Curtis J. Bonk Expanded Research Statement 1989-2021

Four Key Strands of Research

- 1. **Asynchronous Conferencing and Online Learning.** In the 1990s, I studies computer conferencing, online collaboration, online discourse, etc. from a neo-Vygotskian perspective. Resulted in an edited book which received recognition from Lingua Franca as a "breakthrough book." All Indiana University participants.
- Bonk, C. J., & King, K. S. (Eds.). (1998). *Electronic Collaborators: Learner-Centered Technologies for Literacy, Apprenticeship, and Discourse*. Mahwah, NJ: Erlbaum.
 - 2. **Blended Learning.** Central figure in the field of blended learning
 - a. Edited the Handbook of Blended Learning: Global Perspectives, Local Designs with over 60 contributors and 39 chapters (2006);
 - b. Numerous research studies published on blended learning in higher ed and corporate training across 5 countries—the UK, Taiwan, China, Korea, and USA. And also led research studies on blended learning in the military.
 - c. Organized conference symposia on blended learning.
 - d. Gave hundreds of invited talks on blended learning throughout the world.
- Bonk, C. J., & Graham, C. R. (Eds.) (2006). *Handbook of Blended Learning: Global Perspectives, Local Designs*. San Francisco, CA: Pfeiffer Publishing.
 - 3. **MOOCs and Open Education:** Key player in the field of open education since 2000 and Massive Open Online Courses since 2012 when I taught the first MOOC for Blackboard and first MOOC at IU. Many research studies (see below or attached) and 3 edited books related to MOOCs and open education as well as bestselling book, The World is Open: How Web Technology is Revolutionizing Education.
 - Bonk, C. J. (July 2009). *The World is Open: How Web Technology is Revolutionizing Education*. San Francisco, CA: Jossey-Bass.
 - Bonk, C. J., Lee, M. M., Reeves, T. C., & Reynolds, T. H. (Eds.). (2015). *MOOCs and Open Education Around the World*. NY: Routledge.
 - Zhang, K., Bonk, C. J., Reeves, T. C., & Reynolds, T. H. (Eds.). (2020). *MOOCs and Open Education in the Global South: Challenges, Successes, and Opportunities*. NY: Routledge.
- Lee, M. M., Bonk, C. J., Reynolds, T. H., & Reeves, T. C. (Eds.) (2015). *MOOCs and Open Education*. Chesapeake, VA: Assoc. for the Advancement of Computing in Education.

4. **Self-Directed Learning (in open learning environments).** Current research strand of about 15-20 studies since 2010 is on self-directed learning (SDL) from MOOCs and open education. Current one on SDL users of Duolingo as well as investigating Nepali teenage youth learning English from MOOCs (and dozens of other MOOCs) to prepare for college.

Curt Bonk, Indiana University Research Statement

Introductory Remarks

My research productivity doubled since moving from the educational psychology department to the instructional systems technology (IST) department at Indiana University (IU) on July 1, 2005. As shown in the table below, from 1989-2005, I averaged 2.7 journal article publications, 1.3 book chapters, and 8 overall publications per year. From June 2005-2021, I have averaged 6 journal article publications, 2.7 book chapters, and 16 overall publications per year. And, as mentioned in my cover letter, this dissemination output has nearly doubled again during the past couple of years with 23 peer reviewed journal articles since the early days of pandemic (notably, the majority are difficult SSCI ones) and 35 publications overall since January 2020.

My annual presentations also nearly doubled since I left educational psychology from 38 per year to 74 per year (see table below). Recently, that presentation activity has tapered off while my research publication and dissemination efforts have simultaneously taken off. I should also note that I have developed a series of workshops and course lectures on writing and publishing for graduate students and early career people. These events are highly rewarding to me as people tell me stories of the impact of those writing sessions on their later publishing efforts. In addition, I am teaching R795 on dissertation proposal preparation where those writing guidelines, tips, and personal stories come in handy. Here, too, I see the near immediate impact in their dissertation proposal writing.

	Curt Bonk Brief Recap Productivity 1989-2021				
	Journal Articles	Book Chapters	Other Pubs	Total Publications	Total Presentations
First 16 Years (1989-2005)	43 2.7/year	21 1.3/year	64 4/year	128 8/year	38/year
Second 16 Years (2005-2021)	95 6/year	44 2.7/year	117 7.3/year	256 16/year	74/year
Total 32 Years Average	138 4.3/year	65 2/year	181 5.6/year	384 12/year	56/year

Admittedly, I was not so successful at publishing during my first decade as a faculty member. In the early phases of my career, I was a writing researcher; or, more specifically, a computers and

writing researcher. In terms of technology inventions, my decades-long colleague, Tom Reynolds, and I designed and tested a computer prompting and keyboard mapping system in Word Perfect in 1988-1989. We used that system for our respective dissertations; he with college students and me with middle school youth. Interesting research, but watching keystrokes scroll across the screen all day was not the way in which I wanted to spend the rest of my career.

Throughout the 1990s and early 2000s, much of my research was asynchronous conferencing discourse analysis as well as synchronous which resulted in a book of research authored by my students, colleagues, and I in the School of Education at IU that my student Kira King and I edited. It was published by Erlbaum in 1998 and titled, "*Electronic Collaborators: Learner-Centered Technologies for Literacy, Apprenticeship, and Discourse.*" The Electronic Collaborators book was considered a breakthrough book by Lingua Franca for its utilization of neo-Vygotskian theory and principles for all of this research (i.e., it was among the first sociocultural theory books related to technology-enhanced environments in the early days of the Web). Since that time, I have more closely focused on informal, nontraditional, open, blended, and online environments, including attempts to understand learner motivation to utilize MOOCs and open education as well as self-direct learning when in such open-ended environments. A small portion of that research is detailed in my research statement below, with an emphasis on the past five years.

Balance of Research Statement.

My five key recent **research** areas during the past few years include: (1) effective instructional design and delivery for self-directed learning (SDL) and self-regulated learning (SRL) in both formal education and informal education settings; (2) the goals, achievements, preferences, and challenges of learners in informal and open educational resources; (3) instructor personalization and cultural sensitivity in massive open online courses (MOOCs); (4) other MOOC instructor concerns and challenges such as professional development (PD), instructional design practices, gamification techniques, motivation, and career development; and (5) learning from flipped classroom environments in East Asia (Korea and China), including exploring student engagement, self-efficacy, and social presence in large university classes.

In regards to the first research theme noted above, during the past 2-3 years my brilliant and highly productive former advisee, Dr. Meina Zhu from Wayne State University, and I have conducted a series of studies on SDL in MOOCs leading to many guidelines about the design and delivery of MOOCs and other forms of open and informal education which might foster SDL. In addition, I have SDL research underway on online language learning using Duolingo as well as SDL of Nepali teenagers learning English and other skills from MOOCs during the pandemic. Notably, in 2020, there were more than 180 million learners enrolled in over 16,300 MOOCs offered by 950 different universities. With MOOC enrollments nearly doubling during the pandemic, the potential impact of our research on MOOCs is enormous.

In terms of the second research area, I have primarily focused on nontraditional and alternative forms of education throughout my career. One example publication appeared in the *International Journal of Self-Directed Learning*. This study explored the human learning and development potential of more than 300 informal learning websites. In another pair of studies, my colleagues and I have published papers in *Educational Technology and Society* (ETS) and the *Journal of*

Learning for Development on the goals, achievements, preferences, and challenges of those accessing MIT OpenCourseWare (OCW) and MOOCs. The ETS article was recognized with a best research paper award at the annual AECT conference in Indianapolis several years ago. Fast forward to today--Dr. Min Young Doo and I will be getting a best paper award at AECT in Chicago in November for the meta-analysis that and we conducted on scaffolding effects in online learning in higher education appearing in 2020 in *The International Review of Research on Open and Distributed Learning* (IRRODL).

Highlighting my third research strand, a few months ago, Meina Zhu and I and several other team members published a paper which explores cultural sensitivity in terms of the design and delivery of massive open online courses (MOOCs). That paper is a follow up to our 2018 article on MOOC instructor personalization practices in *IRRODL*. Such research to help humanize MOOCs and respect the diverse cultural backgrounds of participants is critical in expanding their relevance to the world population; MOOCs are truly a global phenomenon with the potential to help upskill and reskill the disenfranchised, the distraught, and those seeking new directions or career changes. Given the problems of MOOC participant retention and completion, such research could have a wide and deep impact at the course design level as well as the institutional and governmental level.

Regarding the fourth research strand, it is important to note that in addition to cultural sensitivity in MOOCs and MOOC personalization, my research team and I have studied instructional design challenges in MOOCs, MOOC instructor PD and career development, and MOOC instructor motivation and engagement. We have been able to conduct this range of studies since we painstakingly and methodologically collected over 3,000 MOOC instructor names, disciplines, emails, course titles, and affiliations across a range of MOOC platforms and vendors. As a result, we can now tap into this unique MOOC instructor database at any time. It is a virtual treasure-trove of potential data and findings related to MOOCs.

Studies related to the fifth research theme, flipped classrooms in East Asia, have consistently displayed positive results. Just last month, one of our studies on the relationship among learning engagement, transaction distance, and self-regulated learning in a large section university class in Korea that utilized flipped learning was published in *Asia Pacific Journal of Education*.

As you may have noticed, I attempt to publish my research in open access journals when possible since I believe in the power of sharing. In fact, in my 2009 book, "The World is Open: How Web Technology is Revolutionizing Education," I document different forms of sharing, collaboration, and openness. Two years after publication, Jossey-Bass/Wiley asked me to write a prequel for the paperback edition of that book. The prequel discussed the evolution of the concept of sharing in higher education over the past few decades and the postscript outlined a set of learner rights and responsibilities in this age of online learning. Such writings align well with what I have seen happening at the University of Michigan over the past couple of decades.

A few years after The World is Open book, I saw an increasing need to better understand how people in different regions of the world are implementing MOOCs and other types of open education. In response, my colleagues, Dr. Mimi Lee from the University of Houston, Dr. Thomas Reeves from The University of Georgia, and Dr. Thomas Reynolds from National

University, and I edited a comprehensive book on "MOOCs and Open Education Around the World" with 60 contributors. It was published by Routledge in late June 2015. We simultaneously completed a special issue of the International Journal on E-Learning on the same topic. These projects were intended to help educators, researchers, and numerous other stakeholders grasp the research, instructional design issues, innovative forms of assessment, quality concerns, corporate training issues, and potential future trends surrounding MOOCs and MOOC-like derivatives.

Five years later, my colleagues and I edited a follow-up book also published by Routledge, "MOOCs and Open Education in the Global South," in 2020 with 67 contributors. This book features contributors from Asia, Latin America, the Middle East, Africa, the Pacific/Oceania, and the Caribbean who are leading efforts in rapidly changing nations and regions. More specifically, chapters in this edited volume are from Thailand, Egypt, China, the UAE, South Africa, Kenya, Brazil, Chile, the Philippines, Sri Lanka, Fiji, India, Malaysia, and many other countries. This wide-ranging collection grapples with accreditation, credentialing, quality standards, innovative assessment, learner motivation and attrition, and numerous other issues. It also explores initiatives that are leveraging flexible systems like MOOCs to educate and empower populations previously denied access to such opportunities.

Also in 2020, I was co-editor of a special journal issue of ETR&D on "Systematic Reviews of Research on Emerging Learning Environments and Technology," containing 16 manuscripts and 51 contributors. I co-wrote the preface and introduction to that issue. In effect, that special issue of ETR&D attempted to provide insights into the impact of different emerging learning technologies through meta-analyses and systematic reviews of the research. In this particular issue, there were reviews of the research on social media, learning analytics, MOOCs, adaptive learning, gaming-based learning and gamification, mobile learning, special education technology, and wearable technology. In the preface to that issue, David Wiley and I detail the waves of technological progress during the past few decades. Both the preface and closing articles encourage researchers to fall in love with problems to solve, not the latest technology trends or fads.

Note that I coordinated a symposium panel which was a Presidential Session at AECT in 2018 that led to that special issue of ETR&D and then spearheaded another symposium at AECT 2020 when it was completed. During AECT 2020, my team and I also received an award for "Outstanding Conference Proposal" for our paper on MOOC learner views regarding SDL.

Across 2020, I gave virtual keynote and invited research related talks for the National Institute of Ed/NTU in Singapore, Beijing Normal University, Thailand Cyber University, IIT Bombay, and the Commonwealth of Learning in Vancouver. During the last three years, I have also spoken virtually to scholars and practitioners in Sri Lanka, Fiji, Nepal, Canada, Korea, China, Taiwan, New Zealand, India, Singapore, and Brazil about my MOOC and SDL research.

When there isn't a global pandemic, I am often invited to fly to a country or region to speak about my research and practice on emerging learning technology. For instance, in a trip to China in June 2015, I gave 18 talks at 12 universities in six cities (i.e., Hong Kong, Shenzhen, Guangzhou, Shanghai, Hangzhou, and Beijing). As with that China trip, when I travel, I try to

reach out to multiple universities, organizations, and institutions so as to allow others to make best use of the limited travel funding. For instance, during the past 10-12 years, I have given multiple talks in dozens of other countries including Spain, Thailand, Vietnam, Saudi Arabia, the UK, Finland, Australia, Korea, Iceland, the UAE, and Japan.

I should also point out that I have authored about a half dozen major technical reports on emerging technologies and online learning. For instance, when I was a Senior Research Fellow with the Army Research Institute (1999-2005) and later with the Department of Defense Advanced Distributed Learning (ADL) Lab in Washington, DC (2003-2005), I was involved with several research projects for the military related to online collaboration, blended learning, elearning, and massive multiplayer online gaming (MMOG). In 2004, I was commissioned by the Observatory on Borderless Higher Education in the UK to write, "The Perfect E-Storm: Emerging Technology, Enormous Learner Demand, Enhanced Pedagogy, and Erased Budgets." These reports indirectly led me to editing "The Handbook of Blended Learning: Local Perspective, Global Design," published by Pfeiffer/Wiley in 2006; a prominent topic today.

All the research detailed above has resulted in several recognitions. Among them is the *Online Learning Journal Outstanding Research Achievement Award in Online Education* from the Online Learning Consortium in Orlando in November 2017. Four years later, on November 5, 2021, I was awarded the *David H. Jonassen Excellence in Research Award* from the Association for Educational Communications and Technology (AECT) when at the 2021 AECT conference in Chicago. That same day, my research team and I received a Fist Place Award for Quantitative Journal Article Award from the AECT Division of Distance Education (DDL) for our article in *The International Review of Research on Open and Distributed Learning* (IRRODL) in 2020, "A meta-analysis of scaffolding effects in online learning in higher education."