Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo

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Abstract

Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services are a beneficial alternative to litigation in consumer-related claims in Brazil. Thus, understanding how to improve these services is important. Nevertheless, designers still need to explore some open gaps, such as specificities of the Brazilian context, characteristics of consumer claims, and potential impacts of employing AI. This paper aims to discuss design implications through a two-phased case study on an AI-based ODR service developed by a Brazilian State Court: +Acordo. In study 1, we present a map illustrating lawyers' journeys with consumer lawsuits against electricity companies. In study 2, we expose results from interviews with certified mediators. Our results indicate that AI-based ODR services should highlight their quickness and ethics throughout the services' touchpoints. These services should also be transparent and clear, even for layman consumers. Moreover, designers should explore ways to integrate AI systems with human-based support throughout the service.

Keywords: Online Dispute Resolution, Artificial Intelligence, Consumer Claims, Mediation services

Introduction

Online Dispute Resolution (ODR) services have the potential to advance societal changes and benefit populations and Justice Systems. By applying Information and Communication Technologies, ODR provides a method for parties to handle conflicts in alternative means - such as mediation and negotiation - instead of directly resorting to courts for litigation (Cortés, 2010). Services supporting ODR have been proliferating worldwide, developed by private and public organizations, and shaped in different channels (e.g., chatbots, videoconferencing).

A pioneering example of an ODR service that introduced online problem prevention and solving was offered by eBay. Almost twenty years ago, the e-commerce platform launched a successful internal system to meet consumers' demands for shopping problems (e.g., delayed delivery or product exchange), preventing them from seeking Courts (Duca et al., 2014). Nowadays, expanding the material scope of claims, ODR platforms offer a more complex service covering, such as civil claims, property claims, and even child custody appreciation. For example, Modria (Modular Online Dispute Resolution Implementation Assistant) presents features such as chat, videoconferencing, and dashboards. Modria can also adapt to different types of claims and may be customizable according to an institution's purpose (TylerTech, 2021).

With the advances in Artificial Intelligence (AI), service providers may now add new resources and achieve more automation in ODR systems, which might be especially fit for consumer claims. Contrarily to other legal claims (e.g., family disputes), consumer complaints have low legal complexity and usually do not require many resources and stakeholders to reach a solution (Susskind & Susskind, 2015). Such aspects make such claims ripe for AI, as algorithms analyze disputes based on parameters learned from past claims sets and automatically propose solutions to parties (Alessa, 2022). Thus, AI spares the need for a third human party, accelerating the claims' resolution.

Employing AI further leverages the characteristics that make ODR advantageous for citizens and the Justice System. The asynchronous and remote (or no need for) communication allows parties to interact in the most convenient places and schedules. These aspects decrease monetary and time barriers that litigation or other offline alternative resolution methods require (e.g., in-person mediation; Cortés, 2010). Such changes are increasingly important since e-commerce has enabled easy and quick online interactions between consumers and businesses, and therefore it is also necessary to provide online channels to solve disputes with equal ease and agility (Marques, 2019). Specifically, developing ODR services may benefit Courts,

Isabela Motta, Maria Julia Lima, Thomaz Ambrosio, Alimed Celecia, Ana Lara Mangeth, Isabella Frajhof, Cesar Cury
Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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especially in countries with significant monetary and workforce spences due to litigation overload, such as Brazil. For example, the State Court registered 2,029,251 new lawsuits in Rio de Janeiro, with an associated cost of R$ 4,236,570,724.00 in 2019 (CNJ, 2020). Hence, providing their own ODR service may be a path to alleviating Courts and redirecting resources to other, more legally complex lawsuits.

As exposed above, when supported by technology that enhances existing legal practices, ODR services may increase the population's access to justice (Marques, 2019) and spare public resources. These characteristics highlight these services' potential to foster "society-driven innovation" (Meroni & Sangiorgi, 2011, p. 14) that benefits several involved stakeholders. Thus, investigating how to design and improve AI-based ODR services is paramount, especially due to open gaps that might mitigate their broad adoption.

Firstly, while employing AI brings more efficiency, automation fundamentally changes how users interact with products and services, leading to potential obscure challenges (e.g., issues on transparency and uncertainty; Stephanidis et al., 2019). As argued by Gasparini et al. (2018), little research has been conducted to assess the impact of AI-based services on users and stakeholders, being a necessary theme to address. Secondly, understanding consumer-related claims in such contexts is needed as a legal issue's nature might affect how solutions are achieved in ODR services (Simkova & Smutny, 2021). In addition, previous studies show that obstacles to using electronic public services still prevail among the Brazilian population (e.g., preferring in-person channels; Fischer, 2021), which could dampen ODR services' wide adoption in the country. Accordingly, specifically investigating AI applied to ODR services in the Brazilian context could bring new insights. Finally, these services' successful implementation also depends on users' willingness to accept solutions proposed by the system. Although the literature indicates several relevant factors for users' decision-making (see section 2), investigating these factors in light of the gaps presented above might expose novel findings.

Examining the before-mentioned topics is vital to understand design requirements that highlight AI-based ODR services' advantages, mitigate usage barriers, and leverage the User Experience (UX). For this work, employing a service design approach by including future users and stakeholders may contribute to a holistic perspective of UX (Roto et al., 2018). Investigating through the service design lens - which holds a transformational capacity due to its systematic thinking (Meroni et al., 2017) - may also increase AI-based ODR services' innovation potential.

Considering the above, this paper aims to discuss implications for designing AI-based ODR services for consumer-related claims in Brazil. To achieve this goal, we

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Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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conducted a two-phased case study, presenting +Acordo: an AI-based ODR service commissioned by the State Court of Rio de Janeiro, in Brazil (*Tribunal de Justiça do Estado do Rio de Janeiro* - TJERJ). In both studies, we included relevant stakeholders for ODR services to understand their perspectives: lawyers and mediators. In study 1, we created a user journey map based on interviews with lawyers, highlighting their needs, feelings, and attitudes throughout lawsuits involving an electricity company. In study 2, we interviewed mediators to understand their perspectives on relevant parameters for lawyers' and consumers' decision-making in consumer-related mediation sessions. We also explored the possible impacts of AI features for ODR services in study 2. Our main contributions are implications for designing AI-based ODR services for consumer-related claims, achieved through discussing both studies' findings in section 6.

Relevant factors for ODR services' usage

As explained previously, ODR services bring several benefits to society. However, designers must consider some relevant factors for ODR services' usage. These include drivers for users' decision-making when considering solutions proposed by the service, especially since maximizing ODR services' successful implementation depends on users' willingness to accept such proposals. Otherwise, continuous rejections of alternative resolutions would ultimately lead to Courts. This section presents literature findings on relevant factors for ODR services' usage, including drivers for decision-making.

In the first place, Turel (2006) indicates that users' perceived justice of an ODR service's procedure influences their trust in the system. The author indicates that evidence should be presented to support ODR sessions, and users should have the chance to express their views and question ODR service's outcomes, influencing the results. Likewise, information about the process and its outcome must be clearly presented to aid users' decision-making (Górski & Ramakrishna, 2021) and foster their trust and intention to use ODR services (Turel, 2006).

Moreover, the literature suggests that users' might have expectations for a deal offering, which might influence their perception of ODR services' outcomes and, consequently, their decision to accept or reject the solution (Zeleznikow & Bellucci, 2003). Offers believed to be appropriate, fair, and in line with expectations lead to increased trust in ODR (Turel, 2006). Following that stream, a possible shortcoming of ODR services might be the lack of a human decision-maker (e.g., judge), which has been related to concerns about the outcome's fairness (Witner et al., 2021).

Overall, leveraging trust in ODR services is essential since the literature shows a significant effect of trust on users' behavioral intentions to use these services (Turel, 2006). Besides the factors mentioned above, users' perceptions of an ODR service's code of ethics (Abedi et al., 2019) and the absence of bias (Turel, 2006) are also vital for building trust. Such perceptions extend to the service provider, the mediator, and the other party (Abedi et al., 2019; Turel, 2006).

Although the literature presents valuable insights into implications for ODR services' design, new investigations are required to address open gaps associated with implementing AI-based ODR services for consumer-related claims in Brazil. For such work, we present the case of an AI-based ODR service: +Acordo.

The case of +Acordo

+Acordo (figure 1) is an AI-based ODR service conceived by TJERJ and developed by the Pontifical Catholic University of Rio de Janeiro, both in Brazil. The service supports lawyers as primary users in solving consumer-related claims through an automated process. Currently, +Acordo supports a pilot case with an electricity company, which participated in all decision-making about +Acordo's design. The claim supported by +Acordo is related to a procedure implemented by companies to investigate if the consumer has tampered with the energy measurement system (EMS) and intends to recover the values of such energy loss (see details in section 4.2). This claim type resulted in 21,415 lawsuits in TJERJ between 2018 and 2020, according to internal data.

To demand a claim in +Acordo, lawyers should fill out a form informing 1) the plaintiff's personal data, 2) the claim's details, and 3) the files to be attached. All questions about the claim's details are closed-ended. After the form's submission, the system accesses the company's database to collect relevant data and validate the users' inputs. Then, an AI algorithm analyzes the case based on 1) pre-established parameters (i.e., business rules and TJERJ*'s* legal opinion) and 2) automated analysis and classification of legal opinions (see Coelho et al., 2022, for a description) to offer a deal that may involve financial and/or administrative measures. The company does not need to approve the offered deals as they are generated within pre-approved parameters. Users may reject or accept the proposal and follow the necessary steps to cease the claim. This process is fully automated, and the user does not interact with any human party.

Isabela Motta, Maria Julia Lima, Thomaz Ambrosio, Alimed Celecia, Ana Lara Mangeth, Isabella Frajhof, Cesar Cury
Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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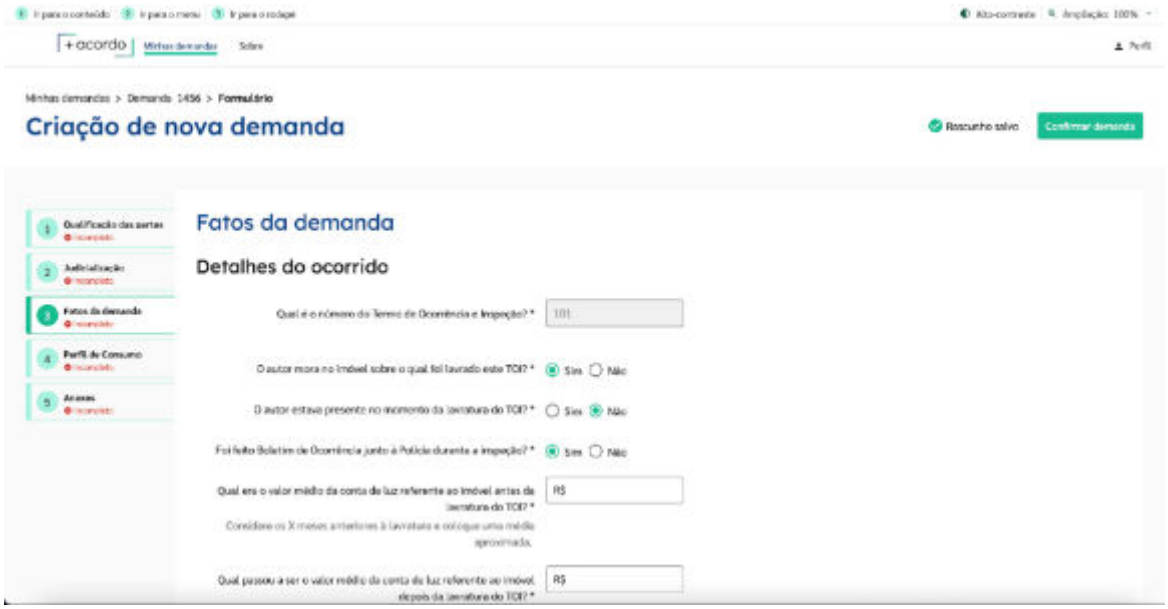

Figure 1. Requesting a claim in +Acordo.

Study 1: User Journey in litigation with electricity companies

Similar to other innovative services, designers of AI-based ODR services can benefit from understanding how users interact with existing products and services to identify improvement points and opportunities for innovation. User journey maps support such a task by allowing designers to visualize users' experience with a service in a structured manner (Stickdorn & Schneider, 2014). In study 1, we aimed to map the lawyer/consumer dyad's journey during lawsuits involving the recovery of energy loss due to supposed alterations of the energy measurement system (EMS) by the consumer. The map highlights the lawsuit's necessary steps and tools and outlines the dyad's needs, feelings, and attitudes. To that end, we interviewed +Acordo's primary users: lawyers.

Method

Participants: The participants were six lawyers who 1) worked independently or in law firms, 2) resided in the state of Rio de Janeiro, Brazil, and 3) were frequently involved with lawsuits involving the recovery of energy loss due to supposed alteration of the EMS. We recruited participants through social media following a convenience sample approach. All participants agreed to a consent form.

Isabela Motta, Maria Julia Lima, Thomaz Ambrosio, Alimed Celecia, Ana Lara Mangeth, Isabella Frajhof, Cesar Cury
Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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Procedure and analysis: Two researchers conducted the interviews through videoconferencing, beginning by explaining +Acordo's overall concept and the study's objective. Then, the researchers followed a semistructured script, asking the participants to describe their routine workflow when involved in recovery of energy loss lawsuits, including:

- How they acquire new clients
- Which steps are necessary for a lawsuit, and why
- The rationale behind a judge's legal opinion in such cases
- The tools and objects utilized in the legal process
- Hardships experienced in the process
- Points that they would like to improve

Interviews with six participants were conducted in September-October 2021 and lasted about 30 minutes. We recorded the interviews in audio and video, and after transcription, we clustered findings in a top-down manner to match the topics listed above. Finally, we synthesized the major findings in a user journey map.

Results

The user journey map is presented in figures 2-5. At the map's top, we positioned the lawsuit steps. In the middle, we created two timelines representing the consumers' (top) and lawyers' (bottom) reported emotions for each phase. Then, at the bottom, we placed the necessary objects and tools for the process. In our map, the journey ends with the judge's decision being favorable to consumers since our participants argued that companies rarely win this lawsuit type. We highlight that the consumer's journey illustrated on the map was created solely based on the lawyers' opinions, which we considered relevant since understanding their clients' stories and feelings is an essential part of their daily work.

In this section, we present the major findings from the map. Firstly, we observed that lawyers might attribute a different value to the technical evaluation, which directly impacts their decision to run lawsuits in Civil Courts or Small-claim Courts. For some, the additional evidence presented in the technical report strengthens their case and increases their chance of victory, even though it takes longer to complete. For these lawyers, guaranteeing victory is the priority. Contrarily, other lawyers seemed more confident in a favorable outcome and prioritized the lawsuit's quickness. These lawyers reported feeling empathy toward their clients' stressful and embarrassing situations and desired to help them solve their problems as fast as possible.

Similarly, we identified that the consumers often do not ultimately aim for financial compensation (e.g., moral damages), as their primary goal is to easily and fastly solve the issue at hand. However, the litigation process requires several effortful and prolonged steps, such as gathering and reviewing documents, filing administrative appeals, waiting for the other party's response, and so on. This journey is upsetting not only for the consumers but also for the lawyers, who need to walk their clients through all stages' details. This task was considered even more demanding when the consumers have low legal knowledge or educational background, which was reported as a common scenario for this type of claim.

Finally, the lawyers explained that companies involved in these consumer-related cases generally lose the lawsuit because they either 1) incorrectly accuse the consumer of wrongdoings or 2) fail to meet the standards regulated by law in their processes (e.g., the inspection procedure). They argued that financial and timely expenses could be mitigated if the companies followed the regulations. In that sense, our participants advocated in favor of consumers' financial restitution (e.g., moral damages) as a penalty for companies, improving their behavior and rules in the long run. Also, this proceeding might offer consumers a sense of justice for the stress they experienced. Nonetheless, it should be highlighted that lawyers also benefit from companies' financial restitution since they receive a percentage of the lawsuit's winnings in the deals.

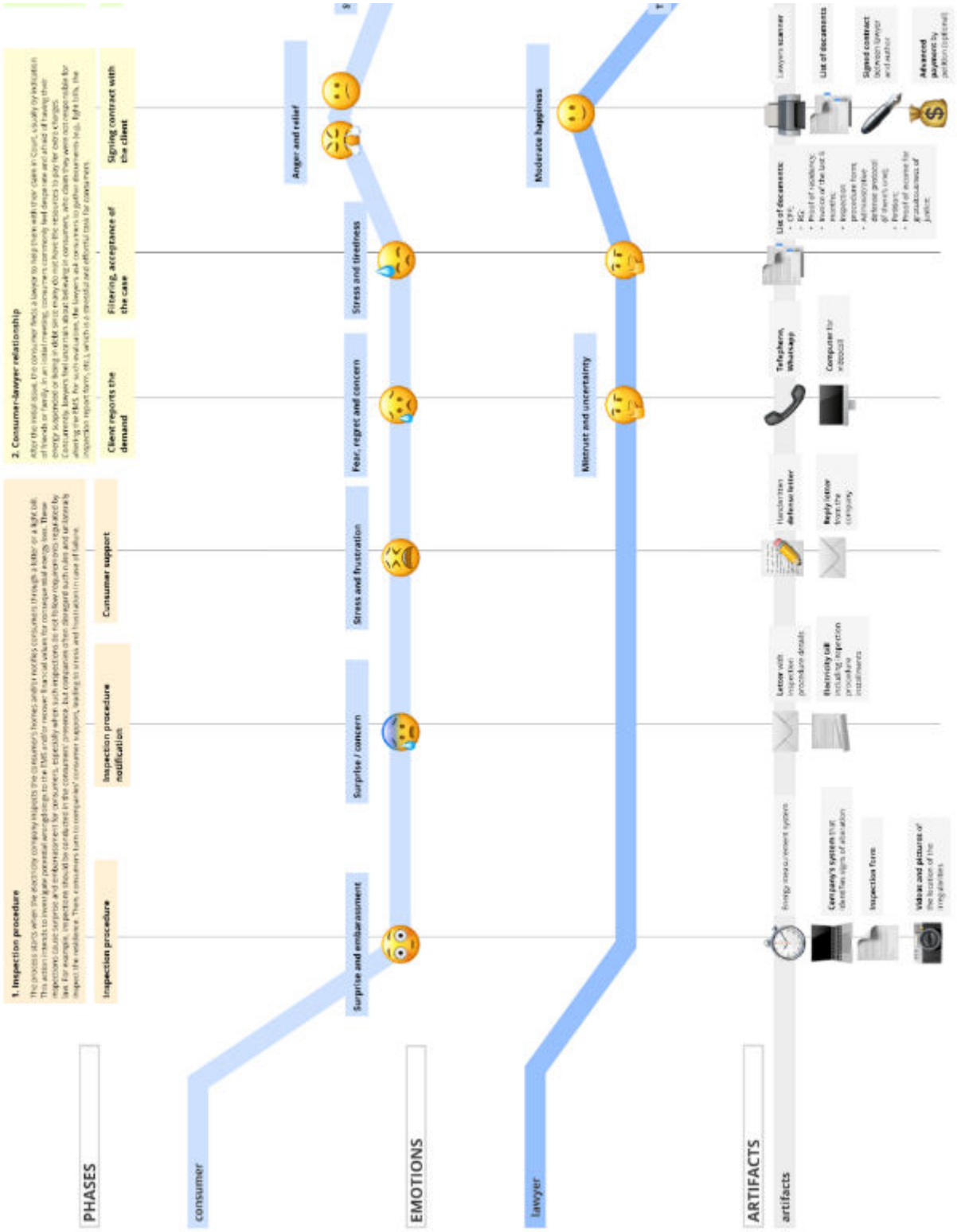

Figure 2. User Journey map part 1.

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Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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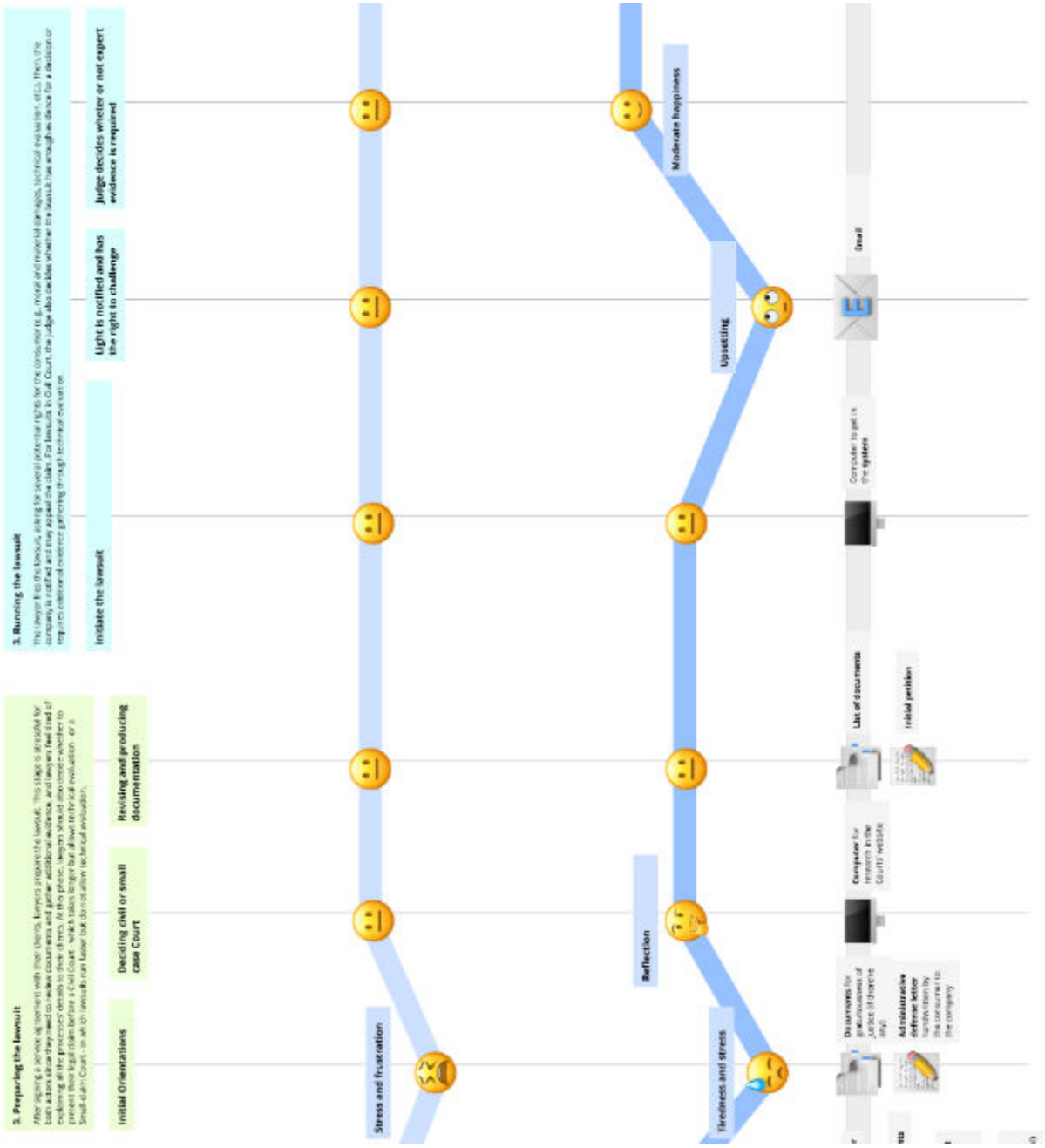

Figure 3. User Journey map part 2.

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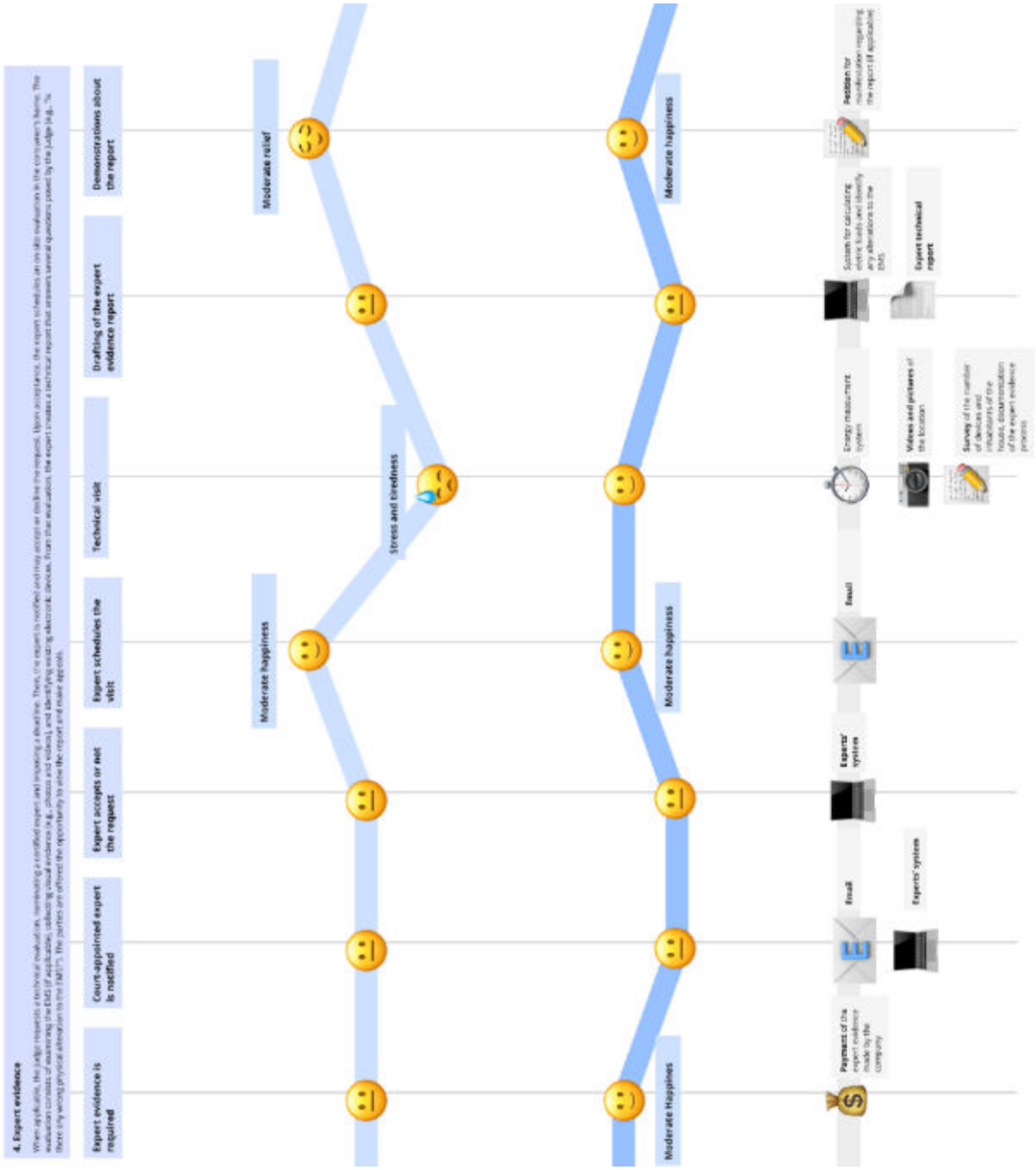

Figure 4. User Journey map part 3.

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Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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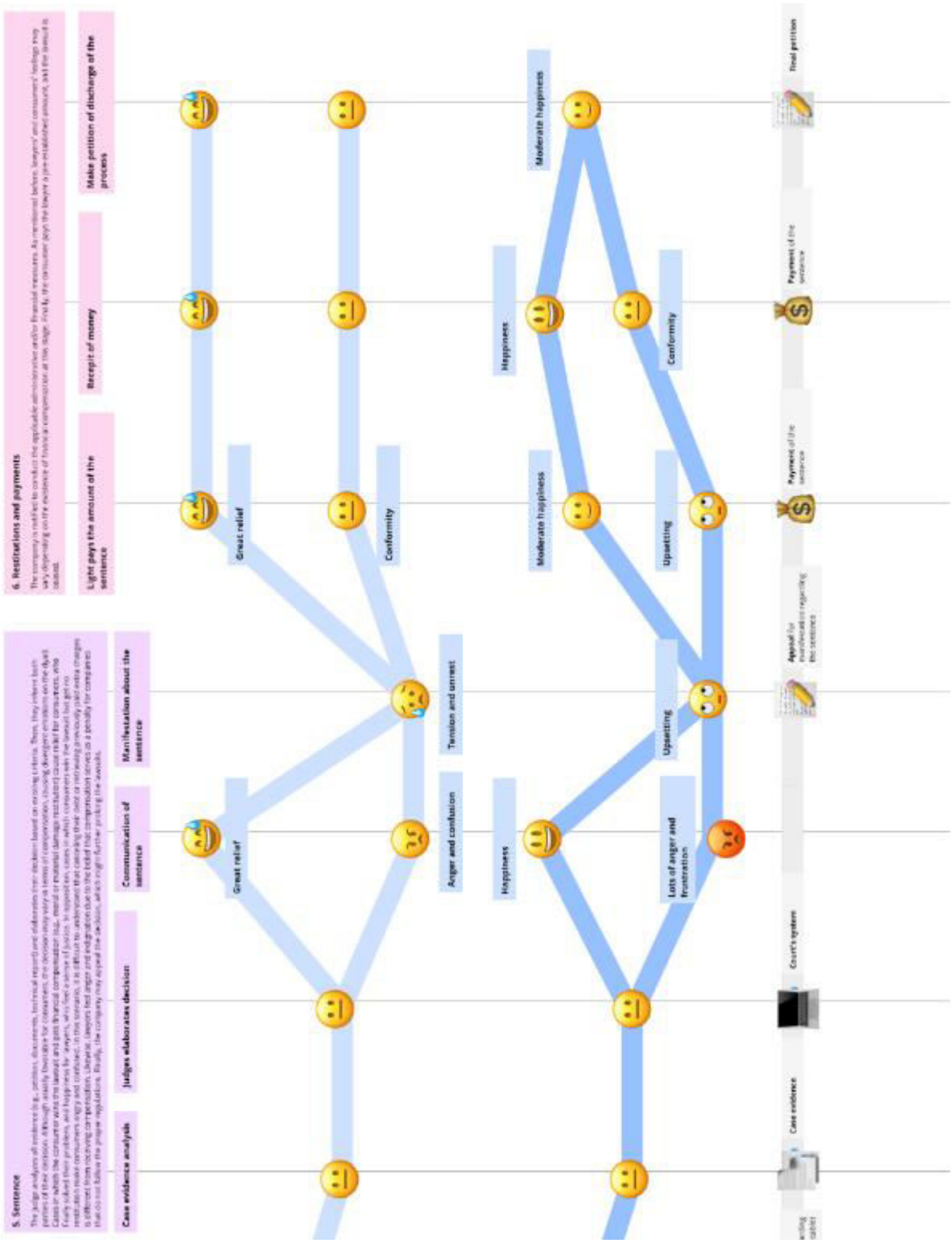

Figure 5. User Journey map part 4.

Study 2: Mediators' perspectives on AI-based ODR services

Study 1's results suggest implications that might leverage AI-based ODR services' adoption. However, as mentioned in section 2, successfully implementing AI-based ODR also depends on the population's willingness to accept the proposed deals. Therefore it is essential to explore which factors are relevant for users' decision-making when considering deals proposed by ODR services. In study 2, we aimed to understand mediators' perspectives on relevant parameters for lawyers' decision-making in consumer-related mediation sessions, as well as the possible impacts of AI features on ODR services. We considered the mediators' points of view significant since they are relevant stakeholders for human-based ODR services, being able to provide great contributions to designing AI-based ODR services.

Method

To achieve this study's goal, we conducted exploratory interviews with mediators who routinely handle consumer-related cases.

Participants: The study's participants were five mediators certified by TJERJ and experienced with consumer-related claims. Since these professionals are trained to facilitate mediation, they must exercise impartiality and possess knowledge of relevant factors for decision-making in such scenarios. We recruited mediators that have experienced situations with varied lawyers, citizens, companies, and cases. Consequently, their opinions could help diversify our investigation. All participants voluntarily agreed to a consent form.

Procedure and analysis: Two researchers conducted the interviews through videoconferencing in March 2022. Firstly, we explained the interview's goal and exposed the overall functioning of +Acordo. Next, to avoid bias, we asked the participants to freely expose factors they believed to influence lawyers (and their clients) in deciding to accept or reject deals in mediated sessions. Then, we exposed a list of influential drivers identified in the literature (see sections 1 and 2) as impactful for ODR and asked mediators to comment. The list is as follows:

- Which actor - lawyer or consumer - is the main decision-maker
- The easiness and time-saving of ODR
- The perceived justice in the platform's procedures and processes
- The perceived fairness of the deal’s offerings
- The trust and perceived ethics in the other party and the service provider
- The platform's transparency in presenting information

Isabela Motta, Maria Julia Lima, Thomaz Ambrosio, Alimed Celecia, Ana Lara Mangeth, Isabella Frajhof, Cesar Cury
Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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We used the case of +Acordo to illustrate examples and ask how an AI-based ODR's characteristics could evoke different attitudes and behaviors. The interviews lasted about an hour and were recorded in audio. We analyzed the data in a top-down approach, identifying responses related to the above topics. Then, the responses that did not fit such topics were categorized in a bottom-up approach to find emerging themes.

Results

According to the participants, the easy and quick nature of ODR seemed to be the most important factor for users' decision-making, as consumers usually aim to solve their problems easily and avoid stress. For consumers, it is more simple to accept a deal since declining it would require further stressful actions to litigate the case. The haste or need for eventual financial compensation for the caused damage might also lead consumers to accept deals, leveraging the time-saving aspect. "*A great share [of consumers] will accept any deal because they are already exhausted (...) It is all very hard (...), they are really tired because of so many phases they went through without being able to solve the problem."* (P1). Some participants argued that lawyers also benefit from quickly solving lawsuits as they will get paid faster. Also, dragging lawsuits for long periods might be stressful since some clients demand continuous updates.

As for eliciting perceived justice on users, the mediators commented that being transparent about the service's functioning is essential. That is, the interface should clearly present the criteria used to reach a proposal, including the information used and how it influenced the proposal. Furthermore, the mediators believed that ODR services should show users that their disputes are being calculated individually, on a case-by-case basis. "*If [the company/system] can show the objective criteria in which the proposal was based, I think that helps; the party will know where that number came from*" (P2). Similarly, the mediators argued that the service should be consistent about the proposed deals. As explained, lawyers usually have expectations - grounded on previous experiences with litigation and mediation - for both financial and administrative compensation outcomes. If the proposal differs vastly from their predictions, they might turn down deals, even if resorting to Court takes more time and resources. "*They have boundaries and know their client's limits and wishes. (...) If they believe that, in Court, they can get X, then they will advise their clients [that it is better to litigate] and will not accept the deal*." (P3).

We asked the mediators which actor was the most influential in decision-making: the lawyers or their clients. All mediators agreed that lawyers play an important role since they help clients assess the deal's quality, and their judgment is usually respected

and trusted. Such an influence is even more substantial when consumers have low legal knowledge. This is a common scenario as most citizens involved in consumer-related claims in Brazil come from low-income areas and have low education levels. "*Usually, [the consumer] is vulnerable and doesn't really understand what is happening. They are humble people who had that problem, got an energy interruption, or something like that. So, they ask their lawyer if they should accept [the deal] or not. (...) They will believe in the lawyer's word*" (P2). However, two participants stressed that the consumer is the final decision maker.

Another relevant emerging topic was the impact of consumers' feelings on mediation sessions. The participants explained that - although not as much as in other lawsuit types (e.g., divorce deals) - consumers frequently go through stressful situations when trying to solve their issues before mediation. These circumstances might elicit a feeling of injustice and negative attitudes towards businesses. Consequently, consumers often feel the need to express themselves, tell their stories, and pose their requests: "*The consumer experienced all of that (...) They had a 24-hour energy interruption. So, there's this need to cry out, to be heard, to be embraced.*" (P4). One participant mentioned that considering the consumers' requests is especially relevant when they are in debt. In such cases, consumers have a limit of how much they can pay. Therefore, hearing their offers and negotiating becomes paramount to reaching a deal. Furthermore, the mediators mentioned that some consumers might want to present evidence to support their claim (e.g., photos, documents).

The participants commented that such a requirement might be challenging for AI-based ODR. As explained, in +Acordo, parties do not directly communicate or express themselves as all input happens through a close-ended form. Moreover, currently, the platform only supports a limited set of obligatory evidence as attachments (e.g., energy bills). To approach this issue, the mediators suggested that, for more complex claims, +Acordo could direct users who reject deals to videoconferencing mediation sessions on the platform.

Finally, we asked the participants whether they believed users might feel distrust, bias, or low perceived ethics towards +Acordo. The mediators argued that TJERJ is a governmental institution, and users - especially lawyers - perceive such organizations to be trustful and ethical. While some distrust might arise towards the counterparty, such a feeling is probably not enough to question an official tool developed by a State Court. "*The lawyer already knows the Justice System. So, they know it is not a private initiative (...) The State Court is certifying it.*" (P4). The fact that a known University developed +Acordo was also considered advantageous. For

a similar reason, all mediators believed that concerns over data privacy would not impede lawyers' and consumers' adoption or usage of +Acordo.

Implications for designing AI-based ODR services

This section discusses implications for designing AI-based ODR services from both studies' findings. Firstly, both studies reinforced the literature (Marques, 2019; Cortés, 2010) by showing that ODR services' time-saving aspect is critical for adoption. Lawyers and mediators reported that the consumers' primary concern is solving their problem quickly, willing even to renounce a more favorable outcome in a lawsuit to avoid stress. In that sense, AI-based ODR services are unmatched due to automation's support to propose deals, resolving claims faster than other means. In addition, these services may be integrated into partner companies' databases to retrieve relevant documents and information for the claim. Such a feature reduces timely spences and mitigates lawyers' and consumers' efforts to gather and review documents, a hardship noted in journeys with lawsuits. **As an implication, AI-based ODR services' time-saving aspect should be highlighted to users throughout the service's touchpoints (including branding, marketing, features, etc.).** It might also be effective to show the necessary steps to initiate a lawsuit if they reject a proposal, supporting the comparison of different dispute resolution methods.

Secondly, echoing the literature (Górski & Ramakrishna, 2021; Turel, 2006), study 2 indicated that transparency is essential for users of AI-based ODR services. **Hence, these services' interfaces should explicitly display the criteria used to calculate a deal proposal,** including most information used and how it influenced the final proposal. Nevertheless, presenting how the system calculates proposals might be challenging as machine learning algorithms might not be able to present explanations, depending on the employed techniques and their complexity. Currently, great efforts are dedicated to producing more explainable machine learning models, including the new research field of Explainable Artificial Intelligence (XAI) (Adadi & Berrada, 2018), which is constantly evolving.

In a similar stream, study 1's results indicated hardships in lawyers' communication with consumers since they need to explain a lawsuit's details and provide updates. This obstacle was reported to be even more severe when consumers come from low education backgrounds or have diminished legal knowledge. As observed in study 2, such a common picture in Brazil may also impose barriers to consumers' understanding of their claims' status and the rationales behind proposed solutions. Thus, **the information displayed on an ODR service's interface should be**

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Towards designing Artificial Intelligence (AI)-based Online Dispute Resolution (ODR) services: The case of +Acordo
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comprehensible to consumers. By doing so, the interface not only supports lawyer-client communication but also leverages the population's access to justice. To secure this clarity, designers may apply Plain Language best practices, which have been demonstrated to improve texts' comprehensibility of e-gov platforms (Fischer, 2021). Also, integrating methods currently employed by lawyers and consumers - such as the chat apps and email observed in study 1 - might leverage their communication. However, further research is necessary to more deeply understand how to present information for consumer disputes in ODR services appropriately.

The findings of both studies were aligned with the literature (Zeleznikow & Bellucci, 2003; Turel, 2006) in showing that users (mainly lawyers) usually have expectations for a claim's outcomes in terms of financial compensation. In turn, these expectations affect lawyers' decisions about a deal in ODR services. **Thus, exposing how a deal proposal is positioned among the ODR service's and Court's outcomes might aid their decisions.** To display such information, some mediators suggested that the interface should present average compensation values given in similar lawsuits by Courts. For example, in +Acordo, users can compare a proposed deal's compensation and estimated duration with average values extracted from TJERJ's lawsuits (figure 6).

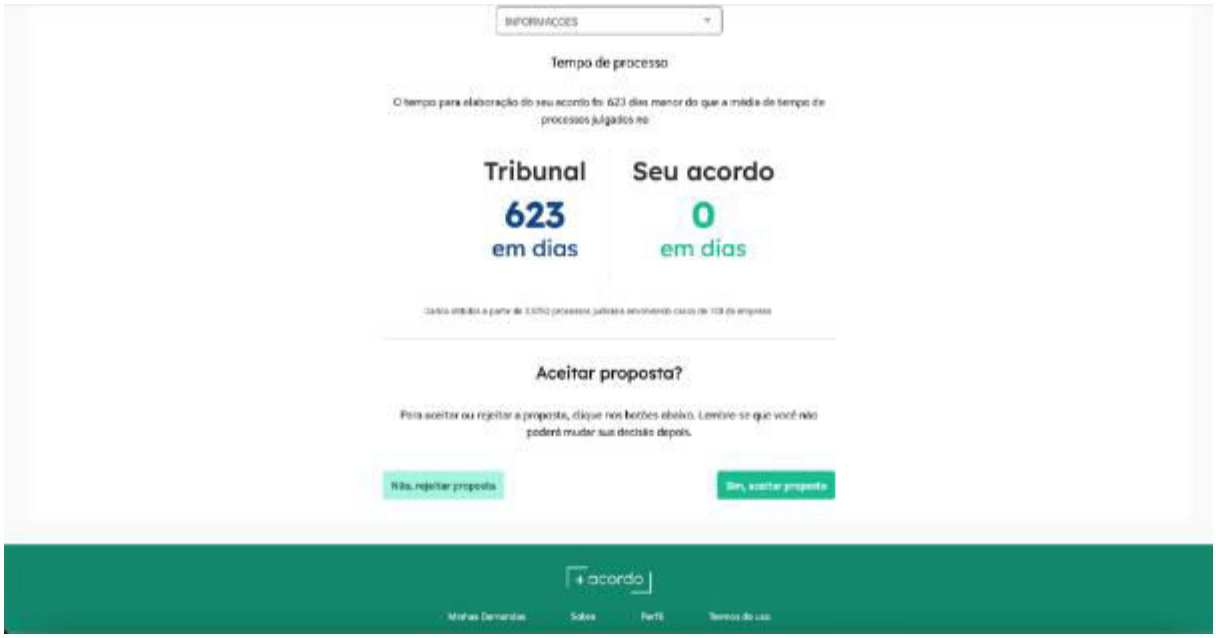

Figure 6. Data comparison tool in +Acordo.

As suggested by study 1, the compensation value might also affect lawyers' and consumers' feelings and attitudes toward Courts and companies. Our participants

believed compensation to be a penalty measure that could educate companies into following regulations and provide a feeling of justice to consumers who were incorrectly charged. Accordingly, **it might be advisable for Courts developing AI-based ODR services to include compensation on deal proposals from companies to consumers, whenever applicable.** This action may improve lawyers' trust in the service and Courts.

Another significant factor for consumers' attitudes and feelings observed in study 2 and the literature (Turel, 2006) was their desire to convey their stories and requests. Likewise, as identified in study 1, some lawyers might wish to present additional evidence to secure victory. Thus, **ODR services should allow consumers to freely express themselves and present evidence considered to be relevant.** A feature supporting free expression may evoke the sensation that consumers' problems and requests are being considered, mitigating the claim's emotional burden. Nonetheless, such a functionality might be challenging for ODR services since it demands complex AI algorithms. Specifically, techniques from the fields of Natural Language Processing - like text classification, sentiment analysis, or named entity recognition - (Sarkar, 2019) and Image Processing - like image segmentation or image pattern classification - (Gonzalez & Woods, 2018) may enhance the platform's capability of understanding users' problems. As for including further evidence, a solution - which is to be implemented in +Acordo - might be allowing lawyers to request simple technical proof (see Brasil, 2015, for a description). This type of expert assessment is faster than the regular technical evaluation. However, it provides additional information for the case, potentially comprising the lawyers' varying desires observed in study 1 (i.e., quickness and assurance).

Alternatively, as suggested in study 2, **AI-based systems may be integrated with human mediation in ODR services for more complex scenarios.** For instance, a previously rejected deal could act as a starting point to accelerate a mediation session, preventing citizens from going straight to the Courts. Following the integration approach, it would also be helpful if Courts - as service providers - offered an official communication channel to clarify doubts and support exceptional cases. Partner companies may also offer a dedicated consumer support service to help users with issues related to ODR services. This channel could mitigate negative attitudes as consumers might feel distrust and frustration towards businesses when they seem unwilling to handle problems. These findings align with Roto et al. (2018), which argue that omnichannel design should be considered to integrate UX across channels.

As argued by the literature (Abedi et al., 2019; Turel, 2006), study 2 suggested that lawyers' perceptions of the service provider's ethics are significant when evaluating proposals. Nonetheless, this tendency seems advantageous for ODR services developed by Courts since these institutions are widely known and esteemed. Accordingly, **ODR service's marketing should highlight that Courts are the service providers since these institutions are viewed as ethical and respected.** To further increase the service's perceived officiality, designers may follow the mediator's recommendation to **provide documents to turn the deal into an official document** (e.g., a deal certificate or report). This feature is also already available in +Acordo.

Finally, we highlight that applying service design methods can be valuable for designers of ODR services. For instance, the user journey map supported this study's findings by allowing the identification of phases, tools, and stress points in users' interactions with several touchpoints when conducting lawsuits. Such mapping was used to survey requirements for +Acordo and shed light on how to build the users' journeys when interacting with AI-based ODR systems. The holistic view of service design was also essential for this study's findings since including other stakeholders' perspectives – that is, the mediators – helped us deepen the results and create more solid recommendations.

Conclusion

AI-based ODR services can bring transformative impacts to society by leveraging the population's access to justice and reducing expenses for the Justice System. Therefore, studying how to improve the design of such services in countries with high demands for litigation, such as Brazil, is necessary. Although the literature indicates some relevant factors for ODR services' wide dissemination, there are still some open gaps to be addressed. Therefore, this paper aimed to discuss design implications deriving from a two-phased case study of an AI-based ODR service: +Acordo. To this end, in study 1, we interviewed lawyers and created a map illustrating their journey in consumer lawsuits against an electricity company. Then, in study 2, we interviewed mediators to understand their perspectives on relevant factors for lawyers' decision-making when evaluating deals proposed on AI-based ODR services.

From our findings, we present some implications for designing AI-based ODR services. Firstly, designers should highlight these services' quickness throughout all touchpoints. Secondly, these services should be transparent on how deals are

proposed, and such information should also be clear even for consumers with low legal knowledge or educational background. AI-based ODR services may also benefit from showing users' how the deal proposals are positioned among other outcomes in Courts to aid their decision-making. For such proposals, offering financial compensation whenever applicable may be beneficial for lawyers' and consumers' attitudes towards ODR services and Courts. Moreover, designers should allow consumers and lawyers to freely express themselves, pose their requests, and provide evidence considered necessary. Also, an interesting exploration field might be to understand the best practices to facilitate lawyers' and consumers' communication at the services' touchpoints. As suggested, designers could explore ways to integrate AI systems with human-based channels to maximize UX and accommodate differences in claims. Finally, for AI-based ODR services provided by Courts, designers should highlight these institutions' ethics through marketing and service features.

Although this study brought valuable insights, we highlight that further research should be conducted. For example, in both studies, we interviewed a relatively small sample of participants. Thus, future studies may benefit from a larger sample to diversify these actors' perspectives. In addition, our study only examined two actors involved in AI-based ODR services (i.e., lawyers and mediators) and assessing the perspectives of other stakeholders is necessary. We highlight that, in study 1, we illustrated the consumers journeys based solely on the lawyers' reports, and therefore the map reflects their perspectives of the consumers' journeys. Although these perspectives may be considered relevant since lawyers work closely with consumers on a daily basis, further research is necessary to uncover these stakeholders' points of view. For instance, researchers may explore citizens' opinions or even include these users in co-creation sessions to enhance ODR services. Similarly, it is paramount to comprehend the needs and perspectives of partner companies to balance user requirements with these stakeholders' demands. Comparing the companies' and lawyers' views of their journey throughout lawsuits, for example, may bring relevant new findings.

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