

Wild Exaggeration and Vast Potential: Technology's Limits and Promise in Legal Education

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Abstract

The purpose of this article is to assess the extent of technology's benefits for legal education. The argument makes two main claims. First, it argues that an understanding of the neuroscience of learning may focus and ground legal and other educators on the possible benefits and roles of technology in education. Second, it argues that, once this is done, technology can be applied to democratize access to legal education. The article concludes, however, by pointing out areas of risk and concern regarding this project.

Keywords

Learning neuroscience; legal education; democracy; technological risk

Exageración extrema y gran potencial: Límites y promesa de la tecnología en la educación jurídica

Resumen

Este artículo tiene como objetivo evaluar los beneficios de la tecnología para la educación jurídica. La propuesta consta de dos partes principales. Primero, sostiene que una apreciación de la neurociencia del aprendizaje puede enfocar y fundamentar a los profesores de derecho sobre los

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beneficios y roles adecuados de la tecnología en la educación. Segundo, sugiere que, una vez hecho esto, puede aplicarse la tecnología para democratizar el acceso a la educación jurídica. El capítulo concluye, sin embargo, señalando aspectos de riesgo e inquietudes respecto a este proyecto.

Palabras clave

Neurociencia del aprendizaje; educación jurídica; democracia; riesgos de la tecnología

INTRODUCTION

The potential of digital learning to advance innovation in pedagogy and learning is great. So, too, however, are its limitations. This paper aims both to take a clear-eyed look at the advantages of digital technology for education, and especially legal education, and also to critically address its limitations. The argument advances on two parallel but supplementary tracks. First, it argues that technology in education would do well to begin by understanding the neuroscience of learning, to use technology in ways that may advance and enrich teaching and learning, rather than trying to use it in ways that overestimate or misapply its potential. Second, assuming this clear-eyed assessment and application of technology's potential and limitations, the article explores the potential of technology to expand legal education and, hence, increase access to justice. While offering this assessment, however, the paper concludes with a look at potential risks of reliance on technology in the service of legal education.

DIGITAL LEARNING – CLAIMS AND QUESTIONS

An anecdote aptly summarizes both the potential and the limitations of digital technology in education. About 20 years ago, still at the dawn of the digital revolution in education, I was tasked with a routine visit to the class of a junior colleague to evaluate her classroom teaching. I sat in the back row and watched the young professor proceed with her lesson. In the row in front of me, however, I also began to watch with fascination the dawn of another part of the digital revolution: shopping. Specifically, a student was absorbed in her search for a new handbag. This was still in the days before online shopping was common, and many websites were still quite unsophisticated. This website, however, was dynamic: as the buyer clicked on a possible purchase, it popped out in an enlarged form and twirled around. I could not help being mesmerized by the sparkling, sleek, elegant images spinning in the screen in front of me, not least because to that point I had not myself used such a well-designed website. The student's shopping spree went on for some time, and as I sat there, I sympathized with her. This colleague was and has since gone on to be a distinguished scholar but, truth be told, the class was dry and tedious. Had I then been able to do so and had the know-how, I might have done some online shopping myself.

This experience has – obviously – stayed with me now for two decades, and I know why: it was an early lesson that underlined the perils of the digital world for human enterprise, including education. That day the peril I saw was that technology can distract from learning as much as aid it. Let me be clear: I am no Luddite and I celebrate the many advantages of digital

technology for legal and other learning. Where once – in the days when I visited my colleague’s classroom two decades ago – the most innovative technological tools available were Power Point slides that might offer embedded sounds or images – today’s teacher can capture the students’ attention with embedded video technology that can serve to enhance storytelling, and do so for classes offered synchronously or asynchronously; a teacher can introduce recordings from, say, a trial proceeding or a deposition at key moments in a student’s learning process. These and other features of classroom technology broadly defined can be powerful tools that can emphasize arguments and ideas, and express tactics that mere words or a live classroom simulation might not or cannot achieve. However – and this was the point of the memory with which I began this contribution – it is also worth recognizing that the claims for technology in the classroom are often exaggerated. Connectivity can also be a distraction, just as it was for my colleague’s bored student. We have all, I suspect, have had the experience of attending a lecture with an accompanying digital presentation where our attention is focused entirely on the visuals and not on the lecturer’s words. Now slides and voice may say the same thing – but I for one would like to think that what comes from the lecturer’s mouth will be the distillation of what matters.

Connectivity can also impede the most effective learning, and not only because it can distract. Without proper guidance and deft and thoughtful preparation, digital teaching resources can, at worst, leave students dazed and confused. Done well, by contrast, digital technology can help guide and focus. Some studies have demonstrated, for example, that one of the main benefits of asynchronous classes is that they can include detailed information and regular, interactive assessment features, allowing students to review regularly their understanding of material.¹ However, these studies also make clear that such assessments need to be carefully planned out in advance.² Furthermore, digital learning raises other concerns. Some studies indicate, for instance, that digital learning can interfere with cognition and retention. For instance, controlled studies have shown that working from digital outlines – or even taking notes in class directly into a computer – is notably less effective than taking them the old-fashioned way – by hand with pen or pencil to paper.³

Once again, the point of this is not to deride the advantages and potential of legal education and technological education. However, it is to suggest that the much-ballyhooed promise of digital learning⁴ is, in my view, greatly exaggerated. First and foremost, it is always essential to recognize that technology in legal or any education is a tool, as valuable to mastery of law or any discipline as, for example, learning a specialized technical vocabulary or the steps to be followed to effectively execute a particular legal process. That is, technological innovation

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- 1 Hooker, Carol. 2020. “The Great Assessment Debate: Synchronous vs. Asynchronous.” *Classroom Tips, Equity & Access, Remote Learning, Bulb Digital Portfolios*, November 18th, 2020. <https://my.bulbapp.com/remote-learning/the-great-assessment-debate-synchronous-vs-asynchronous/>
 - 2 Vonderwell, Selma, Liang, Xin, and Alderman, Kay. 2007. “Asynchronous Discussions and Assessment in Online Learning,” *Journal of Research in Technology in Education*. 39(3): 309-328.
 - 3 Ibáñez, Fernanda. 2021. “Study Reveals the Advantages of Taking Notes by Hand,” *Institute for the Future of Education*, June 7th, 2021. <https://observatory.tec.mx/edu-news/study-reveals-the-advantages-of-taking-notes-by-hand>; Mueller, Pam A., and Oppenheimer, Daniel M. 2014. “The Pen is Mightier than the Keyboard: The Advantages of Longhand over Laptop Note Taking,” *Psychological Science*, 1-10.
 - 4 Ganimiam, Alejandro J., Vegas, Emiliana, and Hess, Frederick M. 2020. “Realizing the Promise: How Can Education Technology Improve Learning for All?” *Center for Universal Learning at Brookings*: 5-106. <https://www.brookings.edu/essay/realizing-the-promise-how-can-education-technology-improve-learning-for-all/>

can, like any tool, help advance learning if used properly. But it can neither substitute for the hard work of crafting lessons that help advance student learning and retention nor assure that assigned material is mastered.

This article's purpose is to consider two aspects of the argument in favor of evermore widespread use of technological innovation in legal education. First, it will examine the claim that technology makes both learning and the consumption of legal knowledge easier than ever before. In the essay that prompts this exchange of views on the subject of technology in legal education,⁵ Daniel Bonilla points to three arguments that, he concludes, form the core of defenses for the place of technology in legal education, namely that 1) this is the way students learn today and so legal education must accommodate to their expectation; 2) that, accordingly, the market of legal employers demands and will increasingly demand technological expertise; and, 3) "that technological innovation in law schools is necessary because it allows law students to achieve learning objectives more effectively."⁶ In one way or another, all of these arguments underline what might be called the facility thesis – that is, the idea that technology facilitates not only legal instruction and learning but also the consumption of legal services for which it exists. Like Bonilla, I am suspicious of these claims;⁷ I believe them to be both overly broad and exaggerated. In my analysis on this point, however, I will follow a path complementary to but different from Bonilla's.

Specifically, I will argue that the reasons cited – and criticized – by Bonilla for the importance of embracing technology in education, such as the claim that technology better responds to differences in learning style than do traditional forms of instruction, and the attendant suggestion that technology demands that schools embrace modernity or be left behind in antediluvian despair,⁸ are specious, but for different reasons than those Bonilla identifies. Specifically, I will insist that technology should be embraced as a positive good in legal education (and, by extension, in legal practice) when it builds upon other innovations in the science of learning, namely the neuroscience of learning, which teaches that people learn in ways that are more similar than they are different, and that what technology offers is, thus, as much a matter of putting old wine (pedagogical techniques) into new bottles (technological applications) as anything else.

Second, in this essay I will examine claims that technology need be celebrated and embraced as a central force in modern legal or any other education because it provides a means to democratize access to quality education.⁹ This is an argument obliquely referred to by Bonilla as well, in, for example, his critical look at defenses of technology's promise that come from the Global North and the social, political, and economic values characteristic of the Global North that are then generalized as appropriate for the entire world.¹⁰ Here, again, I agree with

5 Bonilla Maldonado, Daniel. "Legal Education and Technological Innovation: A critical Essay". *Latin American Law Review* N°10 (2023), <https://doi.org/10.29263/lar10.2023.01>

6 *Ibid.*, 6

7 *Ibid.*, 14

8 *Ibid.*, 8 - 10

9 Wegerif, Rupert. "Introduction. Education, Technology and Democracy: Can Internet-Mediated Education Prepare the Ground for a Future Global Democracy?" *Civitas Educationis. Education, Politics, and Culture*, 6(1), 2017): 17-35.

10 Bonilla Maldonado, Daniel. "Legal Education and Technological Innovation: A critical Essay". *Latin American Law Review* N°10 (2023): 23, <https://doi.org/10.29263/lar10.2023.01>

Bonilla's underlying concern. In this essay, however, I will on this point again pursue a complementary but separate if parallel track. In what follows, I will argue that while technological innovation can be a tool for expanding and democratizing access to legal education and legal practice, but also, without care and deliberation, it can reify and entrench existing power and socio-economic differences, both in particular countries and globally.¹¹ In this, I think I am more optimistic than Bonilla about the leveling potential of technology in education, although I share his skepticism that persistent inequities can easily be overcome.

THE LIMITS OF LEARNING STYLES

While it may seem obvious to say so, given the exaggerated claims for the bold new future that technological innovation is claimed to bring us in education generally and in legal education in particular,¹² it cannot be emphasized enough that technology is a tool to aid pedagogy, and nothing more nor less. In that way, it is no different than earlier innovations, from the chalkboard to the overhead projector. It is true that technology can facilitate learning and aspects of legal practice; the obvious benefits of technologies to help explain, to memorialize, to illustrate and to enliven the learning process are undeniable. I do, however, intend to address a claim considered by Bonilla, namely the assertion that technology is central to contemporary legal education because today's students are "digital natives", people who "think different" than prior generations and formed by "visual" learners¹³. My concern here is that these claims feed some of the most damaging views of contemporary pedagogy, namely the promotion of learning styles theory as a solution that will advance the inclusion and diversity of the law school classroom.

The debate about learning styles theory in the law school classroom is extensive, controversial, and often vituperative.¹⁴ While the contours of this contribution will not allow me to fully enter the intricacies of that debate, I do intend to demonstrate how the demand to recognize different learning styles feeds the notion that technology is *the* vehicle that will make possible a diverse and inclusive classroom and a diverse and inclusive learning experience.

To begin, it need be acknowledged that "learning styles theory" refers not to a single approach or even to a single set of ideas:

The term "learning style" has been defined in a variety of ways, and no one definition fully captures the concept. Perhaps the best description is that a learning style represents an individual's "preferred way of thinking, processing, and understanding information." The concept encompasses both (1) the differing ways in which individuals perceive and absorb new information (*i.e.*, the process of cognition, or the acquisition

11 *Ibid.*, 26 - 28

12 Thomson, David I.C. 2009. *Law School 2.0: Legal Education for a Digital Age*. Newark, NJ: LexisNexis. Shavers, Anna Williams. 2001. "The Impact of Technology on Legal Education," *Journal of Legal Education*, 51:407-412.

13 Boyle, Robin, and Dunn, Rita. 1998. "Teaching Law Students through Different Learning Styles," *Albany Law Review*, 62: 213-247.

14 Bahadur, Rory, and Zhang, Liyun. 2021, "Socratic Teaching and Learning Styles: Exposing the Pervasiveness of Implicit Bias and White Privilege in Legal Pedagogy," *Hastings Race & Poverty Law Journal*, 18:114-177.

of knowledge), and (2) the disparate ways in which individuals process and catalog new information (*i.e.*, the process of conceptualization, in which new connections are formed and new ideas are conceived).¹⁵

What is more, “[l]earning styles have been ‘heavily researched by scholars from a broad array of graduate and undergraduate programs and ...the issue has increasingly begun to resonate among legal scholars.’”¹⁶ Learning styles, we are told, can be widely different; they can be auditory, visual, visual text, tactile or kinesthetic – the last involving learning by engaging one’s whole body in the learning activity.¹⁷ For some, learning styles reflect a gendered difference,¹⁸ or a generational one that demands methodological retooling by older professors.¹⁹ Accepting and applying an understanding of learning styles theory will lead, many commentators argue, to law school classrooms that are more broadly welcoming to more diverse students – diverse, for example, by race or disability.²⁰ Furthermore, this application is increasingly argued to be needed outside the classroom, once lawyers are in practice.²¹

With respect to the focus of this article on the impact of technological advance in legal education, two things about learning styles theories (for properly they are theories and not a unified theory) merit attention. First, they suggest that what is asserted as the factual reality of learning styles demands that a wide array of individual differences be recognized for a classroom to operate effectively. Consider the following conclusion: “[t]he “old” way of presenting information, almost exclusively in a lecture or series of panels format, is not recognized by or especially relevant to this new generation of professionals whose learning styles favor more interactive, diverse approaches.”²²

Several aspects of such a judgment are troubling. First, a concerning feature of it is its deliberate amnesia. With 25-plus years of higher education experience under my belt, I can say that neither I nor most of my collaborators have ever relied solely upon this “old” way of teaching.

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- 15 DeGroff, Eric A. 2012. “Training Tomorrow’s Lawyers: What Empirical Research Can Tell Us About the Effect of Law School Pedagogy on Law Student Learning Styles,” *Southern Illinois University Law Review*, 36: 251-285. DeGroff, Eric A., and McKee, Kathleen. 2006. “Learning Like Lawyers: Addressing the Differences in Law Student Learning Styles,” *Brigham Young University Education & Law Journal*, 2006: 499-549.
- 16 DeGroff, Training Tomorrow’s Lawyers, 258.
- 17 DeGroff & McKee, Learning Like Lawyers, 510-517.
- 18 Jogalekar, Ashutosh. 2014. “Why Prejudice Alone Doesn’t Explain the Gender Gap in Science,” *Scientific American*, April 22nd, 2014. <https://blogs.scientificamerican.com/the-curious-wavefunction/why-prejudice-alone-doesnt-explain-the-gender-gap-in-science/>. Boyle, Robin, and Honigsfeld, Andrea. 2005. “In Response to the Remarks by Lawrence H. Summers, Presenting Empirical Data on The Differences in Learning Styles Between Males and Females,” *Cardozo Women’s Law Journal*, 11:505-507.
- 19 Ingham, Joanne, and Boyle, Robin. 2006. “Generation X in Law School: How These Law Students Are Different from Those Who Teach Them,” *Journal of Legal Education*, 56: 281-295.
- 20 Bahadur and Liyung, Socratic Teaching. 119. Boyle, Robin A. 2006. “Law Students with Attention Deficit Disorder: How to Reach Them, How to Teach Them,” *John Marshall Law Review*, 39: 349-382. Randall, Vernellia R. 1995-1996. “The Myers-Briggs Type Indicator, First Year Law Students and Performance,” *Cumberland Law Review*, 26: 63-103. Cohen, Eileen B. 1993. “Teaching Legal Research to a Diverse Student Body,” *Law Library Journal*, 85: 583-589.
- 21 Boyle, Robin A. 2005. “Applying Learning Styles Theory in the Workplace: How to Maximize Learning Styles Strengths to Improve Work Performance in Law Practice,” *St. John’s Law Review*, 79: 97-125.
- 22 LeSage, Lisa. 2004. “Learning, But Differently,” *Oregon State Bar Bulletin*, 64: 54.

Indeed, in the U.S. alone, for example, prominent legal educators have implemented a variety of pedagogical models since well before the digital revolution made technology-enhanced pedagogies possible, as notably championed in the 1992 “MacCrate Report” named for the Chair of the American Bar Association (ABA) committee that produced it. The MacCrate Report, *inter alia*, argued for more practical skills and other experiential learning in U.S. legal education.²³ When a relatively conservative behemoth like the ABA champions a change, the ideas represented in that change have already been percolating widely for some time before that.

Second, claims such as the one above about the “old” way of doing things then often go on to contrast these supposedly once-dominant, old-fashioned practices to “new” ways where technology plays a key role:

Students have their own strengths and preferences in how they receive and process information, believing some methods more effective than others. Even within the concept of learning styles, there are a variety of methods for characterizing and organizing them. There is also a significant body of work on adapting instruction to accommodate different learning preference to improve outcomes. Some research has been done on the influence that learning styles have on the use of technology. This information can provide the backdrop to the use of technology for different taxonomy levels.²⁴

Two words in the above quotation are especially notable, namely “strengths” and “preferences”. While all of us have them, the judgement overlooks research on how human brains learn and jumps to the assumption that the goal of pedagogy is to accommodate all strengths and preferences. This kind of assessment is ubiquitous,²⁵ linking the notion of different “learning styles” to the panacea of technology as the best means of serving them.²⁶ Thus, technology is no longer a conduit for pedagogical and informational tools; it is itself a deliverer of meaning or, in Bonilla’s formulation, an “enframing [that] is a way of rendering the occult visible, a way to reveal being.”²⁷

A third concern with this use of learning styles theory relates even more directly to Bonilla’s concern with technology as a mode of “enframing, as the constellation of intelligibility that gives meaning to being in late modernity” such that “[t]echnology is the framework from which we interpret the world and human beings.”²⁸ Bonilla further explains that “technology as enframing” leads to an understanding that “law students and professors, as well as legal education,

23 American Bar Association Section of Legal Education and Admissions to The Bar 1995. “Legal Education and Professional Development – An Educational Continuum: Report of The Task Force on Law Schools and the Profession: Narrowing the Gap,” Chicago: American Bar Association.

24 Larson, Joni. 2016. “Turning the Tables: Is It Time for Professors to Stop Fighting the Presence of Students’ Technology in The Classroom and Instead Use It to Enhance Student Learning?” *Northern Kentucky Law Review*, 43: 231-239.

25 As for example in Rush, Douglas K., and Schmitz, Suzanne J. 2009. “Universal Instructional Design: Engaging the Whole Class,” *Widener Law Journal*, 19: 183-212.

26 E.g., Johnson 54-56.

27 Bonilla Maldonado, Daniel. “Legal Education and Technological Innovation: A critical Essay”. *Latin American Law Review* N°10 (2023): 13, <https://doi.org/10.29263/lar10.2023.01>

28 *Ibid.*, 12

are interpreted as resources for meeting the needs” of their relevant “markets.”²⁹ By virtue of this analysis, one needs to be concerned about one of the common defenses of learning styles theory, as in an argument like the following: “law school professors ought to be teaching to the diverse learning styles of our students.”³⁰ The “ought” in this command is telling because it underlines the sense in which faculty are resources to be used to fit specified “needs and expectations.”³¹ In this understanding, the instructor becomes a provider of services to the student-consumer. Moreover, this understanding of learning styles theory demands that teachers appreciate students as “certain types” – as if the students too, are, in Bonilla’s sense, “resources for the legal services market”³² to be engaged with unilaterally depending on their “style.”³³

THE NEUROSCIENCE OF LEARNING AND LEGAL EDUCATION

What is an alternative to this vision of classroom technology as the ideal vehicle for the asserted need to accommodate different learning styles? If, as one researcher has observed, “[t] here’s no proof that learning styles don’t exist but there is a lack of evidence that they do,”³⁴ where do we turn next?

Current neuroscience provides a compelling answer, and it is one that recognizes that human beings are biological organisms with the same basic organs and faculties if each marked by its own particularities and idiosyncrasies. That means that our brains process and assimilate information and knowledge in a similar manner. With respect to the utility of technology in the legal classroom, this simple fact is important, for at least two reasons. First, it debunks the notion that technology helps aid those with different “learning styles.”³⁵ To do so is important because it helps focus on the limits and potential of technology in instruction. That is, everyone may have “learning preferences.” One student might, for example, prefer to take in a film during class while another may prefer to hear an audio recording. However, it is far from clear “that you learn better when the manner of instruction fits those preferences.”³⁶ The focus on learning styles, thus, can interfere with important goals of effective learning, such as cultivating a heightened self-awareness of what one knows and does not know, or development of self-confidence in one’s abilities.³⁷ This is to say that, whereas differences among persons, in the form of preferences or habits, may matter to us as individuals, that does not dictate that

29 *Ibid.*, 13

30 Ingham and Boyle, *Generation X in Law School*, 285.

31 Bonilla Maldonado, Daniel. "Legal Education and Technological Innovation: A critical Essay". *Latin American Law Review* N°10 (2023): 13, <https://doi.org/10.29263/lar10.2023.01>

32 *Ibid.*

33 Alaka, Aida M. 2001. “Learning Styles: What Difference Do the Differences Make?” *Charleston Law Review*, 5: 133-172.

34 Collins, Stella. 2019. *Neuroscience for Learning and Development*, 2d edition, 95. London: Kogan Page.

35 Brown, Peter C., Roediger, Henry L. III, and McDaniel, Mark A. 2014. *Make It Stick: The Science of Successful Learning*, 139-146. Cambridge, MA: Harvard University Press.

36 Brown, Roediger and McDaniel, *Make it Stick*, 132.

37 Brown, Roediger and McDaniel, *Make it Stick*, 139.

individual teaching methods – including the use of technology for legal pedagogy – must be tailored to accommodate different learning styles.³⁸ In line with Bonilla’s critique of “enframing”, this is to refuse to accept unquestioningly “an interpretation of technology as a mode of revealing, a way of being in the world.”³⁹

The neuroscience of learning, which describes the neural processes by which we all learn,⁴⁰ supports Bonilla’s hope that “[l]egal education as a poietic process must have the capacity to reveal the possibilities and capabilities of lawyers with respect to the society and the natural world they inhabit.” It does so because it contextualizes the role of technological advance for legal education, emphasizing that technology is a tool like any other such that, depending on the law professor’s pedagogical aim, can help advance comprehension. Thus, the neuroscience of learning can redirect our attention, so as to recognize that “[p]eople are not visual, auditory or kinesthetic learners but we all benefit from learning through rich multisensory environments.”⁴¹ Moreover, in this way the neuroscience of learning helps us recognize what Bonilla calls “the ambiguous character of technology”⁴² because it demands that teaching and learning understand and focus on neural functions and behaviors rather than on exaggerated claims about the role of any learning tool to result in active, positive learning. As Bonilla pointedly remarks: “technology as enframing should not be understood as an entity that exists outside of human beings, which controls human beings, and in the face of which nothing can be done other than accepting it”.⁴³

To understand how technological tools might be used to advance effective teaching and learning informed by the neuroscience of learning, it is helpful to consider four central features of teaching and learning to which neuroscience directs attention, namely “metacognition and self-regulated learning; retrieval practice; spaced repetition; and cognitive schema”.⁴⁴ As will be shown below, these aspects of the neuroscience of learning, broadly speaking, can be applied to advance and deepen the study of law in three main ways, namely comprehension, integration, and memorization. Comprehension refers, in the law study context, to understanding rules, doctrines and case fact patterns, for instance. Integration describes the next analytical step after comprehension, which is to say the process of integrating rules and doctrines into a larger patchwork of understanding. Memorization refers to the process of developing techniques to remember rules (or other data) as a way of reinforcing and cementing knowledge so that it can then be explored, reinforced, and questioned. After mastering each of these practices, it is then possible to proceed to apply and develop analytical skills drawing upon their

38 Pashler, H., McDaniel, M.A., Rohrer, D., and Bjork, R.A. 2009. “Learning styles: a critical review of concepts and evidence,” *Psychological Science in the Public Interest*, 9:105-119.

39 Bonilla Maldonado, Daniel. “Legal Education and Technological Innovation: A critical Essay”. *Latin American Law Review* N°10 (2023): 12, <https://doi.org/10.29263/lar10.2023.01>

40 Dunlosky, J., and Metcalfe, J. 2009. *Metacognition*. Los Angeles: Sage Publications.

41 Collins, *supra* note [17] at 95.

42 Bonilla Maldonado, Daniel. “Legal Education and Technological Innovation: A critical Essay”. *Latin American Law Review* N°10 (2023): 16, <https://doi.org/10.29263/lar10.2023.01>

43 *Ibíd.*, 17

44 Schulze, Louis N., Jr. 2008. “Using Science to Build Better Learners: One School’s Successful Efforts to Raise its Bar Passage Rates in an Era of Decline,” *Journal of Legal Education*. 68: 230-232.

mastery. Examples below illustrate ways in which technology can be employed to achieve each of these different types of learning.

Now let me consider four fundamental tools brain science uses to achieve effective, efficient teaching and learning in legal education.

Metacognition refers to the “monitoring and regulating the internal process of cognition”, or ‘thinking about thinking’. In educational psychology, the emphasis is on monitoring and questioning one’s learning with the purpose of improving the result of the learning”. Learning neuroscience takes this notion and applies it via self-regulated learning techniques, showing students that learning is something *they* do – rather than, as with learning styles theory – something that is done to and for them. To this end, self-regulated learning teaches students to take control of their cognition, for example, to develop a plan for how to learn, to monitor progress (what one knows and what one does not know), and regularly and critically to assess how one is doing and figure out why one may not be mastering some material.⁴⁵

It is possible to imagine any number of ways that technological tools could be used to advance self-regulated learning. For example, in an asynchronous class, quizzes could be embedded periodically for learners to check and re-check their understanding, and when they are unsure, they could be redirected to the original source of the information they do not understand. This would be useful but, again, is a means, and not an end.

Second, learning science has demonstrated the benefits of “retrieval practice.” Building upon the learning science pedagogy that focuses on teaching students to take active control of their learning, retrieval practice “consists of using free-recall exercises to trigger one’s knowledge or understanding of a subject not for assessment purposes but actually to promote learning itself.”⁴⁶ The aim of retrieval practice is thus to cultivate a habit of active learning. Retrieval practice recognizes that information is quickly forgotten, a phenomenon known as the “Ebbinghaus effect”.⁴⁷ This can be accomplished either through regular in-class assessments, for instance, or by students developing a regular practice of self-testing, forcing themselves to recall material first studied days or weeks before. As with self-regulated learning, it is easy to imagine how technology might be used to advance this practice. Clickers in classrooms, for instance, can be employed to poll, enabling students to recognize what they do understand and remember and what they do not. Outside of the classroom, an online law course could regularly remind law students to recite and apply the different elements of a legal doctrine learned weeks earlier, for example. A goal of retrieval practice is to make students feel comfortable with recognizing the limits of their memory and understanding, and of the importance to actively review and cement understanding of ideas, concepts, and facts so that they may then analyze them critically. Once again, however, technology is merely a tool, a means to the end of teaching students to embrace uncertainty so that they may acquire certainty and mastery.

Third, applied to learning, brain science has demonstrated the advantages of “spaced repetition,” the idea that “revisiting information at specified intervals solidifies memory and ultimately drastically increases knowledge and understanding. Spaced repetition is based on

45 Ibid., 239.

46 Ibid., 241.

47 Named for the early 20th century German scientist of memory, Hermann Ebbinghaus. Murre Jaap M.J., and Dros, Joeri. 2015. “Replication and Analysis of Ebbinghaus’ Forgetting Curve,” *PLOS ONE*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492928/> Quoted *ibid*, 240, note 30.

the simple fact that learning is enhanced when information is distributed over time instead of learned in a ‘massed’ (or crammed) fashion. This phenomenon is one of the most consistently replicated effects in experimental psychology, and a robust literature exists confirming the effect in many different contexts.”⁴⁸ Thus, spaced repetition may be thought of as the twin of retrieval practice, in that it provides yet another means to check what one knows and understands and to identify what one does not know or understand well. It should be emphasized, too, that with respect to legal education, spaced repetition does not aim merely at promoting rote memorization. Rather, it understands mastering established information – in the legal education context, the black letter of rules and doctrines, for example – as a necessary, foundational step before being able to analyze and criticize it.⁴⁹ It is easy to imagine technology being used to advance spaced repetition as well. As with self-regulated learning and retrieval practice, a computer course program could be designed to insert exercises at regular intervals forcing students to repeat and review what they studied before, engaging them as active participants in the process of self-review. In the case of spaced repetition, technology could in fact be especially useful, since educational psychology has demonstrated that the most effective spaced repetition requires repeating material at ever longer intervals to guarantee understanding, and to prioritize repetition of information that has been less-well mastered by the student.⁵⁰ Directing digital technology to perform these tasks, however, would, yet again, employ a tool in service of the goal of more effective, self-directed learning, applying science that understands how human brains retain and analyze information, rather than trying to design technology to adapt to a multitude of habits and preferences.

Fourth and finally, the neuroscience of learning directs attention to the importance of applying “cognitive schema theory”, or CST:

Like self-regulated learning, CST is a subset of constructivism. Constructivism holds that real learning happens when students make a concept their own by actively discovering knowledge using their own reasoning processes. The ideal educational objective is not the amassing of “stuff” but instead that instruction should be focused mainly on developing learners’ thinking ... - CST focuses on the active construction of knowledge by creating cognitive structures around which information can be assimilated and stored in long-term memory. A cognitive schema is a heuristic that promotes the encoding and retrieval of knowledge. In essence, organizational frameworks or mental structures aid the learner both in putting together the arrangement of a topic and in recalling that information.⁵¹

Yet again, technology could be applied to advance the goals of CST by, for example, prompting learners to organize information and asking them to identify connections between ideas and concepts, and to do so at regular intervals. But it merits observing that this could as easily be done by an individual instructor in a live class – emphasizing the point made

48 Ibid., 245.

49 Ibid, 246.

50 Ibid.

51 Ibid., 248.

repeatedly here, namely that technology is a tool in the service of a pedagogy that recognizes how humans learn best. The primary advantage of technological tools with respect to CST is that they would allow the approach to be applied at a significant scale. Possible consequences of that scale are, in fact, a major focus of the next section of this essay.

The above summary has only scratched the surface of the intricacies of brain science as applied to learning and pedagogy, a field that has benefited greatly in recent generations by work in experimental psychology. Moreover, the summary has not explored variations in the ways practices like self-regulated learning and CST, for example, would need to be structured to respect differences in culture.⁵² It has, nonetheless, endeavored to reveal the potential uses and the limits of technology in supporting the goal of effective teaching and efficient learning. Technology could, in the context of neuroscience-informed legal teaching and learning, be used to develop self-critical practices and mastery of material, and to do so at scale. It can even be used to spice up lessons, with alternating sounds, images, and text. But this should not be done in the service of a misguided belief that habits and preferences constitute “learning styles” that need to be accommodated. Learning neuroscience is *science*, after all. It provides evidence-based lessons on how best to teach and learn. Incorporating technology into that effort is a valuable but subsidiary task to effective teaching and learning.

The essay will now switch gears, to consider the potential for technology to reduce inequities in access to education – and especially one of what is globally one of the least accessible options for education, namely legal education. That is, the article will now turn to the democratizing role, if any, that technology can play for legal education. Before doing so, it merits observing that the two central arguments of this essay are connected at a deep level. As the foregoing makes clear, neuroscience has informed thinking about teaching and learning to demonstrate that the most effective, efficient learning uses techniques that stress active learning in the service of developing one’s own abilities to consider new material, embrace discovery and confusion and then seek to resolve confusion through review, analysis, and organization. That is, the neuroscience of learning promotes the ability of individuals to engage critically with the world-abilities central to the sound functioning of a democracy. As Amartya Sen observed: “The success of democracy is not merely a matter of having the most perfect institutional structure that we can think of. ... The working of democratic institutions, like that of all other institutions, depends on the activities of human agents in utilizing opportunities for reasonable realization.”⁵³ Having the intellectual and emotional wherewithal to utilize opportunities for “reasonable realization” demands the ability to think independently and to work through challenges and things one does not understand to a posture of being able to analyze and understand. The neuroscience of learning helps explain how to achieve that goal.

52 Han, Shihio. 2015. “Understanding cultural differences in human behavior: a cultural neuroscience approach,” *Current Opinion in Behavioral Sciences*. 3: 68-72. Rule, Nicholas O., Freeman, Jonathan B., and Ambady, Nalini. 2012. “Culture in social neuroscience: A review,” *Social Neuroscience*. 8(1): 3-10. Ambady, Nalini. 2011. “The Mind in the World: Culture and the Brain,” *Association for Psychological Science (Presidential Column)*. <https://www.psychologicalscience.org/observer/the-mind-in-the-world-culture-and-the-brain>

53 Sen, Amartya. 2009. *The Idea of Justice*, 354. (Cambridge, MA: Harvard University Press).

DEMOCRATIZING LEGAL EDUCATION: MYTHS, POTENTIAL, AND RISKS

An observation of John Dewey, the celebrated U.S. theorist of democracy and education in the last century, provides useful guidance for thinking about possible benefits of technology in education. In his most celebrated work, he wrote as follows:

A society which makes participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the different forms of associated life is in so far democratic. Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder.⁵⁴

Applied to the present moment, this is to ask whether technological tools can provide the kind of education – and serve the goals – Dewey describes. In this regard, one benefit of the technological advances made possible by the digital revolution is that they make possible a radical expansion of access to education, including legal education. Innumerable examples can be cited in support of this claim, specifically of courses and degrees available at little-to-no-cost for populations across the globe.⁵⁵ A logical conclusion of this development is that technology thus affords an opportunity to make legal education – sometimes among the most expensive of academic career tracks⁵⁶ – available to many individuals who could not otherwise pursue this path.⁵⁷ In Dewey’s understanding, technology in education thus expands social relationships and control, and makes possible the “habits of mind which secure social changes without introducing disorder.” Digital advances also open opportunities for the development of new curricula, including new degrees that provide legal knowledge and skills to those who need them but do not wish to or cannot afford to become practicing lawyers,⁵⁸ and, for example, allow for the creation of cooperative, cross-national networks to share pedagogies, ideas, and methods.⁵⁹ Surely these possibilities must all be viewed positively to the extent that they advance the “habits of mind” Dewey favors.

54 Dewey, John. 2011. *Democracy and Education*, 76. Overland Park, KS: Digireads.com.

55 Selingo, Jeffrey J. 2014. “Demystifying the MOOC,” *The New York Times (Education Life section)*, Nov. 2, 2014, 23. Pappano, Laura. 2013. “The Rise of MOOCs,” *The New York Times (nytimes.com Blogs weblog)*, <https://6thfloor.blogs.nytimes.com/2013/09/16/the-rise-of-moocs/?searchResultPosition=2>

56 International Bar Association Commission on the Future of Legal Services. 2020. *Blueprint for Global Legal Education*, <https://3a%2F%2Fdocs.ie.edu%2Flaw-school%2FIBA-LSGL-Blueprint-on-global-legal-education.pdf&clen=2015007>

57 Johnson, Steven M. 2013. “Teaching for Tomorrow: Utilizing Technology to Implement the Reforms of MacCrate, Carnegie, And Best Practices,” *Nebraska Law Review*, 92: 46-85

58 Burge, Mark Edwin. 2019. “Access to Law or Access to Lawyers? Master’s Programs in the Public Educational Mission of Law Schools,” *University of Miami Law Review*, 74: 143.

59 Allard, Nicholas W. 2021. “Sweet Are the Uses of Adversity,” *University of Toledo Law Review*, 52: 197-230. Mahmud, Tayyab, Mutua, Athena, and Valdes, Francisco. 2015. “Latcrit Praxis @ XX: Toward Equal Justice in Law, Education, and Society.” *Chicago-Kent Law Review*, 90: 361. Johnson, Teaching for Tomorrow, 57-67.

However, the specter of this Brave New World of affordable, highly collaborative educational access raises at least six concerns. First and most obviously, despite the availability of low-cost education through technology, the digital divide⁶⁰ continues to loom large; even no-cost educational services require both the availability of and an investment in technology to access the service. Second, a related concern underscores an issue identified by Bonilla, namely that technological innovation in legal education will only exacerbate and further entrench existing power differentials.⁶¹ This must be acknowledged to be a real possibility, such that technological advances in legal education will come to represent a new form of colonial domination by well-resourced national interests.⁶² Conversely and third, and of special concern in the case of legal education, where the knowledge and skills to be mastered will involve delivery of services that can dramatically affect the life quality and personal circumstances of clients, quality control is a major concern. Fourth, and related to the third concern, is the issue of consumer information. With low-cost educational service providers proliferating, there exists a risk of potential students being deceived by less-than-reputable providers offering sub-par services or degrees that will not enable the student-consumer to achieve her or his desired goal.⁶³ Fifth, the potential for a revolution in legal education aided by technological advances presents a worry that now attends all digital information. That is, who will control what constitutes legal information and who can access it? Sixth and finally, a shift to expanded online legal education begs reconsideration of the aims and purposes of that education. Presumably legal education is more than merely mastering sets of rules and grasping some concepts. As such, it must be recognized that online legal learning demands rethinking how legal education can achieve its goals, both real and aspirational.

The Digital Divide and Legal Education

Globally, the digital divide shows no signs of weakening. If anything, it appears to reflect the increasing gulf between those who have and those who do not, whether by virtue of, for

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- 60 Mohammed, Amina. 2021. "With Almost Half of World's Population Still Offline, Digital Divide Risks Becoming 'New Face of Inequality', Deputy Secretary-General Warns General Assembly,". *United Nations Meetings Coverage and Press Releases*, April 27, 2021. <https://www.un.org/press/en/2021/dsgsm1579.doc.htm>
- 61 Ingram, George. 2021. "Bridging the Digital Global Divide: A Platform to Advance Digital Development in Low- and Middle-Income Countries," *Center for Sustainable Development at Brookings (Brookings Global Working Paper #157)*, June 2021.
- 62 McKeown, Margaret M. 2018. "The ABA Rule of Law Initiative: Celebrating 25 Years of Global Initiatives," *Michigan Journal of International Law*, 39: 117-154. Cooper, James M. 2008. "Competing Legal Cultures and Legal Reform: The Battle of Chile," *Michigan Journal of International Law*, 29: 501-508. Hernández Crespo, Mariana. "A Systemic Perspective of ADR in Latin America: Enhancing the Shadow of the Law Through Citizen Participation," *Cardozo Journal of Conflict Resolution*, 10: 91-129.
- 63 Feuer, Alan. 2013. "Trump University Made False Claims, Lawsuit Says," *The New York Times*, Aug. 25, 2013, Section A, page 20, e.g., on College Scorecard <https://collegescorecard.ed.gov/> and this: <https://www.npr.org/2022/02/15/1080773523/the-helpful-tool-the-college-scorecard-has-been-updated>

example, geography,⁶⁴ gender,⁶⁵ racial or ethnic identity,⁶⁶ or some other status.⁶⁷ In a region like Latin America, where university enrollments continue to be lower than in many parts of the world,⁶⁸ this divide need concern us, as it suggests that expanded use of and dependence on technology in legal education will only exacerbate the existing divisions and inequities in the legal profession. Within countries, the “haves” with access to technology for education will, in many if not most instances, continue to be predominantly male and privileged, leaving even further behind the “have nots” without the same degree of technological access.⁶⁹ What is required to redress these inequities is “for international donors and in-country NGOs to share information and techniques; to strategically pool their personnel and material resources; and to engage in genuine, regularized dialogue about their mutually beneficial activities.”⁷⁰ There exist fledgling efforts to address this issue.⁷¹

Technology and the Challenge of Overcoming Power Differentials

To be sure, technological advances open the way for online legal programs that offer advantages, including the design of the robust, humanistic form of legal education advanced by Bonilla, but to do so in a way that makes such education available to those who may not have previously been able to enjoy such a legal education.⁷² In addition, online legal learning – especially for those who have not enjoyed access to the more innovative advances in legal education and pedagogy, offers the opportunity to benefit not only students but also faculty

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- 64 Yu, Peter K. 2020. “The Algorithmic Divide and Equality in the Age of Artificial Intelligence,”. *Florida Law Review*. 72: 331-387. Critchlow, George A. 1994. “Teaching in Transylvania: Notes on Romanian Legal Education,” *Journal of Legal Education*, 44: 157-174.
- 65 Haridasani Gupta, Alisha, and Goldberg, Emma. 2021. “World Leaders Commit \$40 Billion to Advancing Gender Equality,” *The New York Times*, July 24, 2021, Section B, 4. Treuhart, Mary Pat. 2019. “Connectivity: The Global Gender Digital Divide and its Implications for Women’s Human Rights and Equality,” *Gonzaga Journal of International Law*, 23: 1-53.
- 66 First, Patricia A., and Hart, Yolanda Y. 2002. “Access to Cyberspace: The New Issue in Educational Justice,” *Journal of Law and Education*, 31: 385-411.
- 67 Soled, Amy. H, and Hoffman, Barbara. 2020. “Building Bridges: How Law Schools Can Better Prepare Students from Historically Underserved Communities to Excel in Law School,” *Journal of Legal Education*, 69: 268-274.
- 68 Fuentes-Hernández, Alfredo. 2002. “Globalization and Legal Education in Latin America: Issues for Law and Development in the 21st Century,”. *Penn State International Law Review*, 21: 39-41.
- 69 *Supra* notes 21-24. Allard, Nicholas W. 2013. “The Globalization of Privacy and Security in Cyberspace: Government, Law, and Society in The Twenty-First Century Online World,” 3. Eagan, MN: *Aspatore*. Available on Westlaw: 2013 WL 3759820.
- 70 Rosenbaum, Stephen A., Hubbard, Britane, Sharp-Bauer, Kaylee, and Tushaus, David. 2021. “The Myanmar *Shwe*: Empowering Law Students, Teachers, and the Community Through Clinical Education and the Rule of Law,” *Indiana Journal of Global Legal Studies*, 28: 153-220.
- 71 Hart, Jeffrey A. 2004. “The Digital Opportunities Task Force: The G8’s Effort to Bridge the Global Digital Divide,” Conference paper March 17th, 2004. https://www.researchgate.net/publication/228852360_The_Digital_Opportunities_Task_Force_The_G8%27s_Effort_to_Bridge_the_Global_Digital_Divide.
- 72 Van Detta, Jeffrey A. 2013. “A Bridge to the Practicing Bar of Foreign Nations: Online American Legal Studies Programs as Forums for the Rule of Law and as Pipelines to Bar-Qualifying LLM. Programs in the U.S.,” *South Carolina Journal of International Business*, 10: 63-161.

outside a law professor and law faculty's home base, to share novel curricula and thinking.⁷³ At the same time, some worry that the lack of in-person, human contact, with its potential for intellectual exchange and challenge, can be hampered by solely online learning.⁷⁴ On the one hand, online learning could make available to a wider population a legal education that communicates not only the substance of doctrine and procedure central to the functioning of any legal system but also an education in the grounding of the moral duties and conflicts legal practice can involve. On the other hand, however, such education could also be used to replicate a colonial practice of insisting on a particular conception of law. For example, an argument suggesting that such programs should advance the conception of "the rule of law"⁷⁵ as that phrase is understood in the United States, could easily become a unilateral advancement of a particular conception of law and a legal system produced in a particular cultural context. Moreover, juridical transplants do not always – or ever – achieve their desired goals, given differences in cultural understandings and assumptions, among other reasons.⁷⁶ If the transmitter of that view has disproportionate social, economic and/or political power, the challenge of protecting against technological legal colonialism constitutes a real risk to guard against. A danger here could be the effects of something as seemingly secondary as the language of instruction. If, for example, English is the preferred mode of instruction no matter the locale, it need be recognized that the linguistic vehicle for instruction may not overcome differences in world view embedded in language.⁷⁷ Moreover, inequitable resource distribution could mean that courses are prepared and delivered by Global North faculty, leaving the hard and less glamorous work of grading and working individually with students to local – and quite likely less well paid – faculty contractors from the Global South. The frequent imbalance between Global North and Global South collaborations, with representatives of the former in a dominant role and the latter in a subordinate one, could quite easily mean that Global South collaborators in online educational projects could become, not part of a global faculty but, as Bonilla has suggested, global teaching assistants facilitating the work of Global North faculty.⁷⁸ In addition, although the COVID-19 pandemic altered the acceptance of online learning across the globe, overcoming resistance to online learning as an inferior form of legal education could relegate

73 Greenbaum, Lesley. 2015/2016. "Legal Education in South Africa: Harmonizing the Aspirations of Transformative Constitutionalism with Our Educational Legacy," *New York Law School Law Review*, 60: 463-490. Fuentes-Hernández, Globalization and Legal Education, 54.

74 Janus, Eric S., 2020. "The "Worst Idea Ever!" --Lessons from One Law School's Pioneering Embrace of Online Learning Methods," *Syracuse Law Review*. 70: 13-29.

75 Van Detta, A Bridge to the Practicing Bar.

76 Bonilla Maldonado, Daniel. 2020. "The Mandarins of the Law: Pro Bono Legal Work from a Comparative Perspective." *Indiana Journal of Global Legal Studies*, 27: 137-170. Bonilla Maldonado, Daniel. 2019. "El trabajo jurídico pro-bono en Brasil: Trasplantes jurídicos, acceso a la justicia y las obligaciones sociales de los abogados," *Revista Direito Práxis*, vol.10 no.1. Rio de Janeiro Jan./Mar. 2019, and Bonilla Maldonado, Daniel, Diaz, Julián, and Serrano, Natalia. 2019. "El trabajo jurídico pro bono en Brasil: Discurso, prácticas y límites 2005-2017," *Revista Direito Práxis.*, Rio de Janeiro, Vol. 10, N. 1, 2019. Hernández Crespo, Mariana. 2008. "A Systemic Perspective of ADR in Latin America: Enhancing the Shadow of the Law Through Citizen Participation," *Cardozo Journal of Conflict Resolution*, 10: 91-128.

77 Rosenbaum et al, The Myanmar Shwe, for example, assumes that an online legal degree offered in Myanmar would only be taught in English. *Supra* note 60.

78 Bonilla Maldonado, Daniel. 2013. "Legal Clinics in the Global North and South: Between Equality and Subordination--An Essay," *Yale Human Rights and Development Law Journal*. 16: 1-40.

such programs to being viewed as a remedial form of training in certain national contexts, further cementing the tendency of legal study across the globe to be an especially hierarchical and formalist enterprise.⁷⁹

The Problem of Quality Control

The widespread availability of fast and easy digital communication, and the ability to quickly obtain a vast amount of information about virtually any subject, masks a deep and concerning fact about such communication, namely the unreliability of the information delivered. It is by now well-established that sorting wheat from chaff by use of the latest technologies requires education so that consumers know and understand how to be discriminating users of legal information.⁸⁰ For legal education, this presents an especially grave challenge. In law as in the exercise of most professional activities, an individual's interaction with lawyers and the legal system can have serious implications for the individual's well-being; legal interactions can unite or disrupt families, and they can lead to criminal penalties depriving a person of individual liberty. It is no exaggeration to say that legal interactions can be matters of life and death. As a result, the issue of quality control for online legal education is especially important. The proliferation of for-profit education has for nearly a generation raised cause for concern about the quality and worth of degrees, especially as those who pursue these degrees tend to be among the less-well-resourced members of their societies.⁸¹

The nature of digital communication exponentially augments these concerns. An online legal education that lacked either or both a strong ethical component and a rigorous training in legal analysis and argument could result in practitioners ill-equipped to serve their clients. If this was to happen with widely available degrees of dubious quality, there would be ample cause for concern. While some might argue that the professional licensure required in most jurisdictions globally would serve to filter out those not well-trained to practice,⁸² this is no guarantee of quality control and protection since licensure examinations tend to be formalistic exercises that prioritize mastery of information more than they do demonstration of analytical skills or the expression of ethical and moral commitments.⁸³ To reject the possibility of effective online legal education for this reason runs the risk of affirming yet again the hierarchical and needlessly traditional tendencies of legal education. Thus, attentive consideration and study needs to be given to the challenge of maintaining quality in online education. Once again, this means understanding technology as a means to an end and not as "the fabric of meaning,

79 Ibid., 201 and 210-211.

80 "Legal Information vs. Legal Advice: What's the Difference?" *Perma.cc record*, captured May 17th, 2020. <https://perma.cc/MG9S-4835>

81 *Supra* note 52.

82 The American Bar Association (ABA), the professional accreditor of law schools in the United States, has historically been resistant to widespread, extensive online law programs. Kohn, Nina D. 2020. "Online Learning and the Future of Legal Education: Symposium Introduction," *Syracuse Law Review*, 3-10.

83 Glen, Kristin Booth. 2003. "Thinking Out of the Bar Exam Box: A Proposal to "Maccrate" Entry to the Profession," *Pace Law Review*, 23: 343-511.

through which one gives account of the world, of what happens."⁸⁴ And as Bonilla remind us, given the "enframing" of technology that has come to dominate much thinking about the world and about the place of legal education, this will not be easy.⁸⁵

The Need to Provide Consumers with Reliable Information

This concern follows from the one above. While I accept that technological advance, especially in the form of digital instruction, is a given for legal education in the foreseeable future, the possibility of the proliferation of content providers of dubious reliability is great. Across the world, from the housing crisis to investment opportunities to education, recent years have witnessed a proliferation of instances where consumer fraud has mushroomed,⁸⁶ creating the need for effective regimes to inform consumers and punish malefactors. The risk here is not only of flooding the market of legal service providers with ill-prepared lawyers, as noted in the section above, but of luring possible law students with the promise of an education that will not likely prepare them to satisfy that goal.⁸⁷ Therefore, it is essential to attend to the task of developing a reliable and transparent mechanism by which consumers and potential consumers of legal education can obtain information about the services they are using or hope to use. If provided at no cost, consumer rating systems like those in the U.S. offered by the magazine and digital platform Consumer Reports (for durable goods) provide a model, as in the United States does the Better Business Bureau for both goods and services. Many countries have similar, cost-free consumer information networks.⁸⁸ In Latin America, Brazil has, for example, distinguished itself as a leader in providing government-moderated consumer information.⁸⁹ While such services usually provide consumer information for retail goods and services, they provide a model for how to allow for greater transparency about the quality of the good or service being offered. Of course, it is not enough merely to create the mechanism. Such an effort must be paired with a widespread public education campaign to alert consumers and potential consumers of legal education services. Such a dual effort could be costly, but it is no less essential for that.

84 Bonilla Maldonado, Daniel. "Legal Education and Technological Innovation: A critical Essay". *Latin American Law Review* N°10 (2023): 12, <https://doi.org/10.29263/lar10.2023.01>

85 *Ibíd.*

86 Skibka, Katherine. 2022. "Consumer Fraud Losses Hit Record \$5.8 Billion," *American Association of Retired Persons (AARP)*, posted February 22nd, 2022, <https://www.aarp.org/money/scams-fraud/info-2022/ftc-fraud-report-new.html>. "Global Fraud Trends: Device Insights Highlight Increased Threats Since Onset of Pandemic," *TransUnion*. 2021. *TransUnion Blog: Fraud and Identity Management*, <https://www.transunion.com/blog/global-fraud-trends-Q1-2021>

87 Jewell, Lucille A. 2011. "You're Doing it Wrong: How the Anti-Law School Scam Blogging Movement Can Shape the Legal Profession," *Minnesota Journal of Law, Science & Technology*, 12: 239-278

88 <https://www.consumidor.gov.br/pages/conteudo/publico/1#:~:text=Aqui%2C%20no%20Consumidor.gov.,reclamar%20est%C3%A1%20cadastrada%20no%20site> (Brazil).

89 <https://www.gov.br/mj/pt-br/assuntos/seus-direitos/consumidor/defesadoconsumidor>

Control of Data and Legal Education

The events of recent years have shown with clarity that the dangers of the digital age are as potent and powerful as its potential. It always bears remembering that the initial promise of today's social media giants, from Facebook to Twitter, was to unite people across distance.⁹⁰ However, to say what is by now well known, the reality is that these and other digital communications can divide and destroy just as effectively as they bring together.⁹¹ Consequently, in all areas of human endeavor, when considering the potential for using these technological advances, it is important to keep this duality in mind. With respect to legal education, this is to ask what is the data – what is the information – about what constitutes law and what are the obligations of its gatekeepers? Just as online legal education offers new opportunities to expand delivery of the rigorous, reflective legal education to many who have not had access to or been able to afford it before,⁹² so too does the experience with social media's divisive potential underline the need to attend to the question of *what* legal education is promoted and shared, of who controls its content and why. Once again, the promise and the peril of digital legal education is exponentially greater than its live version, because the market of consumers is exponentially greater. Thus, as much as digital legal education can become a means to expand knowledge about, for example, democratic legal ideas or a notion of the rule of law, so too does it raise the specter of a tightly controlled market of legal and related information, overseen by censorious authorities.⁹³ Similarly, the concerns about privacy protections that have always been present in human affairs have only amplified in the digital age.⁹⁴ In legal education, the exposure of actors – professors, administrators, students – expressing views that may be unpopular with authorities should be of special concern since the expression of politically unpopular views could put such actors at special risk of reprisal that at worst could be stifling and at worst could end in violence.⁹⁵

The Rethinking: What Model for Legal Education in the Digital Age?

Even if one rejects the enframing of technology in our time that Bonilla criticizes, it is indisputable that its omnipresence in our lives demands that we rethink virtually every aspect of

90 Cottreau-Moore, Amy. 2020. "5 Ways Social Media Brings People Together," *MUO*, published October 14th, 2020. <https://www.makeuseof.com/ways-social-media-brings-people-together/>

91 Stevenson, Katherine. "Facebook Admits it Was Used to Incite Violence in Myanmar," *The New York Times*, Nov. 7th, 2018, Section B, Page 2.

92 Thomson, David I.C. 2020. "How Online Legal Education Can Address Three Persistent Problems in Legal Education," *Syracuse Law Review*, 70: 182-183.

93 Van Detta, A Bridge to the Practicing Bar.

94 Allard, The Globalization of Privacy.

95 Moody, Josh. 2022. "Law Students Shut Down Controversial Speakers," *Inside Higher Ed*, March 23rd, 2022. <https://www.insidehighered.com/news/2022/03/23/law-student-protests-stifle-speakers-yale-uc-hastings>. Stetz, Mike. 2021. "Academic freedom: More law professors are treading lightly in today's classrooms," *The National Jurist*, May 11th, 2021. <https://nationaljurist.com/national-jurist-magazine/academic-freedom-more-law-professors-are-treading-lightly-today's>.

human endeavor to delegate the tools technology offers to an appropriate and appropriately useful place. Should we not do so, we risk allowing technology and those who control it to control and direct legal education, rather than vice-versa. For legal education, at the local, national, and international levels, this task demands rethinking the aims and purposes of legal education. Obviously, legal education exists to train and prepare lawyers to staff and serve society's legal institutions. The rethinking I refer to, however, refers not to that evident purpose. What I refer to, instead, is an understanding of the underlying *raison d'être* of legal education.

To that end, in what follows, I will consider three possible, and possibly inter-related purposes of legal education, and then suggest how such purposes might begin to be reconceived in a technologically advanced world of legal education. In this, I intend to embrace positively the potential for digital legal education, considering its power as a tool to support what I have labeled Bonilla's vision of a more "humanistic" legal education.⁹⁶ First, in many quarters, legal education understands its mission as existing to train exemplary citizens, upholders and defenders of democratic values and principles.⁹⁷ If this is so, then technological advances demand that legal educators reconceive what we do. For example, recent generations of legal educators have placed great emphasis on the training of practical legal skills as a component of legal education,⁹⁸ not only for its use in helping to train law school graduates who are "practice ready," but also because it affords an opportunity to work closely with a legal educator mentor and law student mentee, channeling advice and information and also ethical assessments of how best to proceed.⁹⁹ However, what is needed to create this sort of intimate legal educational experience in a virtual learning environment is not yet well understood, although the tools to develop "social presence" are rapidly increasing.¹⁰⁰ Furthermore, if an attraction of digital legal education is the transformative scale it promises, the possibility of having experiences that are comparable will likely prove nearly impossible. Therefore, it is necessary to begin to imagine how the underlying aim of such practical experience can be replicated with different instructional methods that capture the strengths of technology, as perhaps with peer-to-peer consultations and assessments. As indicated above,¹⁰¹ neuroscience teaches that "we all benefit from learning in rich multisensory environments."¹⁰² This will mean, for legal education, to align the sensory experience that will best convey the aims served by, for instance, a clinical legal education experience and its practical benefits.

96 Teague, Leah Witcher Jackson. 2018. "Training Lawyers for Leadership: Vitaly Important for the Future Success (and Maybe Survival) of the Legal Profession and Our Democracy," *Santa Clara Law Review*, 58: 634-664. Allard, Sweet Are the Uses. Rosenn, Kenneth M. 2006. "Lessons on Lawyers, Democracy and Professional Opportunity," *Georgetown Journal of Legal Ethics*, 19:155-244. Fuentes-Hernández, Globalization and Legal Education. Rosen, Jeffrey. 2001. "I-Commerce, Tocqueville, the Internet, and the Legalized Self," *Fordham Law Review*, 70: 1-15.pra page [16].

97 Teague, *ibid.*

98 *Supra* note 23.

99 Barry, Margaret Martin, Dubin, Jon C., and Joy, Peter A. 2000. "Clinical Education for This Millennium: The Third Wave," *Clinical Law Review*, 7: 59-70.

100 Sweany, Noelle Wall. 2020. "From Theory to Practice: Evidence-Based Strategies for Designing and Developing Engaging Online Courses," *Syracuse Law Review*, 70: 167-178.

101 *Supra* [pp. 6-11].

102 *Supra* note [41].

Second, many argue that legal education need not only develop practical skills but also explicitly align those skills with social justice values.¹⁰³ This, it is further argued, is especially important in an age of rising inequality,¹⁰⁴ and because historical inequities demand attention.¹⁰⁵ As with the example above of the role of legal education in developing responsible citizen-stewards of a society's best self, in the content of digital legal education, this purpose will need to be rethought in application.

Third, in the United States if not in many other countries, there exists for a generation now a distinct disjunct between the practicing bar and the trainers of that bar.¹⁰⁶ Practitioners criticize the legal academy of being excessively theoretical, of failing to sufficiently provide "practical" information. Once again, the dramatic change demanded of human endeavor by technological change invites realignment, in this case to realign theory and practice. In the context of clinical legal education, for example, while application of technological tools means that the intimate connection between a clinic supervisor and students may be lost, not to mention the possibility of live student participation in events like court and administrative hearings or other legal institutional events, technology may offer new opportunities. For example, early studies indicate that many believe that, given the proliferation of cellphones, even among lower-income individuals, that access to justice became easier and more widespread during the COVID-19 pandemic.¹⁰⁷ As technology improves, and especially if access to technology is available at no- or little-cost for judicial and clinical legal education services, the possibilities for transforming clinical legal education in particular and legal education more broadly in a way that is positive for students and clients alike could be profound. "Live" student participation may thus be achieved by means of a multi-party cellphone hearing or other administrative or judicial proceeding.

CONCLUSION

How are we to balance the often-exaggerated claims for technology's transformative potential in legal education against its potential utility? In closing, let me offer three guiding principles.

103 Greenbaum, *Legal Education in South Africa*, 487.

104 Cohen, Patricia, and Rapoport, Alan. 2021. "World's Growth Cools and the Rich-Poor Divide Widens," *The New York Times*, Oct. 13th, 2021, Section A, Page 1.

105 Greenbaum, *Legal Education in South Africa*, 473. Piketty, Thomas. 2015. *The Economics of Inequality*. Cambridge, MA: Harvard University Press. Quigley, William P. 2006. "Revolutionary Lawyering: Addressing the Root Causes of Poverty and Wealth," *Washington University Journal of Law and Policy*, 20: 102-112.

106 A celebrated example in the United States was the critique of the much-respected Judge Harry Edwards, of the U.S. Court of Appeals for the District of Columbia Circuit. Edwards, Harry T. 1997. "A New Vision for the Legal Profession," *New York University Law Review*, 72: 567-577. For other countries, these examples make similar points: Fallas, Alex Solís. "Crítica a la enseñanza del derecho," *La Nación* (Costa Rica), January 19th, 2019. <https://www.nacion.com/opinion/foros/critica-a-la-ensenanza-del-derecho/TIWQES4DQBB4NMVGH65YMWPk4Y/story/>. Guerrero, Omar. "Crítica y Auto-Crítica de la Abogacía," *Archive of the Virtual Legal Library of the Instituto de Investigaciones Jurídicas de la UNAM* (México). <https://archivos.juridicas.unam.mx/www/bjv/libros/8/3877/15.pdf>.

107 Rubley, Steve. 2021. Forum Infographic: T <https://www.thomsonreuters.com/en-us/posts/legal/forum-info-graphic-fall21-pandemic-and-the-courts/he> "COVID-19 Pandemic and the Courts: Aggravation or Opportunity?" Thomson Reuters, Dec. 8, 2021).

First, I suggest that we would do well to respect that technology has a key role but one that will not solve the changing needs of the legal market or its practitioners. For legal educators, this should mean embracing the lessons of neuroscience, which instruct on how the brain best receives information and masters it and adopt technology as appropriate in the service of that goal. This is saner and more manageable than the suggestion that an educator must learn simultaneously to address multiple “learning styles” at once.¹⁰⁸ Doing so will position legal educators to use technology in a focused and productive manner in service of law’s highest aspirations.

Second, the potential to develop new applications for technology in legal education offers an opportunity to rethink some of the fundamental aims of legal education. For example, increased calls for access to justice in recent years offer an opportunity to consider making teaching about and instruction on providing access to justice central to the enterprise.¹⁰⁹ Given the potential of technological tools to transmit materials and knowledge at cost to ever-wider numbers of people, technology could be used and applied in pursuit of such a goal. Similarly, as digital communication and technological tools enable ever-more efficient forms of communication across borders, technological tools provide an avenue for legal educators to model the best culturally sensitive practices as they share, copy, and jointly develop curricula and other legal education products. The goal here should be to avoid a new technological legal colonialism driven by superior political or economic resources. This will mean, for example, not only respecting differences in financial and other power differentials, a concern identified by Bonilla,¹¹⁰ but also in respecting the role technology (and for that matter, the law) inhabits in different cultural contexts and adapting and employing technological tools appropriately. It will also mean, even when there are cross-cultural collaborations, taking extra efforts to, for example, develop degree programs and curricula in the language of the place where the curriculum is being offered, and not to adopt a “dominant” language merely because it is dominant. In this way, technological advances can truly serve law faculties and students, as well as the legal systems in which they operate. Similarly, when launching collaborative efforts like shared curricula, it will mean assessing the technological capacity of different environments and, for instance, establishing learning hubs that provide enhanced access to technological tools where the location’s economic circumstance does not make them widely available.

Third and finally, it is fundamental to establish regulatory mechanisms and processes that are transparent and accountable, to promote best practices, provide resource centers for reliable information, and to create methods for denouncing and sanctioning information misuse or deception. If we do these things, at a minimum, technology can be a great ally, managed and applied by us and not by our assumption that it controls us.

108 Boyle and Dunn, *Teaching Law Students*, 236-237.

109 Young, Kathryn M. 2021. “What the Access to Justice Crisis Means for Legal Education,” *University of California at Irvine Law Review*. 11: 811-850.

110 Bonilla Maldonado, Daniel. “Legal Education and Technological Innovation: A critical Essay”. *Latin American Law Review* N°10 (2023), <https://doi.org/10.29263/lar10.2023.01>

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