# Legal Design Perspectives Theoretical and Practical Insights from the Field

edited by Rossana Ducato and Alain Strowel



## Legal Design Perspectives: Theoretical and Practical Insights from the Field

Rossana Ducato and Alain Strowel (eds)

Ledizioni



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# 10. EMPOWERING CHILDREN TO UNDERSTAND AND EXERCISE THEIR PERSONAL DATA RIGHTS

#### Marie Potel-Saville and Elisabeth Talbourdet

"We cannot expect a young person to be able to understand terms and conditions that even an experienced adult struggles with; we cannot serve teenagers personalized ads that they cannot critically process. And it's the responsibility of governments and online platforms to respect every user and build their services and products around the people and not the opposite." Charampoulos, BIK Youth Ambassador from Greece, February 2020, Safer Internet Day, European Commission

"It is unreasonable to design digital services to be addictive and then reprimand children for being interested only in their screens."

Eva Lievens and Ingrida Milkaite<sup>1</sup>

#### 1. Summary

Amurabi, a legal innovation by design agency, worked with the French Data Protection Authority (the CNIL) to create interfaces to help under-age users better understand and exercise their data protection rights and empower designers to replicate this approach through methodology kits.<sup>2</sup>

<sup>1</sup> Ingrida Milkaite and Eva Lievens, 'Internet of Toys: Playing Games with children's data', in Giovanna Mascheroni and Donell Holloway (eds), The Internet of Toys Practices, Affordances and the Political Economy of Children's Smart Play (Palgrave Macmillan 2019).

<sup>2</sup> Amurabi is a legal innovation by design agency, that focuses on a user-centric approach of the law to solve problems, create new services and generate value. To achieve this goal, Amurabi combines legal expertise with design thinking, plain language, all the areas of design (graphic, service, UX and strategy design) and neurosciences.

In an Internet mainly designed for adults, the project goal was both to protect and empower children when they browse online and to ensure they can make well-informed decisions as to their personal data.

To this end, the project involved children through focus groups and collaborative design workshops in the co-creation process, to ensure to truly address their needs and to take into account their own preferences and limitations.

This project, including about thirty children and teenagers, as well as their parents, took place between October and December 2020, in three phases. First, Amurabi's lawyers & designers facilitated focus groups to understand and measure children's current usage of digital tools as well as to assess their knowledge of personal data protection. Then, the team conducted co-creation workshops with the same users to design interfaces based on their experiences and daily uses.

Finally, Amurabi tested these interfaces with other children to measure their efficiency, clarity and acceptability, counting 50+ participants in this unique co-design process overall. The final deliverables are published on the CNIL 'Data & Design' website under a creative commons license including: 3 case studies on interfaces designed for children, 3 methodology kits for designers, and 3 privacy key concepts dedicated to underage users. Amurabi now hopes these new standards will be widely used by designers, teachers, children-oriented companies, and by the public at large.

#### 2. Research question

Children represent about a third of Internet users worldwide.<sup>3</sup> While they browse websites or play games dedicated to them, children often also use social media or apps that do not (or even refuse to) acknowledge the existence of under-age users. Regardless of the interface used, most websites and apps do not take into account children's specificities and access to information about their data protection rights and how to exercise them is often too complex. This makes children particularly vulnerable in the digital environment because they might be less aware

<sup>3</sup> Global Kids Online: Comparative Report, UNICEF Office of Research, Florence, 2019.

of the risks they are exposed to.

Yet, children have the same rights over their personal data as adults. Like adults, they are free to request the deletion, modification, or access to their personal data – with or without their parents depending on their age. The General Data Protection Regulation (GDPR)<sup>4</sup> even provides a higher clarity standard for this specific audience: the information must be written in "clear and simple terms that the child can easily understand"<sup>5</sup>. This obligation has been reinforced by the Article 29 Working Party's Guidelines on transparency under the GDPR: when a data controller is targeting children or is aware that they are using its service, it must ensure that the vocabulary, tone, and level of language used are understandable by children and resonate with them.<sup>6</sup>

In this context, the CNIL asked Amurabi to investigate how to:

- create model interfaces empowering under-age users to better understand and exercise their data protection rights.
- equip designers with methodology and tools to embed the protection of children's personal data in their web and app designs.

The CNIL has long been aware of the decisive role of designers of digital services: as interface creators, they can maintain the status quo and the "walls of text" which have been plaguing the Internet for decades when it comes to legal notices in general and privacy policies in particular. They can also – willingly or not – set up mechanisms that will collect children's personal data in a manipulative way or leverage their design skills to protect the privacy of the users. As Tristan Harris, former Google Ethicist and founder of the Center for Human Technology describes it: "[n] ever before in history has such a small number of designers had so much influence on the thoughts and choices of billions of people". Woodrow Hartzog, Director of the Privacy Law Scholars Foundation and Professor

<sup>4</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), 2016 OJ L119/1.

<sup>5</sup> Recital 58 GDPR. The concept is also present in Article 12 GDPR.

Article 29 Data Protection Working Party (now, European Data Protection Board), 'Guidelines on Transparency under Regulation EU 2016/679' (WP 260 rev.01 as last revised and adopted on 11 April 2018), 10.

of Law and Computer Science at Northeastern University School of Law and College of Computer and Information Science, argues that software and hardware makers should be required to respect privacy in the design of their products, rather than leaving it to under-informed users to decide whether these tools function for good or ill. Hartzog considers that most of these tools are designed to trick users into disclosing ever more personal data.<sup>7</sup>

This context led the CNIL and, in particular, its digital innovation laboratory (the *laboratoire d'innovation numérique de la CNIL*, "LINC") to put an emphasis on the design aspects of privacy issues over the past 5 years, combining research, experimentation, and practical tools. While the project specifically targeted underage users, Amurabi was to build-on the LINC previous research and recommendations conducted on designing interfaces respectful of adults' digital rights and on their "Data and Design" website and community:

"Article 25 does not seem to be explicitly addressed to designers, but it nevertheless allows us to take an interest in and point out " privacy by design", as a way in which the different design techniques are used to present - sometimes detrimentally - the protection of individuals' data, particularly with regard to the major principles of transparency, consent and the rights of individuals. A gateway to link both design and regulation".8

#### 3. Background and context

Amurabi began this project by conducting extensive research on data privacy for under-age users, building on the work the CNIL had already conducted. They performed a desk-based literature review on legal, neuro-scientific studies, and design experiments conducted to evaluate the current privacy framework for underage users. This research phase provided four main conclusions at a preliminary stage, which directly

<sup>7</sup> Woodrow Hartzog, *Privacy's Blueprint, The Battle to Control the Design of New Technologies* (Harvard University Press 2018).

<sup>8</sup> Gwendal Le Grand and others, 'Shaping Choices' (2019) 6 Innovation & Prospective Journal 10; see also, <a href="https://design.cnil.fr">https://design.cnil.fr</a> accessed 2 July 2021.

<sup>9</sup> Amurabi's research stopped in October 2020.

impacted the methodology choices for conducting the project.

1. The delicate balance between protecting vulnerable users and empowering them to help them grow: under-age users are more vulnerable than adults due to their cognitive limitations. Laurence Steinberg highlights that the transformation phase of growing-up is accompanied by a greater vulnerability to the risk's minors encounter, especially among teenagers: cognitive sciences demonstrate the existence of a "competition" between the gradual construction of their cognitive control network (which controls the functions of anticipation, organization and self-regulation) and the sudden development of their socio-emotional network in adolescence. Involved in decision-making contexts, the interaction between these two dynamics increases teenagers' inclinations to take risks online, increased by the social pressure of peers to which they are particularly sensitive. This exacerbated vulnerability is therefore a major element to be taken into account in any interface design that addresses underage individuals, whether they are the main target or only a part of the users.10

At the same time, children psychologists point out the need for children to experiment by themselves to learn and grow. <sup>11</sup> This led to specify the project goal: it was also about finding the right balance between protection and empowerment – to help children becoming more data protection-savvy.

- 2. Researchers at Ghent University point out the 'datafication of child-hood', as advergames, dark patterns, and profiling for targeted ads are gaining ground. Ingrida Milkaite, Eva Lievens, and their colleagues find that children are not "equipped" to identify the extent to which certain recurring commercially driven digital practices may violate their rights and the protection of their personal data.
- 3. The key role of designers in the search for a balance between protection and empowerment of under-age users as regards their person-

<sup>10</sup> Laurence Steinberg, 'Risk taking in adolescence: New perspectives from brain and behavioural science' (2007) 16(2) Current Directions in Psychological Sciences 55.

<sup>11</sup> Simone van der Hof, 'I agree, or do I? A rights-based analysis of the law on children's consent in the digital world' (2017) 34(2) Wisconsin International Law Journal 409.

<sup>12</sup> Eva Lievens and others, 'The child's right to protection against economic exploitation in the digital world' (2019) 38(4) International Journal of Childrens Rights 833.

**al data**: most children and teenagers understand the concept of privacy, but it's harder for them to understand the connection between their online behaviour and what companies can do with their personal data. Designers thus have a key role to play in creating awareness and empowering users, through the very interfaces they create.<sup>13</sup>

4. **How to "do better"?** Several authors analysed the types of fonts that are easier to read by under-age users, as well as the type of illustrations which increase engagement depending on their age group. <sup>14</sup> Some of these recommendations have been included in the ICO 'Age appropriate Code' that came into force in September 2021. <sup>15</sup> Other studies focused on the how push mechanisms, coupled with plain language, might be the solution to provide the right doses of information at the right time of a child's user journey on an app. <sup>16</sup>

In addition to the academic research, Amurabi also undertook an extensive benchmark of over 30 privacy policies in the world targeting under-age users for various services from social media, to video games, to research tools, and to encyclopedias dedicated to children. Unsurprisingly, there are plenty of bad examples: classic walls of text, cookie banners that the user cannot refuse, as well as features creating a false sense of accessibility: for instance by using colours and icons to illustrate a privacy policy, that is however still written with the same legalese, incomprehensible language.

Through this benchmark, Amurabi researchers also found confirmation of the worrisome phenomenon stressed by the Norwegian Consum-

<sup>13</sup> Baroness Kidron, Alexandra Evans, Jenny Afi, *Disrupted Childhood, The Cost of Persuasive Design* (5Rights Foundation 2018) 16.

<sup>14</sup> Michel Bernard and others, 'Which Fonts Do Children Prefer to Read Online?' (2001) 3 Usability News <a href="https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.529.6655&rep=rep1&type=pdf">https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.529.6655&rep=rep1&type=pdf</a> accessed 2 July 2021.

<sup>15</sup> United Kingdom's Information Commissioner's Office, 'Age-appropriate design: a code of practice for online services' (2020) <a href="https://ico.org.uk/media/for-organisations/guide-to-data-protection/key-data-protection-themes/age-appropriate-design-a-code-of-practice-for-online-services-2-1.pdf">https://ico.org.uk/media/for-organisations/guide-to-data-protection/key-data-protection-themes/age-appropriate-design-a-code-of-practice-for-online-services-2-1.pdf</a> accessed 2 July 2021. ICO's Age-Appropriate Design Code came into force on the 2nd of September 2020, with a 12 months transition period.

<sup>16</sup> Ingrida Milkaite and Eva Lievens, 'Child-friendly transparency of data processing in the EU: from legal requirements to platform policies' (2020) 14(1) Journal of Children and Media 5.

er Council back in 2018<sup>17</sup>, and by Milkaite and Lievens, i.e. interfaces that use opacity and deceptive practices to collect more personal data. The Belgian authors noted that Snapchat leverages the proximity they have created with its users by offering to identify who are their best friends, those they talk to the most, to place them at the top of the screen and facilitate the exchanges even more. According to Milkaite and Lievens, by presenting these types of features in a complicit, friendly tone, sounding as a cool service, this feature allows the application to collect excessive data on a user's contacts and messages sent by playing on a false sense of trust.<sup>18</sup>

There were several examples of interfaces that seem to justify excessive data collection by offering new services and presenting them in a positive light, such as Snapchat's Privacy Policy: "If we see that you're spending a day at the beach, we can make sure your Bitmoji is dressed for the occasion. Nice, right?" or Google's Family link, encouraging parents to geolocate their children: "Help your family create healthy digital habits (...) It's helpful to be able to find your child when they're out and about. You can use Family Link to help locate them, as long as they're carrying their device" 20.

Nevertheless, good examples were identified, those which leverage graphic elements of the main site to avoid a fragmented user experience or maximise engagement on legal terms by adapting the language to the intended audience.<sup>21</sup> The benchmark also highlighted good practices and recommendations such as those of the 5Rights Foundation, for instance:<sup>22</sup>

 Autoplay default off, and if changed, switch back to 'off' once a child logs out or navigates away.

<sup>17</sup> Norwegian Consumer Council, 'Deceived by Designed' (2018) <a href="https://fil.forbruk-erradet.no/wp-content/uploads/2018/06/2018-06-27-deceived-by-design-final.pdf">https://fil.forbruk-erradet.no/wp-content/uploads/2018/06/2018-06-27-deceived-by-design-final.pdf</a> accessed 2 July 2021.

<sup>18</sup> Milkaite and Lievens (n 16).

<sup>19</sup> Extract from Snapchat UK Privacy Policy <a href="https://snap.com/en-GB/privacy/your-privacy/accessed">https://snap.com/en-GB/privacy/your-privacy/accessed</a> 2 July 2021.

<sup>20</sup> Extract from Google Family Link <a href="https://families.google.com/intl/en-GB\_ALL/familylink/">https://families.google.com/intl/en-GB\_ALL/familylink/</a> accessed 2 July 2021.

<sup>21</sup> Discord's Security Centre, entirely tailored to under-age users <a href="https://discord.com/safety">https://discord.com/safety</a> accessed 2 July 2021.

<sup>22</sup> Kidron, Evans, and Afi. (n 13) 6-7.

- Notifications and summonses default off, such as buzzes, read receipts, pings and all other non-specific alerts.
- Save buttons (so children are not forced to stay online to complete a task).

#### 4. Research project design

The research project design was undergone in three main phases, each constituted of several different steps detailed in the following sections:

- The first phase was the "Immersion and Analysis phase", focusing on analysing the state of the art and the benchmark, but also running focus groups with children to understand children's perception of data privacy when navigating online
- The second phase was a "Co-creation phase" where the project team ran 3 distinct 3h workshops with both designers and kids creating the new age-appropriate interfaces through 12 different prototypes
- The third phase was a "Testing and iteration phase" to improve and develop the initial versions of the prototypes created during the workshops and ensure the new interfaces created would meet international accessibility standards.

### Project Map

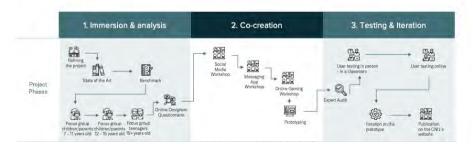


Fig. 1. Project map

#### 5. Methodology

After carrying out the analysis on the state of the art and the benchmark (**Step 1**, Figure 1), it was very clear that one of the pitfalls to avoid was

"adults thinking on behalf of children". Although it had not been foreseen by the CNIL at the conception stage, Amurabi chose to co-create the solution with under-age users throughout the project.

Amurabi lawyers & designers dove into an immersive phase, carrying out a series of focus groups with children and teenagers to collect qualitative data on their current usage, expectations, and needs in relation to their rights on their personal data (**Step 2**, Figure 1).

With the help of a panelist (a professional recruiter for focus groups), the project gathered a group of 24 children and teenagers, alongside with their parents. Professional recruitment was necessary to ensure there would be a representative panel of users, taking into account gender, geographic, and social background. This was all the more important as the state of the art had shown that socio-economic inequalities play a critical role in relation to children's understanding of data privacy.<sup>23</sup>

The recruitment process was also a delicate aspect of the project, as Amurabi had to ensure that child-participants (not only their parents) were fully willing to participate in the workshop and were truly interested on a personal level by the research topic. To do so, Amurabi created dedicated children-friendly consent forms, describing the project and their rights in plain language, and providing information in a user-centric way, that each participant had to read and sign before joining the participant panel.

Leveraging the research findings, these participants were split into three age groups: 8 to 10 years-old, 11 to 14 years-old, and 15 to 17 years-old. The focus groups were facilitated by designers and lawyers. Amurabi created tailored activities such as sentence completion or pain-storming that allowed to better understand under-age users' practices: they often browse online alone without their parents, have a limited awareness of personal data, its processing, and their rights. However, children have a good understanding of the concept of privacy, even in the youngest age group. One of the key insights was that underage users will not deliberately look for privacy-related information but would be

<sup>23</sup> Sonia Livingstone, Mariya Stoilova, Rishita Nandagiri, Children's data and privacy online – Growing up in a digital age, an evidence review (London School of Economics and Political Science 2019) <a href="http://eprints.lse.ac.uk/101283/1/Livingstone\_childrens\_data\_and\_privacy\_online\_evidence\_review\_published.pdf">http://eprints.lse.ac.uk/101283/1/Livingstone\_childrens\_data\_and\_privacy\_online\_evidence\_review\_published.pdf</a> accessed 2 July 2021.

interested in reading about it, if that information "falls upon them". This essentially means that they would react favourably to a format they are used to, when they browse onto a given interface (i.e. a short video, a push message or a post in a feed).



Amurabi designers are going over the prototypes created by the participants

Thanks to this in-depth understanding of their current online habits, the project team was able to start a co-creation phase through participatory 3h-workshops. Amurabi aimed at making children and teenagers, co-researchers and co-designers of interfaces, to better convey their needs and expectations into the new prototypes (**Step 2**, Figure 1). Prototypes are the equivalent of a first draft of the interface, where designers layout the basis of the interaction, content, and look and feel based on the analysis of the user-research phase. The main purpose of a prototype is to be tested – not to be perfect the first time. Prototyping is essential to the design process, as it enables designers to test out a concept rapidly, to improve it through numerous iterations, and to ensure the end result fully meets the users' needs.

Amurabi also chose to involve child-psychologists such as Véronique Rizzi<sup>24</sup> as a facilitator at this stage of the project to set the workshops ground-rules and to create a favourable environment that would lead to fruitful productions. CNIL and LINC observers were also present at each stage of these workshops.



Amurabi facilitating the prototype presentation by one participant to the other teenagers, to gather the group's comments and potential improvements on the production.

One of the key elements of the workshops, before diving into co-creation, was to ensure participants clearly understood the implication of data privacy concepts. Amurabi began each session with the "Amusement Park" storytelling activity – participants were asked to imagine being in an amusement park divided into different worlds ("fairy tales", "dragons" or "sport" for example, depending on their age). As visitors enter the amusement park, a computer analyses their prior tastes and habits, and directs them on a train that will only take them into the world that corresponds to those tastes. It is impossible to leave the train

<sup>24</sup> ibid.

<sup>25</sup> This analogy was created by the Amurabi team and Veronique Rizzi ahead of the workshop.

and change worlds to visit the others. Participants were asked to discuss such questions as: is it useful; and does it create issues. The purpose of this activity was to allow children to uncover by themselves the potential consequences of being exposed mostly to targeted content according to their previous tastes and habits – all the more as the point of childhood is to discover and build oneself. All age groups came to the natural conclusion that exploring diverse content, in particular what one does not know, is a positive experience that helps them learn and grow up.



Marie Potel Saville, Amurabi Founder & CEO, facilitating the workshop with children

Then, the participants were divided into two sub-groups and went into tailored co-creation activities. The purpose of these activities was to co-create mock-ups of digital interfaces that would address the needs and constraints of different personas. A persona is a key step in the design methodology: personas are fictional characters, created based upon research in order to represent the different user types that might use a given service in a similar way. Creating personas is decisive in understanding users' needs, experiences, behaviours, and goals.<sup>26</sup> In this instance each persona corresponded to an age-range and were data-driv-

<sup>26</sup> Rikke Friis Dam and Teo Yu Siang, 'Personas – A Simple Introduction' (*Interaction Design.org*, 2021) <www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them> accessed 2 July 2021.

en: Amurabi researchers built them during the first phase of the project, based on the insights collected during the focus groups and prior research. At the end of each session, a group would present its three best interface ideas to the other participants, who would then share their feedback to improve the prototypes, discussing how to best meet the needs of the various personas.



Children designing the interface prototypes, facilitated by Amurabi Designers

Overall, the 24 participants drafted no less than 12 interface prototypes.



Children designing the interface prototypes, facilitated by Amurabi Designers

#### 6. The prototype: results and impact

Amurabi designers then worked internally to improve and develop digital versions of the prototypes created during the workshops, leveraging neuroscience to tailor the words and the density of sentences to children's cognitive capacities (**Step 3**, figure 1). They ensured the information would be structured in small doses, to avoid any overload that would discourage the child from reading, for instance by always linking the data item, a tool for control and the consequences of the action.



Fig. 2. Mock-up of a dashboard with a dedicated button for each action, set out in a granular way.

Amurabi lawyers also ensured to leverage the words that were carefully chosen by the participants during the workshops, to ensure they would truly resonate: using references and a tone adapted to children while avoiding the pitfall of infantilizing words which triggers reject. For example, young children (8 to 10 years-old) do not understand what lies behind the word "cookie" and suggested to use the image of a tracker or a crystal ball instead (see Figure 3).



Fig. 3. Mock-up explaining the meaning of cookies.

Once the prototypes were developed, they were submitted to an expert audit (**Step 3**, figure 1). The audit focused both on the UX design, to ensure that the interfaces ergonomics fully met the accessibility standards of an underage audience. The audit also focused on the content, to ensure compliance with GDPR and the CNIL's guidelines.<sup>27</sup>

The prototypes were then tested with new users, both in a 3rd grade classroom and through online testing with participants of all ages. The testing followed Amurabi's Testing Lab protocol set up by Mathilde Da Rocha (PhD in cognitive sciences). Creating various user-scenarios, participants were asked to rank the actions taken on a scale of 1 to 5 to test acceptability, readability, and perceived usability. These tests allowed to consolidate the 12 prototypes created initially and then iterate to come up with three final prototypes that collected the best efficiency, understandability, and accessibility scores among participants.

<sup>27</sup> Gwendal Le Grand and others (n 8); see also <a href="https://www.cnil.fr/en/cookies-and-other-tracking-devices-cnil-publishes-new-guidelines">https://www.cnil.fr/en/cookies-and-other-tracking-devices-cnil-publishes-new-guidelines</a> accessed 2 July 2021.

These three prototypes were then presented as three distinct case studies, two of them are already available on the Data and Design platform within the CNIL website:

The "Instap" case study illustrates how to inform teenagers about geolocation data collection on social media: this interface pattern for a social media allows users to know where their contacts are and automatically add location to their posts. This data is also used to send personalized editorial content based on the user's location, which, for example, makes it possible to push content posted by friends who are physically closest. The social network also offers a "ghost mode" that allows users to make their location invisible to their friends.

Focus-groups and workshops showed that teenagers are well-aware to the potential risks of sharing their location, which is why teens particularly enjoy the "ghost mode". However, they forget or do not understand that the network can continue to access their location data, even when they think their visibility was very limited by the ghost feature.

Clearly linking information and action on the platform as well as presenting it on a single page emerged as an essential criterion to facilitate the exercise of rights by underage users during the workshop. Thus, the prototype had two distinct setting options available, highlighting key information (such as who will have access to the location) in small paragraphs. During the workshops, teens insisted that the information should clearly reflect the consequences of their choices, with a plain language explanation of how their data will be used.



Fig. 4. Instap geolocation set up page

The "Brawlcrush" case study illustrates how young users can regain control over the data they share during the registration process when signing up for an online game. Indeed, the focus groups had revealed a gap between their perception and actual understanding. Children aged between 8 and 10 think they have mastered the registration process, but in reality, they have difficulties understanding the notion of a company collecting their data and using it. As a result, they have limited control over the process. For instance, during focus groups, Amurabi researchers used a sentence completion exercise, e.g. "creating an account online is..." (to be completed by each participant). Most children across all age groups completed the sentence with the word "very easy" or similar, adding comments such as "I never need help", "I do it very easily on my own". The following exercise included a range of questions, digging into the children's knowledge about what happens with the information they provide when creating an account. Results clearly showed that 8 to 10 year-old children have no clue and that 11 to 14 year-olds are confused.

Amurabi carefully avoided information overload, which is particularly detrimental to children accessing information, especially if they are in a hurry to access the content of the app they are browsing. This is why each screen displayed very little text, associating it with very explic-

it and visible buttons, alongside specific plain legal language to ensure only understandable terminology was used. The choice of words must be concrete, referring to environments and concepts already known to children. For example, the company developing the game is referred to as "the people who created the game", a formulation that is more meaningful to children. The option to make the information publicly visible is called "Other games or people," both of which give substance to the notion of information being public and visible to all.

Nevertheless, and in addition to the information provided before the setting, full information is easily accessible if the child or his parents wish to learn more. For example, they can click on a dedicated link to get directed to a full privacy policy specifically designed to be read by children.



Fig. 5. Brawlcrush registration page

In addition to the above-mentioned prototypes, Amurabi created a complete toolbox that not only incorporates these case-studies but also offers concrete methodological kits to equip UX designers to address the challenges of children's privacy protection, including:

 3 key privacy concepts explained to designers, illustrating in plain language the fundamental notions of privacy as well as good practices and illustrative examples to design respectful interfaces.

- Methodology-kits, giving designers a conception and facilitation process to run user research, co-creation and testing workshops with children.
- An article summarizing the research phase findings, sharing the key insights from renowned authors on children's digital rights and data protection issues.
- Three Youtube tutorials in a short and engaging format, sharing tips and tools for designers to create privacy-compliant platforms dedicated to underage-users, to be published by the CNIL.<sup>28</sup>

#### 7. Critical takeaways

One of the key take-aways from this project was the necessity to radically change the approach to the language used in child-friendly privacy content. If the need to adapt the level of language to children was obvious to Amurabi, the researchers had not anticipated the crucial importance of (i) limiting the quantity of text to the bare minimum (three lines is already way too much for young children) and (ii) using not just plain legal language, but also words that 'resonate' with children and with which they can easily identify.

Under-age users want the tone to be more direct, favouring interjections and the use of the pronoun "you", reflecting an oral style that allows a better ownership of information about their personal data. Obviously, reader identification is at the heart of the plain legal language methodology: "writing in such clear terms that the reader immediately identifies the information, easily understands what he or she is reading, and easily determines what to do with it." However, Amurabi learnt how critical it is to use an understandable and playful language, but without being childish. The younger the users are, the more concrete the language must be and the more it must refer to known notions: school, social networks, and family rather than administrative vocabulary.

<sup>28</sup> Expected to be released on the CNIL Innovation Lab website throughout 2021 <a href="https://design.cnil.fr/en/">https://design.cnil.fr/en/</a> accessed 2 July 2021.

<sup>29</sup> Center For Plain Language, 'Five Steps to Plain Language', <a href="https://centerforplain-language.org/learning-training/five-steps-plain-language/">https://centerforplain-language/</a>, <a href="https://centerforplain-language/">https://centerforplain-language/</a>, <a href="https://centerforplain-language/">https://centerforplain-language/</a>)

Furthermore, Amurabi researchers also found that younger children (8 to 10 years-old) can only absorb an extremely limited amount of information at a time, and information must therefore be sequenced in very limited blocks of text, making very short sentences conveying one idea at a time. It is essential when dealing with under-age users to be extra careful and empathetic in writing in plain legal language, to ensure that the information is really understood by these users with very specific needs.

At the same time, the most critical takeaway is that children and teenagers do understand the concept of privacy and do care about their personal data if they are given the means to decrypt the notions and seamless tools to make their own choices. Their natural curiosity and playful mindset are also great assets that can be leveraged to empower them understanding and exercising their rights.

This project was concurrent to the coming into force of the ICO Age-Appropriate Design Code in the United-Kingdom, that sets standards and explains how the General Data Protection Regulation applies in the context of children using digital services.<sup>30</sup>

Leveraging the insights from this project, Amurabi is now working to help various companies comply with these guidelines, by entirely redesigning several children-friendly online privacy policies, in particular, in the video game industry.

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#### EU instruments

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC [2016] OJ L119/1

#### EU Data Protection Board and WP29 documents

WP29, 'Guidelines on Transparency under Regulation 2016/679' (WP 260 rev.01 as last revised and adopted on 11 April 2018)

Over the last few years, Legal Design has grown as a field of research and practice. The potential of design in the legal domain has been investigated and experimented in various sectors such as access to justice, dispute resolution, privacy indicators, policy prototyping, contractual negotiation. Being an interdisciplinary area of study, Legal Design combines different disciplines and methodologies and relies on insights from legal practice.

This book intends to contribute to the study and advancement of Legal Design by presenting different voices and perspectives from scholars and practitioners active in this field. The volume brings together critical essays on the nature and methods of Legal Design and illustrations from the practice. The contributions provide the readers with the state of the art of Legal Design and a prospective outline of its future development.

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