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## ► To cite this version:

Andrew E. Fluck. Whoever Reads the T&Cs Anyway?. Open Conference on Computers in Education (OCCE), Jan 2020, Mumbai, India. pp.119-128, 10.1007/978-3-030-59847-1\_13 . hal-03519206

**HAL Id: hal-03519206**

**<https://inria.hal.science/hal-03519206>**

Submitted on 10 Jan 2022

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# Whoever Reads the T&Cs Anyway?

Andrew E. Fluck<sup>[0000-0003-1301-4615]</sup>

University of Tasmania, Launceston, TAS 7250, Australia  
Andrew.Fluck@utas.edu.au

**Abstract.** Can a teacher enrol the whole class in an online service? Is she obliged to read the terms and conditions and legally agree on behalf of the students? What if the associated privacy policy sends data overseas? Should all the parents/guardians approve instead – and how long would that take? Copyright and copyleft concepts are contested, with each of them subject to disparate terms and conditions (T&Cs). With airlines, shops and even governments providing services online, these legal agreements pose an increasing burden on the populace. This paper traces the historical invention of copyright legislation, global agreements such as the Berne convention, and subsequent dissolution of that situation. The auto-ethnographic data from 48 online services over an entire year tracks the T&Cs presented to a single individual, and the estimated professional cost of their perusal. From these data can be deduced a AU\$9b per annum cost burden to Australia alone, and a more global estimate can be made of the reading burden of such agreements world-wide. This is important to busy teachers who provide access to online educational resources in their classrooms, since their time is particularly valuable.

**Keywords:** Terms & Conditions, Privacy policies, Education, Online services.

## 1 Introduction

Intellectual property rights date back to the Venetian Patent Statute of March 19, 1474 [1]. In Great Britain, related but distinct copyright laws were enacted through the Statute of Anne, 1709 [2]. Both these regulations gave a limited term monopoly to inventors or authors/publishers to encourage the development and distribution of innovations. The monopoly allowed the innovator to cover the cost of reproduction and physically distributing material, often as books. In the Internet age, the cost of distribution of intellectual property has reduced to nearly zero, since anyone can download a digital file almost anywhere on the planet for negligible cost.

Between those original Statutes and the modern Internet era, the legal complexities of intellectual property have multiplied. International agreements were made to regularise procedures between nations. The Berne Convention for the Protection of Literary and Artistic Works (1886) [3] harmonised copyright protections amongst participating nations. By 2019, 117 states had become parties to the Berne Convention. Under the Convention, once a work was ‘fixed’, it was automatically protected. Article 10(2) permits Berne members to provide for a “teaching exception” within their copy-

right statutes, so this directly affects educators. The Universal Copyright Convention, adopted in Geneva, Switzerland in 1952 [4], gave birth to the © symbol. Placing this with the author and year in a work, established a legal framework for its intellectual property.

Despite these international conventions, the provision of online services has seen a proliferation of legal arrangements. Individuals encounter this diversity almost every time they contract a service using digital communications. At some point in the purchase cycle, the person will be required to click in a box next to a phrase such as “I agree to the terms and conditions”. There is no opportunity to negotiate these terms – either you agree with a click, or you will not be able to access the service.

This is even true for what will be termed a ‘test case’ – that of a teacher preparing to use the widely popular Scratch programming environment with her class [5]. The terms of use for Scratch are 3,363 words long, and the associated privacy policy comprises 2,418 words. The following points are included in these documents:

- The source code for Scratch 1.4 is available for download.
- Scratch has the right to suspend your account for violations of the Terms of Use or Community Guidelines.
- You acknowledge that you are using Scratch at your own risk.
- Scratch is based in the United States. Personal Information that we collect may be transferred to, and stored at, any of our affiliates, partners, or service providers which may be inside or outside the European Economic Area, including the United States. By submitting your personal data, you agree to such transfers.

Therefore, the teacher needs to consider if an offline version is preferable for class use. Also, she needs to undertake a risk assessment – is there the potential of harm to anyone in her class? Lastly, are there legal requirements for her students’ personal details to be stored within her local jurisdiction? This last requirement might be overcome by the use of aliases.

The growth of online services and cloud computing has been astonishing. Software as a service provides a more equitable model than downloaded and installed licenced software, since the user pays for actual rather than potential use.

The rise of copyleft and FOSS [Free and Open Source Software] has been enabled by the Internet’s capacity to deliver intellectual property for virtually zero cost worldwide. Copyleft licences use copyright law to foster the inalienable right to copy, share, modify and improve creative works [6]. The cost of production becomes the dominant factor in driving innovation, rather than the cost of replication and distribution. This area is particularly attractive to teachers, because immaterial digital resources are not often seen as valid educational resources when it comes to distributing school funding.

The analysis of the data presented below is based upon the Australian context. It is expected that a similar analysis would apply in most other jurisdictions in a similar way, making this a global issue.

## 2 Literature

Online T&Cs generally relate to licences for intellectual property rights. Coriat and Weinstein [7] describe the evolution of the US patent system from a position where only individuals could be awarded a patent, to the current corporatised version where organisations use patent pools to control markets. “The transformation of knowledge into a commodity (in the form of marketable intellectual property rights promising future revenue) created the permissive conditions for financial capital to enter into the production of knowledge” (p.284). Further, they comment on the increasingly legalistic approach to intellectual property: “[because of] the complexification of the market for property rights, the major change is that new categories of players have emerged” (p.286). This complexity contributes to the wide variety of licence agreements.

Femminella [8] pointed to the emergence of click-wrap licence agreements for online services. Under this arrangement, the customer cannot access the product (to evaluate its value) without agreeing to terms and conditions of the licence. There was some debate as to whether web-wrap T&Cs, etc., on the seller’s home web page were legal – and whether the positioning or colour/font (grey on grey?) of these was important (not easily seen at the very bottom of the page). Software providers were “allowing operations with different results in different jurisdictions”.

Hartzog [9] contrasted the viewers of free-to-air television transmissions with online listeners or readers. The former are not required to consent to any terms and conditions, but the latter invariably must do so. He raises the serious concern that “empirical and scientific research have demonstrated that an individual’s cognitive limitations and the design and presentation of standard-form contracts significantly frustrate an individual’s ability to properly read and understand standard-form contracts” (p.408). In the case of browse-wrap terms and conditions, United States of America (USA) law appeared to hold “The offeree had a legal duty to read them” (p.416). This legal impost on the consumer is explored further in this study. United Kingdom (UK) law generally requires the capacity to negotiate a contract (not usually possible online) and the Norwegian Consumer Council requires licences to be on-balance ‘fair’ [10]. According to Canino [11], American courts have generally found clickwrap and scrollwrap terms and conditions legally enforceable. Therefore, the teacher in the ‘test case’ is probably required to read all the terms and conditions on behalf of her class before using Scratch as a learning tool.

## 3 Method

The approach used for this study was pragmatic, with a clear focus on autoethnography. According to O’Hara [12], such an approach requires six steps. Step 1 is analytic and defined the database fields. Step 2 is ethical; since all the data were publicly available, no formal ethical approval was required by the chair of the institutional research ethics committee. Step 3 determines the theoretical underpinnings, which as stated are pragmatic. Step 4 involves data collection, which is described below. Step 5 involves reflection, which is presented in the Discussion section. The final sixth step

is to present the report. The analysis presented here is largely quantitative, with some qualitative comments associated with territoriality and privacy.

Data for this analysis were gathered by the author over a calendar year 1 January 2018-31 December 2018 in the course of normal academic life. During that time, the individual worked, socialised, took part in hobbies in the country of domicile and overseas. A wide range of online services were encountered in this time, from government human services to wireless network connections and many others. The terms and conditions (and privacy statements) for these were saved into a single folder, forming a corpus of 153 megabytes (MB) of data. The compiled database contained entries with the following information: date of acquisition; organisation type; type of service; number of T&C words; warranty extent; location when accessed; service limitations; jurisdiction for disputes; indemnity clause; bundled privacy policy; number of words in privacy policy; privacy policy excerpts; and total words to be read.

These data from 48 services joined online for the first time during the year (at the rate of 4 new services a month) were entered into the software package PSPP v. 1.2.0-g0fb4db for analysis. Eighty-five per cent of the services used were work-related, and therefore relevant to education/academia.

## 4 Results

### 4.1 Descriptives

The nature of the data was quite diverse. The most frequently occurring organisation type was hotel (14.6%) followed by transport, software vendor and manufacturer (12.5% each). Government formed 8.3% of the entries, with airports, publishers, charities, etc., forming the remainder of the organisations.

The most frequently occurring service was WiFi (23%), followed by software as a service (14.6%), training (10.4%), publishing, train, software, grant processing and computer equipment (4% each). The remaining services were 2% each, covering park entry, insurance, human services, geographic information, identity management, restaurant reservations, accommodation, car hire, etc.

In addition to the diversity of organisations and services accessed online, the word counts for their associated terms, conditions and privacy policies (where available) were also diverse. Table 1 shows the number of words in each section of the material.

**Table 1.** Word counts for terms, conditions and privacy policies

Section	N	Mean	Std Dev	Minimum	Maximum
T&C words	48	3401.19	3281.59	95	15,298
Indemnity - words	48	44.10	85.78	0	406
Privacy - words	48	2193.08	2329.10	0	7,577
Total Words	48	5102.69	4279.00	95	18,319

It is notable that the number of words in the T&Cs documents varies greatly, from 95 in one case (a hotel WiFi service), to over 15,000 words in another (a global software-as-a-service organisation). Indemnities are generally short, but privacy statements tend to be more expansive than T&Cs. This could be because of the growing awareness of data security, with business confidence rocked when personal data are hacked (e.g. [13]), and legislation such as the European General Data Protection Regulation [14] which applies nearly worldwide, since it has implications for all European trading partners through its extraterritorial applicability.

It was noted that verbose T&Cs appeared to be accompanied by long privacy policies. The Pearson correlation between these two variables came to 0.31 ( $p=.029$ ). So, there was a small, but significant link between overall length and privacy policy length.

## 4.2 Territoriality

Most of the services accessed online (77%) were contracted from the author's home state of Tasmania, Australia. However, others were accessed from other states of Australia or even overseas (see Table 2).

**Table 2.** Location from which the services were accessed online

<i>Location</i>	<i>Frequency</i>	<i>Percent</i>
Tasmania, Australia	37	77.08
Austria	4	8.33
New South Wales, Australia	2	4.17
Victoria, Australia	2	4.17
Australian Capital Territory, Australia	1	2.08
France	1	2.08
Queensland, Australia	1	2.08

This stands in marked contrast to the jurisdictional details specified in almost every set of terms and conditions. The most common jurisdiction was the Commonwealth of Australia (7 mentions, 14.58% of the sample). This was followed by mention of specific states of Australia (each at 4 mentions, 8.33%). 'The laws of the ... country where you reside' had 3 mentions, 6.25% of the sample, alongside 'The jurisdiction where you get service' and 'local law' (1 mention each, 2.08%). Some jurisdictions were tightly defined, e.g. the courts of Santa Clara County, California, USA (1 mention, 2.08%). This particular jurisdiction has a population of about 2 million persons, while the organisation offered services on a global scale.

Looking at the possible sources of disputes, the phrases used in the limitations sections in the documents are enlightening. In the case of Wi-Fi services, some clear limitations were placed as follows: "SMTP blocked", "peer-to-peer blocked", "Sessions are limited to 30mins" and "Our Products... are provided 'as is'".

The assumption of risk falls mainly on the customer, with phrases like these included: "You... take full responsibility of your actions", "customers must not use their

personal software”, “at your own risk”, “use at own risk”, “No... freedom from computer virus, is [assured]”.

One of the rarer stipulations in a limitations clause was the requirement the customer “must be a ‘natural person’”. The remainder also excluded supplier responsibility for consequential costs or damages, in one case excluding “Treble damages”.

### 4.3 Word Counts

The initial analysis evaluated the total number of words in T&Cs and privacy policies for each online service. The mean was 5,102.56 words with a standard deviation of 4,279 words. The shortest was 95 words, while the longest was 18,319 words.

Over the year, a person would be expected to read all the terms and conditions, and also the privacy statements presented. This comes to 244,929 words.

The economic value of this literary burden can be calculated by looking at average adult reading speeds and median adult wages. Thomas, citing Stewart [15], suggests 200-250 words per minute (wpm) but revises this to 50-75 words per minute for technical material.

A more comprehensive meta-analysis by Brysbaert [16] provides strong evidence that the normal silent reading rate in English is 238 wpm for non-fiction and 260 wpm for fiction. For the purpose of calculating economic impact, the 238 wpm figure is adopted, considering that terms and conditions are generally coached in plain English rather than legal language (which might have justified the lower 50-75 wpm for technical material). This does not consider the Flesch scores for readability which have been considered elsewhere [17].

The annual time impost of reading online agreements therefore equates to 1,029.113 minutes or 17.15 hours. In Australia, average weekly earnings were AU\$1,653 in May 2018 [18], for an average of 39.5 hours per week [19]. The hourly value of their work was therefore AU\$41.85. This means the economic cost of reading all the terms, conditions and privacy policies can be costed at AU\$717.70 per person over the year.

How far is this economic burden distributed? One choice would be to make a national estimate based upon the total number of employed persons. This was 12,522,300 [20]. The national cost would therefore be AU\$8,987,191,306 or nearly AU\$9 billion.

However, given the tendency for government services to go online, we cannot fairly exclude unemployed persons. The best estimate of the population from 15 to 65 years and above comes from the Census [21], and comprises 18,414,107 persons. These additional 5.9m persons may not be employed, but many of them make social contributions. Even if costed at half the rate of employed persons, the value of the time they spent reading terms, conditions and privacy policies for online services would amount to AU\$123,280,460. Putting the two groups together (employed and not employed), provides a total impost value on the nation of AU\$9,110,471,767.

This is a result worth considering. The jurisdictional splintering from a clear-cut copyright law to individual terms and conditions for nearly every online service we use has the potential to seriously affect the national budget. One may argue that no-

one reads them anyway: but where then do you stand if there is a dispute that ends in court?

This example has focused on an Australian consumer, accessing online services from around the world. The impact in other countries would be expected to be similar (in terms of the number of words expected to be read by each individual), but the economic impact may be greater or lesser given local pay rates and hours.

#### 4.4 Privacy

Privacy policies were on average 2,193 words long (as per Table 2). These were quite complex documents, stating how personal data would be stored, how it would be used, and how these arrangements fit into national or international legal frameworks.

For instance, a common inclusion was a statement that the customer's data, or meta-data (e.g. Internet Protocol (IP) and Media Access Control (MAC) address), would be released to authorised legal bodies.

Some policies directly addressed territoriality by stating “[We may] transfer your information to a[nother] country”. Others made reference to the European Union (EU)-U. and Swiss-US Privacy Shield frameworks which were approved in 2016 and 2017 respectively [22]. They rely upon self-certification by businesses, with the only oversight provided by the International Centre for Dispute Resolution-American Arbitration Association.

Beyond providing the customer service, some privacy policies were explicit about what may be done with the data supplied. “We use scientific methods, processes and systems to derive meaning from this data” – clearly indicating that machine learning techniques may be used to segment customers. Further, “some personal information collected may be used in research, statistical analysis, state or national reporting, awareness programs, public statements or training” illustrating how even a government organisation may interrogate customer information. Other organisations go further, explicitly invoking rights to data-match between sources: “we combine data we collect from different contexts” and “[We may] create aggregate reports on user demographics and traffic patterns”.

Some privacy policies use strong rhetoric about the extent to which personal information will be kept secure: “Your ... information will not be shared, sold, rented or bartered”, and “we consider the privacy of our users to be extremely important”.

## 5 Discussion and Conclusion

The main limitation of this study is the paucity of data. However, the auto-ethnographic style provides realism and authenticity to that data. A central recommendation is therefore the study be repeated with a range of subjects, ideally drawn randomly from populations which provide diversity of age, gender and socio-economic background. One may also expect different results in other countries. Fifty-one per cent of citizens in Canada, for example, use government websites compared to a global average of 30% [23].



The data presented here relate mostly to professional and work-related activity for a mid-level academic. It is worth noting that the services accessed online were used through a conventional computer (laptop or desktop). Since smart mobile telephones are becoming so much more popular, it would be useful to incorporate the terms and conditions of any new applications (apps) installed during the collection period.

For teachers, the ‘test case’ mentioned in the introduction comes from the Scratch poly-lingual programming website. It was easy to create a student account on this website without explicitly agreeing to any terms and conditions (no tick box). However, the bottom of the website home page has a link to ‘Legal’, which provides access to the web-wrap conditions. All together, these amount to 6,650 words, which would take 0.47 hours to read. There are both ethical and practical actions available to the teacher of our ‘test case’. One strategy might be for her to read the documents and make note of any points about which she is unsure in the local regulatory context. These could be discussed with the school principal, and any outstanding issues put to parents/guardians. This would focus the latter on a few substantive matters rather than the full text. A more practical approach to avoid student data exports might be to download and install the latest offline version of Scratch. Along with these two strategies, she could consider relying on a ‘traffic-light’ indicator from ‘Terms of service - didn’t read’ (tosdr.org) for similar online learning materials.

Online shopping is becoming more popular, and there are many discussions about advertising for online gambling. Online gaming is also purported to be economically greater than profits from the Hollywood cinema industry [24]. These areas are absent from the dataset but could be included with a larger population study.

Nonetheless, the initial findings about the economic burden of online terms and conditions remains a problem to be solved. Table provides a comparison of these costs over four countries [25-28]. For Australia, the AU\$9 billion cost in an AU\$1.69 trillion gross domestic product budget may seem a small proportion, but a great deal could be achieved with it.

**Table 3.** Comparative annual cost of reading terms and conditions

Country	Average hourly wage	Cost of reading T&Cs per person	Working population	Annual cost to the nation	Annual national cost
Australia	AU\$ 41.85	AU\$ 717.70	12,522,300	AU\$ 9b	US\$ 6.3b
India	₹ 30.88	₹ 529.59	362,565,571	₹ 192b	US\$ 2.9b
England	£ 23.39	£ 401.14	33,700,700	£ 13.5b	US\$ 17.7b
USA	US\$ 35.33	US\$ 605.91	162,075,000	US\$ 98.2b	US\$ 98.2b

The second recommendation from the study is therefore that consideration be given to a second Berne Convention, to harmonise terms and conditions for online services. This could be done in a way to protect intellectual property in the way of the first Convention, but also relieve the general population from the variety of agreements to which they are increasingly being expected to concur without any option to negotiate terms. Some regions are already moving in this direction, with the Associa-

tion of Southeast Asian Nations preparing a common set of rules on intellectual property and e-commerce as part of the Regional Comprehensive Economic Partnership. “Standardised rules will help streamline intellectual property transactions, support transparency, and lower costs of doing business, supporting Australia’s creative and innovative industries trade and invest in the region”, the Australian government explained [29].

In conclusion, this study used an autoethnographic approach to capture online terms, conditions and privacy policies for a single individual over one calendar year. The reading impost of these documents amounted to 17.15 hours in the year. The extrapolated cost across Australia came to more than AU\$9b. These costs are a significant justification for new international agreements on standardised terms and conditions to prevent further escalation of this impost on all societies.

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