

# TOWARDS USER-FRIENDLY CONTRACTS FOR ONLINE SERVICES

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**Abstract:** *Terms of Service are created by lawyers to define a contract's provisions and resolve disputes. However, this does not meet the expectations of Internet users who want to quickly learn the conditions for the use of a service. Applying user-centered design and visual law techniques can adapt the presentation to the users' expectations. Usability testing of the redesigned Facebook Terms of Service showed that its comprehensibility was significantly improved compared with the original documents. We argue that Terms of Service should be provided in two formats: one that is easy to understand for service users and another that presents the legal provisions for lawyers.*

## 1. Introduction

On the Web, the Terms of Service are an agreement between a website's user and an online service provider that the user must accept in order to use the desired service. These agreements provide a variety of conditions related to privacy policy, personal data, and the storage, use, and processing of that data, on how and for what purposes users' personal data and other data obtained during the provision of the service will be collected and processed, how and for what purposes services can and cannot be used, and other rights of users and service providers [Gunkel 2014; Brehm/Lee 2015]. Terms of service are drafted considering the legal regulations governing a business activity. In most cases, the Terms of Service is a lengthy document whose legal content is difficult for a layperson to understand. For these reasons, users often fail to properly familiarize themselves with the content provided and do not delve deeply into it [Obar/Oeldorf-Hirsch 2020].

Lawyers are trained to carefully read all the terms, whereas Internet users are not. Krug argues that Internet users usually “glance at a new page, scan *some* of the text, and click on the first link that catches their interest or vaguely resembles the thing they're looking for” [Krug 2014]. The long legal text is not prepared for scanning and extracting essential parts. Furthermore, exploring and accepting the terms is not the primary user's task. They want to use the service. The additional effort is usually perceived as an unwanted distraction from achieving their goal. Therefore, the users tolerate only a limited amount of such additional effort [PLATT 2016]. This irritates the users and does not motivate them to spend time analyzing the agreement.

When a user's activity is unexpectedly interrupted by a request for consent, users seek to return to their activity as quickly as possible. Therefore, they accept the Terms of Service without reading them, as technically, it is allowed to do so. However, knowledge and understanding of these conditions are critical for users because they determine what is acceptable, appropriate, and even possible in social interactions on a particular platform [Gunkel 2014].

Simplification of legal content is not a new problem. The CommonTerms project<sup>1</sup> raises the question of how users can make an informed decision when they do not understand and know all the terms. Therefore, the need

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<sup>1</sup> Towards better online Terms & Conditions, <https://commonterms.org/> [Accessed 2-10-2025].

to consent to online terms without good reasons should be reduced. The number of requests for consent could be reduced by automatically allowing the essential data practices for the site's functionality. For context-dependent decisions, a unified presentation must be provided so that users can quickly understand the important points [Fassl/Gröber/Krombholz 2021].

Confirmation should be maximally informative and require minimal mental effort. The legal community makes efforts to enhance the accessibility of legal content for a wider audience. Visual law uses visual elements to enhance the readability of legal text. It involves transforming complex legal content into infographics or flowcharts that make it more accessible to a layperson [Berger-Walliser/Barton/Haapio 2017]. Proactive contract theory advocates incorporating user-centered design methods into contract design to enhance user comprehension [Saloranta/Hurmerinta-Haanpää 2022]. However, obtaining informed consent remains challenging.

Online contracts also involve dark patterns (also known as deceptive design patterns) that influence users into making unintended decisions. The European Data Protection Board indicates that deceptive patterns, such as overloading, skipping, stirring, obstructing, fickle behavior, and being left in the dark, can be observed in social media (EDPB 2023).

This paper examines the application of visual law techniques to enhance users' understanding of their rights and duties before signing an online contract. In the next section, the essential requirements for presenting the legal provisions are explored. Next, the application of visual law techniques to redesign Facebook's Terms of Service, along with the results of usability testing, is described. Lastly, some conclusions are drawn.

## 2. Legal requirements for presenting the Terms of Service

To process user data, at least one of the several conditions imposed by EU laws for the processing of personal data must be met. If service providers seek to obtain a person's consent, they should meet certain requirements and recommendations. In the EU, personal data protection and processing features are defined in the General Data Protection Regulation [EUR-Lex 2011; EU 2016] and accompanying directives: the EU Directive on Privacy and Electronic Communications [EU 2002], in Directive 2011/83/EU on consumer rights [EU 2011], and Directive/95/46/EN – Data Protection Directive [EU 1995]. The regulation is fragmented across sources. Therefore, it is difficult for developers to follow them. The recent effort to simplify and streamline EU regulations is addressed in the Digital Omnibus Regulation Proposal (EU 2025).

The directives establish the following requirements for presenting the Terms of Service to the user. In order to use cookies<sup>2</sup> that are not necessary for the provision of the service, a service provider must obtain the user's consent [Koch 2019; Santos/Bielova/Matte 2020]. According to the E-Privacy Directive, cookies may be used provided that users are clearly and accurately informed about the purposes for which they are used. If cookies are not necessary for the functionality provided, such as tracking cookies for market research, it may be necessary to obtain user consent [Buthelezi/Loock 2014]. Users must be informed about what information is provided to the device they use. The user must also be able to opt out of cookies when other users have access to personal information stored on the device. Information about the purposes and subsequent uses of cookies must be provided together with information about the user's right to refuse cookies before they are used. If the user decides to refuse cookies, the service provider must still provide the minimum services – for example, a website with restricted content.

These requirements result in lengthy, complex legal texts, which significantly impact their readability. For example, Facebook's terms of service and privacy policy, with all pop-ups open, contain 31,906 words, while

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<sup>2</sup> An HTTP cookie is a small piece of information passed between a web server and a browser that helps the website to identify the user or restore the options set by the user. It can be login, the pages visited by the user on the website, or other usability options, such as language and font size (Kristol 2001).

that for X contains 9,744 words. Assuming that the reading time of an average person is 200 words per minute (Brysbart, 2019), Facebook’s documents take 2 hours and 40 minutes to read, while X takes 45 minutes [Lapin, Lūžytė, 2026]. Users cannot devote so much time to a task that is not their primary goal.

### 3. Redesign of the Terms of Service applying visual law techniques

Online contracts serve two purposes: first, to inform users of their rights and obligations when using the service; second, as the basis for resolving disputes. We address here the improvement of users’ awareness of essential contract statements by applying visual law techniques.

Visual law techniques include icons [Holtz/Zwingelberg/Hansen 2011; Efroni et al. 2019], privacy policy cards and clouds [Soumelidou/Tsohou 2019], entity relationship diagrams [Ghazinour/Majedi/Barker 2009], concept flows and flowcharts [McLachlan/Webley 2021], Polisis [Harkous et al. 2018], and Privacy “Nutrition Labels” [Kelley et al. 2009]. Associated icons and policy cards were selected for redesigning the existing Facebook Terms of Service, as they are the simplest to understand and convenient for glancing and scanning. On the existing Facebook registration page, it is challenging to notice the links to the Terms of Service, Privacy Policy, and Cookie Policy because they blend in with the surrounding plain text (see Figure 1). The redesigned starting page clearly marks the Terms of Service and main content categories (see Figure 2). Acceptance of the terms is indicated by clicking the separate „I agree“ button after viewing the terms of service summary on the screen. The titles of the sections invite users to expand the parts that are most relevant to them.

**Figure 1. Current Facebook registration page. 1 marks the link to Terms, 2 to the Privacy Policy, and 3 to the Cookies Policy**

**Figure 2. Redesigned summary of Facebook’s Terms of Service**

The legal provisions on the existing page are provided in plain text (see Figure 3). In the developed mockup, the legal provisions are shown by expanding sections. The icon set cards, accompanied by brief explanations, are designed to draw users' attention and facilitate the absorption of information (see Figure 4). The cards consist of a red or green frame, a tick or cross icon, and icons accompanied by brief descriptions. The upper card displays the mandatory conditions for creating an account, outlined in the green frame, and a checkmark indicates a successful action. A card below highlights illegal actions in a red frame with a cross icon.

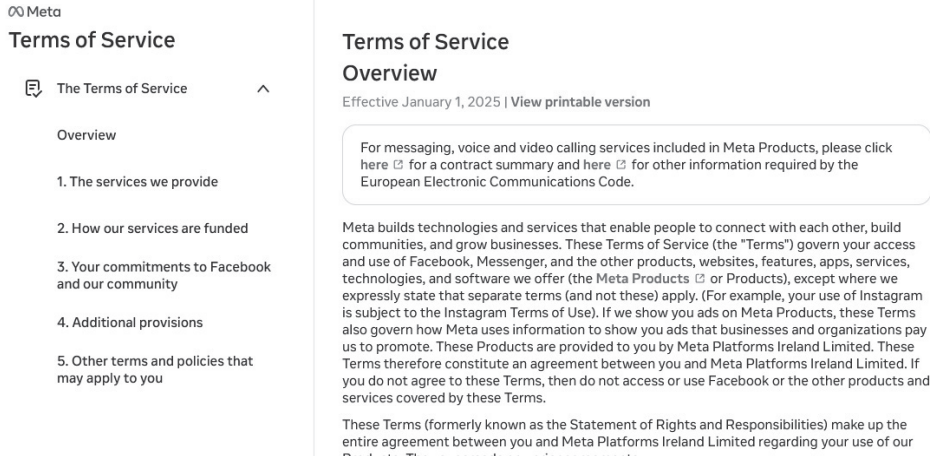


Figure 3. Current presentation of Terms of Service

Any user-centered design requires empirical evaluation to assess the effectiveness of the designed mockups. So, usability testing was conducted to assess the comprehensibility of the developed mockups. Five participants evaluated the redesigned prototypes; this number is sufficient for a qualitative usability study because after the fifth user, the same problems repeat themselves, and there are almost no new insights [Nielsen/Landauer 1993]. Enthusiastic users of social networks were recruited. All indicated that they did not read the Terms of Service, but they felt they had some understanding of what they contained. The reason for not reading was the length of the text. One stated that consent is mandatory to use the service, so it cannot be refused.

The tasks involved essential aspects, such as the reasons the service provider can delete an account or remove content. Participants were asked to find specific provisions on the current platform and the redesigned prototype. On the latter, participants were able to find the provisions about 7 times quicker in the redesigned prototype than in the existing system, although keyword searching was allowed in the existing system.

## 4. Conclusions

The existing Terms of Service serve as a basis for lawyers to resolve disputes. They do not meet the expectations of Internet users for fast scanning and easy comprehension of the essential provisions. User-centered design methods should be applied not only to develop the service, but also to the presentation of legal provisions. A content simplification approach, such as visual law techniques, can also be involved in developing a more user-friendly presentation. In the presented example, icons, privacy policy cards, and color coding were selected to redesign the existing legal provisions. The evaluation revealed that users were able to recall the essential rights and obligations after a brief glance at the provided mockup. From a user-centered design perspective, two different presentations must be developed, as legal provisions serve two distinct groups of users with conflicting needs. We recommend providing Terms of Service in two formats. The current present-

tation must serve the lawyers' needs and be accessible in the case of a dispute. The second presentation must clearly outline the essential rights and obligations of the service user and be integrated into the user interface.



Figure 4. Icon cards present the user responsibilities

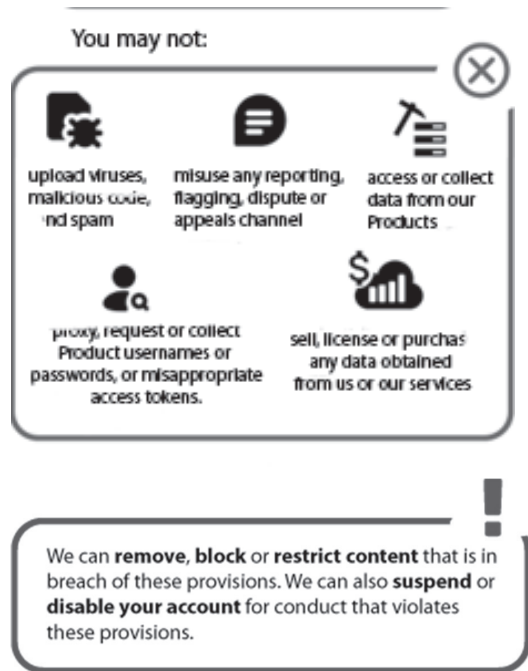


Figure 5. Presentation of forbidden actions

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