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Designing a consent artefact for digital financial services to cater to constrained users

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Summary :

Consent is the most salient part of communication between users and providers of Digital Financial Services (DFS). It is the first step towards safeguarding users' privacy and interests. However, there are many deficiencies with the consent and notice model for DFS, which are exacerbated for new to technology and constrained users, i.e., users with limited general, digital and financial literacy and first time smartphone users. This is concerning, considering a greater number of users in India are new to the smartphone technology and a large part of our population has limited literacy. In this policy brief, we review the literature to uncover the deficiencies of the consent model and propose measures to improve the consent artefact for new to technology and constrained users.

About the Future of Finance Initiative:

This practitioner brief presents independent research commissioned by [the Future of Finance Initiative](#) at Dvara Research in furtherance of the Initiative's research agenda. The Initiative's work focuses on the impacts of digitisation and technological innovation in Indian finance, leading from the low-income consumer perspective on these issues.

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1. Introduction

Consumer protection in digital financial services (DFS) continues to be anchored in the practice of consent. Providers use consent artefacts to obtain users' consent for processing the users' personal data (Ikigai Law, 2018). In the context of app-based DFS, providers seek consent in order to gain access to data required to provide the service as well as to additional data within the phone like photos, contacts and access to microphones (Golden Data Law, 2019). Unlike traditional financial services, DFS is typically provided remotely and without human intermediation between the provider and the consumer. All communication happens over electronically communicated privacy notices and terms and conditions, via screens. These screens are optimised for diverse digital channels such as for smartphone/lite-smartphone based applications, websites or via USSD (Unstructured Supplementary Service Data).

In theory, consent empowers the users to decide how their personal data is processed by various entities (Murthy & Medine, 2018). It is also an important tool to inform users about the practices of the providers and helps consumers make informed decisions about engaging with providers. However, in practice, the consent model has several limitations that are well recognised by both academics and regulators (Murthy & Medine, 2018) (Calo, 2011). First, most users do not read consent artefacts and tend to consent to them blindly. Second, most consent artefacts are replete with dense legal language making them incomprehensible (Sinha & Mason, 2016) (Solove, 2013) (Schaub, Balebako, Durity, & Cranor, 2015). Low levels of digital literacy further complicate matters. As per private estimates, only about 10% of India's population is digitally literate (Srivastava, 2020). These limitations together reduce the effectiveness of the consent mechanism to empower the user to make informed decisions about the providers.

The smartphone-native, lengthy, text-heavy and jargon-intensive consent artefact needs to be simplified for it to be effective. If DFS has to realise its ambition to cater to the last-mile and provide responsible digital financial services, it cannot serve a largely new-to-smartphone, literacy-constrained population with a consent artefact that is optimised for a tech-savvy and more advanced smartphone user. In this policy brief, we review the literature to gather evidence on (i) the limitations of existing consent artefacts for new-to-technology and constrained users and (ii) some design interventions that can make consent artefacts friendlier for these users.

2. Consent: An overview of literature

Most modern privacy and data protection frameworks seek to create and entrench individuals' control over how their data is collected, shared and used (Sinha & Mason, 2016). With a view to giving users more control over their data, providers specify their personal data-related practices in a notice and reach out to users for their consent. Consent also serves as the basis for providers and users to enter into legal contracts. Consent is one of the primary mechanisms through which legal acts are constituted (Schermer, Custers, & van der Hof, 2014). In both cases, obtaining consent from the user indicates that the user agrees to the providers' practices as set out in the contract. The underlying assumption is that the users understand the practices of the providers, appreciate the benefits and risks associated with the providers' practices and arrive at an autonomous, rational and informed decision of agreeing to the providers' terms.

Increasingly, jurisdictions are setting out principles that serve as guidance for designing consent mechanisms and artefacts. The General Data Protection Regulation (GDPR) in the European Union defines consent under Article 4. Further, Article 6 and Recital 32 prescribe the standards for consent to be valid (GDPR, n.d.). The Personal Data Protection (PDP) Bill in India, the California Consumer Privacy Act (CCPA) and the Brazilian Data Protection Law (the LGPD²) also have similar principles. These principles are summarised below (Loufield & Vashisht, 2020) (Committee of Experts under the Chairmanship of Justice B.N. Srikrishna, n.d.) (GDPR, n.d.) (Gilbert, 2020):

- i. Consent must be freely given*, i.e., consent must be voluntary and not coercive.
- ii. Consent should be informed and specific*, i.e., the user must have specific and relevant information about the identity of the provider and the providers' data practices.
- iii. Consent must be unambiguous*, i.e., it must need an affirmative action from the user.
- iv. Option to withdraw consent*, i.e., users should have an option to partially or completely revoke their consent. Withdrawal of consent should not cause any detriment to the user.

These standards are welcome and set an important baseline for providers' practices. However, it is unlikely that they will be sufficient to assuage the deep-seated limitations of consent:

- i. Lack of meaningful consent:** Research indicates that most users do not read consent artefacts before consenting (Murthy & Medine, 2018) (Bailey, Parsheera, Rahman, & Sane, 2018). Even when users read them, they may not comprehend them, given that most consent artefacts are lengthy, complicated and replete with legal jargons incomprehensible to average users (Bailey, Parsheera, Rahman, & Sane, 2018) (Murthy & Medine, 2018). Effectively, the information asymmetries that define the relation between the provider and the user, remain intact, despite the consent artefact (World Economic Forum, 2020). Even when individuals are able to comprehend the consent artefact, they may suffer from bounded rationality and may not be able to completely appreciate the risks involved in consenting to the providers' practices (Acquisti & Grossklags, 2005). Further even when individuals are able to overcome their bounded rationality, research suggests that users are vulnerable to several cognitive and behavioural biases that may influence them to take a sub-optimal decision (Acquisti & Grossklags, 2005).
- ii. Consent fatigue:** The proliferation of data-collecting entities implies that the number of entities reaching out to users for obtaining consent has increased manifold. Estimates suggest that if users were to be vigilant and read privacy notices carefully, it could take them 76 working days to finish reading all the notices on websites (Murthy & Medine, 2018). The high and rising number of requests coupled with the inherent difficulty of

² Lei Geral de Proteção de Dados Pessoais (LGPD) is Brazil's federal data privacy law that governs all personal data processing within the country.

reading and understanding privacy notices cause consent fatigue and lead the user to provide consent without even reading the notices.

- iii. **Lack of effective choice:** Consent artefacts do not provide the users with the opportunity to negotiate the providers' terms and conditions. Most consent artefacts have been designed as *"take it or leave it"* policies, providing no entry points to the user to question the policies or the rationale behind them or to seek some flexibility (World Economic Forum, 2020). A 2019 study conducted by the Centre for Internet and Society (CIS) showed that only privacy policies of less than 40% of the 48 Indian fintech companies analysed by them, offered users the option to opt out of having their information used for certain purposes (Rathi & Mohandas, 2019).
- iv. **Written consent excludes users with limited literacy and undermines the ability of users to provide meaningful consent:** Consent is operationalised via a notice and choice model (Committee of Experts under the Chairmanship of Justice B.N. Srikrishna, 2017). These privacy notices are written in text and can be difficult for a user with limited literacy to comprehend. In fact, a 2007 study conducted in Bangalore slums showed that a text-free design was preferred over standard text-heavy interfaces (Medhi, Sagar, & Toyama, 2007). Furthermore, according to another study conducted by Dalberg, CGAP and Dvara Research, people at the last mile preferred video-based communication and consent over a text-based interface as they were able to engage with and understand the content when presented in a video form (Dalberg Advisors; Dalberg Design;, 2017) (Dalberg; CGAP; Dvara Research;, 2017).

It is becoming increasingly common for content designers to deploy graphics with a view to supporting the reader's comprehensibility of the written matter. While this is a welcome move, the design of these graphics needs to be sensitive to users' contexts. Research suggests that icons and visual cues cannot be universalised. The interpretation of these cues is heavily dependent on users' lived experiences. For instance, users have a tendency to fall back on what they have seen to be true, while interpreting the icons and visual cues. In an exercise of designing a navigation app for semi-literate users, the users rejected the idea of black roads turning yellow upon being selected because their lived experiences dictated that roads could never be yellow. This significantly affected the take up of the app during the trials (Medhi, Sagar, & Toyama, 2007). Increasingly research suggests that graphics must originate from the local context of the users and encourages participatory design for creating graphics (Ghosh, Parikh, & Chavan, 2003) (Parikh, Ghosh, & Chavan, 2002) (Medhi, Sagar, & Toyama, 2007).

3. Early thinking on design interventions

Review of the literature points to some principles that can help in designing consent artefacts for new-to-technology, low-internet-bandwidth-consuming, less literate (digitally, financially and in general) users:

Design principles for consent:

- i. **Highlight risks and benefits of consenting clearly:** Users may find it challenging to understand the process and implications of consenting to their data being used. Hence, an explanation of the rationale for why the data is needed and of the pros and cons of making a choice to share one's data must be provided at every important step of the data sharing and collection process (D91; Facebook;) (UNESCO) .
- ii. **Use contextual explainers and add voice-based support to clarify user doubts:** In order for users to understand the complex language used in privacy notices, providers should use contextual explainers by way of images, GIFs, videos, FAQs, help pages, tool tips and tutorials to improve user engagement and make consent truly informed (UNESCO) (D91; Facebook;). While these explainers should be able to stand alone, it is still important that a user has access to clarification by means of a hover tooltip, which further explains what the graphic attempts to convey, chat support via assistive bots, helplines for call support, and a screen reader which reads out the text on the screen to the user (ITU; G3ict;, 2012) (Privacypatterns.org, n.d.).
- iii. **Just-in-time notices:** Users may not remember everything they have consented to while using a particular application, especially when consent was taken several time periods earlier (Clarip, n.d.). Just-in-time notices appear on the user's screen as they enter personal data, providing a brief explanation of how the data they're about to supply will be utilised (Out-Law News, 2016). These notices break down long-form privacy policies into short, manageable segments by displaying the text using a pop-up information box (Clarip, n.d.).
- iv. **Modular consent:** A service may include multiple processing operations that serve multiple purposes. Instead of being forced to consent to a bundle of processing purposes, consent should be modular and data subjects should be free to choose which ones they accept. A provider seeking consent for multiple purposes should provide a separate opt-in for each purpose, allowing users to give specific consent for specific purposes (European Data Protection Board, 2020).
- v. **Contextualised consent:** Acceptance of consent as the lawful basis and type of consent required for a particular activity needs to be very context specific (European Data Protection Board, 2020). In situations where there is a great imbalance of power (for example an employer and employee), consent to process personal data may not be valid as consent may not be given freely. Therefore, the concept of contextual integrity, which is concerned with whether information sharing is appropriate for the context in which it is shared, the taking of context-relative informational norms into account needs to be applied (R. Indrakusuma, S. Kalkman, M. J. W. Koelemay, R. Balm, & D. L. Willems, 2020). Understanding context-relative informational norms requires describing four parameters that comprise a context-relative informational norm – the context and its values (or goals or purposes), the people involved (actors), the type of data (attributes), and the principles that govern the information flow (transmission principles) (R. Indrakusuma, S. Kalkman, M. J. W. Koelemay, R. Balm, & D. L. Willems, 2020).

Design principles for new-to-technology, less literate users:

- i. **Use of semi-abstract, culturally relevant graphics:** Research suggests that realistically drawn icons, and in some instances, actual pictures instead of an abstract symbol or a graphic are more relatable and useful for constrained users (Pejovic & Skarlatidou, 2019) (Medhi, Sagar, & Toyama, 2007). Culturally relevant graphical icons make an interface more intuitive to the user at the last mile (UNESCO) (ITU; G3ict, 2012).
- ii. **Audio-based interface:** Research indicates that users are more prone to make mistakes without audio assistance (Ahmed, et al., 2013). Written content should have the capability to be translated into pre-recorded audio messages, giving the users a choice between listening and reading. Similarly, the interface could also allow users to respond with voice (Atwell, 2013) (Huenerfauth, 2002) (Medhi, Sagar, & Toyama, 2007)). Audio content containing voice should be in slow, clear and loud-enough speech (UNESCO)
- iii. **Consistent 'help':** The usage of help instructions allows even inexperienced users to operate an application more independently. Presence of a human-like, assistive bot, that handholds and guides the user throughout the on boarding process by means of various multimedia inputs, progressive disclosures and clarification of reasons for data collection helps improve user cognition and confidence (Sharma, Ghoshal, & Basoya, 2020) (ITU; G3ict, 2012) (Medhi, Sagar, & Toyama, 2007).

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