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Limitation of our work

General use restriction
Executive summary

Digital technologies are not only changing the way society communicates but also the way we search for and use information. Digital technologies are increasingly being drawn upon for ideas generation, innovation and dissemination.

The digital economy represents a big opportunity for New Zealand. Information and communication technology and high-tech manufacturing contributed $16.2 billion to the New Zealand economy in 2015, with nearly 120,000 people employed between the two sectors.1

For New Zealand to be well-placed to realise the opportunities associated with the digital economy, it is important for current legal and regulatory frameworks to reflect the way people use and create copyright material. There has been an ongoing discussion in New Zealand regarding the flexibility of the existing copyright regime, including the merits of introducing fair use, to support innovation in a rapidly changing technological environment.

The Ministry of Business, Innovation and Employment (MBIE) is currently reviewing New Zealand’s existing copyright regime to make sure it is keeping pace with technological and market developments and is not inhibiting the supply of innovative ideas and creative works. As defined by MBIE:2

"Innovation - the application of new ideas, processes and technologies - enables firms to produce new products and services, and to produce them more efficiently."

In New Zealand, the legislative provisions on how copyright material is permitted to be used are in the form of ‘fair dealing’ exceptions. There are also other specific rules-based exceptions that specify the types of uses which may be made of copyrighted material without infringing on the rights of that material’s owner.

In contrast, a number of other countries – most notably the United States – instead rely on a ‘fair use’ test. Rather than limit permitting uses to a closed set, fair use, through the illustrative terms ‘including and such as’, allows other uses to be considered when judged by principles embodied in four factors. Those principles include whether the proposed fair use is ‘transformative’ – whether it provides new insights into the original, is itself a new work, or otherwise is for a socially beneficial purpose - and importantly that there is no material, adverse effect on the market for the original copyrighted material. Recent reviews of copyright law in both Australia and the UK have also recommended a shift towards a more flexible copyright regime, such as fair use or an expansion of fair dealing exceptions.3


Figure i below provides a brief overview of changes made across the world in favour of copyright flexibility.

Figure i: Fair use and fair dealing laws and debates, 2017

Source: Deloitte Access Economics.

Deloitte Access Economics has been commissioned by Google to analyse the economic impact of introducing fair use and, more broadly, the potential impact of copyright reform to allow for greater flexibility in deciding whether a particular use of copyright material is fair.

This report serves three functions:

1. to explain what fair use is and how it works in a rapidly changing technological environment
2. to provide case study evidence of activities likely to be encouraged or carried out with greater legal predictability under a fair use approach
3. to provide evidence on the economic impacts of fair use.

A range of organisations were consulted for this report including: Universities New Zealand (which collated input from a number of different universities); a number of film makers; Creative Commons Aotearoa; Internet NZ; and Koordinates.

The evidence suggests that innovative digital activities are more likely to develop in countries with fair use provisions as compared to fair dealing provisions. While there are few specific examples of innovative activities which the report says would not happen at all under the current copyright system, or that will definitely occur under a more flexible system, the evidence is that innovation is more likely to occur, or operate with greater certainty under a more flexible copyright regime.

Fair dealing and fair use

The objective of fair use and fair dealing is the same – to promote creativity through the appropriate and proportional reuse of previous works. The difference between the two is how each serves that overall design. While fair dealing pursues that objective by specifying in legislation permissible uses, fair use does so by

setting out a *standard* that can be applied to any potential use of copyright material.

Under fair dealing, legislation sets out purpose-based exceptions to the general rule that a person must seek permission to use another person’s copyrighted material. That is, fair dealing requires that a use must both meet a specific legislative purpose and be fair.

In contrast, under fair use, legislation provides a general defence against claims of infringement. To make out the defence a user needs to establish that the particular principles apply and that the impugned use is fair.

Nevertheless, the two systems share a great deal in common: like fair dealing, fair use provisions also list a number of acceptable purposes. Like fair use, the New Zealand fair dealing provisions consider similar factors to the U.S. fair use provision. The important difference is that by virtue of the illustrative terms "including and such as," the U.S. law permits non-enumerated purposes to be fair use provided they meet the four factors.

Figure ii: Overview of fair dealing and fair use

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**Fair dealing and fair use**

**Fair dealing**
A use is permitted if it meets *prescriptive criteria* – for example, a person recording a broadcast *solely for private and domestic use to watch or listen at a more convenient time* does not infringe copyright. Any use outside of the rule is an infringement. Some exceptions may also require that the use is fair.

**Fair use**
A use is permitted if it is fair, considering competing social interests such as the nature of the use, the nature of the original work, the amount and importance of the portion of the original work that has been copied, and whether a commercial market for the work exists.

The US Copyright Act of 1976 provides an indication of the type of principles considered in determining whether a use of copyright material is “fair”, with a similar focus to the assessment of fairness under New Zealand’s fair dealing exceptions:

1. The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;
2. The nature of the copyrighted work;
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. The effect of the use upon the potential market for or value of the copyrighted work.

The objective of fair use is not to alter the balance in copyright law between users and rights owners. Indeed, the existing fair dealing exceptions in New Zealand already require an assessment of fairness, based on very similar factors. Rather, it allows that balance to be applied to any number of uses and purposes, based on

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4 See s.40(2) *Copyright Act 1968.*
principles derived from almost 300 years of case law, rather than being confined to specific legislated purposes as is the case under New Zealand’s existing fair dealing exceptions.

Our report assesses the impact that adopting this flexibility would have across four areas of the economy: innovation, education and information access, incentives to supply new works, and predictability, flexibility and responsiveness.

Figure iii: The impact of fair use reform in the digital age

Enabling innovation

- Fair use provides a copyright framework that accommodates digital innovation and experimentation
- New Zealand’s innovators run the risk of having new uses prevented, because fair dealing exceptions have failed to keep pace with changing technology
- Growth areas of the digital economy, such as text and data mining and cloud computing, are in a precarious position of legality under current copyright laws

Fair use provides a more flexible and adaptive copyright framework that accommodates digital innovation and experimentation because it is neutral - both with respect to the technological form the creative output takes, and with respect to the specific nature of its content. Fair use can be applied to any use of material as long as the proposed use is consistent with the principles of fair use. These principles—which include the impact of the proposed use on the market for the original material—ensure that the value of second generation innovations is appropriately balanced against the need to promote incentives for first generation innovators, particularly as the market for new technologies changes.
A range of **non-expressive uses** of copyright material, which involve copying as an intermediate step in the production of a non-infringing end product, are expected to grow strongly in the digital age and would be better supported under fair use (or a more flexible approach to fair dealing exception), including:

- **Text and data mining (TDM)** can generate significant value across sectors, from $100 billion in value for (United States) healthcare service providers to $700 billion for global end users of personal location data.\(^5\) At present, there is no explicit exception for the use of text and data mining in New Zealand. As such, its use is a potential copyright infringement.\(^6\) In contrast, TDM in the United States has been used for a variety of purposes including for research, machine learning and to check for plagiarism. For example, Google relies on fair use to make the vast number of copies of literary and artistic works required to provide translation technology. TDM is just one component of the broader growth of machine learning technologies.

- **Cloud computing and data analytics** are key areas in which non-expressive use of copyright material provides a significant opportunity for the New Zealand economy. Koordinates, a cloud based data platform, is able to freely collate publicly available data in the US by relying on fair use. Under fair dealing in New Zealand, Koordinates must negotiate individual agreements for the use of data with local councils even if the data is publicly available elsewhere.

Fair use also supports the **transformative use** of information to create new works.

- Artists have greater scope to remix other materials in their work across a range of mediums without having to investigate whether a specific exception such as 'criticism or review' applies to their work.
- Students have greater scope to include extracts from third party material in films and documentaries that are aired publicly
- Software developers and start-ups have greater scope to use part of copyrighted software interfaces to develop compatible programs to commercial software.

### Incentives to supply new works

**Incentives to supply new works**

- Fair use does not permit free use
  - There is no evidence of any contraction of investment in creative works in the United States, nor more recently in countries that have adopted fair use style provisions
  - In fact, the evidence suggests that these countries have thriving cultures of creativity and innovation

A key concern for some is the impact fair use would have on how much copyright holders earn for creative efforts. It is important to note that neither fair use nor fair

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\(^6\) TDM requires making a temporary copy of the original work in order to 'data mine' it. However, this is currently not a specific exception. Although the use of TDM type tools already happens in New Zealand, however, these uses are not being undertaken with perfect certainty. The introduction of a more flexible copyright system, by introduction of fair use or a specific fair dealing exception on TDM, would give greater certainty to the use of TDM tools for innovation. See: Internet New Zealand. (2015). Discussion paper on internet/copyright issues, 18 February 2015.
Copyright in the digital age

dealing permit universal ‘free use’, nor promote piracy, nor in any other way deprive creators of a legitimate return on their investment. There is no evidence of any contraction of investment in creative works in the United States since the adoption of fair use in 1831, nor more recently in Singapore, Korea, or Israel. This is consistent with the fourth fair use factor which requires consideration of the effect of the use on the potential market for or value of copyrighted work.

Interviews with copyright creators in Israel, where fair use was implemented in 2007, suggested that the change did not affect their daily operations. Similarly, findings by the Australian Law Reform Commission suggest that fair use is unlikely to result in a reduction in original creative output, consistent with the underlying principles of fair use.

**Education and information access**

<table>
<thead>
<tr>
<th>Education and information access</th>
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<tbody>
<tr>
<td>Fair dealing places restrictions on the ability of universities, academics, students and libraries to share information in the digital age</td>
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<tr>
<td>New Zealand academics face issues using their own research due to costs</td>
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<tr>
<td>New Zealand universities may find it hard to adopt innovative learning methods because of uncertainty around recording extracts of lectures</td>
</tr>
<tr>
<td>Libraries could rely on fair use to facilitate historical and other research by individuals</td>
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There are a number of ways in which New Zealand’s current fair dealing exceptions constrain the ability of academics, students and libraries to make the most of the educational opportunities available in the digital age. Evidence from consultations with Universities New Zealand indicated that these constraints take a number of forms:

- recording of film, audio or text extracts in a university classroom or lecture environment is non-infringing only if students attend in person, otherwise, those same extracts may constitute copyright infringement if recorded for students not attending in person. This can create considerable uncertainty for lecturers in relation to how content can be used, particularly for visiting lecturers or those coming from overseas and place constraints on remote and online based learning.
- New Zealand academics are currently constrained in their use of extracts from other research (or their own research) in public presentations or in collaboration with industry due to the material costs associated with negotiating access with copyright holders
- universities are prevented from publishing third party material contained in student theses which limits the ability of universities to disseminate this research
- libraries face considerable legal uncertainty in the digitisation of orphan works under the current fair dealing regime and fair use can allow for the digitisation of orphan works provided it is consistent with the principles of fair use
- fair use is likely to substantially reduce the transaction costs incurred by universities in navigating through the current complex system of copyright
exceptions and licensing arrangements\textsuperscript{7} as well as in negotiating access with rights holders for low value uses of copyright material.

**Predictability, flexibility and responsiveness**

\begin{itemize}
\item Legislative change has significantly lagged behind technological developments: a time shifting exception was not introduced for more than 20 years after such a right was recognised in the U.S.
\item A substantial body of law in the U.S. and other countries, as well as existing decisions about the fair dealing factors, would provide guidance to New Zealand courts
\item Prescriptive exceptions create high costs in the modern environment of rapid and unpredictable change
\end{itemize}

While there may be some initial uncertainty as to precisely how the new arrangements would work, such uncertainty is likely to be short lived. International experience, including in the United States and Israel, indicates that there is nothing particularly uncertain about fair use as a principles based legal doctrine. New Zealand would also be in the position of having the benefit of overseas jurisprudence and best practice guidelines upon which both litigants and courts could draw.

Similarly, there is no inherent reason to believe that the costs for both individuals and the legal system in establishing the legal principles underpinning such an exception would be large, or more relevantly, greater than the economic benefits that would result. Moreover, there are also costs associated with having legislators continually pass new laws to cater for new technologies or digital uses under a fair dealing system.

As experience in fair use jurisdictions shows, the introduction of fair use does not increase the volume of litigation associated with using copyright material. Between 2009 and 2016\textsuperscript{8} only 7 fair use cases resulted in a full trial from a total of 60 fair use cases in the United States according to a study by Lex Machina.\textsuperscript{9} Of those 60 fair use cases presented before the court, more than 76\% were dealt with by summary judgment, meaning a decision was made without a trial, and around 7\% were determined on the face of the pleadings with no discovery required.\textsuperscript{10} The high proportion of fair use cases dealt with by summary judgement also indicates that most fair use cases can be decided quite quickly. Further, data shows that of those fair use judgements that are appealed in the United States, eighty percent were upheld.\textsuperscript{11} Thus the empirical evidence from the United States suggests that fair use has not led to a substantial amount of prolonged copyright litigation.

\textsuperscript{7} This includes the need for universities to negotiate licences for non-harmful educational uses in circumstances where the proposed use is for the benefit of New Zealand students, and has no significant impact on the value of the copyright material.

\textsuperscript{8} For the period from 1 January 2009 to 30 September 2016.

\textsuperscript{9} Lex Machina, Copyright Litigation Report 2016: Figure 18, p.13.

\textsuperscript{10} Lex Machina, Copyright Litigation Report 2016: Figure 18, p.13.

At the same time, the experience of fair dealing in New Zealand has been that legislative change has significantly lagged behind technological developments:

- New Zealand did not introduce an exception for time shifting of television recordings for more than 20 years after the recognition of such a right under fair use in the US.
- In spite of political recognition of the issue, New Zealand has not introduced an exception for parody and satire.\(^\text{12}\)
- New Zealand’s Copyright Act has been continuously amended, such that there are now over 70 specific exceptions, yet none specifically address newer technologies such as text and data mining, APIs, the cloud and machine translation.

Delays in legislative change to New Zealand’s copyright regime, to support innovation in a digital age, has the potential to both chill new ideas directly and, even when they occur, to impose a significant degree of legal uncertainty, making New Zealand a relatively less attractive place to innovate. The implementation of a copyright reform to accommodate for more flexible fair use provisions to the use of copyright material is not a titanic economic reform that will decide the overall functioning of New Zealand’s copyright regime. Nor is the issue of a flexible exception approach to the use of copyright material a trivial matter. The evidence in this report suggests how copyright can decide the conditions that are useful to stimulate innovation.

**Deloitte Access Economics\(^\text{13}\)**

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\(^{13}\) Deloitte Access Economics acknowledges the contributions of Professor Henry Ergas and Nathalie Samia to the material in this report.
1 Background

Copyright law serves an important purpose in today’s digital economy. In economic terms, it seeks to encourage economic efficiency in the production, management and use of creative output. It does so by providing appropriate incentives for the creation of new content, by ensuring creators are appropriately rewarded for their work when it is distributed or used by others. In cultural terms, it also seeks to fuel the capacity for invention in engineering, entertainment and the arts.

Copyright has never been an absolute right, in any country. Ideas, systems, methods of operation, and de minimis copying have always been excluded. Criticism and comment, book reviews, and news reporting that utilize portions of copyrighted works have also always been permitted.

The digital economy has significantly changed the way works are created and used. There are now new ways of developing creative material and new ways of accessing, distributing, storing and consuming copyright material.

Traditional producers of creative works – like television networks, film studios, publishers and record labels – now face more competition from independent creators in a market with fewer barriers to entry than ever before. In turn, individuals can creatively transform portions of existing works into new works with readily available software packages. The steady march of digitisation on the enormous catalogue of older printed works makes historical knowledge that might have been accessible to a small number of people, in one library or museum, available to the entire world.

This shift in the way all people create and interact with intellectual property has led to a debate about the need to reform many areas of copyright law. One such debate is about determining the circumstances in which copyright material should be made freely available for socially beneficial uses where it does not have an adverse commercial impact on the copyright holder. Having a copyright system that is technology-neutral and sufficiently flexible to respond to future and unanticipated technologies, and business and consumer practices is important for promoting innovation.

1.1 The nature, purpose and scope of copyright

Copyright is the primary form of intellectual property right in respect of literary, film, musical, and other artistic works, as well as non-traditional work products from machine learning, software and websites. Indeed, thanks to digital technology, it covers virtually any form of personal expression fixed in a tangible medium of expression.

Copyright’s primary economic role lies in encouraging efficient production, management and use of creative output, including by reducing search and transactions costs, facilitating trading and contracts, and structuring the terms and conditions of access. To the extent it succeeds in doing so, copyright serves the broader economic and social goal of promoting creative effort and the experimentation, diversity and innovation it brings.

Creative effort is inherently cumulative, with the work of each creator drawing on the public domain constituted by the accumulated creative endeavour of mankind, as well as by contemporary creators who collectively form a creative context in which all dip. A well-designed copyright system should therefore preserve, protect and ultimately enlarge that public domain, and its broader contemporary context,
thus allowing creators to “stand on the shoulders” of ever-taller “giants”, to adapt the expression Isaac Newton famously used in 1676.

A fundamental question, in setting the desirable breadth of exclusive rights, is the degree to which there are economies of scope (that is, savings in social costs that come from undertaking activities together, rather than separately) between different uses of the material potentially covered by the right. The importance of economies of scope and how this maximizes the net benefit society drives from both the initial work and any subsequent work that may be drawn on overtime for innovation is covered in more detail in Appendix A.1.

1.2 Legal environment in New Zealand

Many countries with legal systems derived from English law, including New Zealand, have an exceptions regime known as “fair dealing”. This provides specific purpose-based exceptions to the general rule that a person must seek permission to use another person’s copyrighted material. These exceptions are generally justified by particular social benefits, or the public interest nature of the use at hand – for instance, uses in criticism, reviews and news reporting; and research and private study. These exceptions also require an assessment of whether the particular use is “fair”, taking into account competing social interests such as:14

- whether the alleged fair dealing is commercially competing with the original copyright work;
- whether the work has been previously published; and
- the amount and importance of the portion of the original work that has been taken.

Some explicit general exceptions to copyright have also developed through changing consumer uses – for instance, permitting a person to record a television program to watch it later (time-shifting). These do not require an assessment of fairness and thus do not fall under the banner of fair dealing, but rather are prescriptive exceptions – a given use either is, or is not, permitted by the section.

New Zealand’s fair dealing system can therefore be considered to be a combination of:

- fair dealing exceptions - where a use is permitted if it is both for a specified purpose (such as research or study) and fair; and
- specific rules-based exceptions, where a use is permitted if it meets the conditions set out in the exception (such as a time shifting exception).15

Together, these exceptions are referred to in this report as New Zealand’s Fair Dealing System.

Under New Zealand’s Fair Dealing System, certain limited uses of copyright material are permitted without permission of the copyright holder so long as they are fair. These include use for criticism, review and news reporting;16 and research or private study.17

There are also several prescriptive exceptions which allow uses of copyright material in particular non-commercial contexts. These do not involve a consideration of fairness. For example:

15 Copyright Act 1994 (NZ) s 84.
16 Copyright Act 1994 (NZ) s 42.
17 Ibid s 43.
• libraries are entitled to make copies of certain works for specific purposes\(^{18}\) (for example, where a published work is at risk of loss, damage or destruction, and it is not reasonably practicable to purchase a copy of the original item);\(^{19}\)
• sound recordings (for instance, CDs or legitimate downloads of musical recordings) may be copied for private and domestic use on other devices;\(^{20}\)
• broadcasts of television, film or sound can be recorded for private and domestic viewing at a more convenient time;\(^{21}\) and
• limited uses may be made by educational institutions for the purpose of education.\(^{22}\)

Fair dealing provisions have generally been narrowly construed in other common law countries. Consequently, there are numerous restrictions on their application as expressed in precedents by courts.\(^{23}\) For example:
• an English court found that any use of a work in criticism or review must be in criticism or review of the work itself or another work.
• copyright works could not be used to criticise or review an actor’s performance or of a politician’s actions.\(^{24}\)

1.3 Fair use and fair dealing under copyright law

While New Zealand currently has a fair dealing system, several countries have a system of ‘fair use’, including the United States, Singapore, Israel, South Korea and the Philippines. Rather than allowing particular uses of copyright material, fair use considers the nature of any given use against a set of principles.

This report compares a narrow and prescriptive approach to copyright exceptions with a flexible fair use approach. Within those countries that adopt a fair dealing system, there are a variety of systems from a narrow list of exceptions through to a more extensive list. Some of the benefits of a flexible fair use approach would also be achieved by making a fair dealing system broader through an expansive list of exceptions, such as has occurred in Canada. The Canadian Supreme Court has characterized fair dealing as a ‘user’s right’ (and not as in the U.S. a privilege), and has given a very liberal interpretation to purposes such as ‘research.’ In the end, it is not the label, but the result that matters.

The doctrine of fair use has been applied in the United States for some time with its origins deriving from the English case law of the 18\(^{th}\) century. The principles of fair use are hence not radically new to common law countries like New Zealand. Indeed, New Zealand’s fair dealing provisions for research or private study already incorporate similar factors.\(^{25}\)

Rather than specifically permitting particular uses of copyright material, fair use considers the nature of any given use against a set of principles. The US Copyright Act of 1976 provides an indication of the type of principles considered in determining whether a use of copyright material is “fair”, with a similar focus to the assessment of fairness under New Zealand’s fair dealing exceptions:

1. The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;

2. The nature of the copyrighted work;
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. The effect of the use upon the potential market for or value of the copyrighted work.

The objective of fair use is not to alter the balance in copyright law between users and rights owners. Indeed, the existing fair dealing exceptions in New Zealand already require an assessment of fairness, based on very similar factors. Rather, it allows that balance to be applied to any number of uses and purposes, based on principles derived from almost 300 years of case law on considering the critical issues that copyright laws has to take into account to encourage ongoing creative and innovative activity. Definitional rigidities from confining use of copyright work to specific legislated purposes, as is the case under New Zealand’s existing fair dealing exceptions, makes it harder for New Zealand’s copyright law to adapt in a timely manner to new forms of innovation and creative work.

In this respect, fair use and fair dealing represent different decision-making frameworks which can be used to the similar purpose of determining permissible exceptions to copyright law. Fair dealing requires constant legislative intervention, which may not be timely, to ensure that copyright law remains fit for purpose, while fair use ensures that purpose can be maintained and furthered even in periods of rapid change in the form to which creative works are generated, distributed and used.

1.4 Proposals to reform copyright law
Since the 1990s, several countries have reformed, or recommended reform, to copyright law in favour of greater flexibility. There has also been debates in a range of countries about whether existing exceptions to copyright law are functioning well, including in Australia, Singapore, Hong Kong and Japan:

- recently, the Australian Law Reform Commission has recommended a shift towards fair use in Australia, while the country’s Productivity Commission has also made a recommendation in favour of fair use. These follow earlier recommendations for a more flexible copyright exception by several Australian law reform and parliamentary committees;
- similarly, at the time of writing, it is worth noting that Singapore is undertaking consultation on strengthening its fair use provision;
- the Hargreaves Review, conducted in the United Kingdom, also recommended more flexible exceptions to copyright law that sought to achieve similar objectives to the United States’ system, though the restraints of European Union law prevented the review from recommending such a system in name.

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26 See s.40(2) Copyright Act 1968.
27 See, eg, Copyright Act 1967 (South Korea) art 35–3; Copyright Act 2007 (Israel) s 19; Intellectual Property Code of the Philippines, Republic Act No 8293 (the Philippines) s 185.
Similarly, Canadian law has significantly expanded the scope of acceptable fair dealings with copyright material. In this respect, fair dealing regimes may in some cases be more permissive than fair use regimes, depending on how the fairness factors are applied by courts in a given jurisdiction;

- in Hong Kong, copyright law reform is intertwined with debate about freedom of speech. Advocates of fair use have expressed concern that existing and proposed new fair dealing exceptions do not sufficiently protect speech commenting on current events;
- in Japan, numerous fair dealing provisions have been developed intending to encompass a broad range of activity. Several prominent lawyers and jurists have called for a shift towards true "US-style" fair use.\[33\]

In New Zealand, the most recent amendments to the Copyright Act 1994 (NZ) were made in 2008, and sought to modernise the Act to deal with digital content. A review of the adequacy of those amendments was planned in 2013. However, this review was delayed while negotiations for the Trans-Pacific Partnership (TPP) agreement were underway.\[34\] The New Zealand government acknowledged that "it is likely that many of the provisions setting out exceptions to copyright are now out of date with current technology".\[35\] In the meantime, the TPP also faces an uncertain future as the United States has announced withdrawal from the agreement.\[36\] New Zealand has nonetheless shown interest in continuing the agreement between remaining countries.\[37\]

In December 2016, the Ministry of Business, Innovation and Employment (MBIE) released a report on the role of copyright and registered designs in the creative sector, Copyright in the Creative Sector, with the aim of understanding the life cycle of creative works and how copyright and registered design fit into this. The study falls within the Building Innovation workstream of the Building Growth Agenda, which sets an agenda for the government to ensure that NZ's existing regulatory setting supports innovative products and services. Through interviews, workshops, surveys of the sector and consumer focus groups, the study identified issues for possible consideration ranging from missed potential opportunities, to difficulties enforcing rights. The study will be used to help inform future reviews of the Copyright Act, helping to infer the timing and scope of any review within the current regulatory setting.

The creative sector study was the start of the conversation about potential issues with current copyright laws and highlighted that the current regime is complex and unclear in its application to many modern practices. Subsequently, in June 2017, 


MBIE announced its plans to initiate a review process of the Copyright Act 1994 (NZ) by releasing a terms of reference, which requested approval to launch the review, outlining the motivation and the desired approach. The last significant review of the Copyright Act was more than 10 years ago, from 2001 to 2004, and the new review aims to ensure that NZ’s existing copyright law is fit for purpose in NZ in a rapidly changing technological environment. The timeframe of the review is likely to extend beyond 2018, depending on the outcomes of the consultation process. The first round of consultation will be informed by the release of the Issues Paper before July 2018. Clive Elliot QC, convenor of the New Zealand Law Society’s Intellectual Property Law Committee, has said that a review of the NZ Copyright Act was well overdue, noting that the modern Copyright Act did not properly balance the competing rights and interests of authors and users in the Internet age.38

Rick Shera, partner at New Zealand specialist IT law firm Lowndes Jordan, also noted that the TPP could enable rights holders to take action against the New Zealand government under investor-state dispute settlement (ISDS) mechanisms. This might prevent any future changes to copyright law, blocking the path to fair use for New Zealand.39 Although other respected commentators believe that TPP was the first trade agreement that could be seen as a step towards enabling fair use, due to its call for balance in limitations and exceptions.40

Amy Ryburn, a partner at New Zealand law firm Buddle Findlay, also suggested that the extension of the protection of copyright under parts of the TPP called for a “rebalancing” in favour of copyright flexibility,41 a suggestion that has also been noted by other stakeholders.42

1.5 Limitations to quantification
There are several challenges to rigorously quantifying the economic impact of a shift from fair dealing to fair use. First, it is difficult to compare copyright laws across countries and rank the level of flexibility offered across countries given the different interpretations of fair use. This makes it difficult to test whether fair use has a statistically significant impact on economic growth. Copyright is just one factor that affects economic growth, there are many others. Ultimately, it is market demand that determines the estimated value of work, not legislation.

Second, there are potentially many non-market benefits and outcomes of fair use which are best addressed qualitatively because they are not captured in standard economic measures (such as the effect of fair use on education and training or consumer surplus). So instead this report marshals significant qualitative evidence

from a range of industries to highlight the potential impact of a shift to fair use on the New Zealand economy.

The challenges associated with quantifying the benefits and costs of fair use as in a traditional cost benefit analysis have been covered extensively elsewhere, and need not be repeated here. For example, the limitations of the Scope and Flexibility to Exclusive Rights Index (SFEER) from the Lisbon Council and the International IP Index from the US Chamber of Commerce have been explored in the past. Some studies such as the 2015 Intellectual Property and Economic Growth Index have found that countries with more flexible copyright regimes experienced higher rates of economic growth. However, there have been criticisms of the robustness of these findings, including concerns about sample size used and statistical techniques.

A 2016 Ernst & Young report on the costs and benefits of expanding fair dealing and other exceptions in the Australian Copyright Act also noted that while a number of studies looked at the economic impact of copyright on various aspects including productivity, they did have their drawbacks.\textsuperscript{43} For example one limitation was that the studies were said to be mainly focused on the strength of copyright regimes, instead of their quality.\textsuperscript{44}

### 1.6 Structure of the report

This report analyses the economic impact of shifting from the current fair dealing exceptions to a more flexible approach to copyright law in New Zealand such as fair use. Key benefits and potential costs of a transition to fair use in New Zealand are identified and discussed with reference to industry evidence. The remainder of this report is structured as follows:

- Chapter 2 analyses the extent to which fair use supports innovation in the economy;
- Chapter 3 examines the potential impact of fair use on creators and the incentive to supply new works;
- Chapter 4 examines the impact of fair use on education and access to information; and
- Chapter 5 explores the extent to which fair use supports a predictive, flexible and responsive copyright regime.

\textsuperscript{43} Ernst & Young (2016) Cost benefit analysis of changes to the Copyright Act 1968, commissioned by Department of Communications and the Arts.

\textsuperscript{44} Ibid.
2 Enabling innovation

Key findings
Innovations almost invariably build upon the work of earlier innovators. The creative industries are no exception to that principle. A key challenge for copyright law is therefore to ensure the right balance is struck between providing appropriate incentives for innovation, investment and the production of creative works, while ensuring it does not unreasonably impede further innovation (including those innovations that builds on existing work) and the production of new creative works.

Ensuring that copyright law is sufficiently flexible to promote digital transformation is critical to the growth of the New Zealand economy and its international competitiveness. The New Zealand Ministry of Business, Innovation and Employment (MBIE) is currently reviewing New Zealand’s existing copyright regime to make sure they are keeping pace with technological and market developments and is not inhibiting the supply of innovative ideas and creative works. MBIE defines innovation in the following terms:45

“Innovation - the application of new ideas, processes and technologies - enables firms to produce new products and services, and to produce them more efficiently.”

The digital economy represents a big opportunity for New Zealand. Information and communication technology and high-tech manufacturing contributed $16.2 billion to the New Zealand economy in 2015, with nearly 120,000 people employed between the two sectors.46

The digital age has led to the proliferation of new technologies that allow individuals to access, use and transform existing works in a variety of ways. In this framework, the best policy option may not be to have specific exceptions for categories of justified uses that are relatively stable over time and for which predictability is more important than flexibility, but to have an open-ended exception such as fair use to allow the law to adapt to new uses not contemplated by the legislature.47

Fair use provides a copyright framework that accommodates digital innovation and experimentation because it is open and flexible to respond to future and unanticipated technologies and business and consumer practices (ALRC, 2013, 22). It permits any use of material as long as it is consistent with the principles of fair use. These principles ensure that the value of further innovation and the production of new creative works based on existing work is appropriately balanced against the need to promote incentives for innovation, investment and the production of creative works, particularly as the market for new technologies change.

2.1 Greater transformative use of information

Among the major beneficiaries of a transition to fair use are creators who seek to use copyright material for transformative uses in circumstances where such use does not clearly fall within existing fair dealing restrictions. In understanding the nature of transformative use, it is important to recognise that copyright does not grant an absolute right to creators or copyright holders to protect their works. Copyright has always permitted some use of protected material, including de minimis uses, and those uses that are socially beneficial.

In the US, this transformative use doctrine was adopted by the US Supreme Court in 1994, in *Campbell v Acuff-Rose (Campbell)*. Courts in the US consider how transformative a work is in determining whether it is a “fair use” within the fairness factors. In *Campbell*, the Court stated:

> Although such transformative use is not absolutely necessary for a finding of fair use, ... the goal of copyright, to promote [creative effort], is generally furthered by the creation of transformative works. Such works thus lie at the heart of the fair use doctrine’s guarantee of breathing space within the confines of copyright ... and the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.

One should note that the word “transformativeness’ is simply a metaphor for symbolising a complex thought and creative process, and does not condone free use. Demonstration of transformativeness is not a prerequisite to finding of a fair use, and does not subsume fair use. This is explained by Judge Leval:

> The word "transformative‘” ... is ... a suggestive symbol for a complex thought, and does not mean that any and all changes made to an author’s original text will necessarily support a finding of fair use.

2.1.1 Creative industries

The internet has given rise to new cultural genres - such as remixes and mashups - that are transforming the cultural landscape. It is also providing new ways for creators to distribute and monetise their works.

Due to the lack of a flexible provision like fair use, New Zealand creators are limited in the ways in which they can take advantage of digital technology. Unlike their peers in jurisdictions with more flexible copyright laws, New Zealand digital creators are often prevented from using small extracts of works in remixes and mashups. This is particularly acute in New Zealand due to the absence of a fair dealing exception enabling parodic and satirical uses. New Zealand artists may seek to rely on the criticism and review fair dealing exception, though courts have read the exception narrowly. For example, documentary filmmakers in New Zealand do not have the creative opportunities provided by US copyright law when it comes to relying on third party content in their films.

Anecdotal feedback provided by a production company in the *Copyright and the Creative Sector* report, released by the NZ Ministry of Business, Innovation and Employment, suggests that although technology has made it easier to find content, it has not necessarily made it easier for creative industries, in particular...

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48 Authors Guild, Inc. v. Google Inc., 804 F.3d 202, 214 (2d Cir. 2015).

filmmakers, to use it. It is often a costly and time-consuming exercise to identify and track down the rights holders to seek permission to use a copyright material within the timeframe required for film production. This process is especially challenging where there is a lot of content to be followed-up or the content is older. In a submission to the MBIE review one production company noted:

"New Zealand has very few precedents in what is fair dealing so it is more difficult to navigate the risk in this market than in other markets."

Another production company submission noted:

*We are unable to make use of fair use, which can lead to poorer quality inputs, particularly in documentary making. We can't compete in an uneven environment.*

The lack of flexible copyright exception in New Zealand casts uncertainties into the ability of the existing copyright regime to support innovation in the digital age where new technologies, services and uses emerge more rapidly. However, licences such as Creative Commons offer at least a partial solution to this problem by giving owners of works the ability to provide the public with open access to their work, if they so choose, and greater freedom when it comes to using works that have been licensed under one of the Creative Commons licences.

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Box 2.1: Case study of Creative Commons Aotearoa

While the current copyright law provides barriers to sharing and innovating, Creative Commons licences give copyright holders the ability to allow the reuse of their works in advance, according to Andrew Matangi and Keitha Booth.

Published datasets need to be unimpeded by copyright restrictions which are currently frustrating creative behaviour. Creative Commons understands the legislative and administrative restrictions that can act as roadblocks for reuse, such as the lack of scope in exceptions to fair dealing and the cost of hiring specialised lawyers, and believes that these restrictions have even encouraged infringing behaviour. All Creative Commons licences require users to provide attribution, so all a user is required to do is “give appropriate credit, provide a link to the licence, and indicate if changes were made”.

New Zealand councils and government agencies are starting to encourage the use of Creative Commons for materials which are subject to copyright. This is in line with the New Zealand Government Open Access and Licensing framework (NZGOAL) which supports the use of open licensing for such copyright works providing they are appropriate for release and re-use.

Although Creative Commons licensing provides greater freedom to reuse of copyright works, the organisation supports the transition to fair use. Fair use provides the potential to further simplify the licensing process and Creative Commons notes that, in practice, fair use is a much simpler framework than the existing fair dealing framework. The organisation is well-versed in the discussion surrounding the Trans-Pacific Partnership Agreement – any Free Trade Agreement with the United States is likely to require an extension to the term of copyright licence. In order to avoid stifling the creative industry of New Zealand, introducing fair use is considered by many as an appropriate trade-off for the copyright term extension under the Trans-Pacific Partnership Agreement.

Wibbitz in Israel operates an online platform that translates text into videos. The technology uses language algorithms to scan the submitted text to understand the story and create video clips, photographs or infographics in seconds. Israel is a country that has adopted fair use. By comparison, in New Zealand, the scope to develop innovative remixes of third party content depends on the ability of users to demonstrate that their remix falls within one of the existing fair use exceptions.

Filmmakers in New Zealand, particularly documentary filmmakers, are facing considerable uncertainty when reusing content from previous works. For example, the use of music or images from a film is technically a breach of copyright law in New Zealand. Currently, there is no exception in New Zealand copyright law that allows for a frame of a film to be copied, according to Miriam Ross, Lecturer at the Victoria University of Wellington. Music is more difficult to use because of the need for performance, publishing and authorship rights, according to Professor Annie Goldson from the University of Auckland.

52 Creative Commons (2017) Attribution-NonCommercial 4.0 International (CC BY-NC 4.0). [online] Available at: https://creativecommons.org/licenses/by-nc/4.0/ [Last accessed 14 February 2017].
The University of Auckland has classes at undergraduate, graduate and PhD (with Creative Practice) level, where students are making their own films, many of them documentaries, according to Goldson. An important part of documentaries are the themes woven throughout, and many students choose to work with social, political or historical themes. It is commonplace for students working with these themes to want to use archives and at times, music. If students are not allowed to use the archives, this will limit their creativity. Professor Goldson poses the following question as an illustration: “How would you do a piece that critiques mainstream media news without using an example?”

While at the undergraduate level, students can be steered away from using archive material, it is not a wise choice for students at the Masters and PhD levels. According to Goldson, the idea is for students at an advanced stage to be able to exercise their range of political and aesthetic choices, and show their works within the public sphere without fear of repercussions (e.g. lawsuits).

From Professor Goldson’s point of view, it is not clear what content can be reused to show in classrooms for teaching theory. The law creates a significant amount of uncertainty where films could be shown in classrooms if the library owns them, but the content cannot be embedded into slide presentations. A significant part of teaching production and theory is being able to use a wide range of examples (e.g. film clips), and accessing films legally can be extremely costly.

The cost of obtaining copyright permission is prohibitively expensive for students and many documentary filmmakers. For example, the cost in one case was said to be $120 per second of footage. Even when students are selected to present their films at Cannes or Sundance, they are not allowed to display archival materials in public forums. It is uncertain as to whether the current law permits the use of these materials in submitting the film for examination. A move to a more flexible system might reduce a lot of these uncertainties.

Some groups that oppose the introduction of fair use often raise the spectre of fair use causing harm to artists by allowing anyone to use their content without payment. However, a 2014 report on the health of the United States content industries found that there has been an explosion in creative output in the United States over the past couple of decades despite the existence of fair use:

> While the nature of the various industries may have changed, the simple, undeniable fact is that there is a cornucopia of amazing new content being produced, consumed, shared and monetized in the United States.

In other words, creativity is thriving in a fair use jurisdiction, and there is no reason to assert it wouldn’t do so in New Zealand as well if fair use was enacted.

As noted above, fair use has an internal rebuttal to this concern of harming the income to artists: the fourth factor, which many courts have described as the single most important factor, requires a weighing of not just any actual harm to the market for the original, but potential harm as well. Furthermore, as an ad hoc analysis, even a finding of fair use in one case has no bearing on whether another use, even of the same work, will be considered fair. It is therefore difficult to see the basis for the claim that fair use as a system will lead to any diminution in authors’ income.

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54 Ibid p 4
2.1.2 Software development

Another type of transformative use can be seen in the software industry. New Zealand’s Copyright Act currently permits some limited reproduction of computer programs for back-up purposes, to make interoperable products, and for error or security testing.\(^{55}\)

Fair use has permitted broader uses of software packages in the US,\(^{56}\) which commentators have noted protects start-ups and open-source developers who seek to have access to part of a copyrighted software interfaces to make their products compatible with software programs and online services created by customers and competitors.\(^{57}\) In this respect, fair use supports greater transformative uses of software interfaces.

While a broader fair use provision may result in some loss of potential licence revenue for software companies, the loss of revenue simply reflects a transfer between software companies and users, not an economic cost. The only economic cost would arise from the impact of fair use on the incentive to innovate. This factor is considered in the determination of whether a potential use is fair. An advantage of fair use in this context is that potential uses of software interfaces can be assessed on a case-by-case basis, by the user and in the court, rather than needing to fall within a specified exception as is the case for fair dealing.

2.2 Non-expressive use of copyright material for innovation

Beyond the production of creative works, there are many non-expressive uses of copyright works that have been developed into successful commercial product offerings. Some of the examples identified by the Australian Law Reform Commission (2013) which would be permitted in the US, but not in New Zealand, include:

- data mining – that is, the technological analysis of copyright materials for patterns, trends, and uses other than their intended purpose;
- machine learning and artificial intelligence which relies on the ability to access large amounts of data for non-consumptive uses, to train algorithms by trial and error;
- software that matched the audio stream of a television program against a database to inform the user what program they were watching; and
- a commercial database which provided information to lawyers on how other litigators had framed successful arguments on particular legal issues in court.

Beyond these specific examples, technology has moved at a faster pace than the expansion of fair dealing or other rules-based exceptions. This means that New Zealand players may lose a potential “first-mover” advantage in innovative industries which depend upon the non-expressive use of copyrighted material.

In recent decades there has also been growth in the development of ‘complementary goods’ – the types of technological devices and programs that permit these users to enjoy material on new devices. For instance, personal audio and video players, like iPods, smartphones and gaming devices, were complementary goods to copyrighted audio and video, and benefited from the ability to create a digital copy of sound recording for personal use (an exception to

\(^{55}\) Copyright Act 1994 (NZ) ss 80-80D.

\(^{56}\) Nicky Woolf (2016) Google wins six-year legal battle with Oracle over Android code copyright. [online] Available at: https://www.theguardian.com/technology/2016/may/26/google-wins-copyright-lawsuit-oracle-java-code [Last accessed 14 February 2017].

\(^{57}\) Klint Finley (2016) The Oracle-Google case will decide the future of software. [online] Available at: http://www.wired.com/2016/05/oracle-google-case-will-decide-future-software/ [Last accessed 14 February 2017].
permit this was introduced into New Zealand law in 2008). In this regard, the ability of fair use to accommodate new complementary digital technologies that facilitate non-expressive uses can indirectly contribute to greater demand for traditional works.

2.2.1 Text and data mining

Text and data mining (TDM) technologies enable automated searches of vast quantities of text and data to look for patterns, trends and other useful information. They are transforming research, not only in the sciences, but also in the humanities. Applications which rely on TDM are being increasingly used to enhance research and improve communication technologies.

TDM uses are wide and are applied to a variety of government, business and research needs. For example, security applications use text mining to monitor online text for national security purposes, identify spam or stop credit card fraud. Businesses rely on data mining to gather and analyse intelligence about products, customers, and competitors to help them make strategic decisions. In healthcare, medical experts analyse data to identify trends or red flags that may lead to improved diagnoses and treatment. TDM is also being used to detect patterns in language making it possible for language to be translated by a machine rather than a human.

Although the use of TDM type tools already happens in New Zealand, these uses are not being undertaken with perfect certainty. The introduction of a more flexible copyright system, by introduction of fair use or a specific fair dealing exception on TDM, would give greater certainty to the use of TDM tools for innovation.

A previous study by Ernst & Young looked at the potential benefits of data and text mining for Australian researchers. Using data from the Australian Department of Education, the Grattan Institute and a UK study, their analysis found that a “2 per cent increase in productivity corresponds to 45 minutes per academic per week and 506,000 working hours saved in total per year”.58 Their conclusion was that would be likely to result in “productivity gains between $31 million and $41 million Australian dollars in researcher working time per year” in that country.59

Since these technologies involve reproduction of works at many levels (including digital scanning of works to enable them to be searched and reformatting of works into a similar format), they infringe copyright unless the rights holder has granted permission or a copyright exception applies.

In New Zealand, there is no specific exception in the Copyright Act 1994 for TDM. Where the TDM process involves the copying, digitisation, or reformatting of copyright material without permission, it may give rise to copyright infringement. Seeking permission is, in many cases, completely impractical (if not impossible) given that text may be mined from publicly accessible content that has been obtained from thousands of distributed sources.

However, in the United States, the use of copyrighted text for TDM purposes is permitted - it falls under fair use because it is transformative and does not serve as a substitute to the original work. The United States courts have also noted ‘the benefit that TDM provides to the public, because they enhance information-gathering techniques.’ As it is permitted, TDM in the United States has been used for a variety of purposes including for research, machine learning and to check for plagiarism. For example, Google Translate (discussed in more detail below) relies

58 Ernst & Young (2016) Cost benefit analysis of changes to the Copyright Act 1968, commissioned by Department of Communications and the Arts.
59 Ibid.
on fair use to make the vast number of copies of literary and artistic works required to advance its machine learning technology.

United States courts have heard several cases in relation to TDM. In the case of White v. Westlaw (S.D.N.Y. 2014), two publishers copied legal filings, including motions and briefs into databases, Westlaw and LexisNexis. Westlaw and LexisNexis added metadata to the copied legal filings that were collected into its databases, creating an interactive legal research tool. The search results included the full text of the legal filings. The courts ruled in favour of Westlaw on the basis that: their databases transformed the litigation briefs, using it toward the end of creating an interactive legal research tool; the briefs at issue were functional presentations of fact and law rather than creative; and the databases were not a substitute for the primary market for the briefs.

In another TDM case, high school students from Arizona and Virginia brought a copyright infringement action against iParadigms because of the archiving of their essays in the plagiarism detection website Turnitin.com. The website compares student papers to a database of other essays to find instances of plagiarism. Turnitin.com had been contracted by both schools in an effort to decrease plagiarism, which had become a major problem in both schools. The court ruled in favour of iParadigms given the students had signed an agreement that shielded iParadigms from liability. More importantly though it ruled in favour because iParadigms’ use of each of the plaintiffs’ written submissions qualified as a “fair use” - it was transformative in nature because its purpose was to prevent plagiarism by comparative use.

The absence of an exception for text and data mining is placing New Zealand universities and research institutions at a competitive disadvantage when compared with other jurisdictions. The same applies to libraries and archives. High priority projects these institutions can offer such as mass digitisation, GLAM Hacks (Galleries, Libraries, Archives, Museums use of open source data and content in these institutions) and TDM cannot be undertaken because the current exceptions for library and archives in the Copyright Act 1994 are prescriptive and rigid, and not fit for purpose in the digital age.

Japan, recognised as a leading country for innovation, was until 2014 the only country with a specific copyright exception for TDM purposes. The Japan Copyright Act (2011) makes explicit provision to allow TDM. According to JISC, a higher education not-for-profit organisation for digital services, Japan’s more liberal copyright encourages text-mining usage delivering significant productivity gains and supporting wider innovation. For example, the Tsujii Laboratory at the University of Tokyo is a research group with more than 120 members in total and conducts research in areas such as machine learning, text mining, machine translation and information retrieval.

In the UK, the mining of copyright works without the permission of the copyright owner was not legal until the law was changed in June 2014 to reflect the recommendations made in the Hargreaves report. Copying content from online journals or other texts is now permissible although only as long as the purpose is for non-commercial research.

2.2.2 Cloud computing and technological innovations

Cloud computing has become an important part of the digital economy. Cloud services which involve access, use and storage of copyright works (and this inevitably result in copies being made), are impacted by copyright law.

That means that a failure to get copyright policy right will have significant consequences for the ability of New Zealand businesses, government agencies –
and consumers – to take full advantage of cloud technologies, and for New Zealand start-ups to offer them. Getting copyright policy right is also essential if the Government is to be in a position to fully implement its policy of increasing uptake of cloud services by government agencies.\(^{60}\)

According to Koordinates, a cloud-based data platform for processing large spatial datasets, New Zealand lawmakers are under the misimpression that users have more freedom to use copyright works than current fair dealing laws actually allow. Obtaining licences and permissions can mean more time and effort for various users, by working with copyright holders to publish data on their platform.

The value of a more flexible copyright law for cloud computing can be found in a previous study by Ernst & Young. Their analysis referred to a report by the Harvard Business School stating “VC investment in cloud computing firms increased significantly in the United States relative to the EU after the Cablevision decision, particularly in the geographies and sectors most affected by the decision. The Cablevision decision, along with court rulings in France and Germany, led to additional incremental investment in United States cloud computing firms that ranged from $728 million to approximately $1.3 billion US dollars over the two-and-a-half years after the decision.”\(^{61}\)

**Box 3.3: Case study of Koordinates**

Koordinates is a company providing a cloud-based platform that makes published geospatial data, such as aerial photography and landscape topography, accessible to the public. The platform allows publishers to set access controls which govern who can view, download and administer datasets. Although some datasets are of a commercial nature, Koordinates encourages providers to publish new works under a Creative Commons licence or custom licence to streamline reuse.

According to Koordinates, there are a host of issues such as interpreting copyright law and its specific online application, particularly in relation to embedded links, caching and re-using geospatial data. Interestingly, their experience has shown that even if an organisation has access to government data stored on government servers, there is no guarantee of its legality. Therefore, Koordinates works with government agencies to publish material and render data publicly available using tools available on its user-friendly platform.

However, working with government organisations and councils can be problematic and permissions are often required to access and use data, even that which by law should be available to the New Zealand public. It is crucial to have these licences negotiated upfront. By comparison, in the US fair use allows Koordinates to freely publish publicly available data sets, which it cannot do in New Zealand.

Koordinates acknowledges the value which standard or custom licences offer rights holders by its encouragement of publishers to invest in their use. Nevertheless these licences only lessen some of the restrictions for individual datasets when applied, meaning the underlying legislative issues remain a concern for new publications. Hence Koordinates supports the transition to fair use in order to support publishing information by streamlining the process involved to allow the reuse of published works such as geospatial datasets, for both Koordinates and independent publishers who use such platforms.

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\(^{61}\) Ernst & Young (2016) *Cost benefit analysis of changes to the Copyright Act 1968*, commissioned by Department of Communications and the Arts.
Given the push towards greater adoption and use of the cloud in industry and in government, a more accommodating legal framework is required. The issue of uncertainty arising from the current ‘fair dealing’ provisions means that New Zealand is being held back as a whole from fully realising the benefits of the technology. A fair use regime is likely to provide a more predictable legal environment for cloud computing in New Zealand.

2.2.3 Machine learning
As a significant technological breakthrough, machine learning is taking a more prevalent place in society, following on from previous breakthroughs such as the internet. The improved ability to analyse larger and more complex datasets in recent times has brought machine learning to the fore of business, government and society. Growing volumes of data, cheaper and more powerful processing and affordable data storage has further enabled this technology to uncover connections and help make better decisions without human intervention. For example, machine learning can be utilised by businesses to gain deeper insights into markets and make more informed decisions. An indication of its importance over the next few years is found in the growth of revenue generated from the direct and indirect application of artificial intelligence software across the world from $1.38 billion in 2016 to $59.75 billion by 2025.

Machine learning is based on computer algorithms that autonomously learn from data and information. Instead of being programmed by humans, machine learning allows for algorithms to learn by experience.

Machine learning received its kick-off in 1950 when Alan Turing created the “Turing Test” to determine if a computer has real intelligence. Soon after, Arthur Samuel wrote the first computer learning program - a game of checkers. The computer improved at the game the more it played, studying which moves made up winning strategies and incorporating those moves into its program. Machine learning algorithms have come a long way since then, enabling computers to communicate with humans, autonomously drive cars and translate languages.

Despite its long history, the copyright status of machine learning remains uncertain outside of fair use jurisdictions and in jurisdictions where TDM exceptions cover machine learning. Machine learning technologies frequently depend on having large sets of data and information to analyse. Use cases such as self-driving cars, authoring of business content and deep-dive analytics for businesses are now reality, due to the improved methods of examining these data. However, these data sets may in some cases include material protected by copyright. These instances can pose barriers to the potential that machine learning could have for the economy, via excessive or unnecessary costs and time delays. For the potential of machine learning to be completely unlocked, there should be minimal barriers to accessing the data. An example of a product that uses machine learning is Google Translate, which is examined in the box below.

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Box 2.4: Case study of Google Translate

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Google Translate is used by more than 500 million people monthly to translate 140 billion words per day in some 103 different languages. Ninety-two per cent of translations come from outside of the United States. In Australia, there have been more than 6 billion translations using Google Translate over the past three or so years, with English and Chinese being the top two translated languages.

Google Translate has several uses including the translation of online materials, text captured in images and real-time translation of spoken language.

Google Translate was launched in 2006 as a rule-based system, where rules of grammar and syntax, along with vocabulary for each language, were manually coded into a computer. In 2007 Google Translate switched to statistical machine translation system. Rather than relying on rules, statistical machine translation uses statistical models, or algorithms, to make translations based on patterns found in large amounts of texts.63

In November 2016, Google Translate moved to a machine learning based system, referred to as Neural Machine Translation. In general terms, the Neural system translates whole sentences at a time, rather than individual words at a time as was the case with both rules based and statistical machine translation based systems. It uses this broader context to help it identify the most relevant translation, which it then rearranges and adjusts to be more human like. This is all possible because the learning system built on Neural Machine Translation continues to learn over time to create better, more natural translations.

The initial move to Neural Machine Translation improved the accuracy of translations on Google Translate by more than the aggregate gains of the old system over its entire lifetime of development.64 Today, for many languages, Google Translate produces translations that are comparable to professional human translators.

For the purposes of training the Neural system, Google requires large amounts of training data in the form of millions of translated texts, many of which are protected by copyright. Google sources this data from a range of places including books, government documents, the United Nations, and websites from all around the world. Where Google is unable to obtain licences, Google relies on fair use to make copies of those texts.

63 Inside Google Translate, uploaded 9 July 2010 [online] https://www.youtube.com/watch?v=_GdSC1Z1Kzs
64 Found in translation: More accurate, fluent sentences in Google Translate, Barak Turovsky 15 November 2016 [online] https://blog.google/products/translate/found-translation-more-accurate-fluent-sentences-google-translate/
3 Incentives to supply new works

Key findings
While fair use is likely to provide greater scope for secondary innovators to make transformative use of existing works or to use copyright material in non-expressive ways such as text and data mining, a key concern sometimes expressed around the introduction of fair use is that it may undermine the incentives for investment in creative effort, both by reducing the returns rights owners secure and by increasing the uncertainty they face.

However, far from undermining incentives for creative effort, both the effect and intent of fair use is to promote creativity. The objective of fair use is not to alter the balance in the copyright system between the interests of rights holders and those of consumers. As a consequence, determinations of fair use focus on both:

- whether the new work is transformative (and in that way enriches public knowledge by adding to the supply of creative works); and
- whether it has an adverse impact on the potential market for or value of the copyrighted work (which might then reduce the incentive to create new works).

Neither fair use nor fair dealing aim to provide universal ‘free use’ or promote piracy in any way. A core element of a fairness assessment in both fair dealing and fair use is whether the intended use causes harm to copyright owner markets. Both seek to promote creative output. Thus the main effect of a move from fair dealing to fair use is not to alter the balance between rights owners and rights users, but to allow that balance to evolve as technology and applications develop.

As illustrated in a previous study by Ernst & Young (EY), which analysed the impact of copyright law on piracy, it was found that “rather than copyright law, the main drivers of piracy are accessibility and affordability”.65 Their study made reference to a Choice consumer survey from 2015 showing that piracy rates have been on the decline as consumer choice has risen.66 Additionally, EY’s report referred to a study by TNS Global Market Research, conducted on behalf of the Department of Communications, which found that 12 per cent of people who consumed online content illegally had already owned that content in another format.67 This adds weight to the idea that people are more likely to engage in piracy when their demand for legal content goes unsatisfied.68

The New Zealand Ministry of Business, Innovation & Employment’s recent Copyright and the Creative Sector report69 (which sought contributions from a range of creators, producers, distributors and users of copyright content), found

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65 Ernst & Young (2016) Cost benefit analysis of changes to the Copyright Act 1968, commissioned by Department of Communications and the Arts, p.27.
66 Ibid.
68 Ernst & Young (2016) Cost benefit analysis of changes to the Copyright Act 1968, commissioned by Department of Communications and the Arts, p.27.
that while developments in digital technology have made it easier to discover works, licensing issues can make others’ work more difficult to access, and that not all creators look for commercial return from their work. The cost to enforce copyright is perceived as resource-intensive and costly to exercise.

3.1 The impact of fair use on the incentive to supply new works
One of the key concerns around the introduction of fair use, is that a fair use regime would undermine the incentives for investment in creative effort, both by reducing the returns rights owners secure and by increasing the uncertainty and cost involved in prosecuting uses that are not considered fair. In other words, would creators lose money if fair use was introduced?

The validity of this concern is considered in more detail below, by first considering the broader objective that fair use seeks to achieve and then discussing in more detail the ways in which fair dealing and fair use are likely to impact the incentives for the supply of new creative works in New Zealand.

3.1.1 The objective of fair use
In assessing the impact of fair use on the incentive to supply new works it is important to first recognise that the objective of fair use is not to alter the balance in the copyright system between the interests of rights holders and those of consumers. Neither fair use nor fair dealing permit universal ‘free use’, nor promote piracy, nor in any other way deprive creators of a legitimate return on their investment. By the fourth fair use factor, fair use has an internal check on the potential market impact of the impugned use.

Indeed, the vast majority of fair use cases are not between creators and final consumers but between creators. The mere fact that consumers would be better off (for instance, by paying lower prices and hence enjoying greater access to the initial work) if an impugned use of a work was determined to be a fair use is largely irrelevant to decision-making under the principle, as “nearly every unauthorized reproduction or distribution increases access to some degree” (Sony BMG Music Entertainment v. Tenenbaum, 2009 WL 4547019 (D. Mass. 3009), vacated on other grounds, 660 F.3d 487 (1st Cir. 2011), cited in Patry, 2015, 311).

Rather, from the earliest case law to the present, the goal of fair use has been to promote creative effort by ensuring the exclusive rights are not used to prevent the continued growth of creative output — in other words, that those exclusive rights do not serve to stifle further creation. As Lord Ellenborough explained his reasoning in Cary v. Kearsley, a case heard in 1803, “while I shall think myself bound to secure every man in the enjoyment of his copyright, one must not put manacles on science” (Patry, 2015, 42, citing Cary v. Kearsley, 4 Esp. 168 (1803)).

It is for that reason that the overriding question in determining whether conduct qualifies as fair use has always been whether the impugned use is genuinely ‘transformative’ or ‘productive’, with the Supreme Court directing the inquiry to ‘whether the new work merely ’supersedes[s] the objects’ of the original creation ... or instead adds something new, with a further purpose or character. . . ’ (Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 578-579, 114 S. Ct. 1164, 127 L. Ed. 2d 500 (1994) (citation omitted); Patry, 2015, 129). This is because “the more the appropriator is using the copied material for new, transformative purposes, the more it serves copyright’s goal of enriching public knowledge and the less likely it is that the appropriation will serve as a substitute for the original or its plausible derivatives, shrinking the protected market opportunities of the copyrighted work” (510 U.S. at 591).

The fact that fair use is directed at promoting, rather than discouraging, creation, also explains why so much emphasis has been placed, in applying the statutory
provisions, on the “effect of the use upon the potential market for or value of the copyrighted work” (17 U.S.C. § 107(4)). The Supreme Court may have erred in referring to this as the “most important element of fair use” (Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 566, 105 S. Ct. 2218, 85 L.Ed.2d 588 (1985); see the discussion in Patry, 2015, 562-563), but there is no doubting this factor’s significance, nor the relatively broad manner in which it has been interpreted — extending, for example, not merely to the immediate effect of the impugned use, but to “the harm that might result if the use were widespread” (ALRC, 2013, 139).

As a result, fair use does not seek or serve to erode the legitimate return to the holder of rights in a work; instead, it serves, like similar provisions in other intellectual property laws, to prevent that rights holder from claiming a “disproportionate reward” which would chill innovation and slow the growth of creative output (Merges, 2011, 162). Its effects, if properly implemented, should therefore be to unlock opportunities for creative effort, rather than to restrict them.

3.1.2 How fair use and fair dealing impact the incentive to supply new works

In principle, both fair dealing and fair use seek to promote creative output. While it is true that fair use will expand the range of permitted uses relative to fair dealing, any adverse commercial impact on rights holders will be a relevant consideration in assessing whether a particular use is fair. Thus the main effect of a move from fair dealing to fair use is not to alter the balance between creating and maintaining incentives for innovation and the production of creative works and maintaining incentives for its efficient use, but to allow that balance to evolve as technology and applications develop over time.

Copyright holders have nonetheless expressed concern about the impact of the introduction of a fair use system. In particular, those concerns relate to claims that the introduction of a fair use system would make those uses that were made through licences become fair uses. Accordingly, it is alleged, returns to those copyright holders may fall, insofar as licences are no longer necessary to use the material. However, these claims ignore the market assessment that is required by a fair use provision, especially the fourth fair use factor. As noted by the Productivity Commission (2016) in its recent inquiry into Australia’s Intellectual Property arrangements: even if education were used as an illustrative fair use purpose, “not all education purposes will be considered fair, and Australian courts will make judgements based on the facts of each case.”

Concerns have been raised that copyright holders in this situation might decide that the available returns do not provide an adequate incentive to produce copyright material. If this occurred, this would lead to a reduction in the quantity of copyright works available for transaction, which would be a cost to society at large should this cost eventuate.

This criticism of fair use was considered by the Australian Law Reform Commission (2013), as part of its review of Australia’s copyright system, and was found to be lacking in evidence. In particular,

- It noted that a court determining if a use of copyright material is ‘fair’ under the US-style exception must consider the impact of the use on the commercial market for the material. It argued: “Considering this factor will help ensure that the legitimate interests of creators and other rights holders are not harmed by the introduction of fair use.”
- It observed that the US fair use system did not appear to inhibit “the creation of films, music, books and other material in the world’s largest exporter of cultural goods”.

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In the US, many beneficiaries of fair use were businesses and producers of copyright material (for instance, media companies).

Licensing has always been seen as being an important part of the economic objectives of copyright, providing a mechanism for economic rights to be transferred. However, there are situations where courts have recognised that the transfer of licences may be impractical such as where the scale of potential users is large or where the requirement for a licence to be agreed on may not be socially desirable - for example few parodies would be produced if the content needed to be licensed from the copyright owner. Thus both current fair dealing provisions and fair use provide a basis for assessing the circumstances where material can be used without a licence, although as noted above under fair use any potential use would need to involve consideration of the impact on rights holders.

It is also important to recognise the potential of fair use to promote subsequent innovations that draw on earlier works. In particular, the growth of transformative and non-consumptive uses has blurred the boundaries between ‘producers’ and ‘consumers’. As these uses continue to develop, it is inevitable that the current, prescriptive, framework will come under rising pressure, creating uncertainty and increasing the risks faced by innovators.

The economics of second generation innovation and the extent to which fair use is likely to assist innovations that draw on earlier works is discussed in Appendix A.3.

While the impact of fair use on incentives to create new works is ultimately an empirical question, the analysis here suggests that it does not necessarily follow that fair use would adversely impact the production of new works. To the contrary, its historic role has been to encourage the production of new works as demonstrated by the central role of the US in generating new creative works and technological innovations.

Kozlovski et al (2010) interviewed copyright creators (including entrepreneurs, musicians, photographers and journalists) about the impact of the introduction of fair use in Israel on their work. They concluded:

- Most participants expressed a preference for allowing personal, non-commercial uses of others’ copyrighted works. Their concerns were about copying by other creators with commercial intent, not from unauthorised copying by users or fans. Indeed, some creators wanted as many people as possible to recreate their content.
- The biggest concern for the creators was a lack of enforcement of copyright laws, rather than the state of the laws themselves. In many cases, creators used social norms rather than the costly legal enforcement process to deal with infringements of their copyright.
- In general most of the people who created content used others’ content when creating, and therefore would have preferred broader copyright exceptions.

These results suggest that even if a reduction in the production of original works did occur in response to the introduction of fair use, which at best is a theoretical argument given the lack of supporting evidence, this would need to be tempered against the value of secondary innovations that may be unlocked under a fair use regime. Moreover, there is no evidence of any contraction of investment in creative works in the United States since the adoption of fair use in 1831, nor more recently in Singapore, Korea, or Israel. Those three countries cannot be said to be lacking in innovation investments.
Findings by Kozlovski et al (2010) are also supported by the New Zealand Ministry of Business, Innovation & Employment’s recent Copyright and the Creative Sector report, 70 which sought contributions from a range of creators, producers, distributors and users of copyright content. Among the report’s insights were the following:

- Many parts of the creative sector used non-copyright mechanisms to protect the commercial value of their works, including engaging with their fan base. Indeed, 23% of respondents did not seek revenue for copyright works at all.
- Enforcing copyright through legal mechanisms was resource-intensive, costly and could pose reputational concerns.
- New types of content, like augmented and virtual reality content and interactive games, did not clearly fit into the existing copyright framework.
- Beyond deriving an income, exercising artistic expression was a key driver in creation.
- While developments in digital technology have made it easier to discover works, licensing issues can make others’ work more difficult to use.

Interestingly, an artist in NZ’s music industry has expressed that in many situations, music users just need to be educated first and be made aware of the pathways to which they can seek permission to use creative content. People use music in different ways, and not everyone will be aware of their obligation.” 71

Thus while the impact of fair use on incentives to create new works is ultimately an empirical question, it does not necessarily follow that fair use would adversely impact the production of new works. To the contrary, its historic role has been to encourage the production of new works as demonstrated by the central role of the US in generating new creative works and technological innovations.

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4 Education and information access

Key findings
Having a nurturing educational environment is equally as important as having a flexible legal environment for encouraging innovation. Innovation is very much dependent upon the capacity of New Zealand schools and universities to equip New Zealand students with the necessary skills for workplaces of the future. These workplaces will increasingly leverage digital-based skills.

In a speech given by Deputy Chair of the Productivity Commission for Australia, Karen Chester, it was noted that:

"[Fair use is] not just about the creators vs the tech giants. And it’s not a zero sum game between rights holders and content users as some would have us believe. It is about school kids, uni students, less tech savvy older people, less tech savvy younger people, documentary film makers, 55 year old redundant workers, universities and TAFEs trying to teach in a more accessible way, and the cost for anyone down under consuming the creative or innovative endeavour of others. For at the end of the day, out of kilter IP settings have and will continue to create a largely silent and growing class of 'have-nots'."

There are a number of ways in which New Zealand’s current fair dealing exceptions constrain the ability of academics, students and libraries to make the most of the educational opportunities available in the digital age. Evidence from consultations with Universities New Zealand73 indicated that these constraints take a number of forms:

- a university may provide film, audio or text extracts in a classroom or lecture environment. However, those same extracts may constitute copyright infringement if recorded for students not attending in person.
- New Zealand academics are currently constrained in their ability to use extracts from other research (even if it is their own research) in public presentations or in collaboration with industry due to the costs of negotiating access to this material with copyright holders under fair dealing.
- universities are similarly prevented from publishing third party material contained in student theses, limiting the ability for universities to disseminate this research.
- visiting and returning lecturers are often unaware that New Zealand copyright exceptions are narrower than those to which they are accustomed. A lack of fair use has meant uncertainty for what they can and cannot include in presentations.
- the current fair dealing exceptions impact the ways in which universities can present teaching material. For example, excerpts from films shown in a

73 Although consultations were not undertaken with New Zealand high schools, we note that these constraints could similarly apply to New Zealand high schools. A flexible copyright exception could make it easier for teachers to adopt innovative teaching practices to facilitate effective student learning.
classroom context cannot necessarily be included in online recordings as part of a university’s learning management system, limiting the ability of university to support remote and online based learning.

- there is considerable legal uncertainty about the ability of libraries to digitise orphan works under the current fair dealing laws.
- fair use is likely to substantially reduce transaction costs for universities seeking to navigate the complexity of the current statutory exceptions and licensing arrangements as well as reduce transactions costs of negotiating with rights holders in circumstances where the proposed use has no significant impact on the value of the copyright material.

4.1 Presenting academic research and collaborating with industry

New Zealand’s current fair dealing exceptions place considerable constraints on the ability of New Zealand academics and students to present their research in public fora or to use it to collaborate with industry. The ability to present research and collaborate with industry is necessary for ideas exchange - an important component of innovation.

None of the educational exceptions in New Zealand’s Copyright Act apply when academics and researchers are engaging with the broader community, or with business and industry. In some circumstances lecturers have been unable to present extracts such as tables from their own research in public presentations due to either the prohibitive cost of obtaining permission for such uses or the transaction costs involved in negotiating the right to use such material.

Academics are also prevented from including small amounts of third party material in a journal article or conference paper under a fair dealing system. Universities New Zealand notes that many theses produced as part of a Masters or PhD programme can never be published in academic journals or shared online.

Universities New Zealand says that academics are experiencing first hand, the mismatch of exception coverage between New Zealand and other jurisdictions such as the US:

"Many tertiary institutions believe that if New Zealand’s narrow ‘fair dealing’ regime was broadened to the ‘fair use’ law adopted by the US it would eliminate the mismatch of exception coverage between jurisdictions. The result would be increasing the ability to show and utilise works that are under copyright.

For example content producers are often US-based and, due to the broader fair use principles, it is possible that a license for a work that would be subject to copyright in NZ is not actually available (or does not exist at all) as it is not required in the US.

A New Zealand lecturer therefore may have the ability to use works in a presentation they conduct in the US, however upon their return to New Zealand they may not be able to use the same works in their presentation under current law. A fair use regime will eliminate this restriction."

Universities in fair use jurisdictions typically rely on the fair use exception for this use.

Universities New Zealand points to student theses as a particularly egregious example of inflexible exceptions limiting the dissemination of knowledge that is such a central part of the university mission:
“Students are often forced to remove any material which they are unable to obtain permission to use or for which they are told that they must pay for the right to use the material in their theses. Once a thesis is published online, it is considered a commercial publication, despite the fact that it is required for examination purposes. The existing fair dealing exceptions make it difficult to argue that a thesis published outside the university falls within the exceptions, even if the publication has no adverse commercial impact on copyright holders. An Auckland University professor argued that students “should be able to exercise their range of political and aesthetic choices, and definitely show their works within the public sphere without fear of law suits.”

4.2 Use of teaching material
Section 43 of the Copyright Act 1994 (NZ) permits the use of copyright content for the purposes of research or private study. However, no more than one copy of the same work may be made under this section, meaning it cannot be used to create teaching materials. Section 44 permits the copying of written works for educational materials, but imposes some restrictions, being:

- No charge may be made for the supply of the materials to the person receiving the lesson, and
- No more than 3% or three pages of the work may be copied (or, if the work is three pages or less, no more than 50% of the whole work may be copied).

As a consequence, an academic researcher or teaching professional may obtain a copy of an article to use for their own research purposes but the material cannot be used if it is shared to a different audience, for example, during teaching in a lecture or to share with other students, unless the work is licensed.

Universities noted that the introduction of fair use is unlikely to negate the need to negotiate licences for the use of teaching material to be distributed to students. However, a transition to fair use may provide greater scope for universities to include copyright material as part of educational content.

Victoria University aptly summarised the general opinion of tertiary institutes in this space: “given the ever increasing use of online content in the educational context, New Zealand universities should be able to make the same use of that content as educational institutions in the United States in order to compete on a more equal footing globally.”

Box 4.1: Case study of Universities New Zealand
Currently, universities can provide learning materials such as films and textbook extracts (including diagrams and charts) in their original form, under license for this purpose. Lecture notes written by teaching staff are a work in their own right, so cannot contain copies or excerpts of others’, according to Melanie Johnson, Copyright Advisor for Universities NZ. Often these notes are then shared with students in both soft and hard copies.

Waikato University frequently record lectures to support students who cannot attend in person. These recordings are uploaded to a learning management system to provide remote access to all enrolled students. A recorded lecture can contain any content which a lecturer aired to the class, including film and audio clips. Although showing the clips in a classroom environment is permissible under the Act, the recording and sharing of the material could constitute an infringement, according to Johnson.

However, with a Screenrights Television and Radio Copying Licence, which every university in New Zealand holds, radio, television, cable programmes and any AV material legally
available online can be copied and shared for educational purposes. This includes making it available on the intranet, and distributing via email. This enables lectures that aired covered content to legally be streamed online. The act does not cover, however, pre-recorded material, such as bought or hired videos.

Universities can share physical copies of journals or textbook extracts with students by obtaining a license through Copyright Licensing NZ (CLNZ - formerly Copyright Licensing Limited, CLL). The CLNZ licence does not cover certain types of material which includes, but is not limited to, material downloaded from the internet, materials sourced from an electronic database, standalone artwork and theses, dissertation and student papers. CLNZ primarily cover hard-copy sources – therefore universities are unable to get a licence to record lectures in which the lecturer shares film and audio clips.

4.2.1 Teaching in the Creative Arts
The current copyright law in New Zealand has made an impact throughout most aspects of teaching in universities. One particular group of classes, the Creative Arts, is finding the current fair dealing exceptions tricky to navigate. For example, students taking classes in documentary film making appear to be stifled by the uncertainty surrounding what they can and cannot include in their works. Restrictions on the ‘creativity’ of students is potentially harming future innovative works. Section 49 of the Copyright Act 1994 states that materials which a student uses to produce examinable work generally have coverage under the purpose of examination exception. Unfortunately, this means that for many filmmaking students, their documentaries can never be shown in public due to this law, according to Miriam Ross, Lecturer at the Victoria University of Wellington. Publishing an examinable work online, that contains copyright material, is outside of the scope of the exception. Consequently, film students can potentially use copies of material for the purpose of study but cannot display these images publicly if they wanted to air their work for a public audience. Melanie Johnson, Copyright Advisor for Universities NZ indicated that such students are “hindered in their creative expression or level of achievement... in a field where public exposure is critical to creating an awareness of their work”.

4.3 Library visitors
Access to library materials is an important benefit to consumers. The specific rules-based exceptions applying to libraries in New Zealand’s copyright system has impacted the ability of libraries to publish content and share these with the public and academic researchers.

Fair use could play a role in facilitating greater access to library materials where such use is consistent with the fairness factors. Although the current fair dealing exceptions come along with the statutory exceptions for libraries and provide potential avenues for access to library materials, those exceptions are, incredibly complex relative to fair use.

Sections 50-57A of the Copyright Act 1994 (NZ) set out the ways in which libraries may copy works in their catalogues without breaching copyright. Like the other fair dealing exceptions in the Act, they are prescriptive in nature, permitting only the following acts and only in a limited range of circumstances:

- the supply of a single copy of a “reasonable portion” of a work;
- the supply of a single copy of an article from a periodical;
- the supply of copies of the above to other libraries to meet the requests of their users, or where the other library is unable to commercially purchase a work;
• copying to preserve or replace works in their collection for which it is not ‘reasonably practicable’ to purchase a copy of the item in question; and
• the supply of a single copy of an unpublished work.

Libraries are left in an uncertain position regarding the use of ‘orphan works’ – works where the author cannot be located. Susan Corbett, in a 2010 article, identified three instances where the preservation of culturally important works was hindered by the lack of protection for secondary users of orphan works. One such example was that of the New Zealand Electronic Text Centre (NZETC) publishing New Zealand literary texts surrounding the country’s participation in the First World War. Although it faced uncertainty about whether it would be permitted to do this, the NZETC decided to publish the works to ‘test the waters’. In another instance, the NZETC sought to publish a literary magazine first published in 2000. Being unable to contact a third of the authors involved, and having faced a warning notice from a New Zealand copyright licensing authority, NZETC removed the magazine from its website.

Libraries and other cultural preservation organisations require a certain risk appetite for publishing orphaned works – if the copyright holder were to come across these works being published by a library, the library would be liable for any copyright infringement. A previous Ernst & Young study suggested that the cost of lost publishing as a result of not being able to find the relevant author of copyright works in Australia is between $10.3 million and $20.6 million per annum. This cost estimate may be useful in considering the size of the cost from lost publishing in the New Zealand context.

However, a transition to fair use would make it easier for libraries to consider publishing or digitising unpublished and orphan works to share with public audiences. This is because fair use:

• would not be restricted to the specific permitted uses in the Copyright Act (NZ);
• would consider several ‘fairness factors’, including the effect of any use on the market for the work; where a work is unpublished or not being protected by the copyright holder, its commercial value is likely to be limited.

The existing preservation exceptions also prevent libraries from preserving published works unless it is not ‘reasonably practicable’ to purchase a new copy. This poses a number of barriers to the proper role of libraries in preserving works:

• Many commercially available versions of a work are likely to suffer the same fault that gives a library cause to preserve the work.
• A copy of a work held by a library may be ‘reasonably practicable’ to purchase at its ordinary commercial price to replace a copy at risk of damage. However, the ‘ordinary’ commercial price may be thousands of dollars. Many libraries (and many artists) would rather spend this money on preserving the existing copy of the work and purchasing additional works.

From an innovation standpoint, digitisation of library materials could provide less barriers to people who use the content to broaden their knowledge and innovate. Broader reforms to copyright law and the introduction of fair use would allow libraries to more easily create preservation copies of material, provided the use is considered fair. This flexibility could also allow the use by library clients of digitised

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75 Ernst & Young (2016) Cost benefit analysis of changes to the Copyright Act 1968, commissioned by Department of Communications and the Arts, p. 77.
76 See, eg, Copyright Act 1994 (NZ) s 55.
versions of library materials including orphan works to be more widely shared. Once digitised, works are more accessible for the public and researchers, and can be searched for their text.

From a social benefit perspective, the copyright works that may be preserved by libraries and shared with users under a fair use regime would produce benefits to the individuals who seek to use them. Goolsbee (2006)\textsuperscript{77} suggests that the value of access to particular leisure goods is worth at least the time spent on them (at the user’s wage rate).

4.4 Transaction costs

4.4.1 Libraries and other cultural institutions

The earlier sections have discussed instances where different activities may have been stymied by the absence of fair use. However, there may also be instances where activities continue to occur under fair dealing but impose transaction costs on users or these transaction costs themselves prevent activities from occurring.

One of the key benefits of fair use that has been recognised in economic theory is that fair use allows users to consume or draw on material that has no adverse commercial impact on rights holders but is not covered by an existing fair dealing exception without having to incur the costs of locating and negotiating such a use with rights holders.

The following looks at the many idiosyncrasies required in complying with the present fair dealing exceptions and these shed light on how fair use might reduce transaction costs for libraries and universities.

Libraries and other holders of copyright material must follow strict rules when providing access to material to patrons. Specifically:

- Sections 51 to 54 of the \textit{Copyright Act (NZ)} permit the copying and communication of published works to users for their own research and study. This does not permit library users to undertake any other socially beneficial use of copyright work obtained from libraries.
- Where a library makes an electronic copy of a work under ss 51, 52 or 56, they must destroy any incidental copies made in meeting the request after the request has been supplied to the user. This creates a significant cost and administrative burden to libraries.
- There are several practical difficulties with the preservation exceptions. In particular, libraries can only copy to preserve works they own if it is not reasonably practicable to purchase a copy of the item. This requirement for preservation copying of published copyright material leads to losses for New Zealand’s cultural heritage in the long term, and adds administrative costs in the short term. The inability to make a preservation copy on acquisitions imposes additional costs on libraries, and ignores the reality that the new copy may deteriorate as quickly as the original version, and may not meet the same need as later versions can have different content to the original version. Although it has not been expressly considered by the US Supreme Court,

Oakley (1990) and the United States Copyright Office (2003) have submitted that this type of preservation copying would likely be covered by fair use.

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5 Predictability, flexibility and responsiveness

Key findings
One of the principal advantages of a standards based rule such as fair use over a prescriptive or rules based approach such as fair dealing is its ability to respond to a world in which technology and commercial circumstances are changing rapidly and unpredictably. Previous literature on the impact of technology on copyright has stated that the “relative weight of the costs and benefits of copyright will change with changing market conditions so that the desirable level of copyright protection is likely to vary over time”.

While there may be some initial uncertainty as to precisely how the new arrangements would work, such uncertainty is likely to be short lived. International experience, including in the United States and Israel, indicates that there is nothing particularly uncertain about fair use as a principles-based legal doctrine. Similarly, while there may be some initial transaction costs in moving from a fair dealing system to fair use, including perhaps the development of sectoral guidelines, precedent will, over time, help guide the way fair use is interpreted and courts will have a considerable body of international experience to draw upon. Guidelines will develop to provide even more predictability regarding the application of fair use to particular industries or use cases. For example; the development of the ‘Code of Best Practices in Fair Use for Academic and Research Libraries’ in the United States have provided helpful guidance to teachers, researchers and librarians about the scope of best practice use of copyright material under the fair use system.

Moreover, to the extent that there are new cases from time to time under a fair use exception, they are likely to reflect the fact that technological innovations have emerged. The ability of fair use to provide a framework to consider such innovations is a key advantage of a standards based approach over a rules based approach such as fair dealing. Indeed, the experience of fair dealing in New Zealand has been that legislative change has significantly lagged behind technological developments.

While concerns have also been raised about the potential for fair use to increase legal uncertainty, academic analysis of fair use in the United States has demonstrated that the uncertainty critique of fair use is overstated and that there are consistent patterns of decision-making in relation to fair use. The Motion Picture Association of America similarly notes that:

"Our members rely on the fair use doctrine every day when producing their movies and television shows – especially those that involve parody and news and documentary programs." An

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At the same time, aspects of the current fair dealing exceptions create a level of uncertainty for core elements of the digital economy such as cloud computing, text and data mining and machine learning.

Finally, a shift towards fair use would be consistent with the trajectory of other areas of policy. In short, a move from the current fair dealing regime to a fair use approach that is neutral as between sectors, technologies and uses, and which relies on principles rather than prescriptions would be entirely aligned with the thrust of change both in economic legislation and in intellectual property laws. In all those areas, the benefits of reform include greater flexibility, enhanced openness to technological change and ultimately, a more competitive, creative and innovative society.

5.1 Fair use and responsiveness
This section first considers, from a theoretical perspective, why laws which are promulgated as standards rather than rules such as fair use which are likely to provide an environment that is more responsive to technological or social change. It then examines whether fair dealing has been effective in responding to technological changes relative to fair use jurisdictions such as the US.

Kaplow (1990), and the large literature Kaplow’s work has spawned, explores the relative merits of laws which are promulgated as rules versus standards. The key insight of this analysis is that rules, which specify what is appropriate behaviour in particular circumstances before the fact tend to be more costly to promulgate since they need to define appropriate behaviour in a defined set of circumstances. Rules can impose costs if technology changes rapidly whereas standards may impose error costs early on but it will make legal interpretations easier overtime.

A theoretical model for considering the error costs associated with fair dealing and fair use is set out in Appendix A.4.

The principal result of that model is that the error costs arising from the rigidity of fair dealing are likely to be greater than the error costs under fair use when:

- Technology is undergoing rapid change, creating new forms and uses of creative output which may justify altering the scope of uses that have been permitted;
- Courts are reasonably able to determine whether there will be a public benefit from such a change; and
- The social cost of the failure to adjust is high, while that of occasionally making changes which shouldn’t have been made is not.

Digital transformation has undoubtedly increased the rate at which creative material is produced and used, developing entirely new uses while altering the landscape of copyright in ways that are inherently unpredictable but rich in potential. Given the changes that is bringing, the model implies the costs of relying on a fair dealing approach are likely to have increased compared to the more flexible alternative of fair use.

The current New Zealand fair dealing system was largely introduced in New Zealand law well after similar uses were considered ‘fair’ by United States courts. Specifically;

- New Zealand did not introduce an exception for time shifting of television recordings\(^{84}\) for more than 20 years after the recognition of such a right under fair use in the US in 1984.\(^{85}\)
- New Zealand still does not provide a broad exception to permit the copying of works to permit access by people with a disability.\(^{86}\)
- In spite of political recognition of the issue, New Zealand has not introduced an exception for parody and satire whereas the right for such use was introduced in the US in 1994.\(^{87,88}\)

The Copyright Act 1994 (NZ) was most recently amended in 2008. The amendments introduced exceptions for time-shifting of communication works and format-shifting of sound recordings. New Zealand’s Associate Minister of Commerce, Judith Tizard, noted at the time that “despite the fact that this activity is common practice, it is an infringement under the Copyright Act.”\(^{89}\) In spite of the dramatic growth in uptake of mobile devices and cloud technology since these amendments, the Copyright Act 1994 (NZ) has not been updated. It could be argued that in 2017, with the proliferation of on-demand streaming services, the 2008 amendments intended to modernise the Copyright Act for the digital age are already outdated.

Equally, despite the fact that data mining has rapidly established itself as a crucial element in digital transformation, there is no exception in the Copyright Act that covers text data mining. As a result in New Zealand, as in Australia, when “data or text mining processes involve the copying, digitisation, or reformatting of copyright material without permission, it may give rise to copyright infringement” (ALRC, 2013, 262). In contrast, in the United States, no amendment of any consequence has been made since 1998; yet in the last 18 years, fair use has meant that courts have been able to keep pace with the progress of technology and innovation.

These issues are particularly relevant to social media. Box 5.2 provides a high-level overview of the issues regarding existing Copyright Law in New Zealand with the rise of the social media. The absence of a general exception allowing fair non-commercial uses such as sharing a meme on Facebook or Pinterest enabling day-to-day consumer uses suggests the need to review current fair dealing exceptions.

\(^{84}\) New Zealand Copyright Act 1994.


\(^{86}\) Copyright Act 1994 (NZ) s 69 provides a limited exception for the provision of Braille copies of literary or dramatic works. Compare with Copyright Amendment (Disability Access and Other Measures) Bill 2016 (Australia), which permits fair dealing ‘for the purpose of … persons with a disability having access to copyright material’.


Box 5.1: Current copyright laws and digital devices

Around 70 per cent of New Zealand adults now own a smartphone\(^{90}\) and the use of tablet computers is growing quickly. Despite this, today’s copyright laws significantly limit the way digital devices can be legally used. Some examples are illustrative:

- It is permissible to copy music from a CD to your tablet for sound recording - but not to copy a film from a DVD to your tablet
- It is permissible to back-up a CD to your computer, but not to communicate by storing it privately online or electronically transmit the sound recording so you can listen to it on mobile
- It is not permissible to copy a funny photo you saw on Twitter and share it on a Facebook page as it is not covered by any exception
- It is permissible to watch an online video, but not play it in a presentation to your team at work as it is not covered by any exception.
- Content may be used for news reporting or criticism, but not for parody, satire or purely artistic purposes.

5.2 Legal costs and predictability

One concern that has been raised concerning the introduction of fair use is its potential to either raise legal costs or increase the level of legal uncertainty for rights holders. Indeed the case-by-case nature of the way fair use is applied is considered by critics of fair use as a flaw on the basis that such a system may be ‘unpredictable and indeterminate’ in application. On this basis it has been argued that the flexibility of fair use generates significant transaction costs, in the form of litigation between parties in cases where it is not clear whether a particular use is fair or not. The costs of this litigation will be borne between the parties (in hiring lawyers and experts) and the justice system as a whole.

On the other hand, advocates of fair use note that its case-by-case, fact-sensitive, nature is a strength, conferring flexibility and adaptability on the copyright system. Indeed, analysis of historical copyright cases in the United States shows that the number of litigations that have been brought forward based on claims of infringement of fair use has been extremely low and has further declined in recent years.\(^{91}\)

Moreover, the distinct trend in the past decade or so in the United States - aided by Supreme Court opinions on pleading standards - has been to resolve fair use disputes on papers, without the need for a trial and in most cases even without any discovery. Fair use disputes are thus rare but efficiently dealt with when raised.

This section first considers the existing evidence on the extent to which fair use is likely to increase litigation costs relative to fair dealing. It then critically examines the extent to which fair use is likely to result in a greater level of legal uncertainty for producers of new copyright material or investors in new technologies.

5.2.1 Assessing the impact of fair use and fair dealing on legal costs

There have been some previous attempts to estimate the potential costs of copyright litigation in Australia which may be useful in the New Zealand context. Lateral Economics (2012) considered a previous report of the Standing Committee on Legal and Constitutional Affairs of the House of Representatives (2000), which

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\(^{91}\) Lex Machina, Copyright Litigation Report 2016: Figure 18, p.13.
heard that the average cost of infringement proceedings in the 1990s was in excess of $100,000. Adjusted for inflation, this provided a figure of about $144,000 per case in 2012. The report estimated, based on the opinion of an intellectual property lawyer, that about a third of IP cases proceeding to trial in Australia’s Federal Court (or 70 cases per year) involved copyright in any given year. This created a total cost of copyright law proceedings of roughly $10 million per year (not including the costs in cases that did not proceed to trial).

PwC (2016), in their assessment of the costs and benefits of introducing fair use (in the Australian context), assumes instead that complex cases would cost $1 million on average. PwC also relies on Lateral Economics’ estimate that roughly 70 copyright cases proceed to trial in any given year. Because the United States had five times more cases from fair use than the United Kingdom had from fair dealing, PwC also assumed that the number of cases would increase to 350 per year (without adjusting for differences in population between the two jurisdictions). This assumes that all copyright cases relate to fair use, that all will proceed to trial, and all will be complex cases reaching appellate courts (and the highest level of average costs per case).

However as foreshadowed above, the actual experience in the United States is that fair use cases are relatively rare. Between 2009 and 201692 there have only been 7 fair use cases resulting in a full trial from a total of 60 fair use cases in the United States.93 Of those 60 fair use cases presented before the court, more than 76% of those cases were dealt with by summary judgment, meaning a decision was made without a trial, and around 7% were determined on the face of the pleadings with no discovery required.94 The high proportion of fair use cases dealt with by summary judgement and assessment of pleadings are indicative of that most fair use cases can be decided quickly, do not require significant legal resources and are relatively inexpensive. Further, data shows that of those fair use judgements that are appealed in the United States, 80% of those decisions were upheld on appeal.95 This is complemented by an overall downward trend on number of copyright infringement litigations filed in recent years - in particular, a drop of 22% in copyright litigation was observed in 2016.96 In sum, these imply the impact of fair use on legal cost and predictability is potentially low.

The Israeli experience similarly suggests that no massive spike in litigation resulted from a shift to fair use: only 11% of copyright lawsuits filed in Israel during 2010-2013 related to online infringement, considered fair use.97

In this respect, fair dealing is still reliant on litigation as the impetus for change. As a result, the difference between the fair dealing and fair use regimes is less in their reliance on litigation than on the fact that litigation, under fair use, can respond directly to a new environment, whereas the eventual adjustment under fair dealing requires a subsequent legislative response. It is therefore misleading to portray the difference between fair use and fair dealing as being a contrast between an approach which involves extensive litigation and one in which litigation plays little role: the costs and errors of litigation are relevant to both.

92 For the period from 1 January 2009 to 30 September 2016.
93 Lex Machina, Copyright Litigation Report 2016: Figure 18, p.13.
94 Ibid.
Moreover, the fact that in New Zealand unsuccessful litigants face an order to pay the plaintiff’s costs and court costs (the “English rule”) means the scope for high levels of copyright litigation in New Zealand should not be exaggerated. However even putting these insights from the economic analysis of law aside, the record suggests that, even in as litigious a country as the United States, fair use has not been a source of widespread, recurrent or costly disputation.

Another factor that reduces the need for litigation is clear guidance. In the United States, most rights holders look to guidance on fair use on how to proceed in different fact scenarios. If fair use was introduced in New Zealand, government or others could draft similar guidance for rights holders, creators, teachers, software engineers, and other relevant parties.

5.2.2 Fair use and legal predictability

In general, there is no reason to believe that fair use, as a legal principle, is especially uncertain in its application. On the contrary, the accumulation of precedents, stretching back, in the English common law, to 1721 (Patry, 2015, 18-52), means that the fundamental elements of the principle are well understood.

Evidence of that doctrinal stability, can be seen in the fact that there have been no United States Supreme Court cases involving fair use since 1998, when the Court handed down its Campbell (2 Live Crew) opinion. That opinion, which endorsed Judge Leval’s transformative use approach and its emphasis on a holistic approach to the fair use factors, set out clear principles defining the scope of the fair use defence. District courts have had little difficulty in applying it, as is apparent from the very low rate at which district court decisions have been overturned on appeal. Subsequent to the 1998 Digital Millennium Copyright Act (the last meaningful amendment to the United States Copyright Act) there have only been 64 court of appeals fair use opinions, of which 50 affirmed the lower court, 13 reversed, and one was mixed (affirming some works, remanding on others). This gives a reversal rate (leaving aside the mixed opinion) of only 20%, which is low for any area of litigation.

Those facts are consistent with the Australian Law Reform Commission’s conclusions. Based on its review of the scholarly sources, it found that “fair use in the US is not uncertain”, with it being generally possible, as Professor Pamela Samuelson has concluded, “to predict whether a use is likely to be fair use by analysing previously decided cases in the same policy cluster” (ALRC, 2013, 113-114, citing Pamela Samuelson, Unbundling Fair Uses (2009) 77 Fordham Law Review 2531). As a result, parties determining their conduct “in the shadow of the law” can be relatively clear as to its substance and implications.

In practice, courts and litigators in New Zealand will be able to rely upon the established principles of fair use in the body of United States law, along with existing precedents surrounding the fair dealing exceptions. The presence of a substantial body of precedents in the US will help reduce potential uncertainties associated with the transition to a fair use regime and also the potential legal complexity of any cases that do come before the court. Academics have also observed that the experience in the US also suggests that the uncertainty critique is overstated and that:

“while there are many shades of grey in fair use litigation there are also consistent patterns that can assist individuals, businesses, and lawyers in
In addition, a study conducted by Hinze et al in 2013 explained that in regards to uncertainty:

“The United States experience under the Copyright Act of 1976 indicates voluntary guidance documents can be a means by which to achieve greater levels of certainty, and provide predictability and normative guidance to users. In our experience, such voluntary guidance documents have proven most useful when they have (i) evolved organically (rather than being developed in the context of a legislative reference or government facilitation), (ii) been perceived as being balanced (rather than, for instance, reflective of only one side of the copyright balance), (iii) been widely accepted by the copyright user community, and (iv) been widely adopted in that communities’ actual practice.”

As the law in New Zealand becomes more settled, the long run litigation costs under fair use are likely to fall – particularly if the government published practical guidelines on fair use. That makes it all the more important not to overstate the gains, if any, that the fair dealing provisions bring in terms of predictability (and hence reliance) compared to fair use. To begin with, any such gains could be bought at the cost of sub-optimal outcomes. Thus, as Professor Schauer has argued, “although the ability to predict and then rely on the decisions of others has undeniable value when viewed in isolation, decision-making environments can offer predictability only by diminishing their capacity to adapt to a changing future” (Schauer, 1991, 140). When the decision-making context is stable, he suggests, principles-based adjudication (such as fair use) is likely to be no less predictable than its rules-based counterpart (in this case, fair dealing); it is only when the environment is changing rapidly, so that decisions made on the basis of the underlying principles could lead to outcomes that diverge from those of the rule that is supposed to embody those principles, that “rules (are) likely to be needed in order to ensure predictability, but those are the very cases in which the costs of ensuring predictability will be greatest” (Schauer, 1991, 141). It follows that “the frequency of suboptimal decisions … will be highest in those cases in which the predictability advantages of rule-based decision-making are likely to be largest” (Schauer, 1991, 141).

Whatever the uncertainties involved in fair use (and the discussion above suggests they have been greatly exaggerated), the current fair dealing provisions combine the disadvantages of statutory rigidity with those of unpredictability in application. The result is not only to harm consumers — who would “value the certainty of knowing that they can make certain unpaid uses of material without infringing copyright” — but also to stymie innovation, as “businesses that make transformative uses of copyright material … need certainty, so that they have the confidence to invest in new business models and services” (ALRC, 2013, 113).

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5.2.3 Predictability and technological innovation

A further concern noted in relation to fair use is that if there is a level of uncertainty in how fair use will apply to specific uses initially, this may adversely impact technological investment. This assumes that the flexibility of fair use creates uncertainty for innovators and adds risk to investment in technological development. By this logic, fair use creates greater difficulty for investors in estimate potential returns from innovation.

This experience again has not been borne out in the United States, where many of the most innovative products and services were created in reliance on fair use, including the iPod and the iMac. The iPod was built on fair use: the only way it could have – and did work commercially is through allowing people to copy their existing fair use personal copies onto the iPod. Had Apple built the iPod by only allowing people to use it with newly bought songs, it would have been unlikely to achieve the same level of sales. Fair use made it possible for the iPod and iTunes to exist.

No litigation was brought against Apple over these uses. In a 2010 speech, then UK Prime Minister David Cameron observed:

"The founders of Google have said they could never have started their company in Britain," Cameron said. "The service they provide depends on taking a snapshot of all the content on the internet at any one time and they feel our copyright system is not as friendly to this sort of innovation as it is in the United States. Over there, they have what are called 'fair-use' provisions, which some people believe gives companies more breathing space to create new products and services."

In assessing the extent to which legal uncertainty is created by fair use and how it affects decision to invest in research and innovation, Deloitte Access Economics reviewed the existing literature that analyses the judicial application of fair use. Two studies have empirically assessed the fair use doctrine and the level of uncertainty it creates in guiding decision making (see Beebe 2008 and Samuelson 2009). Both studies highlight that there are observable patterns in judicial analysis on fair use decisions that help guide decision making by investors.

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Conclusion

The growth of the digital technologies has brought major opportunities for the New Zealand economy, through the ability to generate new ideas and innovations and to distribute them to ever-wider audiences. A core enabler for maximising these opportunities is a legal framework that unlocks free expression and innovation, which in the digital era directly affects the way we live, work and play.

Fair use provides a more flexible framework that provides a principles-based test to see if a use is infringing or not. While fair dealing aims to promote creativity by specifying permissible uses in legislation, fair use sets a standard that can be applied to any potential use of copyright material. Major new uses of copyright material are occurring outside of any clear, supportive legal framework, including important growth areas such as text and data mining and cloud computing. Therefore, a move to fair use would cut through these problems, instead of shoehorning new uses into narrow legislative provisions, thereby fostering innovation.

Having considered the respective benefits and costs of fair use and the nature to which these may occur and the potential size of their impact on the economy, we consider a transition to fair use would increase the flexibility of New Zealand’s copyright system. The theoretical model considered here finds that the error costs associated with fair dealing cases are likely to be greater than error costs under fair use cases. In particular, this is likely to be the result when technology is undergoing rapid change; courts are reasonably able to determine whether there will be a public benefit from such a change; and the social cost of the failure to adjust is high, while that of occasionally making changes which should not have been made is not.

While there are potential initial costs in transitioning to a fair use regime, these are likely to be relatively small in practice given the experience of a range of other countries in transitioning to fair use. Over time, precedent will help guide the way fair use is interpreted, with courts being able to draw on a considerable body of US precedents facilitating that process. Meanwhile, legislative change has significantly lagged behind technological developments under fair dealing, which has the potential to stifle new uses. A significant degree of legal uncertainty can potentially be imposed even when these legislative changes do occur under the current fair dealing system. Users of copyright material are currently facing uncertainty over which uses are infringing copyright law, due to the prescriptive nature of the system.

Overall, the report reaches a similar conclusion to that which has been reached in Australia by their Law Reform Commission and Productivity Commission and Ernst & Young, namely a transition to fair use would have net benefits, enabling free expression and innovation, encouraging new forms of creative endeavour, opening up access to research and published information, and providing a more flexible and responsive legal regime so New Zealand can make the most of opportunities provided by the digital age.

Finally, a shift towards fair use would be consistent with the trajectory of other areas of policy. In short, a move from the current fair dealing regime to a fair use approach that is neutral as between sectors, technologies and uses, and which relies on principles rather than prescriptions would be entirely aligned with the thrust of change both in competition law and in intellectual property laws. In all
those areas, the benefits of reform include greater flexibility, enhanced openness to technological change and ultimately, a more competitive, creative and innovative society.
Appendix A: Understanding fair use

A.1. Economics of scope and the breadth of copyright law
To see why those economies of scope are important, it is useful to begin from the efficiency goal, which is to maximise the net benefit society derives both from an initial work and from any subsequent works that may draw on its copyrighted material. This optimisation involves a basic trade-off: extending the breadth of the initial rights holder’s exclusive rights to cover subsequent works allows economies of scope between those works to be internalised and exploited, and may also strengthen the incentives for their creation; however, it reduces the number of independent creators who could seek to derive the subsequent works from the initial work. In turn, reducing the number of independent creators slows the rate of innovation, as the simple model set out in Box 1 illustrates, diminishing the benefit society derives from investment in creative effort.

Box A.1: The Costs Of Restricting The Number Of Potential Innovators
Assume (as in Scotchmer, 2004, 252) that creators receive ideas at the same rate, $\delta$, per time period, with ideas being distributed as a Poisson distribution (so the time, $n$, at which a creator receives his or her next idea is an exponentially distributed random variable with parameter $\delta$). Under those assumptions, the expected value of the time at which the creator receives the next idea is $1/\delta$. Now, if two independent creators, rather than just one, are both working on the same initial material, and neither has an intrinsic advantage in so doing, then ideas will arrive at twice the aggregate rate as they would with one researcher, so that the rate at which creation moves from the primary work to the next step will double from $\delta$ steps per unit of time to $2\delta$. As the number of independent innovators expands, the rate of innovation rises.

As a result, broadening the breadth of exclusive rights can have material consequences for the overall pace of innovation. To offset the possible social loss those consequences would impose, the extension of exclusive rights must reflect substantial efficiency advantages the holder of the rights in the initial work can be expected to have in developing or controlling the development of the subsequent works—it must, in other words, reflect the underlying economies of scope referred to above.

As a practical matter, the likely extent of those economies of scope will depend on the relationship between the initial work and the works that, in one way or the other, draw on it. The closer are the initial work and the subsequent works, the greater are likely to be the economies of scope involved in their creation and efficient management. To that extent, vesting control over the timing and nature of these works in the holder of the rights to the initial work will allow that rights holder to optimise whether, when and how those derivative works are created. Compared to allowing anyone to derive those works, common ownership of the initial work and its close derivatives thus avoids what could be—under unimpeded copying—“premature saturation of the market, consumer confusion (for example, as to the source of the derivative works), and impaired demand for the original work because of the poor quality of some of the unauthorized derivative works” (Landes and Posner, 2003, 226).
Conversely, the more distant the subsequent use is from the expressive content of the initial work (and so the higher the value added attributable to the subsequent creator as a share of the total social value of the later work), the less likely it is that the holder of rights over the initial work will have any efficiency advantage over others in creating and commercializing that later work. Moreover, the greater that distance, and the lower the degree to which the expressive content in the subsequent work relies on the earlier work alone, the higher are like-ly to be the transactions costs the creator of the subsequent work would incur in negotiating a license from the holder of rights over the initial work. Those costs are likely to be all the greater if the subsequent work would require myriad such licenses from separate rights holders, as each licensor would have incentives to “hold out”, hoping to secure for itself a greater share of the gains from trade—and even if licensing agreements could be reached, they would likely involve inefficiently high charges, since the licensors, acting individually, would set even higher prices than would a profit-maximising monopolist (Scotchmer, 2004, 144-145).

In short, achieving the social goal of maximizing the expected value of creative output requires limiting the breadth of exclusive rights to works which are, in a practical sense, close to the protected expression in the initial work. Virtually all copyright systems rely on a wide range of instruments to that end: their foundational elements exclude protection for ideas, systems and methods of operation; they limit the protection granted to particular types of works (such as software or architectural designs); they allow the unauthorized copying not only of a de minimis amount from the copyrighted work, but also of a non-de minimis yet inconsequential amount from the copyrighted work; and they provide specific provisions and exceptions shielding conduct which would otherwise constitute infringement.

A.2. Fair use and fair dealing – different decision-making frameworks
“Fair use” and “fair dealing” provisions are one important element in a broader legal fabric that exists so as to promote learning, creative effort, and technological innovation. They are consequently not outliers to the copyright scheme, but rather points in the spectrum of an overall scheme. As US Judge Pierre Leval said of fair use in an influential Harvard Law Review article: “Fair use should not be considered a bizarre, occasionally tolerated departure from the grand conception of the copyright monopoly. To the contrary, it is a necessary part of the overall design” (Leval, 1990, 1110). The question, to which we now turn, is how well fair use and fair dealing each serve that overall design.

Because the fair dealing provisions designate particular classes of uses as potentially non-infringing, they can be, and often are, assimilated to “rules” (see, for example, ALRC, 2014, 98 and follows), where a rule can be defined as a “legal direction which requires for its application nothing more than a determination of the happening or non-happening of physical or mental events—that is, determinations of fact” (Hart and Sacks, (1958) 2006, 139). Equally, put in those terms, fair use would be a “standard”, which “may be defined broadly as a legal direction which can be applied only by making, in addition to a finding of what happened or is happening in the particular situation, a qualitative appraisal of those happenings in terms of their probable consequences, moral justification, or other aspect of general human experience” (Hart and Sacks, (1958) 2006, 140).

While possibly helpful as an analogy, this distinction—which purports to contrast a procedure that is “hard and fast” with one that is inherently vague—is questionable in theory and can be misleading in practice. Thus, as a matter of theory, the mere fact that a provision is specific does not mean it is precise, much less that it is capable of being sensibly implemented without reference to its underlying purpose (Twining and Miers, 1991,133 and follows); to believe otherwise would be to
overlook the inescapably open textured nature of language, which is especially pronounced in statutory drafting. Additionally, and importantly, although the fair dealing provisions specify classes of uses that are potentially non-contravening, they leave substantial discretion both as to the precise boundaries of those classes and as to what constitutes fair dealing within those classes. For example, it is clear that a dealing for the purposes of parody or satire can be a fair dealing; the question of whether a particular dealing falls within that class is still a question that must be resolved in the precise circumstances of that dealing.

This point has been illustrated in Canada, which has fair dealing provisions in its copyright statute. The Canadian Supreme Court, has determined that “The fair dealing exception … is a user's right” that “must not be interpreted restrictively” (rather than merely a defence against a claim of infringement). It has, on that basis, found that “[the term] Research must be given a large and liberal interpretation in order to ensure that users’ rights are not unduly constrained” (CCH Canadian Ltd. v. Law Society of Upper Canada, 2004 SCC 13, [2004] 1 S.C.R. 339 at 50, cited in Patry, 2015, 670). As a result of that interpretation, Canadian fair dealing law is, in some respects, broader and more elastic than U.S. fair use law. Labels can consequently be misleading; and it would be equally misleading to characterise fair dealing provisions as necessarily certain and self-implementing or as merely hinging, for their determination, on findings of fact.

The main respect in which the fair dealing provisions are “rule-like” is therefore not in defining the criteria which might determine—in a more or less mechanical manner—whether a particular instance was or was not a ”fair dealing”; rather, it is that the legislature limits fair dealing to particular classes of uses, while leaving open, and hence subject to judicial determination, the question of whether a particular instance of use falls, as a matter of fact, within one of those classes and if so, whether that use is indeed fair.

In contrast, under fair use, the question the court addresses, when a defence of fair use is invoked, is not whether a particular use falls within a predetermined class of permissible uses; rather, it is whether in the specific fact situation at issue, the use is or is not fair. That is not to suggest that the court, in making that determination, exercises a quasi-legislative power, permanently altering the class of permissible uses: on the contrary, its decision is bound by the facts. The point, however, is that its consideration of those facts is not hemmed in by a legislated set of permissible uses into which it would have to shoehorn the cases it regards as being indeed fair, as a court in a fair dealing jurisdiction has to do.

It is, in other words, “the absence of continuous malleability, rather than the presence of limited specificity”, that is the hallmark of, and central issue with, rules such as those embodied in the fair dealing provision; and, as Professor Schauer emphasises, that absence of ongoing malleability means that even were such a rule capable of being “crafted in such a way as to incorporate within the rule every conceivable relevant distinction and qualification”, it would inevitably remain “vulnerable to the phenomenon of open texture”, as “it might still turn out that some new and heretofore unexpected event arose, such that now the application of the highly specific rule generated a result inconsistent with the specific rule's background justification” (Schauer, 1991, 83-84). Put slightly differently, the central features of these rules is that, with the statute limiting the range of permissible uses, “something from the past controls the present ... resisting current efforts to mould [the rules] to the needs of the instant” (Schauer, 1991, 82). In this respect, a rules based approach is less well equipped to address rapidly changing technological circumstances.
A.3. The economics of second-generation innovation

One of the core objectives of copyright law is to ensure that the right balance is struck between creating incentives for first generation innovations while also supporting second generation innovations.

This tradeoff has been recognised in other areas of intellectual property law such as patent law. Scotchmer (1991) notes that in the context of patents there is an inherent trade-off between broad and narrow patent protection. Overly broad patent protection can stymie the development of second generation innovations that build on initial research. This can ultimately reduce the benefits for first generation patent holders who are unable to benefit from licensing their technology to second generation innovators or to work co-operatively with them to generate new products. By comparison, overly narrow patent protection can reduce the incentive for first generation innovation.

The key insight of this research is that there is a balance to be struck in facilitating incentives for both first and second generation innovations. As such, the right to experiment by building on existing research is an option that should be valued by society. To the extent that fair use would permit such experimentation in areas which would not be covered by existing fair dealing exceptions, or may be difficult to anticipate ex-ante, fair use will help support a greater level of secondary experimentation and innovation. In that sense, fair use creates additional options for innovators.

Moreover, under fair use (but not under fair dealing), the scope of those options can adjust to some degree automatically as innovations evolve. For example, where robust licensing develops for copyrighted works after a finding of fair use, subsequent fair use determinations would take note of the new licensing scheme in weighing the important fourth factor. In the American Geophysical Union v. Texaco case, 60 F.3d 913 (2d Cir. 1995), the court of appeals relied on the advent of a blanket licensing scheme (as contrasted with an earlier per work license), to find that what might have been reasonable and customary in the past, was no longer.

A.4. A model of error costs under fair use and fair dealing

As well as the fixed costs involved in trying to frame a prescriptive rule correctly, reliance on prescriptive rules will incur especially high error costs in situations where technology and commercial circumstances are changing rapidly and unpredictably. Because the rules are likely to adapt only with a substantial lag (as occurred in New Zealand with rules applying to time shifting of television recordings), there is a serious risk of chilling socially desirable behaviour.

By comparison, standards which involve an ex-post determination of the content of the law based on particular circumstances can be initially more costly for individuals to interpret (either themselves or through the need to seek legal advice) and more costly for legal systems to enforce. However, over time, precedent will help guide their interpretation: in the specific case of fair use, it is relevant that there is a considerable body of international experience which could be drawn on.

That stickiness in the face of changing circumstances has the potential to create error costs, imposing social losses. Of course, those errors costs need to be compared to the potential for error under fair use, including that of erroneously determining that a particular use is fair. But while the error costs of fair dealing apply with respect to entire classes of uses, fair use findings are specific to the facts of individual cases; that makes it easier for courts to distinguish a given case from prior decisions if applying those prior decisions would be inappropriate.

A model (adapted from the discussion of judicial decision-making in Miceli, 2004, 272-273) is helpful in understanding the possible costs of the first kind of error—
that is, of incorrectly determining the permissible range of uses—under fair dealing compared to fair use.

Thus, suppose that the existing range, $R$, was efficient in the past, but that there is some probability, $p$, that the environment has changed, making a new range, $N$, more efficient in the present and future. Under fair use, a court can determine—in the light of the fact situation of the case—that the specific use at issue is fair, despite uses of that broad type not having been dealt with previously. In making such a finding, it incurs some risk of error, which may be of two types: the old range may be retained when the new one has become efficient (in statistical terms, a type I error), and the new range may be selected when the old one is still efficient (a type II error). Under fair dealing, the range of permissible uses is fixed by statute and so cannot be modified in the course of infringement proceedings.

The possible outcomes under fair dealing are set out in figure 1: if the cost of a type I error is $C_I$, the expected error cost under fair dealing (ECP) is $p C_I$, as the range of permissible uses is fixed.

![Figure A.1: Outcomes Under Fair Dealing](image)

The pattern of outcomes under fair use is necessarily more complex. Thus, let $r$ be the conditional probability that the court will correctly identify a change in the environment, so that $1 - r$ is the probability that the old range will be incorrectly retained in this situation (a type I error). Similarly, let $w$ be the probability that the court will alter the range when the environment has not in fact changed (a type II error), with $1 - w$ being the probability that the old range is instead correctly retained. There are consequently four possible outcomes, which are set out in Figure 2.
Figure A.2: Outcomes under Fair Use

If the cost of a type II error is CI, the expected error cost of decision-making (ECD) under fair use will be ECF=p(l − r)CI+(l − p)wCII. Comparing and combining terms, fair dealing results in lower expected error costs if ECP < ECF or if r/w <(( l − p)/p)CII/CI.

According to this condition, the desirability of a fair use approach depends on three ratios.

The first, r/w, reflects the reliability of a court’s ability to correctly identify environmental change—the higher that ratio, the more socially valuable is the flexibility provided by fair use.

The second ratio, ((l − p)/p), reflects the stability of the environment. An decrease in this ratio (that is, an increase in p) increases the value of flexibility—as the environment is more likely to change, the expected cost of locking in the old range is higher.

Finally, flexibility is more valuable as the cost of type I errors increases relative to that of type II errors, as a fair use regime is vulnerable to type II errors while a fair dealing regime only incurs type I errors.

In summary the error costs under fair dealing, relative to fair use, are greater:

- the greater the rate at which changes occur which are relevant to modifying the scope of permitted uses;
- the greater the accuracy with which courts can distinguish between changes which do justify such modifications and those which do not; and
- the greater is the social cost of perpetuating the initial range of permitted uses when it should be changed, compared to the social cost of changing that range when it should not be.

To the extent that digital transformation has increased the probability of desirable change (p in the model) and the social costs of failing to change when change is needed (CI in the model), this would suggest that digital transformation would increase the relative error costs under fair dealing.
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