

12-1-2019

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Recommended Citation

Conrad Flaczyk, "Technology, the Changing Nature of Disputes, and the Future of Equitable Principles in Canadian Contract Law" (2019) 17:2 CJLT 144.

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Technology, the Changing Nature of Disputes, and the Future of Equitable Principles in Canadian Contract Law

Conrad Flaczyk*

Abstract

There are a number of legitimate reasons to be excited about the application of new technologies to make contracting more efficient. Unfortunately, each of those reasons is associated with certain risks for both contractors and contractees. In this article, I argue that an “equitable” approach to modern contract law — understood by the likes of Larry DiMatteo and others “not merely as a system of rules, but of rules tempered by standards and principles” — is particularly well suited for counterbalancing some of the undesirable contractual risks introduced by new technologies like blockchain, artificial intelligence, and smart contracts. A historical analysis of Canada’s common law treatment of equity suggests that new technologies — particularly those that encroach on human autonomy in the contracting process — may push decision makers to increasingly draw on equitable analyses in contractual disputes. I propose that Canadian contract law can expect broader and more principled statutory rules and common law tests, the more that human autonomy is removed from the contracting process by technologies like blockchain, artificial intelligence, and smart contracts. Accordingly, I outline four proposals for counterbalancing the undesirable contractual risks that could be introduced by these new technologies: (1) inserting equitable principles into statutes to (a) prohibit the use of unilateral amendment provisions in consumer contracts, (b) prohibit the communication of terms and conditions after contract formation, (c) prohibit the use of waivers to block consumers from bringing class action proceedings, and (d) prohibit self-executory performance clauses in consumer contracts without constructive notice; (2) embracing generalist equitable statutes not limited to special forms of contracts; (3) making legislative reform quicker and more adaptable to technological change; and (4) promoting technical literacy and a deeper, bona fide study of equitable reasoning and principles in law school and professional curricula.

* B.C.L. & LL.B. graduate, McGill University’s Faculty of Law, and Articling Student with Gowling WLG LLP (Canada). I would like to extend my deepest gratitude to the entire team at the *Canadian Journal of Law and Technology*, and to all the reviewers who offered valuable feedback on this submission. Your hard work and expert insights were instrumental in preparing this submission for publication. I would also like to extend my deepest gratitude to Professor Helge Dedek of McGill University’s Faculty of Law, who supervised this research and with whom I worked on several other projects over the last three years. I am truly grateful for all the times he met with me to discuss my research, offered detailed feedback on my progress, and encouraged me tackle challenging issues in the law. I want to sincerely thank him for agreeing to supervise my research while I was a student at McGill.

[T]he law provides just one among many stories of justice. If the law story is to convince us, it must include the character of equity. Without equity, the law's story becomes all rules and no justice.

— Gary Watt, *Equity Stirring: The Story of Justice Beyond Law* (Portland: Hart, 2009) at 45.

The great advantage of ancient principles of equity is their flexibility: the judiciary is thus able to shape these malleable principles so as to accommodate the changing needs and mores of society, in order to achieve justice

— Justice Dickson, *Becker v. Pettkus*, 1980 CarswellOnt 299, 1980 CarswellOnt 644, (*sub nom.* Pettkus v. Becker) [1980] 2 S.C.R. 834 (S.C.C.) at para. 37.

1. INTRODUCTION

The role of equity in modern contract law is a polarizing subject. Some, according to Lionel Smith of McGill University, can be described as *equity pragmatists*, “see[ing] the legacy of equity as an historical fact that merely complicates the correct understanding of the modern law.”¹ While others can be described as *equity purists*, who believe in the “continuing distinctness of equitable reasoning, equitable doctrines, [and] equitable traditions.”² As observed by Smith, “[t]hese groups rarely see eye to eye,”³ which explains why

¹ “Unravelling Proprietary Restitution” (2004) 40:3 Can. Buss. L.J. 317 at 317 [Smith, “Unravelling”]. See also Foster Calhoun Johnson, “Judicial Magic: The Use of Dicta as Equitable Remedy” (2012) 46:1 U.S.F. L. Rev. 883 at 936 (“We have no good reason to believe that judges are in a better position to evaluate policy than democratically elected legislatures. Neither do we have reason to believe that courts would function freed from the normal requirements of stare decisis. If judges were free to ignore precedent or the law, then the law would be nothing than the will of judges”) citing Richard A. Posner, *The Problems of Jurisprudence* (Cambridge, MA: Harvard University Press, 1993) at 21 (“judicial discretion is, no matter how fancied up, a source of unease to the legal profession”); Henry E. Smith, “The Equitable Dimension of Contract” (2012) 45:1 Suffolk U.L. Rev. 897 at 897 (“Equity is treated either with disdain as useless moralizing or with impatience as a mere proto-version of freewheeling contextualized inquiry that the law court should be engaging in without artificial constraints of a separate ‘equity.’ Whether they have been anti-moralists, formalists, realists, or consequentialists, commentators have been quite unified in their preference for contract law over equity”) [Smith, “Equitable Dimension”].

² Smith, “Unravelling,” *supra* note 1 at 317. See also Larry A. DiMatteo, “Equity’s Modification of Contract: An Analysis of the Twentieth Century’s Equitable Reformation of Contract” (1999) 33:2 New. Eng. L. Rev. 265 at 268 (“The twentieth century’s swing toward imposing community values of fairness and justice has resulted in the equitable reformation of contracts”) citing Roscoe Pound, *Introduction to the Philosophy of Law*, 2ed (New Haven: Yale University Press, 1959) at 77 [Pound, *Philosophy of Law*] (“Roscoe Pound saw the law moving naturally from one of strict formality to one infused with equitable principles”); Lionel Smith, “Access to Trust Information: Schmidt v. Rosewood Trust Ltd” (2003) 23:1 E.P.T.J. 1 at 6-7 (“The equity pragmatist would like to

Smith — and others like Leonard Rotman, characterize the modern role of equity as “contentious” and “a matter of significant debate and confusion.”⁴

Whether you consider yourself an *equity pragmatist* or *equity purist* — probably subscribing to a middle ground between both ends of this continuum — technological developments in contract automation and standardization over the last four decades raise new and practical questions about the role of equitable reasoning in modern contract law. At the outset, I wish to make it clear that I associate more closely with the *purist* position, while nonetheless understanding and appreciating the fact that law and equity are formally merged under Canadian contract law.⁵ This ideological position is consistent with Rotman and others, who believe that “equity ought to be understood to have a continuing and substantive role in contemporary law and legal education.”⁶ Gary Watt adds:

We do not mourn the passing of the old Court of Chancery with all the evils it perpetuated... but we should not make the mistake of sealing its treasure in the tomb. The treasure of the chancery is a living language; a

eliminate discretion the legacy of discretion in equitable matters, but *Schmidt* and other cases suggest that this is not about to happen”).

³ Smith, “Unravelling,” *supra* note 1 at 317-18. See also Smith, “Equitable Dimension,” *supra* note 1 at 897.

⁴ Leonard I. Rotman, “The ‘Fusion’ of Law and Equity?: A Canadian Perspective on the Substantive, Jurisdictional, or Non-Fusion of Legal and Equitable Matters” (2016) 2:2 *Can. J. Comparative & Contemporary L.* 497 at 507 [Rotman, “Fusion of Law and Equity”]. See also Smith, “Unravelling,” *supra* note 1 at 317-318.

⁵ See *Supreme Court of Judicature Act*, 1873 (U.K.), 36 & 37 Vict, c. 66. For a discussion of how law and equity came together in Canada following the *Supreme Court of Judicature Act*, see also Linda A. Taylor & David M. Wood, “Equitable Jurisdiction of the Provincial Court of Alberta” (1997) 35:3 *Alta. L. Rev.* 592 at 597-602.

⁶ Rotman, “Fusion of Law and Equity,” *supra* note 4 at 501 (“Equity is not only a method by which the rigours of the common law are tempered and its gaps filled, nor is it merely a competing system to the positive law. Rather, equity is more appropriately understood as a process by which positive law is brought closer to the human condition”). See also Fiona Burns, “The ‘Fusion Fallacy’ Revisited” (1993) 5:2 *Bond L. Rev.* 152 at 178 (“It is submitted that we are at an intermediate stage of development where substantive fusion is still limited and prospective”); Peter Bowal, “Equity: The Law of Judicial Conscience” (2008) 32:5 *LawNow* 1 at 2 (“an unwavering focus on fixed rules can itself lead to injustice in some cases. As with most systems with fixed rules... exceptions need to be made occasionally, in the interest of justice. The strictness of legal rules, applied in every case, must be offset by some flexibility to ensure greater fairness. This objective of general predictability and efficiency (common law) co-exists along side the objective of individual discretion and flexibility to facilitate justice in special cases (equity)”); Donovan W.M. Waters, “The Reception of Equity in the Supreme Court of Canada (1875-2000)” (2001) 80:1 *Can. Bar Rev.* 620 at 698 (“Once a relative backwater of rules originated elsewhere, [equity] is now deliberately used as an instrument to turn the flank or fill the silences of accepted common law doctrine and to produce contemporary assessments of obligation breach and appropriate response”) [Waters, “The Reception of Equity”].

vital repository of checks and balances that maintain the law's just operation in the zone between too much rigour and too much flexibility... Chancery language still has the capacity to inform the art of bending the rules without breaking them and the capacity to reform the law without deforming it.⁷

My position assumes that equitable principles remain infused in both common law and statutory duties today, and that — as advanced by Jeff Berryman — “references to equity in Canada are more than rhetorical flourishes; equity together with conscience connotes a distinct form of reasoning.”⁸ It also assumes that the application and consideration of equitable principles by Canadian courts is subject to change, particularly because — as noted by the Supreme Court in *Pro Swing Inc. v. ELTA Golf Inc.* — “[t]he application of equitable principles is largely dependent on the social fabric.”⁹ Indeed, as observed by Roscoe Pound, and reiterated more recently by Larry DiMatteo, “[t]he counterpoise of law and equity [is] cyclical in nature... [because of] an ongoing oscillation between the strictness of law and equity’s response to the injustices produced by the strict application of that law.”¹⁰

At the heart of this research are two questions. Taking for granted equity’s cyclical nature and the historic oscillation between strictness and discretion in contract law,¹¹ have technological developments in contract automation and standardization over the last four decades had an impact on the *nature* or *frequency* of equitable principles considered by Canadian courts? If so, what can

⁷ *Equity Stirring: The Story of Justice Beyond Law* (Oxford, UK: Hart, 2009) at 131 [emphasis added].

⁸ Jeff Berryman, “Equity’s Maxims as a Concept in Canadian Jurisprudence” (2011) 43:2 *Ottawa L. Rev.* 165 at 181 [Berryman, “Equity’s Maxims”]. See also George W Keeton, *An Introduction to Equity*, 6th ed (London, U.K.: Pitman, 1956) at 43-44 (“the distinction between common law and equity is not only one of history, but also one of attitude”).

⁹ *Pro Swing Inc. v. ELTA Golf Inc.*, 2006 SCC 52, 2006 CarswellOnt 7203, 2006 CarswellOnt 7204 (S.C.C.) at para. 22, Deschamps J. [*Pro Swing*] citing I. C. F. Spry, *The Principles of Equitable Remedies: Specific Performance, Injunctions, Rectification and Equitable Damages*, 6th ed. (Pymont, N.S.W.: LBC Information Services, 2001) at 6 (“the maxims of equity are of significance, for they reflect the ethical quality of the body of principles that has tended not so much to the formation of fixed and immutable rules, as rather to a determination of the conscionability or justice of the behaviour of the parties according to recognised moral principles. This ethical quality remains, and its presence explains to a large extent the adoption by courts of equity”).

¹⁰ Larry A. DiMatteo, *Equitable Law of Contracts: Standards and Principles* (New York: Transnational Publishers, 2001) at 213 [DiMatteo, *Equitable Law of Contracts*] citing Roscoe Pound, *Philosophy of Law*, *supra* note 2 at 63.

¹¹ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 213 (“At the beginning of the present century, Pound saw the law returning to the equitable mode that reverberated during the seventeenth century and into the eighteenth century. This was seen as a reaction to the strictness and formalism of the nineteenth century. By the middle of this century the pendulum had begun to swing from free contracting towards fairness in the exchange”).

be said about the future role of equitable principles and reasoning in Canadian law? By *nature*, I am broadly referring to questions of constitutive authority (i.e., distinguishing between equitable principles found in statutes, regulations, and common law jurisprudence), categorization or labelling (i.e., delineating the treatment of equitable principles in consumer protection statutes, electronic commerce statutes, and other statutes allowing for specialized equitable interventions), and the content and related changes in equitable and doctrinal tests in common law jurisprudence, among other questions. By *frequency*, I am broadly referring to longitudinal trends on how certain equitable principles and remedies have been considered and applied in Canadian contract law.

These questions are premised on the understanding that emerging technologies suffer from notable limitations in the contracting process (limitations in both technologies' capacity to emulate human competencies and other unfavourable impacts on contracting parties). Alexander Savelyev argues that current computer technologies are "indifferent to fundamental legal principles, such as lawfulness, fairness, and protection of the weaker party."¹² In a similar vein, Marc Lauritsen noted that although "[m]achines are getting better at interacting with natural language in both written and spoken material [they] are far from grasping the nuances of communications that depend on common sense or metaphorical expression."¹³ Perhaps more important than technical limitations, Eliza Mik recently warned that "[t]he problem does not lie in technology, or computers, becoming autonomous but in technology increasingly encroaching upon human autonomy."¹⁴ She explained:

... it is not persuasive technologies per se that warrant legal attention.
It is the *combination* of technology and personal information that

¹² Alexander Savelyev, "Contract law 2.0: 'Smart' Contracts as the Beginning of the End of Classic Contract Law" (2017) 26:2 Inf. & Comm. Tech. L. 116 at 128 ("Instead the principles of certainty and effectiveness prevail").

¹³ Marc Lauritsen, "Marketing Real Lawyers in the Age of Artificial Intelligence" (2017) 34:2 Law Prac. Mgmt. 68 at 69 ("They lack our intuitive sense of when people mean something different from what they say. They don't 'get' most strategic dimensions of human conversation, let alone display emotional intelligence. Other human skills and accomplishments are unlikely soon to be matched by computers — things like creativity, empathy, imagination, humor, ideation, and discernment") [Lauritsen, "Marketing Real Lawyers"]. See also Edwina L. Rissland, "Artificial Intelligence and Law: Stepping Stones to a Model of Legal Reasoning" (1990) 99 Yale L.J. 1957 at 1959 ("Any discussion of AI must note that tasks involving 'common sense' reasoning or perception, such as language understanding, are by far the most difficult for AI. More technical tasks, like solving calculus problems or playing chess, are usually much easier. That is because the latter can be framed in well-defined terms and come from totally black-and-white domains, while the former cannot and do not") [Rissland, "Artificial Intelligence and Law"].

¹⁴ Eliza Mik, "Persuasive Technologies: From Loss of Privacy to Loss of Autonomy" in Kit Barker, Karen Fairweather & Ross Grantham, eds., *Private Law in the 21st Century* (Oxford: Hart, 2017) at 364 [Barker, Fairweather, & Grantham, eds., *Private Law in the 21st Century*].

creates unprecedented capabilities on the side of internet companies and unprecedented weaknesses on the side of the internet users. This combination enables new forms of commercial exploitation and discrimination... [E]ntire websites can be customised to match the cognitive preferences of specific individuals, and entire marketing strategies can be designed to target specific persons based on the idiosyncratic... desires and vulnerabilities. If we associate autonomy with the ability to choose one action over another, then we much also draw a link between the loss of privacy, inherent in the collection and utilisation of the personal information, and the gradual reduction or manipulation of options on the side of those whose information is collected and utilised.¹⁵

Equity, on the other hand, is described by Leonard Rotman as a “process by which positive law is brought closer to the human condition... a way of elevating the law and facilitating the achievement of justice in the broadest sense of the term while providing sound parameters for the exercise of judicial discretion.”¹⁶ It is further described by the Supreme Court as “malleable”¹⁷ and having the capacity to “accommodate the changing needs and mores of society.”¹⁸ Henry E. Smith, for example, wrote extensively about equity’s ‘functional’ role in contract law as a “safety valve aimed at countering opportunism”¹⁹ and DiMatteo has also highlighted the appropriateness of equitable principles for offsetting the “problem of asymmetrical information”²⁰ in modern contracts, noting: “[t]he law needs to respond to changing conditions. The time lag between societal and legal change can be addressed by the flexibility of equity and through equitable principles.”²¹ In other words, if “[t]he strictness of legal rules, applied in every case, must be offset by some flexibility to ensure greater fairness,”²² equitable principles appear to be a natural fit for the onset of new technologies. I was also

¹⁵ *Ibid.* at 363-64. See also DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 216.

¹⁶ “Fusion of Law and Equity,” *supra* note 4 at 501.

¹⁷ Alexander J. Black, “Under Influence and Unconscionability in Contracts and the Equitable Remedy of Rescission in Canada” (2012) 40 *Adv. Q.* 80 at 81; *Becker v. Pettkus*, 1980 CarswellOnt 299, 1980 CarswellOnt 644, (*sub nom.* Pettkus v. Becker) [1980] 2 S.C.R. 834 (S.C.C.) at para. 37 (“The great advantage of ancient principles of equity is their flexibility: the judiciary is thus able to shape these malleable principles so as to accommodate the changing needs and mores of society, in order to achieve justice”) [*Pettkus*].

¹⁸ *Ibid.* See also *Canson Enterprises Ltd. v. Boughton Co.*, 1991 CarswellBC 269, 1991 CarswellBC 925, [1991] 3 S.C.R. 534 (S.C.C.) at para. 52 (“the maxims of equity can be flexibly adapted to serve the ends of justice as preceived in our days. They are not rules that must be rigorously applied but malleable principles intended to serve the ends of fairness and justice”).

¹⁹ Henry E. Smith, “The Economics of Property Law” in *The Oxford Handbook of Law and Economics* (Oxford: Oxford University Press, 2017) at 24 [Smith, “The Economics of Property Law”].

²⁰ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 216.

²¹ *Ibid.* at 260.

particularly tempted to study the link between equity and technology after coming across several recent and seemingly related Supreme Court decisions on standard form contracts,²³ hyperlinks and abusive forum selection clauses,²⁴ rectification,²⁵ unconscionability,²⁶ estoppel²⁷ and honesty in contractual performance,²⁸ all of which attributed considerable weight to the impact of information asymmetry, standardization, convenience of contracting, and/or equitable reasoning.

While some have studied the general evolution of equity in Canadian contract law,²⁹ none to the present day have systematically studied equity's

²² DiMatteo, "Equity's Modification of Contract," *supra* note 2 at 2.

²³ See *Ledcor Construction Ltd. v. Northbridge Indemnity Insurance Co.*, 2016 SCC 37, 2016 CarswellAlta 1699, 2016 CarswellAlta 1700 (S.C.C.) at para. 4, Wagner J. ("Where, like here, the appeal involves the interpretation of a standard form contract, the interpretation at issue is of precedential value, and there is no meaningful factual matrix that is specific to the particular parties to assist in the interpretation process, this interpretation is better characterized as a question of law subject to a correctness standard of review"); *Sabeen v. Portage La Prairie Mutual Insurance Co.*, 2017 SCC 7, 2017 CarswellNS 38, 2017 CarswellNS 39 (S.C.C.).

²⁴ See *Douez v. Facebook, Inc.*, 2017 SCC 33, 2017 CarswellBC 1663, 2017 CarswellBC 1664 (S.C.C.) at paras. 104, 112, Abella J. ("when online consumer contracts of adhesion contain terms that unduly impede the ability of consumers to vindicate their rights in domestic courts, particularly their quasi-constitutional rights... public policy concerns outweigh those favouring enforceability of a forum selection clause... The doctrine of unconscionability, a close jurisprudential cousin to both public policy and gross bargaining disparity, also applies to render the forum selection clause unenforceable") [*Douez*].

²⁵ See *Canada (Attorney General) v. Fairmont Hotels Inc.*, 2016 SCC 56, 2016 CarswellOnt 19252, 2016 CarswellOnt 19253 (S.C.C.) at para. 32 ("It therefore falls to a party seeking rectification to show not only the putative error in the instrument, but also the way in which the instrument should be rectified in order to correctly record what the parties intended to do") [*Fairmont Hotels*]; *Jean Coutu Group (PJC) Inc. v. Canada (Attorney General)*, 2016 SCC 55, 2016 CarswellQue 11182, 2016 CarswellQue 11183 (S.C.C.) [*Jean Coutu*].

²⁶ See *Douez*, *supra* note 24 at para 112, Abella J.

²⁷ See *Cowper-Smith v. Morgan*, 2017 SCC 61, 2017 CarswellBC 3482, 2017 CarswellBC 3483 (S.C.C.) at para. 29, McLachlin C.J.C. ("The Court of Appeal majority's proposed bright line rule — namely, that reliance on a promise by a party with no present interest in property can never be reasonable — is out of step with equity's purpose, which is to temper the harsh effects of strict legal rules") [*Cowper-Smith*].

²⁸ See *Bhasin v. Hrynew*, 2014 SCC 71, 2014 CarswellAlta 2046, 2014 CarswellAlta 2047 (S.C.C.) at para. 74, Cromwell J. ("I am at this point concerned only with a new duty of honest performance and, as I see it, this should not be thought of as an implied term, but as a general doctrine of contract law that imposes as a contractual duty a minimum standard of honest contractual performance. It operates irrespective of the intentions of the parties, and is to this extent analogous to equitable doctrines which impose limits on the freedom of contract, such as the doctrine of unconscionability") [*Bhasin*].

²⁹ See e.g. DiMatteo, "Equity's Modification of Contract," *supra* note 2 (writing on the twentieth century's "equitable reformation of contract law"); Rotman, "Fusion of Law

relationship to technological development. DiMatteo, for example, explored the link between the ideological rise of free-market capitalism in mid-eighteenth century (citing Adam Smith's *The Wealth of Nations*, among other works, and the *invisible hand*),³⁰ but did not focus on technology's role in the evolution of equity.³¹ In this article, I argue that technological developments in the mid-to-late twentieth century are responsible, in large part, both directly and indirectly, for the substantial codification of equitable principles into Canadian statutes and regulations — a trend loosely described by American scholar Roscoe Pound as “contractual dirigism”³² — or the process of moving from a “system dominated by the common law, divined by courts, to one in which statutes, enacted by legislatures, have become primary sources of law.”³³ As asserted by DiMatteo, “[t]here is no doubt that there was a fundamental shift in Anglo-American contract law from the late nineteenth century to the late twentieth century. At the jurisprudential level contract law moved from an unswerving allegiance to freedom of contract to a greater focus upon correcting substantive and procedural fairness of the exchange.”³⁴ Equally, in the Canadian context, Professor Patrick Atiyah noted a “huge growth of statutory interventions in contract law, much of which is designed to ensure substantive fairness in exchange.”³⁵ In short, I argue that the huge growth of equitable statutory interventions should be understood against the backdrop of information asymmetry, standardization, and an unprecedented convenience of contracting, all of which were brought on by early computer technologies in the late twentieth

and Equity,” *supra* note 4; Samuel L. Bray, “The System of Equitable Remedies” (2016) 63 U.C.L.A. L. Rev. 530 (writing on the evolution and integration of equitable remedies into the common law); Jeff Berryman, “Recent Developments in the Law of Equitable Remedies: What Canada Can Do for You?” (2002) 33 V.U.W.L.R. 51 (writing specifically on the evolution of injunctive remedies and specific performance).

³⁰ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 43-58 citing William L. Clark, Jr., *Law of Contracts*, 3d ed. (St Paul: West Publishing, 1914) at 140 (“So long as a man gets what he has bargained for, and it is of some value in the eye of the law, the courts will not ask what its value may be to him, or whether its value is in any way proportionate to his act or promise given in return”).

³¹ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 29-81.

³² Roscoe Pound, “Philosophy of Law and Comparative Law” (1951) 100:1 U. Penn. L. Rev. 1 at 7.

³³ Guido Calabresi, *A Common Law for the Age of Statutes* (Cambridge, M.A.: Harvard University Press, 1982) at 1.

³⁴ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 99. See also DiMatteo, “Equity’s Modification of Contract,” *supra* note 2 at 338 (“Modern Anglo-American contract law can be divided into three eras: the end of the writ system, along with the separation of law and equity in the eighteenth century, the evolution of classical contract theory of the nineteenth century, and the erosion or reformation of classical contract law in the twentieth... modern contract law has seen a ‘revival of interest in... unjust exchange and legal doctrines such as unconscionability”).

³⁵ Patrick Atiyah, “Contract and Fair Exchange” (1985) 35 U.T.L.J. 1 at 1, 3 [Atiyah, “Fair Exchange”].

century. As noted by James R. Beniger in *The Control Revolution*, the social changes brought on by former innovations are crucial for understanding how present and future changes will materialize: “[a]s in the earlier revolutions in matter and energy technologies, the nineteenth century revolution in information technology was predicated on, if not directly caused by, social changes associated with earlier innovations.”³⁶ Thus, understanding technology’s role in the evolution of equity allows us to apply historical lessons to Canada’s current socio-political context which may not necessarily be undergoing a revolution, but is influenced by technologies tugging at contract law in new ways.

Second, recognizing that recent technologies — most notably artificial intelligence (“AI”), blockchain, and smart contracts — present a unique set of challenges for contract law not exhibited by earlier technologies — or what Eliza Mik recently characterized, for example, as a near complete encroachment on human autonomy³⁷ — I argue that new technologies will push equitable principles and reasoning further into provincial statutes and regulations. Indeed, as stated by Kit Barker, “we must clearly prepare ourselves for yet more statutory intervention.”³⁸ While much has been written about these technologies in doctrinal sources,³⁹ references to AI, blockchain, or smart contracts in Canadian jurisprudence are uncommon, and often for purposes unrelated to legal issues. Still, there are major differences between AI, blockchain, and smart contracts versus earlier technologies (e.g. contracting through hyperlinks or online Terms and Conditions) that need to be considered.⁴⁰ Most notably, while both create information asymmetry and raise privacy concerns, recent technologies are programmed to make autonomous contractual decisions based on a person’s idiosyncrasies. In this article, I, likewise, set out to explore how recent technologies limiting contractual autonomy in unprecedented ways could influence the treatment of equitable reasoning in Canadian contract law. The importance of this exercise, for Douglas Laycock and others, i.e., delineating the role of equity in modern contract law, involves striking “the right balance

³⁶ James R. Beniger, *The Control Revolution: Technological and Economic Origins of the Information Society* (Cambridge, M.A.: Harvard University Press, 1986) at 10 [Beniger, *The Control Revolution*].

³⁷ Mik, *supra* note 14 at 364.

³⁸ Kit Barker, “Private Law as a Complex System: Agendas for the Twenty-First Century” [Barker, “Private Law as a Complex System”] in Barker, Fairweather, & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 17.

³⁹ See e.g. Dina Moussa & Garrett Windle, “From Deep Blue to Deep Learning: A Quarter Century of Progress for Artificial Minds” (2016) 1 *Georgetown L. Tech. Rev.* 72; Riikka Koulu, “Blockchains and Online Dispute Resolution: Smart Contracts as an Alternative to Enforcement” (2016) 13:1 *Scripted* 40; Stacy-Ann Elvy, “Contracting in the Age of the Internet of Things: Article 2 of the UCC and Beyond” (2016) 44 *Hofstra L. Rev.* 839; George S. Geis, “Automating Contract Law” (2008) 83 *N.Y.U.L. Rev.* 450; Mark Gediman, “Artificial Intelligence: Not Just Sci-Fi Anymore” (2016) 21 *A.A.L.L. Spec.* 34.

⁴⁰ See Mik, *supra* note 14 at 363-64.

between discretion and formalism.”⁴¹ Rotman reiterates a similar opinion and describes this exercise as follows: “[m]aintaining a jurisprudential system that appropriately balances the certainty of law and the malleability of equity requires a delicate equilibrium that neither tilts too far toward taxonomy or arbitrariness.”⁴²

This article proceeds in three subsequent parts. First, in Part 2, I provide a short literature review on (a) the history and theory of equitable reasoning in Canada, studying the modern sources of equitable principles in Canadian contract law, and commenting on and distinguishing equitable principles found in statutes, regulations, and those found in common law, and (b) recent technological developments impacting Canadian contract law. In part 3, I then propose a series of recommendations for making better use of equitable principles to counterbalance some of the adverse effects of new technologies for contracting parties, commenting on the future role of legal and professional education in Canada. I end by summarizing the article’s main points in Part 4.

2. LITERATURE REVIEW

a) Historical Developments On Equity In Common Law

As observed by Pound, and reiterated more recently by DiMatteo, the historical treatment of equity has been “cyclical in nature... [owing to] an ongoing oscillation between the strictness of law and equity’s response to the injustices produced by the strict application of that law.”⁴³ In this section, I explore how the cyclical treatment of equity speaks to the close connection between law and ideological changes — a product of socio-economic-political conditions at any moment in time.

While some have chronicled the evolution of equity since the early twelfth century,⁴⁴ for the purposes of this article, I focus on 3 eras of equity since the mid-eighteenth century. These can be loosely depicted as (1) a separation of law and equity on moral and religious grounds; (2) the rise of freedom of contract ideology and rejection of equity owing to the industrial revolution; and (3) what DiMatteo and others have more recently referred to as the “equitable modification”⁴⁵ of modern contract law or the surge of equitable principles and reasoning in jurisprudence and statute.

⁴¹ “The Triumph of Equity” (1993) 56:3 *Law & Contemp. Probs.* 53 at 75. See also Berryman, “Equity’s Maxims,” *supra* note 8 at 181.

⁴² “Fusion of Law and Equity,” *supra* note 4 at 529.

⁴³ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 213 citing Pound, *Philosophy of Law*, *supra* note 2 at 63.

⁴⁴ See e.g. DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 3-28.

⁴⁵ DiMatteo, “Equity’s Modification of Contract,” *supra* note 2 at 298 (“The expanded use of equitable principles and the infusion of good faith into contract law in the twentieth century has led to an equitable modification of contract law”); DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 107-130. See also P.S. Atiyah, *The Rise and Fall of Freedom*

First, in the early eighteenth century, and for much of England's prior history, "[a]grarian economies were mostly dominated by individually agreed contracts where the parties to the contract negotiated 'at arms length' all its terms."⁴⁶ During this period, the role of equitable reasoning was pronounced in England's legal system as the early Courts of Chancery grounded their decisions in the medieval concepts of *reason* and *conscience*, where "conscience" held that judges "must not only follow precedent, but also be guided by [their] own sense of justice."⁴⁷ In other words, as noted by DiMatteo, contract law at this time "had a decidedly moral and equitable demeanor."⁴⁸ In order to have an enforceable contract during this period, not only did it have to satisfy the formal rules of contract law, but "it had to be judged fair."⁴⁹ Similarly, in the American context, a contract had to be "both legal and equitable before a party could call on a jury to execute the agreement."⁵⁰ In short, what was characteristic about the early to mid-eighteenth century — in direct contrast to the early parts of the nineteenth century — was that the foundation of contract law was "not promise or will or consent, but community-based notions of fairness, including notions of just price."⁵¹

However, towards the end of the eighteenth century — spurred by the arrival of England's industrial revolution and its associated socio-economic-political changes — contract law underwent an ideological transformation towards freedom of contract and strict rule application.⁵² "The older ideas of morality of promise and just price gave way to the ideology of freedom of contract."⁵³ In the seminal English case *Earl of Chesterfield v. Janssen*,⁵⁴ for example, the Court of

of Contract (Oxford, U.K.: Oxford University Press, 1985) at 681-715 (chronicling the "decline of freedom of contract in England during the period 1870 to 1970") [Atiyah, *Freedom of Contract*].

⁴⁶ Savelyev, *supra* note 12 at 120.

⁴⁷ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xi.

⁴⁸ *Ibid.* See also W.S. Holdsworth, "Early History of Equity" (1914) 13 Mich. L. Rev. 293 at 295 ("The equitable jurisdiction of the Chancellor, then, was based on an application of the current ideas of the canonists of the fifteenth century... The law of God or of nature or of reason must be obeyed; and these laws require, and through, the agency of conscience, enable abstract justice to be done in each individual case, even at the cost of dispensing... the law").

⁴⁹ *Ibid.* at 31.

⁵⁰ *Gilchreest v. Pollock* (1795), 2 Yeates 18, 1795 Pa. LEXIS 54 (P.A. S.C.) at 19 [Yeates] citing in Morton J. Horwitz, *The Transformation of American Law* (New York: Oxford University Press, 1977) at 165 [Horwitz, *Transformation of Law*]. However, as noted by DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 31, "[t]his was clearly an Anglo-American phenomenon").

⁵¹ Peter Linzer, *A Contracts Anthology*, 2nd ed. (Anderson Publishing Co., 1995) at 126.

⁵² DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xii.

⁵³ *Ibid.*

⁵⁴ *Earl of Chesterfield v. Janssen*, [1750] 1 Atk 301, 26 E.R. 191 (Eng. Ch. Div.).

Chancery had enforced an unfair bargain that was freely entered by the parties, marking what DiMatteo depicted as the “rise of the use of intent or will as the litmus of enforceability.”⁵⁵ Professor Atiyah, in *The Rise and Fall of Freedom of Contract*, delineates this period as roughly 1770-1870,⁵⁶ observing: “[t]he equitable doctrines allowing the courts to relieve various unfortunate events from the effects of hard bargains gradually whittled down.”⁵⁷ This freedom of contract ideology can be understood as “a dual belief that private parties should be free *to* contract on any terms that they desire and be free *from* terms and obligations imposed by law.”⁵⁸ Implied warranties, for example, were rejected at this time in favour of *caveat emptor*. Professor Atiyah also observed that judges in the late 1700s were most concerned about the long-term effects of their decisions, or “the impact on future behaviour through a pure application of principles in particular cases.”⁵⁹ Freedom of contract had gained traction after Adam Smith’s *The Wealth of Nations* (1776)⁶⁰ and after changes brought on by the industrial revolution, such as the “quantitative explosion”⁶¹ of contracts and the associated reformulation of contract law “from a primarily public law to private law.”⁶² Savelyev also noted that industrial society witnessed an emergence of “more simplified form[s] of contracting using standardized terms, which allow[ed] mass-market contracting with minimized human involvement in the negotiation process and lower transaction costs.”⁶³ James Beniger, for example, in his work *The Control Revolution*,⁶⁴ explained that a number of “dramatic new information-processing and communication technologies”⁶⁵ had influenced the “production, distribution, and consumption of goods and services.”⁶⁶ These encompassed the telegraph, telephone, and “power-driven, multiple-rotary printing and mass mailing by rail”⁶⁷ because “[a]t the outset of

⁵⁵ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 43.

⁵⁶ Atiyah, *Freedom of Contract*, *supra* note 45 at 12ff.

⁵⁷ *Ibid.* at 73.

⁵⁸ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 43.

⁵⁹ *Ibid.* at 55 citing Atiyah, *Freedom of Contract*, *supra* note 45 at 394-95.

⁶⁰ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (London: Strahan & Cadell, 1776) [Smith, *Wealth of Nations*].

⁶¹ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 44.

⁶² *Ibid.*

⁶³ Savelyev, *supra* note 12 at 117-18.

⁶⁴ Beniger, *The Control Revolution*, *supra* note 36 at 16-19.

⁶⁵ *Ibid.* at 16.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.* at 18. See also *ibid.* at 7 (“the word *revolution* seems barely adequate to describe the development, within the span of a single lifetime, of virtually all the basic communication technologies still in use a century later: photography and telegraphy (1830s), rotary power printing (1840s), the typewriter (1860s), transatlantic cable (1866), telephone (1876), motion pictures (1884), wireless telegraphy (1895), magnetic tape recording (1899), radio (1906), and television (1923)”).

the Industrial Revolution, most printing was still done on wooden handpresses... [from] three centuries earlier.”⁶⁸ Freedom of contract continued into the 1800s, where “judges finally reject[ed] the belief that the justification of contractual obligation is derived from the inherent justice or fairness in the exchange.”⁶⁹

Finally, a third transformation took place roughly between 1870-1970, a time period that was characterized by Atiyah and others as “the decline and fall of freedom of contract.”⁷⁰ Indeed, it was during this period that the English *Judicature Acts* of 1873 and 1875 came into force, which formally abolished the English Courts of Chancery, but thereby “infused equitable principles into the common law of contracts.”⁷¹ As described by DiMatteo, “[t]he full enforcement of contract as dictated by a cold application of freedom of contract [was] modified in the twentieth century by the countervailing principle of fairness of the exchange.”⁷² There was a noticeable return to equity in legislative intervention (e.g. consumer protection acts) and “an expansion in the use of equitable principles by the courts.”⁷³ These changes were brought on by the steady realization that “the field of contracting is not one of pure competition... [and] that unrestricted freedom of contract is likely to cause inefficient and unjust consequences.”⁷⁴ The attitudes of courts during this period shifted from a strict allegiance to freedom of contract to doing justice “in the circumstances of the case.”⁷⁵ Theorists like Emile Durkheim (1858-1917) emerged during this period and characterized a “just” contract as “not simply any contract freely consented to... [but] a contract by which things and services are exchanged at the true and normal values, in short, at the just value.”⁷⁶ Indeed, courts recognized that earlier freedom of contract doctrines, such as the doctrine of consideration, were not enough to ensure substantive fairness of contractual relationships — a realization that was not inconsistent with Adam Smith’s earlier theories on free-market capitalism (who recognized “[t]he government is responsible for correcting the deleterious consequences of commercial society when such consequences derive from the very nature of a complex, specialized free market economic order.”)⁷⁷ Such specialization and standardization ultimately

⁶⁸ *Ibid.*

⁶⁹ See Horwitz, *Transformation of Law*, *supra* note 50 at 160.

⁷⁰ Atiyah, *Freedom of Contract*, *supra* note 45 at 571ff. See also Pound, *Philosophy of law*, *supra* note 2 at 77.

⁷¹ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 29.

⁷² DiMatteo, “Modification of Contract,” *supra* note 2 at 270.

⁷³ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xiii.

⁷⁴ *Ibid.*

⁷⁵ Atiyah, *Freedom of Contract*, *supra* note 45 at 395.

⁷⁶ Emile Durkheim, *Durkheim and the Law*, ed., Steven Lukes & Andrew Scull (Oxford: Blackwell, 1983) at 227.

⁷⁷ Adam Smith, *The Wealth of Nations*, Fred R. Glahe, ed. (New York: Modern Library, 1978) at 102.

created a “problem of asymmetrical information” that, as explained in Part 2 (c) on Modern Sources of Equity, is on the rise today:

Preferences and tastes [have] become hyper-specialized. On the negative side, the large wealth of information has created the potential for a knowledge gap. The ability to access, synthesize, and utilize all the available information has become a daunting task. Thus, to the unsophisticated and undermanned person or entity the information gap between it and its contracting partner may be profound. This information gap impairs the voluntariness of choice and the eventual optimality of the contractual allocation of benefits and burdens.⁷⁸

b) Theoretical Perspectives On Equity, Contract Law, And Technology

Theoretical discussions on equity in contract law often begin with Aristotle’s understanding of *epieikeia*, which he understood as “law where law is defective because of its generality.”⁷⁹ As noted by Aristotle and elaborated more recently by Henry E. Smith, law is inevitably general and cannot cover the full range of the human experience. For Aristotle and Smith, opportunists in every legal system are “trying to take unfair advantage of the law... looking for weak points in the law to exploit.”⁸⁰ Accordingly, from a functionalist perspective, protection from broadly applicable standards of conduct is necessary as “the general law on its own cannot serve the rule of law values of stability and certainty.”⁸¹ In other words, for Smith, “equity in private law is a coherent package of features motivated largely by one overriding goal: preventing opportunism.”⁸² He calls this the “equitable function”⁸³ and argues that it transcends the historic divided between law and equity:⁸⁴

I have defined opportunism as ‘behavior that is undesirable but that cannot be cost-effectively captured — defined, detected, and deterred — by explicit *ex ante* rulemaking... It often consists of behavior that is technically legal but is done with a view to securing unintended benefits from the system, and these benefits are usually smaller than the costs of

⁷⁸ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 216-17.

⁷⁹ Henry E. Smith, “Fusing the Equitable Function in Private Law” [Smith, “Fusing the Equitable Function”] in Barker, Fairweather & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 177 citing Aristotle, *The Nicomachean Ethics*, J. Ackrill & J. Urmson, eds., (Oxford: Oxford University Press, 1980).

⁸⁰ Smith, “Fusing the Equitable Function,” *supra* note 79 at 177. See also *ibid.* citing Aristotle, *The Nicomachean Ethics*, *supra* note 164.

⁸¹ *Ibid.*

⁸² Smith, “The Economics of Property Law,” *supra* note 19 at 3. See also *ibid.* at 9-10 (“[opportunism] consists of behaviour that is technically legal but is done with a view to secure unintended benefits from the system”).

⁸³ Henry E. Smith, “Fusing the Equitable Function,” *supra* note 79 at 177.

⁸⁴ *Ibid.*

they impose on others.’ The response needs to be *ex post*, and partially discretionary.⁸⁵

However, equity’s functional role to prevent opportunism must be balanced with concerns for ensuring the certainty and predictability of the law, and recognizing party autonomy in contract. Indeed, H.L.A. Hart in *The Concept of Law* wrote that “all legal systems, in different ways, compromise between two social needs: the need for certain rules... and the need to leave open ... issues that can only be properly appreciated and settled when they arise in a concrete case.”⁸⁶ Nevertheless, as noted by Carlo Vittoria Giabardo, “in order to guide future actions private law rules (wherever they might be embedded) must convey a relatively shared and sufficiently predictable meaning on which parties can reasonably rely in planning their future activities.”⁸⁷ Because equitable analyses are “second-order”⁸⁸ functions — needing “to be *ex post* and tailored to the situation”⁸⁹ — legal systems must find an “equilibrium that neither tilts too far toward taxonomy or arbitrariness.”⁹⁰ In other words, as asserted by Douglas Laycock and others, delineating the role of equity in modern contract law involves striking “the right balance between discretion and formalism.”⁹¹

Next, in light of the three eras of the common’s treatment of equity, what can be said about the link between technological innovation and the role of equity? Professor James Beniger in *The Control Revolution* offers a useful perspective. He argued that technological innovations create what he referred to as *crises of control*.⁹² As technological innovations enhance society’s ability to process materials or information, the associated effects outpace society’s ability to control them:

⁸⁵ *Ibid.* at 181 citing Henry E. Smith, “Why Fiduciary Law is Equitable” in A. Gold & P. Miller, eds., *Philosophical Foundations of Fiduciary Law* (Oxford: Oxford University Press, 2014) at 10-11.

⁸⁶ H.L.A. Hart, *The Concept of Law* (Oxford: Oxford University Press, 1961) at 132.

⁸⁷ Carlo Vittoria Giabardo, “Private Law in the Age of the ‘Vanishing Trial’” in Barker, Fairweather & Grantham, eds, *Private Law in the 21st Century*, *supra* note 14 at 554.

⁸⁸ Smith, “Fusing the Equitable Function,” *supra* note 79 at 175 (“I argue that equity is a limited second-order intervention to solve a class of problems characterized by both complexity and uncertainty”). See also *ibid.* at 182 (“The second-order equitable element in the legal system can be treated as a safety-value”).

⁸⁹ *Ibid.* at 179 (“because opportunism calls for that kind of response”). See also DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 286 (“An equitable conception of contractual justice recognizes the increasingly intersubjective, relational nature of modern contract law. It embraces contract law, not as a mere system of rules, but of rules tempered by standards and principles — a system not tied to static doctrine”).

⁹⁰ Rotman, “Fusion of Law and Equity,” *supra* 4 at 529

⁹¹ “The Triumph of Equity” (1993) 56:3 *Law & Contemp. Probs.* 53 at 75. See also Berryman, “Equity’s Maxims,” *supra* note 8 at 181.

⁹² Beniger, *The Control Revolution*, *supra* note 36 at 219-21.

“[t]hroughout all previous history material goods had moved down roadways and canals with the speed of draft animals; for centuries they had moved across the seas at the whim of the winds. Suddenly, in a matter of decades, goods began to move faster than even the winds themselves, reliably and in mounting volume, through factories, across continents, and around the world. For the first time in history, by the mid-nineteenth century the social processing of material flows threatened to exceed in both volume and speed the system’s capacity to contain them. Thus was born the crisis of control.”⁹³

Indeed, since the early nineteenth century, Beniger identified a number of control crises that were brought by important technological innovations. Whether it was harnessing coal energy during the early industrial revolution,⁹⁴ electrical energy in the late nineteenth century,⁹⁵ or developing new information-processing tools and computer chips in the latter part of the twentieth century,⁹⁶ Beniger argued that all of these innovations initially outpaced society’s ability to control them. Where control depended on “personal relationships and face-to-face interactions”⁹⁷ before the industrial revolution, it was eventually replaced by “the new infrastructures of transportation and telecommunications, and system-wide communication via the new mass media.”⁹⁸ However, each of these crises was associated with a handful of societal problems unseen in previous eras.⁹⁹ For example, as noted by Beniger, mass production and distribution of wheat and corn by rail in 1850 challenged farmers and shipping companies to keep track of their shipments, avoid unnecessary spoilage, to keep their rail workers safe, and ultimately to distribute these commodities to end-consumers.¹⁰⁰

Most notably, as it relates to the purpose of this article, Beniger argued that control crises always gave rise to *centralization* and *bureaucratization*.¹⁰¹ He argued that human beings have an inherent need to control our surroundings, both individually and collectively: “history alone cannot explain why it is information that increasingly plays the crucial role in economy and society. The answer must be sought in the nature of *all* living system — ultimately in the relationship between information and control. Life itself implies control, after all, in individual cells and organisms no less than in national economies or any other purposive system.”¹⁰² He explained that while the rise of new technologies during

⁹³ *Ibid.* at 219 [emphasis added].

⁹⁴ *Ibid.* at 169-184.

⁹⁵ *Ibid.* at 291-209.

⁹⁶ *Ibid.* at 292.

⁹⁷ *Ibid.* at 7.

⁹⁸ *Ibid.*

⁹⁹ *Ibid.* at 219-20.

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.* at 7-10.

¹⁰² *Ibid.* at vi.

the industrial revolution (and more recently the information revolution) created an initial crisis of control, a subsequent “control revolution... represented the beginning of a restoration — although with increasing centralization — of the economic and political control that was lost at more local levels of society during the Industrial Revolution.”¹⁰³ During this time, for example, theorists like Max Weber wrote extensively about the rise of bureaucracy in society: “it is primarily the capitalist market economy which means that the official business of the administration be discharged precisely, unambiguously, continuously, and with as much speed as possible.”¹⁰⁴ As noted above, the period following the industrial revolution marked a notable shift away from “[t]he full enforcement of contract as dictated by a cold application of freedom of contract”¹⁰⁵ and saw a rise of centralized regulatory efforts to address societal problems witnessed during the early nineteenth century. A similar response to mass-media advertising and its associated consumerism [spurred by the development of radio (1906) and television (1923)]¹⁰⁶ transpired in the mid-1900s with the rise of consumer protection laws embodying the “principle of fairness of the exchange.”¹⁰⁷ Indeed, as observed by Beniger, “[t]he aggrieved consumer is not a recent phenomenon, surely, but there is something about the conditions of life in this last half of the twentieth century which has elevated consumer law to a new level of interest.”¹⁰⁸ Beniger also identified a crisis of control brought by “a spate of new information-processing, communication, and control technologies like the computer, most notably the microprocessors that have proliferated since the early 1970s.”¹⁰⁹

Finally, Beniger’s perspective remains informative today. Although computer technologies have been around since the early 1970s, as argued by Mik in 2017, new technologies, unlike their predecessors, are “creat[ing] unprecedented capabilities on the side of internet companies and unprecedented weaknesses on the side of internet users.” These issues are discussed in Part 2 (B) and are primarily concerned with “technology increasingly encroaching on human autonomy.”¹¹⁰ This development is a notable shift away from former technologies (e.g. hyperlinks and Terms and Conditions online), which required (and still require) instantaneous consent from users, and — as observed by Beniger — there exists a “recurrent failure of past generations to appropriate the major societal transformations of their own.”¹¹¹

¹⁰³ *Ibid.* at 7.

¹⁰⁴ Max Weber, *Essays in Sociology*, translated by H.H. Gerth & C. Wright Mills (New York: Oxford University Press, 1946) at 215. See also *ibid.* at 7.

¹⁰⁵ DiMatteo, “Modification of Contract,” *supra* note 2 at 270.

¹⁰⁶ Beniger, *The Control Revolution*, *supra* note 36 at 7.

¹⁰⁷ DiMatteo, “Modification of Contract,” *supra* note 2 at 270.

¹⁰⁸ Beniger, *The Control Revolution*, *supra* note 36 at 584.

¹⁰⁹ *Ibid.* at 6.

¹¹⁰ Mik, *supra* note 14 at 364.

While this technology is still in its infancy, if it were to become widely adopted for the purposes of contracting, it could — through Beniger’s lens — result in some form of *control crisis*, whereby existing contractual regimes would be less than ideally suited for reconciling the aforementioned concerns for substantive and procedural fairness. If this were the case, as explained by Beniger, we would likely witness a response towards centralization and bureaucratization — or, as I argue in Part 3 of this article — a greater reliance on equitable principles found in statutes and regulations in order to offset “new forms of commercial exploitation and discrimination”¹¹² brought on by new technologies. Professor DiMatteo likewise predicts that “[t]he increased complexity of modern goods, the movement of goods, the movement from a goods-based to a service oriented economy, the expansion of long-term, relational contracts, and the rapid advancement of technology will continue to apply pressure on courts and legislatures to intercede under the banner of fairness or justice in exchange.”¹¹³ He argues that “the corrective use of equitable principles provides the best means to deal with the heightened uncertainties of an increasingly relational, longitudinal, and cross-cultural contracting environment.”¹¹⁴ In the section that follows, I explore how modern Canadian contract law has tried to achieve this equilibrium.

c) Modern Sources Of Equity In Canada

If understood in the “functional sense,”¹¹⁵ or alternatively as a distinct form of reasoning,¹¹⁶ equity can be observed in several sources of law, including statutes, regulations, and common law jurisprudence. For example, in the section on “Historical Developments of Equity,” I cited several American scholars, including Professor Patrick Atiyah writing on Canada, who noticed a dramatic surge of equitable principles in statutes, regulations, and case law during the twentieth century.¹¹⁷ Hanoch Dagan argued that the statutory intervention in modern contract law provides: “an important example for the potential significance of a supporting public law infrastructure.”¹¹⁸ However, much of the scholarly work on equitable principles in contract law, especially in relation to Canada, predates the recent emergence of technologies discussed in section 2

¹¹¹ Beniger, *The Control Revolution*, *supra* note 36 at 2.

¹¹² Mik, *supra* note 14 at 363.

¹¹³ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xii.

¹¹⁴ *Ibid.* at 290.

¹¹⁵ Smith, “Fusing the Equitable Function,” *supra* note 79 at 174.

¹¹⁶ Berryman, “Equity’s Maxims,” *supra* note 8 at 181.

¹¹⁷ Atiyah, *Freedom of Contract*, *supra* note 45 at 395. See also Barker, “Private Law as a Complex System,” *supra* note 38 at 3.

¹¹⁸ Hanoch Dagan, “The Challenges of Private Law: A Research Agenda for an Autonomy-Based Private Law” in Barker, Fairweather & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 83.

(B).¹¹⁹ Thus, in the following section, I explore how Canadian courts and legislators have treated equity in the last few decades.

1) *Equity In Statutes*

Since the 1960s, provinces across Canada have enacted legislation to “remedy unfair trade practices in the marketplace.”¹²⁰ These have often taken the form of *Consumer Protection Acts*,¹²¹ or some form of *Business Practice Act*,¹²² recognizing, as noted by Terence Ison, many consumer issues “derive from the failure of the legal system to adjust to the realities of mass production.”¹²³ Today, equitable principles are found in handful of provincial statutes (provincial because section 92(13) of the *Constitution Act* gives provinces the exclusive legislative power over property and civil rights in the province).¹²⁴ For example, in Ontario, the main statutes containing equitable principles connected to contract law are the *Consumer Protection Act*,¹²⁵ the *Frustrated Contracts Act*,¹²⁶ the *Unconscionable Transactions Relief Act*,¹²⁷ the *Insurance Act*,¹²⁸ and the *Sale of Goods Act*.¹²⁹ More recently, equitable principles can also be found in each province’s *Electronic Commerce Act*, or some other version thereof. In Ontario, for example, section 21 of the act stipulates:

[a]n electronic transaction between an individual and another person’s electronic agent is not enforceable by the other person if,

- (a) the individual makes a material error in electronic information or an electronic document used in the transaction;
- (b) the electronic agent does not give the individual an opportunity to prevent or correct the error;
- (c) on becoming aware of the error, the individual promptly notifies the other person; and

¹¹⁹ See e.g. Atiyah, *Freedom of Contract*, *supra* note 45 (who ends his analysis in the 1970s).

¹²⁰ Joseph Samuels & Neil Vidmar, “Consumer Complaints and Unfair Trade Practices: An Empirical study of Ontario’s *Business Practices Act*” (1987) 24 U.W.O. L. Rev. 83 at 83. See also Edward P. Belobaba, “Unfair Trade Practices Legislation: Legislation and Substance in Consumer Protection” (1977) 15 Osgoode Hall L.J. 327 at 328.

¹²¹ *Consumer Protection Act*, R.S.O. 1966, c. 23.

¹²² *Business Practice Act*, R.S.O. 1980, c. 55.

¹²³ M. James O’Grady, “Consumer Remedies” (1982) 60:4 Can. Bar Rev. 549 at 550 citing Terence G. Ison, *Credit Marketing and Consumer Protection* (London: Croom Helm, 1979) at 14-15.

¹²⁴ *Constitution Act*, 1982, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11, s. 92(13).

¹²⁵ *Consumer Protection Act*, S.O. 2002, c. 30, ss. 15-18 [*CPA 2002*].

¹²⁶ *Frustrated Contracts Act*, R.S.O. 1990, c. F.34 [FCA].

¹²⁷ *Unconscionable Transactions Relief Act*, R.S.O. 1990, c. U.2 [UTRA].

¹²⁸ *Insurance Act*, R.S.O. 1990, c. I.8, ss. 129 (e.g. relief from forfeiture) [*Insurance Act*].

¹²⁹ *Sale of Goods Act*, R.S.O. 1990, c. S.1, ss. 50 (e.g. specific performance).

- (d) in a case where consideration is received as a result of the error, the individual,
- (i) returns or destroys the consideration in accordance with the other person's instructions or, if there are not instructions, deals with the consideration in a reasonable manner, and
 - (ii) does not benefit materially by receiving the consideration.¹³⁰

In each of these statutes, some allowance is made for consumers, or contractees more generally, to rescind their agreements on equitable grounds; whether on the basis of unconscionability, frustration, relief from forfeiture, mistake, or estoppel,¹³¹ among others. Nevertheless, while these statutes have been around since the mid-twentieth century, there have been notable developments (regarding their treatment of equity) in the twenty-first century. Compare, for example, Ontario's former *Consumer Protection Act*, R.S.O. 1990 c. C 31, with its more recent *Consumer Protection Act, 2002*, S.O. 2002, c. 30, Schedule A. Unlike the former statute, the latter makes explicit reference to undue pressure,¹³² unconscionability,¹³³ and more generally, unfair practices,¹³⁴ recognizing an explicit right or remedy to rescind¹³⁵ consumer agreements for any of the above infractions. What is interesting is how the emergence of equitable language in Ontario's *Consumer Protection Act, 2002* had an influence on the nature and frequency that this language was considered by the courts. For example, using WestlawNext (Canada), I searched ("unconscionable" or "unconscionability") and ("consumer protection act"), narrowing my search to "cases and decisions" and "Ontario." Sorting the 33 total hits chronologically, I noticed that there were only five decisions predating 2002, and of those five decisions, the expression "unconscionability" is either invoked in a manner that is unrelated to the legal issue or it is invoked as a doctrinal test from common law jurisprudence.¹³⁶ However, looking at more recent decisions, it was clear that the

¹³⁰ *Electronic Commerce Act, 2000*, S.O. 2000, c. 17 at s. 21 [emphasis added] [ECA].

¹³¹ See e.g. *Insurance Act*, *supra* note 128, ss. 131(1)(b) ("The obligation of an insured to comply with a requirement under a contract is excused to the extent that... (b) the insurer's conduct reasonably causes the insured to believe that the insurer's compliance with the requirement is excused in whole or in part, and the insured acts on that belief to the insured's detriment").

¹³² *CPA 2002*, *supra* note 125, s. 15(2)(h).

¹³³ *Ibid.* at s. 15.

¹³⁴ *Ibid.* at ss. 14-19.

¹³⁵ *Ibid.* at s. 18.

¹³⁶ See e.g. *Dominion Home Improvements Ltd. v. Knuude*, 1986 CarswellOnt 1028, [1986] O.J. No. 1888 (Ont. Dist. Ct.) at para. 13 citing *Morrison v. Coast Finance Ltd.*, 1965 CarswellBC 140, 55 D.L.R. (2d) 710, 54 W.W.R. 257 (B.C. C.A.) at 713 [D.L.R.], para. 4, Davey J.A. ("a plea that a bargain is unconscionable invokes relief against an unfair advantage gained by an unconscientious use of power by a stronger party against a weaker. On such a claim the material ingredients are proof of inequality in the position of the parties arising out of the ignorance, need or distress of the weaker, which left him in

expression was often invoked with a pinpointed reference to section 15 of the *Act*, sometimes with,¹³⁷ but also sometimes without,¹³⁸ any mention of the common law rules or tests for assessing unconscionability in contract law.

Despite the codification of certain equitable principles, their application today is relatively limited and mostly restricted to particular types of contracts. The *Consumer Protection Act, 2002* applies only to “consumer transactions”¹³⁹ while the *Unconscionable Transactions Relief Act* applies only “in respect to money lent.”¹⁴⁰ The *Insurance Act* and *Sale of Goods Act* likewise have specialized applications. It appears that — at least in Ontario — the *Frustration Contracts Act* is the only statute imposing equitable principles broadly on “any contract that is governed by the law of Ontario.”¹⁴¹ As discussed in subsequent sections, this leaves some room for the further codification of certain equitable principles that may become more relevant with emerging of technologies and that are not currently contained in statutes on contractual matters, like forfeiture, rectification, Act of God, or a general duty of honesty in contractual performance, among other principles. There may also be room to expand certain principles’ applicability, like unconscionability, beyond their current purviews of consumer protection and the loaning of money. Finally, it is also important to note that contracts entered electronically (e.g. smart contracts) will not be “invalid or unenforceable by reason only of being in electronic form”¹⁴² under each province’s *Electronic Commerce Act*. This means, of course, that the statutory rules described above could potentially apply to new contracts.

2) Equity In Regulations

Canada has also witnessed an expansion in regulatory frameworks in the twentieth century, imposing principled and ethical-based standards of conduct on multiple sectors.¹⁴³ A similar trend is taking place in the United Kingdom, where T.T. Arvind and Joanna Gray observed:

the power of the stronger, and proof of substantial unfairness of the bargain obtained by the stronger”).

¹³⁷ See e.g. *Paton Estate v. Ontario Lottery and Gaming Corp.*, 2016 ONCA 458, 2016 CarswellOnt 9109 (Ont. C.A.) at paras. 23-30.

¹³⁸ See e.g. *Centennial Windows Ltd. v. Le*, 2015 CarswellOnt 16273 (Ont. S.C.J.).

¹³⁹ *CPA 2002*, *supra* note 125, s. 2.

¹⁴⁰ *UTRA*, *supra* note 127.

¹⁴¹ *FCA*, *supra* note 126 at s. 2 (though note the exceptions in s. 2(2)).

¹⁴² *ECA*, *supra* note 130, s. 4.

¹⁴³ See e.g. Judith Hanebury, “Smart Regulation — Rhetoric or Reality” (2006) 44:1 *Alta. L. Rev.* 33 at 45; Dirk A. Zetzsche et al., “Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation” (2017) 23 *Fordham J. Corp. & Fin. L.* 31 at 31 (“Prior to the global financial crisis, financial innovation was viewed positively, resulting in a laissez-faire, deregulatory approach... Since the crisis, the regulatory pendulum has swung to the other extreme”).

The transformation of the state in the course of [the early twentieth century] has led to the creation of what is in effect a new jurisdiction — the regulatory jurisdiction — which actively intervenes in the very same relationships as private law, and which in intervening discharges the very same ‘law jobs’ as private law once did: structuring relations, resolving conflicting expectations, setting standards of conduct, and prescribing remedies when those standards are transgressed.”¹⁴⁴

“Regulation,” in the context of this article, borrows Judith Hanebury’s understanding of the term, who broadly defines it as the “delegated powers transferred by a body empowered to pass laws, such as Parliament, to subordinate bodies, including departments, commissions, boards, tribunals, and others.”¹⁴⁵ She further specifies that these “subordinate bodies may affect, control, prescribe, or limit how citizens or corporate bodies act... [though] the vast bodies of policies, guidelines, guidance notes, and other documents”¹⁴⁶ — what Carlos Giabardo and others referred to as the “public side of private law.”¹⁴⁷

Like equity itself, the role of regulation in Canada has been cyclical in nature.¹⁴⁸ Hanebury, for example, asserts that “Canada underwent strong ‘regulatory inflation’ during the 1970s and the early 1980s... [and] peaked in 1985.”¹⁴⁹ This regulatory surge, however, was followed by a gradual trend towards “deregulation and light-handed regulation, and the number of regulations enacted during 2000 was approximately one-third of the peak number.”¹⁵⁰ According to Hanebury, Canada more recently entered a “third phase of regulation”¹⁵¹ that she described as “smart regulation.”¹⁵² Smart regulation strikes a balance between social and conservative approaches because it is goal based or performance based, therefore “the regulation does not specify

¹⁴⁴ T.T. Arvind & Joanna Gray, “The Limits of Technocracy: Private Law’s Future in the Regulatory State” [Arvind & Gray, “The Limits of Technocracy”] in Barker, Fairweather & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 237-38.

¹⁴⁵ Hanebury, “Smart Regulation — Rhetoric or Reality,” *supra* note 143 at 34.

¹⁴⁶ *Ibid.*

¹⁴⁷ Giabardo, *supra* note 87 at 559. See also Dagan, *supra* note 180 at 83-84.

¹⁴⁸ See Hanebury, “Smart Regulation — Rhetoric or Reality,” *supra* note 143 at 34-41.

¹⁴⁹ *Ibid.* at 37.

¹⁵⁰ *Ibid.* citing OECD, *Government Capacity to Assure High Quality Regulation*, OECD Reviews of Regulatory Reform, Regulatory Reform in Canada (2002), online: <www.oecd.org/canada/1960472.pdf>. See also Hanebury, “Smart Regulation — Rhetoric or Reality,” *supra* note 143 at 37 (“However, this does not necessarily mean that there was slower growth in regulation as the change in quasi-regulations (guidelines, policies, guidance notes, and codes) was not measured. This apparent reduction in regulation resulted from greater attention being paid by the government to the costs and benefits of regulation and the alternatives to regulation”).

¹⁵¹ *Ibid.* at 39.

¹⁵² *Ibid.* citing Neil Gunningham, Peter Grabosky & Darren Sinclair, *Smart Regulation: Designing Environmental Policy* (Oxford: Oxford University Press, 1998).

the means of achieving compliance, but sets out goals that allow alternative ways to achieve regulatory compliance.”¹⁵³ It therefore uses broader aspirational goals and standards of conduct to guide behaviour, an approach to regulation that is more closely aligned with what Henry E. Smith referred to as “equity’s open-ended nature”¹⁵⁴ and “higher level”¹⁵⁵ purpose or function, recognizing that “equity looks to the spirit rather than the letter of the law... [and] lends the system of law a great deal of its openness.”¹⁵⁶

The starting point for the functional theory of equity is to recognise that there is a special class of problems calling for a more ‘meta’ kind of solution than the law normally provides. Polycentric task, conflicting rights, and opportunism all involve great complexity and un-certainty... The question is what mechanism for control we need, and this can either be improvements to the system — and more elaborate versions of the rules that give rise to the complex variable problem — or moving to a higher level.¹⁵⁷

3) *Equity In Common Law Jurisprudence*

Finally, the mid-to-latter part of the twentieth century saw what Leonard Rotman loosely referred to as “equitable bleed” or “where concepts of equity are allowed to bleed into the common law and themselves become part of the latter.”¹⁵⁸ DiMatteo similarly observed that “[t]he expanded use of equitable principles and the infusion of good faith during the twentieth century have lead to an equitable modification of contract law.”¹⁵⁹ At the outset, it is important to acknowledge that Canada has “never developed an equity panel of judges.”¹⁶⁰ Instead, as noted by Donovan Waters, “the Supreme Court of Canada has remained a court of generalists — dealing from time to time with equitable principles and doctrines... For practical purposes, therefore, the Supreme Court of Canada at its beginning would conceive of law and equity as two bodies of doctrine rather than two separate administrations.”¹⁶¹ However, as observed by Rotman — and Smith in the American context — the “fusion of law and equity”¹⁶² in the late nineteenth to early twentieth century affected the nature of common law duties and reasoning in at least three ways: the proliferation of

¹⁵³ Hanebury, “Smart Regulation — Rhetoric or Reality,” *supra* note 143 at 45.

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.* at 180.

¹⁵⁶ *Ibid.*

¹⁵⁷ Smith, “Fusing the Equitable Function,” *supra* note 79 at 180 [emphasis added].

¹⁵⁸ Rotman, “Fusion of Law and Equity,” *supra* note 4 at 534.

¹⁵⁹ DiMatteo, “Equity’s Modification of Contract,” *supra* note 2 at 298.

¹⁶⁰ Waters, “The Reception of Equity,” *supra* note 6 at 624.

¹⁶¹ *Ibid.*

¹⁶² Smith, “Fusing the Equitable Function,” *supra* note 79 at 173.

standards and multi-factor balancing tests, the rise of contextualism, and the broadening of civil remedies.¹⁶³

First, the so-called “fusion of law and equity” spurred what Henry E. Smith referred to as “multi-factor balancing tests” in the law of contract: “much of substantive equity was replaced by multi-factor balancing tests and standards because when it comes to the equitable function, that is the closest mono-level substitute for a second-order safety valve.”¹⁶⁴ Commenting on the move of equity into common law tests, Arvind and Gray asserted that “courts are increasingly faced with actions arising out of heavily regulated relationships, in which their ability to deploy the traditional common law tests is necessarily coloured by the need to engage with the aims, goals, and policies underlying the relevant regulations, the majority of which are systemic and consequentialist.”¹⁶⁵ These substantive, multifactor balancing tests typically incorporate some element of discretionary proportionality assessment by the judge, giving “the appearance of something more constrained than total discretion.”¹⁶⁶ For example, the Supreme Court in *Douez v. Facebook, Inc.* recently established a new common law test for determining whether a forum selection clause is enforceable in a consumer context, writing: “[w]hen considering whether it is reasonable and just to enforce an otherwise binding forum selection in a consumer contract, courts should take account of all the circumstances of the particular case, including public policy considerations relating to the gross inequality of bargaining power between the parties and the nature of the rights at state.”¹⁶⁷ Albeit a common law test — and while the court did not refer to equity — this is a clear example of a recent multi-factor balancing test in the technology space created to fulfil equity’s ‘safety valve’ function.

Second, as asserted by Henry E. Smith, contextualism in law and jurisprudence “is an artifact of the overdoing of fusion.”¹⁶⁸ Indeed, if equity serves a higher-level function than legal rules, and is open-ended in nature, the fusion of legal and equitable doctrines, coupled with the onset of multi-factor balancing tests — put contextualism at the forefront of contract theory. Since the late 1990s, there was a notable shift away from the historic common law approach to contractual interpretation in Canada, where — as noted by the Supreme Court in *Creston Moly Corp. v. Sattva Capital Corp.* — “the interpretation of written documents had to be considered questions of law because only the judge could be assured to be literate and therefore capable of reading the contract.”¹⁶⁹ Instead, “the interpretation of contracts has evolved towards a practical, common-sense approach not dominated by technical rules of

¹⁶³ *Ibid.* at 188.

¹⁶⁴ *Ibid.*

¹⁶⁵ Arvind & Gray, “The Limits of Technocracy,” *supra* note 144 at 237.

¹⁶⁶ *Ibid.*

¹⁶⁷ *Douez*, *supra* note 24 at para 38, Karakatsanis, Wagner & Gascon JJ.

¹⁶⁸ Smith, “Fusing the Equitable Function,” *supra* note 79 at 193.

construction”¹⁷⁰ [where] “a decision-maker must read the contract as a whole, giving the words used their ordinary and grammatical meaning, consistent with the surrounding circumstances known to the parties at the time of formation of the contract.”¹⁷¹ *Douez v. Facebook, Inc.* is a good example of the contextual approach and highlights why a strict adherence to the words of a contract and agreement between the parties would have serious limitations in practice, especially today in regards to contracts using or accessing popular technologies like online social media:

unlike standard retail transaction, there are few comparable alternatives to Facebook... British Columbians who wish to participate in the many online communities that interact through Facebook must accept that company’s terms or choose not to participate... [A]ccess to Facebook and social media platforms... have become increasingly important for the exercise of free speech, freedom of association and for full participation in democracy. Having the choice to remain ‘offline’ may not be a real choice in the Internet era.¹⁷²

Finally, the so-called fusion of law and equity resulted in a broadening of civil remedies.¹⁷³ Whereas rescission, specific performance, and injunction were historically equitable remedies that gave judges a wide degree of discretion in a limited number of circumstances, modern treatments of these remedies allow for a broader application. As noted by Alexander J Black, the exercise of equitable discretion in granting remedies was historically limited by principles taking the form of maxims, like equity follows the law, delay defeats equity, he who comes to equity must come with clean hands, and the law prevails where equities are equal.¹⁷⁴ In other words, a plaintiff could not receive an equitable remedy “without first showing that there is no adequate remedy at law.”¹⁷⁵ As noted by Professor Samuel Bray, however, in modern law “[t]hat rule has been much criticized for not actually affecting courts’ decisions about whether to give an equitable remedy.”¹⁷⁶ Alexander Black reiterates this point and argues that the

¹⁶⁹ *Creston Moly Corp. v. Sattva Capital Corp.*, 2014 SCC 53, 2014 CarswellBC 2267, 2014 CarswellBC 2268 (S.C.C.) at para. 43, Rothstein J. [*Sattva*].

¹⁷⁰ *Ibid.* at para 47 citing *Jesuit Fathers of Upper Canada v. Guardian Insurance Co. of Canada*, 2006 SCC 21, 2006 CarswellOnt 3265, 2006 CarswellOnt 3266 (S.C.C.) at para 27, LeBel J.; *Tercon Contractors Ltd. v. British Columbia (Minister of Transportation Highways)*, 2010 SCC 4, 2010 CarswellBC 296, 2010 CarswellBC 297 (S.C.C.) at paras. 64-65.

¹⁷¹ *Sattva*, *supra* note 169 at para 47, Rothstein J.

¹⁷² *Douez*, *supra* note 24 at para 56, Karakatsanis, Wagner & Gascon JJ.

¹⁷³ See Smith, “Fusing the Equitable Function,” *supra* note 79 at 193.

¹⁷⁴ Alexander J. Black, “Undue Influence and Unconscionability in Contracts and the Equitable Remedy of Rescission in Canada” (2012) 40 Adv. Q. 80 at 81 [Black, “Undue Influence”] citing *Pro Swing*, *supra* note 9 at para 2.

¹⁷⁵ Samuel L. Bray, “The System of Equitable Remedies” (2016) 63 U.C.L.A. R. Rev. 530 at 535.

practical utility of maxims is almost in-existent today as courts determine applicable law from an array of common law rules, statutes, and doctrines.¹⁷⁷

Writing on the evolution of private law in the twenty-first century, Kit Barker explains that the broadening of equitable remedies is a product of “increasingly sophisticated, invasive techno-logies”¹⁷⁸ that give rise to new abstract interests and creating new “demands for abstract rights.”¹⁷⁹ For example, she points to the continued expansion in common law jurisdictions of specific performance remedies and cost of cure damages in contract law.¹⁸⁰ Given the abstract nature of interests created by new technologies (as captured by the Civil Liberties Association in *Douez* as interveners),¹⁸¹ there are broader considerations that must be taken into account when resolving modern contract disputes that call for more discretion. At the heart of this discussion is the understanding that equitable remedies are assaults on freedom of contract and autonomy. In other words, by asking a court to rescind a contract or to grant specific performance or an injunction, the party is conceding that a contract was formed. There is therefore a delicate balance that must be made between overly permissive and overly restrictive remedies, a challenge that is likely to be exacerbated by the onset of new technologies: “[t]he law must find a way of expressing respect for persons as human agents exercising real dignity and choice, without allowing itself to affirm the view that life is ‘all about me’ and never about anyone else.”¹⁸²

3. TECHNOLOGY AND CONTRACT LAW

On one hand, the influence of technology on the practice of law is nothing new: internet, email, and legal research databases like Westlaw or LexisNexis “have been around for decades.”¹⁸³ On the other, some believe “we may be on

¹⁷⁶ *Ibid.* (although arguing that there remains a clear distinction between equitable and non-equitable remedies).

¹⁷⁷ Black, “Undue Influence,” *supra* note 174 at 81.

¹⁷⁸ Barker, “Private Law as a Complex System,” *supra* note 38 at 7-8 (“The gradual introduction of such rights in most jurisdictions in recent years is a reaction to... new technologies”).

¹⁷⁹ *Ibid.* (“Such rights are much needed, but still underdeveloped. They remain problematic not just because they protect abstract interests, but because the claims for their protection are themselves, in part, premised on the value of other, abstract human interests such as personal autonomy and human dignity . . . At the same time as private law is being asked to recognise and accommodate new forms of inte-rest, it is also being challenged to ‘vindicate’ more effectively the rights that it already provides, though a broader and more powerful range of remedies.”).

¹⁸⁰ *Ibid.* at 8 citing S. Smith, “Substitutionary Damages” in C. Rickett, ed., *Justifying Private Law Remedies* (Oxford: Hart, 2008), ch. 5 (suggesting that specific performance is now available for the purely educative purpose of vindicating rights).

¹⁸¹ *Douez*, *supra* note 24 at para 56, Karakatsanis, Wagner & Gascon JJ.

¹⁸² Barker, “Private Law as a Complex System,” *supra* note 38 at 9.

the precipice of a more fundamental shift,”¹⁸⁴ and some “predicting a revolution in the legal services market driven by the rise of new technologies.”¹⁸⁵ At the outset of this article, it is essential to delineate what is and what is not currently possible using technology. While I am by no means an authority on the technological capabilities available today, analyzing patterns in the principles considered by courts requires a basic review of the “key aspects of legal reasoning and... computational tools useful for legal practice, teaching, or research.”¹⁸⁶

I begin this section by addressing the fundamental question of whether smart contracts and other blockchain or artificial intelligence technologies can form valid contracts under existing law. In short, the answer is yes — as long as the agreement between the parties (however that agreement is expressed) meets all of the necessary contracting requirements prescribed by law.¹⁸⁷ Raymond Samuels II, writing on Canada’s e-commerce laws, identifies six requirements: intention to create legal relations, offer, acceptance, value consideration, capacity to contract, and legality.¹⁸⁸ In each province’s *Electronic Commerce Act*,¹⁸⁹ or some form thereof,¹⁹⁰ a provision speaks to the validity of these requirements (minus

¹⁸³ Dana Remus & Frank Levy, “Can Robots be Lawyers? Computers, Lawyers, and the Practice of Law” (2017) 30 *Geo. J. Leg. Ethics* 501 at 503 citing Debra Cassens Weiss, “Will Technology Create a Lawyer ‘Jobs-Pocalypse’? Doomsayers Overstate Impact, Study Says” *A.B.A. J.* (5 January 2016).

¹⁸⁴ Remus & Levy, *supra* note 182 at 503. See also Christian Twigg-Flesner, “Disruptive Technology — Disrupted Law? How the Digital Revolution Affects (Contract) Law” in Alberto De Franceschi, ed, *European Contract Law and the Digital Single Market* (Cambridge, U.K.: Intersentia, 2016) at 21-48; Mik, *supra* note 14 at 363 (“It is the combination of technology and personal information that creates unprecedented capabilities... and weaknesses”).

¹⁸⁵ Tanina Rostain, “Robots Versus Lawyers: A User-Centered Approach” (2017) 30 *Geo. J. Leg. Ethics* 559 at 560.

¹⁸⁶ Rissland, “Artificial Intelligence and Law,” *supra* note 13 at 1960.

¹⁸⁷ See Reggie O’Shields, “Smart Contracts: Legal Arrangements for the Blockchain” (2017) 21 *North Carolina Banking Institute* 177 at 180 at 189 (“In order to be valid, smart contracts will have to be construed in such a way as to meet long-established legal norms for contracting”); Max Raskin, “The Law and Legality of Smart Contracts” (2017) 1 *Georgetown L. Tech. Rev.* 305 at 305 (“The article concludes that smart contracts are simply a form of preemptive self-help that should not be discouraged by the legislatures or courts. While certain unconscionable examples of strong smart contracts may need to be policed, judges and policymakers should foster a climate that treats smart contracts as another form of more traditional agreements”).

¹⁸⁸ Raymond Samuels II, ed., *Contract Law Backgrounder to E-Commerce Affiliate Programs* (Kanata, ON: Agora Business Foundation, 2002) at 7-8.

¹⁸⁹ *ECA*, *supra* note 130.

¹⁹⁰ See e.g. *Electronic Transactions Act*, S.B.C. 2001, c. 10 (B.C.); *Electronic Commerce and Information Act*, C.C.S.M. 2001, c. E55 (Manitoba); *Electronic Information and Documents Act, 2000*, S.S. 2000, c. E-7.22 (Saskatchewan); *Electronic Transactions Act*, S.A. 2001, c. E-5.5 (Alberta); *Electronic Commerce Act*, S.N.L. 2001, c. E-5.2 (Newfoundland & Labrador); *Electronic Transactions Act*, R.S.N.B. 2001, c. 145 (New Brunswick); *Electronic Transactions Act*, S.N.W.T. 2001, c. 13 (Northwest Territories);

capacity and legality) when they are expressed in electronic form. In s. 19 of Ontario's *Electronic Commerce Act*, for example:

An offer, the acceptance of an offer, or any matter that is material to the formation or operation of a contract may be expressed,

- (a) by means of electronic information or an electronic document; or by an act that is intended to result in electronic communication, such as,
 - (i) touching or clicking of an appropriate icon or other place on a computer screen; or
 - (ii) speaking.¹⁹¹

Furthermore, in s. 19(2):

A contract is not invalid or unenforceable by reason only of being in electronic form.¹⁹²

Smart contracts must also satisfy any other requirements imposed by specialized statutes and regulations, depending on the nature of the contracts themselves (e.g. consumer protection or real-estate brokerage rules). Thus, if a smart contract satisfies these requirements, its electronic form itself does not render it invalid.

However, as observed by Reggie O'Shields, "[o]ne area that may be especially tricky for smart contracts is showing 'mutual assent' to the contract."¹⁹³ Indeed, how is "mutual assent" — which is "traditionally based on the concepts of offer and acceptance by the parties"¹⁹⁴ — achieved if smart contracts use artificial intelligence to enter into agreements for the parties? David C. Vladeck notes that while the enabling technologies "have no attribute of legal personhood... [t]hey are agents or instruments of other entities that have legal capacity as individuals, corporations, or other legal persons that may be held accountable under the law."¹⁹⁵ This is certainly the case under Ontario's *Electronic Commerce Act*, where the technologies enabling the formation of smart contract would fall under the definition of "electronic agent" meaning "a computer program or any other electronic means used to initiate an act or to respond to electronic documents or acts, in whole or in part, without review by an individual at the time of the response or act."¹⁹⁶ Section 21 stipulates that valid contracts "may be formed by the interaction of an electronic agent and an individual or by the interaction of electronic agents."¹⁹⁷ Thus, as long as a certain

Electronic Commerce Act, N.S.S. 2001, c. 26 (Nova Scotia); *Electronic Commerce Act*, S.N.U. 2004, c. 7.1 (Nunavut); *Electronic Commerce Act*, R.S.Y. 2002, c. 66 (Yukon).

¹⁹¹ *ECA*, *supra* note 130 at s. 19.

¹⁹² *Ibid.* at s. 19(2).

¹⁹³ O'Shields, *supra* note 187 at 185.

¹⁹⁴ *Ibid.* at 186.

¹⁹⁵ David C. Vladeck, "Machines without Principals: Liability Rules and Artificial Intelligence" (2014) 89 Wash. L. Rev. 117 at 121.

¹⁹⁶ *ECA*, *supra* note 130 at s. 1(1) [emphasis added].

technology falls under the umbrella of “electronic agents,” multiple agents can enter into contracts for respective parties. In the following section, I explore blockchain, smart contracts, and AI in greater detail.

A) Blockchain, Smart Contracts, And Artificial Intelligence

1) Blockchain

Three technologies are attracting much of the attention in current literature: (1) blockchain; (2) smart contracts; and (3) artificial intelligence. First, a so-called blockchain is a real-time ledger of data or information, whose existence is confirmed by members of a peer-to-peer network.¹⁹⁸ As explained by Debbie Ginsberg, “[b]lockchains can take any information — from simple ledgers to complex contracts — and store it online in containers called ‘blocks.’ These blocks are then encrypted... [and] only users who have the key can read the information.”¹⁹⁹ Although the information contained in each block can only be accessed by parties with an encrypted key, the history of all transactions is “public, accessible, and widely distributed across the whole network of users.”²⁰⁰ As noted by Max Raskin, blockchain is unique as information can be permanently stored and updated without any central authority: “[i]nformation already contained in a verified blockchain cannot be overwritten without consensus with the entire network to propagate the altered information.”²⁰¹ In short, as it pertains to contract law, blockchain contracts are transactional in nature, anonymous — but nevertheless verifiable — and can be entered into by multiple parties without a central authority. Blockchain, itself, does not interfere with party autonomy, but is merely a platform for contracting.

2) Smart Contracts

Blockchain is most commonly utilized in so-called smart contracts. Smart contracts, also known as self-executing contracts, blockchain contracts, or digital contracts, are binding contracts whose terms and conditions are programmed into computer code, allowing for the self-execution of the contract upon a specified performance.²⁰² As explained by Lisa A. Peters: “if the rules and or

¹⁹⁷ *Ibid.* at s. 21.

¹⁹⁸ Raskin, *supra* note 187 at 317.

¹⁹⁹ Debbie Ginsberg, “Blockchain 3.0 or Web 3. No?” 22 A.A.L.L. Spectrum 36 at 37.

²⁰⁰ Benito Arrunada, “Blockchain’s Struggle to Deliver Interpersonal Exchange” (2018) 19:1 Minn. J.L. Sci. & Tech. 55 at 59. See also O’Shields, *supra* note 187 at 180 (“Each transaction, or block, is authenticated by a network of computers before it is added to the chain of all prior transactions... The blockchain, or distributed ledger, is open and transparent for all to see, although addresses shown do not necessarily indicate the person to whom the address is associated, as the system is also designed to be anonymous”).

²⁰¹ Raskin, *supra* note 187 at 318. See also Horia Mircea Botos, “A Blockchain ‘Intelligence’ Analysis” 13 Res. & Sci. Today 42 at 44 (“Because of its data storing and... use of nodes, the data does not risk centralization or corruption”).

conditions (programmed into the code) are met, the contract self-executes, but if the rules are broken or unfulfilled, an error returns and no activity occurs.”²⁰³ Nevertheless, before a smart contract can self-execute, the agreed upon terms and conditions of the contract must be converted into so-called contractware, defined “as the physical or digital instantiations of contract terms into machines or other property involved in the performance of the contract [where instantiations] mean taking the terms of the agreement and either writing them into previously existing software or writing them into software that is connected in some way to a machine that implements the contract.”²⁰⁴ Smart contracts “work in concert with blockchain technology”²⁰⁵ because the “terms of the contract and state of facts relating to the performance of the contract can be programmed into a decentralized blockchain that cannot be overridden by any individual malicious or mistaken node.”²⁰⁶ Offers can therefore be programmed into a blockchain, where acceptance would be achieved via performance.²⁰⁷ In short, it is the combination of contractware and blockchain technology that distinguishes smart contracts from other electronic or “click-wrap” agreements. Unlike other agreements, “the digital code is not just a representation of the agreement, it is the agreement.”²⁰⁸ For Alexander Savelyev, this means that smart contracts are self-executing, instantaneous, and perhaps one day, self-enforceable.²⁰⁹

3) Artificial Intelligence

A third but interrelated technology attracting much of the attention in current literature is artificial intelligence or (“AI”). AI can be thought of as a process of “machine learning,” whereby a computer processor, programed to complete a task using an algorithm, can improve its algorithm and ultimately its performance, by reviewing or interacting with real-world data or examples.²¹⁰ In

²⁰² See Jerry I-H Hsiao, “Smart Contract on the Blockchain-Paradigm Shift for Contract Law” (2017) 14 US-China L. Rev. 685 at 685-86. See also Kevin D. Werbach & Nicolas Cornell, “Contracts Ex Machina” (2017) 67 Duke L.J. 313.

²⁰³ Lisa A. Peters, “Contract Law Update: Developments of Note” *Lawson Lundell L.L.P.* (9 November 2017), online: < www.lawsonlundell.com/assets/htmldocuments/2017%20Contract%20Law%20Update.pdf > .

²⁰⁴ Raskin, *supra* note 187 at 307.

²⁰⁵ O’Shields, *supra* note 187 at 181.

²⁰⁶ Raskin, *supra* note 187 at 319.

²⁰⁷ *Ibid.* at 322.

²⁰⁸ Peters, *supra* note 203 at 31.

²⁰⁹ Savelyev, *supra* note 12 at 126-27.

²¹⁰ See Kathryn D. Betts & Kyle R. Jaep, “The Dawn of Fully Automated Contract Drafting: Machine Learning Breathes New Life into a Decades-Old Promise” (2016) 15:1 Duke L. & Tech. Rev. 216 at 224 [Betts & Jaep]. See also Maruerite E. Gerstner, “Liability Issues with Artificial Intelligence Software” (1993) 33 Santa Clara L. Rev. 239 at 242 (“Artificial intelligence programs utilize the knowledge of the relationship between objects and events in a particular focused problem area (the ‘domain’) as the basis for problem solving. Rather than using a mathematical algorithm to manipulate

other words, “after processing enough successive examples, a machine learning program can teach itself to identify new examples to better fit the user’s liking.”²¹¹ Applications of AI in law come in many forms, including: document review, due diligence, e-discovery, productivity analytics, and legal decision making.²¹² More recently, there have been attempts to combine AI with blockchain and smart contracts, where AI would be used to identify and code standard terms and conditions.²¹³ In contract law, more specifically, AI is also increasingly being used for contract analytics.²¹⁴ The following excerpt from Betts and Jaep illustrates how AI can be applied to make contracting more efficient:

An algorithm learns which contractual language and which provisions are ‘standard,’ that is, which language and provisions appear most frequently. Once the algorithm understands standard versus nonstandard language, it then internally sorts contracts based on the degree to which each contract conforms to or departs from the standard language. Based on this analysis, the software is able to identify a single ‘standard’ document that contains the least amount of deal-specific, non-standard language available. When later creating model forms to be used in the drafting process, the algorithm [can] start its document creation processes from the contracts that most conform with what it understands to be standard language. In situations without standard contracts, the algorithm is able to aggregate standard clauses from across multiple contracts to approximate a single standard document.²¹⁵

Nevertheless, the adoption and sophistication of AI technology today remains limited. The most common criticism of AI technology is that common sense

data, AI depends on the ‘symbolic manipulation of information’ through the use of heuristics. Unlike mathematical algorithms, heuristics do not always ‘work’ to give a precise answer; they merely offer a ‘clue’ to the solution. It is by combining all useful ideas or clues and having adequate knowledge about the problem domain that the solution is obtained”); Mik, *supra* note 14 at 364 (“websites can be customised to match the cognitive preferences of specific individuals and, and... entire marketing strategies can be designed to target specific persons based on their idiosyncrasies (and frequently hidden) desires and vulnerabilities”).

²¹¹ Betts & Jaep, *supra* note 210 at 224.

²¹² See Lauritsen, “Marketing Real Lawyers,” *supra* note 13 at 68 (“Whether it’s ‘bots’ that fix parking tickets, online apps that generate form packages for self-represented litigants, or suites of software that perform deep analysis of document collections for e-discovery, contract analysis, or due diligence purposes, intelligent systems are starting to show up everywhere”).

²¹³ See e.g. Betts & Jaep, *supra* note 210 at 219 (“Many [smart contracts] require the user to create a ‘coded’ contract by uploading and coding a preexisting contract.... some programs code them automatically through artificial “AI”).

²¹⁴ See e.g. George G. Triantis, “Improving Contract Quality: Modularity, Technology, and Innovation in Contract Design” (2013) 18:2 *Stan. J.L. Bus. & Fin.* 177 at 183 ff. (“Only in very rare cases is full customization cost-effective”).

²¹⁵ Betts & Jaep, *supra* note 210 at 227.

reasoning and perception — those skills that are of a naturally human character — “are by far the most difficult for AI.”²¹⁶ Also, as noted by Eliza Mik above, AI promises to interfere with contractual autonomy in unprecedented ways.²¹⁷ Despite these criticisms, many believe that the initial applications of AI to legal practice are just the early beginnings of what will be a radical technology-based disruption and “the transformative impacts of AI on legal practice will continue to accelerate going forward.”²¹⁸ One survey recently found 36% of U.S. law firms with 50 or more lawyers and 90% of U.S. law firms with 1000 or more lawyers are “either currently using or actively explore use of AI systems.”²¹⁹

B) Proponents Of Adopting Technology Into Contract Law

Proponents of adopting technology into contract law are excited for three main reasons: (1) anticipated increases in certainty or predictability; (2) anticipated increases in economic efficiency realized through the standardization and automation of the contracting process; and (3) anticipated reductions in third party intervention (e.g. government regulation) enhancing contractual freedom.

1) Certainty And Predictability

First, proponents argue that technology can make contracting more certain and predictable by removing ambiguities that are inherent in human interactions.²²⁰ The major premise underlying this position is that “[c]ontracts must be legally certain in order to be enforceable”²²¹ or “the contract must be sufficiently certain in terms of both inherent clarity and completeness in order to bind.”²²² As explained by Savelyev, technology can promote certainty and predictability since “a Smart contract has software code in its core [and] its terms are expressed as one of the available computer languages, which are rather formal languages in their substance, with strictly defined semantics and syntax [and so] computer language does not allow discretion in its interpretation.”²²³ As

²¹⁶ Rissland, “Artificial Intelligence and Law,” *supra* note 13 at 1959.

²¹⁷ Mik, *supra* note 14 at 364.

²¹⁸ *Ibid.*

²¹⁹ *Ibid.* at 21 citing Eric A. Seeger & Thomas S. Clay, “Law Firms in Transition: An Altman Weil Flash Survey” (2017). See also Sterling Miller, “Artificial Intelligence and its Impact on Legal Technology, Part I” *Lexology* (21 November 2017), online:

< www.lexology.com/library/detail.aspx?g=b2247a07-c36d-4894-b774-a76aa7705632 > (“experts predict that spending on AI by companies will grow from \$8 billion to \$47 billion in 2020, up almost 600%”).

²²⁰ See e.g. Kevin Werbach & Nicolas Cornell, “The Promise — and Perils — of ‘Smart’ Contracts” *Knowledge@Wharton*, University of Pennsylvania (18 May 2017), online: [Werbach & Cornell, “Promise and Perils”].

²²¹ Mark Giancaspro, “Is a ‘Smart Contract’ Really a Smart Idea? Insights from a Legal Perspective” (2017) 33 *Computer L. & Security Rev.* 825 at 831.

²²² *Ibid.*

observed by George G. Triantis, the associated clarity of terms that is typical of smart contracts has benefits at both the negotiation and performance stages of the contractual relationship. Parties can not only understand their duties better with fewer ambiguities, but “can allocate enforceable rights with greater confidence and anticipate the likely outcome of possible litigation.”²²⁴

2) *Economic Efficiency From Standardization And Automation*

Second, proponents argue that the standardization and automation of contracts achieved by technology can translate into real-world savings for lawyers and their clients.²²⁵ Standardization of the contracting process refers to the “ability to redeploy contract language across transactions and to share these terms with other lawyers and professionals.”²²⁶ Proponents argue that standardization “reduces costs at each of the contracting stages [including] front-end, back-end, and midstream.”²²⁷ New applications of AI, for example, allow the drafter of a contract to quickly access relevant and standardized contract terms that reduce the costs of reading, research, negotiation, and drafting on the front-end.²²⁸ On the back-end and midstream, standard terms are typically easier for the parties to understand as they are “more likely to have been interpreted and enforced in prior litigation.”²²⁹ Once a benchmark of standard terms has been established, AI can also be used to recognize clauses or specific language diverging from the benchmark, allowing lawyers “to focus their effort on the most important and idiosyncratic aspects of the contract.”²³⁰

On the other hand, automation refers to the ability to self-execute one or more parts of the contracting process, whether front-end, back-end, or midstream. Proponents argue that automation promises to make contractual relationships “more efficient and economical with potentially fewer opportunities for error, delay or dispute.”²³¹ These efficiencies would largely

²²³ Savelyev, *supra* note 12 at 125 (“Smart contract terms are interpreted by machine on the basis of Boolean logic, in contrast to classic contracts, where interpretation of terms is performed by the human brain on the basis of subjective criteria and analogous ways of thinking. Thus the precision of programming languages is able to reduce possible problems associated with unpredictable interpretation of contractual terms by a party to the contract or an enforcement agency. Although ambiguity may exist in programming languages, these ambiguities are less than in the real world because there are simply fewer terms that a computer can recognize than those which a human being can recognize”).

²²⁴ Triantis, *supra* note 214 at 186-87.

²²⁵ See e.g. *ibid.* at 186-91.

²²⁶ *Ibid.* at 187.

²²⁷ *Ibid.* at 186.

²²⁸ *Ibid.*

²²⁹ *Ibid.* at 187.

²³⁰ *Ibid.* at 190. See also Betts & Jaep, *supra* note 210 at 227 (“In situations without standard contracts, the algorithm is able to aggregate standard clauses from across multiple contracts to approximate a single standard document”).

be achieved by cutting the number of hours formerly devoted to administrative logistics, such as the physical signing of documents, the filling and delivery of notices, or the execution of payments under an agreement.²³² Nonetheless, as observed in a recent report by Linklaters L.L.P., “[n]ot all clauses are susceptible to automation and self-execution.”²³³ Even for those clauses that are susceptible, it may not always be desirable to do so. This report distinguished two types of clauses that are found in most contracts: operational and non-operational clauses.²³⁴ While operational clauses are structured by conditional logic — i.e., upon the occurrence of a specified event or time an action is required — non-operational clauses are not structured by conditional logic and detail the wider circumstances of the contractual relationship.²³⁵ Operational clauses are more susceptible to automation for their use of conditional logic and are most commonly found in financial contracts, such as a clause requiring a party to transfer shares to the other party on a specified date. Non-operational clauses are less susceptible to automation and include things like choice of forum, arbitration, or entire agreement clauses.²³⁶ Nonetheless, as noted in the Linklaters report and by others,²³⁷ specific language and expressions found in non-operational clauses can be standardized and automated like operational clauses.²³⁸ In turn, as noted by Mark Giancaspro, “automating a number of key processes during the life of a contract translates to reduced human involvement... [where] efficiency is likely to be improved.”²³⁹

²³¹ Hsiao, *supra* note 202 at 685. See also Raskin, *supra* note 187 at 324 (“Some of the most difficult problems of early contract law involved defenses of misunderstanding and mistake. With respect to interpretation, the use of computer code has the potential to minimize future conflicts over terms. Although ambiguity certainly exists in programming languages, these ambiguities are less than in the real world”).

²³² See International Swaps and Derivatives Association, “Whitepaper: Smart Contracts and Distributed Ledgers — A Legal Perspective” *Linklaters L.L.P.* (August 2017) 1 at 21, online: < www.isda.org/a/6EKDE/smart-contracts-and-distributed-ledger-a-legal-perspective.pdf > .

²³³ *Ibid.* at 10.

²³⁴ *Ibid.* at 10-12.

²³⁵ *Ibid.* at 10-11.

²³⁶ *Ibid.* at 11.

²³⁷ See e.g. Triantis, *supra* note 214 at 190-91.

²³⁸ See International Swaps and Derivatives Association, *supra* note 232 at 12 (“it would be possible to conceive of a world where a computer could understand what is meant by the terms ‘party’, ‘duly organized’, ‘validly existing’, ‘jurisdiction’ and ‘organisation and incorporation’, and could check automatically with relevant company registries whether this representation is correct at the time it is given”). Note, however, the stipulated limitations therein.

²³⁹ Giancaspro, *supra* note 221 at 827.

3) *Reduction In Third Party Intervention*

Third, proponents argue that new technologies promise a reduction in third party invention to contractual relationships, allowing for more contractual freedom.²⁴⁰ Most commercial contracts today depend on some centralized institution that serves as a trusted intermediary between parties, including financial institutions such as banks for financial transactions; retailers who sell goods to consumers originating from manufacturers; and websites or apps that facilitate purchases.²⁴¹ On the other hand, smart contracts utilizing blockchain technology are characterized by anonymity and their decentralized nature.²⁴² Because all transactions on a blockchain ledger are visible to the members of a peer-to-peer network, this satisfies the verification function normally performed by trusted intermediaries.²⁴³ Contracts could therefore be created and performed without engaging any parties that are ancillary to the agreement. Decentralization also brings anonymity as parties to an agreement are not required to share any personal information with third parties such as credit card companies or retailers.²⁴⁴ Since blockchain only recognizes encrypted keys of the parties to an agreement, this has also been argued to reduce the risk of data theft targeting intermediaries.²⁴⁵

C) **Critics Of Adopting Technology Into Contract Law**

Critics of adopting blockchain and artificial intelligence into contract law often voice four main concerns: (1) unforeseen inefficiencies in the contracting process; (2) unsuitability for more complex agreements and relationships; (3) vulnerability to hacking and data theft; and (4) negative impacts on average consumers. I explore each of these criticisms under the following sub-sections.

²⁴⁰ See e.g. Merit Kõlvart, Margus Poola & Addi Rull, “Smart Contracts” in Tanel Kerikmäe & Addi Rull, eds., *The Future of Law and eTechnologies* (Tallinn: Springer, 2016) at 134 (“there is a paradigm shift in the practice of smart contracting, triggered by technologies which enable transactions in a decentralized mode leaving different intermediaries and middlemen aside”); Peters, *supra* note 203 at 31; Hsiao, *supra* note 202 at 685-86.

²⁴¹ See *ibid.* at 685.

²⁴² See Savelyev, *supra* note 12 at 117-18.

²⁴³ See *ibid.* See also Giancaspro, *supra* note 221 at 828.

²⁴⁴ See *ibid.*

²⁴⁵ See *ibid.* See also Christian-Vlad Oancea, “Artificial Intelligence Role in Cybersecurity Infrastructures” (2015) 4 Int’l. J. Information Security & Cybercrime 59 at 59-60; Faye Mitchell, “The Use of Artificial Intelligence in Digital Forensics: An Introduction” (2010) 7 Digital Evidence & Electronic Signature L. Rev. 35; Bohumir Stedron, “Law or Artificial Intelligence? New Trends in the Data Protection” (2007) 1 Masaryk University J.L. & Tech. 209.

1) *Unforeseen Inefficiencies In The Contracting Process*

First, critics argue that blockchain and/or artificial intelligence introduce new inefficiencies in the contracting process that are not always accounted for by proponents of the technologies. As recently observed by Jeremy M. Sklaroff, “[f]rom a purely technical standpoint, they may be right. However, shifting away from human-language contracts creates new inefficiencies.”²⁴⁶ Related to the issue of inefficiency, critics tend to point to — among other criticisms — the relative inflexibility of updating contract terms once they are uploaded to the blockchain,²⁴⁷ the need to convert written terms into computer code before contracting,²⁴⁸ the need to pay IT specialists to code terms,²⁴⁹ the need to train lawyers and administrative personnel,²⁵⁰ and a potential for new coding errors.²⁵¹ Together, these shortfalls amount to ancillary costs and risks that detract from technology’s appeal.

2) *Unsuitability For Complex Agreements And Relationships*

Second, critics argue that the applications of blockchain and artificial intelligence in contract law are largely limited to simple contracts that are based on conditional logic and unsuitable for more complex agreements and relationships. As noted by Werbach and Cornell, “[t]he reality is, even though we think machines can render contracts effectively, there are lots of situations where they cannot.”²⁵² There are several reasons why this may be the case. Perhaps most notably, “certain legal terms would seem incapable of being formally represented in a non-ambiguous way (whether as Boolean logic or some wider formalism) because of their ultimately subjective nature.”²⁵³ Thus, if a term requires performance to be carried out in ‘good faith’ or in a ‘commercially reasonable’ manner, it is harder and arguably counterproductive to express that

²⁴⁶ Jeremy M. Sklaroff, “Smart Contracts and the Cost of Inflexibility” (2017) U. Pa. L. Rev. 263 at 263-64 (“By eliminating this flexibility, smart contracting will impose costs that are more severe and intractable than the ones it seeks to solve”).

²⁴⁷ See e.g. *ibid.* at 264, 291; Betts & Jaep, *supra* note 211 at 222 (“When the underlying law changes or other events occur, lawyers must adapt to new formats or include entirely new types of contractual clauses. To keep up with such changes, lawyers will need to periodically re-code form documents, and may need to perform their own diligence to make sure that the drafting software’s logic tree and output reflect their jurisdiction’s most recent law”).

²⁴⁸ See e.g. Sklaroff, *supra* note 246 at 291; Tsui S. Ng., “Blockchain and Beyond: Smart Contracts” (2017) 1 Bus. L. Today 1 at 2; Gerstner, *supra* note 210 at 244.

²⁴⁹ See e.g. Hsiao, *supra* note 202 at 691.

²⁵⁰ See e.g. Giancaspro, *supra* note 221 at 833 (“As smart contracts are increasingly used, lawyers may need to gain a basic proficiency in coding [which] is a time-consuming process”); Gerstner, *supra* note 209 at 244.

²⁵¹ For a thorough discussion of technology-related errors in contracting, see *ibid.* at 244.

²⁵² Werbach & Cornell, “Promise and Perils,” *supra* note 220 at 3.

²⁵³ International Swaps and Derivatives Association, *supra* note 232 at 12.

term in computer code.²⁵⁴ This is because law has many unique characteristics making it especially challenging for automation.²⁵⁵ As observed by Rissland:

[W]hat counts as an ‘answer’ in the law is not clearcut [and] is also different from other disciplines. In law there is usually no unique right answer; rather there are reasonable alternative answers, more a matter of degree than of extremes. The answers are highly contextual, depend on goals and points of view, and change as the law evolves. Even the rule-based aspects of legal reasoning cannot be modeled with purely deductive methods.²⁵⁶

Moreover, where a complex agreement or relationship could be automated on the blockchain, Betts and Jaep found that experienced lawyers may “refuse to use the software”²⁵⁷ because it leaves them without much control over the finalized legal provisions, raising concerns about compliance and accuracy, and because they may be hesitant to invest in automation training out of fear of losing billables.²⁵⁸

3) Vulnerability To Hacking And Data Theft

Third, critics argue that contracting through blockchain and/or artificial intelligence leaves personal and confidential information vulnerable to hacking and data theft. Smart contracts, for example, are vulnerable in at least two ways. First, because computer code is used to automate smart contracts, they are “automatically subject to various flaws and bugs which may accompany any

²⁵⁴ See *ibid.* at 12-13 (“it is extremely difficult, if not impossible, to conceive all the possible permutations that might occur in the future with respect to a legal relationship between two parties. For clarity’s sake, there is clearly a benefit in spending some time and effort in trying to predict, and explicitly provide for, the most likely permutations. At some point, though, the cost-benefit analysis starts to look less favourable. It is here that a lawyer often reaches for a more sweeping fallback position, such as certain determinations having to be made in good faith and a commercially reasonable manner, or is simply silent on the matter. In either case, the contracting parties are relying on the fact that the courts could be relied upon to provide a contextual interpretation of how the issue should be resolved, informed by the long-standing bedrock of legal principle”).

²⁵⁵ See Rissland, “Artificial Intelligence and Law,” *supra* note 13 at 1961 (“1. Legal reasoning is multi-modal, rich and varied: it includes reasoning with cases, rules, statutes and principles; 2. Case law has an explicit style and standard of reasoning and justification: stare decisis. 3. Specialized legal knowledge, such as cases and statutory rules, is well-documented and available from many sources... 4. The law is self-aware and self-critical, and has an established tradition of examining its processes and assumptions. There is lively debate between proponents of competing jurisprudential schools. 5. The character of answers in the law is different from those in many other disciplines: answers are much more a matter of degree than clear-cut yes-or-no and they can change over time. 6. The knowledge used in legal reasoning is diverse, ranging from common sense to specialized legal knowledge”).

²⁵⁶ *Ibid.* at 1962.

²⁵⁷ Betts & Jaep, *supra* note 210 at 221.

²⁵⁸ *Ibid.*

computer program.”²⁵⁹ In June 2016, Ethereum, a global blockchain platform, was hacked for an estimated value of \$47 million.²⁶⁰ What is noteworthy about this incident is that the hackers had exploited a coding error that governed a smart contract, rather than hacking an encryption code.²⁶¹ Accordingly, as compared to written contracts, smart contracts on blockchain remain vulnerable to human misjudgment in the coding of the contracts. A second form of vulnerability is related to the inherent risks of sharing personal and/or confidential information in the formation of smart contracts.²⁶² As noted by Giancaspro, “[u]tilizing smart contracts necessarily involves digitizing the entirety of the transaction between the parties, which arguably exposes them to greater risk of sensitive information being compromised.”²⁶³ This vulnerability exists when contractual terms and information are being shared, coded, and uploaded on blockchain, although they are encrypted when they are uploaded.²⁶⁴ As explained above and echoed recently, “distributed ledgers are not vulnerable to a single point failure. To be successful, a cyber-attack would need to not only infiltrate one user; it would have to attack multiple copies of the record held across the network.”²⁶⁵

4) *Negative Impacts On Average Consumers*

Lastly, critics argue that contracting through blockchain and/or artificial intelligence negatively impacts consumers by increasing the contractual distance and inequality of bargaining power between consumers and retailers, and by rendering consumers’ personal information vulnerable.²⁶⁶

The ease with which goods can be purchased using [electronic agents] facilitates a contracting environment in which quick purchases without contract review are the norm, thereby further incentivizing consumers to fail to read an understand contract terms. In turn, this encourages businesses to continue to take advantage of consumer ignorance by including one-sided contract terms that impede the ability of consumers to obtain legal redress and may even lead to contractual abuse.²⁶⁷

²⁵⁹ See Savelyev, *supra* note 12 at 126.

²⁶⁰ *Ibid.*

²⁶¹ *Ibid.*

²⁶² See e.g. Mark Giancaspro, *supra* note 221 at 833.

²⁶³ *Ibid.*

²⁶⁴ *Ibid.*

²⁶⁵ Allens L.L.P. & Linklaters L.L.P., *Blockchain Reaction: Understanding the Opportunities and Navigating the Legal Frameworks of Distributed Ledger Technology and Blockchain* (2016), online: < www.allens.com.au/general/forms/pdf/blockchainreport.pdf?s-ku=fsdah5e556eqweqwg > .

²⁶⁶ See e.g. Elvy, *supra* note 39 at 839-45.

²⁶⁷ *Ibid.* at 844.

For example, Amazon Echo's terms of use allow Amazon to unilaterally amend the agreement and contain warranty disclaimers, class action and jury waivers, and a mandatory arbitration provision that excludes small claims.²⁶⁸ Another Canadian example of consumer-related abuse was recently heard at the Supreme Court in *Douez v. Facebook, Inc.*, where the Court evoked public policy concerns and applied the doctrine of unconscionability to render unenforceable a unilateral forum selection clause that was contained in an online consumer adhesion contract.²⁶⁹ Stacy-Ann Elvy argues that advances in contract automation and standardization, coupled with the growing Internet of Things ("IOT"), are expected to worsen pre-existing information asymmetry in consumer contracts, grow the contractual distance between consumers and the contract formation process, further encourage consumers to avoid reading and understanding contractual terms, and encourage businesses to use unilateral amendment provisions and restrictive forum selection provisions as a standard practice.²⁷⁰

There are also concerns that contracting through blockchain and/or artificial intelligence renders consumers' personal information vulnerable to exploitation. AI, for example, is premised on the idea that a user's behaviours, habits, and lifestyle information can all be used to make tools more targeted and efficient. Accordingly, in the consumer context, critics are worried that AI with the growing IOT will give businesses unprecedented access to consumers' personal information.²⁷¹ As argued by Elvy, "IOT devices will be able to measure and monitor their environment, goods, and consumers in real time and provide status data, location data, and actionable data." This issue is compounded by the reality that IOT devices from different providers are increasingly connected, meaning that manufacturers and retailers are able to transmit consumer data between themselves. One recent example of such a partnership is the announcement by Ford to partner with Amazon to connect their vehicles to IOT home devices like Amazon Echo.²⁷² While Canadian privacy statutes allow for the transmission and sharing of anonymized personal information,²⁷³ as

²⁶⁸ *Ibid.*

²⁶⁹ *Douez*, *supra* note 24 at paras 104, 112.

²⁷⁰ Elvy, *supra* note 39 at 839.

²⁷¹ *Ibid.* at 845 ("With the dawn of the IOT, companies will gain access to lifestyle and consumption rate data. IOT devices can also generate health-related and biometric data about consumers, such as temperature, heart rate, hemoglobin levels, blood pressure, blood flow levels, fingerprint scans, voice patterns, and scans of retinas") citing Scott R. Peppet, "Regulating the Internet of Things: First Steps Toward Managing Discrimination, Privacy, Security, and Consent" (2014) 93 *Tex. L. Rev.* 85 at 88, 100, 139.

²⁷² See Marco della Cava, "Ford Partners with Amazon to Connect Cars with Homes" *USA Today* (5 January 2016), online: <www.usatoday.com/story/tech/2016/01/05/ford-working-amazon-boost-car-links/78284584/> .

²⁷³ See e.g. *Personal Information Protection and Electronic Documents Act*, S.C. 2000, c. 5, Schedule 1 at s. 4.5.3 ("Personal information that is no longer required to fulfil the identified purposes should be destroyed, erased, or made anonymous. Organizations

argued by Scott Peppet, it is next to impossible to anonymize IOT data and its implications for single consumers.²⁷⁴ Thus, while new technology creates a need for social inclusion, it also creates a need for exclusion:

The modern order is one in which the combination of exponentially growing populations and increasingly sophisticated, invasive technologies, creates demands for abstract rights not just to social inclusion and respect from one's peers (the traditional preserve of the law of defamation) but also social exclusion — the right to be 'let alone' or 'forgotten' by one's fellow man. The gradual introduction of such rights in most jurisdictions in recent years is a reaction to a more intrusive age and to new technologies.²⁷⁵

4. MOVING FORWARD

Having explored some emerging contract technologies in Part 2 (B), as well as the history, theory, and modern sources of equity in Part 2 (A), I now turn to a deeper discussion of the nexus between equitable principles and reasoning, emerging technologies and contract law in Canada. In this section, I explore four propositions for modernizing Canadian contract law by giving equitable principles larger roles in provincial statutes: (1) inserting increasingly relevant equitable principles into statute; (2) moving toward generalist equitable statutes not limited to specialized contracts; (3) making legislative reform quicker and more adaptable to technological change; and finally, (4) refocusing the study of equitable reasoning in law school and professional licensing curricula.

A) Inserting Increasingly Relevant Equitable Principles Into Statute

The starting point for this analysis involves recognizing that new technologies will — at the very least — continue to challenge courts, legislatures, and academics to address growing concerns about information asymmetry in modern contracting. Professors DiMatteo, Atiyah, and Elvy have indeed all predicted that “the rapid advancement of technology will apply pressure on courts and legislatures to intercede under the banner of fairness or justice in exchange.”²⁷⁶ We have also seen that historically, “[t]he full

shall develop guidelines and implement procedures to govern the destruction of personal information”).

²⁷⁴ Peppet, *supra* note 271 at 156.

²⁷⁵ Barker, “Private Law as a Complex System,” *supra* note 38 at 7 [emphasis added].

²⁷⁶ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xii. See also Atiyah, “Fair Exchange,” *supra* note 35 at 17 (“By now I have, I hope adduced enough evidence to suggest that it is no longer possible to accept without serious qualification the idea that the law is today solely concerned with the bargaining process and not with the result. For one thing, I have cast doubt on the reality of this distinction, and for another, I have cited evidence suggesting a real concern with substantive fairness”); Elvy, *supra* note 39 at 854 (“This article suggests that Article 2 should be amended to safeguard consumers and that

enforcement of contract as dictated by a cold application of freedom of contract [was] modified in the twentieth century by the countervailing principle of fairness of the exchange²⁷⁷ and that there was a “an expansion in the use of equitable principles by the courts.”²⁷⁸

If — as argued in Parts 1 and 2 of this article and supported by the likes of Henry E. Smith and Stacy-Ann Elvy — equitable principles are particularly well suited for offsetting injustices created by new technologies, what kinds of principles should be recognized and in which sources of law? First, as encountered in earlier Parts of this article, a strong case can be made that issues related to information asymmetry in contract law are more likely to be addressed through statutes rather than common law rules — and perhaps rightfully so for a number of reasons. For example, Atiyah noted that in Canada, “the area within which the pure doctrines of the common law actually operate are continuously being confined by the ever-encroaching tide of statute law; and when it comes to statutes nobody feels the least inhibition about trying to ensure that contracts should actually be, in some sense, fair.”²⁷⁹ In other words, for Atiyah, statutes may be more receptive to changes placing a greater focus on the substantive fairness of contracts rather than ensuring procedural fairness.²⁸⁰ This also serves as a response to critics who may argue that courts and common law rules are more adaptable change, which, on its surface, may be true, but may be less suited for larger-scale efforts of promoting substantive fairness. Changes at the statutory level are also closer in-line to Beniger’s theoretical insights [discussed in Part 2 (A)(b)], whereby technological changes are followed by “crises of control” and addressed via public processes of *centralization* and *bureaucratization*.²⁸¹

Addressing issues of information asymmetry through statutes makes sense for a handful of other reasons. As noted by Henry E. Smith, statutory rules — as opposed to common law rules — are purpose driven and their interpretation may be better suited for the “openness”²⁸² of equity, which “looks to the spirit rather than the letter of the law... [and] is more outward looking — to morality, custom, common sense — than the regular more formal parts of the law.”²⁸³ Moreover, as discussed in Part 2 (A)(C), equitable principles and reasoning are closer

courts should adjust their application of existing contract law and agency principles to account for the new, automatic, and interface-free contracting environments by considering the increased levels of information asymmetry and the growing distance between consumers, contract terms, and the contract formation process”).

²⁷⁷ DiMatteo, “Modification of Contract,” *supra* note 2 at 270.

²⁷⁸ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at xiii.

²⁷⁹ Atiyah, “Fair Exchange,” *supra* note 35 at 17

²⁸⁰ *Ibid.* at 2-3.

²⁸¹ Beniger, *The Control Revolution*, *supra* note 36 at 7-10.

²⁸² Smith, “Fusing the Equitable Function,” *supra* note 79 at 177.

²⁸³ *Ibid.*

aligned to the most recent trends of “smart regulation” that is goal based and “does not specify the means of achieving compliance, but sets out goals that allow alternative ways to achieve [it],”²⁸⁴ or regulating behaviour through a series of broader aspirational goals and standards that are closely related to equitable principles. Further, also discussed in Part 2 (A)(c), when courts create new rules that incorporate some form of equitable principles, they often take the form of what Henry E. Smith referred to as — “multi-factor balancing tests”²⁸⁵ that are characterized by a broader policy or proportionality analysis.²⁸⁶ This is the case because, as explained by Arvind and Gray, “courts are increasingly faced with actions arising out of heavily regulated relationships, in which their ability to deploy the traditional common law tests is necessarily coloured by the need to engage with the aims, goals, and policies underlying the relevant regulations, the majority of which are systemic and consequentialist.”²⁸⁷ Accordingly, questions arise whether modern courts — creating broad policy and proportionality tests in the common law — are best suited (both practically and morally) to make these decisions,²⁸⁸ “call[ing] into question many of the theoretical assumptions that are taken for granted in contemporary private law scholarship.” Finally, doctrinal duties in common law doctrines may be easier to avoid than statutory duties by strong contracting parties. Consider, for example, the new general (doctrinal) duty of honesty in contractual performance. The Supreme Court in *Bhasin v. Hrynew*²⁸⁹ noted that while “the parties are not free to exclude it [by contract],”²⁹⁰ depending on the context, the parties are free “to relax the requirements of the doctrine so long as they respect its minimum core requirements.”²⁹¹ However, it may be more difficult (i.e., fewer contexts) in which contractors could stipulate relaxations of statutory rules since they are interpreted in a purposeful manner. For example, consumer protection acts in Canada explicitly forbid parties to waive any substantive or procedural rights recognized under the acts.²⁹² It is unlikely that the parties could relax any of these rights because they were adopted precisely for protecting consumers against such encroachments. In short, though, even if statutes are better suited for tackling these issues, as noted by Arvind and Gray, common law will continue to play a crucial role in interpreting and applying statutory duties. Common law would still play a crucial role in interpreting and applying new statutory duties.²⁹³

²⁸⁴ Hanebury, *supra* note 143 at 45.

²⁸⁵ Smith, “Fusing the Equitable Function,” *supra* note 79 at 188.

²⁸⁶ *Ibid.*

²⁸⁷ Arvind & Gray, “The Limits of Technocracy,” *supra* note 144 at 237.

²⁸⁸ *Ibid.*

²⁸⁹ *Bhasin*, *supra* note 28.

²⁹⁰ *Ibid.* at para 75.

²⁹¹ *Ibid.* at para 77.

²⁹² *CPA 2002*, *supra* note 125, s. 7 (Ontario).

Second, what kinds of principles should be recognized for addressing the problem? In this section, I explore the feasibility of inserting four equity-based principles into modern statutes: (1) prohibiting unilateral amendment provisions in consumer contracts; (2) prohibiting the disclosure of terms and conditions post contract formation in consumer contracts; (3) prohibiting the waiver of consumers' rights to bring class action proceedings in consumer contracts; and (4) prohibiting self-executory performance without constructive notice in consumer contracts. These propositions would initially fall under each province's consumer protection laws as unconscionable and unfair practices. In the following sections, I will explore each of these four propositions in greater detail.

1) Prohibiting Unilateral Amendment Provisions In Consumer Contracts

First, consumer protection laws across Canada should explicitly prohibit the enforceability of unilateral amendment provisions in consumer contracts, "where the use such provisions would permit amendments that are detrimental to consumer rights."²⁹⁴ A unilateral amendment or change-of-terms provision — as the name suggests — is a contractual term that was agreed to by a contractee at the time of contract formation, "providing for a right of the merchant to unilaterally modify the fees or other essential terms during the course of a consumer contract (without further consent)."²⁹⁵ For example, a unilateral amendment provision could remove a small claims court option for the consumer, decrease the time that a consumer has to bring a claim, or change the agreed forum.²⁹⁶ Currently, consumer protection laws across Canada do not make direct or explicit references to the validity of such provisions, although they may be captured by broader rules against unconscionable representations — for example — where "the consumer transaction is excessively one-side in favour of someone other than the consumer"²⁹⁷ or "the terms of the consumer transaction are so adverse to the consumer as to be inequitable."²⁹⁸ Nevertheless, as argued by Stacy-Ann Elvy and others,²⁹⁹ there is value in including explicit consumer protection rules prohibiting unilateral amendments.

²⁹³ Arvind & Gray, "The Limits of Technocracy," *supra* note 144 at 250.

²⁹⁴ Elvy, *supra* note 39 at 913-914.

²⁹⁵ Sidney Elbaz & Christian Abouchaker, "Restrictions to Unilateral Contractual Amendments... and to Punitive Damages" *McMillan L.L.P.* (July 2014), online: < mcmillan.ca/Restrictions-to-Unilateral-contractual-amendments-and-to-punitive-damages >. Note that unilateral amendment provisions are not limited to consumer contracts.

²⁹⁶ Elvy, *supra* note 39 at 914, 882.

²⁹⁷ *Ibid*, s. 15(2)(e).

²⁹⁸ *Ibid*, s. 15(2)(f).

²⁹⁹ Elvy, *supra* note 39 at 913-914. See also Peter A. Alces, "They Can Do What!? Limitations on the Use of Change-of-Terms Clauses" (2012) 26:4 Ga. St. U. L. Rev. 1099 at 1107-08.

The consumer context in Canada is already characterized by high levels of asymmetry and contract distancing.³⁰⁰ Moreover, as argued by Elvy, the unprecedented ability of new technologies to generate IOT data about consumers, as well as enter into contracts autonomously for the parties, is expected to “worsen preexisting information asymmetry in consumer contracts to the benefit of companies; increase the lack of proximity between consumers and the contract formation process; further encourage consumers’ failure to read and understand contract terms prior to contracting; and likely lead businesses to further take advantage of consumer ignorance and apathy by including one-sided contract terms, such as unilateral amendment provisions.”³⁰¹ In such a context, it is thus important to prohibit these provisions as consumers should not be expected and “should not bear the burden of conducting investigations and routinely checking a company’s website to determine if the terms of and conditions [of their contract] have been amended.”³⁰² Moreover, as noted by the Supreme Court in *Douez* and reiterated by Elvy, whereas consumers once had multiple options to choose from, market concentration and the importance of certain products and services (e.g. social media platforms like Facebook and LinkedIn, word processors, and electronic payment systems) leaves consumers without a genuine choice or alternative in the contracting process.³⁰³ As noted by Elvy, “[h]igh levels of information asymmetry favoring sellers can lead to gross inequalities in bargaining power, and where this is combined with contract terms that heavily benefit the party with superior bargaining power, such as unilateral amendment rights, it may confirm indications that the consumer did not assent to the contract or had no real meaningful choice.”³⁰⁴ The benefits of adding explicit rules against unilateral amendments in consumer protection laws would not only include — as argued indirectly by Martin A. Hogg — “furnish[ing] [consumers] with a single starting point for understanding their rights, duties, and remedies, in order to apply them to their specific circumstances,”³⁰⁵ but would also serve as deterrence for companies to evoke these terms, rather than having a policy of including them on a *prima facie* basis and only debating their

³⁰⁰ See Teresa Scassa, Michael E. Deturbide & C.C.H. Canada Limited, *Electronic Commerce and Internet Law in Canada*, 2nd ed. (Toronto: C.C.H. Canadian Limited, 2012) at ch. 2; Canada, Working Group on Electronic Commerce and Commerce and Consumers, *Principles of Consumer Protection for Electronic Commerce: a Canadian Framework* (Ottawa: The Working Group, 1999); See also Mik, *supra* note 14 at 363-68 (for consumer protection trends in the American context).

³⁰¹ Elvy, *supra* note 39 at 839, 844.

³⁰² *Ibid.* at 913-14.

³⁰³ *Douez*, *supra* note 24 at para 56, Karakatsanis, Wagner & Gascon JJ.; Elvy, *supra* note 39 at 914.

³⁰⁴ *Ibid.*

³⁰⁵ Martin A. Hogg, “Codification of Private Law: Scots Law at the Crossroads of Common and Civil Law” in Barker, Fairweather & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 109.

validity in the event of litigation. Explicit references would likewise help to clarify the law around unilateral amendments in consumer contracts, which is a hotly debated subject at the moment.³⁰⁶

Other jurisdictions have already adopted rules prohibiting unilateral amendment provisions in consumer contracts. In the European Union, for example, *Directive 93/13/EEC* establishes rules for consumer contracts. Under article 3(3), Annex 1(j), “[a] contractual term which has not been individually negotiated shall be regarded as unfair if... [it enables] the seller or supplier to alter the terms of the contract unilaterally without a valid reason which is specified in the contract.”³⁰⁷ This is a contextual analysis taking into account “at the time of conclusion of the contract ... all the circumstances attending the conclusion of the contract”³⁰⁸ and the invalidity of one or more unfair terms does not render the entire agreement invalid or unenforceable.³⁰⁹ While neither the *Uniform Commercial Code*³¹⁰ nor the *Restatement (Second) of Contracts*³¹¹ in the United States contain any explicit provisions dealing with unilateral amendments, there are recent efforts to modernize these sources,³¹² although they have been met with conflicting attitudes in jurisprudence.³¹³ In Canada, consumer protection legislation would likely classify these rules under unconscionable representations, which, according to section 17(2) of the Ontario *CPA*, constitute unfair practices. Consumers would have the right, under section 18(1), to rescind agreements after giving notice to their intention to do so within one year of entering into the agreement per section 18(3). Under such a proposal, a merchant would be required to obtain fresh consent when amending the terms of a contract.

³⁰⁶ See e.g. Charles-Antoine Péladeau & Frédéric Wilson, “Consumer Law: the Court of Appeal Reviews the Validity of Unilateral Amendment Stipulations in Consumer Law” *Norton Rose Fulbright L.L.P.* (June 2017), online: <www.nortonrosefulbright.com/files/ca-consumer-law-the-court-of-appeal-reviews-the-validity-of-unilateral-amendment-stipulations-in-consumer-law-155212.pdf> .

³⁰⁷ E.C., Council Directive 91/13/EEC of 5 April 1993 on unfair terms in consumer contracts, [1993] OJ L 95/29 at 3(3), Annex 1(j).

³⁰⁸ *Ibid.*, s. 4(1).

³⁰⁹ *Ibid.*, s. 4(2).

³¹⁰ *U.C.C.*, § 2 (2002).

³¹¹ *Restatement (Second) of Contracts*.

³¹² See especially Elvy, *supra* note 39 at 844, 874. See also Nancy Kim, “Is Contract Law Ready for the Internet of Things?” *Jotwell* (5 December 2016), online: <contracts.jotwell.com/is-contract-law-ready-for-the-internet-of-things/> .

³¹³ See e.g. *Discount Drug Mart Inc. v. Devos Ltd.*, 2013 WL 5820044, 2013 U.S. Dist. LEXIS 154920 (N.D. Ohio, Div. Eastern) (the court noted that a unilateral amendment provision could result in unfair hardship); *Nicosia v. Amazon.com Inc.*, 834 F.3d 220 (2nd Cir., 2016) (the court upheld an amended arbitration clauses in light of a prior unilateral amendment clause).

2) *Prohibiting The Communication Of Terms And Conditions Post Contract Formation*

Second, consumer protection laws across Canada should explicitly prohibit the communication of terms and conditions following an agreement to contract. As observed by Elvy, an increasingly common practice business in the world of e-commerce has become sending terms and conditions by email to consumers after they have already and contracted for the goods or services.³¹⁴ In part, this has been a response to what Elvy called the “interface-face contracting environment.”³¹⁵ This issue — or the validity of terms and conditions disclosed after payment and contract formation — was the subject of a recent United States Court of Appeals decision in *Starkey v. G Adventures, Inc.*³¹⁶ In this case, a consumer (plaintiff) bought a vacation package from the defendant travel company. After suffering harm during the trip, she brought an action against the defendant company in the State of New York, against which the defendant sought to enforce a forum selection clause listing Ontario as the agreed upon forum. Most notably, the terms and conditions containing the forum selection clause were sent to the consumer by email after she had already paid for the vacation.³¹⁷ The emails, themselves, did not contain the terms and conditions, but instead contained hyperlinks to the defendant’s website where the terms and conditions could be found.³¹⁸ The Court of Appeal ruled that “[a] tour company reasonably communicates a forum selection clause to travelers where: (1) its promotional brochure directs the traveler’s attention to the terms and conditions printed on the passenger ticket contract, which may be inspected at any of the company’s offices, and (2) the ticket contract itself set forth the clause clearly and unambiguously.”³¹⁹ In other words, as long as a company’s terms and conditions are displayed on promotional brochures or websites and tickets or contracts explicitly stipulate the terms and conditions, they can be found binding even if brought to the attention of consumers following payment or the time of the formation of the contract itself.

As argued by Elvy, “[i]n no event should contract terms be disclosed to consumers after they have already purchased goods... [and] [c]ourts should be wary of enforcing contracts where terms are disclosed via email.”³²⁰ In the aforementioned case, whether or not the plaintiff read or saw the terms and conditions on the promotional brochure was immaterial, and only received them on her ticket following payment. Even if terms and conditions are sent by email before payment, as noted by Elvy, “there are many potential reasons that may

³¹⁴ Elvy, *supra* note 39 at 913.

³¹⁵ Elvy, *supra* note 39 at 846.

³¹⁶ *Starkey v. G Adventures, Inc.*, 796 F.3rd 193 (2nd Cir., 2015).

³¹⁷ *Ibid.* at 195-96.

³¹⁸ *Ibid.*

³¹⁹ *Ibid.* at 197-99.

³²⁰ Elvy, *supra* note 39 at 913.

explain a consumer's failure to read emailed terms. Emails may end up in a spam folder, or delivery of the email could be delayed or blocked due to server issues beyond the consumer's control... consumers may [also] become over-whelmed with the volume of such emails, which may decrease the probability that consumers will have adequate notice of such terms."³²¹ More importantly, whether or not the consumer in the case above would have changed her decision to have purchased the ticket having seen the terms before payment is arguably less important than the public policy and moral implications: if companies are legally required to actively obtain the consent of consumers before the time of purchase, then they would be — at a minimum — more deterred from incorporating abusive terms and conditions. While consumer protection laws in Canada do not explicitly recognize that consumers must have had an opportunity to acquaint themselves with the terms and conditions of a contract prior to the formation of a contract,³²² EU *Directive 93/13/EEC* recognizes such a right in section 3(3), Annex 1(i), which stipulates that a contractual term is unfair and unenforceable if it “irrevocably binds the consumer to terms with which he had no real opportunity of becoming acquainted before the conclusion of the contract.”³²³ Thus, European Union laws recognize the importance of a temporal element to the negotiation and formation of consumer contracts. A similar rule could be added into provincial consumer protection laws across Canada to deter retailers from communicating their terms and conditions by email after contract formation and to encourage retailers to use “I agree” drop-down terms and conditions online. This would be a small but incremental step for protecting consumers against — what Elvy described as — “the increased levels of information asymmetry and the growing distance between consumers, contract terms, and the contract formation process.”³²⁴

3) *Prohibiting The Waiver Of Consumer's Right To Bring Class Action Proceedings*

Third, consumer protection laws across Canada should explicitly prohibit waiving consumers' right to bring class action proceedings under the contract. Note that while some provinces have already adopted such rules, they have not been universally adopted across all the provinces. For example, in Ontario and Quebec, sections 8(1) and 11(1) of their respective consumer protection acts³²⁵ prohibit the use of waivers for class action proceedings:

³²¹ *Ibid.*

³²² See e.g. *CPA 2002*, *supra* note 125 (Ontario).

³²³ Council Directive 91/13/EEC, *supra* note 307, s 3(3), Annex 1(i).

³²⁴ Elvy, *supra* note 39 at 846. For a more radical proposition, see Robert A. Hillman, “Online Boilerplate: Would Mandatory Website Disclosure of E-Standard Terms Backfire” (2006) 104 Mich. L. Rev. 837 (contemplating whether websites and e-commerce retailers should be required to disclose their terms and conditions publicly online).

A consumer may commence a proceeding on behalf of members of a class under the *Class Proceedings Act, 1992* or may become a member of a class in such a proceeding in respect of a dispute in the consumer agreement or a related agreement that purports to prevent or has the effect of preventing the consumer from commencing or becoming a member of a class proceeding.³²⁶

Saskatchewan is the only other Canadian province that prohibits class action waivers under its consumer protection laws.³²⁷ However, no such rules exist in the consumer protection or class proceeding acts of other provinces and territories — including their associated regulations. For example, see the consumer protections statutes of British Columbia,³²⁸ Alberta,³²⁹ Manitoba,³³⁰ Newfoundland and Labrador,³³¹ Prince Edward Island,³³² Nova Scotia,³³³ Yukon,³³⁴ the Northwest Territories,³³⁵ and Nunavut.³³⁶ Overall, the majority of Canadian provinces have thus not adopted rules prohibiting class action waivers.

Prohibiting class action waivers in consumer contracts is particularly important for several reasons. Most notably, given that the objects of a consumer contract is typically of low monetary value (e.g. monthly cellphone bills of \$40 per month or banking transaction fees of \$1-2 each) and considering that most infractions are concerned with only a portion of the total value of a contract, individual consumers are not reasonably expected to enforce their rights over minor infractions.³³⁷ Indeed, the time it would take to enforce those rights in court and costs associated with proceedings would most likely outweigh potential benefits of enforcing those rights. Nonetheless, this does not mean that minor infractions by retailers or service providers on individual rights do not

³²⁵ *CPA 2002*, *supra* note 125, s. 8(1) (Ontario); *Consumer Protection Act*, C.Q.L.R. c. P-40.1, s. 11(1) (Quebec) (“Any stipulation that obliges the consumer to refer a dispute to arbitration, that restricts the consumer’s right to go before a court, in particular by prohibiting the consumer from bringing a class action, or that deprives the consumer of the right to be a member of a group bringing a class action is prohibited”).

³²⁶ *CPA 2002*, *supra* note 125, s. 8(1) (Ontario).

³²⁷ *The Consumer Protection and Business Act*, S.S. 2014, c. C-30.2, s. 101.

³²⁸ *Business Practices and Consumer Protection Act*, S.B.C. 2004, c. 2; *Class Proceedings Act*, R.S.B.C. 1996, c. 50.

³²⁹ *Consumer Protection Act*, R.S.A. 2000, c. C-26.3; *Class Proceedings Act*, S.A. 2003, c. C-16.5

³³⁰ *Consumer Protection Act*, C.C.S.M. c. C-200; *Class Proceedings Act*, C.C.S.M. c. C-130.

³³¹ *Consumer Protection and Business Practices Act*, S.N.L. 2009, c. C-31.1; *Class Actions Act*, S.N.L. 2001, c. C-18.1.

³³² *Consumer Protection Act*, R.S.P.E.I. 1988, c. C-19.

³³³ *Consumer Protection Act*, R.S.N.S. 1989, c. 92; *Class Proceedings Act*, S.N.S. 2007, c. 28.

³³⁴ *Consumers Protection Act*, R.S.Y. 2002, c. 40;

³³⁵ *Consumer Protection Act*, R.S.N.W.T. 1988, c. C-17.

³³⁶ *Consumer Protection Act*, R.S.N.W.T.(Nu) 1988, c. C-17.

³³⁷ See Elvy, *supra* note 39 at 907.

amount to major infractions when considered collectively. Therefore, as a matter of public policy, class action proceedings are essential procedural tools holding companies accountable where they might not have otherwise been held accountable by individual claimants. Class action waivers are especially problematic because, as noted by Elvy, “consumers routinely fail to read contract terms.”³³⁸ Elvy cited one survey in 2007 that found that less than 1% of users access a company’s terms and conditions online and that “of the few users who did access the company’s terms and conditions, half of the users’ access lasted for less than thirty seconds and ninety percent of users spent less than two minutes reviewing the terms and conditions.”³³⁹ In short, in a modern contracting environment where consumers almost always fail to read terms and conditions and one that is characterized by unprecedented levels of information asymmetry and contracting distance — especially considering new interface-free platforms — it would be unconscionable economically, logistically, and morally to allow parties with so much bargaining power to waive consumers’ right to bring class actions.

4) *Prohibiting Self-Executory Performance Without Constructive Notice*

Finally, consumer protection laws across Canada should explicitly prohibit self-executory performance of consumer contracts without constructive notice. As discussed in Part 2 (B), there are already a number of retailers who are moving towards automated and interface-free contracting models, whereby “robotic devices have the capacity not only to inform consumers that a product is running low, but also to purchase replacement products directly from companies without consumers actively participating.”³⁴⁰ For example, Brita water filters are designed to detect that its filter has been used to full capacity and to automatically order replacement filters on Amazon.³⁴¹ Under this or other similar arrangements — such as Amazon’s Dash Replenishment Service (“DRS”)³⁴² — consumers will be presented with terms and conditions at the initial time of purchasing the product and will subsequently be asked to consent online to terms and conditions for setting-up automatic replenishing. However, consumers might not be presented with terms and conditions before each subsequent renewal or purchase. As argued by Elvy:

Where a consumer is not provided with a contract terms prior to each successive order placed using an IOT device, or fails to understand the impact of such terms when they are provided, the consumer should not automatically be deemed to have manifested assent or unequivocally accepted a company’s terms and conditions.”³⁴³

³³⁸ *Ibid.* at 874.

³³⁹ *Ibid.*

³⁴⁰ *Ibid.* at 843.

³⁴¹ *Ibid.* at 840-41.

³⁴² *Ibid.*

Such an arrangement could be problematic for a number of reasons. For example, if — as promised by members of the innovation communities and demonstrated early by companies like Amazon — self-executory performance contracts become widely adopted, it would unduly force consumers to keep track of all of their self-executory arrangements for different products and with multiple companies. Consumers would have to be extremely vigilant to cancel any contracts or unsubscribe to the automatic replenishing feature for products or services no longer needed (at the risk of being billed each month). On a related note, consumer preferences constantly change and platforms (such as the Brita filter) may themselves break or become obsolete thereby eliminating the need for more filters. These arrangements also raise legal questions about automatic successive purchases, like how they would be treated if a retailer exercised a unilateral amendment or changed the product.³⁴⁴

This issue is particularly challenging for consumer protection laws because too much interference from the legislature (in the form of restrictions on self-executing performance) would run against the envisioned benefits of an interface-free contracting mechanism. A viable solution must therefore balance the concerns for consumer protection with desires for promoting innovation and commercial efficiency. On this note, I propose that provincial consumer protection laws address self-executory contracts using the doctrine of constructive notice. Rather than obligating retailers to obtain the explicit consent of consumers before each reorder (e.g. by clicking “I agree” to terms and conditions online), consumer protection laws should obligate retailers to notify consumers within a reasonable time that they will re-execute the purchase unless the consumers cancel the reorder online or by another means of communication before the purchase is executed. This kind of arrangement would allow the retailer and consumer to retain the benefit of self-executory deals, but would give consumers an opportunity to consider — without requiring any action on the part of the consumer — whether or not they agree to purchase additional products or services. Currently, no provincial consumer protection laws in Canada explicitly address self-executing contracts and the proposed amendments would best be characterized as “unconscionable” and “unfair practices” giving the consumers a right to rescind their contracts if no such notice was given by the retailer.

B) Embracing Generalist Equitable Statutes Not Limited To Specialized Contracts

Second, to address concerns about growing information asymmetry and contract distance, changes could also be made by incorporating equitable principles into more generalist statutes not limited to specialized contracts. While in the section above, I outlined four ideas for modernizing provincial consumer

³⁴³ *Ibid.* at 879.

³⁴⁴ *Ibid.* at 841.

protections statutes through the channel of unconscionability, in practice, they would be limited to consumer contracts and would not resolve technology-related issues for more sophisticated parties. Accordingly, each province's *Electronic Commerce Act* could also be modernized to account for technology-related issues more broadly whenever electronic agents are used in the contracting process. Currently, most *Electronic Commerce* acts recognize a limited set of circumstances that would render an electronic transaction unenforceable. For example, section 21 of Ontario's *Electronic Commerce Act* only recognizes "material error" as an equitable defense and attaches stringent conditions for evoking the defense:

An electronic transaction between an individual and another person's electronic agent is not enforceable by the other person if,

- (a) the individual makes a material error in electronic information or an electronic document used in the transaction;
- (b) the electronic agent does not give the individual an opportunity to prevent or correct the error;
- (c) on becoming aware of the error, the individual promptly notifies the other person; and
- (d) in a case where consideration is received as a result of the error, the individual,
 - (i) returns or destroys the consideration in accordance with the other person's instructions or, if there are no instructions, deals with the consideration in a reasonable manner, and
 - (ii) does not benefit materially.³⁴⁵

However, as discussed in Part 2 (B), the use of electronic agents for contracting introduces issues that may not be adequately covered by electronic commerce legislation. For example, two sophisticated parties can use electronic agents for "contract analytics" functions, which use AI to review past contracts and standard terms between parties and approximate a single standard document.³⁴⁶ If these technologies become widely adopted by commercial parties for their cost-saving and efficiency benefits — as noted by Betts and Jaep — representatives of the companies will further separate themselves from the contract formation process and would be less cognisant of precise terms and their implications.³⁴⁷ If this were the case, it would make sense to include other equitable defenses like *rectification* in electronic commerce acts, rendering unenforceable contracts or terms where, as recently noted by the Supreme Court in Canada (*Attorney General*) v. *Fairmont Hotels Inc.*, contracting parties can rectify written agreements if they demonstrate a "common continuing intention in regard to a particular provision or aspect of the agreement."³⁴⁸ It wrote:

³⁴⁵ *ECA*, *supra* note 130, s. 21 (Ontario).

³⁴⁶ Betts & Jaep, *supra* note 210 at 227.

³⁴⁷ *Ibid.*

³⁴⁸ *Fairmont Hotels*, *supra* note 25 at para 27.

If one finds that, in regard to a particular point, the parties were in agreement up to the moment when they executed their formal instrument, and the formal instrument does not conform with that common agreement, then [the] court has jurisdiction to rectify, although it may be that there was, until the formal agreement was executed, no concluded and binding contract between the parties.³⁴⁹

This recommendation recognizes that — as pointed out by Xavier Beauchamp-Tremblay and others³⁵⁰ — there is currently a major gap between lawyers' legal competences and technological competences and that there exists a risk that technology-facilitated contracts will fail to capture parties' genuine intentions. While the Supreme Court of Canada has recently ruled on rectification in *Fairmont* and *Jean Coutu Group (PJC) Inc. v. Canada (Attorney General)*³⁵¹ — as argued above — there are benefits to including equitable principles in statutes rather than merely recognizing them in common law jurisprudence, such as the efficiency of pleadings, deterrence, and making rights clear and accessible to the public. Finally, depending on the nature and magnitude of issues that come to light from the onset of new technologies, electronic commerce acts could also foreseeably be modernized to include equitable principles on issues of capacity to contract, unconscionability, and estoppel, among other things.

C) Making Legislative Reform Quicker And More Adaptable To Technological Change

Third, if statutes are going to play a useful role in resolving technology-related contractual disputes, as asserted by Kit Barker, there will be a “need to maintain a healthy, adaptive system.”³⁵² By their very nature, courts and the common law system are more adaptive than legislatures when delineating new duties or modernizing older doctrines. In part, this stems from the fact that courts do not have to undergo lengthy legislative processes and they hear cases on the most current issues. Accordingly, moving the equitable function to statutory regimes must be done carefully as it risks creating “a top-down, centralised system of regulations that is unsuited to the job of keeping pace with the evolution of the complex system.” To mitigate this risk, legislatures should — as proposed by Henry E. Smith — fulfill their equitable function by favouring broader, goal-oriented standards of conduct allowing courts to interpret such standards *ex post* and in light of unique circumstances.³⁵³ This is consistent with

³⁴⁹ *Ibid.*

³⁵⁰ Xavier Beauchamp-Tremblay, “How Far are Lawyers from Drafting Smart Contracts?” *Slaw* (3 August 2017), online: < www.slw.ca/2017/08/03/how-far-are-lawyers-from-drafting-smart-contracts/ > .

³⁵¹ *Jean Coutu*, *supra* note 25.

³⁵² Barker, “Private Law as a Complex System,” *supra* note 38 at 27.

³⁵³ Smith, “Fusing the Equitable Function in Private Law,” *supra* note 79 at 176-87.

the smart regulation trends discussed in Part 2 (B)(c) of this article. Warren Swain predicts that under such a system, “doctrinal shifts and greater complexity of contractual relations may make context more significant”³⁵⁴ and Arvind and Gray likewise predict that courts will likely “focus on the needs of complex, high-value litigation.”³⁵⁵ To be useful, legislatures will have to keep pace with emerging technologies and continuously monitor trends in contract formation. As discussed above, self-executory contracts and the promised interface-free environment might present novel challenges unaddressed with by current legislation. More importantly, as argued by James Beniger in *The Control Revolution*, “there is a recurrent failure of past generations to appreciate the major societal transformations of their own eras.”³⁵⁶ He also noted that new technologies rapidly breed newer technologies, meaning that legislatures must be proactive to anticipate change:

Each new technological innovation extends the processes that sustain life, thereby increasing the need for control and hence for improved control technology. This is why technology appears autonomously to beget technology in general and why, as argued here, innovations in matter and energy processing create the need for further innovation in information-processing and communication technologies.³⁵⁷

D) Promoting Technical And Equitable Literacy In Law School And Professional Curricula

Finally, in light of the sections above, there is a need to promote technical literacy and to study equitable principles and reasoning in law school and professional curricula. First, as asserted by Gary Marchant, “there will be winners and losers among lawyers who do and do not uptake AI [and] unless private practice lawyers start to engage with new technology, they are not going to be relevant even to their clients.”³⁵⁸ Indeed, technology is bound to impact contracts and the law more generally, whether or not individual lawyers, judges, or scholars are in favour of the changes. Marc Lauritsen similarly asserted:

If you think the legal work being done in your shop can't be improved by emerging technologies, you're wrong. If you think you can get away with ignoring these developments indefinitely, you're also wrong. You may not be shoved aside by a machine, but you could well be displaced

³⁵⁴ Warren Swain, “‘The Steaming Lungs of a Pigeon’: Predicting the Direction of Australian Contract Law in the Next 25 Years” in Barker, Fairweather & Grantham, eds., *Private Law in the 21st Century*, *supra* note 14 at 100.

³⁵⁵ Arvind & Gray, “The Limits of Technocracy,” *supra* note 144 at 239.

³⁵⁶ Beniger, *The Control Revolution*, *supra* note 36 at 2.

³⁵⁷ *Ibid.* at 10 [emphasis added].

³⁵⁸ Gary Marchant, “Artificial Intelligence and the Future of Legal Practice” (Fall 2017) 14:1 *Scitech Lawyer* 20 at 23.

by another lawyer, or entrepreneur, who makes better use of machines than you.³⁵⁹

However, these changes should not be feared, and most acknowledge that the demand for human lawyers, judges, and jurists will not be replaced by emerging technologies³⁶⁰ since they are “most effective when combined with human expertise.”³⁶¹ Lauritsen argues “[l]awyers should emphasize natural human advantages while also embracing artificial intelligence platforms.”³⁶²

This is indeed one reason why the study of emerging technology in the law pairs well with the study of equitable principles and reasoning. As observed by Edwina Rissland, although “some might be concerned that the use of AI models will somehow trivialize legal reasoning by making it seem simple, undermine the importance of lawyers and judges by relegating them to the role of mere users of systems... or dehumanize us by describing intelligent behaviour in well-defined terms... AI research shows just the opposite: The more we understand human reasoning, the more we marvel at its richness and flexibility, the more questions we ask as we try to understand its workings, and the more we require of a computer program exhibiting intelligence.”³⁶³ The study of equity, on the other hand, focuses on the “spirit rather than the letter of the law [and] lends the system of the law a great deal of its openness.”³⁶⁴ In short, the study of equity is one of an inherently human character, placing utmost concern for broader standards of conduct such as the fairness of exchange. Unfortunately, as observed by Leonard Rotman, “[w]hen [t]he desire for certainty is combined with the decreased emphasis on substantive equity within Canadian and American law schools, equitable doctrines such as fiduciary duty that emphasize abstract principles rather than more easily discernible and predictable rules have struggled to maintain their traditional roles.”³⁶⁵ The problem with such an approach is that, “despite its struggle towards achieving certainty, [it often ignores that] the law actually benefits from a certain amount of fogginess.”³⁶⁶ Jeff Berryman, for example, advocates for studying broader equitable maxims in law school curricula, which may no longer hold weight as rules of law or equity (although he refers to maxims’ “strong instinct for survival”³⁶⁷ in Supreme Court rulings), but help “to differentiate equity’s distinctive methodology from other forms of

³⁵⁹ Lauritsen, “Marketing Real Lawyers,” *supra* note 13 at 69.

³⁶⁰ See e.g. Rissland, “Artificial Intelligence and Law,” *supra* note 13 at 1980.

³⁶¹ David Buser, “AI Automation Starts to Transform Legal Profession” (blog) *Computer Weekly* (15 June 2017), online: .

³⁶² Marchant, *supra* note 358 at 68.

³⁶³ Rissland, “Artificial Intelligence and Law,” *supra* note 13 at 1980.

³⁶⁴ Smith, “Fusing the Equitable Function,” *supra* note 79 at 177.

³⁶⁵ Rotman, “Fusion of Law and Equity,” *supra* note 4 at 500.

³⁶⁶ *Ibid.*

³⁶⁷ Berryman, “Equity’s Maxims,” *supra* note 8 at 185. See also Smith, “Fusing the Equitable Function,” *supra* note 79 at 185.

exercising discretion... [which in turn allows] a historically legitimate opening to explicitly infuse parts of law amenable to equity's jurisdiction with moral and ethical values."³⁶⁸ Indeed, Henry E. Smith remarked: "if one reviews the principal Canadian texts in these areas, the word 'maxim' is rarely, if ever, uttered."³⁶⁹ I propose — like Berryman and Smith — that law school curricula should explore equitable maxims not for their modern authoritative or persuasive merits, but rather to teach students about the inherently human principles of justice and fairness that have historically had a tremendous impact on the common law tradition. Such teachings, coupled with the promotion of interdisciplinary collaboration (e.g. encouraging law students to partner with students in computer-science related fields for projects), could, together, go a long way in helping to lawyers "emphasize natural human advantages while also embracing [technical] platforms."³⁷⁰

5. CONCLUSION

There are a number of legitimate reasons to be excited about the application of new technologies for interface-free contracting. Unfortunately, each of those reasons is conversely associated with certain risks for both contractors and contractees. In this article, I argued that an "equitable" conception of modern contract law, understood by the likes of DiMatteo and others "not as a mere system of rules, but of rules tempered by standards and principles — a system not tied to static doctrine... [but] recogniz[ing] that contractual relationships are a self-transforming cultural activity that should reflect the goodness of overarching cultural norms"³⁷¹ — is well suited for tempering some of the undesirable contractual consequences brought on by new technologies like blockchain, artificial intelligence, and smart contracts. Though, as noted by Kit Barker, "[t]he extent to which private law can and will shift to accommodate these calls for greater subjectivity... is an intricate matter."³⁷² At the crux of the exercise is the question "how properly to balance the respective autonomy interests when determining which forms of persons as human agents exercising real dignity and choice, without allowing itself to affirm the view that life is 'all about me' and never about anyone else"³⁷³ or balancing concerns for substantive and procedural fairness in modern contracts. Accordingly, I proposed four ideas for trying to offset some of those unwanted consequences:

³⁶⁸ *Ibid.*

³⁶⁹ Smith, "Fusing the Equitable Function," *supra* note 79 at 185.

³⁷⁰ Marchant, *supra* note 358 at 68.

³⁷¹ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 289. See also Smith, "Fusing the Equitable Function," *supra* note 79 at 177-85.

³⁷² Barker, "Private Law as a Complex System," *supra* note 38 at 8.

³⁷³ *Ibid.* at 9.

- (1) inserting increasingly relevant equitable principles into statute; thereby (a) prohibiting the use of unilateral amendment provisions in consumer contracts, (b) prohibiting the communication of terms and conditions after contract formation in consumer contracts, (c) prohibiting the use of waivers to prevent consumers from bringing class action proceedings; and (d) prohibiting the self-execution of contractual performance without constructive notice;
- (2) embracing generalist equitable statutes not limited to specialized contracts;
- (3) making legislative reform quicker and more adaptable to technological change; and finally,
- (4) promoting technical and equitable literacy in law school and professional curricula.

More than anything, a great deal of uncertainty surrounds the future application of technology to contracts. The corrective application of equitable principles offers a viable alternative to address uncertainties and imbalances in future contractual disputes.³⁷⁴

³⁷⁴ DiMatteo, *Equitable Law of Contracts*, *supra* note 10 at 289.