragmatism of her research interests and more recently, the interplay between humankind and technology. In fact, pragmatism and reflection have been key themes during Kurtz's academic career.

1

ACADEMIC REFLECTIONS

Kurtz' early learnings in sociology and anthropology were focal points for learner-centred research. As she advanced her knowledge in public policy, and then in political science, Kurtz took on a learner-centred approach, even in her own reflections of her academic competencies. For instance, she saw a gap in her knowledge around distance education and competencies, so she researched questions linked to issues in distance education for educators and for students, all of whom shared a common platform of learning together and from each other. Furthermore, when she received a teaching award as a visiting scholar in the United States, she reflected in an interview (Bainbridge & Wark, 2023) that she had always questioned her own ability as an English as a Foreign Language (EFL) learner to instruct in English, since this was not her first language. In reference to the award, Kurtz stated that, "It really touched my heart getting this teaching award" (Bainbridge & Wark, 2023, p. 267). The teaching award affirmed her competency of the English language, as she taught in an English-medium environment to native English speakers.

Kurtz reflected that her main goal in distance education was to increase the ease of accessibility and availability of education in rural and remote areas. With this thought in mind, Kurtz questioned her own competencies in distance education and strove to overcome them in the same manner that she conducted research.

Kurtz's primary research interests have consisted of digital learning and readiness, future learning technologies, and instructional design. Within each of these interests, she has an added element of pragmatism. Her student-centred research has been at the heart of her career, compelling her to generate solutions for increasing availability and accessibility to ODL.

A CHRONOLOGY OF KURTZ'S RESEARCH

In 1998, Kurtz captured the onset of distance education by studying the function of the satellite as a modality of transmission across time and space. At that time, distance education was delivered differently than it is today. She stated that learning, "was delivered online, by mail, by telephone, teleconferencing, broadcast television, video conferencing, and computer conferencing" (Kurtz, 1998, p. 87). Furthermore, the course package was paper-based and included all of the course materials (several subject units with assignments and quizzes), which were sent through postal carrier (snail mail) to the learner. Kurtz's early awareness of distance education in this traditional ecosystem evolved with the advance of online learning, and a learner population that became dispersed throughout the world. She raised questions about the implications of blended learning (Frank et al., 2002), and how best to transition faculty from their campus offices to the world wide web and online teaching (Kurtz et al., 2004).

As the transition from in-class and in-person instruction evolved into ODL, the advantages to online learning became increasingly visible. Kurtz sought continuous improvements in distance education, exploring more about challenges, gaps, learners' competencies, and then sharing these findings with colleagues.

Kurtz reported her findings on what helped or hindered ODL in several published articles. First, Kurtz et al. (2004) surmised that faculty at Bar Ilan University in Israel would have to change their roles as they transitioned from in-person classroom teaching to online delivery. As a whole new area in learning, her systems approach considered findings across faculty from Israel and North America. She had a foot in each space as she gleaned information around institutional, cultural, and technological facets of ODL. She included

2

competencies needed by distance education administrators responsible for supporting faculty who were directly responsible for creating an atmosphere conducive to learning in online teaching environments. Most importantly, Kurtz and her colleagues (2004) were concerned about how the transition from classroom to online learning affected student cohorts, as the role of the faculty in Israel changed from the "sage on the stage" to the "guide on the side." Faculty had to admit that the process of learning had diffused from faculty to students in ODL. Students took more responsibility for their online learning as they interacted with resources. In short, there was a greater degree of self-determined learning, or heutagogy (Hase & Kenyon, 2001) on the part of the students. In ODL, the culture of teaching had also altered. Technology played a minor role. Moreover, the institutional faculty, who had been taught about the facets of online learning, felt more engaged in online teaching than those who had not had any training or coaching.

Kurtz et al. (2007) recognized the opportunities and challenges of online learning. Their prior research on faculty transitioning to ODL led these researchers to further refine how, "online teaching differs from traditional one in a number of ways, including instructor and students' roles, communication, interaction and flexibility" (Kurtz et al., 2007, p. 85) when a change agent is part of the transition process. Theoretically, they surmised that learners passed through several stages as they gained online teaching practices while still ensconced in traditional classroom learning. The relevant stages discussed included: adoption of online learning innovation, deciding whether it worked for learners or not, and then confirming if instructors would continue to apply it, or recommend it for future learning. When 61 faculty members participated in the research project, the role of the change agent, the Bar-e-learn Center at Bar Ilan University, was assessed. Most faculty (76.8%) stated that their main reason for adapting to online learning was that they wanted to enhance their teaching to achieve levels of enrichment for students. A few faculty members (10.7%) felt that they were obligated. The remainder of the faculty were approached by the Bar-e-learn Center and accepted the recommendations of colleagues. The impact of the change agent was rated as very positive by most of the faculty members. All of this information was incorporated into the best approach to distance learning that Kurtz discovered over the years.

To explore more about the best blend or most promising practices, Kurtz then questioned core online competencies required by students to be successful learners across a diverse group of learners. The respondents, who self-identified either as American, Israeli, Mexican, or Japanese, were asked to share their stories as online learners. The team of researchers (Beaudoin et al., 2009), which included Kurtz, invited the 318 respondents, divided into four distinct cohorts, to help them better understand how learners engage and interact with teaching materials and resources, with their instructor, and with each other. Ideally, the researchers wanted to learn if online competencies were influenced by cultural orientation or any other factors. Once these core competencies and themes were identified, they were then disseminated for application to the students (end-users) and to the education and training designers.

A number of themes were identified by the students in the Beaudoin et al. (2009) study. The most effective and least useful specifications were revealed through the themes, enabling the developers to streamline the learning experience. For example, the majority of the learners, with diverse cultural orientations, viewed online learning in a positive light. The final list of factors deemed necessary to be a successful online learner were itemized from most important to least important. The first, or most important element, was acknowledged as self-motivation by the students who identified as American and Japanese, whereas it was ranked as second most important by students who identified as Israeli. Students felt that if they were not motivated, the outcome and impacts became self-evident in low completion rates. The element with the next highest ranking was time management, which was recognized by the students in the United States and Japan. As students engaged

3

in online learning, their ability to organize their time for synchronous and asynchronous sessions was related to their successful navigation through the courses and multiple deadlines while maintaining a work-life balance. Other core competencies included the capacity to learn with limited support, and interrelationships with online facilitators. Students from Japan and America stated that persistence and tenacity were major attributes in the self-designated learning environment, an environment marked by transparency and open communication between the learner and the instructor. A positive relationship between instructors and students was indicated through feedback, guidance, problem-solving, navigating technological challenges and final assessments. These relational connections were felt most by students from Israel; the other groups following closely behind.

Other elements with lesser importance were identified as: enjoying online learning challenges, the self-confidence to achieve learning objectives, the ability to express one's ideas while coping with the unstructured learning context, and finally, the connections with other online learners. Students' comments with respect to these elements highlighted that learning was a very individually-propelled action; it was enough to know there were others out there, without reaching out for collegiality and connection. In other words, the aspect of collaboration and communication to enrich learning within a cohort was not seen as an important factor. An interesting point to note was that Mexican students amplified the importance of an unstructured learning environment, while the other groups stated that online learners had to create their own structure, specific to their learning needs.

The final element, familiarity with technology, was much less significant, ranking last for students in Japan. This was likely because technology use either developed with time throughout the course, or that students already had technical skills related to online learning before enrolling in the course. Beaudoin et al (2009) summarized their suggestions for refining online learning through improvement of interaction between students' learning contexts and instructors, ease of technology use, enhanced course organization (with transparent learning expectations), and the addition of an in-person component. As these researchers mined information, it became apparent to them that the online learning environment was multi-faceted and highly complex. The online learning context was not a microcosm of the classroom-only context, and core competencies changed with time. Therefore, Kurtz persisted in her exploration of these topic areas.

Later in 2009, Kurtz et al. collected more information on learner populations to better understand their challenges, influences, and cultures in online learning environments. The findings indicated that learner self-determination was the motivational key to finishing school; even more so than institutional support. This insight led her to understand that learning was not driven by the learners' cultural context or their countries of origin.

On a more practical note, in 2011, Kurtz observed the universal rise of Facebook, and its applications in popular culture and communications. The phrasing that resonated in her writing was, "creating an ecosystem of lifelong learning through social media" (Porto et al., 2011, p. 107). One possibility emerged to use Facebook as a learning management system on its own. A second possibility integrated Facebook communications with a learning management system to enrich the learning population's engagement and learning through the application of this social media tool in the formal institutional environment (Meishar-Tal et al., 2012). The differences reported between a formal learning management system and Facebook were evident, yet the ease of interaction across cohort groups on Facebook, when it was used as a learning management tool, was cutting edge. It set a precedent when students reported satisfaction, resulting in the continued use of Facebook in further learning. Similar findings were reported by Kurtz (2013, 2014) in a follow-up study for the use of a Facebook group as virtual space for students' collaboration.

4

Tal and Kurtz (2015) continued to search for ease of access solutions for learners as they discovered the functionality of laptops, tablets, and smartphones in lecture settings. In this study, students self-reported that the use of the smartphone in lectures served as a distraction to learning, especially when personal and social messaging notifications were visible. On the other hand, the tablet and laptop were helpful in the lecture theatres and therefore considered to be more acceptable learning tools. At that time, these devices were emerging technologies and their potential uses for tertiary education were still being discovered.

Kurtz's research interests in digital learning and readiness, instructional design, and future learning technologies blazed her trail into artificial intelligence technologies. Kurtz's continuous exploration of information and communication technologies has now led her to conduct research on augmented reality and virtual reality functions, and robotics.

The phrase, *promising and progressive practice*, can be applied to Gila Kurtz, especially in the 21st century, as she forges improved pathways to knowledge for learners, whether they are faculty or students. Kurtz's work continues to include learners, who encompass a vast age range and diverse life backgrounds, in her relentless search to find the best blend of promising practices. For instance, her most recent research has involved exploring instructional strategies with Elders, using artificial intelligence.

In Kurtz's first research project, Elders were introduced to a humanoid robot (HR) that taught them how to navigate and understand their learning in a social media site (Kurtz & Kohen-Vacs, 2020). Elders were instructed on how to use Instagram as a mobile application in this interactive learning environment. The HR responded with questions, and offered input on the Elders' progress. When ten Elder participants were interviewed on their experiences with an HR as a motivational catalyst, their feedback included: how human the robot appeared, even though it never became upset; that the HR adapted to their pace of learning; and that learning could take place anywhere, since the HR could go online and was mobile.

In Kurtz & Kohen-Vacs' (2021) second project, a team of participants used a game-based approach to collaborate on decisions after receiving clues. This interactive learning environment was monitored by an HR. A team approached a series of tasks facilitated by an HR to achieve a collective goal in a time sensitive manner. Participants had to solve four questions (riddles) while engaging with the HR. This HR had affordances that included recognition of face and voice, broadcasting clues, and feedback through recordings. The researchers concluded that, as a motivational tutor, the HR was perceived positively.

CONCLUSION

The aim of this article is to mitigate the Matilda effect on one exceptional female academic in ODL. That academic is Gila Kurtz. The innovative, best blend of practices presented herein recounts Kurtz's lifetime devotion to research focusing on practical applications that address gaps in ODL. Her inclusive definition of learners (including herself) marks innovative, progressively pragmatic solutions that are relevant to our current century. In searching for the best blend of practices, Kurtz urges educational researchers to "[g]o beyond your profession" (Bainbridge & Wark, 2021, p. 269) to find interdisciplinary solutions. May this sage advice and Kurtz's work never be forgotten.

REFERENCES

Bainbridge, S., & Wark, N. (2023). *The encyclopedia of female pioneers in online learning* (1st ed.). Routledge. https://doi.org/10.4324/9781003275329

Beaudoin F. M., Kurtz, G., & Eden, S. (2009). Experiences and opinions of e-learners: What works, what are the challenges, and what competencies ensure successful online learning, In Y. Eshet-Alkalai, A. Caspi, S. Eden, N. Geri, & Y. Yair (Eds.), *Learning in the technological era* (Vol. 5). Raanna: The Open University of Israel. http://www.ijello.org/Volume5/IJELLOv5p275-289Beaudoin665.pdf

Frank, M., Kurtz, G., & Levin, N. (2002). Implications of presenting pre-university courses using the blended e-learning approach. *The Journal of Educational Technology & Society, 5*(4).

Hase, S., & Kenyon, C. (2001). *From andragogy to heutagogy.* http://www.psy.gla.ac.uk/~steve/pr/Heutagogy.html

Kurtz, G. (1998). *Satellite communication in the service of higher education: OFEK – interactive distance learning via satellite* [Paper presentation]. International Conference on Collaborative and Networked Learning, Indira Gandhi National Open University. India. https://www.researchgate.net/publication/238750600_Satellite-communication_in_the_service_of_higher_education_ofek-_interactive_distance_learning_via_satellite

Kurtz, G. (2013). Facebook group as a space for interactive and collaborative learning. *International Journal of Social Media Interactive Learning Environments, 1*, 406-418. https://doi.org/10.1504/IJSMILE.2013.057461

Kurtz, G. (2014). Integrating a Facebook group and a course website: The effect on participation and perceptions on learning. *American Journal of Distance Education, 28*(4), 253-263. https://www.tandfonline.com/doi/abs/10.1080/08923647.2014.957952

Kurtz, G., Amichai-Humburger, Y., & Kantor, J. (2009). Psychosocial well-being of Israeli students and attitudes toward open and distance learning (ODL). *The International Review of Research in Open and Distance Learning (IRRODL), 10*(2). https://www.irrodl.org/index.php/irrodl/article/view/593

Kurtz, G., Beaudoin, M., & Sagee, R. (2004). From campus to web: The transition of classroom faculty to online teaching. *The Journal of Educators Online, 1*(1). http://www.thejeo.com/Archives/Volume1Number1/V1N1.htm#Volume_1,_Number_1,_Summer_2004

Kurtz, G., & Kohen-Vacs, D. (2020). *A team-based training game guided by a humanoid robot* [Paper presentation]. Knowledge Management Conference (KM 2020), Lisbon, Portugal. https://www.tandfonline.com/doi/abs/10.1080/10494820.2022.2086577

Kurtz, G., & Kohen-Vacs, D. (2021). *SocialNAO: A personalized learning workshop for elderly guided by a humanoid robot* [Paper presentation]. Knowledge Management Conference (KM 2021), Leipzig, Germany. https://www.iiakm.org/conference/KM2021/

Kurtz, G., Oved, R., Rosenberg, N., & Neuthal, T. (2007). *Toward online teaching: The transition of faculty from implementation to confirmation at Bar-Ilan University* [Paper presentation]. The Second Chais Research Center for the Integration of Technology in Education Conference, The Open University of Israel (In Hebrew). http://telem-pub.openu.ac.il/users/chais/2007/noon/N_5.pdf

Meishar-Tal, H., Kurtz, G., & Pieterse, E. (2012). Facebook groups as LMS: A case study. *The International Review of Research in Open and Distributed Learning, 13*(4), 33-48. https://doi.org/10.19173/irrodl.v13i4.1294

Porto, S. C. S., Blaschke, L., & Kurtz, G. (2011). Creating an ecosystem for lifelong learning through social media: A graduate experience. In C. Wankel (Ed.), *Educating educators with social media (Cutting-edge technologies in higher education)* (Vol. 1, pp. 107-134). Emerald Group Publishing Limited. https://doi.org/10.1108/S2044-9968(2011)0000001008

Rossiter, M. W. (1993). The Matilda effect in science. *Social Studies of Science, 23*(2), 325–342. https://doi.org/10.1177/030631293023002004

Tal, H. M., & Kurtz, G. (2015). The laptop, the tablet, and the smartphone attend lectures. In J. Keengwe (Ed.), *Promoting active learning through the integration of mobile and ubiquitous technologies*. ICG Global. https://www.igi-global.com/chapter/the-laptop-the-tablet-and-the-smartphone-attend-lectures/115475

BIODATA and CONTACT ADDRESS of the AUTHOR

Nandana (Nan) PRASAD is a student in the Doctor of Education Program with the Centre for Distance Education at Athabasca University. She works for Nunavut Arctic College to coordinate education programs in remote communities in the Kitikmeot Region in the Territory of Nunavut, part of the Inuit Nunangat (Homeland of Inuit of Canada). Her MA is in Collaborative International Development Studies (Medical Anthropology) from the University of Guelph. Her work has led her to travel to lesser developed countries to teach English and Sciences, and to design, monitor, and evaluate health and education programs. Her research interests include education and gender, online learning and cultural inclusivity, and self-determined learning (heutagogy) in higher education.

Prasad, Nandana
Nunavut Arctic College
Address: 48 Nugak Street, Ikalukutuiak (Cambridge Bay), NU Canada X0B 0C0
Phone: 1-866-383-4533
E-mail: nprasad1@learn.athabascau.ca

Dr. Norine WARK is an award-winning scholar, educator, researcher, and writer, currently working as a freelance educational consultant, researcher, writer, grant writer, and editor 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