online environment? Is it a problem?

Academic dishonesty is a problem when exams are not proctored and when the Internet contains a wealth of information, including publisher-provided test banks and actual final exams that have been posted online by former students. Moreover, it's difficult to ensure that the person taking the exam is the one enrolled in the class, and not a "professional test taker."

At FAU, we use a third-party service called Software Secure, a remote on-demand proctor which uses technology to combat academic dishonesty. When students take an exam, their Webcam captures their ID and makes a recording of the entire exam. In addition, a screen capture mechanism ensures that students do not consult unauthorized Websites or notes. Although no system is perfect, using a remote proctor has significantly reduced academic dishonesty.

17. You have stated that the tuition in your online lecture capture courses is more expensive than your face-to-face courses. Do you think the cost could be prohibitive and affect student enrollment?

My university charges students a technology fee (from $135 to $180) for each online course in addition to the tuition. This money is used for IT support and staffing, funding the remote proctoring services, and providing online eTutoring to students. Students who prefer the convenience of an online course generally find this fee to be reasonable. Students who do not wish to pay the fee can opt into a traditional face-to-face class.

18. Are there social and ethical concerns (real or imagined) from faculty members, from students?

Some students (but more often their parents!) oppose online learning because they believe going to college means attending a class with other students. I admit that there is a lot of truth to that argument. However, the profile of college students today is changing. More are choosing to work. Some prefer no to move away from family. Therefore, providing online options has been popular at practically every institution of higher learning today, and it continues to grow as the technology improves.

19. Do you have a Website where readers can learn more about you and your work?

Yes, the Website associated with my book is *www.CoreEcon.com*, which contains samples of my work along with my philosophy on teaching. Also, the site *www.FlipItEcon.com* contains research that I have co-authored on flipping the classroom.

20. What have we neglected to ask?

I believe the trend we are seeing with more online course offerings is indicative that the format is here to stay. Despite criticisms that students may learn less online compared to a traditional course, many research studies have refuted those claims. Online courses have evolved with improved technology, allowing greater flexibility and access to education, and improving cost efficiencies. However, there will always be a role for the traditional in-class format, as long as teachers are wiling to take advantage of that setting using active learning. Otherwise, there is little difference between a traditional in-class lecture and an online class. □

Book Reviews
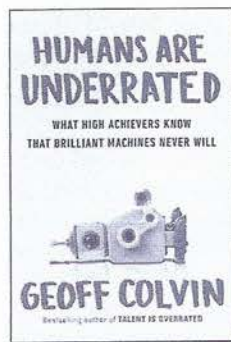
In What Ways Are Educational Technologists Underrated?

Book Review: Geoff Colvin. **Humans Are Underrated: What High Achievers Know that Brilliant Machines Never Will.** *Portfolio/Penguin; 248 pages; 2015; $27.95.*

Reviewed by Curtis J. Bonk

Questions Raised

Have you ever felt underrated in terms of the skills that you provide to your organization or institution? Do you ever wonder about the talents that you will need to make a contribution to it 10 or 20 years from now? As computing technology continues to advance at breathtaking speed, have you or your colleagues ever stopped to think about what a computer or robot can and cannot do in terms of different parts of your present job? Certainly, many aspects of instructional design and development, needs analysis, and educational evaluation and assessment commonly done by humans here in 2016 will be automated long before 2026. What will be your value-added competencies when this occurs? Stated another way, what will you uniquely contribute to the human-computer equation? Is there something you can do that a machine cannot?

While the answer to that final question may be yes, had more prescriptive and lock-step forms of instructional design that were prominent a couple of decades ago continued to hold sway today, the outlook would likely be much more grim. As our field advances in this highly digital age, with many new types of job opportunities and requirements, now may be the ideal time to reflect on such types of questions. This rethinking is especially vital as more complicated forms of instructional design and delivery underpin the effective design of online and blended learning environments, including more global and interpersonally rich forms of collaboration and communication.

Skills Needed

In each chapter of *Humans Are Underrated: What High Achievers Know that Brilliant Machines Never Will* by Geoff

Curtis J. Bonk, *a Contributing Editor, is Professor of Instructional Systems Technology (IST) at Indiana University. Dr. Bonk's interests include global education, emerging learning technologies, motivation, nontraditional and informal online learning, and open forms of education. His recent books include: "The World Is Open"; "Adding Some TEC-VARIETY"; and "MOOCs and Open Education Around the World" (e-mail: cjbonk@indiana.edu).*

Colvin, there are countless opportunities for such reflection on the field to emerge. While this book does not directly address the field of educational technology, one cannot help but think about the courses, programs, and professional development opportunities for people in the field. It is easy to agree with Colvin that skills such as collaboration, creativity, communication, cultural sensitivity, leadership, and listening are increasingly taking precedence over analytical and logic skills. In this highly interactive world, filled with social media outlets like Facebook, Twitter, Pinterest, and LinkedIn, relationship-building, empathy, and social interaction are central to success. Unfortunately, as Colvin documents, empathy skills have significantly declined during the past few decades.

To counter these trends, Colvin points to the need for highly authentic types of learning experiences, such as high-fidelity simulations and real-world experiences. In essence, he is suggesting that internships, practicum experiences, and other forms of fieldwork need to be encouraged and promoted. At the same time, Colvin argues that the combination of online and face-to-face experiences (i.e., blended learning) is highly valuable in nurturing the skills needed at this time.

If Colvin is right, one must ask just where in the curriculum of most graduate programs in educational technology are listening skills, empathy, and help-giving behaviors explicitly (or even implicitly) taught? What about creative problem solving and negotiation skills? As the field of educational technology dramatically expands in this highly digital learning age, these are not unimportant questions; especially given the myriad many blended and fully online learning programs that now actively recruit graduates from our field.

In my travels to dozens of college campuses during the past few years, I have often heard teaching and learning center directors state that their particular university has grown from just a couple of instructional designers a decade or two ago to well over a dozen today. Suffice to say, there are jobs! But are these colleges and universities finding people who can empathize with their instructors who come from widely diverse disciplines as they plan and design their online courses or technology-enhanced experiences? Do they work well with other members of the instructional design team when creating a MOOC or some type of blended learning or flipped classroom experience? Do they display cultural sensitivity for people from disparate cultures enrolling in their online courses and MOOCs?

Book Utility

Humans are Underrated forces us to reflect on whether our present curriculum objectives and pedagogical practices are nurturing the types of skills and competencies actually needed for workforce productivity and lifelong success. We can no longer simply teach a set of instructional design approaches and expect our students to succeed in the workplace. Perhaps we never could; but the realities of the twenty-first century make this more apparent than ever.

I recommend that educational technology departments read this book prior to a retreat and rethink their courses and overall curricula. If they follow Colvin's implicit advice, they might decide to offer courses on instructional design through storytelling, innovation and creativity, educational technology leadership, blended forms of learning, collaboration and teamwork, building relationships through social media, and content-sharing techniques and other help-giving behaviors. Some of these skills might be embedded across all courses, whereas others might be found in special topics courses. For instance, each course might have collaborative or team-related tasks and assessment schemes. In addition, if one were to follow Colvin's advice, internship and client-based learning experiences would likely abound. And opportunities for exploration, teamwork, and content engagement would take precedence over content delivery and consumption.

In addition to program or departmental retreat material, this book might also find use as an optional text in a class on the future of learning or one on emerging learning technologies. Perhaps it might be one of several books wherein the various author predictions might be analyzed, compared, and debated. I recommend that instructors selecting this option find creative ways to utilize online reviews of this book, including interesting video interviews of Colvin himself; you might even be bold enough to invite him into your class for a chat. Stated another way, don't simply have your students read this book; instead, immerse them in the issues brought up.

Criticisms and Commendations

Overall, I found *Humans Are Underrated* to be a healthy synthesis of recent research and trends in society that are situated at the intersection of psychology, technology, education, and economics. Still, there are several issues or problems that emerged as I read the book. As a result, despite Colvin's knack for synthesis and interesting insights into societal trends, this book is NOT a must-read for the field of educational technology. If you are an educator, you can find most of the suggestions about the skills needed in the coming decades in countless other books and technical reports.

Given the subtitle of *Humans Are Underrated* as well as many recent journal articles and books with bold proclamations about robotics, I was anticipating that this would be another such book. An online interview with Colvin further biased me in this direction. The first chapter, on the speed in which technology is changing (in particular, the field of robotics), and the second chapter, on the assorted challenges that lie ahead, did not disappoint. The ideas related to robotics effectively ended there, however. Nevertheless, the third through the fifth chapters adequately built the case for empathy and other skills needed to be a high performer in an increasingly virtual world.

While the opening section of the book was engaging, somewhere in the middle it seemed to wander. When Colvin began to detail research on training experiences for the military battlefield, I felt like I was reading a different book. Instead of including additional studies from higher education or the corporate sector, he presupposed that findings from pilot training in the U.S. Air Force would apply to most other educational sectors and occupations. More specifically, in Chapter Six, on "Empathy Lessons from Combat," Colvin places too many stakes in the ground based on military research.

While his suggestions about the importance of more authentic learning environments, after-action reviews and reflections, and limited organizational hierarchies for such reflections are relevant and important to the field of educational technology, most people studying to be educational technologists are not going to be shooting down their enemies—or at least I hope not. Moreover, while Colvin situates many of the current problems in society on the lack of human empathy, he never really defines what empathy is, nor does he fully disclose how it is measured.

He also attempts to make the case that empathy rises as training environments increase in fidelity and authenticity. While this sounds logical, I was not fully convinced, since I was unsure if he was actually talking about human empathy, or simply better learning environment awareness and overall job success.

In terms of the field of educational technology, the more relevant sections of the book include Chapter Seven, on how teams work, Chapter Eight, related to the power of storytelling, and Chapter Nine, on how humans are creative and innovative. Each of these chapters contain insights and ideas related to the duties of many educational and instructional design personnel. After that, Chapter Ten details skills of relationship-building, collaboration, and social sensitivity, which Colvin argues tend to be more prominent in females than males. Finally, Chapter Eleven ends with stories and ideas related to how to be successful at building deeper forms of human interaction. To be honest, however, I was actually unsure as to the key points or takeaways Colvin was attempting to end the book with. One could almost skip the final chapter and not miss much.

Despite the various shortcomings, each chapter has many items worth pondering. In Chapter Nine, for instance, Colvin refers to research that apparently concludes that physical distance matters, as it negatively impacts the amount and type of communications between work teams. He argues that advanced collaborative technologies do little to diminish that disadvantage and increase worker productivity. Those in the field of educational technology might be surprised by his comment that work teams which rely on videoconferencing and collaboration software are at a huge disadvantage when compared to teams that are working in the same building. As I read this section, I was hoping that someone in the field of educational technology might offer some research findings to counter such claims, or, at the very least, help us to better understand what can be done to better utilize such technology to lessen the differences and enhance human productivity.

Final Thoughts

I am left wondering what the field of educational technology can offer to a world lacking in empathy and increasing in narcissism. If you accept most of the premises of this book, our world is in dire need of people with well-honed listening skills, the ability to work in teams, creative dispositions, high levels of cultural sensitivity, and a sense of fairness and generosity. In terms of the latter, Colvin was correct in suggesting that help-giving behaviors are more pressing today than ever before. But can any of these skills actually be taught? Might educational technologists assist in the creation of courses, video modules, internships, or other experiences, wherein such skills are fostered? How might these types of skills be addressed in MOOCs, video lectures, or some types of blended learning experiences?

Suffice to say, while the field of educational technology might not be directly addressed in this book, many of us in the coming decades will find ourselves adding value to the human side of the equation with the innovative delivery mechanisms and contents that we specifically design and test. As such, we must begin to discuss and debate the ways in which educational technologists are currently underrated and what the implications are. In the end, notwithstanding my limited endorsement of this book, there are many worthwhile ideas to consider here; you should not underrate the ideas in this book. ☐
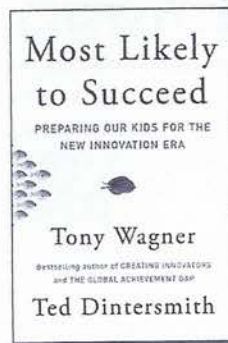
Fundamental Redesign of Education, Not Piecemeal Reform

*Book Review: Tony Wagner and Ted Dintersmith. **Most Likely to Succeed: Preparing Our Kids for the Innovation Era.** Scribner; 288 pages; 2015; $27.00.*

Reviewed by Charles M. Reigeluth

Over the past few decades there has been growing recognition that piecemeal education reforms have universally failed, and will continue to fail, to provide the kind of improvement in student learning that is so desperately needed by our students, communities, and country—and that only fundamental transformation (paradigm change) can meet that need. Wagner and Dintersmith note that, "As our nation headed into the twenty-first century, we faced an existential choice. We could completely redesign our education system…or we could push our existing system harder for incremental improvements…" (p. 26). This book addresses why a complete redesign (paradigm change) is needed, how the purpose of education has changed, the likely economic and civic consequences of failing to redesign, the main problems with the current design on both the K–12 and higher education levels, and ways that teaching and assessment need to change; and the authors conclude with a new vision for education.

Book Contents

Chapter 1, *Our Education DNA*, presents "a whirlwind tour of the entire history of education" that includes the apprenticeship model that predominated in the hunting-and-gathering and agrarian ages and the "assembly-line model of education" in the industrial age and concludes with our current educational needs and how inadequate the assembly-line model is at meeting those needs. Finally, it describes how education credentials are, in effect, America's caste system.

Chapter 2, *The Purpose of Education*, discusses the mismatch between the goals our schools espouse (such as cognitive and social skills, citizenship, character, self-discovery, career readiness) and the goals evident by what schools

***Charles M. Reigeluth**, a Contributing Editor, is a distinguished educational researcher who focuses currently on paradigm change in education. He has a B.A. in economics from Harvard University and a Ph.D. in instructional psychology from Brigham Young University. He was a Professor in the Instructional Systems Technology Department at Indiana University. His book, **Reinventing Schools**, advocates and chronicles a national paradigm change in K–12 education. He offers presentations and consulting on this topic (e-mail: reigelut@indiana.edu).*
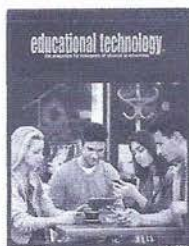
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**Volume LVI
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About This Issue

A general issue covering varied aspects of educational technology

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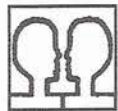
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