WHEN TERMS OF SERVICE ARE LONGER THAN A SHAKESPEARE PLAY: EASING THE UNDERSTANDING OF LEGAL DOCUMENTS THROUGH A USER EXPERIENCE DESIGN METHOD

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ABSTRACT
Whenever users use an internet service, they agree to its terms of service and privacy policy describing how their personal data will be managed. The complexity of managing this process is often overlooked, and users rarely read the whole document. Agreeing to terms of service and privacy policies is not a straightforward matter, and there is a need to highlight this in design education. A new approach is needed in design education that connects responsibility, user experience, products, and services together. This study uses a user-oriented design approach to explore how to address the issue of informing users about how their data is managed. The study uses a qualitative approach and includes in-depth interviews with people in different demographics and in different user groups. The findings reveal how coupling icons with easily understandable texts can improve user awareness of how their data is managed, leading to a more mindful approach to these services.

Keywords: User experience, terms of service, digital rights, consent, contracts, informed consumers

1   INTRODUCTION: LEGAL CONTRACTS IN THE DIGITAL AGE

This paper will discuss how understandability of terms of service for internet services can be improved using symbols and text. With the large-scale diffusion of online services such as social media, streaming platforms, online stores and the like, users must sign digital legally binding contracts stating how those services will use their users' data. Such information – which includes demographic and behavioural data and personal preferences – will then be used to provide users with the services they request. However, it could also be shared with third parties such as advertisers to target them with tailored advertising [1]. This practice of collecting data could be used for good purposes, such as helping people to buy items they need, but it could also have adverse consequences, as shown by the Cambridge Analytica scandal, when targeted political ads were used to influence election results in various countries around the world [2]. Such incidents highlight the need to regulate the collection and use of personal data. Different actors should be involved in this process, from regulators and service providers to users. However, this research paper will focus on the terms of service presented to the user during the sign-up flow, since encouraging responsible behaviour while reading and signing such agreements can have an enormous impact on what data is uploaded and how it is used.

2   BACKGROUNDS: A MATTER OF UNDERSTANDING

Terms of service agreements are mandatory for companies that offer their services to the public, but they are not required to be easily readable. Research conducted on the top 500 most visited websites showed how those contracts would not perform well in the most popular readability tests [3]. This is reinforced by the fact that such contracts usually make use of broad and vague statements such as 'We may share your location information', semantically including but hiding sentences such as 'We share your ZIP code for marketing purposes' and thereby lowering the risk perception of the reader [4]. Given the fact that those contracts are incredibly vague and difficult to comprehend, Jonathan A. Obar and Anne Oeldorf-Hirsch conducted an experimental survey on more than 500 adults, asking them to join a fictitious social media website. A total of 74 per cent of the test subjects decided to ignore the privacy policy and the terms of service, selecting instead the 'Quick Join' option without reading the contracts, while 97 per cent of the remaining test subjects agreed after spending from 30 to 90 seconds reading

documents which normally would take around 30 minutes to read in full [5]. These findings brought to light the information overload created by terms of service, disincentivising the users, who perceived the contracts as a nuisance, preventing them from using the services they were interested in. To address the issues users must face during this process, European regulators considered including a section regarding the use of icons in the GDPR as a means for helping users understand the meaning of those documents, but this idea was discarded in the final version of the regulation. The discussion regarding pictograms and iconography in terms and conditions has created polarised positions. On the one hand, it is argued that the use of such devices may impede understanding of the documents because the nuances of the legal language may be lost [6]. On the other hand, it is argued that the icons are intended merely to complement and clarify the legal language, not replace it [7]. Multiple sets of icons have been developed to answer this need, such as DaPIS, machine-readable icons based on the GDPR [8] and the Mozilla privacy icons, made to give users a guarantee about what companies will do with their data [9].

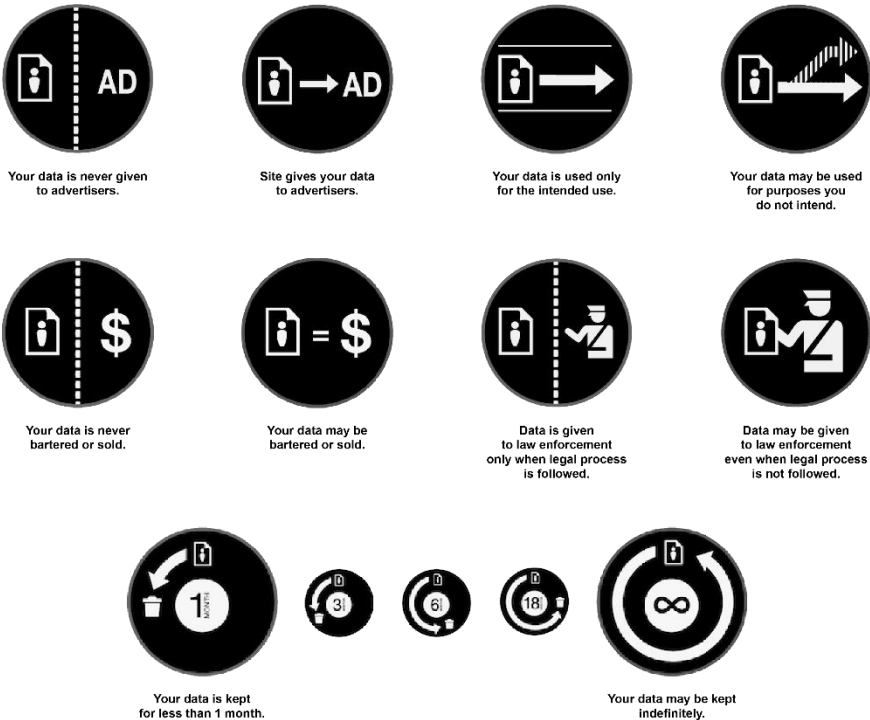Figure 1. Rossi A. and Palmirani M. DaPIS icon set

Figure 2. Raskin A., Mozilla privacy icons

Research has also been conducted on plain-language contracts, a term that refers to contracts that are made 'as clear and as simple as possible' to quote former president of the United States Jimmy Carter.

Such contracts are usually shorter and more understandable, reduce the signing time by 60 per cent and positively impacted the customer's perception of the company [10]. The research discussed in this paper will compare these different methods in order to understand how best to communicate important information to users. The research question is: How can design help users understand how companies will manage their data without reading the full terms of service agreement? The focus is the system design, trying to define the characteristics needed for this system to work.

3 METHODS: IN-DEPTH INTERVIEWS, LITERATURE REVIEW

The methods chosen for this study are digital in-depth interviews and a literature review, in order to obtain methodological triangulation [11]. In-depth interviews were used to obtain the views of different target groups on a given phenomenon [12]. The aim of the interviews was to gain insight into the frequency of their interactions with online terms of service agreements and their usual behaviour regarding those documents. Later on in the interviews, the subjects were presented with a series of tests based on the DaPIS icon set and the Mozilla privacy icons for plain-language contracts and judicial-language contracts to understand their preferences in terms of understanding and engagement. After being introduced with an icon set, they were asked to interpret an excerpt of a terms of service document regarding the treatment of user data. The text was preceded by the icons and a corresponding plain-language contract. They would then repeat the test with a different excerpt and set of icons and a plain-language contract. This allowed for understanding methodologies and preferences in different demographics.

4 METHODS: IN-DEPTH INTERVIEWS, LITERATURE REVIEW

The subjects for these in-depth digital interviews were chosen based on user-oriented methods in product design education for obtaining insights from different demographics: a 25 year old IT engineer, a 52 year old office worker and a 75 year old retired lawyer. A brief summary of the interview subjects is presented below.

4.1 In-depth Digital Interview 1: IT engineer, 25 years old

During the interview, the subject disclosed that he normally encounters terms of service contracts multiple times per month, and that the recent lockdown caused a surge in these encounters – this is due to the increase in the use of online services, especially streaming platforms. When faced with those documents, he quickly skims through them, searching for parts that catch his attention and accepting the conditions soon after. When confronted with the excerpt, he understood its general meaning while still having some doubts regarding the vaguer parts. Once the tests were completed, he reported that the Mozilla privacy icons were his favourite, as he believed they conveyed more clearly the message of the text, while the other icons gave him only a hint of the topic. The plain language contract was appreciated although he did not deem it necessary.

4.2 In-depth Digital Interview 2: Office worker, 52 years old

The subject reported that he rarely encounters terms of service agreements because he mostly uses the same online services. When faced with those kinds of documents, he reports that he usually accepts the conditions without even checking the contracts, as he considers them a nuisance and a waste of time. When asked for his opinions about private data management, he stated that he had nothing to hide. When tested, he had a hard time getting the excerpt's meaning right in its entirety, mainly because of the presence of a specialised judicial lexicon. When asked about the icon sets, he stated that he preferred the Mozilla privacy icons because they were clearer and more straightforward. He also strongly emphasised the usefulness of the plain-language contract, reporting an improved reading and understanding experience.

4.3 In-depth Digital Interview 3: Retired lawyer, 75 years old

Given the subject's very moderate use of technology, he rarely encounters terms of service agreements, apart from when he created an email account. When confronted with the test, he had no problems understanding the excerpt's contents, pointing out specific passages that were vague and admitting that understanding these kinds of documents did not come easy to people who were unaccustomed to legal jargon. While he could understand their purpose, his opinion of the icons remained negative, because the legal document, exposed in such a way, resulted oversimplified. He considered the DaPIS icon set

as the most useful, as it provided information on the topic of the document without conveying a message that could be misinterpreted. He commented positively on the plain-language contract, but he raised concerns about its implementation by the companies, stating that more customers would refuse to sign up once they fully understand how their data will be used.

5   DATA INTERPRETATION

The results of the in-depth interviews showed a striking resemblance to the behavioural model researched by A. Obar. Most users will either try to read the terms of service and give up soon after or directly skip them to pursue their objective [5] - signing up to the app or accepting a website privacy policy and terms of service because they are overly complicated [3] and vague [4]. This presents a growth opportunity for plain language contracts, to which we will come back to later. The widespread preference for the Mozilla privacy icons may be attributed to the unusual mix of images and text to convey complex messages in a comprehensible manner. This approach, however, may fail to transmit precise information due to the fact that the icons have been designed in an effort to be as comprehensive as possible. The DaPIS icon set proved less useful by itself, as it does not directly transmit the document's information. However, it can be employed to inform users about the topics covered in the terms of service agreement, provided that the meaning of the symbols is widely known and recognisable, as the use of abstract symbols can pose a threat to understandability. The inverse correlation between age group and icon set appreciation could also be linked to differences in the shared visual dictionary. In fact, the older section of the demographic is not familiar with these symbols, and this leads them to experience issues in the interpretation. In conclusion, all the interview subjects appreciated the plain-language contract, praising it for its brevity and understandability without compromising on the content. This also helps corroborate the hypothesis made by Obar and Oeldorf-Hirsch regarding the information overload that discourages people from reading the document independently [5].

6   CONSIDERATIONS

The use of icons has been proved useful to convey essential content to users and as a tool to integrate and clarify pre-existing terms of service written in judicial jargon, as supposed by Arianna Rossi and Monica Palmirani [7]. The user preference was mostly for icons that allowed them to understand the document's content more than the topic itself, as it could allow them to verify the kind of data they are going to surrender with a mere glance. Every interview subject has acclaimed the use of simple sentences in an effort to explain the contract, usually coupled with icons, to have a better overview of the terms of service before signing. Linking descriptive icons to brief and easy-to-understand descriptions could enhance awareness among users, who will have access to the information they need without the issues created by jargon-filled terms of service agreements. This study, however, has been limited by its sample size, which provided useful but only partial results; it can be developed further through ethnographic research, in an effort to understand the preferences of a more extensive sample of people. Their feedback will then be used to improve the icon designs. [11].

7   CONCLUSIONS

In this study, a user-oriented design method was used to shed light on a complex phenomenon. Online users from different demographics were interviewed to understand their behaviour regarding online terms of service agreements; they were proposed an array of different simplification methods, using icons and explanatory texts, and their reactions were taken into account. Our findings, matching with previous research done in this field, are a good first step in the raising of awareness of the customers regarding privacy issues and the wider world of online data sharing. The findings strengthen the designers' position in the public debate regarding the inclusivity of legal documents and data security, showing how they can enhance user experience by informing users in an easy-to-understand way about how the companies will use their data. The need to control personal data is becoming increasingly important, and this research shows a possible solution that, if implemented, could raise user consciousness on the subject and contribute to progress in the field of designing for legal and data awareness.

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