A Playbook To Be Proud of

LGBTQ+ Inclusive User Account Design Guide

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Abstract

Digital platforms utilize data collection processes to assess demographic data about their users through user account (UA) creation. The information that these platforms require users to fill out include selecting preferences that provide options which oftentimes misrepresent gender and sexual orientation identities of users, disproportionately affecting the LGBTQ+ population. This research aims to leverage literature from academic resources that center LGBTQ+ inclusivity, surveys and interviews from LGBTQ+ technology users, and interviews including usability studies with product teams across industries. Throughout this paper, authors detail results about times of thoughtful inclusion, data points users are comfortable with sharing to different industries, and thoughts on a Facebook user account case study. Additional findings about user accounts contributing to feelings of microaggressions or micro-affirmations, along with product team experiences about work flows surrounding inclusion which informed the creation of the digital playbook that rests at the following link: bit.ly/LGBTInclusive_UAGuide. Implications for this work lie in the possibility for impactful industry change within company cultures and individuals for the benefit of LGBTQ+ users of technology.

1 Introduction

In a rapidly growing digital world, technology users represent themselves online through a variety of ways. Research studies in the past have looked into how individuals have taken the laborious time of recreating themselves online using avatars, screen names, and user profiles [1]. A study by Eke et. al. [5] presented multiple definitions of a user profile and the purposes it serves in the digital world. A few include:

1. "A set of information that describes a user. It consists of demographic information such as the user's name, age, country, level of education, etc., which represents user preferences or interests in either a single or group of users" [2]
2. "A set of data structure that describe the environment for human-computer interaction." [3]
3. "The narration of a user's behavior, interests, characteristics and preferences obtained through interviews and questionnaires, or dynamically with the aid of machine learning algorithms and data mining techniques." [4]

Though presented as user profiles, authors used the language of User Accounts as opposed to User Profiles because of the perceived action of creating an account vs creating a profile, where preliminary work found that profile was more synonymous to social media. For the purposes of this project, authors ground their work on the definition of a User Account (UA) that Ouaftouh et al. define as: demographic information which represents user preferences or interests in either a single or group of users [2]. As Eke et. al continues to mention that the main benefits of user profiling is its ability to provide an

efficient mechanism for solving information overloading, they hint at presenting specified content for the user so they are not overwhelmed by the breadth of information available [5]. The standard taxonomy for user accounts includes collecting information regarding personal data (i.e name, age, etc.) and preferences (i.e language) [2]. What can industry professionals make of this user data and are the questions asked accurately representing users?

Consequences of misrepresenting users have large implications for digital product companies trying to expand their user base, or at least make users feel like they belong [6]. Oftentimes, software that is developed excludes diverse populations that don't "fit" a given criteria. One example of this has been seen in issues of gender inclusivity, which can result in populations not only feeling excluded, but also difficulty when using given technologies [7]. These feelings of online or digital exclusion can add to already existing offline hardships for those who are gender or sexually diverse, presenting issues in mental and physical health [8].

It is important for professionals who create these digital products to understand the users they are creating for. A significant portion of the up and coming generation with purchasing power (Gen Z) identifies as LGBTQ+ [9]. Further, Gen Z & Millennials are value-driven consumers and take inclusivity into account when considering purchases [10]. By asking the right questions, data quality will improve and companies can better understand users and how to best design for them [11]. Facilitating attention to structural inequities through principles such as those described in activist and researcher Dr. Sasha Costanza-Chock's *Design Justice,* can bring light to these structural woes by providing concrete suggestions through a scoped lens [12].

In this paper, authors outline the best practices of how to implement inclusive user profiling on digital/computing systems for the LGBTQ+ community. Through a mixed methods research approach, this research collects design best practices that center online inclusion for the LGBTQ+ community that culminate in a 'playbook'. The goal is to answer the research question: *How might we ensure product managers and designers are able to easily upskill with up to date, accurate information on inclusive design, focused on LGBTQ+ communities*? Through this guide, authors hope to reduce the cognitive & emotional labor that comes with learning and embedding empathy in human centered design for digital products.

1.1 Researchers' Positionality & Reflexivity

Inclusive research must be cognitively aware of the work being done in ensuring computing systems & digital worlds do not replicate the oppressive structures persistent in physical spaces. Authors have presented their positionalities and reflect on how they might impact this work. All three authors are graduate students at UC Berkeley's School of Information completing a culminating capstone project.

Beatrice (they/she) has the perspective of experiences existing as a non-binary lesbian and as a Southeast Asian immigrant. They have completed previous research looking at topics in the space of equity and inclusion, including youth development of racial consciousness and how queer people of color use technology to cope. While those projects are not representative of real world consequences and

oppression, this current paper adds to their professional and academic goals of contributing to work that ensures digital technologies are designed equitably with all users and user experiences in mind.

Princess (she/her) approaches this research through her positionality of cis-gendered, Black woman. She is aware of the experiences of marginalized populations, and the prevailing impact of systemic oppression against racial, sexual, and gender minorities. Her first hand experience with systemic oppression combined with her interest in experience in user research motivates her to use her skills and experiences to improve conditions for vulnerable and diverse populations.

Jane (she/her) approaches this research through the lens of a white, cisgendered, able-bodied woman. As a lesbian, she has a personal connection to the LGBTQ+ community but recognizes her experiences alone cannot be representative of this diverse population. Her professional experience with digital products includes perspectives from a consulting and user research background. She looks to supplement her industry knowledge with this paper's academic approach to applied inclusivity.

2 Background & Literature Review

2.2 Why SOGI data collection is important

The United States Federal Committee on Statistical Methodology (FCSM) has conducted extensive research through its Measuring Sexual Orientation and Gender Identity (SOGI) Research Group run by Jennifer Ortman of the U.S. Census Bureau and Karen Parker of the National Institute of Health (NIH). Research includes articles outlining *why* collection of SOGI data is essential. Ortman and Parker's FCSM article *Why Do Federal Agencies Ask About Sexual Orientation and Gender Identity (SOGI) on Surveys?* [11] These articles highlight the need for inclusive language in order to have accurate, rich data that represents people's unique identities. This in turn allows agencies to accurately measure areas where sexual and gender minorities (SGM) need additional support or visibility and reduces data misrepresentation, and extends to the target users who use data-driven processes. Digital user account interfaces collect user data, however, do not always utilize SOGI data principles when asking for data.

2.3 Excluding LGBTQ+ users leads to harm

Typical user account fields leave out the LGBTQ+ community: During a typical data collection process, information such as name, birth date, gender, and/or sex are collected. In many cases, when considering the effect of this current exclusionary data collection structure on the LGBTQ+ community, the presence of such "digital inhospitality," the event in which LGBTQ+ users' needs are ignored and excluded, is evident as described by Mari Ramler in her paper *Queer Usability* [14]. The concept of Queer Usability anticipates the needs of Queer users and applies it to user-centered design to create digital spaces that center Queer populations, which was incorporated in the guide of examples for user account design teams.

Authors use several articles and autobiographical pieces to further inform playbook users to empathize and understand how misunderstandings and exclusions of sex and gender in products can cause real harm, especially to the LGBTQ+ community. Included in these articles are several of Sasha

Costanza-Chock's articles from her book *Design Justice*, as well as Amy Ko's autobiographical journey through her name change process.

In *Design Justice, A.I., and Escape from the Matrix of Domination* [15] Costanza-Chock writes about the harm caused by a sociotechnical gap that enforces a gender binary. She discusses how TSA body scanners are not built with non-binary individuals in mind, thus causing targeted harm to this population. This is a powerful example that can explain to designers that failing to consider inclusive design choices can cause widespread user harm. The sociotechnical gap is a relevant challenge that digital product teams must understand to avoid harms like those outlined in Costanza-Chock's article. Authors leveraged Costanza-Chock's value based approach from *Design Values: Hard-Coding Liberation?* [16] to challenge current designers' and product managers' norms of how they "should" create products and offer a well-researched alternative that focuses on LGBTQ+ inclusivity.

Another supporting example in this section that informs this research includes Amy Ko's personal piece *100 hours of name change labor* [17]. Ko documents her journey through removing her deadname – also known as her name given at birth that does not match her current gender identity – from all of her government forms and digital accounts to avoid mental harm. She accounts for the time, money, emotional energy, and all-around frustration she faced during this process. Ko's experiences are not unique - anyone with digital accounts who wants to change their name must go through a time and emotion-intensive process to be recognized under their new name. Through research based inclusive design frameworks, authors can educate product teams on how sensitive a name can be, and help them understand how essential considering their users' larger journey for requiring a name change is when designing user accounts.

2.4 Frameworks for LGBTQ+ Inclusive User Account Design

The ubiquity of user accounts within today's digital culture has resulted in concerns regarding the presence of inclusivity within user account interfaces, particularly regarding LGBTQ+ populations. Previous research, such as Costanza Chock's *Design Practices: "Nothing about Us without Us"* [18] chapter from Design Justice, has discussed design principles that "rethink" design processes and center communities that are normally marginalized by design. This research discusses what inclusive strategies benefit LGBTQ+ populations, when and where they are left out, and what can be done to rethink design processes to make them more inclusive. This project will contribute to current research by providing more insight into user needs and design principles that can make user accounts more inclusive. Research such as *How to Do Better with Gender on Surveys: A Guide for HCI Researchers* [19] discusses the burden that the "gender question" places on marginalized people and offers best practices for surveying gender. This work accounts how the current change process relies on marginalized users speaking up for themselves and these marginalized groups are expected to expend time, mental energy, and responsibility in order to be authentically seen on these digital platforms. Authors value the approach taken in the previously discussed research to spare already marginalized communities from having to bear the burden of changemaking and plan to include this approach in the playbook to highlight the importance of getting designs right the first time.

Other inclusive frameworks addressed in existing research include that of psychologists Anna Lindqvist, Marie Gustafsson Sendén, and Emma A. Renström draw from the social sciences in their article *What is Gender, Anyway: a Review of the Options for Operationalising Gender* [20]. They dissect the complexities and social construct of gender and how social science researchers must understand these layers in order to develop inclusive, accurate research questions. Their work extends to the user group – product teams designing user accounts – as gender and sex are common and often essential user account fields and researchers must understand the nuance behind the data before asking users to share.

The importance of LGBTQ+ centered design is further buttressed in *Design Narratives: From TXTMob to Twitter* [12], in which Sasha Costanza-Chock discusses the efficacy of design justice. Design justice principles are meant to generate attention to marginalized communities under the matrix of domination - described as the intersectionality of oppressed identities - by scoping and framing these issues through broader narratives, while offering design based strategies and tools and concrete suggestions to maximize the impact of solutions. Costanza-Chock's strategies and tools provide a great narrative for the playbook's users to follow in their own product process, serving as an example in the product guide for implementing inclusive design frameworks in workspaces and incorporating LGBTQ+ voices into technology.

2.5 LGBTQ+ Inclusive Design Frameworks in Practice

This research is informed through understanding and developing inclusive design strategies with further research in order to enhance the feasibility of the application of these frameworks. Research such as The National Academies of Science, Engineering, and Medicine's (National Academies) *Measuring Sex, Gender Identity, and Sexual Orientation* [22]*,* covers *how* to ask for SOGI data outlining 5 key principles around SOGI data collection: Inclusivity, Precision, Autonomy, Parsimony, and Privacy. This principle structure acts as a helpful guide, applying to the digital product world for designing user account sign up structures. This publication also provides explanations around relevant language for SOGI data collection. Moreover, in the research study, *A Two-Question Method for Assessing Gender Categories in the Social and Medical Sciences* [23] researchers Charlotte Tate, Jay Ledbetter, and Cris Youssef of the social and medical sciences present work around creating a method for collecting more accurate gender data that is also inclusive of the transgender identity spectrum. In this work, they provide a reliable two question method that asks about a user's gender identity and sex to more accurately represent the user and to increase question response rate. This research serves as one example of an alternative way to ask users about their sex and gender identity in a digital product that requires this information.

Beyond learning from the vast resources on the federal level for best practices on collecting SOGI data and the Two-Question method publication, the research team leveraged exemplary work from HopeLab, an innovation lab focused on social impact. Through their research, HopeLab highlighted the importance of co-design and participatory research, which includes people from the community in an ethical way. HopeLab, and their product imi, exemplify the need for collaborative design with marginalized users. Imi is a web application that supports LGBTQ+ youth with mental health topics relevant to their experiences as part of the LGBTQ+ community. Jose Bauermeister et. al. document the process of implementing and the impact of imi in their research study *An Identity-Affirming Web Application to Help Sexual and Gender Minority Youth Cope With Minority Stress: Pilot Randomized*

Controlled Trial [24]. The success of this project was largely due to the nature of the design process: including a diversity of LGBTQ+ youth voices all throughout the research, design, testing, and deployment phases, especially focusing on including racial and ethnic minority voices. The team did this by hiring LGBTQ+ youth onto their team and including diverse voices from within the community. They emphasized the importance of inclusion within the LGBTQ+ community through recruitment of racial or ethnic minorities and lifting up communities rather than taking from them - through actions such as ethical compensation and attribution and highlighting LGBTQ+ artists of color. This project serves as a model for other companies to consider how they can include LGBTQ+ voices in their UA designs.

2.6 Contributions

These existing research sources provide excellent insight into the potential harms, mitigation strategies, and ongoing efforts associated with LGBTQ+ inclusivity in technology. This paper aims to build off of this research by bridging multiple disciples' approaches to LGBTQ+ data into one cohesive review. It also contributes not only to the academic but also to the professional side of LGBTQ+ inclusivity through guidance on user accounts development and design. Finally, this paper acknowledges the awareness of applied impact, or lack thereof, from the lens of academic and professional stakeholders. Through these contributions the authors hope that LGBTQ+ inclusivity knowledge can be shared in a digestible, applicable manner.

3 Methods

Acting as a Master's capstone, this project is rooted in the UC Berkeley I School's final capstone project requirements. Students are given the options of two categories: research papers and professionally oriented applied work. As the authors of this paper have a background in user experience research, they have primarily opted for the first choice. However, recognizing that there lies more social impact with professionally oriented applied work, authors have also chosen to use research methods in creating a digital product design guide for Product Managers. This section will elaborate on the mixed-methods authors used to research the topic, draft the guide, and launch it for public use.

3.1 Conducting A Literature Review

To provide research based background on this project, researchers began the process with a literature review. They aimed to divide the playbook into three distinct sections: First, *Understanding*, in which playbook readers are informed of the importance of inclusive design, what inclusive design means, and relevant terminology specific to LGBTQ+ experiences and inclusivity. Second, *Designing*, which provides research based frameworks on inclusive data collection, Thirdly, *Implementing*, which provides guidance on how to bring these inclusive frameworks to product teams for realistic implementation within companies. With these three sections in mind, authors compiled literature from various disciplines that would best provide the most relevant background in constructing playbook content. Researchers utilized online research libraries such as Tandfonline, Jstor, Google Scholar, as well as other databases to inform background research. Literature resources include Federal Government research articles that provide standards on asking for data regarding Sexual Orientation and Gender Identity (SOGI) Data, academic researchers within the sphere of LGBTQ+ inclusivity such as Sasha Constanza-Chock and Katta Spiel, as

well as a number of other academic researchers and other disciplines ranging from social sciences, medicine, and technology to inform baseline research and effective strategies for centering LGBTQ+ populations within inclusive design practices. This included professional resources to understand what PMs use to improve their skills. Authors found resources such as LinkedIn courses and other industry resources from consulting industry leaders.

3.2 Competitive Analysis of Existing Products

The researchers conducted a competitive analysis of existing digital platforms' user account experiences to gain a more rounded view of approaches taken by different platforms. This included new account sign up as well as editing one's existing digital user account. The researchers chose companies across a variety of platform industries to review. Some industries and companies include: *Healthcare and Social Assistance* (ZocDoc, MyChart), *Entertainment* (Spotify, Hulu), *Social Media* (TikTok, Instagram), and *Professional, Scientific, and Technical Services* (Care.com, Handshake). They chose the companies from personal experience with the product, responses from users in the user survey (see Section 3.3), and from an analysis of popular applications in the US. The analysis was conducted for both mobile and web applications in a Google Sheets document. The first section of the analysis examined data collection practices - both if the user account asked for certain SOGI data points and the inclusivity of options provided. SOGI data points examined included: sex, gender, sexual orientation, title, marital status/familial relationships, pronouns, and preferred name (or equivalent). For applicable features, researchers created a scoring sheet from 1-5 on how inclusively the question was asked, to create a standardized score. These scoring criteria were based on the research conducted in the Literature Review and meant to stand as a relative value for the researchers to reference when sharing examples of notable or avoidable data collection approaches. The next section of the analysis was related to autonomy of information sharing. In this section, the researchers determined if any of the SOGI fields were required for the user to enter, and the automatic settings of the publicity of SOGI fields on the platform. The third section explored data mutability of SOGI-related fields - specific to within the product, without the need to contact customer support. Because SOGI-related data is often fluid, the ability to change these values regularly was regarded as a key inclusivity metric. Finally, the last section of the competitive analysis was free response space for the researchers to call out key areas of the user account process that was done notably well or notably poorly by each company. Overall the competitive analysis allowed the researchers to better understand the user account process from a user's perspective, identify notable examples, and explore inclusivity behaviors across industries.

3.3 Survey of Technology Users

A Qualtrics survey was employed by researchers that at large asked questions regarding the nature of users' thoughts on the user account creation process. This survey asked 15 questions that were a mix of open ended and close ended questions and took no longer than 10 minutes to complete. Sample questions included "Was there ever a time when you were creating a user account where you felt your gender or sexual identity was thoughtfully included?" and "what did the app/product do well?". In order to get a wide breadth of participants and compare perspectives from LGTBQ+ and non-LGBTQ+ users, the only exclusion criteria was if the participant was not a regular user of technology. All three authors used their personal networks to recruit participants, including but not limited to campus gender &

sexuality organizations, on-campus academic departments, and national LGBTQ+ organizations & conferences. To ensure privacy, confidentiality, and security, authors ensured anonymity through not asking any questions that included personally identifiable information (PII). See section 3.6 for more information on participant data management. Participants could be compensated for their participation in the survey through a randomized drawing of $25. In order to participate, participants had to click on a hyperlinked form which asked for their PII in order to be contacted if they had been drawn. The survey ran for two months, and received a total of 151 entries. A total of 81 participants identified as LGBTQ+ as described in Table 1.

A post playbook survey was conducted through Google Forms and provided the same anonymity as the previous survey. This form contained static links of playbook pages that were informed from the first survey and user interviews in order to cross check the information that authors provided the PMs.

Table 1

Survey Participants by LGBTQ+ identity

Total Participants	LGBTQ+	Non-LGBTQ+	Prefer Not to Answer
151	**81**	**63**	**5**

3.4 Stakeholder Interviews

Authors completed a total of 17 one-hour long interviews. These interviews were divided among the intended users of the playbook: 11 with PMs and designers, and 6 with LGBTQ+ technology users. This ensured that the product guide was best suited for wide industry use and to hold accountable the knowledge accrued from participants. There were 6 pre-playbook interviews with PMs that informed its creation and 5 post-playbook PM usability interviews to ensure authors were communicating the correct information. Researchers conducted interviews through Zoom, using closed captioning and recording features to transcribe the data for future use and further analysis. See Table 2 and 3 for more details on interview participants.

Table 2

Overview of User Interview Participants

Participant Code	Demographic info	Persona Created
U0	East Asian, Non-Binary Lesbian	User 9-5
U1	Mixed Race, Agender, Asexual	Student User
U2	White, Questioning, Pansexual	Content Creator User
U4	Woman, Asexual	Out of Necessity User
U5	Black and Jewish, Queer Bisexual	Impact Driven User

Note. Participants were asked "How do you identify?". This open ended manner allowed participants to respond which parts of their identity they saw fit to inform their experiences.

Table 3

Overview of Product Manager Interview Participants

Participant Code	Title	Industry
PM0	Junior PM	E-Commerce
PM1	Mid-Level PM	Human Resources
PM2	Mid-Level PM	Social Media
PM3	Mid-Level PM	Healthtech
PM4/4B	Senior PM	Finance
PM5	Senior PM	Non-Profit
PM6	Junior Designer	Construction
PM7	Junior PM	Cybersecurity
PM8	Mid-Level Designer	Technology
PM9	Senior PM	Healthtech

3.5 Playbook Creation Process

In order to create the guide for product teams to implement LGBTQ+ inclusion, authors used several methods to draft a digital playbook. Initial steps included choosing a hosting platform, creating information navigation flows & infrastructure, and problem solving methods for interactivity. From previous author experiences in corporate industries, two productivity low-code tools were suggested; Notion and Coda. Both tools provided low-cost, open-source access, information hosting with a reasonable learning curve. After reading white papers online about the affordances of each platform and asking a few other professionals from researchers' immediate networks, Notion was the top choice.

Moving forward, authors spent time drafting a navigation infrastructure that led with a home page, main pages, and sub-pages that elaborated on each section. Once this was completed, authors split up the intended sections mentioned above–*Understanding*, *Designing*, and *Implementing*–and set forth in using Notion's features to communicate digestible information for new audiences.

In the final draft of the playbook, the navigation infrastructure outlined in Table 4.

Table 4

Outline of Playbook Navigation

Home Page	Main Page	Sub-pages

LGBTQ+ Inclusive User
Accounts Homepage

As the draft was continuing to be built, authors held usability tests amongst professionals who worked in product development, specifically two designers and three product managers. These usability tests were synchronous 1-hour interviews, however, authors also designed an asynchronous ad-hoc feedback form for both LGBTQ+ users and product developers. This ad-hoc feedback form was hosted in Google Forms, asked users about their feelings towards the language used in the playbook and whether or not it accurately represented their experiences, while product developers were asked about the practicality of the content in their day to day roles.

3.6 Participant Data Deletion

In order to ensure protection of sensitive data for participants, authors specified to the Institutional Review Board the following: Within two (2) weeks of video/audio collection the video and/or audio recordings will be transcribed and all personally identifiable information will be manually removed from the transcription. After video and/or audio recordings are transcribed, the video/audio recording will be permanently deleted from local and cloud storage. The transcriptions will remain in the Berkeley Institution Google Drive folder once coded to further anonymize participant information. Transcriptions may be shared with future academic researchers, as deemed appropriate by the current researchers and authors' faculty advisor. Upon research members' graduation in May 2023, they will download participant data onto an external hard drive, for purposes of future research that builds off of

this topic, since this will be a living document. Once offline, the transcripts and key file that links PII to transcripts will be permanently deleted from the Berkeley Institution Google Drive folder.

4 Results

This section will go over survey responses and interview themes to provide context to the numbers reported. This includes questions about UAs providing no options for accurate gender or sexuality, UAs providing thoughtful inclusion, which types of industries participants would feel comfortable sharing information with, and how users feel about the current Facebook UA sign up. LGBTQ+ User Interview themes will also be shared in how they related to the connection of the findings presented in section 4.3.

4.1 Inclusivity of Gender or Sexuality Options on UA

Question 3 of the survey asked respondents if there was ever a time while creating a user account in which the options provided lacked accurate representation of gender or sexual identity, as shown in Figure 1. 41% of LGBTQ+ respondents reported no while 34% of LGBTQ+ respondents reported yes. Concurrently, 5% of Non-LGBTQ+ individuals reported yes - that they have experienced a situation in which a user account lacked accurate options for Gender and Sexuality when they were creating an account, while 53% of these non-LGBTQ+ users reported no. The majority of non-LGBTQ+ respondents usually felt accurately represented when sharing gender and sexual identity data on digital platforms, effectively facing less design exclusion, while the majority of LGBTQ+ respondents felt that they were misrepresented when sharing gender and sexual identity data on digital platforms. Open text follow up questions answered by users specified which platforms they have experienced that did not accurately provide gender or sexuality options, which included social media apps such as Snapchat, a number of gaming apps, health apps, and academic apps. In the subsequent question, users noted that these apps could have improved areas of inclusivity by including more options for gender (ex: non-binary), providing a drop down of multiple options including fill in the blank, and having more diverse options for sexuality, or even not have been asked about gender or sexual identity, which resulted in feelings of exclusion, erasure, and invalidation for them.

Figure 1
Number of respondents who lacked accurate gender or sexuality options on UAs, by LGBTQ+ identity
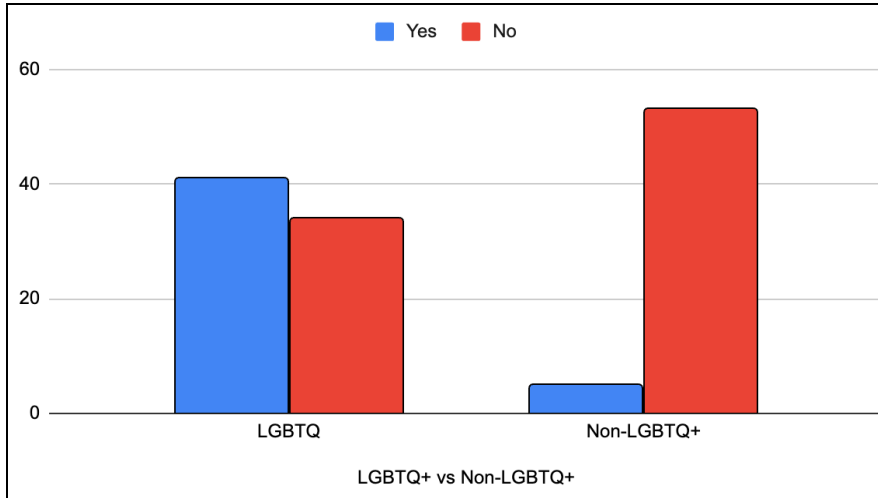
In response to the survey question "Was there ever a time when you were creating a user account where you felt your gender or sexual identity was thoughtfully included?" 45 out of 58 LGBTQ+ respondents noticed thoughtful inclusion, while 15 out of 58 respondents said no, they have not, as described in Figure 2. Meanwhile, 20 out of 55 Non-LGBTQ+ respondents felt they were thoughtfully included while 25 did not. This difference between LGBTQ+ and Non-LGBTQ+ participants contextually means that LGBTQ+ participants tend to notice thoughtful inclusion more closely than Non-LGBTQ+ participants, who are split. Open text questions that asked participants to recall the app or product prompted this response from Non-LGBT Users: "Don't remember, but I identify as female so basically everything accommodates that". The top answers for LGBTQ+ Users mentioned six counts of Instagram and four counts of Hinge. Further open text responses showed that these apps did well in presenting multiple options for Gender and Sexuality, making users feel "included", "seen", and "heard".

Figure 2
Number of respondents who faced inclusive gender or sexuality options on UAs, by LGBTQ+ identity
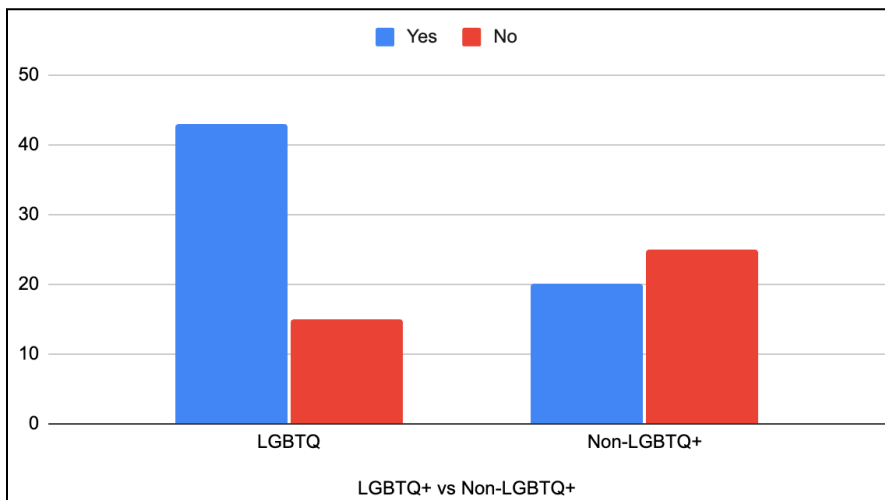
Participants were given an example sign up flow from Facebook's user account sign up page, to understand their feelings of inclusion across several SOGI related questions. Using a 5 point Likert scale

with 1 being strongly disagreed and 5 being strongly agreed, users ranked their agreement with 4 responses: (1) "I would feel included creating a user account on this platform", (2) "I would prefer if this account sign up asked *more* questions about my identity", (3) "I would prefer if this account sign up asked *less* questions about my identity", and (4) "I think LGBTQ+ individuals would feel included creating a user account on this platform." For Response 1, non-LGBTQ+ respondents averaged higher on agreement (4.21/5) than LGBTQ+ Respondents (3.8/5), meaning that non-LGBTQ+ respondents felt more included in this account creation process than LGBTQ+ users. Responses 2 and 3 gauged the amount of identity-related questions asked, and users across groups agreed that there were not too many or too few questions asked. There was a slight preference to be asked fewer questions by LGBTQ+ respondents when compared to non-LGBTQ+ respondents. Finally, Response 4 examined a user's perceived inclusion of a separate LGBTQ+ individual on this platform. Both groups rated an average of around 3.4/5, meaning that both groups believe an LGBTQ+ user would feel between neutrally and somewhat included creating an account on this platform. For both LGBTQ+ and non-LGBTQ+ respondents, the average agreement was lower for other LGBTQ+ users than for themselves, meaning that participants expect LGBTQ+ users to feel less included than they did creating an account on this platform. See Table 5 for an overview of responses by identity.

Table 5

Results from Facebook UA Survey Question for Users

Question	Mean (SD)
I would feel included creating a user account on this platform	
LGBTQ+ Respondents	3.80 (0.92)
Non-LGBTQ+ Respondents	4.21 (0.85)
I would prefer if this account sign up asked *more* questions about my identity	
LGBTQ+ Respondents	2.85 (1.06)
Non-LGBTQ+ Respondents	2.69 (0.95)
I would prefer if this account sign up asked *less* questions about my identity	
LGBTQ+ Respondents	2.65 (0.91)
Non-LGBTQ+ Respondents	2.76 (0.97)
I think LGBTQ+ individuals would feel included creating a user account on this platform	
LGBTQ+ Respondents	3.33 (1.04)
Non-LGBTQ+ Respondents	3.45 (0.93)

Note: See Section 5.3.1 for more details.

4.2 Comfort by Industry of Sharing Gender or Sexuality

Researchers surveyed all users on their comfort levels associated with sharing SOGI related data with different types of industries, gauging how an industry affected users' hesitance, resistance, and

compliance. They explored a diverse set of 6 industries that create digital accounts: Dating Apps, Social Media Apps, Telehealth Apps, Game or Puzzle Apps, Hotel or Vacation Rental Apps, and Finance Apps. The SOGI-related data fields researchers tested were Legal Name, Preferred Name, Gender, Sex, Pronouns, Sexuality, and Photo. For each data field, users were able to multi-select all industries with which they were comfortable sharing. Table 6 outlines respondents' comfort levels by industry and field.

Users were most comfortable sharing Pronouns and Photos on Social Media Apps as well as Sexuality on Dating Apps (96%), followed closely by Photo on a Dating App, Legal Name and Sex on Telehealth App (93%). Users were least comfortable sharing their Photo on a Game or Puzzle App (15%) or a Finance App (19%). Overall, users were most comfortable sharing SOGI-related data with Telehealth Apps, followed closely by Social Media and Dating Apps. Game or Puzzle apps ranked least comfortable across almost all data fields. Hotel or Vacation Rental Apps and Finance Apps, while ranking near comfortable for Legal and Preferred Names, were among the least comfortable industries for sharing other SOGI data.

Table 6

Percent of respondents that are comfortable sharing data points with each industry listed.

Data Point/ Industry:	Legal Name	Preferred Name	Gender	Sex	Pronouns	Sexuality	Photo
Dating App	45%	77%	86%	79%	90%	96%	93%
Social Media App	65%	83%	85%	68%	96%	63%	96%
Telehealth App	93%	75%	85%	93%	81%	64%	66%
Game or Puzzle App	31%	57%	45%	41%	59%	25%	15%
Hotel or Vacation Rental App	76%	68%	49%	48%	57%	24%	27%
Finance App	77%	65%	53%	47%	54%	27%	19%

Note: This matrix does not take into account users who are not comfortable sharing any data points with any industries, as authors were unable to differentiate between non-response due to survey design.

4.3 Users' Feelings of Inclusion and Comfort with UA

The most common themes found in preliminary user interviews conducted with five participants (See Section 3.4) included data collection motives, data collection resistance, and autonomy over data. These informed larger themes of hesitancy with UA sign-ups, resulting in resistance or compliance–or a completely alternative path. This is further explored in the Findings section. Total counts of each theme can be found in the Tag [#N] column in Table 7.

Table 7

User Interview Themes

| Tag [#N]	Definition	Example	Informs
Mental and Physical Safety [13]	How participants feel in terms of mental and physical safety both	"I've lived through times where you are very judged, or friends are attacked, for	Hesitance

	offline and online.	identifying certain ways." -U4	
Data Collection Motives [40]	What users question around why an application or platforms is asking for certain information	"From a user standpoint. It doesn't really make sense why they would need to know what my gender is, or my pronouns are, but I can see how from their standpoint, they might want data on who was using their app." -U1	Hesitance
Data Privacy [22]	How users are concerned with data privacy	"There's just constant breaches on every platform all the time, and so I do get frustrated when they are asking for such personal information. If they're going even farther and asking things that might be unsafe for someone to know, it makes people not want to fill it out genuinely" -U2	Hesitance
Performative Inclusion in Tech [29]	How genuine users feel technology companies are in their inclusivity efforts	"Just showing that you're having the likeness of a queer creator doesn't necessarily mean that you support the communities behind them. You might just be trying to attract them to use your app." -U1	Hesitance
Data Collection Resistance [38]	Embodies anonymity, lying, and disinterest in sharing	"It's not like I have to give them 100% my information. I could be Jonathan from Texas and I was born in '62. They don't have to know my full information" -U5	Resistance
Data Entry Options [27]	Available options to users when creating a user account - they cannot be accurate if they don't have the option	"But when I sign up, it asks "what's your gender?" and it only has male or female. It's like wow, you didn't even try here." -U0	Resistance
Forced or Hesitant Compliance [16]	When participants mention that they must comply to use technology that they want or need, but feel they do not have a choice	"I'm used to choosing all these markers about yourself forever and I'm desensitized to it. Ugh, this is what I have to do even if it's not truly how I want to fill it out." - U0	Compliance
Negative Tech Relationships [18]	How participants describe their negative relationships with technology and/or tech usage	" I, you know, have given all this information, and then I don't remember ever getting any benefit from it"	Compliance
Autonomy Over Data [29]	How users take control over their data and how it's shared	"I feel like with a lot of identity and preference questions, it's often like a multi-choice answer, where sometimes it would be nice to self-select, self-describe, self-define. That's really the only problem I have" -U5	Compliance
Genuine Inclusion in Tech [21]	Participant attitudes towards genuineness of inclusion	"When other platforms not only include trans people but disabled gay people, people of all views and backgrounds, I think that is also a marker that they are	Alternative Path

		making an effort." -U5	
Delightful moments in UI/UX [15]	What moments do participants find delightful in relation to specific features, UI, and/or UX in applications	"the fact that [options] included bisexual and pansexual. I was like, oh, nicely done." -U2	Alternative Path

4.4 User Preferences in Providing UA Feedback

Users were asked "If you came across an app or website that did not have an LGBTQ+ inclusive user account, how would you want to give feedback? Select all that apply". The options provided were: (1) Anonymous feedback form (where the team could not contact you), (2) Email feedback form (where the team could contact you), (3) Social Media (e.g. tweeting at a company), (4) Calling customer service for the app or website, (5) Focus group or interview with the company's research team, (6) Contacting someone directly from that company (e.g. through LinkedIn), (7) I never thought about giving feedback for this, (8) I would not want to give feedback for this. 7 users responded to this question, with a total of 11 selections due to the select all option. A majority of users prefer an anonymous feedback form (4/11), followed by never thinking about giving feedback (3/11). Options (4) Calling customer service for the app or website and (6) Contacting someone directly from that company (e.g. through LinkedIn) received no selections. See Figure 3 for an overview of selections.

Figure 3

How users would want to provide UA feedback
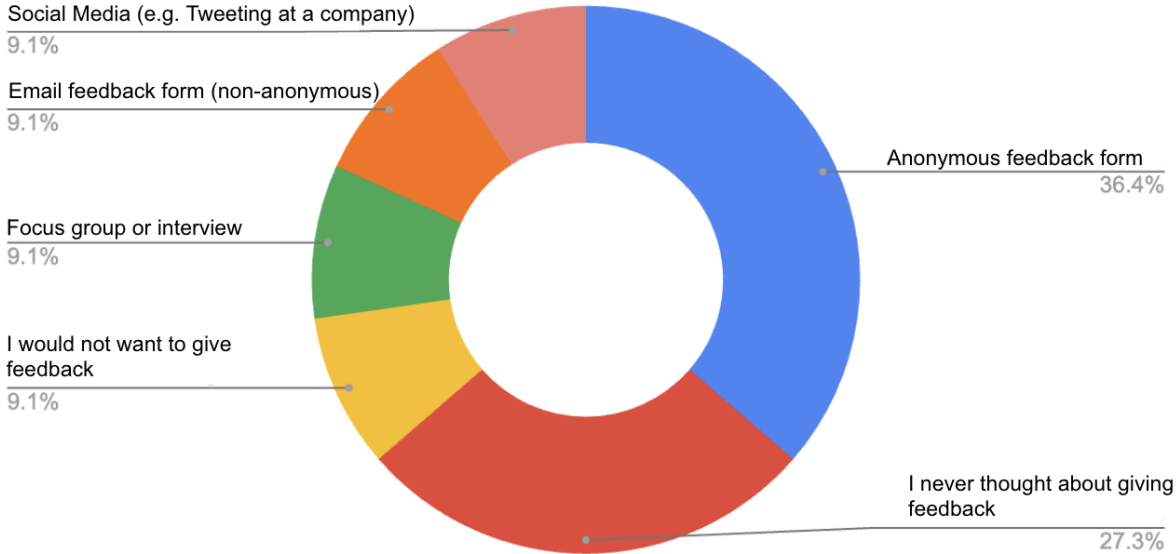
Note: Options "calling customer service" and "contacting someone from that company directly" had no selections (0%)

5 Findings

Throughout this section, authors will be presenting data findings from users and product teams that are collected to inform both pre-playbook and post-playbook drafts. Before drafting the first playbook iteration, researchers interviewed LGBTQ+ technology users and Product Managers to understand the

journey and pain points in LGBTQ+ technology users' experience in navigating user account sign ups, and Product Managers' experiences, constraints, and limitations in product development. Authors present findings in this section by first discussing user findings, including who the user populations were and their experiences navigating user account sign up interfaces. The User Findings section will be split up into Pre-Playbook findings, which includes survey findings that consider both LGBTQ+ and non-LGBTQ+ users and findings from preliminarily playbook interviews. Additionally, Post-Playbook findings include insight from usability studies with LGBTQ+ technology users. Following User Findings, authors present product team findings, despite using the terminology of "PMs," product team members include designers in this context. Authors incorporated the useful insights in these findings to draft the playbook, which researchers conducted usability tests on with product teams to validate and gauge the usability, digestibility, and informativeness of the draft–found in the Post-Playbook subsections here.

5.1 Pre-Playbook User Findings

In order to understand LGBTQ+ technology users' wants, needs, and pain points in navigating user account sign up platforms, researchers distributed surveys to compare the experiences of LGBTQ+ and non-LGBTQ+ users regarding inclusive platforms. The findings from pre-playbook interviews provided a baseline of users' perceptions and values towards digital user account inclusivity, informed playbook content, and created interview questions for PMs to establish themes for user account product teams–especially those who may not have access or time to personally speak with LGBTQ+ users of technology–to reference. User themes discovered include LGBTQ+ users' hesitance, resistance, compliance, and alternate paths for sharing representative data with UAs. Figure 4 illustrates how the playbook hopes to disrupt exclusionary design practices and its effects. This, in turn, will prevent instances of onboarding hesitation, data resistance, and reluctant compliance, user experiences of microaggressions about their identities. The alternative path suggests that rather, UAs can provide micro-affirming onboarding experiences. The following subsections elaborate on these themes and will provide context to Figure 4.

Figure 4
Exclusionary design practice flow and opportunities for disruption

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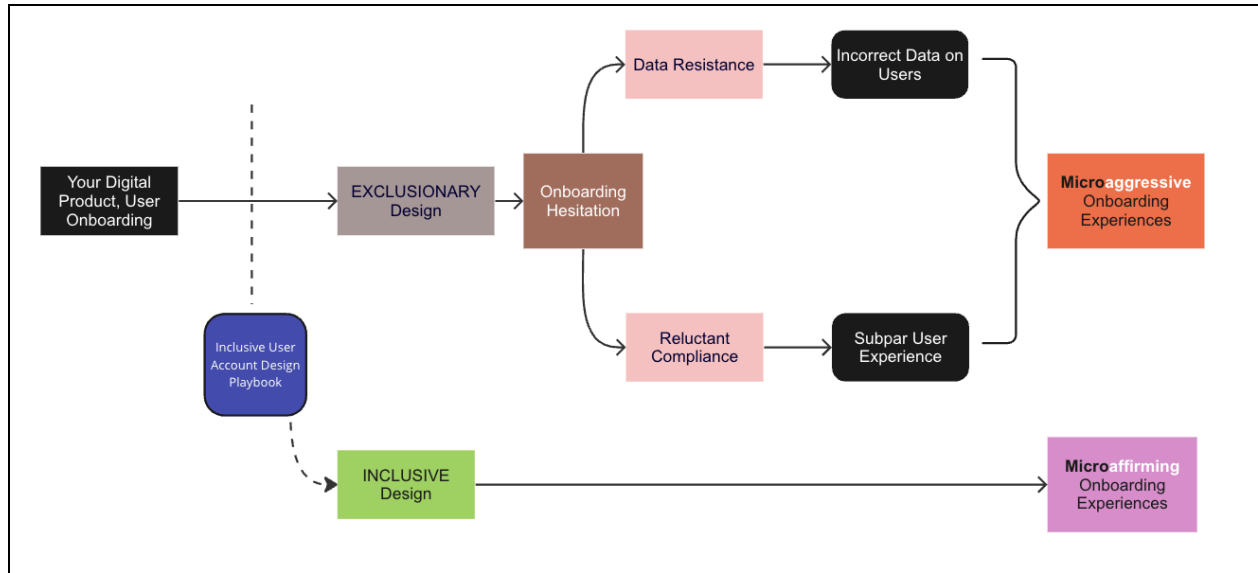
5.1.1 Hesitancy to share representative information

Hesitancy was noted in LGBTQ+ users' willingness to share information on user account (UA) digital platforms. This hesitancy stemmed from concerns of safety, data privacy, uncertainty in users' identity, and users' distrust of technology. LGBTQ+ users noted fear of mental and physical safety upon disclosing personal information due to historical marginalization and harm, especially for LGBTQ+ populations of color. LGBTQ+ users noted feeling unsafe, ignored, and discouraged when asked to share personal information. One user stated their lack of feelings of safety regarding this concept, stating,

> There's definitely some trauma around it, too, you know, it's like, is it always safe to identify in some way that's…different in some ways. So it's just not so easy always to answer with someone that you don't feel safe with (U4)

Moreover, due to the historical lack of safety for LGBTQ+ populations, these particular users note uncertainty around data collection. According to the data collected, these users were noted to highly value data privacy and highlighted sensitivity and concern about how their data is collected, stored, shared, and de-identified. Being asked to share personal information resulted in feelings of frustration, anxiety, and insecurity. Furthermore, some participants who were asked to disclose personal information noted feelings of discomfort due to their uncertainties about how they identify. The concept of fluidity as it relates to identity and representation is an integral aspect of importance within LGBTQ+ communities. An individual who might be asked to disclose their gender or sexual orientation on a particular user account sign up may not know themselves how they identify, and will in effect face hesitancy and confusion when being forced to respond to that field and confront feelings that they are already having difficulty in parsing on their own. Additionally, the persistence of rainbow capitalism–the commercialization and commodification of support for LGBTQ+ causes [13]–has led to further distrust of LGBTQ+ users in corporate intentions. LGBTQ+ users noted awareness of the faux-LGBTQ+ support of anti-LGBTQ+ companies who may add rainbow colors to their logos in "support" of pride month, while

simultaneously donating to Anti-LGBTQ+ campaigns. Overall, the feeling of hesitancy presented here is rooted in macro & microaggressions toward the LGBTQ+ community

5.1.2 Resistance - refusal to share representative information

The next theme that was common amongst the user population was the concept of Resistance as it relates to information sharing. These findings indicated that if a user wanted to get something out of a product that was requesting personal information that they did not feel comfortable sharing, users proceeded to use such technology, however, may have resorted to providing inaccurate data about themselves, which can be seen as resistance. Resistant behavior often resulted from a number of factors including a lack of correct options presented to users, a personal distrust of corporations, an imbalance of trade-offs in which the benefit is not worth the cost, and for artificial uses of a given digital product.

A lack of correct or representative options displayed to users entails a data collection form that does not present options that would allow a user to provide accurate information about themselves, requiring them to mis-represent their identity in order to use a given technology. One interview participant notes, "there's not an option or prefer not to say how you feel about answering those, and…to be honest, I might lie if I didn't feel comfortable," (U4) while 53% of survey responses from LGBTQ+ users stated that they have experienced a situation in which they were creating a user account that did not present an option that fits their gender or sexual identity. Users noted feelings of exclusion, frustration, and invisibility when navigating this process. Additionally, a number of participants highlighted personal distrust of corporations and uncertainty of safety in sharing personal information, which often resulted in resistant behavior. Users stated feelings of "annoyance" when asked to share information on corporate platforms. In addition to a lack of options and corporate distrust, users displayed resistant behavior when the risks outweigh the benefits of providing personal information. Participants preferred anonymity and noted feelings of exploitation when they felt as though they were disclosing information in which the risks outweigh the benefits.

Furthermore, participants displayed resistant behavior to data collection when there would be no observed consequences for providing false information. For example, when users were using technology for mundane purposes such as a video game, etc. they were more likely to resist providing accurate information about themselves as opposed to situations in which providing accurate information benefited them, such as a telehealth app or physician's office. This was seen further in a similar exercise conducted in LGBTQ+ user interviews to understand users' reasonings behind information sharing preferences. Users were most uncomfortable sharing SOGI-related data with industries that they felt had no use for their data, or that would not provide the user with any benefits for sharing. For example, users were comfortable sharing their gender with a Dating App because they felt it would benefit their experience in connecting with the right groups of people. Yet, they were not comfortable sharing their gender with Game or Puzzle Apps.

5.1.3 Compliance - reluctantly sharing representative information

Another theme that came up during user interviews was reluctant compliance amongst LGBTQ+ users. By reluctant compliance, the authors mean that rather than ending their user flow–participants still went

through the user account sign up process due to the necessity of the technology and apathetically accepting the consequences, but did so with reluctance. Expanding on the idea of how technology has become a necessity, participants felt that they had to comply with categories and boxes that platforms provided them despite feeling "boxed in" (U4) because of its ubiquity. One participant mentioned "I think in some ways it really can't be avoided because I have to use a computer at work" (U1) while another elaborated that "A lot of my hobbies also take place over the Internet, or just with technology in general. So it's my work, my family, my friends, and my hobbies, like most of this is all technology based." (U2). This reluctant compliance also stems from their apathy towards how data collection and categorization affects them as an individual. Users are desensitized to giving out information that at this point they don't really question. Rather, users just do it because it's "just how it goes" (U0). U0 elaborated on this by saying "I'm just so used to it, I'm used to choosing all these markers about yourself forever and I'm desensitized to it. Ugh, this is what I have to do even if it's not truly how I want to fill it out. It's just how it goes," referencing the frustrating feeling that they are not being accurately represented by the data they are required to input. This feeling of desensitization and being boxed-in ultimately led to feelings of microaggressions during the onboarding experience.

5.1.4 Alternative path - desire to share representative information

When researchers asked users how they want to eagerly and willingly engage with user account sign ups, they mentioned the following: customization, ability to opt out, awareness of data privacy & usage, and upfront presentation on company values. In customization, authors found that providing the user with the ability to self describe using language that doesn't "other" the user makes them more appreciative and comfortable of sharing how they authentically identify. U2 exemplifies this through the lens of usernames, where they mention,

> I think customization always lets the user be genuine. How they want to be in terms of things that are from a dropdown menu, people are never going to fit in a dropdown menu. The more questions where you put dropdown menus, the worse it's going to be. Usernames–we pick our own usernames. On what website is it a dropdown for picking your own username, where they don't give you any option?

Other interview participants hinted at this same feeling, U0 mentioned they think it would be great if "you weren't forced to pick between what they've decided are the 'acceptable' choices" while U5 mentioned "I feel like with a lot of identity and preference questions, it's often a multi-choice answer, where sometimes it would be nice to self-select, self-describe, self-define." This was further supported by open text survey responses noting that having self-description options feels more thoughtfully inclusive. Further, around 90% of survey participants who have experienced exclusionary user accounts mentioned that adding more options for gender, sex, and pronouns could have made their user experiences better.

Another method that digital products can employ to create a better user experience is to provide the opportunity for users to opt out of answering a question. Users want autonomy over what they share with a company; they expressed wanting more power and understanding where that data goes and who has access. When users come across data entry points that they are not entirely sure about, there is a strong sense of reluctance–U2 asks "Can I get away with not giving you my real information? I do see if

it's required or not." Additionally, a sense of anonymity was important to users, with U4 elaborating that they'd prefer "answering as much as I feel comfortable, and nothing extra" Feelings of micro-affirmations were presented when users felt more autonomy over their data through opt-out options.

Subsequently, paths towards eager engagement with user accounts is transparency around why user data is being collected, and how it is going to be used. An important nuance here is that some users were curious about the visibility of their data and what other users on the platform could see. This was a particular concern for U5, who mentioned "When people do see a public social media page, what do I want them to interact with? I feel like I can control that." If participants do not feel confident in the company collecting their data, they might be inclined to resist the data collection, because what matters to participants like U4 is "if I felt like the people doing the work were also members of the community and were really safe people." If digital platforms were more transparent during their user account sign up process, participants like U0 would happily partake, mentioning that "if sign ups ever ask me 'can we ask you extra questions so that we can get data so that we know more?', I'd be more inclined to answer it."

Lastly, employing transparency on their company values and contributions to genuine LGBTQ+ advocacy and inclusion is noticed by LGBTQ+ users and even shared with their communities. It brings forth a feeling of being welcome onto the platform, allowing the user to be more engaged with that product. When asking for examples of user accounts that were positively memorable to users, U5 mentioned marketing materials "including LGBTQ+ experiences and voices throughout the year, I think that you were making that important effort to retain those relationships and build that community."

Overall, when users came across exclusionary design on user account interfaces, they felt hesitant in using that product, which resulted in either resisting its designed use case or reluctantly complying with its categorizations. In both of these options, users are made to feel disingenuous to their true identities and less safe when using these digital products. Through questions asked in the interview and surveys that hint towards inclusive designs and futures, authors present findings for an alternative path: product developers recognize the impact of user account features and design according to inclusive strategies & markers. U5 shares their positive UA experiences and what marks an "inclusive" platform stating, "When other platforms not only include trans people but disabled gay people, people of all views and backgrounds, I think that is also a marker that they are making an effort."

The sense of thoughtful inclusion within user accounts was recognized by both LGBTQ+ and non-LGBTQ+ users surveyed, where 75% of users who reported coming across a user account that thoughtfully included their gender or sexual identity mentioned it was because of the inclusive options. A further breakdown of this can be found in Figure 2.

5.2 Pre-Playbook PM Findings

In choosing the target audience, authors sought to determine which ideal role to share the Playbook with at a given company. Due to a researcher on the team having previous experiences working with product teams, researchers initially chose Product Managers (PM) as an audience. This understanding was rooted in the PM role having the ability to discuss plans of action, influence, and ultimately implement final decisions. Within PM interviews, it was confirmed that PMs are usually the final decision makers in product development and are well-connected and cross-function roles. PM3 stated that "Product managers fit in the middle of the problem space and solutions phase to figure out

what the problem is." PMs act as liaisons within different disciplines in a given company, making them an ideal audience for the Playbook. After learning about time constraints PMs deal with, researchers aimed for this resource to be referenceable, and easily digestible for PMs during their busy workdays.

5.2.1 PMs value collaborative problem solving for user joy

From PM interview findings, researchers determined that their values included problem solving, spreading joy, and having empathy. PM most often leveraged products' affordances to solve problems and mitigate pain points that users experience. They viewed products as a way to show their strengths and, as PM1 puts it, "rolling up my sleeves and digging into the weeds of what the customer needs are." Similarly, Product Managers valued "spreading joy" through product development and dissemination. Many PMs noted the distinction between "Minimum Loveable Product" (MLP) and "Minimum Viable Product" (MVP) in which the former focuses on the core of users' likes, values, and interests at the foundation of the product development process, compared to an MVP in which the product's primary focus is its viability within a given market. Product Managers highlighted the importance of users experience, comfort, and enjoyment while using a product. PM1 also stated, "Making sure that…100% of our users are comfortable using the product and that our product is meeting some sort of unmet need for them." The third value that was most common amongst the PMs was the idea of empathy and ensuring that customers feel included in their product. Including customers looked like asking questions and listening to better understand customers, as well as ensuring that they are not developing this product for themselves but for their user base.

Collaboration with others was highly valued among PMs in terms of access to and utilization of resources. 100% of PM participants in this study noted that they often seek guidance from other individuals in the industry whom they respect about the topic when they are looking for further information. Whether learning from other experienced coworkers, or obtaining advice from managers, mentors or professional coaches, PMs noted a large preference for utilizing individuals as resources. PMs noted that while the role required a lot of these soft skills and adaptability, hard skills were necessary as well. To address these needs, PMs utilized static reference materials such as books, online courses, Youtube videos, or other online guides as well as interactive and engaging courses such as business school classes, PM degree classes, and useful workshops.

5.2.2 PM approaches to designing user products

In determining the process of product development and implementation that PMs must navigate, authors wanted to understand the level of experience that PMs have in user accounts. Participants had different levels of experience in the product development of user accounts. PM0, PM1, and PM5 had no experience in working in the development process of user accounts, while PM3 and PM4 had some experience in user account iterations, but did not have experience in taking user account creation from end to end. PM2 had experience in developing a user account from end to end.

Regardless of product or feature type, PMs noted using a number of frameworks during the overall product development process. These frameworks go hand-in-hand and include (1) user-led decision making, (2) open problem solving, and (3) prioritization strategies. The user-led decision

making framework aligns with the Minimum Loveable Product strategy, which centers users' delight from a given product as opposed to the product's minimum viability. PM1 stated that they "develop the core of what users need, but instead of thinking about it in terms of what users need, you should think about it in terms of what users will love." Additionally, PMs highlighted the use of open problem solving. Here, PMs conduct research and analysis with their users to identify the true underlying problem of a situation so they can successfully ship lovable products. PM2 stated "I am less product principles and product process minded person and more a product is a really amazing vehicle to solve problems and understand them in a really cool way."

Finally, PMs discussed how they must prioritize features to decide what gets built and when. three PMs reported utilizing the RICE method, or Risk, Impact, Complexity, and Effort method. *Risk* is considering who is at risk of being negatively impacted by this product, *Impact* considers how many people will be affected, *Complexity* is the level of difficulty to build within an existing product system, and *Effort* considers the amount of time, money, and other resources needed to build a product. In addition to the RICE prioritization method, PM5 mentioned the "One, Three, Nine" framework, which prioritizes value of features from low to medium to high. Utilizing internal prioritization guides, specific to their company, was another way PMs conducted these decision making processes.

5.2.3 PMs face barriers during product development

PMs noted dealing with a number of constraints to consider during the product development process such as resources, time, legalities, and higher level stakeholders. Resource constraints, the top noted, included having limited availability of individuals able to perform a task, while the second most common, legal constraints, entail government and policy measures to be accounted for when developing products. The third most common constraint among PM interviewees was higher level stakeholders, who determine the decisions about what steps should be prioritized, and where funding will be allocated. Regarding this, PM2 stated, "solving important problems might not always align with where the business wants to allocate their time and resources." This constraint was further observed when this PM's business prioritized a multi-million dollar deal over Twitter users' concerns about a product's inclusivity, also showcasing a common theme of businesses often prioritizing money over other factors.

Due to the constraints that PMs deal with in the product development process, the presence of inclusion within products is often affected as a result. Since there are resource and time constraints, and PMs are balancing the input from cross-functional stakeholders, PMs' focus is often dependent on a company's business goals. Additionally, senior stakeholders are responsible for deciding business goals, scope, and roadmap that might be out of a PM's control. PM0 stated they would, "make a pitch to the VP of why this feature should get funded this quarter. Ultimately it's the VP that's deciding if we're prioritizing these features".

Since legal measures and policies are a constraint, if these particular measures do not specify inclusive measures within the requirements, inclusion could be left out in an attempt to fulfill minimum legal requirements. One example can be seen in the statement of PM1, "The government recognizes he and she right? They don't recognize other gender options, which is really something that is troubling to me, to our founders, to the company, because we've focused very deeply on building a very inclusive

company". In order to acknowledge the inclusive limitations that result from external policies, this PM noted that although they are restricted to using binary gender options, they provide additional explanation underneath this data collection field, noting their limits due to government reporting.

Along with constraints, PMs must navigate pushback from internal and external stakeholders who may not agree with their decision making and prioritization results. On internal pushback, PM3 explained,

> As a product manager, when you are presenting a PRD, depending on how your company works, you should be prepared for different types of pushback and [be aware of] all the different stakeholders that will be there, what questions they might have. That way you can anticipate it and have an answer so that you're not forced to think on the spot of what problems they might have with it.

In addition to internal pushback, PMs also noted that they received pushback externally. One example of external pushback mentioned was a Twitter user tweeting about a given company's lack of inclusivity. Depending on the resources available and level of severity of the complaint, external pushback sometimes results in direct change, while other times is put on a team's backlog to be revisited at a later date.

5.2.4 PMs prepare and respond to internal pushback

When PMs integrated inclusive features on product developments, they noted that it was generally well received within their teams and that companies are beginning to be more conscious of inclusive features and to "build without bias." While there has been positive reception to inclusive features, among resource and time constraints, inclusivity is often one of the first things that is cut. PM1 said, "There are still companies that index really, really heavily on moving fast. Unfortunately, I feel like when things get cut out of the process, this is one of the first things to go. "

In managing and anticipating pushback, PMs noted that it is important to have specific data points to present to stakeholders. Preparing data entails understanding what stakeholders are looking to hear, what questions stakeholders might have, and what their concerns might be. Additionally, being proactive in setting expectations was another way that PMs manage pushback. PM5 stated, "I realized even positive change freaks people out. I think the way to alleviate that or reduce the scary feelings around it is to make sure they're [stakeholders] involved from the beginning." PMs also have to know when is appropriate to pushback against pushback, even from senior stakeholders, when a particular issue is not what it seems. PM4 provided an example of this and stated,

> I knew their full solution was too far. It would give us tech debt and we weren't informed enough on what they were going for so I worked on a compromise. I really focused on what outcome are you all trying to solve for now, and then we came up with a much simpler approach that got them unblocked but would need more future work to really be what they're envisioning it to be over the long haul.

The last form of pushback management for PMs was knowing when to cut their losses, and simply accept pushback. This often happens when high ranking stakeholders or CEOs are invested in a particular decision. PM1 noted "we got pushback from him [the CEO] a lot of different stuff, and what

that meant for me and what that meant for my team is, a lot of times you get feedback or push back, and you have to take it."

5.3 Facebook User Account Case Study

A case study with LGBTQ+ users of technology and digital Product Managers was conducted, exploring Facebook's sign up page, as it stood during March/April 2023. This example was chosen as the case study for several reasons: (1) Facebook (aka Meta) is a dominant leader in the tech industry and smaller tech companies look to them for guidance on best practices, especially because billions of users are familiar with their interface. Naturally, smaller tech companies assume that Facebook is doing in depth user research as a large company with ample resources. One PM was hesitant to give a critique of their practices saying:

> It's Facebook, so I'm sure they've done a lot of that research. I don't wanna criticize their flow too much because they have many more user researchers and product managers than I have been with. -PM2

For this reason, authors wanted to understand what the impressions are of a company that is supposed to be the leader in this field. (2) Facebook conflates sex and gender on their sign up form. This was done to explore LGBTQ+ users' awareness of this conflation, as well as PM's understanding. (3) The Facebook sign up page provides only three pronoun options. However, they also make assumptions about your pronouns based on your selected gender. For example, if a user selects "Female" their pronouns would automatically become "she/her" on Facebook. This captures several potential concerns around pronouns in one field. (4) The Facebook gender field provides an open-ended third option, "Custom". However, the language used could be perceived as "Othering" language, and there are no safety features or error handling associated with the gender entry. This provided us with several potentially notable concepts to test with users. (5) Facebook is familiar to users, product managers, and is a well understood application concept, therefore participants would be able to have a shared familiarity with the example given.

5.3.1 User reactions to inclusivity & comfort of Facebook sign up

LGBTQ+ and non-LGBTQ+ users of technology were presented with a static screenshot of the Facebook Sign Up page and Likert Scale questions around feelings of LGBTQ+ inclusivity and number of identity-focused questions (See Figure 5). 77 of 151 survey participants answered this question in completion. There was a consensus across all users that the amount of identity questions asked felt like the right amount. All users also felt similarly about their perception of *other* LGBTQ+ users feeling included on this sign up flow. Across both groups, they stated that they believe other LGBTQ+ users would feel *less* included on this flow than the user themself. Finally, for inclusion, non-LGBTQ+ users felt more included creating an account on this flow in comparison to LGBTQ+ users (See Table 5). Users were then asked to share any additional thoughts they had on the sign up flow in terms of LGBTQ+ inclusivity. 18 of the 77 respondents elaborated on their thoughts. The top two findings from this were that users wanted more autonomy in gender and pronoun sharing options with 10 and 9 references

respectively. One user stated: "having to pick just one pronoun, with only 3 options, doesn't feel sufficient. No identifying pronouns used would be my biggest preference on 99% of platforms". An additional 5 reactions to the sign up page were that users felt "othered" by the nature of the gender and pronoun collection presented to them. 4 respondents also mentioned that including a separate transgender option would allow them to be more accurate in sharing their identity, but would only do so in cases that stand to provide them benefit from being authentic. Finally, 3 participants called out the conflation of sex and gender on this flow.

PMs explored a live interaction of the sign up flow. Of the five themes found from users, the PMs identified the potential need for more gender and pronoun autonomy, as well as the conflation of sex and gender. However, because there are no universal standards for collecting gender and pronoun data, the PMs were unsure how to gauge the inclusivity of the gender options. Some mentioned wanting to test it more with their users, while others were satisfied with Facebook's approach, because it had the custom gender write in option. There was more of a consensus around the need for more pronoun autonomy, as having only three options to choose from in a dropdown felt limiting.

Having a dropdown is tricky here because you're basically saying these are the only 3 options of pronouns. If I were designing this, I would let the user just write in what they're most comfortable with, instead of prescribing to them what the options are. - PM1

Only one PM noticed and brought up the conflation of sex and gender, as it was an ongoing issue in their previous work's user accounts.

Figure 5
Static screenshot presented to user survey from Facebook's sign up flow

5.3.2 PM reactions to Facebook sign up flow

Authors asked the Product Managers to approach the case study through the lens of a PM, to understand the natural flow and thought process they would take in providing feedback on a user account sign up design. They first gauged the amount and types of questions asked, agreeing with the standard user account fields such as name and email. PMs then oriented on the details and explored the tooltips related to birthday and gender to get a better sense for what Facebook wants users to know about those fields. There was initial confusion with the way the Gender field operated when "Custom" was selected. They were curious why a user would only be shown the pronoun select if "Custom" was selected and not if "Male" or "Female" was selected, and what the user was expected to input in the "Gender (optional)" open text field, especially because Gender was marked as a required field. Several PMs also noted that there were limited options for pronouns and an inability to select multiple (such as she/they), but were unsure or did not provide an alternate solution. The PMs approached this case study with curiosity, wondering why Facebook organized their sign up page the way that they did, and pointing out areas where they would want to conduct more research with their users.

Some of these areas included the amount of questions asked, how the tooltips were utilized, as well as how to approach the Gender field. All of the PMs highlighted the importance of asking for the least amount of data possible from the user. Especially in regards to a sign up flow, one PM explained that:

> With each field and step that you have in a flow, the more drop off and abandonment there's going to be. If their goal is to get more people to sign up to Facebook, then adding more requirements is going to make that more challenging and therefore fewer people are going to sign up - PM3

Due to this mindset, the PMs remarked on how intentional they must be about collecting an additional data field and noted this as a feature they would want to test more with their users. This thinking also provides a potential rationale around Facebook's conflation of gender and pronouns, as a way for Facebook to avoid asking the user an additional question. The use of tooltips on the gender field also caught the attention of PMs and was an area they would want to test out, especially in regards to how users might interact or not interact with them, or potentially change their gender selections after learning about how it will be used. In terms of gender overall there was a mixed review from PMs on Facebook's approach. Some PMs found Facebook's approach to be novel and impressive, while others were skeptical of how potential bad actors could abuse the open ended Gender feature. Regardless of position, there was a consensus that the Gender field was a potentially sensitive field that would require user testing in order to understand the nuance behind how to get the data the PMs are looking for.

5.3.3 Facebook case study findings on LGBTQ+ inclusivity

Overall, the reactions felt appreciative that there was an attempt at inclusivity even though all parties pointed out some potential areas of improvement. Because there is not an inclusivity standard in relation to LGBTQ+ inclusivity, any attempts that deviate from a basic approach (such as "male/female/other") were seen as notable. LGBTQ+ users were able to pick out more areas of inclusivity-related improvements than PMs and their thought processes were singularly focused on LGBTQ+ inclusivity. On the other hand, PMs thought processes spanned across the entirety of the

feature, focused on details such as the ordering of questions, error handling, number of steps, amount of questions, and the research behind Facebook's final implementation. Because PMs have many details to consider for a user account feature beyond inclusivity, they look to leaders in the field, like Facebook, to inform their product choices. This further exemplifies their need for simple and direct guidance around inclusivity that the playbook aims to provide.

5.4 Post Playbook User Findings

In order to ensure users' knowledge and experiences were accurately heard & represented within the author's final product–they sought out feedback from LGBTQ+ users. This feedback largely went towards their designing section, which validated other literature review research that the best practices are agreed upon by actual users. Users posed no qualms and shared praise on the user personas section of the playbook, which was made directly from the LGBTQ+ users authors interviewed (See Table 2). By framing experiences from actual users and utilizing their quotes, positions, and feelings towards LGBTQ+ inclusivity in user accounts through a professional UX methods framework–this allows companies to trust this set of findings that they might not have access or resources to holistically conduct research on.

The specific feedback authors received were about nuances of language and design, as well as the constraints that authors were aware of such as monetizing the impact to appeal to business strategies. LGBTQ+ Users asked for changes within definitions that meant different to their understanding, such as "MLM" that was originally presented as "Men (who) Like Men" and suggested to become "Men Loving Men". Related to language, authors originally presented "added time to engage with community" as a "con" which was informed by business practices of "time costs," however LGBTQ+ users pushed back on that language and suggested that language here be changed to "Benefits and Efforts" instead of "Pros and Cons". Additionally, there were requests to *add* more to the playbook, such as mentions towards intersectionality and sections on trauma informed practices for researchers. Lastly, an important piece of feedback that authors asked for was how users actually go about giving feedback to digital platforms, so authors could best direct product professionals in that direction (see Section 4.4). Through this post-feedback feedback form, authors found that users preferred anonymous feedback forms and other ways to contact the company such as social media or email.

Overall, users found that the experiences they shared in preliminary playbook interviews were mostly correctly communicated with the caveat of wanting for more content. In the next section, authors share the context that provided the implementation of user feedback and findings for the key audience of the end deliverable.

5.5 Post-Playbook PM Findings

Authors conducted usability tests on PMs to resolve any points of confusion and uncertainty that might exist in the Playbook. These tests sought out feedback to ensure that the playbook included useful and digestible information that could realistically be implemented in industry as a self standing resource. Table 3 outlines the PM participants. PMs 6-9, including PM4 were recruited and asked about their experiences with Notion and familiarity of LGBTQ+ inclusivity. Providing a space to voice their critiques and reactions can ensure that participants can have a positive experience with the guide, and provide feedback to help us iterate and improve experiences for users after the playbook's dissemination.

5.5.1 Navigation & Content Absorption

PMs noted some confusion regarding navigation of the playbook. There was uncertainty of how the sections are related to one another, how they should be read, and the intended hierarchy. The majority of PMs often navigated to the "start here" page, despite this confusion. PM4B stated, "It feels like a lot to start. Do I need to read the start here? Should I go dive into stuff specifically? I think the paths are [unclear]. I wanna know what you want me to see first, second, third." Additionally, there was confusion about the intended audience of the playbook. PM4B also stated, "On organization of content on pages: …when I come into a page, who's it directed at? Who's the audience? and how should I be reading it?" noting that language using "You" should be clarified more directly. PMs suggested that there should be simpler navigation within pages and between pages to find relevant content more easily without feeling overwhelmed by the amount of information. A noted overwhelming presence of text that obscured participants' ability to easily scan and digest information provided suggestions in breaking up information by adding visuals such as diagrams and charts would improve navigation. PM8 stated regarding overall content of the playbook, "Give me something to click on immediately rather than scrolling… adding certain diagrams, and emojis are other takeaways" Further, PM4B mentioned that "I think the language can be pretty dense in some of these topics, it's just hard to kind of absorb it quickly. Being a member of this community, I already have exposure to some of these things, but even for me it was a little bit dense."

Participants had several positive reactions towards the playbook, citing praise for examples and visual representations of data with interactivity. PM8 stated, in regard to mindfulness callouts, "Oh, this is helpful! I love these hints…it's complete. I love how interactive this page is." They also noted that concrete examples of "Dos" vs "Don'ts" and templates were very helpful, and having examples stood out to participants since it allowed them to better conceptualize what inclusive language may look like in practice. When asked where they might look in the playbook if they were developing a user account PM9 said, "Just by the title *goes to Current User Account Examples* [...] I would absolutely be using these as starting points and thinking about what's most relevant from my use case." Another successful portion of the playbook involved participants sharing that having relevant personas helped to ground work and offer detailed nuance that they did not have to read up on in other, more dense sections. PM6 discussed the usefulness of personas stating, "These are definitely great to have, I always think personas are useful for everyone." While some struggled with the navigation, participants noted the practicality of the playbook structure, as it resembles that of a physical book, making it intuitive to navigate, as well as the organization of the main sections.

In sum, participants felt pain points in navigation and density of the content, while appreciating the ways that there were interactive portions and examples that helped break down the content.

5.5.2 Resourcefulness of content

When asking product professionals about the use case of this guide, resourcefulness was a theme that became present. They found value in having a consolidated resource with reputable research that they could trust. Oftentimes, product professionals would like external validation that they are using correct information without having to put a ton of time into researching it themselves to confirm. While researchers did not require PMs to identify as LGBTQ+ to be a part of the study, those PMs who did identify as LGBTQ+ still found the playbook as resourceful. They stated how they would use this

resource as a way to confirm they are best representing their community. PM7 shares,"I like that this information is here, because when I'm making surveys or trying to be inclusive, when I ask this question, I don't know what options I have to put in and I'm worried I will hurt people."

Another resourcefulness team was the ability to pull out actionable steps from the guide and put them into practice. This guide does not act as a source of exact solutions of systemic issues and rather provides the tools for informed decision making. Authors recognize that the audience of this guide is the subject matter expert of their product and should know what's best for their users and implementation. When PM4 was re-interviewed for a usability test, they mentioned, "I like the thought exercise at the end too to slow down and think about your product specifically." While it was found that this guide is resourceful, another measure that authors were concerned about was realistic implementations and feasibility. Realistic and feasible use cases outside of just actionable steps, participants mentioned that it was a feasible opportunity to challenge themselves, facilitate learning throughout their teams & company, and stated specific use cases to their roles. PM6 would share internally with their company: "even if it was just to help educate other people, because the people we design for might not fit this fully, I still think that obviously those that do fit into this would greatly appreciate even the fact that everyone understands this concept more and is thinking about it."

However, there were a few concerns about the types of companies that this guide might apply to. Business to Business (B2B) vs Business to Consumer (B2C) was a particular concern to a few participants who had experience in B2B and mentioned "Contractors and distributors aren't, I feel, incredibly worried about inclusivity. We also don't necessarily ask anything about gender, so it's not really too applicable in our software in general. If it were something that came up often with our users it would be something we'd want to implement. (PM6)". Ultimately, despite more limited use cases for those working in B2B, it was still found useful in some aspects due to the data and tools presented for self & team interrogations.

5.5.3 Shareability of playbook contents

As a measurement of this playbook's impact, authors asked about how PMs would share this information. Being hosted on Notion, most participants mentioned sharing the playbook link with people as is or keeping it as a reference. The most common roles in product teams that came up that individuals would share it with were product managers, designers, and copywriters. Participants also talked about sharing with affinity groups for inclusivity (LGBTQ+ ERG, non-American PMs). All participants felt comfortable sharing this link and would share with their teammates, exemplified by PM8 mentioning 'I would feel so comfortable, I would actually love to just share this link with everybody if I were to put it on like a slack channel, or even have it as an email signature." One captured demand was the need for an overview of the resource, as it contains multitudes of information that product professionals expressed that they might not have the time for digesting at a quick glance. Due to the vastness of content, some stakeholders might only need bits and pieces pulled from the guide in certain situations that pertain to their roles, such as engineering and senior stakeholders. PM6 felt particular about this, as they mentioned, *"I would want to go through and highlight points that I think are important, or again if you have that 5 minute overview, putting something together where I could present this a little more quickly to other people."* Largely, participants also felt confident and secure in presenting this knowledge as a valuable and informative resource. They did not feel like there was any risk or possibility of pushback within their

teams and companies on sharing this information. The biggest risk that a participant mentioned was a sense of ambivalence, citing "I think that the biggest risk would be somebody just doesn't internalize it or take it in, they just would be like, 'Oh, okay, that's nice. thank you' (PM4B)."

Overall, participants believed that they could see themselves sharing this as a resource for the benefit of their personal values (See Section 5.2.1) and facilitating larger team discussions. These affordances were reflected in the ways participants expressed the ways they'd best share this information with their networks, mentioning adding it as a link in their email signatures and bookmarking it as a resource in their common team workspace.

6 Discussion

6.1 LGBTQ+ Users Notice and Feel Consequences of Exclusionary UA Sign-Ups

As shown in Section 4.1, it is clear that LGBTQ+ Users in comparison to Non-LGBTQ+ Users *notice* the difference between an inclusive UA Sign-Up and an exclusionary one. This notice leads to consequences of feeling "unseen" that contribute to negative mental and physical health effects. Whether or not digital products intend to create that feeling in their users–they do, and it's up to them to implement this change. Furthermore, as LGBTQ+ individuals fluidly explore their identities, there is an importance in recognizing the ephemeral nature of identity in relation to static information that is asked of users when creating UAs. Section 2.4 discusses the impact of including a two-question method that uses "current gender" as a way to recognize this ephemerality. Largely, the consequences of exclusionary UA Sign-Ups remove a sense of belonging in digital spaces that in turn affect LGBTQ+ users' sense of identity.

6.2 Product Developers Need to Learn How to Upskill

It's transparent that Product Developers have personal values of inclusion that they plan to embed in their workflows, however due to company culture and project constraints–this might get derailed. Given a tool such as this playbook, it is possible that they can use it to their advantage to implement change realistically. This should involve using all the pages under Implementing (See Table 4) to craft pitch letters to senior management, effectively communicate this information to their product teams, and learn the best efforts in adding LGBTQ+ inclusion to company cultures. Depending on the organizational processes at companies, PMs may not have full decision making power on the prioritization of LGBTQ+ inclusive features. Allyship is especially important in this case, as fewer LGBTQ+ individuals are in positions of power [25]. Providing the decision makers, both senior and lateral team members with the research presented in this paper gives PMs the opportunity to educate them on why inclusive user accounts are a must have in their products.

6.3 Facebook Case Study Illuminates Problem Space Awareness

Users felt that Facebook's user account interface was insufficient at encompassing the fluidity of gender, resulting in feelings of "othering" and misrepresentation for themselves as well as other potential

LGBTQ+ users. Regarding the future of work, more inclusive products must be developed in order to avoid negative physical and mental health consequences of LGBTQ+ users of technologies. While PMs balance multiple aspects and considerations for developing a UA interface, they were able to pick out portions of the Facebook UA interface that were lacking–however, felt ill-equipped in resources and knowledge in being able to implement inclusive change. Enabling PMs to implement the changes they were able to recognize were needed, resources that are catered to their frameworks and speak to their access to power must be created and shared. To this, authors have crafted an inclusive user account design playbook. This case study informs the playbook resource that aggregates users' sentiments regarding exclusionary designs, providing intentional design best practices that acknowledge and respect LGBTQ+ user identity within future user accounts. In order to effectively include LGBTQ+ populations within inclusive design practices, PMs would benefit from the utilization and implementation of this playbook to buttress the development of future inclusive user accounts.

6.4 What Would Impactful Change Look Like?

Authors believe that the reach of this research and culminated playbook could have impactful change across companies that implement it, and individuals who integrate it into their frameworks that may carry from company to company. For LGBTQ+ Users, more inclusive UAs mean that they will experience micro-affirmations rather than microaggressions from online products and thus engage with them more often, providing a mutually beneficial relationship. Additionally, LGBTQ+ Product employees will have their mental stress and cognitive load be reduced given that teams might depend on their input to represent an entire community of individuals. Rather, those LGBTQ+ Product employees can refer their teams to this playbook. Overall, impactful change would mean more positive outcomes for LGBTQ+ users and better learning opportunities for Product Development Teams.

6.5 Limitations & Future Work

During this research, authors experienced a number of limitations contributing to this work. Researchers were somewhat limited in the extensive diversity of their participant population. For example, LGBTQ+ participants were often recruited through snowball sampling within researchers' local networkers or direct circles. Additionally, while researchers collected data on industries, research was limited by the number of industries that were studied, affecting the depth of that particular aspect of the research design. Research was also limited by the diversity of roles of participants that contributed to this study. While authors primarily interviewed with product managers, expanding and diversifying the roles to potentially include more designers, engineers, and executives, could have diversified the findings as it relates to product teams. Overall, this research would have been improved with a broader range of identities including career roles, social circle, geographical region, as well as a range of other factors that could have led to a larger body of diverse findings.

In future work, authors would recommend an exploration of the following related topics that were out of the current project scope: further exploration into how intersectionality affects design practices, detailed differences in considerations according to industry (health vs social media), how LGBTQ+ users

feel about the ephemerality their identity in relation to static UA data, and expanding the UA space outside of initial onboarding more in depth that includes auditing current UA systems.

7 Conclusion

Considering users' sentiments and experiences navigating user accounts, this research highlights experiences of misrepresentation, distrust, and exclusion when users are subjected to limited or inaccurate options during the process of disclosing personal information across digital user account platforms. In addition to safety concerns as an effect of the historic marginalization of LGBTQ+ individuals, and commodification of support from corporate entities, data shows that these users face further marginalization and feelings of erasure by exclusionary practices that percolate current user account design. While in this research, PMs noted their workplace constraints that include time, resources, and business values that they face throughout the product development process, PMs also noted the significance in creating "loveable" products for all users. The data from interviews and case study with these PM participants, however, indicates that they did not necessarily have the resources or background knowledge to realistically and intentionally develop products that integrate specific features of inclusivity. In developing the playbook, informed by the data from background research literature review, and LGBTQ+ users, as well as insights from PMs as an inclusive design resource for Product teams to upskill inclusive design strategies, PMs noted the informativeness and effectiveness of the distribution of this resource into workspaces within industry. As LGBTQ+ populations continue to experience hardships offline, it is imperative that their online experiences provide micro-affirmations about their identities. Empowering PMs and those who help develop digital products is certainly one path to reducing hardships on the LGBTQ+ community. Presenting the culminating work, authors encourage readers and audiences to read, explore, and actively engage with bit.ly/LGBTInclusive_UAGuide.

8 Acknowledgements

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