

Privacy and Consent in the Age of Big Data

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Executive Summary

This report explores the factors and limitations in improving informed consent, and works to develop solutions that are conducive to consumers and other stakeholders. A survey, five expert interviews and an extensive review of academic literature were conducted and analysed, guided by the double diamond framework. This identified our two main themes. Principally, current frameworks are ineffective in improving informed consent for consumers, and the tightening of current policy may have adverse effects on the societal benefits of data. Additionally, a lack of transparency of data management by businesses – potentially hindered by practicality – makes it difficult for consumers to provide informed consent. Based on these themes, it was determined that a non-policy approach would be more effective in achieving better informed consent. Our analysis yielded three recommendations to enhance informed consent in a way that is conducive to consumers and stakeholders. Firstly, a blockchain-based reverse transparency method will be outlined to assist in enabling consumer understanding following initial consent. Next, the utilisation of a ratings system to enhance business accountability for data management. Finally, chatbots are proposed as a means to enhance consumer engagement within the consent process. Future research will need to be conducted to address the immutability of blockchain, the criteria upon which the rating system is based and a cost analysis of aforementioned solutions.

1.0 Introduction

1.1 Context of the Problem, Significance of Further Development

In order to access beneficial or necessary services, consumers are increasingly required to accept the collection of their personal data by service providers (Whitley, 2009). With reliance on these services increasing, consumers face a greater risk of their personal data being mishandled by collectors. This is paralleled by growing concerns surrounding their privacy. This notion is highlighted in the Office of the Australian Information Commissioner (OAIC) consumer surveys, reporting that 69% of Australians have become increasingly worried about their online privacy between 2012-2017 (OAIC, 2017). This indicates a lack of trust from consumers – who give consent to provide data – in businesses, for whom data is a commercial asset.

For comparison, a lack of patient trust within the healthcare industry was responded to through a framework redesign that increased provider accountability, by requiring them to divulge appropriate information to the patient, allowing for more informed decision making and consent. (Wood Jr, 2019). Given the sensitivity of personal data, and society’s reliance on services that use it, it would follow that the same level of discretion should be afforded to the consumers who provide this.

Considering the role of informed consent within healthcare in improving trust, the current framework outlined in the Australian Privacy Principles (APP) is key to understanding this issue. The APP is notably lagging behind the European General Data Protection Regulation (GDPR), considered the international standard, as evident in Figure 1.

GDPR Art 7	APP (no equivalent)
Consent must be: <ul style="list-style-type: none">• Freely given;• Given via a clear, affirmative act (opt-in);• Easy to withdraw. Does not include implied consent.	s 6(1) defines consent as “ <i>express consent or implied consent</i> ” Not explicitly defined in the act.
Definitions in law	
Express consent: Clearly and unmistakably stated, may be given in writing, orally, or non-verbally.	
Implied Consent: Inferred from a person's actions and the facts and circumstances of a particular situation.	

Figure 1

This makes clear that the APP is far more relaxed in its definition of consent, allowing bundled terms of service (ToS) agreements to suffice.

Yet, consumers find this process opaque and have difficulties with the length and legal complexity of ToS agreements (Steinfeld, 2016). The Consumer Policy Research Centre (CPRC, 2018) affirms the insufficiency of this framework, finding that 94% of individuals do not read ToS before consenting to the data they share.

Hence, an asymmetry between consumer belief and behaviour is present, requiring an understanding of consumer attitudes and behaviours (Mattern, 2014): consumers care about the data they share, yet value the benefit of online services more highly than the effort required to inform themselves of the consent required to access the service, leading to contradictory behaviour. This discrepancy reinforces calls for a framework redesign that better informs consumers of the data they share on the internet, and mitigate the issue of a lack of transparency.

However, the commercial standpoint of collectors of data, such as business, must be considered. Improving their trust relationship with customers is crucial, yet they require profitable usage of data within their business model, highlighting the need to understand economic tradeoffs (De-Scheemaekere, 2009; Helzner, 2012).

Finally, technological understanding is needed to capture the capabilities of data science, in order to assess the viability of improving consumer understanding.

With the complexity of the issue apparent, it is clear that an interdisciplinary approach is required to improve informed consent.

1.2 Aims, Problem Statement and Objectives

A new framework is essential, whilst maintaining the efficacy of data as an asset for businesses, given the benefits that principled advances in technology and data amalgamation create for society.

Problem Statement:

How can we improve informed consent, and redesign the current framework in a way that is conducive to consumers and other stakeholders?

Objectives:

1. *What are the causes of uninformed consent, and how exactly has the current framework contributed to this?*
2. *What difficulties, if any, has arisen in mitigating uninformed consent in the past, and how do we overcome it?*
3. *Analysing potential redesigns, is there a constructive solution that satisfies stakeholders?*

2.0 Method

2.1 Team Profile

Coming from a multitude of disciplines (law, government, business, science and economics), the team utilised different research and thinking methods to cohesively create a novel solution to the current consent framework in Australia.

Importantly, Elliot, Ansar, Ser Rin and Isabel all study finance. Despite commonality, their alternate disciplines, in combination with Kelvin's legal experience, yielded a multiplicity of epistemic stances to help effectively delegate roles (Squires, 1992).

Ansar's strong algorithmic thinking approach, developed through his studies in computer science and finance, helped him assume the role of **Information Giver**. In this, he was able to constructively break down the problem, and identify different components to tackle individually.

Kelvin's legal education has developed profound analytical skills, and his discipline's strong epistemic diversity helps him effectively work as a **Coordinator**, assisting the team through investigations into the legalities of the current framework and plausibility of solutions (Gardiner, 2019).

Elliot's experience using systematic reasoning and numerical analysis to provide insights enables him to effectively work as an **Elaborator**, conducting quantitative research into the attitudes and behaviours of consumers as well as adapt the results into digestible information.

Isabel's understanding of economics, finance and international relations has helped develop a diverse process of reasoning. Working as **Initiator/Contributor**, she used primary and secondary research to propose solutions that the team would analyse and work upon.

Ser Rin's disciplinary knowledge of accounting and finance gave her the role of **Evaluator/ Critic**, equipping her with the necessary tools to conduct statistical research to support ideas and look into the opposing views of current international standards.

2.2 Double Diamond Model

To structure our approach, the double diamond model was used to outline the research methods used to meet our objectives.

2.2.1 Discover

In the Discover phase, the team sought to gather research to identify the causes of uninformed consent, and how the APP contributes, to address our first objective. Given that its complexity has already been identified, a variety of primary and secondary research was conducted by all members.

Kelvin's legal understanding was suited to comparative research of APP and GDPR consent policies. This helped to provide reasoning for other drivers of uninformed consent.

Utilising Google Scholar, given its familiarity, Ser Rin and Ansar utilised their Finance background to research business ethics that are driven by these policies. 5 industry experts, within the fields of Environmental and Social Governance (ESG) Investing and Business Privacy, gave insights across 3 interviews, that helped to support our secondary research of how business behaviour contributes to the issue.

Elliot designed a survey to understand consumer behaviour and opinion surrounding consent frameworks. This provided primary numerical evidence on the consumer-driven causes of uninformed consent.

Finally, to support this quantitative research, Isabel utilised her understanding of irrational decision making to contribute qualitative literature review into consumer behaviour in response to consent frameworks (Mattern, 2014).

Amalgamating this, a preliminary brainstorm was conducted to discuss these interdisciplinary findings, to finalise our research on Objective 1, and direct following research

2.2.2 Define

During the Define phase, we sought to address our second objective; identifying barriers that have limited progress in improving informed consent. Given the GDPR's recency of implementation, comprehensive and reliable research into implications of improving informed consent, through policy tightening, was available.

To start this process, Kelvin's legal comparison was analysed to provide insight into how the GDPR provides incremental support to consumers to better inform consent. Using this, we researched the implications of policy tightenings across stakeholders.

Consumer reception to policy tightenings was addressed through Elliot's survey, where behaviour and beliefs surrounding GDPR-mandated consent frameworks were also collected. To support this primary research, consumer research conducted by consultancy firms in Europe garnered deeper insight into the effectiveness of GDPR, to identify if such a policy helps to mitigate the issue.

Interviews helped identify key economic impacts of policy tightenings, and a deeper understanding of this was obtained through literature review; Ser Rin's numerical skills helped find statistical analysis, and Isabel used socioeconomic analysis to attempt to draw a link between economic impacts and consumer behaviour.

Finally, Ansar leveraged his computer science background to research, using ProQuest and Science Direct, how these barriers to improving informed consent may affect technological advancements, and the purpose of data's use.

Through this analysis, a clear understanding of our second Objective was obtained.

2.2.3 Develop

In the Development process, our team consolidated our research and analysis to hypothesise possible solutions. Information from interviews and case studies helped inspire this.

To consider the interdisciplinarity of the issue at hand, solutions were collaborated upon, and evaluated from the stances of each member:

- Elliot and Isabel utilised consumer research to evaluate the efficacy of solutions in creating behavioural change.
- Ser Rin and Kelvin conducted analysis of economic impacts and business reception of such solutions.
- Ansar sought to understand their technological viability and limitations.

Finally, a SWOT analysis consolidated potential solutions, to understand how a multiplicity of recommendations could serve to mitigate the complexity and interdisciplinarity of a lack of informed consent.

2.2.4 Deliver

Amalgamating our findings, we were able to present a practical, research-backed recommendation to KPMG, that increases transparency and consumer understanding, whilst enhancing business accountability for data management and acting as a means to strengthen consumer engagement within the consent process.

3.0 Results

The findings from our primary and secondary research identified two central themes: the first being that the current policies in place are ineffective consent frameworks, and the second being that businesses are not inclined to pursue an improved consent framework.

3.1 Theme 1: Australian Privacy Act and GDPR Consent Frameworks Are Not Effective

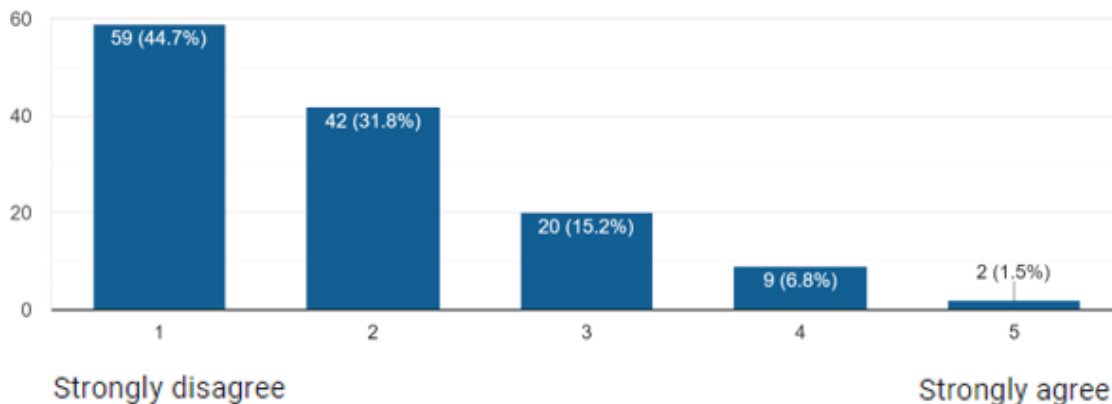
Our expert interviewees expressed concerns over the ineffectiveness of both APP's bundled ToS, and GDPR's unbundled and opt-in frameworks. This is reinforced by findings from our research. Firstly, the current consent framework is ineffective at improving consumer understanding. Secondly, stricter policy can indirectly undermine the societal benefits of data.

3.1.1 Direct Ineffectiveness for Consumer Understanding

The survey (n=132) used a Likert scale to understand consumer behaviour and attitudes. Its results found:

1. 76% of respondents disagreed to the statement 'I read the ToS Agreement of most of the services I use'.

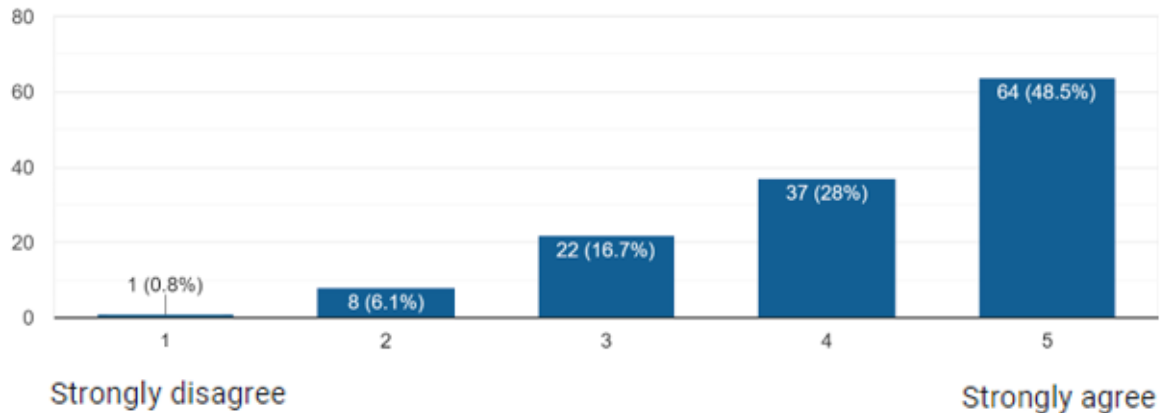
I read the Terms of Service Agreement of most of the services I use.
132 responses



2. 74% of respondents agreed to the statement 'I care about the personal data that my service providers have about me.'.

I care about the personal data that my service providers have about me.

132 responses



This supported initial findings, that bundled consent creates asymmetry between consumer beliefs and behaviour, of which motivated our project statement.

Obar and Oeldorf-Hirsch (2018) provide incremental research to support this. They found that 74% of individuals did not read consent policies, and utilising research on reading speeds, identified that the average bundled agreement takes 15-17 minutes to read. Finally, their qualitative research found that consumers view consent policies as a “nuisance”.

This primary and secondary research confirms our hypothesis, that bundled consent policies fail to effectively inform the consumer of the data they consent to, given their length and difficulty of language.

Barth and De Jong (2017) identify this asymmetric behaviour as *the privacy paradox*, and explore its behavioural drivers through literature review. They find that irrational decision making is the largest driver of this, and name various biases that contribute, including bounded rationality, situational cues, and immediate gratification.

Gambino et al. (2016) add to this, identifying 8 heuristics that drive the privacy paradox. The key heuristics, in the lens of lack of informed consent, are evident in figure xx.

Negative Heuristics
Fuzzy-Boundary - Distrust is triggered by targeted advertising from third parties
Intrusiveness - unexpected consent permissions and targeted advertising make individuals feel unsafe

Deloitte (2018) consumer surveys found that 42% were undecided if GDPR consent policies improve understanding. Interview 3 supported this, suggesting that alternative consent frameworks also appear ineffective at achieving informed consent.

Legal Comparison of Current Frameworks

To better understand this research, a legal comparison of APP and GDPR consent frameworks was conducted.

APP	GDPR
s 6(1) defines consent as “ <i>express consent or implied consent</i> ”	Art 7 Consent must be: <ul style="list-style-type: none"> ● Freely given; ● Given via a clear, affirmative act (opt-in, unbundled - Recile 43); ● Easy to withdraw.
Not explicitly defined in the act.	Does not include implied consent.

Figure 1, within our context, provides a visual comparison of how consent is addressed within the current legal frameworks. It makes clear that the GDPR has set a reasonably high bar when it comes to obtaining consent from consumers.

In contrast, the APP sets out expressed and implied consent as acceptable. Defining these methods, expressed consent is comparable to GDPR requirements, while implied consent is rather vague; being inferred from either an individual's actions, or a situation's facts/circumstances.

Considering this, it can be argued that awareness of data collection and sharing suffices for implied consent, when consumers engage with an online service. Therefore, there is never a time where an APP entity does not have a consumer's consent.

This makes clear that explicit and unbundled methods, such as opt-in and cookie consent, are key to the GDPR's advanced consent framework, when compared to APP. Yet, they remain ineffective. Ooijen and Vrabec (2018) explore the causes of this, and find that the GDPR fails to resolve the complexity of language and clarity that drives uninformed consent in bundled frameworks.

Consumer reception to unbundled frameworks also contribute; a Deloitte (2020) survey found 72% of respondents are “annoyed” by cookie banners, and conclude that it is not a user-friendly method of improving informed consent. Kulyuk et al. (2018) support this, finding that consumers perceive these notices as a nuisance, and fail to improve trust. Therefore, the GDPR does not enable consumers to better understand the information that they consent to sharing.

3.1.2 Implicit effect of stricter policy on societal benefits of data

Additionally, our research gave light to the inadvertent consequences of a policy tightening - that fails to improve consumer understanding - on the societal benefits of data.

Interviews identified that data-sharing has profound societal benefits that are not fully realised by consumers, affirmed by survey comments:

“...I'm very lazy to read through terms of consent agreements, and at this point, I take it as a given/implicit understanding that any site whose services I use is going to misuse my data in some way.”

These pessimistic attitudes provide understanding of Gambino et al's. (2016) *intrusiveness* heuristic, where consumers perceive consent notifications as a threat. Interview 3 supports findings that underlying connotations drive a lack of understanding of data's benefits, and given policy tightenings appear ineffective, this will persist and preserve uninformed consent.

The interview also gave insight into consequential economic impacts. Whilst a framework tightening increases businesses accountability, persisting lack of consumer understanding limits the usefulness of information they collect. Aridor et al. (2020) provide quantitative research to assert this; following the shift to opt-in consent, intermediary observed consumers for GDPR regulated businesses declined by 12.5%.

Ferracane et al. (2018) adds to this, identifying that such economic burdens are greatest for firms dependent on data for productivity. Given this, they highlight a long-term impact on advancements in the usage of data to benefit society. This is echoed by interview 2, wherein the APP consent framework, gives Australian businesses room to operate lawfully with consumers, whilst achieving economic objectives.

Aviv and Gal (2020) outline asymmetric economic impacts following GDPR implementation, further impacting society. Allen et al. (2020) supports this, finding these economic impacts are worse for smaller firms, allowing large data users such as Facebook and Google, to expand in dominance. Both papers explain that this limits market competition, hindering innovation and data's benefits (Allen et al., 2020; Aviv & Gal, 2020).

Allen et al. (2020) explains that blockchain can be utilised as an alternative method to improve consumer understanding. Interview 1 supported this through discussion of a framework similar to supply chain mitigation's role in addressing other Environmental, Social and Governance (ESG) issues.

Amalgamating the research within this theme, it is evident that APP and GDPR both limit understanding of the purpose of sharing data, contributing to consumer inability to make informed consent decisions. As a result of this, the benefits of providing data, for the individual, are not realised, limiting business and organisation's ability to use it, creating barriers for these benefits to advance.

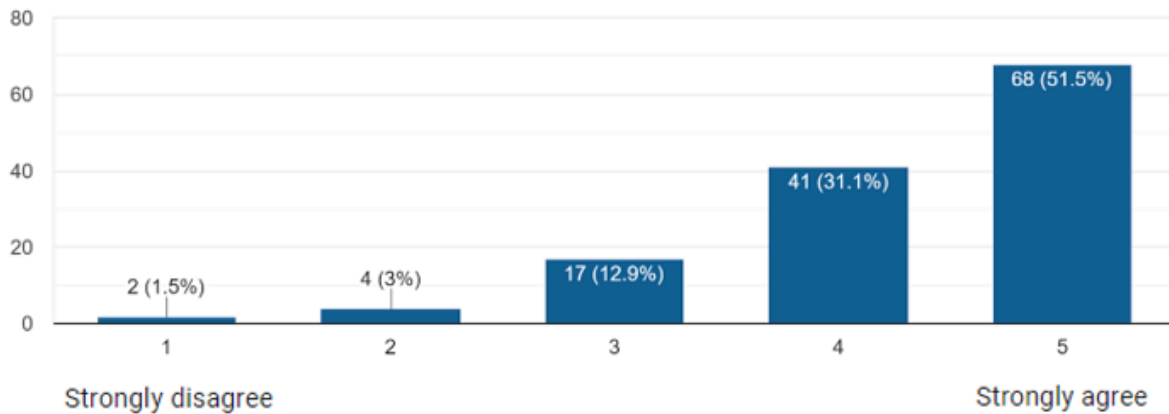
3.2 Theme 2: Businesses are not inclined to improve informed consent, creating a lack of transparency

In addition to APP and GDPR ineffectiveness, interviews provided understanding that business cooperation, to improve transparency, is required to facilitate informed consent, yet faces barriers.

Survey results affirm this; 82.6% of respondents agree that they are more likely to trust a service provider if they were transparent about how they manage personal data (figure xx).

I am more likely to trust a service provider if they were transparent about how they gather and use my personal data.

132 responses



Interviews highlighted that businesses are aware of this, and there are Australian firms proactively improving informed consent. Case studies were conducted to identify what types of business were proactive, and how so.

Case Studies on Business Proactiveness

It became clear that firms with higher reputational costs, such as from being front-facing or heavily regulated, are more prominent in exceeding APP consent standards. For example, the Australian banking industry leaders (Commonwealth Bank, ANZ, Westpac and NAB) all display proactive methods of better informing the consumer. The method of doing so was mixed. Westpac has implemented cookie notification banners (Figure 5), similar to GDPR, however do not ask consumer permission (Westpac, 2020). Commonwealth Bank uses an innovative approach, by displaying an understandable video outlining their privacy policy (Figure 6) and how collecting data enhances the consumer experience (CommBank, 2020). However, surveys highlight the mixed success of video privacy policy (Figure 7).

Figure xx.1: Westpac Cookie Banner

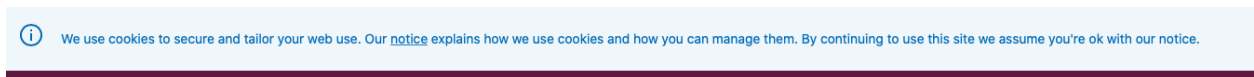


Figure xx.2: Commonwealth Bank Privacy Policy Video

You and your privacy

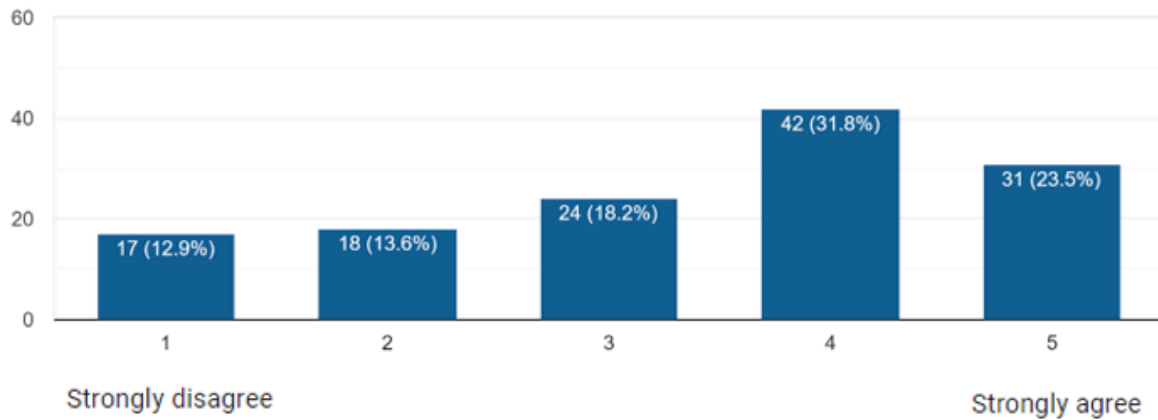
In our increasingly digital world, we take our responsibility to protect your privacy very seriously by applying strict security and privacy controls to the way we handle your personal information. We use the information you provide us to give you the best possible banking experiences, to help us assess your applications as well as design and tailor products and services so they're just right for you.



Figure xx: Consumer Survey Results: Video Agreements

I am more likely to watch a short video about the Terms of Service Agreement.

132 responses



However, interviews provided the understanding that the APP's little stringency creates a barricade regarding the magnitude of proactiveness. Both operational costs, and the implicit costs of receiving less data to understand the consumer, drive competitive pressures and require economic tradeoffs.

A Deloitte (2018) report provides some reasoning; GDPR implementation highlighted that businesses focus on compliance, minimising the reputational costs of data breaches, rather than mitigating uninformed consent. A CGI-Oxford Economics (2018) study finds that data breaches create a reputational cost that, on average, cause a 1.8% decline in share price.

4.0 Analysis

Our research identified that a key barrier to improving informed consent was the consumer privacy paradox, which is further exacerbated by an inefficiency in policy and lack of business collaboration. Analysing our results, various solutions became apparent to help achieve our aim.

4.1 Policy vs. Non-Policy Approach To Reach Better Informed Consent

Our research illustrated that the APP's lack of stringency does not enable consumer understanding nor ensure informed consent, addressing our first Objective. It also gave insight into GDPR's infeasibility, finding that stricter policies are ineffective in changing consumer behaviour, and not viable in isolation. These presented barriers allowed us to navigate our second Objective.

This warrants an alternative, innovative solution. Using our research, we conducted a SWOT analysis of the success of policy/non-policy frameworks, to determine the most viable approach.

4.1.1 Policy Analysis

Our analysis indicates that a policy enforced solution is largely unviable.

<u>Strengths</u>	<u>Weaknesses</u>
<p>Enforceability: Businesses are not encouraged to collaborate, an enforceable policy framework would help achieve this</p>	<p>Cost: Investing in a framework redesign is costly, and if enforced by policy, the burden would be largest on government</p> <p>Past ineffectiveness: Reflecting on theme 3.1, Previous policies provide no closure that future changes will be successful</p>
<u>Opportunities</u>	<u>Threats</u>
<p>Ability to pioneer a new global standard: A policy that is more effective than GDPR could be revolutionary</p>	<p>Inability to keep up with pace of advancements: Policy takes time, whilst the development and expansion of data usage is growing rapidly</p> <p>Policy can bound innovation: An innovative alternative is required, however policy may instead induce a barrier</p> <p>Pressure to conform to the GDPR</p>

4.1.2 Non-Policy Analysis

A non-policy approach, bolstering business collaboration towards achieving informed consent, appears to be more suitable.

<u>Strengths</u>	<u>Weaknesses</u>
<p>Less intrusive of business: Policy has been shown to create asymmetric economic impacts. Allowing businesses to contribute at their own pace reduces this risk.</p> <p>Does not introduce inefficient use of policy making: Mitigates the risks that technological advancements create for policies in this field</p>	<p>Lack of enforceability: Businesses are not coerced by law to collaborate, alternative methods are needed to motivate</p>
<u>Opportunities</u>	<u>Threats</u>
<p>Better Facilitates Innovation: By allowing business to find unique ways to collaborate, innovative solutions that could pioneer framework solutions are more likely</p> <p>Incentive to Build Consumer Trust</p>	<p>Privacy Fatigue: This has been identified as a previous barrier, and may still be endured</p>

It was thus concluded that a non-policy enforced framework is more suitable to achieving our aim, as it will change consumer behaviour more successfully.

4.2 Enabling Consumer Understanding Following Initial Consent

Our research identified that various biases contribute to irrational decision making, which is the underlying cause of the consumer privacy paradox (Barth & De Jong, 2016; Gambino et al., 2016). Inability to minimise these biases have posed barriers to improving informed consent, key to our aim of understanding this within our second Objective.

Analysing the legal traits of ineffective frameworks highlighted a trend; frameworks designed to only facilitate understanding **at the point of initial consent** do not align with, nor change, consumer behaviour. This inadvertently detracts understanding of data's benefits, leading to economic barriers that limit the ability for data-sharing to serve its purpose. This supports our analysis that policy is an ineffective approach to improve informed consent.

Considering how this research addresses our first two Objectives, we approached Objective 3 through accounting for these behavioural discrepancies during initial consent, whilst mitigating concerns in the aftermath. Our survey highlighted that 70% of respondents are more likely to trust a service provider if they knew where their data was transferred to. An implementation of this, following uninformed consent, could improve consumer understanding of data collection and enable more nuanced decisions when experiencing these negative heuristics as outlined by Gambino et al. (2016).

4.2.1 The Role of Reverse Transparency in Improving Informed Consent

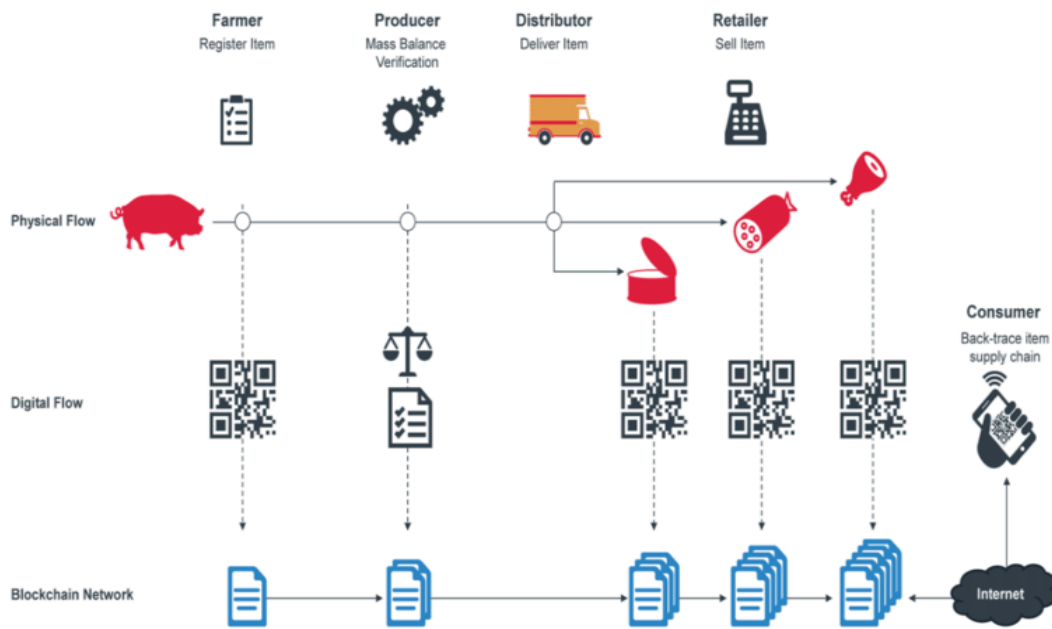
Observing interviews and Allen et al. (2020)'s findings, a framework that mitigates negative consumer heuristics in the aftermath of giving initial consent is achievable.

Interview 1 helped us identify a way to achieve this, coining the term *Reverse Transparency*. Being a backwards method, consumers would be able to access information on how data has been transferred in the aftermath of initial consent. Its mechanisms in mitigating the barriers to improving informed consent are outlined in Figure xx.

How Reverse Transparency Achieves Informed Consent	
<i>Mitigates Theme 3.1 (consumer understanding)</i>	<i>Mitigates Theme 3.2 (Lack of business cooperation)</i>
Initial consent permissions are ineffective, and concerns prevail ↓↓↓↓↓↓↓	Consumers are better informed of how their data is shared, enabling a more effective opt-out process ↓↓↓↓↓↓↓
Reverse transparency facilitates consumer understanding during the periods of concern (where these negative heuristics are strongest) ↓↓↓↓↓↓↓	Increased transparency places more pressure on front-facing businesses to design a more ethical network of data-sharing ↓↓↓↓↓↓↓
With better understanding, consumers are more informed of the benefits of sharing data, reducing pessimistic attitudes and enabling better judgement ↓↓↓↓↓↓↓	Businesses who previously did not face proactive pressures are inadvertently exposed through a networked ledger, and face pressures from businesses who they trade data with ↓↓↓↓↓↓↓
If this leads to a judgement that the data usage is unprincipled , they will be motivated to opt-out, increasing the effectiveness of this process within the APP	Increased transparency is achieved throughout the data sharing network, mitigating these consumer concerns that contribute to the privacy paradox

We hope that through improving understanding and collaboration, the consequences of poor transparency upon initial consent will cease. In the long run, business collaboration may discover further innovative and productive solutions to achieving our aim.

Allen et al. (2020) also introduced the practicalities of using blockchain to facilitate this. Analysis of the efficacy of a networked ledger in achieving reverse transparency was conducted through case studies, comparing its viability in addressing other issues within business supply chains. A case study of IBM's Food Trust provided the best comparison, evident in figure xx.



This highlights how a ledgered network allows consumers to back-trace items practically. The network has successfully increased efficiency and addressed drivers of lack of trust, through backtracking, to improve brand reputation (IBM, 2020), and thus if adopted in a practical manner, would achieve our aims.

4.3 Increasing Business Accountability

Theme 3.2 identified that whilst the APP has fewer barriers to utilising data, it's minimal stringency limits business proactiveness to improve informed consent. The key drivers were identified as privacy fatigue and competitive/cost pressures. Analysing this, we came to the conclusion that within the current framework, businesses perceive little benefit in increasing transparency, especially when facing minimal reputational pressure, fostering limited proactiveness.

This, combined with its direct barrier on consumer understanding, outlined in theme 3.1, garners a complete understanding of Objective 1 and helps to address Objective 2; that progress to achieve informed consent is limited by a lack of business collaboration to improve transparency.

Considering this, we believe that an approach increasing business accountability will help to improve informed consent.

4.3.1 Enhancing Business Accountability Through A Ratings System

Observing how this research addresses Objectives 1 and 2, a framework that facilitated positive reinforcement for businesses could subvert these barriers, motivating businesses to improve informed consent, successfully addressing Objective 3.

This could be achieved through a method that markets transparency to the concerned and uninformed consumer.

Drawing on case studies, analysis was conducted to address areas of consumer concern and practicality. An example was the Health Star Rating (HSR). HSR is a government-calculated rating system that is placed on food packaging to illustrate nutrition levels. It aims to inform consumers on food quality and has successfully motivated businesses to divulge ratings, with a third of products currently displaying HSR and increasing rapidly (MP Consulting, 2019).

Adapting this will enable proactively minded businesses to mitigate previous barriers; a centralised-rating will minimise costs, and its use as a marketing tool will subvert competitive pressures on non-proactive businesses, encouraging them to follow suit. Survey data affirms this, wherein 74% of respondents agreed that this would help them trust service providers. Hence, laying the groundwork for increased collaboration to improve consumer understanding and reduce concerns, thereby limiting the risk of uninformed consent and achieving our aims.

4.4 Using Consumer Engagement to Improve The Consent Process

Consumer detachment from the overall consent process is evident within theme 3.1. Interviews highlighted that a simple policy tightening, such as unbundling of consent, would fail to mitigate uninformed consent as consumers will simply “tick the checkbox” and continue to use their service. Mittal & Sharma (2017) corroborated that this process is insufficient in informing the consumer. This lackadaisical consumer attitude, driven by policy ineffectiveness, may ultimately have implicit effects on the societal benefits of data as per 3.1.2.

The unaccommodating nature of the current framework induces negative consumer attitudes which the first objective aims to address. 76% of respondents from our survey do not read ToS due to difficulty in understanding with 88% preferring a shorter ToS, reinforced by Obar and oeldorf-Hirsch (2018) in 3.1.1 where consumers view consent policies as a ‘nuisance’. However, 74% of survey respondents care about their online data with issues of engagement in consent policies leading to feeling a loss of control and fatigue (Choi, Park and Jung, 2018). Therefore through personalisation and involvement, a consumer-centric framework redesign would be conducive in achieving informed consent (CHF, 2018).

Whilst human interaction might be ideal for engagement, there are difficulties in execution. Cost is a key factor with businesses spending up to \$1.3 trillion on customer service calls each year (Boucher, 2019). Furthermore, limitations of solving one query at a time might lead to overloading and excessive wait times - which is counterintuitive. In an effort to balance engagement and time-consciousness, advancements in AI have allowed for chatbots as an alternative.

4.4.1 Enhancing Consumer Engagement through Chatbots

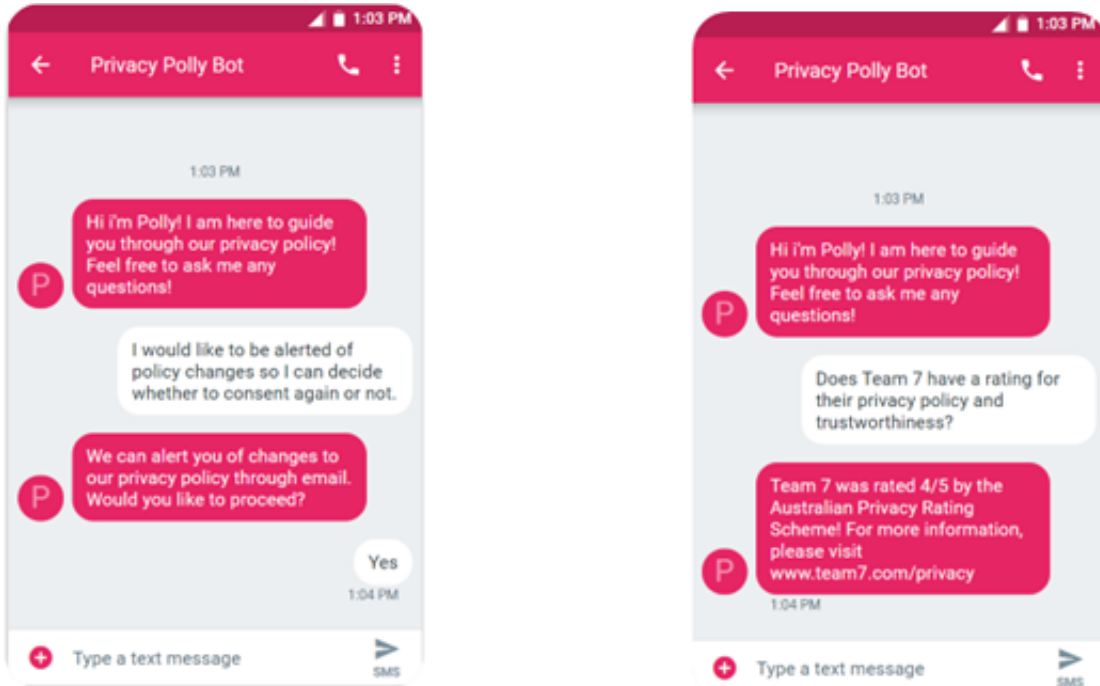
Research by Hubspot in 2017 outlined that 57% of consumers preferred chatbots due to their instantaneity (Boucher, 2019). Our survey results echoed similar concerns of time consciousness, as discussed earlier.

Analysis of the success of chatbots within customer service was conducted to deduce its efficacy as a solution. Følstad et al. (2018) illustrated that consumers were more interested in quality and speed of customer service, compared to its “human-likeness”. Further studies show that consumers rate their chatbots response satisfaction on par with that of human agents (Kannan & Bernoff, 2019). Thus, whilst reducing costs and wait times, it is evidenced that chatbots also provide an impactful consumer experience.

chatbots act as virtual assistants for the consumer, increasing consumer engagement. They could be utilised to instantly assist with consent enquiries, for example, by allowing consumers to be alerted to policy changes as per figure xx, or utilising text summarisation algorithms to shorten aspects of the

policy that is of interest, thereby conforming to consumer’s needs for shorter ToS. Evaluation of the practicality of text summarisation leads us to the app InShorts, which summarises news articles into 60 words for the time-conscious individuals (Inshorts, 2020).

Ultimately, chatbots will act to enhance consumer engagement within the consent process, improving the current framework and assisting in informed consent.



4.5 Integration of Solutions

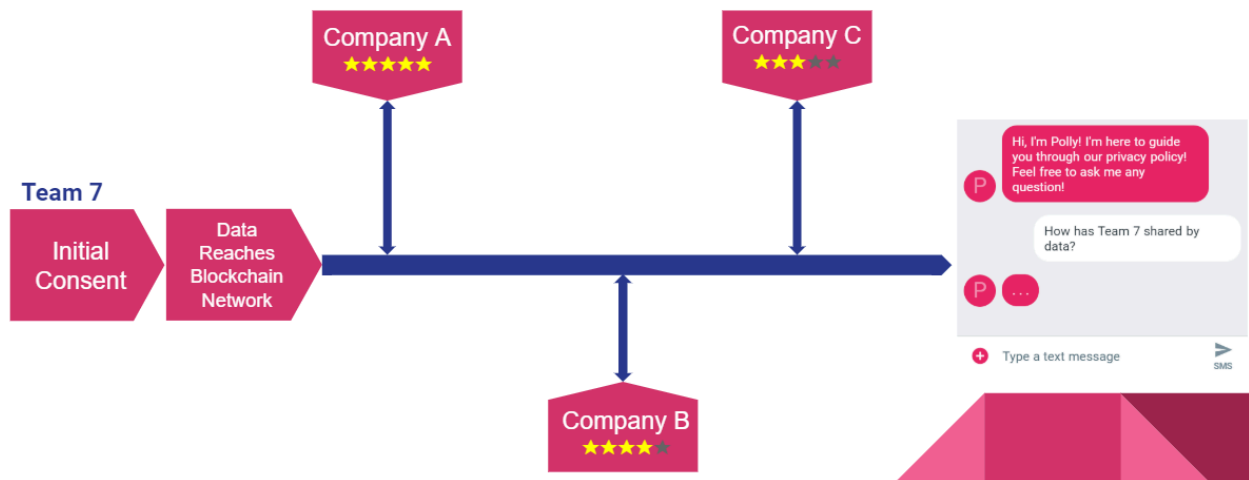


Fig xx outlines a practical scenario that allows for these solutions to work in tandem to improve informed consent.

Chatbots facilitate a more personalised initial consent process. Following this, businesses utilise consumer data within the boundaries drawn, and are granted improved understanding over the

transparency of data-sharing partners. With access to the records of the data transfers within the blockchain ledger, consumers can also inquire about information of how their data has been shared, and the ratings within this network, to make a more nuanced judgement on their trustworthiness. However, this practical implementation is dependent on businesses using all solutions. Despite this, if used effectively, this redesign of the current framework improves informed consent and is conducive to consumers and other stakeholders.

4.6 Limitations and Future Direction

Various limitations within our research and analysis must be considered.

Due to time-constraints, our survey had a small sample size (n=132) and age diversity was not addressed, with 50% of respondents aged between 18-24.

Furthermore, the immutability of blockchain may lead to concerns in regards to any need for data erasures/changes and to enable future-proofing of policy change. Development of a memory optimised and flexible blockchain model will help address this (Dorri et al., 2019).

Although the benefits of a rating system are clear, its criteria has not been discussed. Viable options to inspire criteria include the Privacy by Design Framework, accounting for privacy throughout a service’s development process (O’Connor et al.,2017), and the Principles of Responsible Investment, outlining the incorporation of ESG issues into business practices (UNPRI, 2019).

Finally, this report is limited by a lack of cost analysis of solutions; implementation through an open source software project may reduce implementation costs of the reverse transparency and chatbot solutions (Wong & Sayo, 2004).

4.7 Summary SWOT Analysis of Solutions

<u>Strengths</u>	<u>Weaknesses</u>
<ul style="list-style-type: none"> - Reverse transparency and rating system places pressure on businesses to practice ethical data transfers and usage - Rating system rewards proactive businesses - Chatbots allow for increased consumer engagement - Can be effective for the time-conscious individual - Improve informed consent. 	<ul style="list-style-type: none"> - Full advantages only realised when all solutions used together - Immutability of blockchain may lead to consumer concern regarding data changes and data erasure - Lack of clarity on what criteria the rating system is based on - Staff may need additional training in managing these technologies - May be expensive to implement
<u>Opportunities</u>	<u>Threats</u>
<ul style="list-style-type: none"> - Memory optimised and flexible blockchain model allows for data changes/erasures 	<ul style="list-style-type: none"> - Tightening of policy or certain policy

<p>(Dorri et al., 2019)</p> <ul style="list-style-type: none"> - Privacy by Design Framework and Principles for Responsible Investment are potential means that the rating system can be based on. (O'Connor et al., 2017; UNPRI, 2019) 	<p>reform may reduce effectiveness</p> <ul style="list-style-type: none"> - Lobbying against these changes - Advancements in technology that makes given solutions such as chatbot and blockchain obsolete. The rating system will also have to account for constantly evolving technology.
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4.8 Interdisciplinary Collaboration

Interdisciplinary collaboration was key to deriving and analysing our solutions from the research collected. Ashby and Exeter (2018) highlight that such a process helps to provide an optimal solution, especially important given the complexity of improving informed consent.

As a discipline, Law is credited for its epistemic diversity of analysis (Gardiner, 2019); this was especially useful given the nature of the project, being a proposal for a framework redesign. Consistent evaluation was conducted from this stance, to support analysis from other disciplines, thereby ensuring that the solutions proposed did not drift too far from the practicalities of the current legal framework surrounding data privacy.

Overall, a diversity of thought helped to mitigate the previous barriers to achieving our aim, affirming the benefits of interdisciplinarity.

5.0 Conclusion

In conclusion, the viability of these methods, within a non-policy approach, are clear in their aim to improve informed consent.

To utilise the methods that our analysis identified, we propose the following recommendations. Given the rapidly changing online environment, on which these recommendations will be implemented, possible future work is also recognised to ensure future-proofing.

1. Create a networked data-sharing ledger through blockchain, to facilitate reverse transparency

This will enable consumers to mitigate concerns, and improve understanding of business data management, given the behavioural barriers to consent upon first access of a service

- **Future Direction:** Blockchain's immutability may not be future proof of uncertain regulation change, and hinder business proactiveness. Current research into memory-optimised blockchain models addresses this, and would further contribute to achieving our aim

2. Implement a government-backed, unbiased privacy policy rating system

This will facilitate consumer trust whilst being low-in-cost to business, and, being a marketing tool, will reduce the competitive benefits of being non-transparent.

- **Future Direction:** Whilst privacy by design, and PRI research indicators, can help inspire such a system, rapid technological advancements provide a barrier to future proofing. Further research is required into a system that is easily applicable is required.

3. Recommend a chatbot system that enhances consumer engagement across the consent process

This helps to facilitate a behavioural change, through a more understandable ToS, as well as mitigate a lack of trust when concerned, through engagement.

- **Future Direction:** The ability to facilitate business uptake is essential to the success of this recommendation. Future research should be conducted into the application of open-source software to provide low-cost implementation of this solution.

By enabling uptake of these strategies through centralised development, business collaboration in improving informed consent will be enhanced, mitigating the ineffectiveness of current policy regulations in this aim. Whilst these strategies all clearly address the findings outlined by our objectives, we recommend integration of the policies in their application. By doing this, the advantages they provide in improving consumer understanding and facilitating business collaboration are best realised, most successfully achieving informed consent.

6.0 References

- Allen, D., Berg, A., Berg, C., Markey-Towler, B. & Potts, J. (2019). 'Some Economic Consequences of the GDPR', *Economics Bulletin*, 39(2), pp. 785-797., <http://dx.doi.org/10.2139/ssrn.3160404>
- Aridor, G., Che, Y. & Salz, T (2020). *The Economic Consequences of Data Privacy Regulation: Empirical Evidence from GDPR*, Available at SSRN: <https://ssrn.com/abstract=3522845> or <http://dx.doi.org/10.2139/ssrn.3522845>
- Arslan, M. Oğuz. (2014). Economic Benefits of Free and Open Source Software: An Evaluation for Health Sector. *Hacettepe Sağlık İdaresi Dergisi*. 17. 119-131.
- Ashby, I. & Exter, M. (2019). Designing for Interdisciplinarity in Higher Education: Considerations for Instructional Designers, *TechTrends*, 63, 202-208.
- Australian Competition and Consumer Commission. (2019). *Digital Platforms Inquiry: Final Report*. Retrieved 1 July 2020, from <https://www.accc.gov.au/focus-areas/inquiries-ongoing/digital-platforms-inquiry/final-report-executive-summary>
- Aviv, O. & Gal, O. (2020). 'The Competitive Effects of the GDPR', *Journal of Competition Law & Economics*, Available at <https://doi.org/10.1093/joclec/nhaa012>
- Barth, S. & De Jong, M. (2017). The privacy paradox – Investigating discrepancies between expressed privacy concerns and actual online behavior – A systematic literature review, *Telematics and Informatics*, 34(7) 1038-1058.
- Boucher, S. (2019). Chatbots on websites: How effective are they?. *Ottawa Business Journal*. Retrieved 16 July 2020, from <https://obj.ca/article/chatbots-websites-how-effective-are-they>
- Choi, H., Park, J., & Jung, Y. (2018). The role of privacy fatigue in online privacy behavior. *Computers In Human Behavior*, 81, 42-51. doi: 10.1016/j.chb.2017.12.001
- CGI-Oxford Economics (2018). 'Executive summary: The Cyber-Value Connection', in *The Cyber-Value Connection*. Retrieved 13 July 2020 from https://www.cgi-group.co.uk/sites/default/files/files_uk/pdf/cybervalueconnection_exec_summary_lr.pdf.
- Commonwealth Bank (2020). *Our Privacy Policy*, Commonwealth Bank. Retrieved 15 July 2020 from https://www.commbank.com.au/support/privacy.html?ei=CB-footer_privacy.
- Consumers Health Forum of Australia. (2018). Engaging consumers in their health data journey. Retrieved 20 July 2020, from https://chf.org.au/sites/default/files/engaging_consumers_health_data_report_updated.pdf
- Consumer Policy Research Centre. (2018). *Research: Australian consumers 'soft targets in Big Data economy*. Retrieved 1 July 2020, from <https://cprc.org.au/2018/05/13/research-australian-consumers-soft-targets-big-data-economy/>
- Deloitte. (2018). A New Era For Privacy: GDPR 6 Months On. Deloitte. Retrieved 14 July 2020, from <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/risk/deloitte-uk-risk-gdpr-six-months-on.pdf>.

- Deloitte. (2019). *Mobile Consumer Survey 2019: The Australian Cut*. Deloitte. Retrieved from http://images.content.deloitte.com.au/Web/DELOITTEAUSTRALIA/%7B3a35a2e7-7ce2-4cc9-b7b2-3472be4267a7%7D_Deloitte_Global_Mobile_Consumer_Survey_2019.pdf
- Deloitte. (2020). Deloitte Australian Privacy Index. Accessed July 15 2020 from <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/risk/deloitte-au-risk-australian-privacy-index-2020.pdf/>
- De Scheemaekere, X. (2009) 'The epistemology of modern finance', *The Journal of Philosophical Economics*, II:2, 99-120
- Digital Industry Group Inc. (2019). *DIGI Submission to Treasury: ACCC Digital Platforms Inquiry Final Report*. Retrieved 1 July 2020 from <https://digi.org.au/wp-content/uploads/2017/02/DIGI-ACCC-DPI-Submission-to-Treasury-12-September-2019-FINAL.pdf>
- Dorri, A., Kanhere, S., & Jurdak, R. (2019). MOF-BC: A memory optimized and flexible blockchain for large scale networks. *Future Generation Computer Systems*, 92, 357-373. doi: 10.1016/j.future.2018.10.002
- Everett, M & Norridge, R (2020). TRUST SURVEY – THE DATA PRIVACY ANGLE, Herbert Smith Freehills. Accessed July 10 2020 from <https://www.herbertsmithfreehills.com/latest-thinking/trust-survey-the-data-privacy-angle>.
- Ferracane, M., Kren, J. & Marel, E (2019). 'Do Data Policy Restrictions Impact the Productivity Performance of Firms and Industries?', *Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS 2019/28*, Available at <http://dx.doi.org/10.2139/ssrn.3384004>
- Ferreira, B., Silva, W., Oliveira, E., & Conte, T. (2015). Designing Personas with Empathy Map. *27th International Conference on Software Engineering and Knowledge Engineering*, Manaus, Brazil. Retrieved from https://www.researchgate.net/publication/276207468_Designing_Personas_with_Empathy_Map
- Ferreira, F., Song, E., Gomes, H., Garcia, E., & Ferreira, L. (2015). New mindset in scientific method in the health field: Design Thinking. *Clinics*, 70(12), 770-772. doi: 10.6061/clinics/2015(12)01
- Følstad, A., Nordheim, C. & Bjørkli, Cato. (2018). What Makes Users Trust a Chatbot for Customer Service? An Exploratory Interview Study.. 194-208. 10.1007/978-3-030-01437-7_16.
- Gambino, A., Kim, J., Sundar, S., Ge, J., & Rosson, M. (2016). 'User Disbelief in Privacy Paradox: Heuristics that determine Disclosure', *Extended Abstracts on Human Factors in Computing Systems*, 2837–2843. DOI:<https://doi.org/10.1145/2851581.2892413>
- Gardiner, G. (2019). Legal Epistemology, *Oxford Bibliographies: Philosophy*. Doi: 10.1093/obo/9780195396577-0390
- GDPR. (2020). General Data Protection Regulation (GDPR) – Official Legal Text. Retrieved 6 July 2020, from <https://gdpr-info.eu/>
- Geraldi, J., & Lechter, T. (2012). Gantt charts revisited. *International Journal of Managing Projects in Business*, 5(4), 578-594. doi:<http://dx.doi.org.ezproxy2.library.usyd.edu.au/10.1108/17538371211268889>

- Helzner, J. (2013). Epistemology and economics.(Editorial). *Synthese: An International Journal for Epistemology, Methodology and Philosophy of Science*, 190(5), 781–786. Doi: 10.1007/s11229-012-0185-9.
- IBM, (2020). *IBM Food Trust*, IBM. Retrieved July 12 2020 from <https://www.ibm.com/blockchain/solutions/food-trust>
- Inshorts. (2020). Short English & Hindi News|Current Affairs|Inshorts. Retrieved 20 July 2020, from <https://inshorts.com/>
- Kannan, P., & Bernoff, J. (2019). Does Your Company Really Need a Chatbot?. Retrieved 20 July 2020, from <https://hbr.org/2019/05/does-your-company-really-need-a-chatbot>
- Kulyk, O, Mayer, P, Käfer, O & Volkamer, M (2018). 'A Concept and Evaluation of Usable and Fine-Grained Privacy-Friendly Cookie Settings Interface', 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications (TrustCom 2018).
- Latham, G., & Locke, E. (1991). Self-regulation through goal setting. *Organizational Behavior And Human Decision Processes*, 50(2), 212-247. doi: 10.1016/0749-5978(91)90021-k
- Mattern, J. (2014). On being convinced: An emotional epistemology of international relations. *International Theory*, 6(3), 589-594. doi:10.1017/S1752971914000323
- Maton, K., & Howard, S. (2020). Autonomy: the next phase of dialogue between systemic functional linguistics and Legitimation Code Theory. *Journal Of World Languages*, 1-21. <https://doi.org/10.1080/21698252.2020.1720160>
- Mittal, S., Sharma, P. (2017). The Role of Consent in Legitimising the Processing of Personal Data Under the Current EU Data Protection Framework. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2975277
- Morey, T., Forbath, T., Schoop, A. (2015). 'Customer Data: Designing for Transparency and Trust', *Harvard Business Review*, 93(5), 96.105.
- Moxnes, P (1999). Understanding roles: A psychodynamic model for role differentiation in groups. *Group Dynamics Theory Research and Practice*. 3(2), 99-113. doi: 10.1037.
- MOON, K., & BLACKMAN, D. (2014). A Guide to Understanding Social Science Research for Natural Scientists. *Conservation Biology*, 28(5), 1167-1177. <https://doi.org/10.1111/cobi.12326>
- MPCConsulting (2019). *Health Star Rating System Five Year Review Report*. Retrieved 18 July 2020, from [http://www.healthstarrating.gov.au/internet/healthstarrating/publishing.nsf/Content/D1562AA78A574853CA2581BD00828751/\\$File/Health-Star-Rating-System-Five-Year-Review-Report.pdf](http://www.healthstarrating.gov.au/internet/healthstarrating/publishing.nsf/Content/D1562AA78A574853CA2581BD00828751/$File/Health-Star-Rating-System-Five-Year-Review-Report.pdf).
- Obar, J., & Oeldorf-Hirsch, A. (2018). The biggest lie on the Internet: ignoring the privacy policies and terms of service policies of social networking services. *Information, Communication & Society*, 23(1), 128-147. doi: 10.1080/1369118x.2018.1486870
- O'Connor, Y., Rowan, W., Lynch, L., & Heavin, C. (2017). Privacy by Design: Informed Consent and Internet of Things for Smart Health. *Procedia Computer Science*, 113, 653-658. doi: 10.1016/j.procs.2017.08.329

- Office of the Australian Information Commissioner. (2017). Australian Community Attitudes to Privacy Survey (ACAPS). Retrieved 4 July 2020, from <https://www.oaic.gov.au/assets/engage-with-us/research/acaps-2017/acaps-2017-report.pdf>
- Ooijen, I., Vrabec, H. (2019). 'Does the GDPR Enhance Consumers' Control over Personal Data? An Analysis from a Behavioural Perspective', *J Consum Policy*, 42, 91–107, <https://doi.org/10.1007/s10603-018-9399-7>.
- Privacy Act 1988: Reprinted as at 31 January 1995*. (1995). Canberra: Australian Government Pub. Service.
- Rantos, K., Drosatos, G., Kritsas, A., Ilioudis, C., Papanikolaou, A., & Filippidis, A. (2019). A Blockchain-Based Platform for Consent Management of Personal Data Processing in the IoT Ecosystem. *Security And Communication Networks*, 2019, 1-15. doi: 10.1155/2019/1431578
- Rogers, K. (2020). Your Innovation Team : 5 Critical Roles - BigThinking.io. Retrieved 6 July 2020, from <https://bigthinking.io/innovation-team-building/>
- Solove J, D. (2020). *The Myth of the Privacy Paradox Law*. GWU Legal Studies Research Paper No. 2020-10
- Steinfeld, Nili. (2016). "I agree to the terms and conditions": (How) do users read privacy policies online? An eye-tracking experiment. *Computers in Human Behavior*. 55. 992-1000. 10.1016/j.chb.2015.09.038.
- Squires, G. (1992). 'Interdisciplinarity in Higher Education in the United Kingdom', *European Journal of Education*, 27(3), 201–210.
- UNPRI (2019). Engaging On Cyber Security: Results Of The PRI Collaborative Engagement. Retrieved July 10 2020, from <https://www.unpri.org/download?ac=10398>.
- Westpac (2020). *Home Page*, Westpac. Retrieved 15 July 2020 from <https://www.westpac.com.au>.
- Whitley, E. (2009). Informational privacy, consent and the "control" of personal data. *Information Security Technical Report*, 14(3), 154-159. doi: 10.1016/j.istr.2009.10.001
- Wong, K., & Sayo, P. (2004). *Free/open source software - A General Introduction*. Kuala Lumpur, Malaysia: The United States Development Programme's Asia-Pacific Development Information Programme (UNDP-APDIP).
- Wood Jr, D. (2019). *Revamping the Privacy Policy: A Study on Informed Consent and User Interactions* (Ph.D). Baylor University.

7.0 Appendices

Appendix 7.1: Interview 1 Key Findings That Helped Direct Research

- At present, there is a **gap between policy, and stakeholder expectations of transparency**
- **There are companies** leading in some areas of data privacy, but no one has figured it out perfectly
- Discussing Directions for Solutions
 - It is important to inform/educate the user on good and bad data use, what the benefits are of sharing data
 - Certification is also interesting, like fair trade
 - Who would oversee this? Can't just be about disclosure, smaller companies may not have this same access to marketing.
 - Businesses address other issues through identifying how they can exercise control, for example: How they mitigate the risks within the supply chain process
 - Agricultural sectors and traceability is a key trend
 - Could be interesting to explore how you develop trust in data usage through this lense - Reverse transparency (e.g. How have the advertisements been targeted?)
- Breaches can be very costly, but coming forward is important for trust
 - It is easier for big players to come forward compared to smaller business
- Consent Unbundling: Is it actually delivering on its intent? Unintended consequences should be researched.
- (Rhetorical question): How has regulation been reviewed? What is next for GDPR?

Appendix 7.2: Interview 2 Key Findings That Helped Direct Research

- APP gives room for businesses to operate lawfully with consumers, whilst also achieving business outcomes
 - However, there are businesses who operate in multiple jurisdictions, as a result being subject to multiple regulations
 - Adopting the GDPR within Australia would simplify practices for these global businesses, it is a tighter standard that would be burdensome for businesses that solely operate in Australia
- Discussing Directions for Solutions
 - Consumer uplift/awareness is an important step towards the solution.
 - Unbundling of consent is good in concept, but its practicality is debatable
 - Cookie banners don't appear effective in changing consumer behaviour... They just click the "accept all cookies" and forget
- Although there are businesses being proactive, this is not enough
 - Policy is good as guidance/baseline, but part of being in business is finding what is good for business, and what is good for consumer

- Something is required, to motivate businesses to spend costs
- Reputation and being Proactive
 - Strongly regulated industries and iconic brands care about reputational costs
- Discussing the role of consumer awareness: Consumers could be more inclined to share if they understand the benefits them
- *Reverse transparency... Notifying where the data is collected from in advertisements (e.g. online shopping and online retail interactions)?*
 - If consumers had more information, they would be more willing to share.
 - Also works for businesses, to gain more relevant data and engaged consumers... it could mutually beneficial
- As technology involves, the goal for companies is to stay relevant, provide something valuable
- Targeted advertising, Facebook is giving more information of where they get the information

Appendix 7.3: Interview 3 Key Findings That Helped Direct Research

- Benefits of Ethical Use of Data:
 - Gain insights into trends (such as foot passage, traffic, parking), can be used to benefit society in a multitude of ways
 - Also helps them to deliver better products to clients through improved understanding
- In terms of policy reform, there poses an opportunity: You could be overly prescriptive in terms of regulation, or could introduce principles based guidelines
 - Collaboration is also key, although needs to be a wide debate
 - An centralised initiative is also needed - A standardised rating system is a possible means to achieve this
- Opt in/Opt out: When this flipped in the GDPR, a lot of business models collapsed and led to a lot of struggle
 - Less understanding of consumer behaviour
 - Smaller companies appeared to suffer more
- Culture plays a role in the way consumers view data management
 - Individualist vs. Collectivist
- Creating change, such as through guiding principles, needs to be about framing on the use of data...
- Unbundling consent: People still skip through and don't read and just click the default option. Does not solve the issue
- A consumer attitude, where opportunities/benefits outlay privacy is apparent... What safeguards can be put in place?
 - Policy could be directed to focus on how data is used, as people need to know when it is being used beneficially
 - The pace of change must also be considered

Appendix 7.4: Survey Questions and Responses

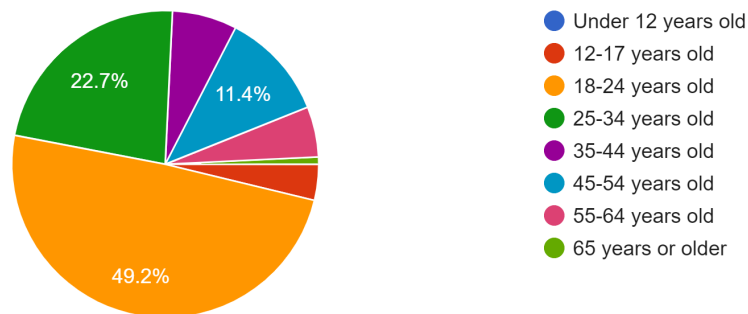
We conducted a survey on consumer attitudes and behaviours surrounding data privacy and consent, collecting a total of 132 responses. The survey was conducted using the Google Forms platform. All questions that asked for a response on a linear scale were based on the Likert scale, ranging from 1 = 'Strongly disagree' to 5 = 'Strongly agree'.

TITLE: Your interaction online and the way you consent

DESCRIPTION: In this survey, we are interested in hearing about your interaction online, your opinions and what you would like to see in terms of change when it comes to the way you give online consent.

We thank you for your valuable time and opinion!

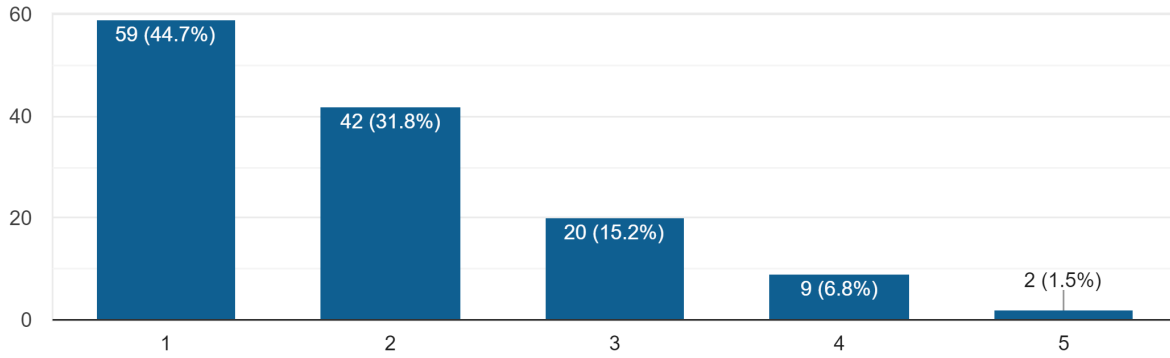
Age
132 responses



SECTION 2: Terms of Service Agreements

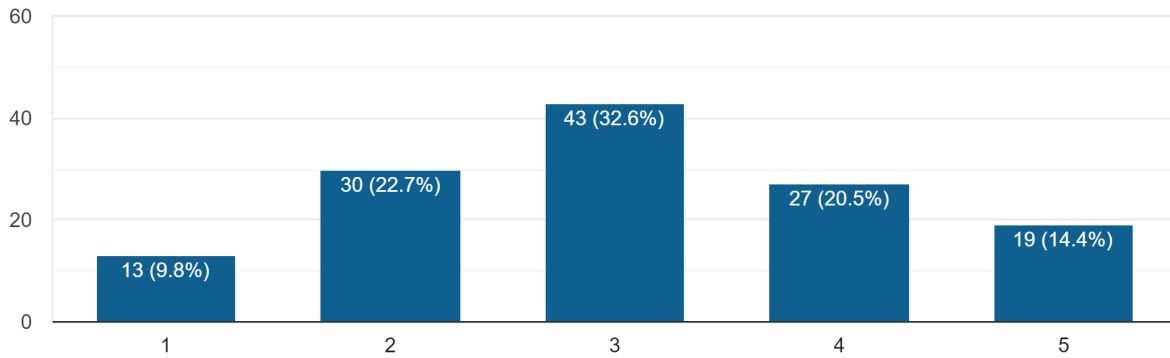
I read the Terms of Service Agreement of most of the services I use.

132 responses



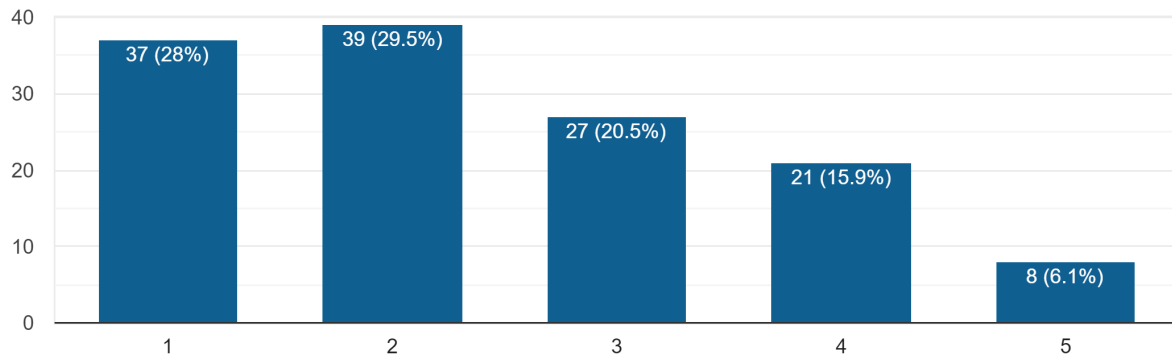
I have trouble understanding the Terms of Service Agreement

132 responses



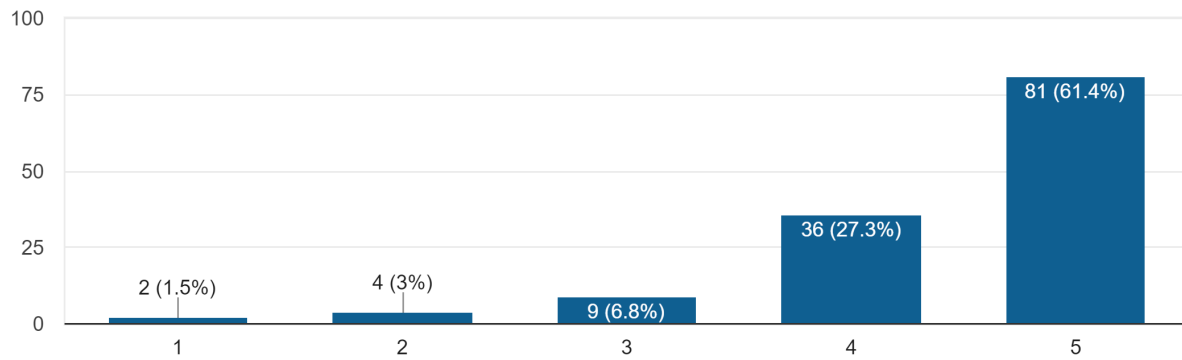
I know what I am consenting to in the Terms of Service Agreement.

132 responses



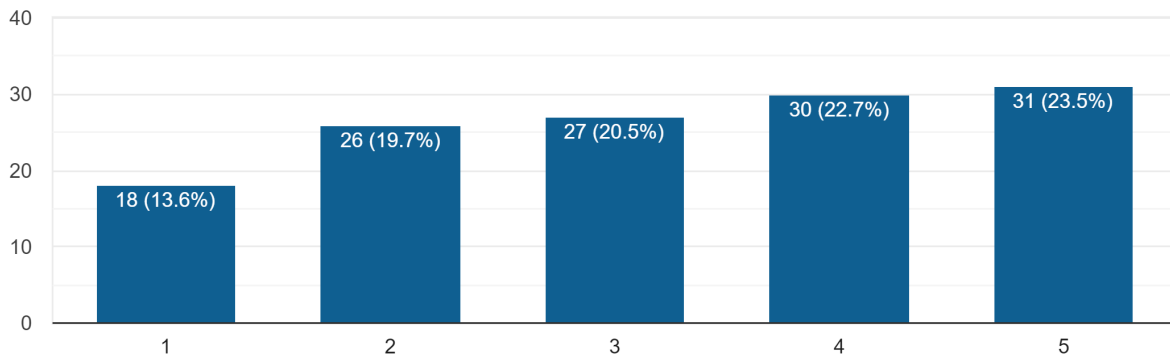
I am more likely to read the Terms of Service Agreement if they were shorter.

132 responses



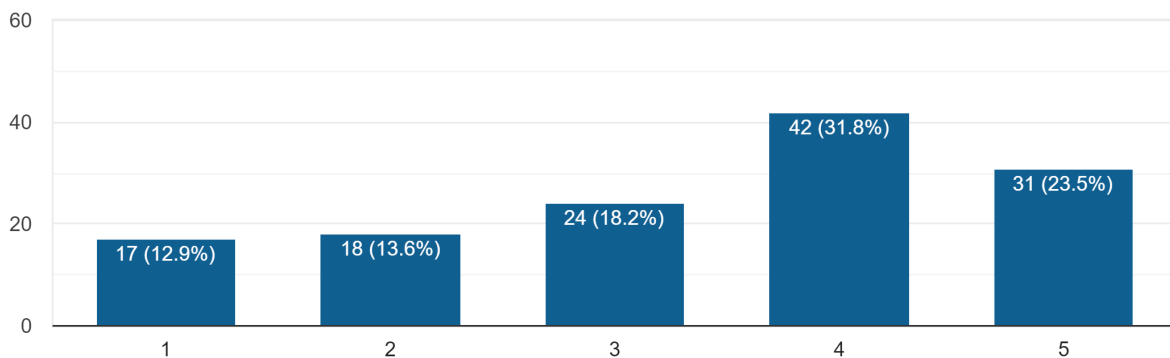
I would prefer a more personalised means to guide me through a companies' - such as through a chatbot.

132 responses



I am more likely to watch a short video about the Terms of Service Agreement.

132 responses



SECTION 3: Trustworthiness of service providers with your data

DESCRIPTION: When you agree to use a service such as Facebook, usually you consent to your service provider collecting some of your personal data. In this section, we are interested in hearing how you give consent to your personal data.

What do you think proper consent should be in terms of giving your data to service providers? (Given the following choices:

- Written declaration and confirmation
- Verbal declaration and confirmation
- Clickthrough agreement, such as clicking 'I Accept'
- Consent is implied in certain circumstances
- Other...

Surprisingly, we received quite a few responses that used the Other... function.)

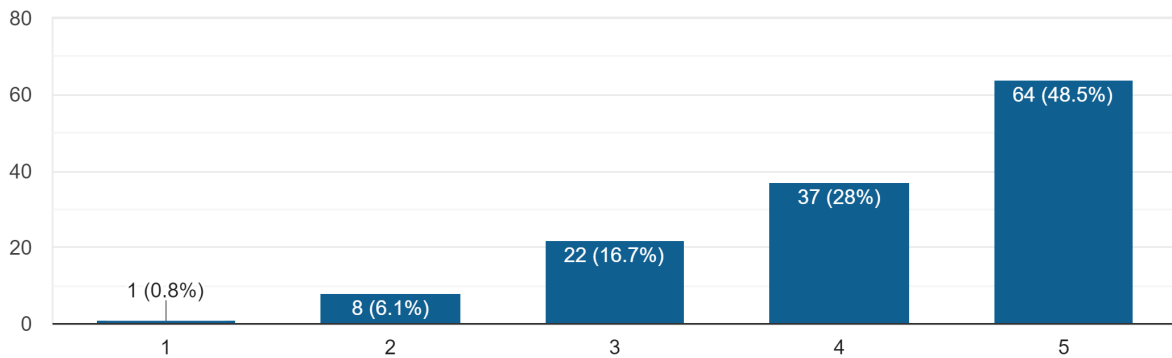
What do you think proper consent should be in terms of giving your data to service providers?

132 responses



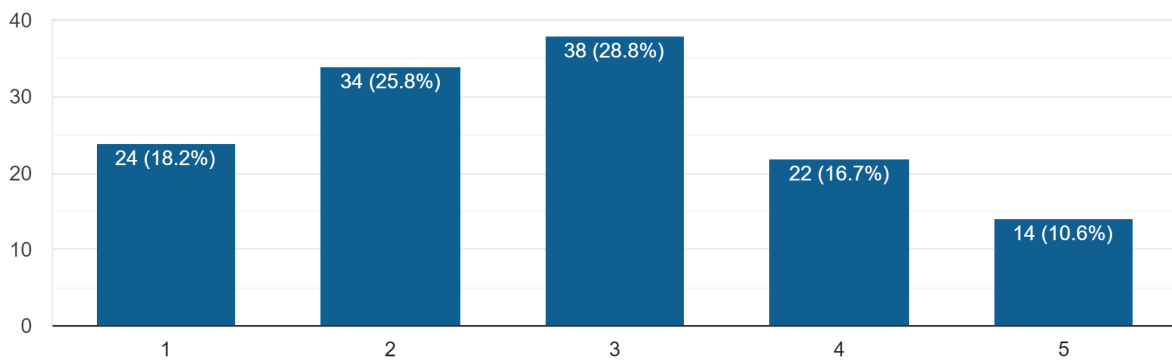
I care about the personal data that my service providers have about me.

132 responses



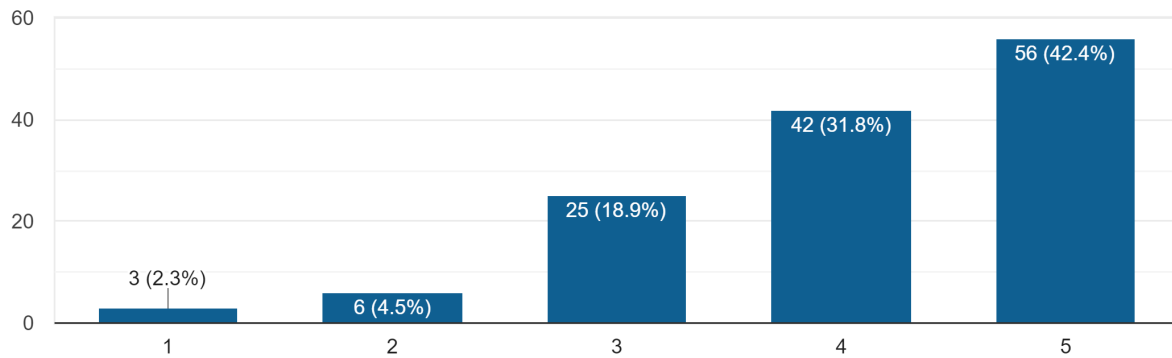
I trust my service providers with my data.

132 responses



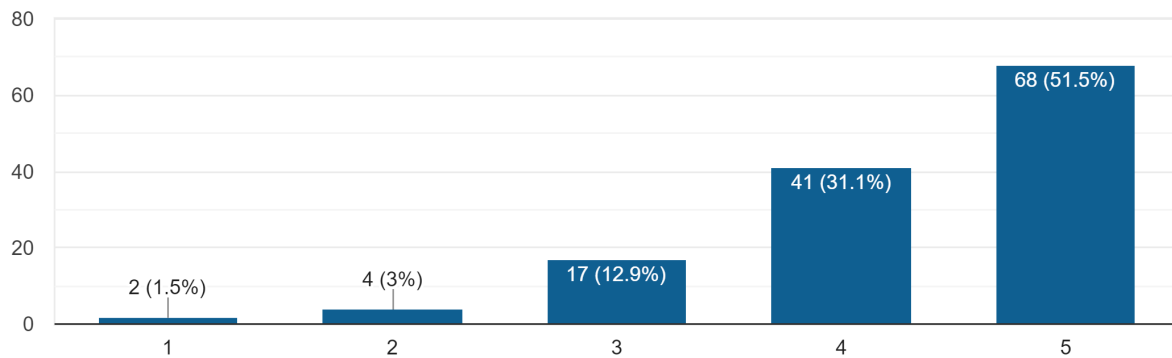
I am more likely to trust an online service provider with my personal data if there was a government-backed rating score of their trustwor... Rating System we have for foods and beverages.

132 responses



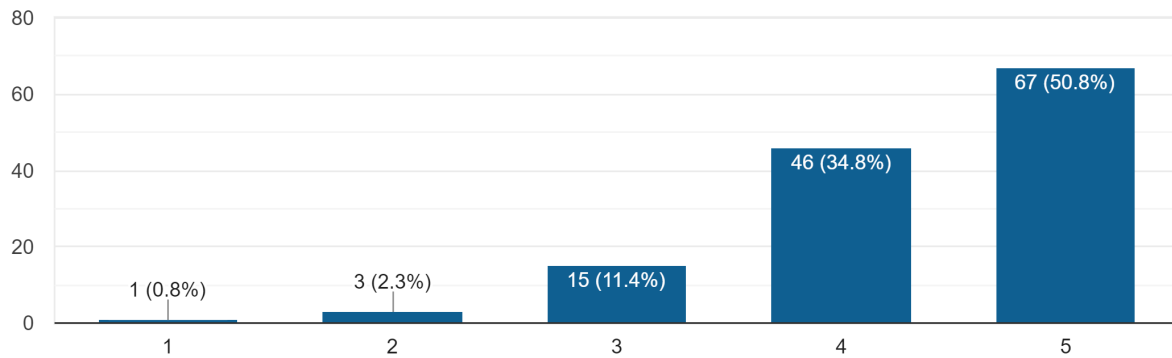
I am more likely to trust a service provider if they were transparent about how they gather and use my personal data.

132 responses



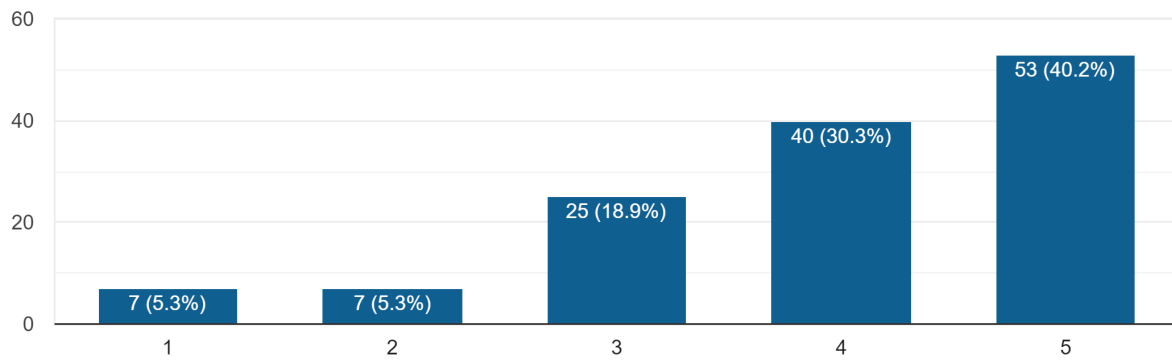
I am more likely to trust a service provider if I knew the level of control I have over how my personal data will be used and how long.

132 responses



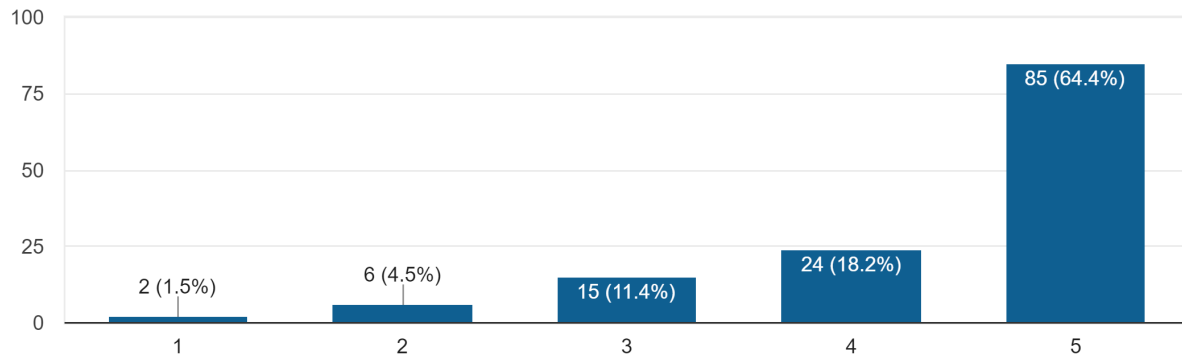
I am more likely to trust a service provider if I knew where my data was being transferred to between businesses.

132 responses



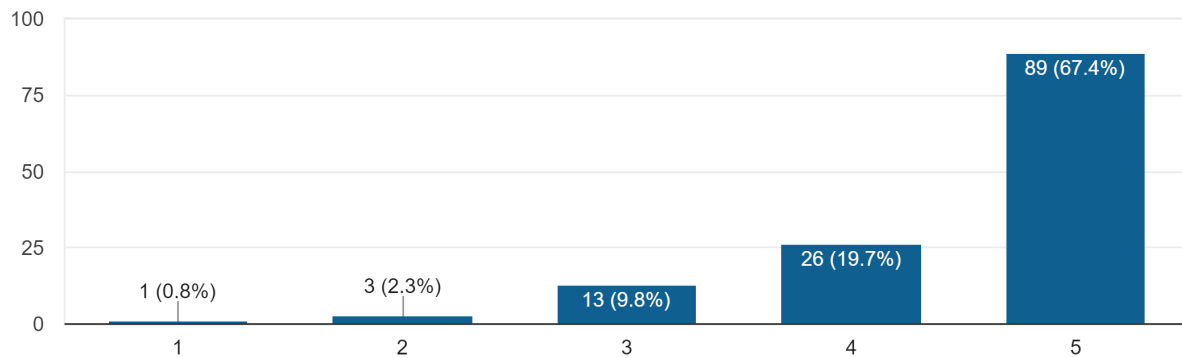
I am more likely to trust a service provider if my data were not transferred between businesses.

132 responses



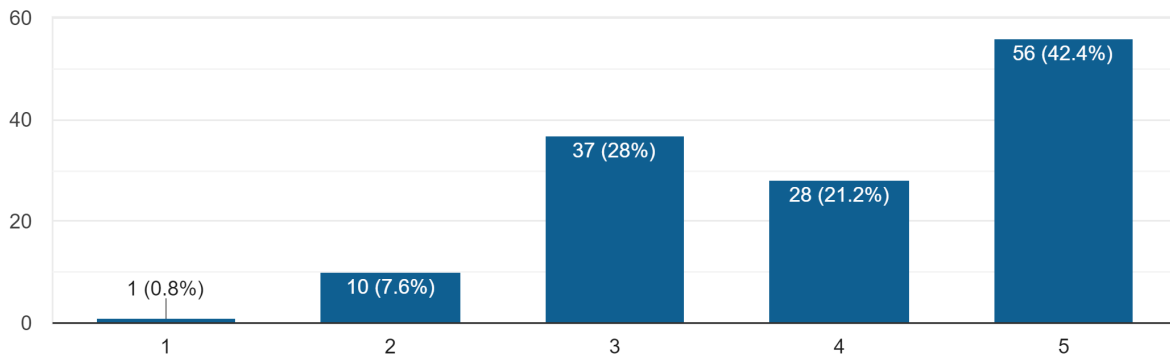
I am more likely to trust a service provider if I had the right to leave them and remove my personal data.

132 responses



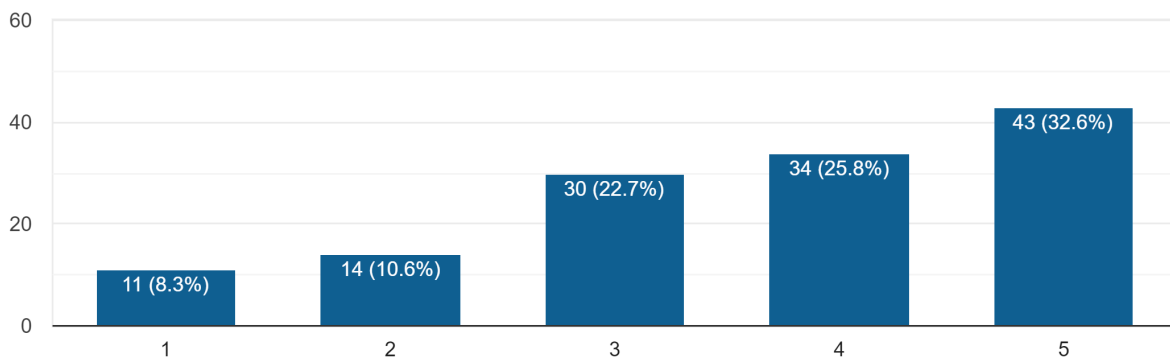
I am more likely to trust a service provider if I had to give consent for multiple requests separately, instead of giving a blanket, bundled response.

132 responses



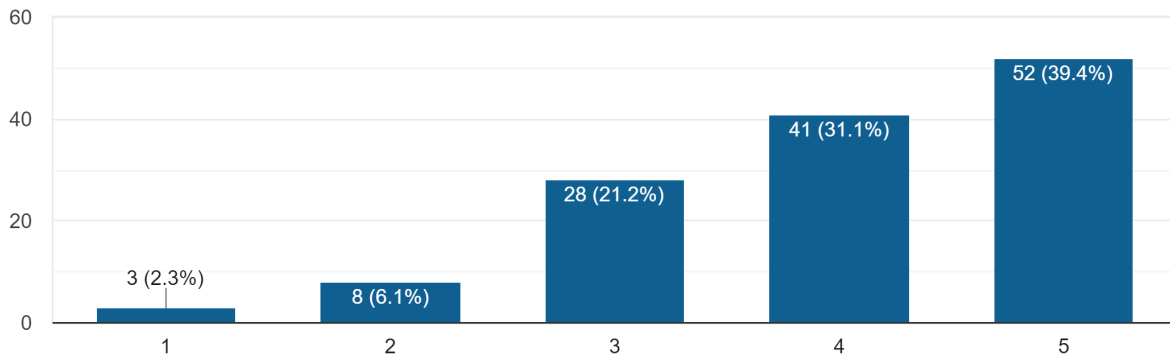
I actively opt-out of data collection features on apps.

132 responses



I find it difficult to find data collection settings on apps.

132 responses



We are very interested in any thoughts you have regarding online consent. Do you think there is a better alternative to today's Terms of Service Agreements? Is there something that would help you make more informed consent? (optional)

- Something written like a disclaimer on the website that people can easily see and something that is not too long
- To many online sites use American T&Cs, consent and privacy statements that have no legal meaning in Australia. Consent must be explicit and to the Australian standard. Bring in GDPR rights in Australia
- Should be short and have clarity
- Hello there, I would really like a bullet point summary of what is being consented to in plain English.
- Simply put, I'm very lazy to read through terms of consent agreements, and at this point, I take it as a given / implicit understanding that any site whose services I use is going to misuse my data in some way. Thus, my trade-off is I just don't use websites I'm not comfortable with having my data. Harder said than done of course with massive conglomerates like Facebook owning multiple companies, some of which are very hard not to use.
- Yes, we should definitely have more control on our personal data. So many times we receive calls from fake companies when they get our phone numbers or addresses etc. Passing data from business to business should not be allowed. If for any critical reasons it is important to pass data from b2b then we should know where it is being passed.
- Provide a checkbox for each term of the TSA. Users check the boxes next to terms with which they agree, in a opt-in manner. If the service cannot be provided due to insufficient boxes being checked, then the user can make a decision on how to proceed (whether to reconsider the terms or quit the service).
- Make user highlight or read critical terms eg use mouse to highlight the lines and only allow to accept and proceed further
- I like the idea of a government data safety rating
- Writing it not like a legal document but dot points which outline the key ways the data is used etc
- Tree-tracking could be nice (i.e. seeing how many 3rd party connections there are, and being able to see all the places the data could go)
- Being transparent about specific types of data collection and the forwarding of this data between companies would be good. However, such a move is unlikely considering how much information

is shared between businesses. At the very least, users should be made aware of specific data businesses collect and what they do with that data.

- Bigger font and shorter easy to understand no / less legal terminology.
- It would be useful to customize consent, and to be able to review the consequences of each consent in terms of data collected, and how the data can be exploited, so that I can opt out at a later date if I find it excessive.
- This is an area that generally is fairly confusing and one that I often ignore. So I wouldn't even really know where to begin making suggestions.
- Video Explanation
- If there was a simple statement of what you are consenting to tailored for each business
- Make easy way for users to understand terms & conditions unfortunately many people are not able to read completely
- I feel like even if you are more informed, it isn't necessarily that helpful because even if they say they are going to give your data to third parties or whatever, you don't really have a choice because most of the time, you need the service they are providing. So while it would be informative to know what was happening to our data, I don't think we would stop giving them permission because we need whatever they are giving us in exchange for our data. It would be better for companies to demonstrate to us that they are protecting our data.
- Give clients more control over what data they allow you to collect. Make the agreement process quiz-like to ensure a greater degree of understanding prior to clicking "I Agree".
- A short video would definitely help (over long written T&C agreements), and so would heavier govt supervision over how service providers use my data