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ONLINE AND AUTOMATED DISPUTE RESOLUTION IN NEW ZEALAND: A LAW REFORM AND REGULATION PERSPECTIVE

Submitted for the LLB (Honours) Degree

Faculty of Law

Victoria University of Wellington

2017

Abstract:

This paper investigates the issue of online and automated dispute resolution from a law reform and regulatory perspective. It argues the growing prevalence and capabilities of online dispute resolution has created both opportunities and risks for consumers and for dispute resolution policy in New Zealand. In particular, the significant risk of harm occurring if the technology is permitted to develop without any regulation or governance now warrants proactive governmental intervention to provide a protective legal framework. A proposed regulatory model is put forward, which encompasses both direct legal and indirect methods of regulation.

Key words:

Online dispute resolution
Law reform
Regulation
Technology regulation

Word count:

The text of this paper (excluding table of contents, footnotes, and bibliography) comprises 14,996 words.

Contents

I Introduction

Is New Zealand prepared for online and automated dispute resolution? Over the past 30 years, online dispute resolution (ODR) has been growing in its capabilities and prevalence. Automated dispute resolution, a subset of ODR whereby disputes are resolved using Artificial Intelligence (AI), is no longer science fiction, but has become a reality in many parts of the world. ODR can offer many benefits when compared with other forms of dispute resolution. However, it can also present a range of ethical issues, when used in either a public or private sector context. This paper looks at ODR and automated dispute resolution from a law reform and policy perspective. It argues that New Zealand currently lacks adequate legal protections to ensure that automated dispute resolution, in particular, is conducted ethically and protects and upholds principles of justice. It then puts forward a proposed model for governmental intervention to regulate online and automated dispute resolution and uses this proposed regulatory model to draw out key findings that are applicable to the issue of technology regulation more generally.

This paper first provides a brief overview of the problem and the need to examine the issue from a law reform and policy perspective, in order to frame the discussion. Section III outlines the scope of the paper, including definitions and limitations. Section IV discusses the history of ODR to provide context and explain how the technology has reached the point it has, as well as the advantages and disadvantages of ODR as compared with traditional, offline dispute resolution. Section V and VI present the possible ways that the problems identified in the previous sections can be resolved through law reform and policy measures, before applying these key findings to the issue of law reform and technology more generally in section VII. Thus, the paper is split into two broad halves. The first half, sections III-IV, makes the case for why there is a need for a regulatory response to ODR. The second half, sections V-VII, proposes how law reform and legal regulation could be used to solve or mitigate the problems presented in the first half of the paper.

The focus on ODR from a law reform and policy perspective means that the technical aspects of designing appropriate ODR systems and assessing their appropriateness and whether they meet accepted standards are not the focus of the paper and will only be superficially touched on.

Overall, this paper argues that specific government intervention in ODR is needed to establish sufficient legal protections to protect against the risk of harm to consumers, as

well as the risk of harm to the legal system through the erosion of current accepted justice principles. A potential regulatory model to achieve this is proposed, drawing on theories of how regulatory competence over technologies can be asserted. A pro-active approach to law reform and policy creation would ensure an appropriate legal framework could guide the establishment of a new industry in New Zealand, rather than waiting until problems have already occurred for law reform to occur.

II Overview of Problem

The purpose of this section is to provide a brief summary of the issue(s) at present, in order to provide the reader with the overall context for the paper. The issues will be expanded on further in Section IV.

Online dispute resolution has been growing in prevalence and capabilities over the past two decades. Despite this, the industry has resisted any form of regulation and governance, leaving users of ODR services vulnerable to poor ethical practice and bias in the dispute resolution process. Two recent developments pose particular problems in need of a response.

Firstly, the increase in automated dispute resolution through the use of Artificial Intelligence raises questions as to whether it is appropriate for machines to be empowered to make binding decisions about people's lives. With dispute resolution generally, there is a need to "fit the forum to the fuss".[1] This means that the type of dispute resolution used needs to be able to respond appropriately to the particular concerns of the dispute. The lack of governance in the ODR field makes this particularly concerning given that there is no oversight to ensure either that the dispute is appropriate for ODR, or that the resulting outcome of the dispute resolution is appropriate and meets accepted principles of justice.

Secondly, the use of ODR has moved from being solely used for private dispute resolution, to now being used by courts overseas. This expansion makes it even more crucial that the ODR system being used is appropriate, ethical and transparent. While no New Zealand court has adopted automated dispute resolution as a key component of its processes yet, it is likely that there will be a move towards adoption of such services within the near future.

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[1] Andrea M Braeutigam "Fusses that fit online: online mediation in non-commercial contexts" (2006) 5(2) Appalachian Journal of Law 275 at 298.

New Zealand is lagging behind other common law jurisdictions in its lack of response to ODR. For example, Canada has a new online Civil Tribunal, there is a proposed Online Court for the United Kingdom, and the Australian Family Court has already adopted Legal Decision Support Systems as part of its processes.[2] Internationally, the European Union has created an alternative dispute resolution (ADR) and ODR Directive and the United Nations Commission on International Trade Law (UNCITRAL) is also in the process of establishing a global framework for ODR, related to cross-border, business-to-consumer and business-to-business disputes.[3] Nothing comparable has occurred in New Zealand to date.

As a result, this paper argues that there is a need for a New Zealand response to ODR, and that it would be preferable to have pro-active law reform that can guide the establishment of a new industry, rather than wait for problems to occur before acting. Taking a pro-active approach to law reform would ensure that New Zealand consumers are protected if they use private ODR services, and it would also ensure any use of ODR or automated dispute resolution by New Zealand courts and tribunals is in line with best-practice and meets the same principles of justice applied to dispute resolution undertaken using traditional methods.

However, a key issue which currently hinders such pro-active law reform is that the rapidly evolving nature of technology means that it is difficult to achieve and sustain regulatory connection with technologies such as ODR and, especially, automated dispute resolution. It is difficult, from a law reform perspective, to achieve effective reform when the focus of reform is a shifting target. This paper seeks to address this issue through the recommendation of greater technology assessment capabilities within New Zealand to help predict how the technology will develop, as well as through using a multi-factorial approach to regulation encompassing both direct legal and indirect regulation.

Another of the key law reform issues being addressed in this paper is the extent to which "soft law" and indirect legal regulation can effectively regulate behaviour. It argues that additional methods of regulation, including "soft law" policy and indirect regulation

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[2] Online Dispute Resolution Advisory Group, *Online Dispute Resolution for Low Value Civil Claims: Report by the UK Civil Justice Council* (February 2015); John Zelenznikow, "Using Web-based Legal Decision Support Systems to Improve Access to Justice" (2002) 11 Information & Communication Technology Law 15 at 17.

[3] Trish O'Sullivan "Developing an Online Dispute Resolution scheme for New Zealand consumers who shop online—are automated negotiation tools the key to improving access to justice?" (2016) 24 International Journal of Law and Information Technology 22 at 35.

through regulation and changes to social norms, market factors, and the code or architecture of technology, form an important part of technology regulation. Legislation can play a crucial role in the regulatory framework. However, particularly because of the rapidly changing nature of technology, direct legal regulation will be most effective when in combination with other modalities of regulation.

III Scope of Paper

A Key Definitions

1 Online Dispute Resolution

There is no generally accepted definition for ODR. It can be used to refer to an extremely wide range of applications, styles and techniques. ODR services can resolve disputes that originated online (i.e. the resolution of online disputes, online), and disputes that originated offline (i.e. the resolution of offline disputes, online). Some ODR providers may deal with both kinds of disputes. The method of dispute resolution can also vary wildly between providers, although most attempt to replicate alternative dispute resolution (ADR) methods such as negotiation and mediation. An early review of ODR literature in 2004 identified the following techniques as being used under the banner of "ODR":[4]

> blind bidding, automated negotiation, automated settlement systems, assisted negotiation, mediation, online consumer advocacy and complaint, complaint assistance, software-based or automated mediation, facilitative mediation, conciliation, consumer schemes, consumer complaint boards, ombudsmen, med-arb for consumers, jury proceedings, arbitration, non-binding evaluation, non-binding arbitration, automated arbitration, mock trials, and credit-card charge backs.

In the time since 2004, the number of techniques being used has increased further. For the purposes of this paper, "ODR" is primarily *not* used to refer to systems which are entirely reliant on humans and are simply negotiation or mediation being conducted in the virtual sphere as they would otherwise be in the offline sphere. Such proceedings, which usually take the form of negotiation or mediation conducted remotely, are not the concern of this paper. Neither is ODR here used to refer to techniques such as credit card charge backs, which would be unlikely to still be considered a form of ODR today. Rather, ODR is

[4] Thomas Schultz "Does Online Dispute Resolution Need Governmental Intervention? The Case for Architectures of Control and Trust" (2004) 6 NC JOLT 71 at 73, n 4.

used in this paper to refer to hybrid systems which utilise both humans and software in order to resolve the dispute, such as software-assisted negotiation or mediation.[5]

2 Automated Dispute Resolution

Automated dispute resolution also has no generally accepted definition. It is used in this paper to differentiate between hybrid ODR systems which are reliant on both humans and software, and ODR systems which are entirely reliant on software and/or AI in order to resolve the dispute. These systems go beyond software and/or AI providing assistance to a human decision-maker, with the software or AI actually assuming the decision-maker role.[6] Automated dispute resolution systems are currently in the minority of ODR services, however, their number is growing.

3 Artificial Intelligence and Machine Learning

Automated dispute resolution systems may use AI and machine learning in order to resolve the disputes. Artificial intelligence refers to:[7]

> computer systems that learn from experience and are able to solve complex problems in a multitude of contexts and environments. The dream is to create intelligent machines that bear some resemblance to human beings.

ODR systems which use a software programme do not necessarily incorporate AI. AI differs in the following way:[8]

> Instead of traditional computer programs which rely on precise step-by-step instructions to solve a problem (e.g. if this, then that), digital systems are provided with past "examples" so that the machine is trained (e.g. recognition of patterns and trends) to solve a task and may improve with experience. Machine learning (ML) is a term that denotes the statistical and mathematical techniques used behind the recent advances in AI. For example, self-driving cars do not have pre-programmed instructions for how to act in every situation they encounter but instead rely on sensors and ML to understand the environment and to make decisions.

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[5] Robert J Condlin "Online Dispute Resolution: Stinky, Repugnant, or Drab" (Francis King Carey School of Law Legal Studies Research Paper No 2016–40, University of Maryland, 2016) at 15.

[6] Dusty Bates Farned "A new automated class of online dispute resolution: changing the meaning of computer-mediated communication" (2011) 2(2) Faulkner Law Review 335 at 350.

[7] Robindra Prabhu (2017) Artificial intelligence: Clever or frightening? Teknologirådet - Norwegian Board of Technology.

[8] Andrew Chen and others, "A Technology Assessment Framework for New Zealand" (report for the Prime Minister's Chief Science Advisor, Auckland, July 2017) at 20.

In the context of online mediation, for example, AI has been used to create and propose settlements to parties, persuade parties to accept a particular offer, and amend proposed solutions to be more attractive following a party's response to an offer.[9] Then, using "case based reasoning", the AI retains a memory of the interactions with that party to improve future mediations – remembering the parties, the industries, the type of disputes, and options generated and rejected.[10]

Broadly speaking, there are four general roles that AI can perform within ODR systems. AI-enabled systems can help analyse legal problems, they can assist in negotiation between parties, they can assist humans in decision-making, or finally, they can make decisions.[11] In a report recommending the establishment of an online court for civil claims in the United Kingdom, AI was recommended to be used at a preliminary stage to provide a "legal diagnosis", and then, without direct human involvement, to facilitate informal settlement through AI-facilitated negotiation, before finally acting as an "intelligent assistant" for judges by advising on "possible decisions and lines of reasoning".[12]

In the ODR context, the objective of incorporating AI has been described as follows (emphasis added):[13]

> The goal … is to attain a technological threshold, resulting in computational systems that are indeed the 3rd party. In this sweeping approach, *there is no human intervention on the outcome or in guiding the parties to a specific situation*. There is, on the other hand, a system that performs that major role. This is usually known as an electronic mediator or arbitrator. *It should have skills for communicating with the parties and understanding their desires and fears and have the ability to decide on the best strategy to be followed in each possible scenario.* This is evidently the most challenging approach to follow since it is not easy to implement in a computer system the cognitive abilities of a human expert, as well as the ability to perceive the emotions and desires of the parties involved.

This speaks of a very high level of sophistication in the technology, with successful dispute resolution using AI occurring when the dispute is able to be resolved without

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[9] Farned, above n 6, at 350.

[10] As above.

[11] *Online Dispute Resolution for Low Value Civil*, above n 2, at 24.

[12] As above, at 24-25.

[13] Davide Carneiro and others "Online dispute resolution: an artificial intelligence perspective" (2014) 41(2) Artificial Intelligence Review 211 at 214.

recourse to a human and with the AI responsible for determining the best outcome for the parties. As acknowledged, this is a very difficult task, although AI-enabled ODR systems are expected to be in "widespread use" by the 2020s.[14]

B Limitations

This paper does not focus on technical aspects of ODR and AI. While the code of the systems is discussed to a limited extent, the focus is on the law reform and policy implications of technology.

IV History and Development of Online Dispute Resolution

This section provides a brief history of ODR to demonstrate the development and increasing capabilities of ODR services over time. This is used to provide illustrations of ODR in practice, and to outline the advantages and disadvantages of ODR when compared with traditional forms of dispute resolution.

A First Generation ODR Systems

The use of "ODR" as a term was first seen in the mid-1990s.[15] In its earliest conceptualisations, ODR refered to the use of the internet to resolve disputes that had originated online, and was largely in response to the growing popularity of e-commerce.[16] By the early 2000s, the application of ODR was expanded outside of the e-commerce context, with this 2004 definition of ODR providing a good example of the understanding of ODR at the time:[17]

> [ODR is] a dispute resolution process that operates mainly online. This encompasses both online versions of alternative dispute resolution and cybercourts, the former being dominant. In other words, ODR relates to negotiation, mediation, arbitration, and court proceedings, whose proceedings are conducted online.

ODR in its early forms "strongly resemble[d]" offline dispute resolution and was, in many cases, not significantly different from offline dispute resolution.[18] As such, there was little perceived need for ODR-specific regulation when it first began.

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[14] *Online Dispute Resolution for Low Value Civil Claims*, above n 2, at 24.

[15] Ethan Katsh "ODR: A Look at History – A Few Thoughts About the Present and Some Speculation About the Future" in Mohamed S Abdel Wahab, Ethan Katsh and Daniel Rainey (Eds) *Online Dispute Resolution: Theory and Practice. A Treatise on Technology and Dispute Resolution* (Eleven International Publishers, The Hague, 2011) 21 at 23.

[16] As above.

[17] Schultz, above n 4, at 74.

[18] As above.

The early examples of ODR represent "first generation" ODR systems. First generation systems used the internet as tool to facilitate the dispute resolution. Although it was novel at the time, it simply represented a shift in the place where the dispute resolution took place and did not represent a fundamental shift in the method of resolving disputes or the principles governing the dispute resolution. In contrast, second generation ODR systems, which began to incorporate automated dispute resolution systems, do represent a more fundamental change to the principles governing dispute resolution.

Despite the advance in technological capabilities, it is important to note that not all ODR systems currently used have moved on from first generation systems. First generation ODR techniques such as blind bidding, although simplistic, are still used by ODR providers around the world.[19] However, the focus of this report is not on first generation style systems which merely replicate offline-style dispute resolution in the online world, but rather it is concerned with second generation systems and beyond.

B Second Generation ODR Systems

Second generation ODR systems are the first to move away from technology being used merely to facilitate the exchange of information or provide a virtual venue. Instead, in second generation systems, the technology assumes the role of a genuine extra party to the dispute. The technology can proactively assist the parties to come to a resolution between themselves, or in some circumstances, even determine the outcome of the dispute.[20] The service provider of the ODR technology also plays an important role as a party to the dispute, in that it can have a significant impact on the resolution of the dispute through the coding of the software and algorithms used to resolve the dispute.

Second generation ODR systems are the first to change the principles governing dispute resolution by forcing us to confront whether existing principles of justice and due process are met when machines are enabled to make binding decisions about someone's legal rights.

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[19] See for example, Markus Altenkirch "A Fast Online Dispute Resolution Program to Resolve Small Manufacturer-Supplier Disputes: Using the ODR M-S Program" (2012) 67(3) Dispute Resolution Journal 48.

[20] Davide Carneiro and others, above n 13, at 214.

C Third Generation and Beyond

One of the most recent and important developments in ODR is in regard to online courts as ODR moves from an experimental and entrepreneurial phase into an institutional phase.[21] *Non-state* virtual or online courts are not particularly new; virtual juries in a commercial context have existed for at least five years. For example, in the Netherlands, one of eBay's subsidiaries Marktplaats uses virtual jurors to resolve feedback disputes.[22] Marktplaats' online juries are a form of crowd-sourced online dispute resolution, enforced by a private entity, that:[23]

> transform[s] into reality the futuristic idea that a dispute can be effectively solved at no cost by a large group of people located in many different countries in 30 minutes after submitting the claim.

On the other hand, government-run online courts or tribunals are still relatively new. In Canada, a fully online tribunal was launched in 2015, regulated under the Civil Resolution Tribunal Act 2012.[24] The tribunal has jurisdiction over claims under 25,000 Canadian dollars related to debt, damages, and recovery of personal property, and uses a three-tier ODR service from negotiation, through to mediation and finally adjudication.[25] This tribunal represents "the first full integration of ODR into a formal court system".[26]

Since the implementation of the Canadian Civil Resolution Tribunal, a report by the Online Dispute Resolution Advisory Group in the United Kingdom has been released recommending the establishment of a fully online court, known as “HMOC”, which would have jurisdiction over civil claims of £25,000 and under. As with the Canadian Civil Resolution Tribunal, the proposed HMOC would utilise a three tier service, incorporating online evaluation, online facilitation and online judges.[27] AI would be incorporated at each tier of the HMOC. AI would be used to provide a legal diagnosis of the issue at the evaluation stage, to independently suggest an informal settlement by facilitating negotiation between the parties at tier two, and finally, to advise judges of

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[21] Melissa H Conley Tyler and Mark W McPherson “Online Dispute Resolution and Family Disputes” (2006) 12(2) Journal of Family Studies 165 at 167.

[22] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 12.

[23] Jaap Van den Herik and Daniel Dimov “Towards Crowdsourced Online Dispute Resolution” (2012) 7(2) JICLT 99, at 101.

[24] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 12.

[25] As above, at 13.

[26] Noam Ebner and John Zeleznikow "No Sheriff in Town: Governance for Online Dispute Resolution" (2016) 32(4) Negotiation Journal 297 at 300.

[27] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 6-7.

recommended decisions in a case at the final stage.[28] The proposed HMOC model does not anticipate AI systems completely replacing human judges at this stage, but rather, that AI would be used to assist judges and expedite the dispute resolution process.[29]

To date, the recommendations put forward in the United Kingdom report have not been implemented. However, it is likely that online courts in overseas jurisdictions will continue to develop, and with such development, there may begin to be a call for New Zealand to also develop such a service. A trial programme run in the Disputes Tribunal or the Tenancy Tribunal would be a good place to start. An ODR programme could work as a modernisation of the Tenancy Tribunal's fast-track "Swift" telephone mediation service.[30]

D Benefits and Drawbacks of ODR

In order to understand both the problems and opportunities created by ODR, and thus the need for regulatory response, it is necessary to outline the benefits and drawbacks ODR has when compared with traditional forms of dispute resolution. Although the extent to which each advantage and disadvantage will apply to a particular dispute will differ, certain general observations can be made. When considering law reform to regulate ODR, the proposed law reform should aim to promote these advantages of ODR, while also mitigating and protecting ODR users from the risks created by the drawbacks.

1 Benefits

Online dispute resolution is said to offer significant cost and time savings, both for the parties to a dispute and to the dispute resolver.[31] Especially for claims of low monetary value, or where parties are geographically disperse, ODR may be "the only financially feasible settlement option" due to its lower cost relative to pursuing a claim through the courts.[32] As such, lowering the cost barrier to access dispute resolution can be seen as a way to increase access to justice in circumstances where the case would otherwise not be pursued. The report recommending the United Kingdom online court anticipated

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[28] As above, at 24-25.

[29] As above, at 25.

[30] Ministry of Business, Innovation and Employment Tenancy Services "Scheduling Mediation" <www.tenancy.govt.nz>.

[31] See for example, Altenkirch, above n 19, at 50; Condlin, above n 5, at 3; and Eugene Clark, George Cho and Arthur Hoyle "Online Dispute Resolution: Present Realities, Pressing Problems and Future Prospects" (2003) 17 International Review of Law, Computers & Technology 7 at 9.

[32] Conley Tyler and McPherson, above n 21, at 169.

significant cost savings for the judiciary because of the reduction in fixed and operating costs. Moving cases into the online environment would mean that: [33]

> The unit costs of civil claims (that is, the cost per individual claim) conducted by judges sitting online (from their homes, for instance) will be significantly lower than the costs of judges sitting in courts.

Furthermore, if enough disputes were to be resolved online, then there would be a reduction in need for court buildings, further reducing the operating costs of the judiciary.[34] Providing that these cost savings are passed on to users of ODR services, ODR can offer disputing parties, who would otherwise be left without a remedy due to financial constraints, a financially workable forum to resolve their dispute.

The cost and time savings offered by ODR are the benefits most often promoted. Arguably the most important benefit, however, is the ability to increase access to justice by providing more people with an accessible forum through which to exercise their legal rights. In addition to lowering the cost of accessing dispute resolution services, it is argued that traditional dispute resolution methods "… advantage people who are physically attractive, articulate, well-educated, or members of a dominant ethnic, racial, or gender group."[35] In contrast, by utilising an online environment that has less barriers to access, ODR may be able to remove such an advantage. Additionally, some argue software or AI-based ODR systems may be able to reduce the influence unconscious bias plays in resolving a dispute.[36]

The flexible nature of ODR services allows programmes to be tailored towards the particular needs of a group of clients more easily than traditional courts can tailor procedure according to needs. For those with disabilities or language barriers, the more informal and flexible nature of ODR services can provide a better, more accessible way to engage with courts and other forms of dispute resolution.[37] For example, for users of dispute resolution services who find face-to-face communication difficult, such as people with Autism Spectrum Disorder, text-based communication "levels the playing field", enabling more accessible and equitable dispute resolution.[38] Online environments may

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[33] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 9.

[34] As above.

[35] Conley Tyler and McPherson, above n 21, at 169.

[36] Condlin, above n 5, at 19.

[37] As above.

[38] Roland Troke-Barriault "Online Dispute Resolution and Autism Spectrum Disorder: Levelling the Playing Field in Disputes Involving Autistic Parties" (2015) 6(2) Western Journal of Legal Studies.

also be less intimidating for parties requiring dispute resolution who are unfamiliar with legal services. Thus, the online environment could appear to be more neutral and accessible for users of dispute resolution services.

There are two important caveats to the above benefits. Firstly, ODR systems which utilise software or AI may actually have bias against marginalised groups built into the code of the system.[39] In such a case, ODR would not offer a significantly more accessible and fair dispute resolution service than traditional dispute resolution. Secondly, while software and AI-enabled systems may be able to facilitate more efficient resolution of disputes, this ignores the fact that a valuable aspect of the dispute resolution process is that the parties are able to feel heard and have their stories and emotions validated.[40] Having the outcome of a dispute determined by an algorithm may not give the parties the feeling that justice has been done. Losing a sense of being able to achieve justice may entirely undermine the positive impact of the cost and time benefits. These issues are discussed further in the drawbacks section.

Other benefits offered by ODR are that it is more environmentally friendly[41], can be conducted asynchronously at a time that suits each party, and may facilitate less emotionally-charged dispute resolution proceedings because "… for some, negative messages from machines are less emotionally charged and less threatening than negative messages from humans."[42]

These benefits that ODR offers are valuable. Many New Zealanders will likely wish to use an ODR service at some point because of these benefits, and the law should facilitate the operation of ODR providers which meet certain standards.

2 Drawbacks

Although ODR has various benefits, there are also several drawbacks and potential risks to be considered.

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[39] Rafel Morek "Regulation of Online Dispute Resolution: Between Law and Technology" (Working Paper, August 2005) at 68.

[40] Robert A Baruch Bush and Joseph P Folger *The Promise of Mediation: The Transformative Approach to Conflict* (2nd ed, Jossey-Boss, San Francisco, 2005).

[41] Noam Ebner and Colleen Getz "ODR: The Next Green Giant" (2012) 29(3) Conflict Resolution Quarterly 283.

[42] Condlin, above n 5, at 20.

Firstly, it is not certain that the cost and time savings will actually eventuate. In fact, some argue that ODR is likely to increase the cost and time to resolve a dispute.[43] In addition, any cost savings to dispute resolution providers, especially courts, will be modest if the majority of cases resolved through ODR are cases which would have been unlikely to proceed through the traditional court system.[44] Moreover, although ODR may be available at a lower cost for consumers of ODR services, there is concern that this will lead to an "economy class" justice service, with traditional dispute resolution becoming a "business class" justice service.[45] Thus, while access to lower cost dispute resolution through ODR services may *prima facie* appear to be a benefit of ODR, there is the possibility that it will exacerbate existing inequality in access to justice for users of dispute resolution services.

Even if ODR services *are* generally more cost and time-efficient, some argue that this represents "… a capitulation to the conditions of modern society more than a superior system for administering justice".[46] Accessing faster and cheaper dispute resolution through ODR services may mean parties have to sacrifice the opportunity to fully explore the relevant issues or exercise their legal rights, all in the interest of achieving faster and cheaper settlement. This is particularly concerning if the ODR service results in a binding outcome for the parties. Shackelford and Raymond note that:[47]

> As with most arbitral mechanisms, typically the decisions in ODR—depending on the specific context in which it is used—are binding. This means that the parties give up substantial due process rights to appeal adverse judgments or enjoy other procedural protections during the "trial" process. Thus, as policy makers seek to regulate and businesses develop ODR systems, important questions must be asked and answered about under what circumstances societies are most comfortable with promoting the use of ODR, even in low-value disputes.

The point about parties forgoing due process rights is highly apposite. Realistically, many lay people may not be sufficiently familiar with their legal rights, the potential remedies available to them, and the likelihood of being awarded a remedy, in order for them to be

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[43] Anne-Marie Hammond "The effectiveness of online dispute resolution" (MA Thesis, Royal Roads University, 2001) at 14.

[44] Condlin, above n 5, at 6.

[45] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 26.

[46] Condlin, above n 5, at 4.

[47] Scott J Shackelford and Anjanette H Raymond "Building the virtual courthouse: ethical considerations for design, implementation, and regulation in the world of ODR" (2014) 2014(3) Wisconsin Law Review 615 at 644.

able to weigh up whether sacrificing the due process rights and procedural protections of a court process in favour of using a private ODR service is appropriate.

Thus, there is a need for caution when evaluating claims about the cost and time saving benefits of ODR, as claims about cost and time savings are not necessarily founded upon quality data, and furthermore, may come at the expense of sacrificing protective legal processes.

Additionally, using ODR requires a certain level of technological literacy and so it may not be suitable for all parties.[48] Parties may struggle to adequately express emotions and the virtual distance imposed on parties can reduce the chances of reaching a positive outcome.[49]

There are also privacy and confidentiality concerns around verifying identity online and ensuring data is secure. Even a well-designed ODR system will have vulnerabilities that could be exploited by a sufficiently motivated and technologically-capable party.[50] This presents a risk that confidential information could be maliciously obtained and used for ulterior purposes. Moreover, many ODR systems that incorporate Artificial Intelligence utilise case-based reasoning and so use facts and outcomes from previous disputes to assist in resolving future disputes. This results in an accumulation of potentially sensitive data that is vulnerable to manipulation and exploitation. This report will not go into detail about the technical side of data security, however, it is worth being aware of the risk to privacy and confidentiality arising from the use of ODR services.

Finally, there is significant weight to the argument that greater promulgation of ODR may come at the expense of the principles of natural justice that would normally apply to dispute resolution proceedings. This is particularly important if ODR is to be integrated in courts or tribunals, such as in the tenancy tribunal. The New Zealand Bill of Rights Act guarantees the right to justice:[51]

> Every person has the right to the observance of the principles of natural justice by any tribunal or other public authority which has the power to make a determination in respect of that person's rights, obligations, or interests protected or recognised by law.

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[48] Clark, Cho and Hoyle, above n 31, at 21.

[49] Braeutigam, above n 1, at 287.

[50] Condlin, above n 5, at 28.

[51] Section 27(1).

This applies to acts done by the judiciary or acts done "by any person or body in the performance of any public function, power, or duty conferred or imposed on that person or body by or pursuant to law."[52] It would thus apply to the use of ODR in courts or tribunals.

ODR presents a threat to principles of natural justice not only because of the risk of bias being directly incorporated into the system, as previously discussed, but also because of the current lack of transparency in ODR systems. Although parties "may not want to know what kinds of algorithms work to produce recommended outcomes", it seems difficult (or even impossible) to assess whether a decision followed due process without knowing what the process was.[53] At present, there is no legal protection to ensure that ODR services follow due process and meet principles of natural justice which creates a significant risk of harm to service users.

Overall, ODR presents both opportunities and challenges. Whether the benefits of ODR outweigh the negatives will depend on the particular type of dispute, the techniques used by the ODR service, the legal significance of the dispute, and other such circumstances. However, the risk of harm and the erosion of true access to justice is arguably the most pressing concern for ODR, especially if it is used in an official government court context. Law reform to achieve protective regulation is needed.

V Law Reform and ODR: A Proposed Model for Regulation

Many models for regulating technologies and regulating cyberspace have been proposed. Early on, the debate around regulating cyberspace was split into two broad schools of thought: cyber-libertarianism and cyber-paternalism.[54] The former believed that the only possible regulatory system was one that "developed organically" within cyberspace; the latter rejected this idea, arguing that new models and sources of rules would be able to adequately regulate developing technologies.[55]

From the cyber-paternalism school of thought developed the concept of "*Lex Informatica"* (computer law), used in this context to refer to the idea of regulation

[52] New Zealand Bill of Rights Act, s 3.

[53] Ruha Devanesan and Jeffrey Aresty "ODR and Justice – An Evaluation of Online Dispute Resolution's Interplay with Traditional Theories of Justice" in Wahab, Katsh and Rainey, above n 15, 263 at 278.

[54] As above at 6-7.

[55] As above at 7-8.

through the computer code which forms the architecture of the digital world.[56] The concept of regulation through code has since become one of the most dominant aspects of regulatory theory pertaining to cyberspace and technologies. This section discusses one regulatory model which incorporates regulation through code as a significant part of the regulatory picture, the "New Chicago School" approach. Outlining the New Chicago School approach is used to provide a background to one of the widely-known technology regulation models, in the aim that some of the principles from this kind of regulatory model can be used to frame the discussion of methods of ODR-specific regulation in New Zealand.

A The New Chicago School

In 1998, Lawrence Lessig described the "New Chicago School" regulatory approach. The aim of the approach is to understand structures of regulation outside of just legal regulation.[57] Under the old school approach, the alternative ways that outside forces can regulate behaviour was seen as a reason for the law stepping aside and the State doing less to directly regulate behaviour, because non-legal regulation was thought to be superior to legal regulation. In contrast, the new model sees the alternative ways of regulating as ways of ensuring legal regulation is more effective. Rather than promoting less State regulation, the new school holds that the State can and should do *more* to regulate behaviour.[58]

The New Chicago School approach sets out four types of constraint that regulate behaviour: social norms, markets, "architecture", and the law.[59] Of these, Lessig is most well-known for his discussion of code as architecture in the technology context. These four constraints regulate behaviour in different ways and to different extents, but they all have an impact on how people behave. Social norms regulate behaviour by dictating what behaviour is and is not acceptable. Social norms constrain behaviour due to the "enforcement of a community."[60] Markets regulate through price, and are "parasitic on law (property and contract) and constrained by norms (… one does not ''buy'' a ''friend'')".[61] Lessig uses "architecture" to refer to the natural constraints of the world, whether man-made or found. Finally, law regulates by directing orders with a threat of

[56] Joel Reidenberg "Lex Informatica: The Formation of Information Policy Rules Through Technology" (1998) 76 Tex L Rev 553.

[57] Lawrence Lessig "The New Chicago School" (1998) 27 The Journal of Legal Studies 661 at 661.

[58] As above.

[59] As above at 662.

[60] As above.

[61] As above at 663.

sanctions enforced by the State if the order is not complied with. These four constraints operate together to regulate the behaviour of members of society.

The old Chicago school model also recognised these same four types of constraint, but it was thought that law was inefficient relative to the other types of constraint, and so it would be best for the law to defer to the other constraints in order to regulate behaviour. The New approach instead views the other constraints as all being *subject* to the law and so each, in turn, subject to legal regulation.[62] Therefore, the law can indirectly regulate behaviour by regulating the other constraints on behaviour.

Lessig provides several examples of how these four modalities of regulation can work in practice. Take the example of cigarette consumption:[63]

> Say the government's objective is to reduce the consumption of cigarettes... A law could ban smoking. (That would be law regulating the behavior it wants to change directly.) Or the law could tax cigarettes. (That would be the law regulating the market to reduce the supply of cigarettes, to decrease the consumption of cigarettes.) Or the law could fund a public ad campaign against smoking. (That would be the law regulating social norms, as a means to regulating smoking behavior.) Or the law could regulate nicotine in cigarettes, requiring manufacturers to reduce or eliminate nicotine. (That would be the law regulating the architecture of cigarettes, as a way to reduce their addictiveness, as a way to reduce the consumption of cigarettes.) Each action by the government can be expected to have some effect (call that its benefit) on the consumption of cigarettes; each action also has a cost. The regulator must test whether the costs of each outweigh the benefits or, better, which most efficiently achieves the regulator's end.

This example shows how the four constraints can work together to regulate behaviour. While it may seem like cyberspace, and so ODR, may not be able to regulated in the same way as cigarettes, in reality, the same four constraints can work together to regulate cyberspace and ODR. For present purposes, the application of the New Chicago School approach to regulating cyberspace is more important than the theory in an abstract sense.

B Regulating Cyberspace

The regulation of cyberspace is very relevant to the regulation of ODR and automated dispute resolution. Early internet scholars believed the internet to be a place that would fundamentally resist regulation; cyberspace would be a lawless realm. This was

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[62] Lessig, above n 57, at 666.

[63] As above at 667-668.

represented in "cyber-libertarian" theory, which saw cyberspace as "sovereign" and outside of hierarchies of control.[64] However, the past few decades have proved this to be false. Regulatory competence over the internet is a crucial part of regulating ODR; while regulating cyberspace may pose a "formidable challenge", cyberspace is not a completely unregulated realm.[65]

In fact, over the past few decades there have been many examples of regulation of and within cyberspace. Government intervention to regulate cyberspace is now commonplace and widely accepted as a fact of life, albeit not universally liked. This is often achieved through filtering and blocking content, effectively creating "borders in cyberspace".[66] For example, filtering software is mandatory in libraries in the United States as well as in schools in France.[67] This software allows the government to regulate citizens' access to content deemed illegal or harmful, showing how cyberspace is not a sovereign realm outside of hierarchies of control. Rather, cyberspace can be regulated through "polycentric webs and layers" which have a cumulative effect.[68] Another example of this in practice is seen through the control exercised by the People's Republic of China over the content that citizens are able to access. The "Great Firewall of China" as it is sometimes known, depends on a complex "matrix of controls, using a combination of filtering technology and keyword analysis" to restrict access to content.[69] Essentially, it is a more extreme version of the compulsory filtering systems used in other jurisdictions.

By providing examples of existing governmental regulation of cyberspace, it is not suggested that all the jurisdictional issues presented by the cross-border nature of the internet have been resolved. These issues continue, and indeed remain problematic in the ODR context. However, it is clear that cyberspace is not a realm which *fundamentally*

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[64] Andrew D Murray *The Regulation of Cyberspace: Control in the Online Environment* (Routledge-Cavendish, Oxon, 2007) at 6-7.

[65] Roger Brownsword and Karen Yeung "Tools, Targets and Thematics" in Roger Brownsword and Karen Yeung (eds) *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes* (Hart Publishing, Oxford, 2008) 1 at 16.

[66] TJ McIntyre and Colin Scott "Internet Filtering: Rhetoric, Legitimacy, Accountabilty and Responsibility" in Brownsword and Yeung, as above 109 at 109.

[67] Damian Tambini, Danilo Leonardi and Chris Marsden *Codifying Cyberspace: Communications self-regulation in the age of Internet convergence* (Routledge, New York, 2008) at 7.

[68] Murray, above n 64, at 46.

[69] As above.

resists regulation; regulation is possible, and already occurring. In fact, the malleability of cyberspace renders it "highly susceptible to regulation."[70]

Lessig's New Chicago School model is especially applicable to the regulation of cyberspace, an argument that was first made in his seminal work *Code and Other Laws of Cyberspace*, and later updated in *Code: Version 2.0*.[71] Firstly, it is now clear that the legal regulation of cyberspace is possible and is already occurring. For example, copyright law, defamation law and obscenity law "all continue to threaten ex post sanction for the violation of legal rights."[72] This constitutes an example of a legal component of Lessig's four part regulatory model.

Social norms also regulate behaviour in cyberspace through threats of sanctions imposed by the online community. While offline social norms are not always directly transplantable to the online sphere, online communities can and do operate constrained by shared understandings of acceptable behaviour. Sanctions such as being blocked from viewing content for acting in certain ways, being unfollowed or being "trolled" online all act as social norms to regulate behaviour.[73]

Thirdly, the market also acts to regulate online behaviour. This occurs through ISPs charging for accessing the internet, and offering different data speeds and data caps, through to websites putting up "paywalls" to charge for access to all or some content. Lessig notes that "[these behaviours] are all a function of market constraints and market opportunity. They are all, in this sense, regulations of the market."[74]

Finally, Lessig's central thesis is that code operates as the "architecture" of cyberspace and thus regulates behaviour by providing practical constraints on what is possible. The software and hardware that constitute cyberspace set limits on how people can access and engage with cyberspace. For example, code determines whether a password or account is necessary to access content, whether data is encrypted, or whether transactions are traceable. Thus, "the code embeds certain values or makes certain values impossible. In this sense, it too is regulation, just as the architectures of real-space codes are regulations."[75]

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[70] Murray, above n 64, at 53.

[71] Lawrence Lessig *Code and Other Laws of Cyberspace* (Basic Books, New York, 1999); Lawrence Lessig *Code: Version 2.0* (Basic Books, New York, 2006) and available at <www.code-is-law.org>.

[72] Lessig *Code: Version 2.0*, as above, at 124.

[73] As above.

[74] As above.

[75] As above at 125.

Cyberspace is not an unregulable realm. Admittedly, it is complex, involving multiple layers of regulation, and it is arguably more difficult to model the impact of regulation on cyberspace than it is in the physical world.[76] Nevertheless, both legal and non-legal regulation of cyberspace is distinctly possible.

VI Law Reform and ODR: Applying Lessons from the New Chicago School Approach and Cyberspace Regulation to ODR

Now that we have seen how regulatory competence over cyberspace can be asserted, and how the New Chicago School is applicable to the regulation of cyberspace, we can turn to regulating ODR itself. This section proposes one way through which ODR could be regulated in New Zealand; undoubtedly there are alternative ways ODR could be regulated. The New Chicago School has been chosen as an appropriate model because of its multi-factorial approach which allows for more flexibility and a broader approach to regulation than a purely legal model, and because of the existing literature on its application to regulating cyberspace. This is not to deny that alternative regulatory models may also have value.

Given that what is being proposed is a completely new area of regulation in New Zealand, if it is implemented it is expected that a review of the effectiveness of the regulation would need to be conducted at a later stage.

A Why Government Intervention?

Many of the below suggested ways of regulating ODR are dependent on some kind of governmental intervention in order for them to be effected. Thus, before discussing the specifics of the proposed regulation, it is necessary to first establish the argument for why *governmental* intervention is needed in ODR. In other words, why is there a public interest in regulating ODR? Why is government best placed to achieve ODR regulation?

There are a few key reasons why government regulation of ODR is necessary. Broadly speaking, government regulation of ODR is necessary to protect vulnerable consumers and prevent harms from occurring. A higher standard of regulation for ODR than for offline ADR is necessary because of the scale of ODR and because of the power imbalances that ODR can be used to exploit.

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[76] Murray, above n 64, at 53.

1 ODR versus Offline ADR: Why a Higher Standard is Warranted

Currently, there is little regulation of mediators in New Zealand. The Arbitrators' and Mediators' Institute of New Zealand (AMINZ) and Resolution Institute both provide training and professional development for mediators.[77] Both also have a code of conduct for their members and complaints procedures.[78] However, membership of the associations is voluntary. There is no legal requirement to undertake any training in the law or in dispute resolution to be able to call oneself a mediator. This in itself is risky, and "a myriad of problems could arise due to simple incompetence", let alone any due to malicious intent.[79]

However, while issues may arise if a mediator is incompetent, biased, or otherwise "rogue", the impact a single mediator can have is limited.[80] An individual is practically limited in the amount of disputes they can take on, and so their reach remains constrained. At any moment in time, one person can only be mediating one dispute, in one location. This limit is not present with ODR. The volume of claims that an ODR service which uses software and AI can take on is not limited by time or by location. ODR services can deal with huge volumes of disputes; in fact, this is one of the main benefits often promoted about ODR. This means that the potential harm to consumers through poorly designed or deliberately biased systems is far greater with ODR than it is with offline dispute resolution.

This greater risk of harm is exacerbated by the fact that the most likely disputes to go through an ODR process are low value civil claims in the business-to-consumer context. While the claims may be "low value" relative to the value of other legal claims pursued through the courts, for consumer parties the value of the claim may be quite significant. The power imbalance between a business and a consumer, who is likely without legal advice, may be able to be ameliorated by a human mediator if the dispute were to be resolved using offline mediation. However, the same cannot be said for software or AI-reliant ODR systems, which may actually be designed to favour the business as the business is more likely to be a repeat customer.[81] ODR systems themselves are generally

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[77] Arbitrators' and Mediators' Institute of New Zealand <www.aminz.org.nz>; Resolution Institute <www.resolution.institute>.

[78] As above.

[79] Daniel Becker "The Need for More Regulation of Mediation" *Law Talk*, (online ed, New Zealand, 11 May 2012).

[80] As above.

[81] Ebner and Zeleznikow, above n 26, at 313.

run as businesses, and so the systems are not necessarily optimised for achieving justice so much as they are for maximising profit.

In many cases, ODR will be acting as a substitute for parties exercising a legal right to pursue a claim through official government dispute resolution services. As previously mentioned, using ODR may result in the parties having to forgo due process protections and rights that they would otherwise have. Courts have been unwilling to reopen final mediated settlements; it would seem probable at this stage that courts would be equally unwilling to reopen final ODR outcomes.[82] There is also a risk that unethical behaviour by ODR providers will erode trust in dispute resolution professionals and the legal system more generally, especially if parties perceive an injustice from ODR that is not able to be remedied through recourse to the courts.[83]

Taken together, these risks present a strong case that the greater level of harm to vulnerable consumers that could eventuate as a result of unregulated and unethical ODR services warrants a higher level of regulation of ODR than for offline dispute resolution. This provides a public interest in governmental regulation of ODR.

2 Why the Government is the Most Appropriate Regulatory Body

The government is the most appropriate body to implement ODR regulation. Relying on self-regulation by ODR providers is insufficient to adequately protect consumers and provide assurance as to a minimum level of ethical standard being applied. Regulation through extending the existing codes of conduct from AMINZ or Resolution Institute to explicitly cover ODR would also be insufficient. Neither association has jurisdiction over non-members and so would be ineffective at regulating ODR generally. Nor are the associations experts in software or AI development. Achieving meaningful regulation of ODR will require a high level of technological literacy by those responsible for overseeing the development and enforcement of the regulation. Likewise, an understanding of legal principles and dispute resolution techniques will be required. ODR regulation cannot be left solely to self-regulation by software developers.

The government is best placed to be able to regulate ODR in a manner that can properly take into account both the technical and legal aspects of regulation. The government has

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[82] *Hildred v Strong* [2008] 2 NZLR 629 at [46].

[83] See for example, Schultz, above n 4, Ebner and Zeleznikow, above n 26, and Louise E Teitz, "Providing Legal Services for the Middle Class in Cyberspace: The Promise and Challenge of On-Line Dispute Resolution" (2001) 70 Fordham L Rev 985.

the authority to regulate ODR in a way which non-government bodies such as AMINZ or Resolution Institute do not.

Government intervention to regulate ODR is necessary, possible and appropriate. The aims of ODR regulation will next be outlined, before the specific proposals for ODR regulation are discussed.

B The Aims of ODR Regulation

In this context, effective and successful regulation of ODR would achieve several aims. These aims include, but are not limited to:

- Private ODR providers are required to conduct their services in an ethical and transparent manner.
- Any state-run ODR services meet the same standard of justice as would be required if the dispute resolution was conducted offline.
- The benefits of ODR, such as increasing access to low-cost dispute resolution, are protected.
- The drawbacks of ODR, such as the ethical and privacy risks, are mitigated as much as possible.
- The form of regulation is sufficiently flexible and principle-based so as to allow for the regulation to adapt to evolving technological capabilities.
- The use of AI in ODR services in the form of automated dispute resolution is supported in limited circumstances.
- Complaints about the ODR process are able to be resolved by an appropriate and competent body.

The four modalities of the New Chicago School approach are discussed to provide a framework for the proposed regulation.

C Establishing a Broad Regulatory Background – Regulation through the Law

The first, and perhaps most obvious, form of regulation for ODR is legal regulation. Given that the law can be used to indirectly regulate behaviour through its regulation of the other modalities, it is necessary to first set out the proposed law reform to achieve (direct) legal regulation. This regulation would be targeted at ODR providers operating in New Zealand.

1 Technology Assessment in New Zealand

The first suggestion is the creation of a New Zealand Office of Technological Assessment (OTA). Technology Assessment (TA) refers to "a scientific, interactive, and communicative process that aims to contribute to the formation of public and political opinion on societal aspects of science and technology".[84] The European Parliamentary Technology Assessment (EPTA; a body of members who give advice to their Parliaments about technology issues) describes TA as:[85]

> [exploring] the relationship between science, technology and society. [It is] a concept which brings together researchers from different disciplines such as business economics, sociology or biology... The common goal is to explore how current technological developments affect the world we live in.

The EPTA note that there are "three dimensions" to TA, as well as "three objects".[86] These three dimensions are:

- The cognitive dimension - creating overview on knowledge, relevant to policy-making.
- The normative dimension - establishing dialogue in order to support opinion making.
- The pragmatic dimension - establish processes that help decisions to be made.

Similarly, the three objects of TA are:

- The issue or technology
- The social aspects
- The policy aspects

An OTA would be a government agency tasked with overseeing and facilitating this technology assessment process and how technology assessment interacts with policy. It is not anticipated that it would be a standalone Ministry, but would form a team within a larger Ministry, probably within the Ministry of Business, Innovation and Employment. This paper particularly focuses on the pragmatic dimension of technology assessment, although the cognitive and normative dimensions are still briefly discussed below.

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[84] Chen and others, above n 8, at 4.

[85] European Parliament Technology Assessment (EPTA) Network <eptanetwork.org>.

[86] As above.

The creation of an OTA is in line with the proposals put forward in the draft working paper "A Technology Assessment Framework for New Zealand" produced for the Prime Minister's Chief Science Advisor. The authors of the working paper found that:[87]

> In our discussions with members of the public sector, we found that there is no existing established framework for assessing technology, with most policy making done locally in an ad hoc and reactive manner. There is a sense that this process is not responsive enough, leading to regulatory lag with real-world consequences, such as in the case of Uber vs. the taxi industry, or in encouraging the use of renewable energy technologies.

It is clear that technology assessment is lacking generally in New Zealand, and is not a unique problem in the case of ODR. The working paper continues:[88]

> One important part of technology assessment is the Collingridge dilemma[89], which suggests that efforts to influence or control technology advancements face a double-bind problem:
>
> - Impacts cannot be easily predicted until the technology is widely adopted;
> - Control or change is difficult once the technology is entrenched.
>
> Our Technology Assessment for New Zealand (TANZ) proposal aims to reduce the level of uncertainty before technologies are widely adopted, accepting that predictions are only guesses. However, this is still a better approach than waiting until it is too late when technologies are widely adopted and policy responses are difficult to implement or enforce. Policy decisions lie somewhere in a decision space, and our aim is to add better capabilities towards proactive policy making.

An OTA would be able to oversee emerging technology more generally, and would not be limited to any particular area of technology. Thus, while this paper is focused on its benefit for ODR regulation, the creation of an OTA would have positive benefits for New Zealand that extend beyond ODR regulation.

An alternative to creating a dedicated OTA would be to improve the existing capabilities within government departments to conduct technology assessment. A dedicated OTA is here proposed because of its benefits for the development of policy related to evolving technologies more generally, not only for ODR regulation. However, it is accepted that

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[87] Chen and others, above n 8, at 7.

[88] As above at 7-8.

[89] David Collingridge *The Social Control of Technology* (Palgrave Macmillan, 1981).

from a pragmatic perspective, working to improve existing technology assessment capabilities within ministries may be more immediately feasible.

2 Office of Technology Assessment in Practice

In the ODR context, an OTA could be used in various ways. Firstly, with regard to the cognitive dimension, (creating overview on knowledge, relevant to policy-making), an OTA could develop an information database on the types of techniques used in ODR providers and their respective benefits and risks, especially as they apply in a New Zealand-specific context. This information could then be used to formulate policy and subsequent regulation of which ODR techniques are able to be used, both in a public and private sector context. An OTA could also oversee and potentially fund research and development of new ODR techniques. This correlates with the technology object of TA and would perform an important role in increasing understanding of ODR so that effective regulation could be achieved.

Ultimately, this function of an OTA would help mitigate the effects of the Collingridge dilemma by reducing the level of uncertainty surrounding developing technologies.[90] In turn, this would improve the ability of regulators to make informed predictions about the way in which the technology would evolve. Reduced uncertainty would help achieve more effective regulation and would assist in being able to create proactive, rather than reactive policy.

Next, with regard to the normative dimension, (establishing dialogue in order to support opinion making), an OTA could work with industry stakeholders to formulate best-practice guidelines for the use of ODR and automated dispute resolution technology. This correlates with the social object of TA. This function of an OTA would be responsible for understanding how the technology impacts on social aspects of society. Consultation between the OTA and other Government agencies and industry members would fall under this function.

Thirdly, with regard to the pragmatic dimension, (establishing processes that help decisions to be made), an OTA could create policy guidelines and recommend methods of regulation. This correlates with the policy object of TA, and is dependent on the cognitive and normative dimensions to inform the process. An OTA could also oversee the review of regulation as technology evolves over time. The inclusion of an appropriate

[90] As above.

forum for receiving and responding to complaints about technology would also be important.

3 ODR Policy Creation

This third policy creation stage is in line with the proposal put forward in the Technology Assessment Framework for New Zealand working paper, which suggests a three stage process:[91]

(1) Horizon Scanning -
To identify top emerging technologies in the New Zealand context.

(2) Technology Deep Dive
Commissioned reports created by working groups made up of sector experts to identify potential applications and implications of each technology

(3) Application analysis
Public sector recommendation of policy responses for each technology.

The creation of ODR-specific policy corresponds with the second two stages of the proposed process. The present paper will not comprehensively cover the possible policies to regulate ODR and automated dispute resolution. However, it is useful to discuss some of the more likely scenarios to better demonstrate how the law can indirectly regulate ODR through the other modalities of the New Chicago School. It is anticipated that, at the policy creation stage, the OTA would work together with other government agencies. In the ODR context, the Government Centre for Dispute Resolution, part of the Ministry of Business, Innovation and Employment, would be the main partner.

(a) Minimum standards

The first anticipated response is the creation of minimum standards for ODR service providers. The minimum standards would establish a baseline that all forms of ODR, from those entirely reliant on software or AI, to hybrid and human-run systems, would need to adhere to. As this is not a technical paper, the specifics of the minimum standards will be left open. However, the minimum standards would likely follow certain broad themes. It is expected that the standards would focus on a few key areas: improving transparency of dispute resolution processes to facilitate informed decision making, ensuring privacy interests are upheld and data is secure, requiring ODR systems to be designed in a way that does not fundamentally bias the system against a class of user, and providing for a complaints procedure for complaints arising from the ODR process.

[91] Chen and others, above n 8, at 10.

(i) Public versus private ODR

Different standards may need to be applied depending on whether the ODR system uses AI or not, as well as the kind of dispute the ODR system is being used for. For example, if ODR is being used in the public sector in an official governmental capacity, it may need to be held to a higher standard than ODR which is being used to resolve a dispute in the private sector because of the right to observance of the principles of natural justice accorded by the New Zealand Bill of Rights Act.[92] Arguably, there is a greater need for "official" or government ODR to be held to a high standard than non-governmental ODR. Requiring transparency around whether the ODR service uses AI would also be important so that users of the service are able to make an informed decision about the service and whether it is suitable for resolving their particular dispute.

(ii) Transparency and bias

Improving transparency would also apply to bias in ODR systems. As previously discussed, there is a risk that ODR providers may have actual or perceived bias in favour of repeat customers, to the detriment of more vulnerable parties. By commodifying dispute resolution, there is a financial incentive to promote the interests of the party which is more likely to generate additional profit. Legal minimum standards could address this issue by requiring ODR providers to disclose heavy users of the service, or alternatively, requiring the software or AI behind the programme be able to be independently reviewed by the OTA. This would also help ODR systems to meet existing standards of justice and would promote more ethical ODR.

(iii) Privacy and confidentiality

Other minimum legal standards that would be important would be around requiring minimum security features of the systems to ensure privacy and confidentiality are protected as much as possible. Even a well-designed ODR system will have vulnerabilities that could be exploited by a sufficiently motivated and technologically-capable party.[93] This presents a risk that confidential information could be maliciously obtained and used for ulterior purposes. Moreover, many ODR systems that incorporate AI utilise case-based reasoning and so the system uses facts and outcomes from previous disputes to assist in resolving future disputes. This results in an accumulation of potentially sensitive data that is vulnerable to manipulation and exploitation. These risks are not able to be entirely eliminated, but requiring certain minimum security standards would be important to mitigate the risks.

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[92] Section 27(1).

[93] Condlin, above n 5, at 28.

4 ODR Complaints Process

A further aspect of legal regulation would be including scope for responding to complaints arising from an ODR process. This could either be done through requiring ODR providers to allow appeals of decisions or have an alternative complaints process, or, on the other hand, by granting an existing body the jurisdiction to hear complaints regarding ODR services.

If a user of an ODR service was harmed by ODR or had a complaint, one current issue with the lack of governance is that there would be no obvious body which to take that complaint to. The irony of ODR being promoted as a solution to disputes with jurisdictional issues, for example, is that if a dispute about the ODR service itself were to arise, the online nature of ODR could mean that consumer protection would be weak and trying to resolve the dispute about ODR would potentially have its own jurisdictional issues.[94] Ebner and Zeleznikow observed that, "… ODR is subject to the same consumer protection laws as any other profession, but overall it inhabits an area of weak external governance, voluntarily welcomes little monitoring, and has created no internal structures."[95] While regulation of ODR in New Zealand would not necessarily be able to assist New Zealand-based consumers who utilise an overseas service, it would be able to assist users of ODR services operating in New Zealand. Existing consumer protection under the Consumer Guarantees Act 1993 could be explicitly extended to cover ODR users in the business-to-consumer context.

D Regulation through the three non-legal modalities

1 Regulation through Social Norms

There are two main ways through which social norms could regulate ODR. The first is through encouraging industry members to self-regulate through signing up to a code of conduct. The second is through education schemes, either consumer-focused or developer-focused.

Firstly, social norms could regulate ODR by creating a social expectation of the types of conduct that are and are not acceptable for ODR providers to use. However, social norms regulate behaviour only to the extent that people subscribe to the norms. Thus, ODR providers would need to accept any code of conduct for it to successfully regulate behaviour through the enforcement of social norms. A code of conduct would likely

[94] Ebner and Zeleznikow, above n 26, at 314.

[95] As above at 305.

include some similarities with the legal minimum standards discussed above, but could be voluntary rather than compulsory, and could be more principle-based and less descriptive.

In New Zealand, voluntary industry code of conducts have been used in a range of contexts to varying degrees of success. For example, the Department of Conservation developed a voluntary "Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations".[96] The Code aims to provide "effective, practical mitigation measures for minimising acoustic disturbance of marine mammals during seismic surveys."[97] Similarly, the Distilled Spirits Association of New Zealand have a voluntary code regulating the provision and marketing of ready to drink beverages.[98] A voluntary code of conduct has also been used in the wheel clamping industry, with the code of conduct being seen as a way to avoid direct governmental regulation.[99] A voluntary code of conduct for ODR services would thus be consistent with other industries in New Zealand.

There is an existing Mediator Code of Ethics which mediators for the Ministry of Business, Innovation and Employment's Employment Mediation Service are required to uphold. While not directly applicable to online mediation which is reliant on software, it does provide a good starting point for a voluntary code of conduct for ODR providers. The key principles are the impartiality of the mediator, voluntary participation by the disputing parties, upholding confidentiality of the mediation insofar as required by legislation, requiring conflicts of interest to be disclosed, and ensuring the quality of the mediation service.[100]

A voluntary code of conduct could be used in tandem with recommendation or "trustmark" systems. One of the issues with ODR is the lack of faith potential users of the system can have. This is problematic because if parties lack trust in the system, this undermines the system's legitimacy. However, the normal ways of guaranteeing "integrity and minimum standards of performance" in the physical world are not necessarily directly translatable to an online context. [101] At the moment, because there is

[96] Department of Conservation "Seismic Surveys Code of Conduct" <www.doc.govt.nz>.

[97] As above.

[98] Spirits New Zealand "Voluntary Industry Code for RTDs" <www.spiritsnz.org.nz>.

[99] "Regulations Imposed on Clampers if Voluntary Code of Conduct Fails" *Radio New Zealand* (online ed, 17 April 2002).

[100] Ministry of Business, Innovation and Employment Employment Mediation Services "Mediator Code of Ethics" <www.employment.govt.nz>.

[101] Teitz, above n 83, at 1014.

no independent body to certify or assess ODR providers or provide a "trustmark", businesses and consumers may lack confidence in ODR providers, and thus erode faith in ODR generally.[102] Combining a voluntary code of conduct with a trustmark or recommendation system would serve a dual purpose; it would both help promote trust in ODR providers, and additionally, help regulate behaviour by strengthening social norms as ODR providers seek to meet the standard required to receive a trustmark.

The second way social norms could be supported to regulate behaviour is through education schemes or media campaigns. These schemes could be targeted at developers of ODR services, in order to promote certain desirable techniques and practices. Alternatively, they could be targeted at users of ODR services so that the users are equipped with the knowledge needed to choose an appropriate ODR service. Increasing awareness of ODR and the relative advantages and disadvantages of different ODR techniques would be an important part in helping enforce social norms and so, in turn, regulate behaviour through these social norms.

2 Regulation through the Market

A key way through which the market could regulate ODR is through regulating the price point to use and provide ODR. The primary way this could be achieved is through the provision of subsidies for certain ODR services.

As with education schemes, subsidies could be focused at either the developers or users of ODR services. The government could provide subsidies for ODR services which adhere to the minimum legal standards discussed above, or that subscribe to a voluntary code of conduct. Such a scheme would regulate behaviour by promoting more desirable ODR services, such as those which are ethical, secure and transparent. Subsidies for developers of ODR services could come in the form of tax credits for meeting certain criteria.

Subsidies could also be used to indirectly regulate behaviour by subsidising the cost for users to access an ODR service. User-focused subsidies could be provided for the ODR providers which meet the criteria discussed above. This would incentivise ODR providers to meet the minimum legal standards or to ascribe to the code of conduct, and would thus provide an indirect way to regulate behaviour.

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[102] As above.

3 Regulation through Architecture: "Code is Law"

In this context, regulating ODR through architecture refers to regulating the code in ODR systems.

Regulation through architecture would work together with the other forms of regulation to provide physical constraints on the kinds of ODR which will be able to be used. It is likely that regulation through architecture might have similar effects to regulation through minimum legal standards or by a voluntary code of conduct, except that code regulates behaviour not by determining what is legally *permissible*, but what is practically *possible*. In this respect, regulation through code would be more effective than legal minimum standards or a voluntary code of conduct, both of which implicitly accept the possibility that they will not be universally complied with.

The code in ODR systems will determine whether the risks and benefits of ODR actually eventuate. For example, in the case of automated dispute resolution systems, the training data set that "teaches" the AI how to resolve a dispute by providing examples from past cases will determine how the AI resolves future cases. Change the training set, and the outcomes produced by the AI will also change. In this way, code can either directly build in or mitigate prejudices.

There are three main ways code can be used to regulate behaviour. It can be used to encourage behavioural change, to change the impact of the harm-generating behaviour or finally, to prevent the harm-generating behaviour.[103]

Take the example of bias in ODR systems. Say the behaviour in need of regulation is systems which are biased in favour of a certain demographic. This is not inconceivable; AI has already been demonstrated to be vulnerable to such bias.[104] Code could be used to encourage behavioural change by recording demographic information and prompting an alert that would require a human response in the form of confirming or amending a result if the ODR system recorded outcomes that were overly skewed towards one particular demographic. This would give the developers of the ODR system an opportunity to assess the service to identify and eliminate any learned bias, and would encourage

[103] Karen Yeung "Towards an Understanding of Regulation by Design" in Brownsword and Yeung, above n 65, 79 at 85-86.

[104] Matthew Scherer "AI in HR: civil rights implications of employers use of artificial intelligence and big data" 13(2) The SciTech Lawyer 12.

behavioural change by encouraging early intervention if a pre-determined concerning pattern of results were to emerge.

To change the impact of the harm-generating behaviour, (the impact being a demographic group is treated unfairly and is more likely to be penalised for belonging to that demographic group), code could be adapted so that only recommendations, together with reasoning, are made as to the outcome of the dispute resolution, (rather than the system making a final determination). This is similar to the recommendation that AI be incorporated in the proposed HMOC court in the United Kingdom to act as an "intelligent assistant" to a human judge, but not completely replace a human judge.[105] A human judge or mediator would be required to accept or reject the ODR system's recommendation, and would also be responsible for accepting or rejecting recommendations as to awards arising from the outcome of the dispute. This would change the impact of the harm-generating behaviour by preventing prejudiced decision being completely automated and so going unchecked. Given that AI continues to learn over time based on case-based reasoning and machine learning, having code enforce a break for human intervention would also prevent the system from becoming increasingly biased over time, as the each decision favouring a particular demographic enforces and encourages the next.

Entirely preventing the harm-generating behaviour is the most difficult aspect in this context and it may not be possible to completely prevent bias from entering the system. Instead, a different example can demonstrate how code can prevent harm-generating behaviour. One risk of ODR is that the system will be hacked to try obtain confidential information.[106] Having the AI use case-based reasoning to resolve the dispute could result in an accumulation of sensitive data. However, if the code is modified so that identifying data (such as facts or names from prior disputes) is never actually stored by the system and is immediately deleted, then this can prevent confidential data from being able to be exploited. This shows how code can be used to prevent harm-generating behaviour.

The above examples are given to illustrate, in basic terms, how code could be used in the ODR context to regulate behaviour. As the focus of this paper is on regulation from a law reform and policy perspective, the more technical aspects of how regulation through code can be achieved are left open.

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[105] *Online Dispute Resolution for Low Value Civil Claims,* above n 2, at 24-25.

[106] Condlin, above n 5, at 28.

Code can be a very effective method of regulating technology. Notwithstanding this, it is likely that it could require some direction through legal reform. Without legal changes which prompt amendments to code, the extent to which code will regulate behaviour will be left to the code developers, who may not necessarily have ethical and legal considerations as the priority when developing the code. This would essentially result in a form of self-regulation, albeit one with more severe effects for users of the service. Thus, government-initiated legal reform, such as through the introduction of minimum legal standards, would play an important part in guiding regulation through code. The legal standards could establish the broad principles to govern ODR proceedings, and then code would be the method through which to practically enforce those principles.

It is worth noting that some authors have advised caution when depending on code to regulate behaviour. They argue that there is a risk that "code as law" can become "not only… the long hand of the law, but also the invisible hand of the market or of society."[107] This is because code's particularly strong regulatory impact. Determining what behaviour is possible, in turn, impacts on the social and market norms in play. As a result, if code is deliberately used to regulate behaviour, then it is necessary that the code embraces the *values* of a certain kind of lawmaking; we should ensure the "acceptability of rules embedded in technology by non-state actors".[108]

Overtime, regulation by code moves from norm-enforcing to norm-establishing, and so it is argued that "'code', as self-regulation should… be subjected to some of the criteria that were used to judge the validity and legitimacy of legal systems."[109]

Moreover, the difficulty with code as law, is that it is a kind of "law" that is not democratically accountable or responsive to feedback, and so it runs the risk of continuing to repeat any failures embedded in the code or continuing to enforce "law" that is inconsistent with societal values.[110] This latter possibility could occur if, for example, an ODR system incorporated code which determined disputes would always be resolved in favour of the party which had used the ODR system in question the most, i.e. in favour of business customers rather than consumers. This would then become "law" in the sense that that outcome would always eventuate. However, it would be inconsistent

[107] Bert-Jaap Koops "Criteria for Normative Technology: The Acceptability of 'Code is Law' in Light of Democratic and Constitutional Values" in Brownsword and Yeung, above n 65, 157 at 161.

[108] As above, at 160-161.

[109] As above, at 161.

[110] Yeung, above n 103, at 94.

with the values and principles of the legal system and of mediation or adjudication. Thus, while code as law could substitute for true legal regulation in the sense that it could effectively regulate behaviour, this does not guarantee that the regulation achieved through code would be the kind of regulation that true legal regulation would be aimed towards.

Regulation through code is an effective way of regulating behaviour by making certain behaviour no longer practically possible, however, it is necessary that it is viewed critically so as to ensure that the "code as law" does not in itself become problematic. That said, it is important to acknowledge the opportunity presented by the malleability of code to achieve regulatory aims. In relation to regulating technologies, the law of the code within the technology is just as important a consideration as black letter law. [111] Although regulation through code will likely be even more effective than legal regulation at modifying behaviour, legal regulation will still be needed to ensure that the results achieved through regulation by code are consistent with the aims the legal system seeks to promote.

E Conclusions on Regulating ODR

There are many possible ways of regulating ODR. Regulation will be most effective when it embraces all four of Lessig's modalities of regulation, which will ensure that the law both directly and indirectly regulates behaviour. It is also important that the methods of regulation chosen are principle-based and justifiable according to the values of our legal system.

While New Zealand regulation of ODR will not be able to overcome all the jurisdictional issues related to regulating online behaviour, it can respond to ODR services that wholly or partly operate in New Zealand. It would be best to establish the broad regulatory background, such as through the creation of an OTA, before the technology gains too much ground in New Zealand. This will ensure that the technology has to accommodate the law, rather than the law having to accommodate a technology that has already taken hold.

Regulation through code is a key opportunity to achieve effective regulation that provides a stronger constraint on behaviour than legal, social or market regulation. However, it is probable that regulation through code will still need legal reform to occur in order for the regulation through code to occur in a way that promotes ethical standards.

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[111] Koops, above 107, at 171.

VII Lessons for Law Reform and Technology in New Zealand

It is hoped that some of the findings from this paper about law reform in the ODR context can be applied to the issue of law reform and technology in New Zealand more generally. While regulation for each form of developing technology will have its own unique challenges, there are certain commonalities that can be identified. This section draws together the conclusions made in the paper about how ODR law reform could be achieved and uses them to examine technology regulation in a broader form.

A Achieving Regulatory Connection with the Technology

Perhaps the most challenging element of regulating technologies is achieving regulatory connection, so that the regulation will "bind" to the technology and be able to evolve alongside the technology's evolution.[112] Technological capacities are rapidly increasing, and the slow pace of regulation can quickly lead to a legal lag between the technology and any regulatory efforts. Thus, achieving regulatory connection with the technology to avoid this legal lag is difficult, but a crucial part of any effective regulation.

Once a regulatory framework has become disconnected from the technology, the regulation will lose its effectiveness. As a result, regulatees will be left without guidance as to what conduct is permissible. With technology regulation in particular, this leads to an irony whereby:[113]

> the more that regulators (in an attempt to let regulatees know where they stand) try to establish an initial set of standards that are clear, detailed and precise, the more likely it is that the regulation will lose connection with its technological target (leaving regulatees unclear as to their position).

Not only does losing regulatory connection with the technology mean the regulation loses effectiveness, but it also renders any regulation less efficient from an economic standpoint.[114]

Achieving and sustaining regulatory connection with the technology remains a significant issue, and there is no single way to combat it. The tension between ensuring regulation is sufficiently prescriptive so as to be useful and effective, while also remaining flexible and responsive so as to be able to adapt to technological advances means that a multi-faceted

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[112] Roger Brownsword "So What Does the World Need Now?" in Brownsword and Yeung, above n 65, 23 at 27.

[113] As above.

[114] As above.

approach to regulation should be preferred to one which relies too heavily on a single mode of regulation.

Regulation through code will be one way to help sustain regulatory connection. As technology capabilities develop, so too will the capabilities of code. Therefore, the ability for code to act as a regulator will be able to develop alongside the technology. This sets it apart from social, market or legal regulation.

Realistically, the issue of achieving regulatory connection with the technology also means that specific legislative reform will only be able to contribute so much to the regulation of technologies. This is why a technology assessment body would be important for New Zealand. The creation of a technology assessment body would allow for more nuanced and responsive legal regulation to technology issues because, once it was established, it would be able to act faster to the technological developments than the legislature would. This represents a "softer law" approach to the ongoing tension between the need for flexibility and the need for consistency in the law.[115]

Misha Feldmann noted that:[116]

> In creating the law of cyberspace, lawmakers will have to contend with the twin challenges of politics and complexity in order to manage the technology to achieve goals while avoiding deleterious consequences.

A further advantage of establishing a technology assessment body in New Zealand would be that it would be especially well placed to navigate this complexity challenge of technology regulation. Subject-matter experts are well placed to anticipate and respond to the evolution of technological capabilities, (and arguably better placed than regulators such as Members of Parliament) providing that they are supported in doing so by those with legal expertise.[117] A combined effort between legal experts and technology experts is needed.

This paper has already noted that the creation of a technology assessment body would have positive effects beyond just in the case of ODR regulation. It is worth expanding on this point in the context of achieving regulatory connection with the technology. With the

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[115] As above.

[116] Misha Alexander Feldmann, 'Law and Technology: Politics, Complexity, and Legitimacy in Online Copyright Reform' (LLM thesis, University of Toronto, 2006), at 3.

[117] Chen, above n 8, at 6.

current pace of technological development actually accelerating, legal lag and the issue of ensuring continuing regulatory connection is a growing problem. Not only does this mean that it is increasingly difficult to achieve connection between regulation and a *specific* technology, but it also means that the *number* of technologies which fall outside of existing regulation is increasing.[118] Once technology has developed and been adopted, retrospective policy decisions are more difficult and less effective.[119] Thus, capacity for technology assessment is needed in New Zealand to establish a "safety net" to ensure that New Zealand "can take advantage of opportunities that align with the national interest, or mitigate issues that can be a detriment to the public."[120]

A technology assessment body would assist regulators by mapping out the regulatory space in which a particular technology exists. It would also be able to identify the relevant variables for each technology so that the "regulatory wheel" would not need to be reinvented each time, but rather could be adapted to fit each new purpose.[121]

As previously mentioned, an alternative to establishing a dedicated OTA would be to provide support to increase existing technology assessment capabilities within government. However, a dedicated OTA would allow for greater scope. The rapidly increasing rate of technology development also means that there is also a rapidly growing need for technology assessment in informing policy creation. This need may not be able to be met simply through providing additional support for the current ad-hoc technology assessment currently occurring.

B Proactive rather than Responsive Legislating

1 When does Technology warrant Governmental Intervention?

Although the rapid changes in technological capabilities may pose a challenge for regulators, not every advance in technological capability will require a specific regulatory response. In many instances, proactive rather than responsive regulation will have benefits, however, it is first necessary to determine when changes in technology warrants governmental intervention, and when it does not. This paper has argued that ODR and automated dispute resolution represents a case where governmental intervention *is* necessary because of the risks of harm to consumers. Some of the arguments in favour of a governmental regulatory response to ODR can be used in other contexts.

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[118] Chen, above n 8, at 3.

[119] As above.

[120] As above.

[121] Brownsword, above n 112, at 30-31.

In the draft working paper for the Prime Minister's Chief Science Advisor proposing the establishment of a dedicated technology assessment body, the authors propose a set of questions that can be used to create a risk matrix for technology. These questions could also be used by an OTA body to determine whether a technology warrants governmental action or not. The working paper authors put forward the following questions:[122]

- What are the risks and opportunities for Technology X in our area of responsibility?
- What are the projected likelihoods and impacts of these risks and opportunities?
- What approaches are available to us to capitalize on these opportunities and mitigate these risks? How can we measure the effectiveness of these approaches?
- What is the opportunity cost of not responding to these risks at this point in time?

These are all valid questions to help determine the practical risks arising from a technology. Public safety or harm issues, in particular, need to be quickly identified. A significant risk of harm from a technology will suggest specific government intervention is required, especially if that harm is unable to be adequately mitigated by relying on self-regulation.

The legal risks, particularly the risks posed to the structure of the legal system, also need to be considered. Thus, to the above questions, a few more could be added, such as:

- What areas of law does the technology impact on?
- How does the technology interact with existing legal principles in each area of law?
- How does the technology impact on the general legal principles underpinning the legal system as a whole? For example, how does the technology interact with the rule of law?

The answers to these questions will help determine whether the technology raises "law of the horse" style issues or not. Academic debate in the 1990s discussed the concept of cyberlaw and whether cyberlaw should properly be regarded as an independent body of law. One side of the argument, notably promoted by academics such as Frank Easterbrook and Joseph Sommer, argued that there was no more a distinct "cyberlaw" than there was a distinct "law of the horse"; horses and cyberspace raise a range of issues

[122] Chen, above n 8, at 18.

but those issues are best dealt with through the various areas of law impacted, rather than as a distinct body of law.[123] On the other hand, Lawrence Lessig argued that cyberlaw should be treated as an independent field of law because studying cyberlaw as an independent specialised field of law can shed light on the study of law more generally, and additionally, cyberlaw raised particular issues that the law would need to adapt to.[124]

The same debate can help determine whether a particular technology is in need of specific governmental intervention. If a new technology fits more with the law of the horse than it does with cyberlaw, there may be less need for governmental intervention than if it is a truly new and independent field of law. This could also be expressed through considering how the technology in question impacts the principles underpinning the legal system as a whole. If the fundamental principles of our legal system are unlikely to be impacted by the technology, the technology is probably closer to fitting within the law of the horse, so to speak, and vice versa. ODR, particularly with automated dispute resolution, can be considered an independent body of law because of how it impacts on the principles of justice which underpin our legal system. Technologies which are of socio-legal effect, as opposed to merely of social effect, create challenges which require a regulatory response.[125] These are the technologies which have risks of harm to the public or the users of the technology, as well as risks to the legal system. Automated dispute resolution is one such technology.

2 Advantages of Proactive Legislating

While specific legislation for technology may only be of limited value due to the rapidly evolving nature of technology, this is not to say that legislation cannot play a role in regulating technologies. In fact, once it has been determined that a technology needs governmental intervention in some form, legislation should be considered. Not all technology will require specific legislative changes. As mentioned, technologies most likely to need specific legislation are those which have significant risks for public safety and/or those which have a significant impact on the principles of the legal system.

Proactive legislating should be preferred to reactive legislating. If legislation is reactive, then new industries, or new facets of industries can take hold before the law is able to respond. This can result in the law having to accommodate the technology, rather than the

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[123] Frank H Easterbrook "Cyberspace and the Law of the Horse" (1996) U Chi Legal F 207; Joseph Sommer "Against Cyberlaw" (2000) 15 Berkley Technology Law Journal 1145.

[124] Lawrence Lessig "The Law of the Horse: What Cyberlaw Might Teach (1999) 113 Harv L Rev 501.

[125] Murray, above n 64, at 17.

technology having to accommodate the law. This has already been an issue in cases such as commercial drone use, and continues to pose a challenge in respect of technology such as automated vehicles[126], nanotechnology[127], and bitcoin currency.[128]

There is real value in legislating and establishing a regulatory framework before a technology gains critical mass and the harm eventuates. Proactive legislating can guide the establishment and implementation of the technology and help ensure that it is done in a way that is consistent with the values the legal system seeks to promote.

General legislation relating to technology may also be beneficial. A model of proactive legislating that has been proposed is to draft "technology neutral" law, with purposive interpretation by the courts encouraged.[129]

C Uniquely New Zealand Solutions to International Challenges

The regulation of technology is not an issue unique to New Zealand. The regulation of technology and the regulation of cyberspace is an ongoing issue, at both the international and domestic levels. This is also a significant issue for ODR regulation, in that it could be argued that any regulation of ODR in New Zealand will not be able to effectively protect New Zealand consumers who will use overseas-based ODR services. However, it should not be accepted that regulation is pointless simply because it can only affect part of the issue.

The regulation of cyberspace and of technologies will require cooperation across many jurisdictions. A polycentric model of regulation, with competing and overlapping regulation from multiple jurisdictions, is likely a necessary part of regulating technologies.[130] A workable model of regulation for technologies that present jurisdictional issues is one of "complex systems, layers and regulatory webs".[131]

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[126] Feldmann, above n 116, at 3.

[127] Dorothea K Thompson, "Small Size, Big Dilemma: The Challenge of Regulating Nanotechnology" (2012) 79(3) *Tennessee Law Review* 621.

[128] Kevin Maney, "The Law Can't Keep Up With Technology--and That's a Very Good Thing; New Technologies Spread Instantly through the Cloud, and Take Hold with Almost No Legal oversight." 165 *Newsweek* 17 (2015).

[129] See for example, Bert-Jaap Koops "Should ICT Regulation be Technology-Neutral?" in Bert-Jaap Koops and others (eds) *Starting Points for ICT Regulation – Deconstructing Prevalent Policy One-Liners* (TMC Asser Press, The Hague, 2006) 77 and Brownsword, above n 112, at 27.

[130] Murray, above n 64, at 47.

[131] As above at 52.

It is also important to note that effective regulation will require both direct legal and indirect regulation, as per the modalities of regulation discussed in the prior section. This is also where uniquely New Zealand solutions to international challenges can be achieved as the social norms and market factors within each jurisdiction have differences. These differences can be used to indirectly regulate behaviour. In other words, law is not the only way to regulate behaviour, and it will be most effective in combination with other aspects of regulation.

D Conclusions of Lessons for Law Reform and Technology

Just as we can learn something valuable about legal principles more generally through studying cyberlaw as a distinct body of law, so too can we draw some observations from considering regulation of online and automated dispute resolution that can be applied to the issue of regulating technologies at a broader level. Of these, the main findings are the need for improved technology assessment capabilities in New Zealand, the need for a proactive approach to technology regulation that embraces multiple modalities of regulation, including regulation through code, and finally, that there is value in New Zealand-specific regulation notwithstanding the fact that New Zealanders will still be impacted by technology outside of New Zealand's regulatory jurisdiction.

VIII Conclusion

Growing technological capabilities, particularly over the past half-century, have created both opportunities and threats in New Zealand. Online and automated dispute resolution are gaining significant traction overseas. There has been a significant increase in the number of disputes resolved through private providers of online dispute resolution services. More recently, there has also been the adoption of online dispute resolution services within official government court systems in jurisdictions such as Australia, Canada, the United States, as well as a proposed online court in the United Kingdom. To date, the role of online dispute resolution in New Zealand has remained a relatively niche area of ADR, but this is likely to change in the near future.

Online and automated dispute resolution offer several advantages for disputants. These advantages include faster and lower cost dispute resolution, greater convenience, and increased access to justice through a lower barrier to entry. However, there are also significant risks which are exacerbated by the lack of regulation and governance of ODR. Perhaps most concerning is the risk that ODR systems will utilise inherently biased software, designed to favour one class of user, without the disadvantaged party ever being aware that they were disadvantaged right from the start. Especially when ODR or

automated dispute resolution might begin to be used in an official government court context, this poses a risk to the principles of our justice system. Even when not in a government court context, ODR still carries a risk of harm that requires a regulatory response.

Automated dispute resolution, where the dispute resolution system is wholly or partially reliant on artificial intelligence to resolve the dispute, poses several issues around accessibility of justice and the extent to which disputes resolved using AI can be said to meet the existing principles of justice within the New Zealand legal system. These issues, combined with the more general risks of ODR, mean there is a need for law reform to regulate this evolving technology.

This paper has put forward a proposed model for regulating ODR which utilises the law to both directly and indirectly regulate the technology. Indirect regulation would occur through social norms, market constraints, and code, which provides practical constraints on behaviour. It is recommended that New Zealand establish a government technology assessment body which would be empowered to create policy and regulation surrounding the adoption and maintenance of new technologies.

New Zealand has a real opportunity to be a technology-positive country which fosters innovation and creativity. The advantages offered by ODR and automated dispute resolution should not be ignored. Having a dedicated technology assessment body in New Zealand and proactively establishing a protective regulatory framework while retaining the ability to be responsive to technology changes would help ensure this does not come at the expense of the important principles underlying our legal and justice system.

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