

The Case for Digital Technologies in Legal Education

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Abstract

The purpose of this essay is to contribute to the debate on the adoption of new technologies in legal education. It discusses Professor Daniel Bonilla Maldonado's criticism against the legal literature's main responses in his essay *Legal Education and Technological Innovation: A Critical Essay*. This paper offers two claims to substantiate the adoption of information and communication technologies (ICT) in legal education from a Brazilian perspective. The strong claim is that digital technologies are essential to teaching present-day law students. The weak claim is that digital technologies are useful and desirable in certain circumstances. Both claims try to respond to four weaknesses pointed out

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by Bonilla Maldonado, especially the naturalistic fallacy of the arguments supporting the incorporation of technologies in legal education, and the lack of empirical evidence in favor of their effectiveness.

Keywords

Legal education; hybrid teaching; higher education; digital technologies.

El caso a favor de las tecnologías digitales en la educación jurídica

Resumen

El propósito de este artículo es contribuir al debate sobre la adopción de las nuevas tecnologías en la educación jurídica. Su propósito es discutir las críticas del profesor Daniel Bonilla Maldonado a las principales respuestas de la bibliografía jurídica presentadas en su ensayo *Legal Education and Technological Innovation: A Critical Essay*. Este trabajo propone dos argumentos que apoyan la adopción de las tecnologías de la información y la comunicación (TIC) en los estudios jurídicos, considerando la educación jurídica brasileña. El argumento fuerte es que las tecnologías digitales son esenciales para la enseñanza de los estudiantes de derecho en el siglo XXI. El argumento débil es que las tecnologías digitales son útiles y deseables en determinadas circunstancias. Ambos argumentos están dirigidos a refutar cuatro debilidades señaladas por Bonilla Maldonado, especialmente la falacia naturalista de los argumentos que apoyan la incorporación de las tecnologías a la educación jurídica y la falta de evidencias empíricas a favor de su eficacia.

Palabras clave

Educación jurídica; educación híbrida; educación superior; tecnologías digitales.

INTRODUCTION¹

The technological innovations' impact and challenges regarding legal services and legal education have been subject to extensive research and analysis. This has led law schools to debate whether they should rethink and redesign legal education.

The discussion of this subject is divided into three parts. The first part describes the issue and the meaning of "incorporate[ing] digital technologies in legal education" while considering Daniel Bonilla Maldonado's criticism in his essay *Legal Education and Technological Innovation: A Critical Essay*. A typology of technologies (non-digital technologies, offline digital

1 We are grateful for Professor Daniel Bonilla Maldonado's comments to the first draft of this essay. His insights were essential in reframing the arguments. We extend our gratitude to the journal's reviewers, whose comments were very detailed and thoughtful. Finally, we thank all the participants in the *Third Symposium on Technology, Legal Services, and Legal Education*, especially professors Russell Pearce and Daniel Bonilla Maldonado, for their questions on the argumentation in this paper. We are, however, solely responsible for any mistakes and opinions in the text.

technologies, and online digital technologies) is presented as a starting point for an analysis of the different impacts technological innovations have had on legal education. The second part examines a strong claim and the reasons for incorporating digital technologies into legal education as a necessary condition for learning in the 21st century. The third and final section presents a weak claim and the reasons for incorporating digital technologies to achieve specific goals.

THE FLAWS IN MAINSTREAM RESPONSES THAT FAVOR INCORPORATING TECHNOLOGY IN LEGAL EDUCATION

An overview of the inclusion of technologies in legal education shows that this is a current phenomenon driven by different factors. Based on the assumption that teaching law is also about defining what it is and what purposes it should serve, which is not an ideologically neutral or politically disinterested task,² one should question who is advancing the agenda of digital technologies and for which reasons. A wide range of actors, from large educational groups to teachers with pedagogical training, supports changes in traditional teaching with different justifications.

In this context, the critical evaluation of the arguments that defend incorporating new technologies in legal education presented in Daniel Bonilla Maldonado's *Legal Education and Technological Innovation: A Critical Essay* offers an insightful starting point.³ Briefly, the author criticizes three arguments usually offered in favor of incorporation: a) the need to adapt law schools to the demands of the legal services' market; b) the need to adapt law schools to the profile of the students entering higher education; and c) the effectiveness of these technologies in teaching and learning processes.

His criticisms follow two paths. The first path challenges the responses that law schools should meet the demands of the market and the needs of the students ("a" and "b"). Based on a Heideggerian interpretation of technology, Bonilla Maldonado points out that these responses are grounded on a "horizon of perspectives" that considers technology as a "framework from which we interpret the world and human beings," not as a "means to achieve a particular aim."⁴

2 Oscar Vilhena Vieira and José Garcez Ghirardi, "The unstoppable force, the immovable object: challenges for structuring a cosmopolitan legal education in Brazil," *UC Irvine Journal of International, Transnational, and Comparative Law* 3, no. 119 (2018): 124-125; Roberto Mangabeira Unger, "Uma nova faculdade de direito no Brasil," *Revista de Direito Administrativo* 243 (2006): 113-131.

3 A previous version of the paper, written and published in Spanish, may be found in Daniel Bonilla Maldonado, "Educación jurídica e innovación tecnológica: un ensayo crítico," *Revista Direito GV* 16, no. 1 (2020): 1-44. <http://dx.doi.org/10.1590/2317-6172201954>.

4 Daniel Bonilla Maldonado, "Educación jurídica e innovación tecnológica: un ensayo crítico." *Revista Direito GV* 16 No 1 (2020): e1954, p. 14-15. Bonilla Maldonado cites Heidegger's interpretation that "technology is a mode of revealing" and mentions that "technology is interpreted as enframing, as the constellation of intelligibility that gives meaning to being in late modernity. Technology is the framework from which we interpret the world and human beings. Technology is the mechanism, the fabric of meaning, through which one gives account of the world, of what happens, in late modern age". According to him, the Heideggerian approach criticizes "the interpretation that late Western modernity has of being", which is based on the Nietzsche's notion that "being is an infinite aggregation and disaggregation of forces that do not pursue a purpose other than

According to this worldview, “professors are resources that have the objective of optimizing other reserves of energy, law students, in order to serve the legal services’ market effectively.” This framing is presented as “the only interpretation possible” and those who do not agree with it are considered obsolete or “left behind by the train of ‘modernity.’”

The second path challenges the third response and, partly, the others. The essay finds four weaknesses in the effectiveness argument. First, the claim for the need, relevance, or urgency of technological innovation in legal education is fallacious because it tries to infer a duty (normative scope – “ought”) from a factual situation (factual scope – “is”). It does not follow from a description of the legal market or contemporary law students that “legal education must be at the service of the needs and expectations that law students have and ... of the agents who hire these millennials and centennials when they graduate from law schools.” Second, the literature provides insufficient empirical evidence in support of the view that technology is indispensable to “efficiently fulfill the learning goals [law schools] pursue.” Third, the literature rarely offers an assessment of how specific technologies may impact positively or negatively the “learning objectives pursued by law schools.” Fourth, Bonilla Maldonado criticizes the assumption that technology is a “neutral means of achieving the aims usually pursued by legal education.” According to the author, legal technology “always emerges in specific contexts where power relationships determine who has or does not have access to it, as well as the distribution of its negative and positive consequences.”

Bonilla Maldonado’s essay rightly states that we should not adopt technologies in teaching just because the legal services’ market is adopting them, or because people say that the new generations need these tools. Even an argument asserting that universities cannot be the only places lacking technology is not enough to support adoption, because it does not counter the argument that higher education should be the place for a different way of thinking.

At least four issues underscore the importance of the debate and have led to this paper.

First, there is the aspect regarding resources. Investing in technology is costly and takes financial resources away from other initiatives, which impacts students, teachers, and education. The UC Berkely’s Final Report of the Active Learning Classrooms Working Group offers options for renovation of the four Moffitt General Assignment Classrooms from \$2.2 million to \$2.4 million.⁵ Based on interviews with more than fifty entrepreneurs, policy experts, and school leaders, Battaglino, Haldeman, and Laurans estimated that a blended school needs an average of \$500 per student to pay for technology and infrastructure.⁶

Second, there are choices among technological options. Since we agree that no technology is neutral, to choose one solution over another is to decide in favor of certain values and interests. As with any digital platform, the landscape of virtual learning environments and learning

their own increase. Therefore, being is understood as a resource that can be ordered, classified, and optimized so that it can be used effectively. Being does not have intrinsic meaning. God has died; there is no longer an accepted tradition that can give content to being; Nihilism is the starting position of late modernity.”

5 University of California, *The case for active learning classrooms: final report of the Active Learning Classrooms Working Group* (Berkeley: University of California, 2010), 6. <https://dl.icdst.org/pdfs/files/ebc0bbe13f26db3bbf1ece010f077aaf.pdf>. (Detailing costs and options).

6 Tamara Butler Battaglino, Matt Haldeman, and Eleanor Laurans, “The costs of online learning” in *Education reform for the digital era*, ed. Chester E. Finn Jr. and Daniela R. Fairchild (Washington: Thomas B. Fordham Institute, 2012), 69, <http://www.edexcellencemedia.net/publications/2012/20120425-education-reform-for-the-digital-era/20120425-Education-Reform-for-the-Digital-Era-FINAL-Chapter-3.pdf>.

management systems reproduces the developers' values and society's social and legal norms.⁷ The market for virtual learning systems in Brazilian higher education is dominated by the big techs, especially those from the so-called GAFAM group (Google, Apple, Facebook, Amazon, and Microsoft). The Observatório Educação Vigiada initiative presents comparative data for Latin American countries. In Brazil, almost 80% of the analyzed public primary and higher education institutions store e-mail data on these companies' servers, and 72% of public universities used Google's storage servers.⁸ Experts warn that these solutions not only advance the pedagogical vision of these companies but are yet another instance of surveillance capitalism that considers the surplus of data as a form of capital accumulation.⁹ Large private groups, in turn, are criticized for homogenizing the content offered in different parts of the country, due to economic synergies and lower costs.¹⁰

Third, there are pedagogical choices. Educational technologies may embody pedagogical conceptions and beliefs about how to teach. Some digital tools used in legal classes, such as social media or games, may not be designed for education at all. A hybrid classroom that does not have a classroom-facing camera or ambient microphones, for example, reveals a lot about the role given to students.

Fourth, there is the professional aspect. The incorporation of technology indicates a vision of the kind of teacher institutions value. It has consequences, for example, for the perception of faculty identity and teaching professionalism.¹¹ In countries, institutions, or fields of knowledge in which the faculty members are not familiar with these tools, the digital divide may exclude professionals from teaching.

These four issues show that there are many choices to be made, especially if one aims at change and transformation. A view about the goal of legal education and the university must then always accompany the discussion about why to incorporate technologies. If one considers higher education only as a place of certification and training for the market, then incorporating technology is imperative to achieve that purpose. If one regards the university as something

7 Lawrence Lessig, *Code: version 2.0.* (New York: Basic Books, 2006), 122-124, https://upload.wikimedia.org/wikipedia/commons/f/fd/Code_v2.pdf. (Explaining how legal norms, social norms, market interests, and technological architecture are related).

8 "Map: Brazil," Observatório da Educação Vigiada, 2022, accessed August 11th, 2022, <https://educacao.vigiada.org.br/en/mapping/brazil/> (Presenting data for Brazil).

9 Leonardo Ribeiro da Cruz, and Jamila Rodrigues Venturini, "Neoliberalismo e crise: o avanço silencioso do capitalismo de vigilância na educação brasileira durante a pandemia da Covid-19," *Revista Brasileira de Informática na Educação*, 28 (2020): 1060-1085, (Questioning the advance of GAFAM companies in Brazilian public education); Rosana Abutakka Vasconcelos dos Anjos, and Katia Morosov Alonso, "Dados do Observatório Educação Vigiada e o capitalismo de vigilância: um alerta para a EaD?," In: *Anais do IV Seminário de Educação a Distância da Região Centro-Oeste*, (Porto Alegre: SBC, 2022), <https://doi.org/10.5753/seadco.2022.20372> (Using Shoshana Zuboff's conception of surveillance capitalism to critically evaluate the situation of Brazilian public higher education).

10 Helena Sampaio, "Diversidade e diferenciação no ensino superior no Brasil: conceitos para discussão," *Revista Brasileira de Ciências Sociais* 29, no. 84 (2014): 43-55, <https://www.redalyc.org/articulo.oa?id=10730645003>. (Criticizing pedagogical standardization as one of the strategies of educational groups in general).

11 Luciana Barbosa Musse, and Roberto Freitas Filho, "Docência em direito no Brasil: uma carreira profissional?" *Revista Jurídica da Presidência* 17, no. 111 (2015): 173-203, <https://revistajuridica.presidencia.gov.br/index.php/saj/article/view/1112/1098>. (Presenting an overview of the professional teaching identity of law professors in Brazil).

more, then it is not enough to use the arguments of student's or market's expectations. Bonilla Maldonado's essay probably intends to showcase the transformative, emancipatory, and empowering function of legal education.

Within this context, this article discusses some of Bonilla Maldonado's criticisms. It does not address the Heideggerian critique (first challenge) but focuses instead on the other path (second challenge). The paper seeks ways to support and justify the effectiveness of digital technologies regarding teaching and learning. More specifically, it explores the four weaknesses pointed out by the author in his essay.

This might be achieved by two distinct claims. The strong claim is that incorporating technologies in legal education is essential to teaching law in the 21st century. The article provides normative reasons that do not derive from factual situations, logical arguments that hint at the efficient fulfillment of learning goals through specific technologies, and accounts for the distribution of negative and positive consequences. If the reasons that support it are correct, then the rejection of digital tools would mean that professors would not provide adequate teaching.

The weak claim is that the incorporation of such technologies may be helpful in certain contexts or to achieve specific objectives. The rejection of digital tools does not necessarily lead to worse learning processes or inadequate teaching. There are normative reasons and some evidence that may overcome the four weaknesses, by considering the notion that law schools should be able to train students to think about the law in a new way, contributing to the construction of a more just and peaceful society, integrated and active in the global order, and prepared to solve the social problems of their time.¹²

WHAT DO WE MEAN WHEN WE DISCUSS TECHNOLOGY IN LEGAL EDUCATION?

The debate about the incorporation of technologies into legal education should consider the manifold meanings of the term "technology." It may have at least four different meanings: 1) "technology" as a field of knowledge that encompasses the study of techniques; 2) "technology" as a synonym of the word techniques (*techné*); 3) "technology" as a specific set of techniques in a given society, used in expressions like "technological societies"; and 4) "technology" as an evaluative term which comprises an ideological point of view that favors technological advances as the "right path" for mankind.¹³

In this sense, Bonilla Maldonado's essay explores the second and fourth meanings. His first challenge denounces how the legal literature adopts a "horizon of perspectives" influenced by "capitalist forms of understanding the economy" that leads societies and individuals to become dependent on and uncritically favorable to technological advancement. Technological absorbs the legal practice, instead of being interpreted from a legal standpoint. Today's Western society seems increasingly to associate the idea of "technology" to the phenomenon of "information and communication technologies" (ICT) and Internet-connected digital tools.

12 Vieira and Ghirardi, "The unstoppable force, the immovable object," 113-131.

13 Álvaro Vieira Pinto, *O conceito de tecnologia* (Rio de Janeiro: Contraponto, 2005), 219. (Differentiating technology as a science of techniques, technique, ideology, and a set of techniques in a society).

The omnipresence of devices such as smartphones, personal assistant applications, connected watches, and others in people's daily lives, even in the lives of people with low incomes, reinforces this perception.¹⁴ As a result, the frequent idea of "technological advancement" is now seen as a process of digitization, Internet connection, and data collection, storage, and exchange.¹⁵ Our essay, however, does not focus on this discussion, but on "technology" as technique.

In several parts of his text, the author mentions examples of tools that illustrate the object that should be incorporated into legal education. "Online courses, blended courses, interactive electronic case books, online platforms to evaluate students [...] computers, cell phones, or clickers [...], anti-plagiarism software, the use of videos in classes, and the use of software to measure professors' productivity and to evaluate students' perceptions of their courses" are some of the mentioned technologies. They are somewhat different from "courses on coding, classes that teach students to use the tools that allow for e-discovery or to compare and analyze a large number of legal documents," which highlights the key distinction between incorporating technology as a tool or as a subject in legal education.

First, it is necessary to explore the idea of incorporating technological tools in legal education. "Technology" is not synonymous with "digital technologies connected to the Internet." This premise reinforces the fact that legal education has always incorporated new products, services, and methods throughout its history. The current debate is only part of this broader material history, which also includes developments like printing, codes of laws, universities, etc.

Therefore, if one thinks of technology as a technique, any discussion about its use in legal education should consider the diversity of artifacts, techniques, or methods at the disposal of professors and institutions. For purposes of this paper, they may be a) non-digital technologies; b) digital technologies not connected to the Internet (offline); and c) digital technologies connected to the Internet (online).¹⁶

The first group is non-digital technologies. Although they may seem not innovative enough, this is not true. Many discussions are related to how innovative non-digital technologies are in legal education. Techniques related to the occupancy and management of educational spaces exemplify this kind of non-digital technology. According to Heckenlively, the designers of the Stanford Law School buildings "found that maximum interaction between students and professor was best achieved in tiered horseshoe-style classrooms."¹⁷ Moreover, institutions have

14 Regional Center for Studies on the Development of the Information Society, *ICT Households – 2021 domicílios*. (São Paulo: CETIC, 2021), access August 16th, 2022, <https://cetic.br/en/pesquisa/domicilios/indicadores/>. (Indicating that 95% of households have at least one mobile phone and that 85% of individuals have used the Internet on their mobile phones in the last 3 months); Instituto Brasileiro de Geografia e Estatística. *Pesquisa nacional por amostra de domicílios contínua anual – 4º semestre*. (Rio de Janeiro: IBGE, 2022), accessed August 16th, 2022, <https://sidra.ibge.gov.br/tabela/7308#resultado>. (Explaining that in 2019, 59.7 million out of a total of 71.1 million households have accessed the Internet).

15 Pinto, *O conceito de tecnologia*, 225-236. (Criticizing the notions of "technological age" and "technological explosion" since the middle of the 20th century, in Brazil); "Transformação digital," Ministério da Ciência, Tecnologia e Inovações do Brasil, accessed August 2nd, 2022, <https://www.gov.br/governodigital/pt-br/transformacao-digital>. (Indicating tools for digital transformation in public service delivery in Brazil).

16 "What is digital technology," *IGI Global Portal*, accessed August 2nd, 2022, <https://www.igi-global.com/dictionary/digital-technology/7723> (Providing twenty-eight definitions of "digital technology" from different sources).

17 Bryan H. Heckenlively, "Stanford Law School: Crown and Gown," (Student paper, Stanford Law School, 2005), 12. (Detailing the conception behind the Crown Quadrangle site of the Stanford's School of Law).

recently begun to identify creation spaces as differentiators for more effective teaching.¹⁸ These so-called “active teaching classrooms” or “innovation laboratories” include large spaces, materials that enable creative processes (multiple blackboards, large doodle boards, post-its, etc.), and resources that favor flexible layouts for small groups’ work, debates, and other activities. Since 2019, the São Paulo Fundação Getúlio Vargas Law School (FGV Direito SP) offers classes in such spaces, called “collab rooms.” The University of California, Berkeley, created a group to “consider the question of what UC Berkeley classrooms should look like in the 21st century.” They interviewed faculty and students, and their report shows that some faculty members had doubts about the effectiveness of these rooms.¹⁹ The findings indicate that even non-digital technologies may be contentious.

The second group is digital technologies not connected to the Internet (offline). Until the late 2000s, it was common to walk into Brazilian law school classrooms and find no slide projectors or computers, only blackboards and overhead projectors.²⁰ Since then, institutions have been heavily adopting audiovisual resources and even electronic whiteboards that have allowed professors to present and interact with the projected content. Monitors, clickers (not connected to the Internet), cameras, and microphones are some examples of artifacts that, based on digital technology, have also changed aspects of Brazilian legal education in the last 15 years.²¹

The incorporation of offline digital technology in the classroom alone has been and still is an object of criticism in legal education. Some professors consider that slide presentations have made students lazier, overly dependent on content delivered by professors, unwilling to look for material beyond the lecture, and uninterested in taking notes or following the class in general.²² The lack of training results in ugly and tedious slides full of written content.

18 Some examples of advertising active methodology classrooms: “Sala de metodologias ativas,” UNIFATEB, accessed August 15th, 2022, <https://fatebtb.edu.br/novosite/instituicao/tour-virtual/sala-de-metodologias-ativas/>; “Sala de metodologia ativa é inaugurada no UNIFAMINAS,” Centro Universitário FAMINAS, accessed August 15th, 2022; UNIVEL. *Metodologias ativas de aprendizagem e muito conhecimento no retorno às aulas de Pós-Graduação da Univel* (Cascavel, PR: Univel, 2022), <https://www.univel.br/institucional/imprensa/noticias/metodologias-ativas-de-aprendizagem-e-muito-conhecimento-no-retorno>. The authors of this essay have visited such rooms used for law courses in the following institutions: INSPER, UNIFENAS - Universidade José do Rosário Vellano, Universidade de Fortaleza (UNIFOR) and INSTED.

19 University of California, *The Case for Active Learning Classrooms: final report of the Active Learning Classrooms Working Group*. (Berkeley: University of California, Berkeley, 2010). (Arguing in favor of active classrooms at UC Berkeley), <https://dl.icdst.org/pdfs/files/ebc0bbe13f26db3bbf1ece010f077aaf.pdf> (Arguing in favor of active classrooms at UC Berkeley).

20 As an example, during the 2000s, the University of São Paulo Law School, one of the most traditional in the country, had mobile projectors (Datashow), requested by the professors in the audiovisual sector for use in occasional classes. In 2009, the institution raised funds to modernize its classrooms, adopting audiovisual resources and electronic whiteboards. Daniel Bergamasco, “Direito da USP recorre a ex-alunos para bancar obras,” *Folha de S. Paulo*, February 1st, 2009, <https://www1.folha.uol.com.br/fsp/cotidian/ff0102200901.htm>.

21 Salete de Oliveira Domingues, “Educação humanizada versus mercancia no ensino jurídico privado no Brasil,” (PhD diss., Pontifícia Universidade Católica de São Paulo, 2018) (Presenting the smart classrooms inaugurated, in 2017, by the Pontifical Catholic University of São Paulo, another traditional Brazilian law school, with furniture and audiovisual resources, including digital whiteboards, as an example of overcoming the traditional model).

22 The statement is anecdotal for law courses, based on the authors’ experiences, but can be found in transcripts of interviews with professors in other areas. Anna Katyanne Arruda Silva e Souza, “A pesquisa científica (re)

The third group is digital technologies that use the Internet. It is harder to imagine solely offline digital technologies nowadays because of how easy it is to connect to the World Wide Web. This connectivity gives prominence to online digital technologies. Connectivity in higher education has generally increased because of the Covid-19 pandemic.²³ The main products in this group are virtual learning environments (VLE) and learning management systems (LMS), resources for hybrid and distance learning, web 2.0 tools, and digital libraries.²⁴

It is possible to extend Bonilla Maldonado's criticisms to all kinds of technological innovations, regardless of whether they are digital or non-digital. The duty of law schools to favor the teaching of written materials and codes of law (themselves a kind of legal technique) instead of oral communication and less formal ways of thought does not follow from the fact that legal practice relies heavily on written procedures. By analyzing the Weberian view of the relationship between legalism and capitalism, Trubek emphasizes how unique conditions made the modern state and the modern and rational law possible.²⁵ A legal system based on rational thought, formal criteria of decision, and logical systematization is not natural, nor is the practice of teaching based on written materials or legal doctrine or even the training of highly specialized legal professionals. Regarding the effectiveness of innovations, anecdotal evidence supports incorporating digital technologies in legal education as much as the use of casebooks or handbooks in legal courses. The arrangement of classrooms in rows of desks is naturalized despite the lack of empirical studies showing that this is the best teaching layout. The difference here may be that these other innovations are not controversial anymore, although they might have been so in the past.

Furthermore, incorporating technology in legal education may be understood in a second way. Examples mentioned by Bonilla Maldonado about courses on coding or e-discovery highlight the relation between Law and Technology as a subject too. The teaching of e-discovery follows legal discussions about rules of civil procedure or the probative value of evidence. Questions on algorithmic discrimination or liability for unsafe AI products may require some coding and software knowledge. Digital Law is one of the growing fields of Law in the past years, including legal issues on digital platforms, content moderation, AI, and others.

In sum, by the "incorporation of digital technologies", we mean at least these three activities: a) the use of digital tools, such as clickers, smartphones, social media, and others, by students and/or professors during the course, especially in classes; b) the selection of digital

significando as práticas pedagógicas no ensino técnico em saúde" (PhD diss., Universidade Lusófona de Humanidades e Tecnologias, 2013).

- 23 Núcleo de Informação e Coordenação do Ponto BR, *Pesquisa web sobre o uso da Internet no Brasil durante a pandemia do novo coronavírus: painel TIC COVID-19* (São Paulo: Comitê Gestor da Internet no Brasil, 2021), 171-173, https://cetic.br/media/docs/publicacoes/2/20210426095323/painel_tic_covid19_livro_eletronico.pdf. (Pointing out that 50% of Internet users over the age of sixteen took general online educational courses, a higher proportion than pre-pandemic levels. 32% of users have used the Internet to attend school or university courses, and 88% of users already enrolled in higher education followed courses online.).
- 24 Associação Brasileira de Educação a Distância, *Censo EAD.BR 2020: relatório analítico da aprendizagem a distância no Brasil*, (Curitiba: InterSaberes, 2022), 112-113, accessed August 3rd, 2022, http://abed.org.br/arquivos/CENSO_EAD_2020_PORTUGUES.pdf. (Showing the products and services most purchased by distance learning institutions during the pandemic).
- 25 David M. Trubek, "Max Weber on Law and the Rise of Capitalism." In *The Sociology of Law*, ed. A. Javier Trevino. (New York: Routledge, 2017), 220-232.

content (videos, eBooks, websites, photos, audios, and others) for the instruction of students before, after or during classes; c) the use of digital technologies as a subject *per se*, *i.e.*, as a phenomenon which students and professors explore and discuss during the course.

THE STRONG CLAIM IN FAVOR OF DIGITAL TECHNOLOGIES IN LEGAL EDUCATION

The strong claim is that incorporating digital technologies in legal education is a necessary condition for teaching and learning law in the 21st century. The argument seeks to overcome the naturalistic fallacy by appealing to social expectations and the professional duties of law practitioners. It deals with the lack of empirical evidence and the weak link between tools and learning goals by emphasizing arguments for a more inclusive and diverse way of teaching. Finally, it highlights the relationship between technology and the demand for equality and social justice to overcome the negative effects of innovation.

The students' instruction must match community expectations for solving new problems that arise from the use of digital technology and the duties of the legal profession. The Code of Ethics and Discipline of the Brazilian Bar Association (OAB), for example, states that lawyers must stimulate settlements between litigants and fight for the solution of citizens' problems and the enforcement of individual and collective rights in their communities. The Judiciary's Code of Ethics for Brazil states that judges must guarantee and foster human dignity, aiming at promoting solidarity and justice. Dantas is one of the most prominent Brazilian authors who emphasizes the role of legal education in promoting the Law as a technique for the control of society, fostering good social behavior, and propagating ethical values.²⁶

The emergence of digital technologies has caused and causes new conflicts. One of the many examples is how platforms like *Uber* and *Lyft* have changed transportation services, which has affected workers' rights. If law regulates social relations and technology plays a significant role in people's lives, it is necessary to bring innovations into the classroom as an object of study. Technologies should be incorporated as an object of teaching because they have created new fields of law and transformed existing ones.

In Brazil, two topics have acquired significance in recent years: personal data protection and artificial intelligence. The first topic reached momentum with the approval of the Brazilian General Law of Personal Data Protection. There has been a proliferation of free and paid training courses for professionals and certifications, in a movement that resembles what other countries have done on this issue.²⁷ The second topic has reached momentum at the National Congress, both with the Legal Framework for Artificial Intelligence and the draft of a Brazilian Law on Internet Freedom, Responsibility, and Transparency. Both projects intend to regulate

26 Francisco Clementino de San Tiago Dantas, "A educação jurídica e a crise brasileira," *Cadernos FGV Direito Rio: Educação e direito* 3 (2009): 9-37, <https://bibliotecadigital.fgv.br/dspace/bitstream/handle/10438/10400/Cadernos%20FGV%20Direito%20Rio%20-%20Vol.%203.pdf>.

27 "Certificação data privacy Brasil," Data Privacy BR, accessed July 28th, 2022, <https://dataprivacy.com.br/certificacao/>. (Offering a national data protection certification); "IAPP Certification of Privacy Professionals, accessed July 28th, 2022, <https://iapp.org/certify/> (Offering an international data protection certification).

important aspects of automated decisions which may have social and economic repercussions, especially for innovation.

The importance of Digital Law as an autonomous field of law increased after it was recognized by authorities regulating legal education. The National Council of Education included in the National Curriculum Guidelines for Legal Courses the need for schools to develop essential digital law content, even transversally for several subjects.²⁸ This normative document is binding for Brazilian higher education institutions, making it mandatory for them to include this subject in their curricula. As a result, the Brazilian Bar Exam, which conditions the exercise of the legal profession in the country, will also have additional questions on Digital Law.²⁹

Concerns about how new technologies create different social conflicts and frame the existing ones is widespread. The research “Blueprint for Global Legal Education”, coordinated by the International Bar Association’s President’s Task Force on the Future of Legal Services, gathered data from over 400 law schools around the globe with the purpose of identifying challenges and best practices regarding new legal education paradigms.³⁰ According to the overall survey results, the second major challenge faced by schools worldwide, after the lack of resources, is the inclusion of technology as content in law schools.³¹ Concerning the actions that have already been taking place, the research indicates that in Latin America, investments and efforts are being made by institutions to develop technological solutions to improve teaching methods. Also, a vast majority of law schools in the region believe in the importance of developing skills and competences for the interdisciplinary understanding of the law.³²

There are many new programs and courses focused on Law and Technology (both as a field of study and a set of techniques). Two examples are the FGV Direito SP, in Brazil, and the Bucerius Law School, in Germany. The former has created a professional master’s degree and a specialization program in Law and Technology, specifically designed to explore the relationship between the legal system and new technologies.³³ These programs emphasize complex legal problems that arise from the absence of adequate regulation and case law on the subject. Disciplines such as intellectual property, management of intangible assets, governance of artificial intelligence, and data privacy are key components of the program. Bucerius Law School offers yearly programs on Legal Technology and Operations, the Legal Tech Essentials,

28 Brasil, Ministério da Educação, Conselho Nacional de Educação, “Resolução CNE/CES nº 5, de 17 de dezembro de 2018”, *Diário Oficial da União*, Dec. 18th, 2018, <http://portal.mec.gov.br/docman/dezembro-2018-pdf/104111-rces005-18/file> (Establishing Digital Law as mandatory content in Law courses).

29 Tiago Angelo, “Grade de direito terá que conter disciplinas de direito financeiro e digital,” *Consultor Jurídico*, April 15th, 2021, <https://www.conjur.com.br/2021-abr-15/curso-direito-contar-direito-financeiro-digital>. (Mentioning the inclusion of Digital Law in the law school curriculum); Prova da Ordem. “O exame de Ordem vai mudar,” Blog do Curso Prova da Ordem, February 12th, 2022, <https://www.provadaordem.com.br/blog/post/o-exame-de-ordem-vai-mudar/>. (Mentioning the inclusion of Digital Law in Bar exams contents).

30 Soledad Atienza, Sonsoles Arias, and Natalia Uliana, *Blueprint for global legal education* (Spain: IE Law School, 2020), accessed July 20th, 2022, <https://docs.ie.edu/law-school/IBA-LSGL-Blueprint-on-global-legal-education.pdf>.

31 Atienza, Arias, and Uliana, *Blueprint for global legal education*, 58.

32 *Ibid.*, 80.

33 Information on this program can be found on Fundação Getulio Vargas Sao Paulo Law School’s website. <https://direitosp.fgv.br/linha/direito-tecnologia>.

and LL.B. classes “that can be combined to form a Technology Certificate within Bucerius Law School’s LL.B. degree.”³⁴

Educational institutions, companies, and law firms also offer immersive courses for the development of digital skills or knowledge of Digital Law. At FGV Direito SP, these courses were designed to test innovations in legal education that would help students to adapt to the use of new technologies in view of their future professional activity. The experiences were diverse, each with specific objectives. Technology labs were elective courses offered in partnership with law techs and involved students in a technology project associated to the provision of some legal services. Law and technology immersions were one-week electives, in which students faced practical questions that led them to an intense reflection on the challenges of new legal problems and the legal profession, encouraging them to propose various solutions through contact with several agents involved in the subject. It is important to note that in both experiences, student evaluation took into consideration a series of criteria, some related to the specific technical content presented throughout the course, and some focused on the learning process of the students, as well as on the abilities they demonstrated to overcome challenges.

Incorporating digital technologies as an object of study does not mean that schools must create specific disciplines or programs. Content varies according to the discipline involved. A curriculum may approach topics such as data protection or cybersecurity in one discipline, like Digital Law, or in several disciplines, like Tort Law, Criminal Law, and Corporate Law. Consequently, Brazilian regulation addresses Digital Law as “essential content” for the instruction of law students and not as a discipline that must be offered by every Brazilian law school.

An interdisciplinary and integrated approach to issues regarding digital technologies in current societies is better than confining them to a single discipline. As these technologies simultaneously impact all aspects of life, it is not useful nor desirable that students do not associate them to traditional legal topics. E-commerce and smart contracts have an impact on Contract Law. Cybercrimes and digital evidence are major issues in Criminal Law. It is not possible to debate democracy and elections without considering social media and its role in framing people’s beliefs and knowledge. Artificial Intelligence and smart cities will be topics of discussion for Administrative Law. The use of expert systems and machine learning to assess people’s eligibility for public benefits or the entitlement of rights gives rise to challenges in applying rules, as exemplified by the Robot Debt scandal in Australia. In this incident, the Australian government wrongly taxed thousands of citizens due to the misuse of automation tools.³⁵

One strategy that supports this interdisciplinary approach is the assurance of learning (AoL) method for the evaluation and assessment of general learning objectives. The AoL is a requirement of the Association for Advance Collegiate Schools of Business for the accreditation of educational institutions. Based on the instruments of the Business School of Fundação Getúlio Vargas, the São Paulo Law School is also implementing the AoL in its undergraduate program. The tool, currently in its first phase of implementation (collection of data from course syllabi), verifies how the learning objectives of the course are embedded in the set of disciplines and

34 “Center for Legal Technology and Data Science,” Bucerius Law School, accessed July 2nd, 2022, <https://www.law-school.de/international/research-faculty/institutes-centers/center-for-legal-technology-and-data-science> (Providing an overview of the School’s programs related to Law and Technology).

35 “Robodebt Class Action,” Gordon Legal, access July 2nd, 2023, <https://robodebtclassaction.com.au/> (Describing the Robodebt case and making available copies of Court documents).

extracurricular activities that it encompasses. One of these objectives, as stated in the course's pedagogical plan,³⁶ is the student's ability to navigate the innovations of communication and information technology, with a vision that is critically and ethically oriented by the use of technology. This assessment will also allow for the identification of disciplines and methods that are more appropriate for this specific pedagogical objective.

If students and professionals must deal with new conflicts or new aspects of old ones, they must know how to handle the technological innovations that originated them or at least how to communicate with experts from other fields of knowledge. Enabling critical thinking, problem-solving, and the core skills of legal professions (legal interpretation, argumentation, judgment) are possible only if they have the technological literacy to understand the application of the law to the facts. The incorporation of tools like social media, digital platforms, and others in legal education thus follows from the need for solving legal issues. In the digital society, one must have digital skills to deal with mis- and disinformation, mass use of data, and the impacts of digitalizing social activities.

The weaknesses associated with the lack of empirical evidence and lack of a link between specific technologies and learning goals may be addressed by an account of the different students' learning styles. The traditional paradigm of legal education favors those who are better listeners and readers since it is based on lectures and texts. As Biggs points out, professors face the challenge of obtaining the same degree of success in teaching brilliant, academic, and committed students as well as less committed and motivated students.³⁷ The problem, however, is not only one of motivation and commitment but also of different learning styles.

Bonilla Maldonado's essay rightly relativizes the argument that today's students are more visual learners. However, this is not the only kind of diversity in learning styles offered by the pedagogical literature. Kolb, for example, draws on neuroscientific knowledge to differentiate students into people who learn by doing, by watching others do, by theorizing concepts, or by applying theories in practice.³⁸ A person who needs to see and hear the testimonies of the people involved in a collective eviction and empathize with them will benefit more if he can see them directly, even in a video recording on the Internet. These students are "divergers." On the other hand, someone who prefers to relate concepts might use mind-mapping software to build and visualize relationships between them and link them to other materials and related content. These students are "assimilators."

As people learn in different ways, some learning processes are effective only with the use of technology. It is not possible to effectively deal with all learning styles while teaching electronic signatures, electronic contracts, hate speech on social networks, algorithms, and systems based on artificial intelligence, among other topics, without bringing into the legal course some degree of digitalization. In this sense, professors must design opportunities for

36 Fundação Getulio Vargas, Escola de Direito de São Paulo, *Projeto pedagógico do curso de graduação*. (São Paulo: FGV Direito, 2020), 46, accessed August 20th, 2022, https://direitosp.fgv.br/sites/default/files/link-arquivo/2021-10/2020_ci_14_projeto_pedagogico_da_graduacao_ppc_da_fgv_direito_sp_0.pdf.

37 John Biggs, *Calidad del aprendizaje universitario*. (Madrid: Narcea Ediciones, 2006), 22-23. (Exploring the difference between two fictional students, Susan, and Robert).

38 David A. Kolb, *Experiential learning: experience as the source of learning and development* (New Jersey: Pearson Education, 2015), 67-116. (Explaining the differences in students' learning styles according to their ability to grasp reality and transform memories into knowledge).

students who learn by using digital tools, for students who learn by watching and discussing the use by others, for students who learn by theorizing about the tools, and for students who apply theories and concepts while using them.

Nowadays, some teaching activities can only reasonably happen with these tools, such as a conversation with an international guest or contact with people directly affected by a legal problem. Since 2006, Brazilian courts must digitize legal proceedings (Federal Law n. 11.419/2006). Legal practice went from paper proceedings to digital documents and an electronic judicial proceedings system, as well as monitoring and answering legal issues online. Teaching how the judicial system works is possible only if one simulates, opens, or at least explains the system to the students.

The last weakness is related to the problem of technology's neutrality and its benefits and harms to students. Bonilla Maldonado's essay criticizes the adoption of digital technologies in legal courses since they may exacerbate social inequalities. Examples in the text are the requirement of connection to the Internet, disadvantaging people living in places with impaired Internet access, and the offer of programming courses, which traditionally attract more men than women.

The incorporation of digital technologies may, however, meet an imperative for equality and to combat social inequalities and injustices. Data science, artificial intelligence, and even social media play a role in dealing with societal issues in unique ways. They provide new tools for group and community coordination – for the better and the worse – and allow for the discovery of unnoticed relations between facts. One may rightly criticize information and communication technology (ICT) for intensifying problems like misinformation and fake news, but these tools also bring about more clarity and good content than ever before.

Therefore, if digital tools are developed and used according to power relationships, professors should embrace technology and empower students to use it in the most beneficial ways to improve people's living conditions. They should not refrain from intervening in current disputes over technology. For instance, a legal professional who knows how to use digital tools and computational thinking can work with engineers and developers to design and implement tools and systems that may impact social justice and community well-being on a large scale. *Transparência Brasil* is a Brazilian organization that employs data analytics to strengthen the social control of public administration. One of their projects is *Tá de pé?*, a digital platform that maps all the schools that are under construction with a federal grant and gives an overview of the work's progress.³⁹ The Data Policy Coalition also uses administrative data to “address complex social problems and make evidence-based decisions.”⁴⁰ One of its projects is to improve the access to healthcare for approximately 500,000 immigrants and refugees living in Ontario.

Another way of seeing the demand for equality and social justice is to highlight the social responsibility of law schools in reducing digital illiteracy, as a condition for the exercise of citizenship in a digital society. We agree that taking digital technologies as a given and not questioning them can exacerbate injustices, but the opposite is also true. Not training students to use digital tools also condemns them to miss positions that employ these tools. These

39 “Tá de pé?,” *Transparência Brasil*, access August 3rd, 2022, <https://www.transparencia.org.br/projetos/tadepe> (Presenting a map of schools under construction with a federal grant).

40 “Introducing the Data Policy Coalition,” *Powered by Data*, accessed August 3rd, 2022, <https://poweredbydata.org/our-work> (Website of the Data Policy Coalition project).

competences and skills are now required for new jobs like data protection officer (DPO), legal engineer, and cybersecurity professional.⁴¹ People from other backgrounds, like engineering and programming, are now applying for jobs that were traditionally held by law graduates.⁴²

Higher education also plays a role in the fight against the digital divide and unequal access to the Internet and digital technologies. A good example is the provision of equipment, such as tablets, notebooks, and Internet chips for low-income students. These students might never have had the opportunity to use such equipment if not for the institution's proposal to include digital technology in the curriculum and the concern to provide it to its students. The skills they acquire with these devices can also be useful in other dimensions of life.

There are many examples of support programs for low-income students. Callahan lists free laptop programs in the US.⁴³ In Brazil, FGV Direito SP has devoted efforts to ensure equal access to digital technologies for students. Considering the greater diversity of the school's student body due to institutional efforts to increase access to less privileged students, there is a permanent concern regarding the viability of this group of students to participate and make the most out of the opportunities offered by the institution. In this sense, in addition to providing scholarships, loans, and endowment funds, student support mechanisms have been put into place to address a wide range of student's needs, from poor internet connection and absence of adequate devices to the strengthening of initiatives aimed at the promotion of the students' wellbeing. Also, the school has been holding debates concerning these challenges with its faculty to instigate reflection on the potential risk of exacerbating inequalities through class activities and teaching methods.

These situations of inequality and difficulty in handling technologies are also important for the sensitivity of faculty and students. They may become aware of the diversity of contexts and the need to circumvent social inequalities to make teaching effective. Many teachers questioned the difficulty in accessing virtual classes by people who could not afford them, even if they did not have the same questions regarding commuting of poorer students around the city before the pandemic. Teachers are in a key position to prevent these students from being abandoned in the context of the digital divide in the legal profession and generally in public life. Furthermore, a good curriculum proposal will enable professors to build the critical and civic skills necessary for students to reflect on how to incorporate technologies into legal practice after they graduate.

Finally, although questioning the adoption of audiovisual resources instead of written texts is pertinent, it is also necessary to denaturalize the role that writing plays in law. It is doubtful whether law is a better practice for using written texts with words that are incomprehensible to a layman. Proponents of the so-called Visual Law or Legal Design advocate incorporating visual tools into law as one of the strategies to make it friendlier to people in general and closer

41 Angela Morris, "Hot tech jobs for new lawyers," *SmartLawyer*, March 25th, 2022, <https://nationaljurist.com/smartlawyer/hot-tech-jobs-new-lawyers/> (Detailing tech jobs for entry-level law graduates).

42 Fundação Getulio Vargas, Centro de Ensino e Pesquisa em Inovação, *The future of the legal professions: are you prepared? Executive summary of quantitative research "Technology, professions and legal education"* (São Paulo: FGV Direito SP, 2018), 24-27, https://bibliotecadigital.fgv.br/dspace/bitstream/handle/10438/28628/Executive_Summary_TECHNOLOGY_LEGAL_PROFE_quanti.pdf?sequence=9&isAllowed=y

43 Ian Callahan, "Free student laptop programs and technology discounts for college," *Forbes Advisor*, August, 2022, <https://www.forbes.com/advisor/education/free-laptop-programs/> (Presenting several programs for low-income students).

to their needs.⁴⁴ Proponents of the idea of rules as code, in turn, advocate for the transformation of normative texts into readable and machine-applicable materials to facilitate the implementation of public policies.⁴⁵

It is possible to argue that incorporating audiovisual resources in law and legal education is, contrary to what it may seem, a movement toward democratization and not the elitism of legal practice. Writing is, itself, a technology, and how the law and its documents (bills, statutes, memoranda) are constructed makes it a rather hermetic and inaccessible artifact for most of the population, especially in countries like Brazil, which still has relatively high rates of illiteracy and functional illiteracy. One might also wonder, then, why the law does not incorporate more audiovisual resources, instead of setting itself up as immutable. This could bring legal professionals closer to professionals from other fields and laypeople in general.

THE WEAK CLAIM IN FAVOR OF DIGITAL TECHNOLOGIES IN LEGAL EDUCATION

In contrast to the strong claim, the weak claim is as follows: incorporating digital technologies in legal education is not a condition for teaching and learning law in the 21st century, but it is useful in certain circumstances and for specific objectives. In other words, while the strong claim argues that faculty must use digital tools during classes, select digital content, or treat digital technologies as an object of study, the weak claim argues that they should do so depending on the context.

The weak claim attempts to circumvent the strongest criticisms against digital technologies in legal education by offering some common ground for agreement or contingent reasons in favor of them. Against the naturalistic fallacy, it offers two normative reasons that do not derive from the description of the legal services market, the new generation of students, or any other factual elements. It seeks to overcome the lack of empirical evidence by highlighting the contribution of these tools to the daily activities of legal professors. It connects some technologies with specific learning goals like conveying bits of information. Finally, it addresses the concern with inequalities and social injustice by providing cases in which digital technologies may provide access to education.

At least two contingent normative reasons may support the incorporation of digital technologies in legal education given some circumstances. First, if the institution (university or law

44 Margaret Hagan, *Law by design* (Stanford: Institute of Design, 2014), <https://lawbydesign.co/>. (Advocating that law practitioners should take a design-centric approach rather than a technology-centric approach); Margaret Hagan, *A visual approach to law* (Michigan: Miscellaneous Law School Publications, 2017), [https:// repository.law.umich.edu/cgi/viewcontent.cgi?article=1035&context=miscellaneous](https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1035&context=miscellaneous). (Presenting several initiatives that attempt to reconcile design, technology, and law in light of important values); Colette R. Brunschwig, "Visual law and legal design: questions and tentative answers," in: *Proceedings of the 24th International Legal Informatics Symposium IRIS 2021*, edited by Erich Schweighofer et al. (Bern: Editions Weblaw, 2021), 215-219, [https:// papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3795332_code1465885.pdf?abstractid=3795332&mirid=1](https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3795332_code1465885.pdf?abstractid=3795332&mirid=1). (Differentiating legal design and visual law and commenting on how to practice them responsibly).

45 "Better rules and legislation as code," The Service Innovation Lab, accessed August 1st, 2022, <https://serviceinnovationlab.github.io/projects/legislation-as-code/>. (Presenting rules as codes projects to generate benefits for the people in the delivery of public policies).

school) sets goals like improving the students' chances of employment or training professionals for specific fields of knowledge or sectors, it has a commitment to its students to improve and, thus, to use technology. In the case of employability, if some law firms value lawyers with digital skills, the institution must introduce these skills in its curriculum to fulfill its commitment to its students. The same applies to those institutions that offer courses to build skills for the technological field or new positions like DPO (data protection officer) or legal operations. This commitment may be strengthened by consumer law, especially if the institution does not offer the services it advertised.

The second normative reason is a legal one. It depends on the legal obligations applicable to law schools, when applicable. Assuming that being compliant with regulations and policies is good and fair, since the rule of law is a general principle, educational institutions should incorporate digital technologies into their curriculum if they are required to do so. Political authorities and relevant social segments may assign law schools responsibility for training students capable of dealing with new technologies. This is a normative reason because of the duty imposed by law, but it is contingent since such legal obligation may or may not exist in each community.

In Brazil, the main document in this regard is the National Curriculum Guidelines for Legal Courses. In addition to making digital law content compulsory in the curricula, the National Board of Education also started to require, in 2021, the development of competences related to digital literacy within the "practical-professional training" content. According to the new text, the practical-professional training axis "aims at the integration between practice and the theoretical contents developed in the other formative perspectives, especially in activities related to legal practice and TC [Bachelor's dissertation], besides covering studies related to digital literacy, remote practices mediated by information and communication technologies."⁴⁶

In addition to this act, there is a legal framework supporting the idea that legal education should include digital literacy and digital technologies. In the Civil Framework of the Internet, the Brazilian law establishing the main obligations regarding the Internet provides that "the fulfillment of the constitutional duty of the State in the provision of education, at all levels of education, includes training, integrated with other educational practices, for the safe, conscious and responsible use of the Internet as a tool for the exercise of citizenship, the promotion of culture, and technological development."⁴⁷ Note that the text of the law includes some important values that are achieved through training in technology: citizenship, culture, and technological development.

The Undergraduate Course Assessment Instrument, used by the Ministry of Education to evaluate the quality of higher education courses, has a specific indicator to assess "Information and Communication Technology (ICT) in the teaching-learning process" (Indicator 1.16).⁴⁸ For the institution to obtain the maximum grade, it must meet the following criteria:

46 Brasil, "Resolução CNE/CES nº 5, de 17 de dezembro de 2018", *Diário Oficial da União*, Dec. 18th, 2018. (Establishing digital literacy as part of professional training).

47 Brasil, Lei nº 12.965, de 23 de abril de 2014, *Diário Oficial da União*, Apr. 24th, 2014, http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2014/lei/l12965.htm. (Stipulates education for safe, conscious, and responsible use of the Internet in all levels of education).

48 Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, *Instrumento de avaliação de cursos de graduação: presencial e a distância: reconhecimento, renovação de reconhecimento* (Brasília: Diretoria

The information and communication technologies adopted in the teaching-learning process allow for the execution of the pedagogical project of the course, ensure digital and communicational accessibility, promote interactivity among teachers, students, and tutors (the latter, when applicable), ensure access to materials or teaching resources at any time and place, and enable differentiated learning experiences based on their use.

On the contrary, the minimum grade is applied when “the information and communication technologies adopted in the teaching-learning process do not allow for the execution of the pedagogical project of the course.” Therefore, even though it does not impose a legal obligation, because of its importance for the preservation or elimination of courses, this instrument encourages the adoption of digital technologies by law schools.

Brazil is not the only country to do so. In the USA, the American Bar Association amended the Model Rules of Professional Conduct in 2012 to adopt a duty of technological competence for lawyers. Until 2022, 40 American states have already changed their rules of professional conduct to include this duty.⁴⁹ A similar obligation was added to the Federation of Law Societies in Canada’s Model Code of Professional Conduct in 2019.⁵⁰ It should come as no surprise then that some authors find these duties in other countries, even if not explicitly adopted.⁵¹

The weak claim also addresses the weakness of the lack of evidence for effectiveness.

The incorporation of technology in legal education helps professors focus on what matters: student learning. This position does not correspond to the argument of the assumed effectiveness of teaching methods criticized by Bonilla Maldonado in his essay. It is more instrumental, in the sense that digital technologies facilitate the performance of teachers’ repetitive administrative and pedagogical tasks. In this way, they save time that may be allocated to other more relevant actions for student learning.

The argument is contingent since it will depend on how much time professors spend on repetitive tasks and how effectively they will teach students, but it should be uncontroversial to state that digital technologies allow them to reduce effort and increase personalization. First, they reduce the time and energy spent on repetitive administrative tasks. One example is anti-plagiarism software, that makes it possible to quickly and easily check whether the assignment or answer copies material from the Internet. Second, they also reduce the time and energy spent on repetitive pedagogical tasks. Correcting questionnaires or conducting lectures illustrate the point. Forms with automatic grade assignments and recorded lessons enable teachers, for example, to focus more on identifying weaknesses in the students’ performance

de Avaliação da Educação Superior, 2017), https://download.inep.gov.br/educacao_superior/avaliacao_cursos_graduacao/instrumentos/2017/curso_reconhecimento.pdf.

49 Robert Ambrogio, *Tech Competence* (LawSites, 2022), <https://www.lawnext.com/tech-competence>.

50 Ronald D. Davis, and Bree Pierce, “Canada: Lawyers In A Digital Age: An Emergent Duty Of Technological Competence In Ontario?,” *Mondaq: Connecting knowledge & people*, Dec. 27th, 2021, <https://www.mondaq.com/canada/technology/1144746/lawyers-in-a-digital-age-an-emergent-duty-of-technological-competence-in-ontario>.

51 Joshua Chu, and Steffi Chan, “A Lawyer’s Duty Of Technological Competence,” *Hong Kong Lawyer: The Official Journal of the Law Society of Hong Kong*, Aug. 2020, <https://www.hk-lawyer.org/content/lawyer%E2%80%99s-duty-technological-competence> (Interpreting the Solicitors’ Guide to Professional Conduct (“SG”) of Hong Kong to identify a duty of technological competence).

or designing classroom activities. Finally, tools that collect data open the path for increasingly personalized teaching. Although this may correspond to the vision of students as consumers, it is also possible to think about personalization as something that enables to learn at one's own pace, according to one's own needs, and connecting to one's reality.

As in any other profession, digital technologies may contribute to reducing physically or cognitively repetitive tasks. Thus, they free teachers to focus on those actions that require more concentration, time, and energy. And just as the incorporation of technology is costly and represents an investment, it can also generate savings of financial resources that an institution may apply to other actions, such as paying tutors to accompany students in their activities.

Furthermore, digital technologies may make students more susceptible to engaging with lessons and activities. The evidence in favor of this point is the degree of engagement and involvement of people, especially younger people, with technology. As the pedagogical literature has already shown, students engage more in learning when they are excited, interested, or somehow emotionally involved with the subject.⁵² If teaching incorporates a technological language that engages these people daily, such as games, videos, and social networks, it is possible to consider that digital technologies can improve legal education, even if indirectly, since the students will probably be responsive to these tools.

The weak claim answers the third weakness (lack of a link between specific technologies and learning goals) since it provides conditions in which digital technologies may foster certain goals. Videos and podcasts, for example, offer new ways for students to access information and facilitate the integration of reality and information. Virtual learning environments, digital platforms, and learning management systems provide a space for exchanging and manipulating files, dialogue and communication, carrying out activities, and assessments. Based on the Brazilian experience, it is possible to identify two types of them: a) platforms that provide only the architecture and functionalities for teaching; and b) platforms that provide pre-prepared content for work with students.⁵³

The spread of digital platforms shows that people regard them as good sources of information or as facilitators of learning due to their flexibility. One example is FGV Direito SP. Keeping pace with schools and universities worldwide, the school heavily invested in purchasing videoconference software and other technological resources that would allow it to promptly convert an entire law course into the online format. This process, described by Vilhena and Feferbaum, also included the training of faculty to adapt their courses to the online format, providing digital alternatives to the in-person teaching methodologies they were accustomed to.⁵⁴

52 Noel Entwistle, *Styles of learning and teaching: an integrated outline of educational psychology for students, teachers, and lecturers* (London: Routledge, 2012), 193-199. (Commenting on the importance of motivation and the difference between hope for success and fear of failure).

53 "Colaborar AVA: passo a passo", *É hora de aprender*, accessed July 28th, 2022, <https://ehoradeaprender.com/colaborar-ava/>. (Explaining the "Colaborar AVA" system, created by the Kroton Educational group, one of the largest in Brazil); "Conheça os diferenciais da SAGAH," SAGAH Soluções Integradas Educacionais, accessed July 28th, 2022, <https://sagah.maisaedu.com.br/#SOUIES>. (Presenting content platform for distance learning); "Disciplinas online Saraiva (DONS)," Saraiva Educação, access July 28th, 2022, <https://www.saraivaeducacao.com.br/dons/>. (Introducing a content platform for legal education).

54 Oscar Vilhena Vieira and Marina Feferbaum, "The case of law teaching in Brazil during the COVID-19 Pandemic: the response of FGV Law SP to the pandemic," in: *Legal education and legal profession during and after*

Data shows that this movement is common in other Brazilian higher education institutions. They also have incorporated technological tools, especially digital video platforms, hybrid classrooms, and shared document software.⁵⁵ Institutions intend to increase the offering of virtual or hybrid (part in-person, part online) courses.⁵⁶ They intend to use other technologies soon, such as augmented reality software, recording studios, or acoustically isolated classrooms, and using artificial intelligence to diagnose and personalize learning.⁵⁷

Another piece of evidence is the proliferation of video channels as sources of information. This phenomenon follows the spread of the so-called web 2.0 tools. They are digital platforms that allow users to create, host, and share their content on private company servers (cloud).⁵⁸ The main example is YouTube. In Brazil, it is impossible not to see Google's platform as one of the most widespread learning sources among students. Statistics show that education is one of the main factors that leads to the consumption of videos.⁵⁹ YouTube is also a common means of study for students taking the national exam.⁶⁰

In this regard, two actors draw attention to the importance of social networks and content-sharing sites in Brazil: content channels and digital influencers. The number of channels offering legal content has been steadily increasing. The Judiciary has its channel, TV Justiça, which offers recorded classes with guest professors on various subjects on a dedicated channel.⁶¹ "Estratégia Concursos," which trains graduates for civil service exams, has more than 2 million subscribers and hundreds of videos.⁶² There is even a "law school" fully hosted on YouTube,

COVID-19, edited by Raj C. Kumar and Sreejith S. G. (Singapore: Springer, 2022), https://link.springer.com/chapter/10.1007/978-981-19-2568-9_6.

- 55 Associação Brasileira de Educação a Distância, *Censo EAD.BR 2020: relatório analítico da aprendizagem a distância no Brasil* (Curitiba: InterSaberes, 2022), 112-113, http://abed.org.br/arquivos/CENSO_EAD_2020_PORTUGUES.pdf; Fundação Getúlio Vargas, Centro de Ensino e Pesquisa em Inovação, *Futuro do ensino superior: tendências, perspectivas e questionamentos* (São Paulo: FGV Direito SP, 2022), 100-101, <https://hdl.handle.net/10438/32332> (Both publications presenting the mentioned data).
- 56 Associação Brasileira de Educação a Distância, *Censo EAD.BR 2020*, 39; Centro de Ensino e Pesquisa em Inovação, *Futuro do ensino superior*, 104-105.
- 57 Centro de Ensino e Pesquisa em Inovação, *Futuro do ensino superior*, 107. (Presenting data from respondents about technologies they want to use soon.)
- 58 Tim O'Reilly, "What is Web 2.0: design patterns and business models for the next generation of software," *Communications & Strategies*, no. 1 (2007): 33-34, <https://ssrn.com/abstract=1008839>. (Pointing out the characteristics of user experience and connection between devices); John Musser and Tim O'Reilly, *Web 2.0: principles and best practices* (Sebastopol, CA: O'Reilly Media, 2007), 11-12 (Presenting standards and aspects of web 2.0 platforms).
- 59 Maria Helena Marinho, "Pesquisa Video Viewers: como os brasileiros estão consumindo vídeos em 2018," *Think with Google*, September, 2018, <https://www.thinkwithgoogle.com/intl/pt-br/estrategias-de-marketing/video/pesquisa-video-viewers-como-os-brasileiros-estao-consumindo-videos-em-2018/>. (Showing that about 30% of Brazilians use YouTube to obtain general knowledge and 90% of people use YouTube to study a specific subject).
- 60 "Pesquisa: 45% dos jovens se preparam para o Enem pela internet," *Boletim R7*, October 24th, 2019, <https://noticias.r7.com/educacao/pesquisa-45-dos-jovens-se-preparam-para-o-enem-pela-internet-29062022>. (Presenting data about 45% of young people who would take the national entrance exam in 2018 studied in YouTube, according to the Universia X-Ray).
- 61 Saber Direito, *YouTube*, 2018, <https://www.youtube.com/user/saberdireitoaula>. (Total view count of over 26 million in July 2022).
- 62 Estratégia Concursos, *YouTube*, 2022, <https://www.youtube.com/c/EstrategiaConcursosBrasil>. (Total view count of over 223 million in July 2022).

which provides a set of recorded classes for those who want to watch them.⁶³ Alongside these channels, there are also digital influencers in the legal field. They are people with law degrees who create content about a specific area. With 431,000 followers, Fernando Chagas discusses people's basic rights on Instagram.⁶⁴ The channel "Minutos de Direito," by Mariana Gonçalves, has 161,000 subscribers on YouTube.⁶⁵ Kessya Jackelynne, nicknamed "Consumer Fairy", has 769,000 followers on TikTok and gives tips on consumer law in short videos.⁶⁶

The question is not a matter of discussing a profile of generation Z or Alpha, but of observing that, concretely, a significant proportion of people gather information through these media. The point is that videos with lectures or animations may play the same role in transmitting information as a classroom lecture. If the latter is understood to be effective, why not the former? This comparison emphasizes the difference between the transmission of information – which can occur in many ways – and the building of understanding – which can occur only if the student gives meaning to the information received.

Therefore, in an increasingly informed society, learning depends to a large extent on the number of information sources the student has access to. There is some merit to the idea of "connectivism," according to which the more connections and sources people can access, including non-human and automated ones, the more they learn.⁶⁷ Digital tools also facilitate the exchange of opinions with people from other places and other realities, even though social media algorithms favor the construction of bubbles. A faculty member who is a good content curator and teaches students how to navigate this environment will enhance learning and empower students to learn even after the course. After all, both in legal practice and in daily life, they will want to or must access such sources of information if they wish to be kept up to date or solve new problems.

These pieces of evidence, taken together, do not provide a definitive answer as to the greater effectiveness of legal education based on digital technologies, but they point towards the value of these technologies in facilitating some aspects of the learning process. First, they can help professors in motivating students and integrating content into their reality. Second, they can be one of the many sources of information available to students, which, in turn, highlights the importance of the development of critical skills, like the selection of trustful sources of information and identification of biases and subtle agendas. Third, they can facilitate the access of students to the course's content and the professor's lectures. Fourth, they can promote collaboration and exchange of ideas among students, between them and the professor, and between them and other social actors.

Finally, given certain circumstances, the incorporation of technology in legal education may mitigate social injustice. Hybrid teaching and distance learning have gained prominence,

63 Escola de Direito, *YouTube*, 2022, <https://www.youtube.com/c/EscoladeDireito>. (Total view count of over 89,000 in July 2022).

64 Chagas, Fernando, @_seusdireitos_, *Instagram*, 2022, https://www.instagram.com/_seusdireitos_/.

65 Minutos de Direito *YouTube*, 2022, <https://www.youtube.com/c/MinutosdeDireito/featured>. (Total view count of over 3.8 million in July 2022).

66 Jackelynne, Kessya, @afadinhadoconsumidor, *TikTok*, 2022, <https://www.tiktok.com/@afadinhadoconsumidor>.

67 George Siemens, "Connectivism: a learning theory for the digital age," *International Journal of Instructional Technology and Distance Learning* 2, no. 1 (2005): 1-9, https://jotamac.typepad.com/jotamacs_weblog/files/Connectivism.pdf.

especially during the pandemic, as they were regarded as necessary to teach classes during periods of social distancing. Many law courses have invested in videoconference software licenses, refurbishing or building class recording studios, and even providing tablets, notebooks, Internet chips, and cameras for students.⁶⁸ In Brazil, where participating in legal practice is mandatory in law schools, the pandemic led to the emergence of online legal practice offices, in which students assisted clients remotely under the supervision of lawyers.⁶⁹ Finally, digital libraries allowed institutions to make works available to students when physical libraries were closed.

FINAL REMARKS: TEACHER'S ETHICS AND DIGITAL TECHNOLOGIES

This essay has proposed a set of arguments for the adoption of digital technologies in legal education. They are all guided by an ethic of excellence in the teaching and learning processes, which places the learner at the center of all activity since there is no teaching without learning. It intends to overcome four weaknesses pointed out by Bonilla Maldonado in his essay *Legal Education and Technological Innovation: A Critical Essay*. We do not address the impacts of digital tools in law schools in the Global North in comparison with those in the Global South. The legal services market and the social inequalities may play a different role in each of these places. Finally, the text does not bring empirical evidence in favor of the effectiveness of these technologies in legal education, despite some hints that they may be useful for some learning goals.

The strong claim and the weak claim try to circumvent the alleged weaknesses in different ways. The former contends that digital technologies are essential to legal education. Since it is inherent to Law the solving of social conflicts, students must be trained to deal with issues that emerge with new technologies. The weak claim, on the other hand, gives some conditions in which the incorporation of digital technologies may be normatively justified or expected to be effective. The examples of FGV Direito SP and other institutions show that it is possible to articulate a series of initiatives to implement digital technologies in education while considering normative reasons that justify their adoption.

This is by no means the only way to look at the issue. The Brazilian educational panorama shows the tension between the interests, values, and intentions of the various actors involved in education. In this context, it is possible that other logics, such as economics, appropriates the discourse of incorporating digital technologies, but this only shows that the same decision can result from various reasons.

68 "Informações e orientações sobre entrega dos sim cards e tablets," Universidade Estadual do Rio de Janeiro, accessed July 28th, 2022, <http://www.daiaie.uerj.br/index.php/2020/12/14/informacoes-e-orientacoes-sobre-entrega-dos-sim-cards-e-tablets-2/> (Presenting public university inclusion policy for providing tablets and mobile data chips).

69 "Lançamos o NPJ-Digital para nossos estudantes de direito," Ânima Educação, accessed July 28th, 2022, <https://animaeducacao.com.br/lançamos-o-npj-digital-para-nossos-estudantes-de-direito/>. (Large educational group website presenting its online digital legal offices).

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