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Abstract

This thesis research concerns the perceptions of a prospective social networking application. To measure this, Concurrent and Retrospective Verbal Protocols were utilized and analyzed for ten social networking application users. The results show that there is an overall negative perception of the prospective social networking application, and that this result may be due to a combination of conflicting product-related and testing-related factors.

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1. Introduction

The topic of this thesis research revolves around a prospective social networking application called Proj X (hereafter referred to as "the Product"). A social networking application is defined as an online platform that allows users to build relationships with others who endow similar traits (Boyd & Ellison, 2007; Obar & Wildman, 2015). The Product studied in this thesis research attempts to address multiple problems in the social networking application industry: first, the demonstrated negative mental health effects associated with protracted use of social networking applications (Pantic, 2014), due in part to the increased risk of cyberbullying and self-harming behavior (Livingstone & Brake, 2010; Abi-Jaoude et al., 2020); and second, the low level of trust towards social networking applications due to data privacy concerns (Smith, 2017; Rădulescu, 2018). The Product proposes to address these problems via a data-responsible social networking platform on which users can appraise the value of various Acts of Kindness (AoKs) and perform them to earn credit, which may be later converted to cash.

The main goal of this thesis research is to understand the perceptions of the Product via user experience (UX) testing, which entails observing research participants while they use a Product (Kim et al., 2011; Sivaji & Soo, 2012). UX has a number of definitions (Law et al., 2008) in part because UX has been otherwise diversely characterized, for example, as "usability" or "user acceptance" (Luther et al., 2020). However, in a survey of 275 UX practitioners, it was found that most agree that UX is "dynamic, context-dependent, and subjective" (Law et al., 2009, 719) and can furthermore be distinguished from usability in the pursuit of a more unified description: usability is the extent to which a product achieves specific tasks with effectiveness, efficiency and satisfaction (Bevan & Macleod, 1994; Bevan, 1998; Van Haren Publishing, 2020), while UX concerns the user's subjective perception of a product before, during, and after its use (Beccari & Oliveira, 2011; Luther et al., 2020; Van Haren Publishing, 2020). Though many UX methods stem from usability (Tullis and Albert, 2013; Law et al., 2014), overall these elements can be separately identified by looking at the functionality (regarding the product), the usability (regarding the human-computer interaction), and the user experience (McNamara & Kirakowski, 2006). That being said, this thesis research does not intend to study the functionality or usability of the Product, or any "pragmatic" qualities, which measure how easily a product enables a user achieve their goals, but rather "hedonic" qualities, which is related to the emotions and sensations of the

interaction (Hassenzahl, 2007; Rogers et al., 2019), which some researchers claim is the primary aspect of UX (McCarthy & Wright, 2004).

With the goal in mind, the main question that this thesis research aims to answer is: how do research participants perceive the Product? In order to answer this main question, auxiliary ones are asked, such as: what questions are asked about the Product; which positive aspects are possessed by the Product; which negative aspects are possessed by the Product; to what extent the Product is seen as personally useful; which words are uttered most; and do preliminary patterns manifest between participant traits and their perceptions of the Product?

This research is exploratory given that it investigates a relationship between research participants and a product that has not been released or previously studied. Therefore, a qualitative approach is employed, as this exploratory research pertains to the human experience, the data consists of natural language and observations, the process is iterative, the methods are combined, and the findings are highly contextualized (American Psychological Association, 2020). These qualitative research methods include Concurrent and Retrspective Verbal Protocols and furthermore, a user analysis to understand the research participants' most predominantly used social networking applications and the reasons for their use. Furthermore, two quantitative surveys are affixed to this thesis research in order to lay the foundation for future research for when the sample size reaches a viable minimum for quantitative analysis.

2. Methods

2.1. Research Design Overview

Theory

This exploratory research is guided by the post-positivist theory. The post-positivist theory assumes the idea that not everything can be known (Krauss, 2005). It was popularized after the articulation of the logical positivism perspective by Auguste Comte in the early 19th century, who argued for the existence of a purely objective stance (Macionis, 2011); later, D.C. Phillips suggested amendments to the logical positivism theory and coined the term post-positivist to reflect the philosophical deviation (Miller, 2007), as it is concerned with subjectivity reality (Ryan, 2006) and asserts that a researcher's scientific knowledge, background context, and values can influence what is interpreted during their research (Beccari & Oliveira, 2017). This philosophy has been particularly embedded in the theories of design (Marcus, 2011). Design thinkers proffer that it is impossible to confirm the veracity of a theory, but not impossible to recognize erroneous theories (Bamford, 2002). This recognition was made possible by a reformatting the design testing methodology, from a analysis/synthesis approach to conjecture/analysis one: wherein the former, a problem is deconstructed into smaller problems which are solved one by one until an overarching solution for the entire problem is reached; and wherein the latter, the formation of hypotheses precede any analysis (Trebilcock, 2009). Though this thesis research is not interested in testing the design and is more exploratory (hence no hypotheses have been posited), it is nonetheless important to consider this approach for future design testing of the hypotheses that arise from this thesis research. Regardless of the application, this post-positivist theory is arguably most appropriate for this thesis research due to the fact that it is broad and centralized around the researcher's motivations and commitment to the research (Ryan, 2006). This theory inherently serves as a reminder to identify and mitigate factors that may influence the researcher's subjective reality so that findings may be fairly scrutinized and weighed, and doing so strengthens the emphasis on the research participants' subjective reality, which is the essence of this research.

Research Method

Given that it has been shown to be helpful in exploratory research (Kuusela & Paul, 2000), a qualitative research method called the Verbal Protocol Analysis was selected. Verbal Protocols are self-made reports of research participants' thoughts (Duff et al., 2006), and are beneficial for understanding cognition around highly contextualized behaviors during a task (Cuny, 1979). To do so, Verbal Protocols are transcribed, codified, and analyzed (Ericsson et al., 1993; Austin & Delaney, 1998). The Verbal Protocols chosen for this thesis research are twofold: a Concurrent Verbal Protocol (CVP) and a Retrospective Verbal Protocol (RVP). A CVP is a method that typically requires participants to speak their thoughts aloud while undergoing a task (Crutcher, 1994). These Concurrent Reports are believed to be an exposition of short-term memory processing (Bettman, 1979; Ericsson & Simon, 1998). Therefore, the main use of the CVP in this thesis research is to expose the perceptions of research participants while going through the task of reading the Product landing page. Given that research participants can only verbalize a part of their thought at any time (Bainbridge & Sanderson, 1995) the CVP is followed by a RVP, which is typically extracted immediately following the completion of a task while the short-term memory of the task is still engaged (van de Wiel, 2017) so that research participants can retrieve thoughts and thought processes that they could not express while a task was being conducted (Page & Rahimi, 1995). In this case, the RVP is used to elaborate upon the research participants' perceptions of the Product collected in the CVP through a stimulated recall.

Following the RVP, a qualitative user analysis of each research participant was conducted. User analysis typically results in tacit knowledge, or a set of facts regarding the users' demographic, values, behaviors, and motivation for using a product (Barker, 2003). The primary goal of the user analysis was to understand if patterns manifest between participant traits, their social networking application use, and/or their perceptions of the Product.

Following these qualitative research methods, two quantitative research methods were applied however not analyzed as part of this thesis. These data are not analyzed primarily because the research at this stage is interested in insights and not metrics (Budiu, 2021). Regardless, given the novelty of the research subject, it is difficult to estimate population size, confidence level, sampling error, and heterogeneity factors that contribute to the formulation of an appropriate sample size for such quantitative research (Cárdenas, 2019). Rather, these data are collected while the opportunity for data collection is present, in order to

lay the foundation for more widespread quantitative testing of the Product in the future, and as such these findings are not included in the results. This quantitative research includes a survey adapted from Sheldon et al.'s (2001) psychological needs fulfillment survey, to help gain future insights about the Product's ability to meet users' fundamental needs. Psychological need fulfillments are of interest as they have been shown to be clearly related to the hedonic qualities of a product (Hassenzahl et al., 2010; Kim et al., 2011). This quantitative research also includes an AttrakDiff survey (Hassenzahl et al., 2002) in order to understand the research participants' perception of the Product's hedonic qualities, which, as related to emotions and sensations, are perceptions that support the achievement of "be-goals," such as "being independent" and "being confident," (Hassenzahl, 2007).

Remote research methods were used in order to tempt benign online disinhibition effects. Online disinhibition is the idea that people say and do things in cyberspace that they wouldn't ordinarily say or do in a proximal, physical space (Suler, 2004). These disinhibition effects can be either benign, or positive, or toxic, that is, negative. One example of a benign inhibition is through self-disclosure (Lapidot-Lefler & Barak, 2015). Studies have shown that self-disclosure increased when intimate questions were asked to research participants without eye-contact (Jourard & Friedman, 1970; Siegman & Reynolds, 1983). Thus, this thesis aims to replicate these conditions which allow research participants authentic expression in order to combat unconscious social desirability, which refers to the propensity of research participants to express perceived socially desirable statements and behaviors instead of those that reflect their true selves (Edwards, 1957; Jackson, 1984; Wiggins, 1973; Sheth & Malhotra, 2010) and which has been shown to be a risk of CVPs and RVPs (Kuusela & Paul, 2000; van den Haak et al., 2003). As such, the research was conducted over a recorded Zoom call, wherein the researcher's video was turned off during the CVPs and RVPs as well as the user analysis, so that the research participants could feel less observed and more free to state their thoughts. In the same vein, the psychological needs fulfillment survey was administered via the Zoom chat and the AttrakDiff survey link was later via Whatsapp. Another way to ensure the integrity of the data was to follow Li's (2004) recommendations, namely: voluntary participation; anonymity; purposeful sampling; triangulation; prolonged engagement; and a thick description of the methods and contexts in the research reporting. Note that not all of Li's (2004) recommendations were followed due to constraints, including: (near-) natural situation; intercoder reliability; and member checks (also note that the minimum number of dissertations could not be sourced due to the novelty of the research subject).

To analyze the data, each Zoom call was transcribed using otter.ai and proofread and corrected against the recorded audio on separate Google docs. The CVP section of these transcripts were then entirely transposed to a Google Sheet, while key findings from the RVP were extracted and then placed in the Google Sheet in order to centralize the data. This Google sheet had separate tabs for each participant, consisting of delineated sections for the Concurrent and Retrospective Reports (further delineated by questions, and positive and negative associations) and the results of the user analysis and the psychological needs survey. These reports were then linked from the individual participant's tab to a Results page, where they were coded by Research Participant (1-10), Verbal Protocol (Concurrent, Retrospective), Section where a Report took place (only concerning CVPs), Confidence of Report (Assertion or Confusion), Sentiment (Nominal and Numerical), Type of Feature (Platform, AoKs, Data Policy, or Networking), Type of Specifier (Valuation, Gamification, Profile/Feed, Recommendations, Offline Event, Ad-free, Suggested Donations, and Compensation), and finally Type of Factor (Altruism, Competition, Differentiation, Goal, Mental Health, Personal Benefit, Target Audience, and Trust).

2.2. Research Participants

Researcher Description

The researcher had previously conducted various studies that contributed to the research topic and design. The Product's concept was inspired by a previous social networking application market and user analysis, undertaken by the researcher, which illuminated the concerns around the spread of fake news, unsatisfying UX, and particularly data privacy, as well as general favorability of social networks which employ surveys and compatibility algorithms. An example of a finding from this study is in regards to data use policies, to which a research participant claimed, "The thing that bugs me when using Facebook is the tracking element. They use an algorithm on pictures to identify who we are, who our friends are, or what our purchasing patterns are. Our data is not safe. They sell that data to let the marketing firms who bombard us with offers that we actually are not interested in." This feeling is supported by the larger population, according to a 2016 Pew research study, which found that social networking applications were among the least trustworthy institutional service providers (according to U.S. American users), largely due to data privacy concerns (Smith, 2017). This is further corroborated with research that suggests companies'

unfettered access to users' personal data increases concerns around data tampering and reduces user trust in the company (Rădulescu, 2018).

A project the researcher conducted in January 2019 entitled "Reddit Comment Section Analysis" explored the various Sentiments of Reddit users in the comments section of the r/banned subreddit. The study involved the creation of a codebook and a content analysis of these comments. While the scope of this reddit study was smaller, in that it focused on the use of ad hominems and the frequency of interactions in the comment section, the experience serves the Verbal Protocol Analysis employed in this thesis research. A paper submitted in March 2020 entitled "Navigability and Understability Findings of Vattenfall's My Highlights Webpage" concerned the user experience and usability of Vattenfall's My Highlights page, a web page intended to link Vattenfall customers with deals from partner brands as a means of ensuring customer loyalty. To that end, Verbal Protocols and usability tests illuminated the navigability, understandability, value, and interest of the My Highlights page among research participants. Thus, the methods and research subject in this March 2020 research echo those in this thesis research. And while this thesis resembles this March 2020 Vattenfall research, it is different not only in the product being tested (a social networking application as opposed to a customer benefits scheme) but also in its scope (excluding as opposed to including usability testing) and product testing environment (high-fidelity prototype as opposed to a minimum viable product). Moreover, this thesis research is different from the January 2019 Reddit research by the content analyzed (spoken thoughts as opposed to written comments). Given the focus on the Product landing page content and not usability, this thesis research is also different in its research environment (remote, recorded, and screen-shared video calls as opposed to in-person, unrecorded, over-the-shoulder meetings, to improve research participant reports), in an attempt to remove social desirability bias from the research.

Participants

This thesis studied the UX of ten research participants who identified as social networking application users with varying degrees of frequency, social networking applications used, and reasons for use. The average age of the research participant was thirty-two. Among the ten research participants, four were German; the other nationalities singularly represented by the research participants were: Indian, Slovakian, Brazilian, Italian, and Indonesian. Given the nature of the thesis research, research participants with experience

in the Product sector were of particular interest, however it was also intended to gain non-Product professionals' points of view: to that end, four research participants had experience in Product and Technology sectors. The rest of the research participants have experience in People Management, Journalism, Localization, Finance, Education, and Sales.

Researcher-Participant Relationship

Though there is evidence to suggest that the interaction of not only invisibility but anonymity together drive significantly more self-disclosure than invisibility alone (Lapidot-Lefler, & Barak, 2012), the research participants were sourced from the researcher's trusted personal network. This decision was made namely to protect the sensitive details of the Product. However there is evidence to suggest that an established rapport can, as well as an introduction to the study and inquisitive nature, can help reduce social desirability bias (Bergen & Labonté, 2019). Thus, the researcher however did take care to select research participants who have an established history of honest feedback. Observations from the research sessions suggest that a personal relationship with the research participants did not negatively impact self-disclosure nor lead them to display thoughts or behaviors that lend themselves to social appeasement. Indeed, it is likely that the personal relationship between the researcher and the research participants reinforced a genuine and prolonged (when needed) dialog about the Product landing page. Reports like, “I'm going to be brutally honest here…” corroborate these observations of sincerity.

2.3. Participant Recruitment

Participant Selection

A non-probability sampling method was used to select the research participants. Non-probability sampling, as the name implies, is the opposite of probability sampling wherein each unit in a defined population has a positive, though not necessarily equal, selection probability (Schreuder et al., 2001). Rather, it samples from a population using a subjective method. One of these non-probability sampling methods includes purposive or judgmental sampling, an approach that is useful for exploratory research, wherein sampling is made based on the researcher’s idea of a representative sample that shares certain characteristics (Joye et al., 2016). In addition to an established rapport, the knowledge of the sample population that the researcher resourced for this thesis research was that of the

research participants' basic use of social networking applications, passive or active social networking application use, and varied professions. This selection method was chosen intentionally so as to provide the researcher a more holistic feedback regarding the Product, and in line with Li's (2004) recommendation of purposeful sampling.

After the selection method was decided, the researcher assessed members in their Whatsapp network as a baseline for identifying potential research participants. Whatsapp was used as a baseline inclusion method, as anyone in the researcher's personal network who had been previously contacted through Whatsapp had met the basic minimum requirement of being a social networking application user. A short list was made that considered the different professions of the potential research participants as well as their known visited social networking applications as well as their frequency of social networking application use. As previously mentioned, this was because the researcher intended that there be a mix of product professionals and laypeople, as well as both active and passive users (though this variable wasn't measured), in order to assess the Product landing page from different albeit useful perspectives.

Recruitment Process

The research participants were contacted via whatsapp and asked to take part in a 30-45 minute-long product research exercise. In pursuit of following Li's (2004) recommendation, namely that which involves voluntary participation, no incentives were offered in exchange for the research participants' participation.

The researcher decided that ten to twelve participants was enough to satisfy the research design. This was confirmed with thesis research advisor Prof. Dr. Harald Kolrep. This decision is aligned with research on the topic of qualitative studies and the number of participants therefore, which generally states that there is no agreed upon minimum number of participants (American Psychological Association, 2020).

Originally, eleven people were approached and asked to participate in the research, of whom ten finally participated. The reason that the eleventh research participant did not join the research was due to a geographical time difference that proved to be too difficult to manage. Regardless, the research participants provided ample feedback and thus the researcher decided to halt the data collection after the ten research participants were engaged with the research.

Though the original requests to the research participants via text inviting them to join a research session were not standardized, they were generally, purposefully, lacking too many details at this stage, except for the fact that it was a 30-45 minutes long research session involving a product review. This was intentional so as to mitigate the transference of the Product's perception from the researcher to the research participant, the avoidance of which was seen as especially important since it was the researcher themselves who conceived the Product and the landing page being researched.

2.4. Data Collection

Data Collection

The data was collected between November 4 and November 23, 2021. An individual research session aimed to collect all the qualitative and almost all of the quantitative data sought in this research, specifically the research participants': profession; nationality; age; three most predominantly used social networking applications and reason for use; Concurrent and Retrospective Verbal Reports; and the psychological needs fulfillment survey results. The AttrakDiff survey link was sent to research participants to be filled out voluntarily. These mixed testing methods were used in pursuit of Li's (2004) recommendation of triangulation, which is the application of multiple methods to better comprehend findings (Patton, 1999). As described in the Research Design Overview, given that CVPs and RVPs may be hindered by an unconscious social desirability, remote research methods were used in order to bring about benign online disinhibition effects. As such, the research was conducted over a recorded Zoom call, wherein the researcher's video was turned off when possible so that the researcher's facial expressions were not seen during the research participants' Verbal Reports, psychological needs survey, or user analysis.

Though the research participants were recruited with a short text, a more detailed description of the purpose, methods, and context was provided orally before the research session began. This was also conveyed before the research session began in writing as well, with a statement that research participants had to agree to saying, "This research requests that you think aloud while reading a product concept, and afterwards participate in an interview and a short survey." These habits were established again in pursuit of fulfilling Li's (2004) qualitative research method recommendation of providing rich context to the research. After the research participants agreed to the subject matter and methods of the research, they were

then asked to read a data collection policy, which said, “The data collected during this session are intended for research purposes only. No names or other identifying information will be shared in the publication of this research.” This data privacy was ensured not only for ethical reasons but as well to follow Li’s (2004) recommendation for (in this case, only frontend) anonymity. If research participants found this agreeable, they were led to a confidentiality request, stating “It is requested that anonymity be mutual. Please do not discuss the contents of the following Product landing page with anyone except the researcher, Jillian Graham, until January 1, 2023.” Similar to the research summary and data collection policy, agreeing participants were led on, this time to the start of the research session. Before the research session began, the researcher assured research participants one last time that they would not be judged for their honest thoughts and afterwards avoided speaking as much as possible.

After the research participants gave consent to be recorded and read through the research summary, data collection policy, and confidentiality request, the researcher asked them to begin reading the Product landing page and reminded them to think their thoughts aloud, signaling the beginning of the CVP, during which the research avoided speaking. After the CVP ended, the researcher asked the research participants what they perceived as they went through the task of reading the Product landing page, signaling the beginning of the RVP. Following standard practices, the researcher approached the RVP intending to be an active listener, by reiterating research participants statements made in both Protocols after they were delivered (Talmage, 2012), in order to elicit verbalization of the Product perceptions as well as specify the positive, negative, and confusions aspects of the Product. As with the CVP, the researcher avoided speaking as much as possible in the RVP, besides to ask questions and reiterate, in order to promote a constructive silence that encourages a research participant to complete a complex thought (Dana, 1992). When questions were asked in the RVP, the researcher requested that research participants try to answer their own questions in order to better understand the research participants' thought process. And despite questions from the research participants regarding the choices or reasoning that lent themselves to the Product landing page, the researcher provided very little to no explanation of the reasoning for choices made towards the Product landing page during the research session; instead, research participants were offered a follow up conversation after the session had ended to discuss the researcher’s decisions in more detail, if they were curious. Moreover, given that the Product was incepted by the researcher, the researcher took care to not “fish” for compliments, and spoke carefully so as to not tempt unconscious social desirability phenomena from occurring.

After the RVP was concluded, the psychological needs survey was administered via the Zoom chat function, which asked participants to rate the following on a scale from one to six, with one being “not at all” and six being “absolutely”: relatedness, belongingness (the feeling that with the Product, you can have regular intimate contact with people who care about you); popularity, influence (the feeling that with the Product, you are liked, respected, and have influence over others); pleasure, stimulation (the feeling that with the Product, you get plenty of enjoyment and pleasure); self-esteem (the feeling that with the Product, you are a worthy person who is as good as anyone else); self-actualization, meaning (the feeling that with the Product, you are developing your best potential and making life meaningful).

Finally, the researcher received the demographic information of the research participants (age, nationality, and profession), their three most frequently used social networking applications, and the reason for visiting. Following the end of the research session, the researcher sent the AttrakDiff survey link to the research participants via Whatsapp, which deconstructs UX into two dimensions: pragmatic and hedonic. While the researcher was only interested in the measure of the hedonic qualities, the pragmatic qualities (also known as "do-goals," such as “taking a picture," or “arriving at a destination”) could not be divorced from the survey and thus were also collected. Regardless, this survey was not intended to be analyzed under the scope of this thesis research due to a less-than-minimum number of participants needed for quantitative analysis.

There was not enough time in four out of ten research sessions to gather participant demographics, the three most predominantly used social networking applications, and reasons for use, however this was gathered post-facto via Whatsapp. The average length of a research session was forty-two minutes, which was within the intended length of thirty to forty-five minutes. This amount proved to be substantial in gathering in-depth feedback, and is believed to be in line with Li’s (2004) recommendation of prolonged engagement. Four research participants had to end the research session after thirty minutes, and two research participants voluntarily exceeded their forty-five minute allotment to provide further feedback.

In line with post-positivist philosophies, reflexivity, which is the awareness of the researcher’s role in the research (Haynes, 2012), was used consistently throughout the research as a means to self-correct behavior that may interfere with the results. One example of this is the modification of the research participants' interaction with the Product landing page: in the original research design, research participants were asked to navigate through the Product landing page on their own, with the researcher only intervening when the research participants could not continue on their own. In the early research sessions, this exposed

blatant issues with the usability of the prototype, which was not intended to be studied in the research. Thus, in the later research sessions, the researcher offered to conduct the navigation when research participants said “next” or “back” (with two research participants declining this offer and navigating the Product landing page themselves). Another example concerns the research question pertaining to the percentage of signed up research participants: it was observed that later research participants, who did not interact with the prototype as much as the earlier research participants did, generally did not understand that there existed a decision to sign up at the end of the Product landing page. Moreover, the purpose of this sign up question was to apply safeguards against social desirability biases and determine whether research participants are genuinely interested in the Product. Ultimately, it was decided that this was not obvious enough of a test nor effective enough of a safeguard. This reflexivity allowed the researcher to proactively adapt the research method as needed.

Recording and Data Transformation

Each research session was recorded using Zoom’s record feature. A software called otter.ai was running simultaneously in the background, which transcribed the conversation between the researcher and the research participant while it was being conducted over Zoom. These transcriptions were later exported into the .txt file, pasted into a Google doc, and proofread against the recorded Zoom audio. Therefore every research participant had their feedback audibly registered at least twice: once in the original research session and again in the transcription exercise. The transcripts can be found in the Attachments.

2.5. Analysis

Data Analytic Structures

The data analysis was iterative in nature, given that the texts needed to be read and coded a number of different times and ways in order to best extrapolate findings. At first, the entire transcript for each research session was transposed from the Google Doc to a Google Sheet in order to re-read, centralize, and code the data. This Google Sheet separated a typical research session into different sections: research participant demographics (age, nationality, profession); their top three most-frequented social networking application (name, reason for use); the entirety of their Reports made during their CVP (as per the Product landing page Section in which it was reported); notable (read: not the entirety of the) Reports made during

their RVP (as per questions, and positive and negative feedback); and the psychological needs fulfillment survey results. Given that the researcher was the only coder for this analysis, each transcript was reviewed at least twice, Reports were reviewed in context multiple times as the analysis procedure evolved, and a spot check was conducted on the data transfer in order to ensure the quality of the data analysis.

In terms of Product landing page sections, Section 1 consisted a poem that outlined the problem statement; Section 2 introduced the Product's main goals; Section 3 summarized the AoKs, and how they are assigned value with "Gages," (the allowance received through engagement with the Product) and incentivized with "Creds," (the credit received upon completing an AoK); Section 4 discussed aspects networking aspects of the Product including information about the profile and feed, friend recommendations, and an offline event; Section 5 discussed the Product's data policy and introduces the ad-free nature of the Product, suggested annual user donations, and how donations can equate to compensation to users; and Section 6 summarizes the main features of the Product. These Sections had a number of Subsections, which were short sentences that elaborated upon the topic presented in the Section. Research participants were meant to navigate between Sections and Subsections by swiping their finger from the right side to the left side of the screen. This totaled to a minimum of 23 interactions with the Product landing page.

At first, the sections in the Google Sheet concerning not only the CVP but also the RVP were aligned to the eight different sections in the Product landing page (Start, Sections 1-6, and Sign Up) in order to help identify which topics specifically were eliciting the most Reports. This section alignment method that intended to bridge the data collection and analysis really only proved to be useful for the CVP, where research participants' reports were easily related to the Sections (and Subsections) they were reading in the Product landing page. This method only partially worked for Reports made during the RVPs. This is because, while some research participants had Reports pertaining directly to the categories presented in the Product landing page, other reports were extensions of these categories and thus required their own category. As such, there was another round of review of the RVPs to further categorize these Reports. This resulted in the creation of the Features theme, which comprised the direct Product offerings (Platform, AoKs, Networking, and Data Policy Features), their Specifiers, that is the details of the Features mentioned in the Product landing page (AoKs: Valuation, Gamification; Networking: Profile/Feed, Recommendations, Offline Event; and Data Policy: Ad-free, Suggested Donations, and Compensation), and the Factors, themes which research participants themselves conceived (Altruism, Competition,

Differentiation, Goal, Mental Health, Personal Benefit, Target Audience, Trust, and N/A). Every Feature (which was always linked to a Report) could then be further categorized by a related Specifier and Factor (if any) that the research participant made reference to in their Report. Any Specifier or Factor that was not linked to a Feature was marked "N/A."

In terms of the category definitions: "Platform" Reports are categorized as the basis on which the Product is run and through which Product Features can be be delivered - the Platform Feature does not contain any Specifiers; "AoKs" are one of the core activities that the Product describes - AoK Specifiers consist of "Valuation," (pertaining to "Gages") and "Gamification," (pertaining to "Creds"); "Networking" is categorized as anything relating to the interaction with other Product users - Networking Specifiers consist of "Profile/Feed," referring to a user's personal home page, "Recommendations," pertaining to how users are suggested to each other, and "Offline event," pertaining to the Product's annual offline event; "Data Policy" refers to the treatment of data as outlined by the Product landing page as well as any mention of how the Product creates revenue, including references to the finance model or business model - Data Policy Specifiers consist of "Ad-free," pertaining to the lack of targeted ads, "Suggested Donations," pertaining to the annual user fee, and "Compensation," pertaining to the monetary amount that a user can receive from the Product. The Factors are: "Goal," which is defined as the aim or desired result; "Personal Benefit," is the desire or need of the Product as self-assessed by Product users; "Differentiation" relates to the Product's distinguishing elements from other social networking applications; "Altruism" is defined as the concern for others' well-being with no consideration for reciprocity; "Trust" refers to the research participants' belief in the Product's reliability, truth, or ability; "Mental Health" means the mental and emotional well being of Product users; "Target audience" refers to the intended user of the Product; and "Competition" is defined as the act of trying to claim superiority over another.

The Reports from each research participant were pulled into a Results tab and were coded by: Verbal Protocol (Concurrent or Retrospective), Type of Report (Assertion or Confusion), Feature (Platform, AoKs, Networking, or Data Policy), Specifer (AoKs: Valuation or Gamification; Networking: Profile/Feed, Recommendations, or Offline Event; and Data Policy: Ad-free, Suggested Donations, or Compensation), Factor (Altruism, Differentiation, Goal, Mental Health, Personal Benefit, Target Audience, Trust, and Competition), and Sentiment (Very Positive, Somewhat Positive, Neutral, Somewhat Negative, or Very Negative).

In regards to the Type of Report, a Confusion was coded when a research participant asked a legitimate question, and not one that can be interpreted as rhetorical (tonality and verbal cues such as the use of the word "right?" at the end of questions helped differentiate between these two categories). Moreover, even though technically an Assertion, Reports such as "I'm confused" were coded as a Confusion. Anything else was coded as an Assertion. Assertions or Confusions that were repeated by an individual research participant were only counted once. For example, participant four said, "When we go into the business model: relying on donations is always extremely dangerous." and soon later said, "Your business model is very frail." Only one of these was counted. It is important to note that the analysis is not controlled for the number of times a research participant mentioned a certain Feature, Specifier, or Factor.

The sentiment analysis was conducted at first both by the researcher and by AI in an attempt to establish intercoder reliability, one of Li's (2004) recommendations. The researcher's sentiment analysis was guided by a number of observable factors of the reports as identified in the Zoom recording: the perceived positivity, neutrality, or negativity of the meaning, tonality, and vocabulary in the reports (a lack of understanding was interpreted as a negative Report, so there were no Confusions coded as Very Positive or Somewhat Positive). On the other hand, the AI scores English texts between a range of -100 to +100, where -100 indicates a Very Negative/serious tone and +100 indicates a Very Positive/enthusiastic tone. The AI sentiment analysis works best with larger amounts of data, and therefore was arguably more accurate in deducing the overall Sentiment of the entire corpus than individual Reports alone. Before any AI sentiment analysis was conducted, any quotations of the texts as read aloud by the user were removed from the text before the Sentiment analysis was run. Not only were there different processing methods, there were also different scoring methods between each analyzer, in that the researcher used nominal scores (Very Positive, Somewhat Positive, Neutral, Somewhat Negative, and Very Negative) and the AI used numerical scores (+100 to -100). In order to compare results, the researcher's nominal sentiments as were converted into numerical scores by converting the nominal sentiment score to a numerical Sentiment score (with Very Positive scores as +1, Somewhat Positive scores as +.5, Neutral scores as 0, Somewhat Negative scores as -.5, and Very Negative scores as -1), and then averaged the scores against the number of Reports provided. Scores that resulted in a +100 to +60 were rated as Very Positive, +59-+20 as Somewhat Positive, +19 to -19 as Neutral, -20 to -59 as Somewhat Negative, and -60 to -100 as Very Negative. It is important to note that not all converted Sentiment scores of the various Features, Specifiers, and Factors are averaged

against the same number of Reports, given that there are a different number of Reports linked to each.

Moreover, a text analysis was conducted on the CVPs and RVPs to understand which words were spoken most frequently when research participants arrived at each section of the Product landing page. Text wrapped in quotations that signified a research participant's re-reading of the Product landing page aloud were removed from the text before the text was analyzed. The text analyzer can be found here.

Methodological Integrity

There is a somewhat high fidelity between the research and analysis methods used in this thesis research and those offered in this thesis' proposal approved on October 14, 2021. One difference is the removal of the research question concerning the percentage of participants who decide to sign up for the Product.

The coding of the data was iterative in nature, as it required multiple reviews of the data not only to assure the quality of the data but as well to understand trends among the research participants' feedback. The usefulness of the research is even higher: while the goal of the research was to understand the perceptions research participants had about the Product landing page, the application of the findings certainly help the researcher critically assess areas of improvement not only regarding the Product landing page itself, but also in how it is further tested. The researcher's decision to source research participants with varied backgrounds of frequency and intensity of social networking application use was made in an attempt to receive early insight as to which demographics the Product may most appeal to in the future. The diverse methods of data collection helped to provide a fuller understanding of the research participants' perceptions. Moreover, the researcher's potential bias towards the Product landing page, given that they were the author of the Product landing page, was managed by an eagerness to understand the negative aspects perceived by the research participants, as well as an avoidance of challenging these negative aspects with rationalization for the Product landing page's design both during and after a research session. The researcher made an extra consideration regarding their personal attitude towards the findings so as to score the Reports fairly and consistently.

Note that Feature themes are usually assigned to the Reports made at the relevant Sections of the Product landing page (e.g. Section 1, 2, and 6 are generally Platform-related, Section 3 is generally AoK-related, Section 4 is generally Networking-related, and Section 5

is generally Data Policy-related). However, given that the text in each Section is not completely independent of previous Sections, sometimes a strict categorization in this sense is not appropriate, for example: when a research participant says, “Okay, so it’s a social networking platform” while on the first page of the AoK-related Section. In this case, this would be interpreted as relating to the Platform more so than AoKs, even though the introduction of the AoKs mentions a “social networking application”).

Specificity is advantageous for the analysis but not if it risks over-interpretation: Reports are intended to be interpreted as the research participant meant it and not filtered through the researcher’s knowledge of the Product. That being said, the researcher erred on the side of caution and generalized rather than specified when the intentions of certain Reports were imperceivable. This is not only true regarding the relationship between Features and their Specifiers, but as well across Features: given the fact that AoKs, Networking, and Data Policy categories can all be technically nested under the Platform category, a Platform category is assigned in cases for when the direction of the research participants’s Report cannot be confidently coded to a AoK, Networking, or Data Policy Feature. Unlike Features, Specifiers are not automatically assigned to the Subsection that introduces them. Instead, the Reports linking these Specifiers to Features are generally made across the entire Section. Thus, Specifiers are only assigned when a research participant says something directly related to a Specifier. Note that no Factor is attributed to a Feature based on where they were introduced in the Product landing page (e.g. the first Subsection of Section 2 says, “By incentivizing altruism through minted acts of kindness that act as social currency,” but this is not linked to the Altruism Factor unless the Report by the research participant is explicitly related to Altruism).

In terms of sentiment analysis, the researcher and AI Sentiment scores matched the nominal scores of individual Reports 27% of the time. Given that it is not surely known how the AI analyzes, there is a high chance that there is a difference between how the AI and researcher find the sentiment; the procedural difference is inferred through the fact that the AI Sentiment analysis works best with larger sets of text, while the researcher’s analysis is produced from the independent Reports regardless of the size of the corpus. Moreover, given that the corpus contains the conversational signatures of individuals, the analysis of the entire corpus, as the AI prefers, may be swayed given the different individual stylings thereing. Given these variables, it was decided that only the researcher’s sentiment score would count on the basis of individual Reports, but would be measured for the assessment of the general sentiment towards the Product.

3. Results

Table 1 below shows the Type of Report, Features, Specifiers, and Factors by the total number of Reports, number of Assertions, number and percent of Confusions, and Sentiment.

Table 1

Type of Report, Features, Specifiers, and Factors by the Number and Percentage of Total Reports, Number of Assertions, Number and Percent of Confusions, and Sentiment.

Subject	**# Total**	**% Total**	**# Assertions**	**# Confusions**	**% Confusion**	**Sentiment**
Reports total	270	1	200	70	25.93%	-20.04
Verbal Protocol						
Concurrent	162	0.6	124	38	23.46%	-7.41
Retrospective	108	0.4	76	32	29.63%	-39.52
Features and *Specifiers*						
Platform	117	43.33%	95	22	18.80%	-14.10
AoKs	68	25.19%	48	20	29.41%	-36.15
Valuation	12	4.44%	7	5	41.67%	-33.33
Gamification	19	7.04%	16	3	15.79%	-65.79
Networking	30	11.11%	19	11	36.67%	8.33
Profile/Feed	2	0.74%	0	2	100.00%	-50.00
Recommendations	2	0.74%	2	0	0.00%	50.00
Offline Event	9	3.33%	6	3	33.33%	38.89
Data Policy	55	20.37%	38	17	30.91%	-29.09
Ad-free	11	4.07%	8	3	27.27%	-18.18
Suggested Donations	15	5.56%	9	6	40.00%	-63.33
Compensation	12	4.44%	7	5	0.42	-20.83

Factors						
Altruism	12	4.44%	8	4	0.33	-58.33
Competition	3	1.11%	2	1	0.33	-50.00
Differentiation	23	8.52%	23	0	0.00	15.22
Goal	63	23.33%	43	20	0.32	-22.50
Mental health	8	2.96%	7	1	0.13	-75.00
Personal benefit	18	6.67%	12	6	0.33	-77.78
Target audience	7	2.59%	5	2	0.29	-14.29
Trust	14	5.19%	11	3	0.21	-78.57

The results show that the corpus of the text that was analyzed for this thesis research totaled 270 Reports. These 270 Reports consisted of 162 Concurrent and 108 Retrospective Reports. Of the Concurrent reports, 124 were Assertions and 38 were Confusions which amounts to 23% Confusion; of the Retrospective reports, 76 were Assertions and 32 were Confusions, which amounts to 30% Confusion. This shows that questions were more frequently raised in the RVP by 7%.

Assertions spanned the whole spectrum of Sentiment, from Very Positive to Very Negative. There were no Confusions that ranked higher than Neutral. The most frequently reported Sentiment of the total Reports was Very Negative with 74 occurrences, accounting for 28% of the total corpus; the least frequently reported Sentiment was Very Positive with 27 occurrences, accounting for 10% of the total corpus. The average Sentiment of Reports provided by research participants was Somewhat Negative, with a converted numerical score of -20.0, equating to a Somewhat Negative Sentiment. Figure 1 below shows the distribution of total Reports across Verbal Protocol (Concurrent or Retrospective) and Type of Report (Assertions or Confusions) and Sentiment.

Figure 1

Distribution of Total Reports across Verbal Protocol, Type of Report, and Sentiment.

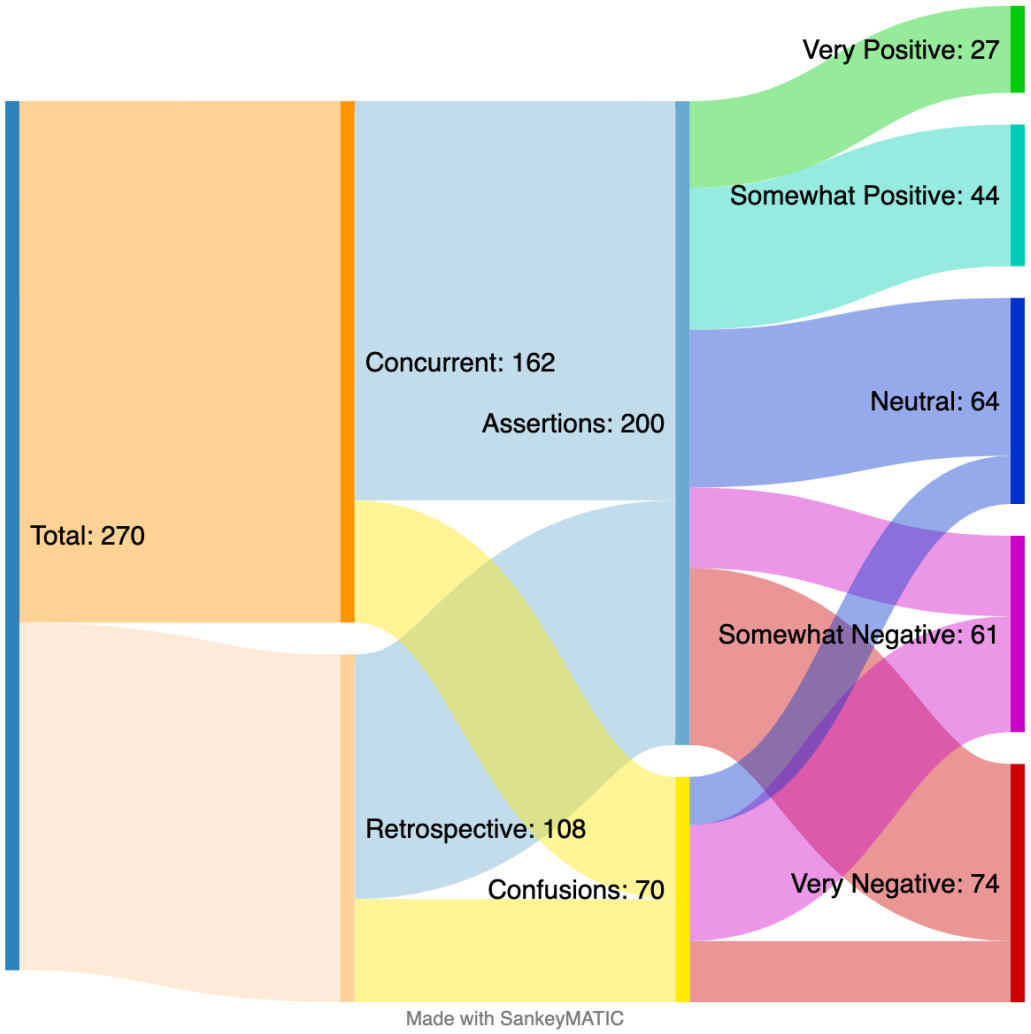


Table 2 shows the frequency of Sentiments by total number of Reports, percentage of total Reports, number of Assertions, and number and percent of Confusions.

Table 2

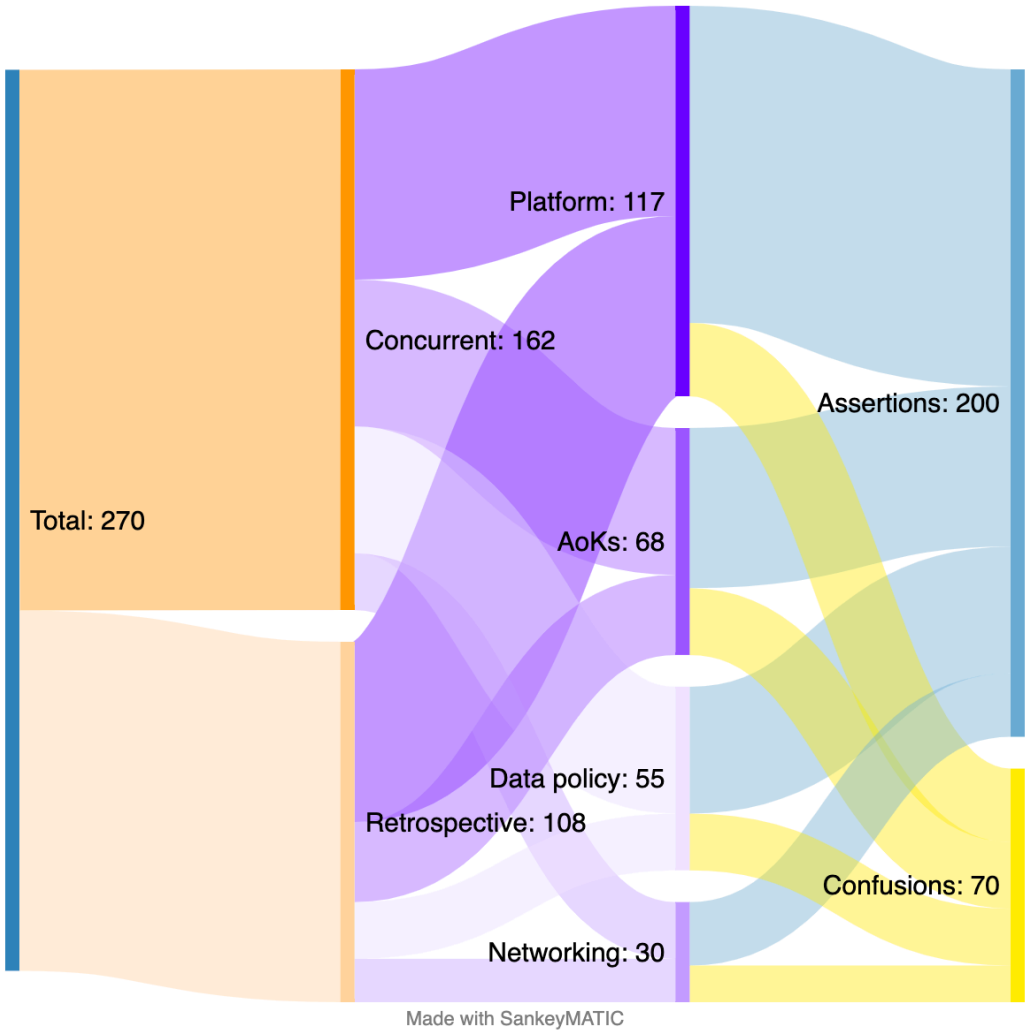
Sentiments by Number and Percentage of Total Reports, Number of Assertions, and Number and Percentage of Confusions.

Sentiment	# Total	% Total	# Assertions	# Confusions	% Confusions
Very positive	27	10.00%	27	0	0.00%
Somewhat positive	44	16.30%	44	0	0.00%
Neutral	64	23.70%	49	15	23.44%
Somewhat negative	61	22.59%	25	36	59.02%
Very negative	74	27.41%	55	19	25.68%

The Feature that was reported upon most frequently was the Platform with 117 Reports, accounting for 43% of the total corpus; the Feature that was reported upon least was Networking with 30 Reports, accounting for 11% of the total corpus. Although the Platform Feature elicited the greatest number of Confusions, amounting to 22, it had the lowest proportional Confusions of any Feature, amounting to 18%. On the contrary, though Networking was the Feature with the lowest number of Confusions, amounting to 11, it had the highest proportional Confusions of any Feature, amounting to 37%. Figure 2 below shows the distribution of the total Verbal Reports across Features and Type of Report.

Figure 2

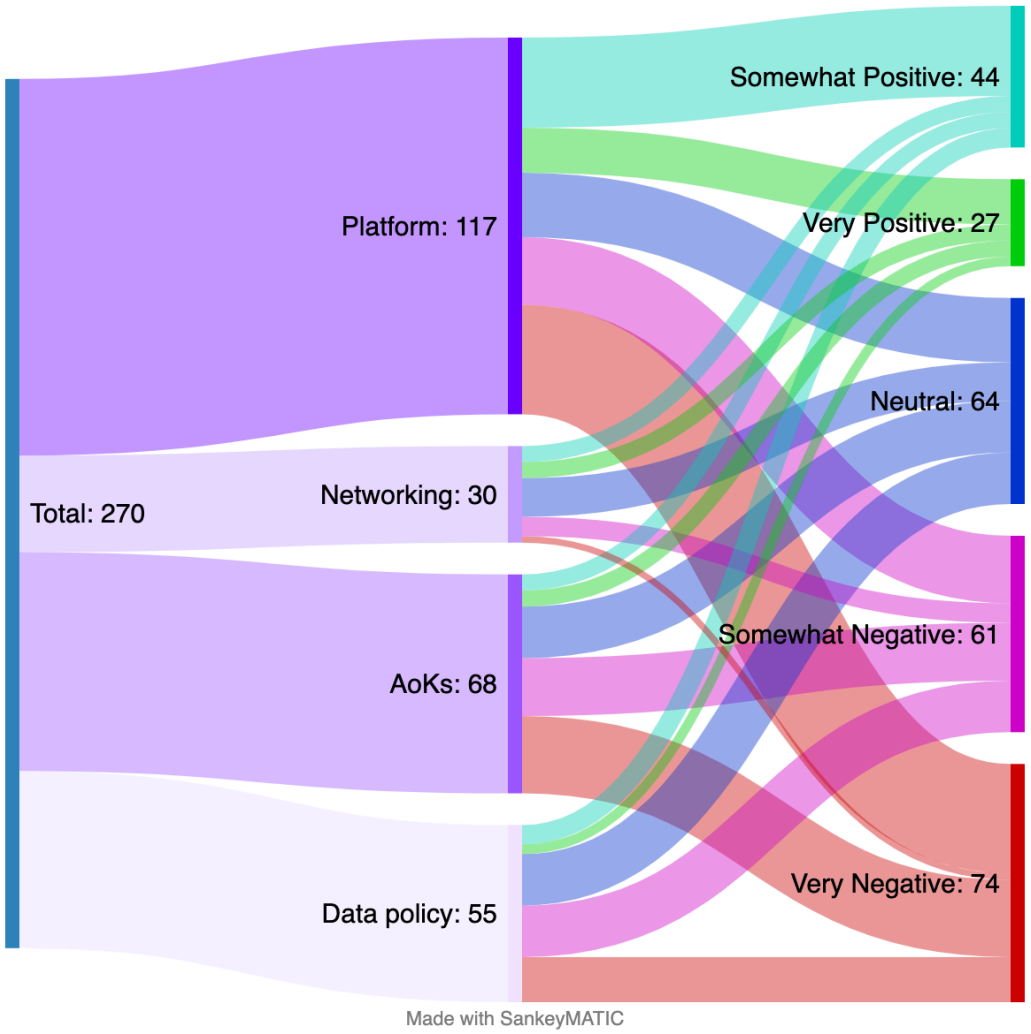
Distribution of Total Reports across Verbal Protocol, Features, and Type of Report.



The Feature that elicited the most positivity was Networking, with an average Sentiment score of +8.3 which equates to a Neutral Sentiment. The Feature that elicited the most negativity was the AoKs, with a Sentiment score of -36.2 which equates to a Somewhat Negative Sentiment. Figure 3 below shows the distribution of the total Verbal Reports across Features and Sentiment.

Figure 3

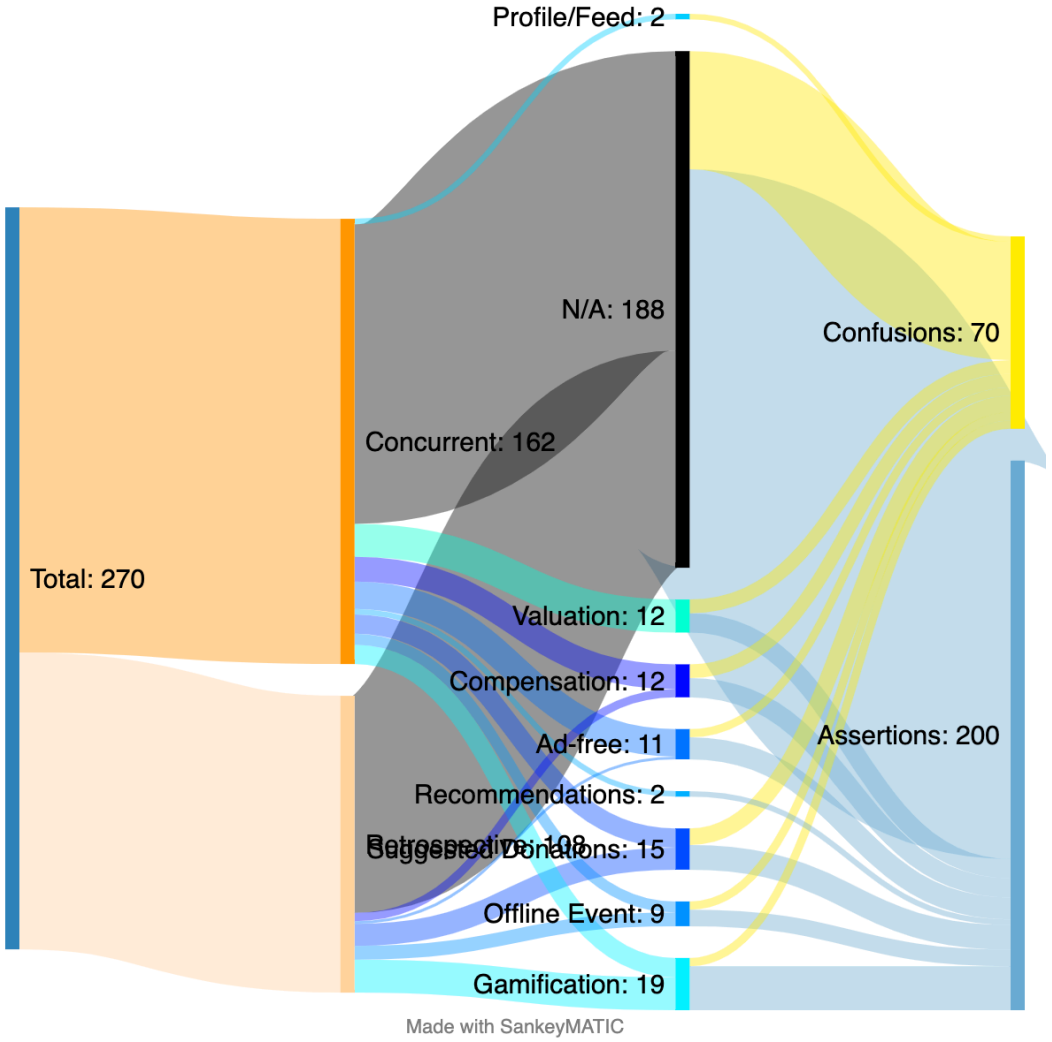
Distribution of the Total Reports across Verbal Protocol, Features, and Sentiment.



The Specifier that elicited the most Confusion in total (excluding N/A) was related to the Data Policy Feature's Suggested Donations Specifier with six Confusions, while the lowest is the Networking Feature's Recommendations Specifier with 0. Naturally, the Recommendations Specifier had the lowest proportional Confusion with 0%, while the Specifier with the highest proportional Confusion was the AoK Feature's Valuation Specifier with 42%. Figure 4 below shows the distribution of the total Verbal Reports across Specifiers and Type of Report.

Figure 4

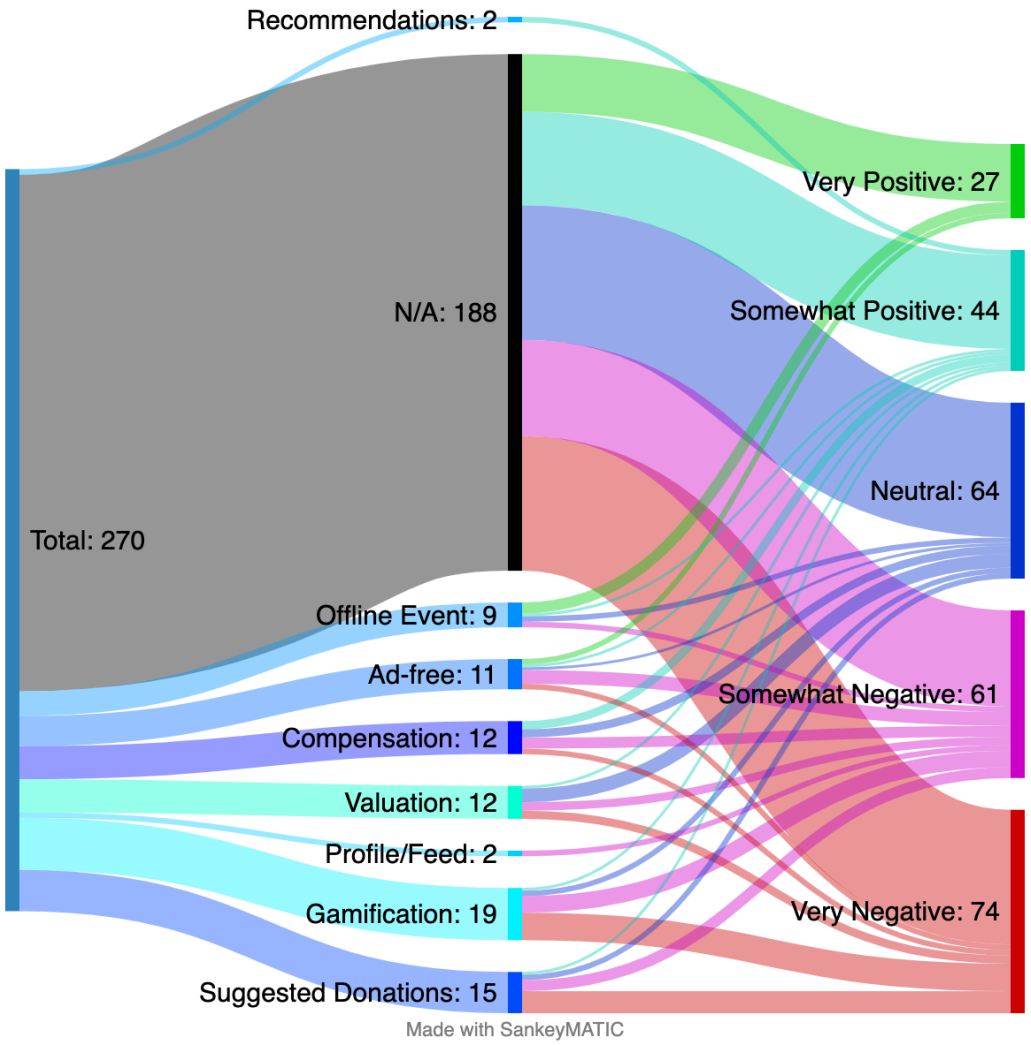
Distribution of total Verbal Reports across Verbal Protocol, Specifiers, and Type of Report.



The Specifier that elicited the most positivity (excluding N/A) was the Offline Event with +38.9, equating to a Somewhat Positive Sentiment, while the one with the most negativity was Gamification, with an average Sentiment score of -65.9 or a Very Negative Sentiment. Figure 5 below shows the distribution of the total Verbal Reports across Specifiers and Sentiment.

Figure 5

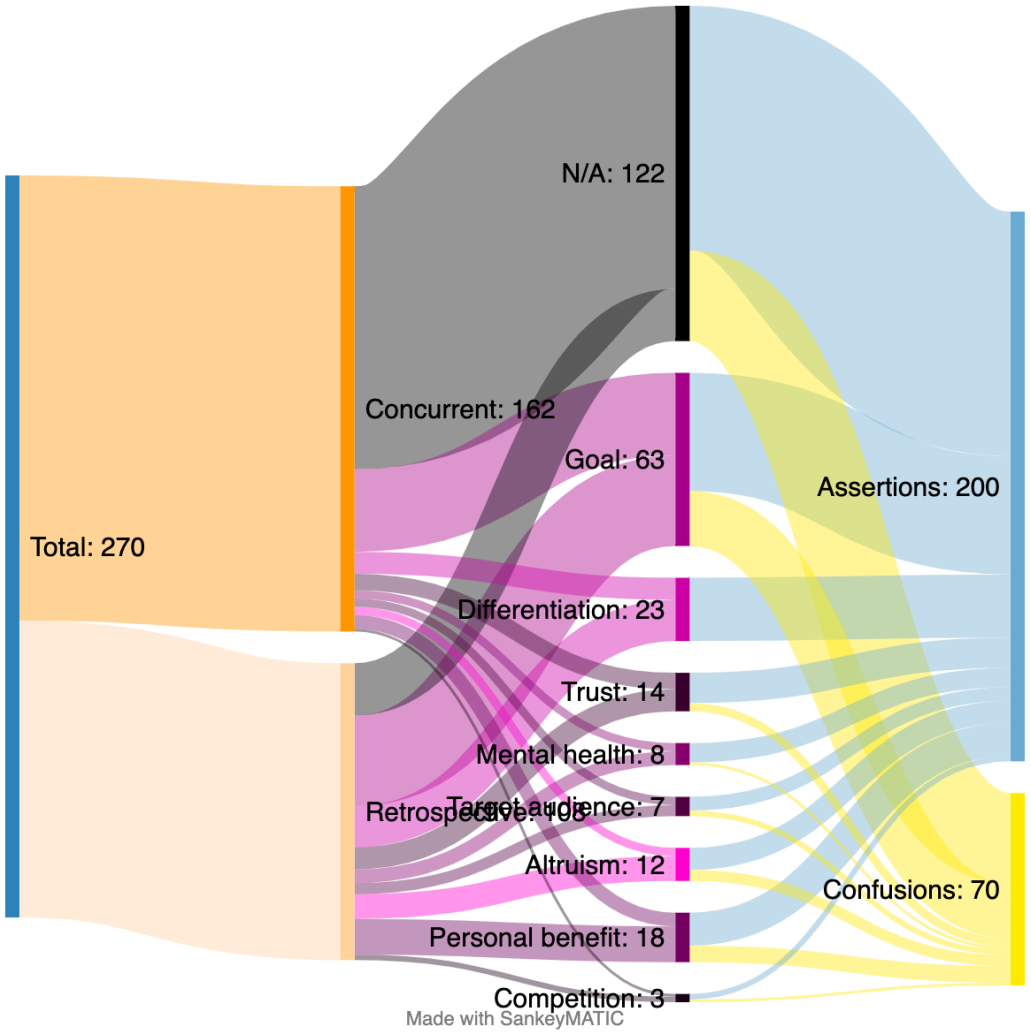
Distribution of the Total Reports across Specifiers and Sentiment.



The Factor that elicited the most confusion in total (excluding N/A) was related to the Goal with 20 Confusions, while the lowest was Differentiation with 0. This puts Differentiation at the lowest the proportional Confusion with 0%, while the Factor with the highest confusion rate was tied between Altruism, Competition, and Personal Benefit with 33% each. Figure 6 below shows the distribution of the total Verbal Reports across Factors and Type of Reports.

Figure 6

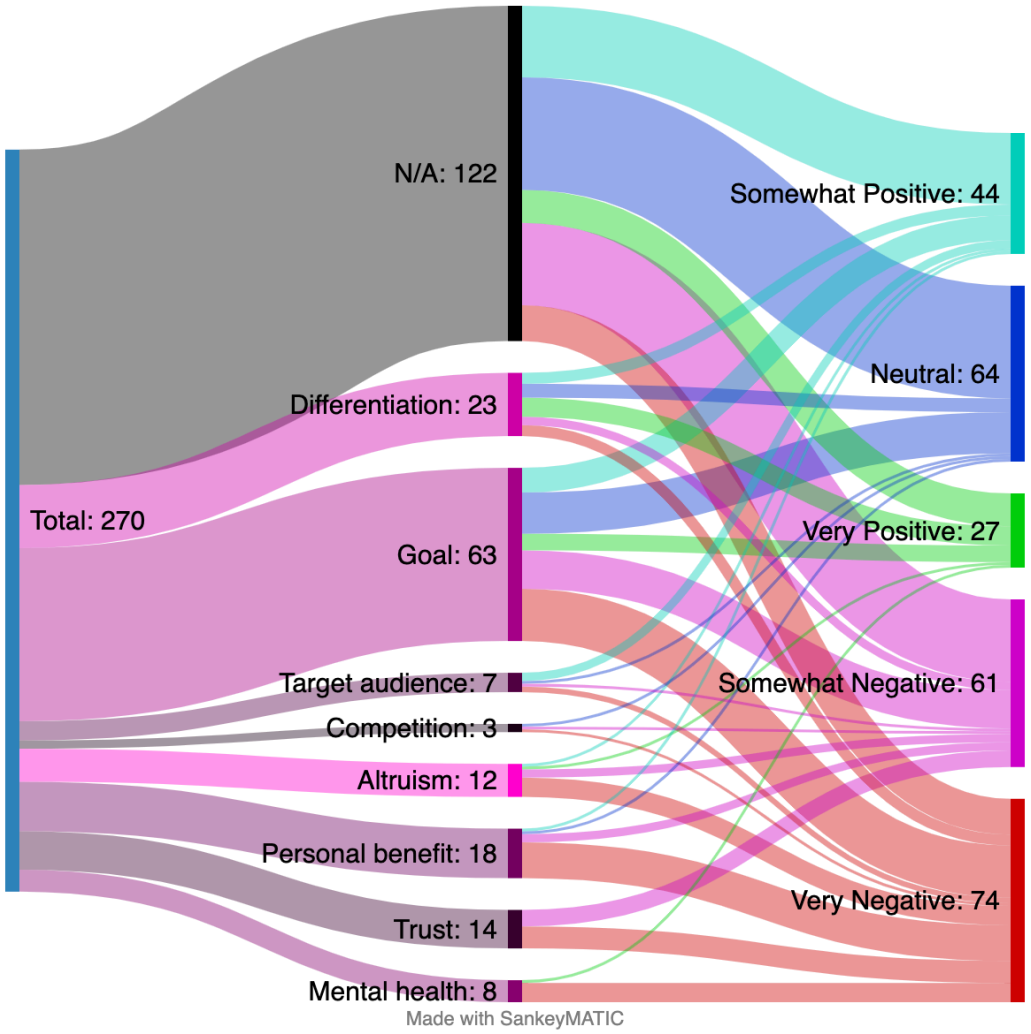
Distribution of Total Reports across Verbal Protocol, Factors, and Type of Report.



The Factor that elicited the most positivity (excluding N/A) was Differentiation with +15.2, equating to a Neutral Sentiment, while the one with the most negativity was Trust, with an average Sentiment score of -78.6 or a Very Negative Sentiment. Figure 7 below shows the distribution of the total Verbal Reports across Factors and Sentiment.

Figure 7

Distribution of the Total Reports across Factors and Sentiment.



The Feature with the greatest number of related Factors (excluding N/A) was Platform with 73 related Factors, and is also the Feature with the highest proportion of related Factors, with 63%. The Feature with the least number of related Factors is Networking with 14 related Factors, however that with the lowest proportion of related Factors is AoKs, with 44%.

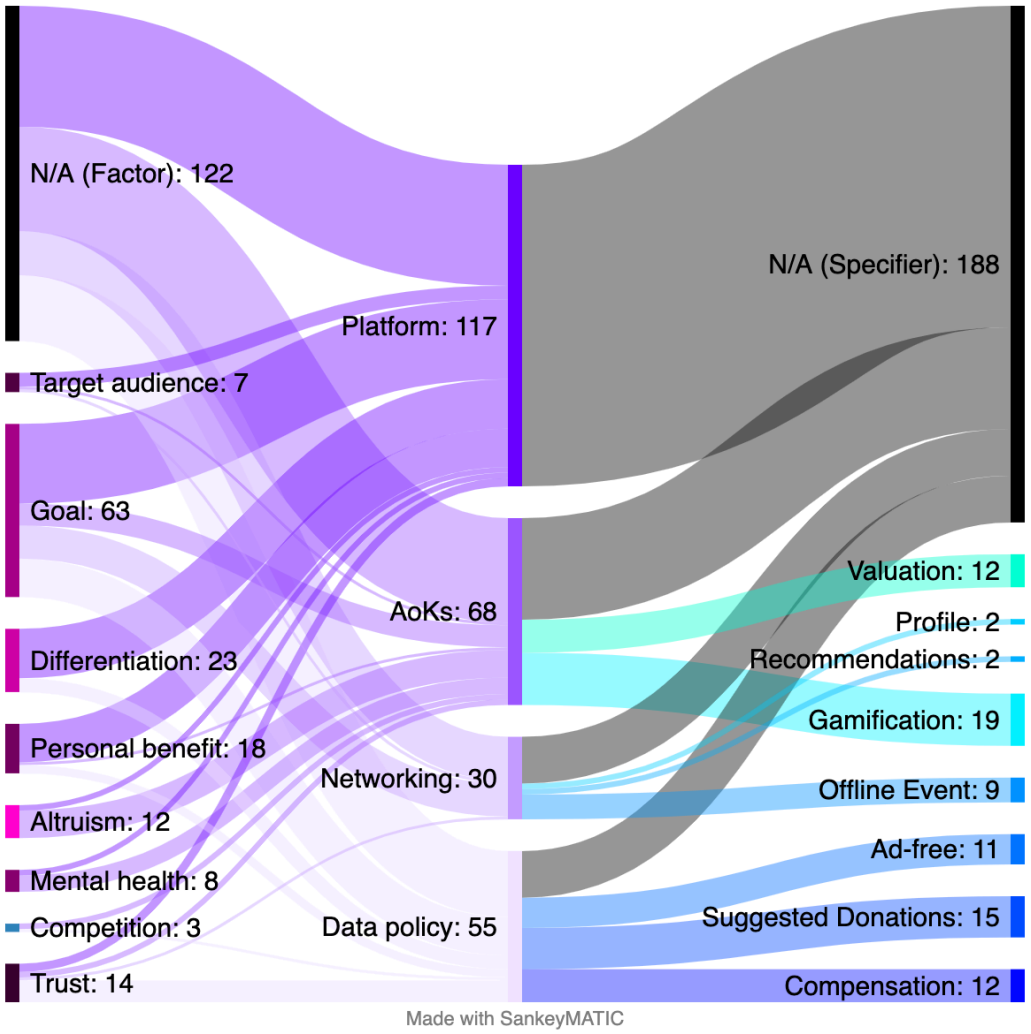
The Features that had the highest range of related Factors were the Platform and AoK Features, which were each linked to seven out of eight Factors. The Feature with the lowest range of related Factors was Networking, which was linked to three out of eight Factors.

The Feature with the greatest number of related Specifiers was Data Policy with 39 related Specifiers. The Feature with the highest proportion of related Specifiers is the Data

Policy, with 69%. Excluding Platform, which contained no Specifers, the Feature with the least number of related Specifiers is Networking with 13 Specifiers, and is also the Feature with the lowest proportion of related Specifiers, with 43%. Figure 8 below shows the distribution of the total Factors across Features and Specifiers.

Figure 8

Distribution of the Total Factors and Specifiers across Features.



The most frequent adjective emitted in the combined CVPs and RVPs was “Okay” with 101 occurrences, accounting for 1.4% of the corpus. “Good” was the second-most frequent adjective with 42 occurrences, accounting for .6% of the corpus.

3.1. Verbal Protocol Analysis

CVP

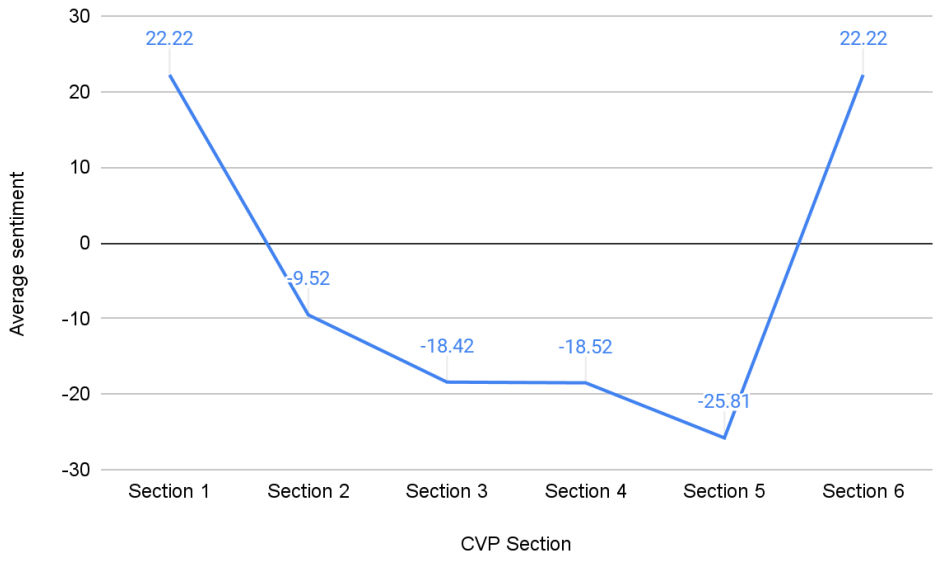
The CVP was conducted while research participants read through the six Sections that formulated the Product landing page. The corpus of the CVP totaled 162 Reports. Of the Concurrent reports, 124 were Assertions and 38 were Confusions which amounts to 23% Confusion.

Assertions spanned the whole spectrum of Sentiment, from Very Positive to Very Negative. There were no Confusions that ranked higher than Neutral. The most frequently reported Sentiment of the CVP was Neutral with 50 occurrences, accounting for 19% of the total corpus; the least frequently reported Sentiment was Very Positive with 12 occurrences, accounting for 4% of the total corpus. The average Sentiment of Concurrent Verbal Reports provided by research participants was Somewhat Negative, with a converted numerical score of -7.4, equating to a Neutral Sentiment.

The average Sentiment score varied across the different Sections which made up the CVP, with research participants making the most positive Reports during Sections 1 and 6, and the most negative Reports during Section 5. Figure 9 shows the average change in Sentiment over the course of the CVP.

Figure 9

Average Change in Sentiment over the CVP.



Reports made in the CVP were generally tightly aligned to the subject matter of the Product landing page. The Features were linked to Specifiers 33% of the time. Factors were linked to Features 36% of the time.

In the CVP, the Feature that elicited the most Confusions in total was related to AoKs with 15 Confusions, which was as well the Feature with the highest proportional Confusion rate with 34%, and contained questions such as, “So, the value of AoKs is dependent upon the app’s popularity? The Feature with the smallest numerical total of Confusions was Platform with eight Confusions, which as well had the lowest proportional Confusion rate with 13%, with questions such as, “How is it gonna look like?” The Specifier that elicited the most Confusion was the AoK Feature’s Valuation Specifier, with five Confusions, such as, “...Gaaages?” However the Specifier with the highest proportional Confusion is the Networking's Profile/Feed Specifier with 100% Confusion, with questions such as, “So I probably need to fill out a profile, or it is gathered by the likes that I've put there? The Factor that elicited the most numerical and proportional Confusion was the Goal Factor, with 30 and 11% respectively, with Reports such as, “Huh. Who runs this then, and how, and why?”

The Feature that elicited the most positivity in the CVP was the Platform, with an average Sentiment score of +12.7 which is equated to a Neutral Sentiment. The Feature that elicited the most negativity in the CVP was the Data Policy, with a Sentiment score -28.2 which is equated to a Somewhat Negative Sentiment. The Specifier that elicited the most positivity was the Networking Feature’s Recommendations Specifier, with a Sentiment score of +50, which equals a Somewhat Positive score. The Specifier that elicited the most negativity was the Profile/Feed, with a Sentiment score of -50, for a Somewhat Negative score. The Factor that elicited the most positivity was the target Audience, with a Sentiment score of +50, which equals a Somewhat Positive score. The Factor that elicited the most negativity was the Trust, with a Sentiment score of -917, for a Very Negative score. Table 3 below shows the Type of Report, Features, Specifiers, and Factors by the total number of CVP Reports, number of Assertions, number and percent of Confusions, and Sentiment.

Table 3

Type of Report, Features, Specifiers, and Factors by the Total Number of CVP Reports, Percentage of Total Reports, Number of Assertions, Number and Percentage of Confusions, and Sentiment.

Subject	# CVA	% Total	# Assertions	# Confusions	% Confusion	Sentiment
Reports total	162	0.6	124	38	23.46%	-7.41
Features and *Specifiers*						
Platform	63	38.89%	55	8	12.70%	12.70
AoKs	44	27.16%	29	15	34.09%	-23.86
Valuation	12	7.41%	7	5	41.67%	-33.33
Gamification	7	4.32%	5	2	28.57%	-35.71
Networking	17	10.49%	12	5	29.41%	2.94
Profile/Feed	2	1.23%	0	2	100.00%	-50.00
Recommendations	2	1.23%	2	0	0.00%	50.00
Offline Event	4	2.47%	3	1	25.00%	25.00
Data Policy	38	23.46%	28	10	26.32%	-26.32
Ad-free	10	6.17%	7	3	30.00%	-30.00
Suggested Donations	7	4.32%	6	1	14.29%	-42.86
Compensation	9	5.56%	5	4	0.44	-22.22
Factors						
Altruism	3	1.85%	3	0	0.00	33.33
Competition	1	0.62%	1	0	0.00	-100.00

Differentiation	8	4.94%	8	0	0.00	-6.25
Goal	30	18.52%	21	9	0.30	-8.33
Mental health	3	1.85%	2	1	0.33	-33.33
Personal benefit	5	3.09%	4	1	0.20	-50.00
Target audience	3	1.85%	3	0	0.00	50.00
Trust	6	3.70%	5	1	0.17	-91.67

The most frequent single word adjective emitted in the CVPs was “Okay” with 98 occurrences, accounting for 3% of the CVP corpus. “Good” was the second-most frequent adjective with seventeen occurrences, accounting for .5% of this corpus. In terms of multiple words, “I don’t know” was the fourth most frequent combination with six occurrences, with the seventh most frequent combination being “don't know what” with four occurrences.

Section Analysis. The breakdown of the CVP findings per Section are detailed below.

Section 1. This Section served to introduce the problem statement that the Product intended to address in the rest of the Product landing page. Eight out of ten research participants chose to read the section, during which all of whom had reported Concurrent Reports. A total of 27 Reports were recorded, accounting for 17% of all subject matter spoken about in the CVP. Of the 27 Reports, 25 were Assertions and two were Confusions. This results in a proportional rate of Confusions at 7%, making this Section the one with the lowest proportion of Confusions, as well as one of the lowest numerical total of Confusions. This section was the most positively received Section of the CVP with an average Sentiment score of +22.2, indicating a Somewhat Positive Sentiment. The most frequent adjective that was used was “Okay,” with 12 occurrences, accounting for 4% of the corpus of Reports made in this Section. The most frequent two word combination that arose was “I guess” with three occurrences.

The Feature related to the Reports made in this Section pertain to the Platform with two exceptions, for a total of 25 Platform-related Reports. In this vein, research participants mostly expressed simple Neutral to Somewhat Positive Assertions beyond “Okay” such as, “Cute,” “Haha,” and “Cool.” In terms of related Factors, Differentiation was linked to three

Platform-related Reports, with Neutral Reports for example, “Okay, so you have beef with social networks,” and Somewhat Positive Reports like, “Sounds artistic, sounds like someone is trying something different.” Target Audience was another Platform-related Factor, with two Somewhat Positive Reports in response to “Are you tired of being a product?” such as, “If I was one, yes, I would be, I think.” and “Yes I am.” Other Platform-related Factors include Mental Health, with one Very Positive Report made saying, “That's an amazing sentence. It's true. You participate, to relate not to realize yourself, except maybe for a couple of influencers.” as well as include the Goal Factor, with one Somewhat Positive Report saying, “There must be a better way. No, for sure. Let's hope so.”

The exception to the uniformed Platform Feature coded in this Section were two Reports made in regards to the Data Policy Feature, a Neutral Assertion saying, “All true. I don't make a cent. That's true. But I also don't pay a cent. So I guess that’s part of the deal.” and a Somewhat Negative Assertion saying, “There's a false expectation of services being free but there is actual understanding that it is not precisely for free, but yeah. You don't understand you're selling data, you understand you're being exposed to advertisement - maybe that's the miscommunication.”

The two Confusions in this Section revolved around the vocabulary, with questions such as, “Okay the last line, I did not get.” and “What does it mean like “ol’?”

Section 2. This Section served to introduce the Product. All ten research participants read this Section, of which eight reported Concurrent Reports. A total of 21 Reports were recorded, accounting for 13% of all subject matter spoken about in the CVP. Of the 21 Reports, 14 were Assertions and seven were Confusions. This results in a proportional rate of Confusions at 33%, making this Section the one with the highest proportion of Confusions. The average Sentiment score for this Section was -9.5, indicating a Neutral Sentiment. The most frequent adjective that was used was “Okay,” with nine occurrences, accounting for 2.3% of the corpus of Reports made in this Section. The second-most frequent two word combination that arose was “Don’t know” with three occurrences.

The Feature related to the Reports made in this Section again pertain mostly to the Platform with four exceptions, for a total of 17 Platform-related Reports. In this vein, research participants expressed simple Neutral to Somewhat Positive Assertions such as, “Interesting,” “Cool,” and “Nice,” and Somewhat Negative Reports such as, “Okay. I'll comment on the idea after I fully understand.” In terms of related Factors, the Goal was linked to five Platform-related Reports, with Positive-leaning Assertions such as “Oh, that's

such a nice idea. I yeah, I like that." and "Cool. That all sounds very timely." as well as Negative-leaning Assertions such as "I just don't know where this is going." Other Platform-related Factors include Differentiation, with one Somewhat Negative Assertion made saying, "Okay, sounds all good but it's something that you might have read on other types of social media as well, maybe." as well as include the Trust Factor, with one Somewhat Negative Assertion saying, "This sounds amazing. But I think it will be I think I wouldn't believe it right away. Sounds too good to be true." and finally the Altruism Factor, with a Somewhat Positive Assertion saying, "Incentivizing altruism, sounds cool."

The exception to the uniformed Platform Feature coded in this Section were four Reports made in regards to the Data Policy Feature, which were all linked to the Goal Factor. These Reports included a Somewhat Positive Assertion saying, "Sounds good. Sounds like a product that cares about the data." and a Neutral Assertion saying, "Okay, it means that you're going to collect our data for something."

The Confusions in this Section circulate mainly around the vocabulary, with Somewhat Negative Reports such, "Minted like as in coins?" and "Accrediting...I'm not sure...maybe that just means like, we let you know, every time we collect it or accredit it...I'm not sure what that means."

Section 3. This section introduced the main activity on the Product called AoKs. All ten research participants read this Section, all of whom reported Concurrent Reports. A total of 38 Reports were recorded, accounting for 23% of all subject matter spoken about in the CVP. Of the 38 Reports, 26 were Assertions and 12 were Confusions. This results in a proportional rate of Confusions at 32%. The average Sentiment score for this Section was -18.4, indicating a Neutral Sentiment. The most frequent adjective that was used was "Okay," with 27 occurrences, accounting for 2.3% of the corpus of Reports made in this Section. One of the second-most frequent two word combinations that arose was "I'm confused" with two occurrences.

The Feature most related to the Reports made in this Section pertain to the AoKs with one exception, for a total of 37 AoK-related Reports. In this vein, research participants expressed Somewhat Positive Assertions such as, "This sounds very interesting." to Very Negative ones such as "Okay, that's complex." and "Not easy." In terms of related Factors, the Goal was linked to one AoK-related Report, a Neutral Assertion that stated, "So basically you do something on the app and then others will assess it, then you can find out what acts of kindness are getting recognition." Other AoK-related Factors included Trust, with one Very

Negative Report saying, “Gages represent your level of engagement on the app” feels to me like, ok, they are recording my activity - that’s how it looks like.”

Regarding Valuation, one of the two AoK specifiers, there were 12 Reports made in direct connection, with Somewhat Positive Assertions such as, “Okay, I do something and then if people react to it, the thing gets valuable.” and “Okay, so. So, this is where the Gages will display, I'm assuming. Unless I've already done an act of kindness by reading this and that has a value of one. Okay….I can't quite gauge that.” The other AoK Specifier, Gamification, was linked to two Neutral Assertions, which said, “Okay. So if I do an act of kindness, I'll get some Creds. Sounds all good.” and “Okay, so that's the kind of reward you get for getting recognition.”

The exception to the uniformed AoK Feature coded in this Section was one Reports made in regards to the Platform Feature linked to the Goal Factor, a Neutral Assertion saying, “Okay, so it's a social networking platform.”

The Confusions in this Section circulate mainly around the Valuation Specifier, with Somewhat Very Reports such as, “What’s listed value?” and (in reference to the Gage indicated on the top right of the screen), “On the right? Is that the one? Or is that how much I’m interacting, maybe? It’s not completely clear to me.” Moreover, Confusions were linked to the vocabulary used, with “...Gaaages?...Ah, so it’s not Gaaages.” and “Gages? Gaaages? I don’t know how to pronounce this word.”

Section 4. This section introduced the social networking element of the Product. All ten research participants read this Section, of whom nine reported Concurrent Reports. A total of 27 Reports were recorded, accounting for 17% of all subject matter spoken about in the CVP. Of the 27 Reports, 19 were Assertions and eight were Confusions, such as, “What's an achievement? What do I want to achieve - like a particular score?” This results in a proportional rate of Confusions at 30%. The average Sentiment score for this Section was -18.5, indicating a Neutral Sentiment. The most frequent adjective that was used was “Okay,” with 17 occurrences, accounting for 1.5% of the corpus of Reports made in this Section. The most frequent three word combination that arose was “I don’t know” with four occurrences.

The Feature most related to the Reports made in this Section pertain to Networking with ten exceptions, for a total of 17 Networking-related Reports. In terms of related Factors, the Goal was linked to five Networking-related Reports, like Somewhat Positive Assertions that reported, “Okay, so far so good. It’s a social network, so you're gonna have to share something and in this case you share your AoKs.” and “Sounds reasonable. If I like to pet

dolphins, then I would probably like to connect with other people who pet dolphins." as well as three Neutral Assertions such as, "I'm just thinking, is it like, I'm not thinking it's a dating app, I'm thinking it's like an app to find other humans that are like you."

Regarding the Offline Event, one of the three Specifiers for this Networking Feature, there were four Reports made in direct connection, with Very Positive Assertions such as, "Awesome. So it is also offline. Cool." and Neutral Assertions such as, "So it means you will have a networking event also, like once you connect people online, and see what are the common interests, hobbies, etcetera." Recommendations, another Networking Specifier, also evoked two Somewhat Positive Assertions such as, "Sounds reasonable. If I like to pet dolphins, then I would probably like to connect with other people who pet dolphins." and "Okay, recommendations sound good so far. So far, so easy. All clear."

Of the seven exceptions to the Networking Features reported upon in this Section, six of them were AoK-related Features related to Altruism Factors reporting Very Positive Sentiments such as, "I think it's a good idea to make the accomplishments, the act of kindness, visible because you can celebrate yourself for being a good person so you get something back for altruism." and Somewhat Negative Reports like, "Since it's all shared, I'm going to be seen as like Mother Teresa, right? So I would probably be motivated, myself, to…be seen as an influencer with acts." Another AoK-related Feature was linked to a Mental Health Factor with the Assertion, "The problem with sharing is that it resonates anxiety…and when the core of your business is around sharing what you're doing, the awful pressure that it can create, it can drive people away from your project." Another Feature that was linked to three Reports reported in this Section was the Platform, which twice related to the Personal Benefit Factor, with very Negative Assertions such as, "This looks like I'm buying into a lot of things by just downloading an app." and "Okay, so far I don't know what I'm gaining out of it. It seems like a lot of work. No upside." The other Platform Feature was linked to the Goal, with a Somewhat Positive Assertion reporting, "Okay, some kind of activism is appearing at the horizon that could be organized on the app. Interesting, interesting."

The Networking Feature's Profile/Feed Specifier aroused some Confusion, with two Somewhat Negative Confusions such as "Okay, so I do good stuff, and I'm on a social network…I'm going to have to, like, divulge my interests and hobbies so that I don't actually get to follow the people, or do I even get to follow people?" and "So I probably need to fill out a profile, or it is gathered by the likes that I've put there?" Moreover, there was one Confusion that circulated around the Offline Event Specifier, with Somewhat Negative Confusions such as, "So this is…geographically determined and there are location services

always on, I assume? Which I'm not sure I would want to do that....” The Goal of the Networking itself brought on some Confusion, with Somewhat Negative Confusions such as, “So, since it's connected to the meet online to meet offline, so it's maybe like a badge, so you see that a person has been really engaged and that makes it more likely for you to use their services. Yeah, but it's like a hanging out app, so you don't want to buy anything from him or her, but it shows that they're a good person, I suppose?”

The AoK Feature stimulated two very Negative Confusions in this Section, one relating to the Goal Factor, “I'm not very clear on this, or like, what the goal should be like - do I want to do more acts of kindness, or do I just want to earn more with this?” and one relating to the Mental Health Factor, “Like what if I have like, weeks you know, and I don't know…like a couple of bad weeks when I just don't want to help people…Is that going to affect your Cred since your engagement with the community would decrease? Or are you driven to like, keep this going all the time?...which is also probably not healthy.” The Platform Feature also aroused one very Negative Confusion in this Section, relating to the Personal Benefit Factor, “So what is in it for me here?”

Section 5. This section introduced the Product's approach towards its data use. All ten research participants read this Section, all of whom reported Concurrent Reports. A total of 31 Reports were recorded, accounting for 19% of all subject matter spoken about in the CVP. Of the 31 Reports, 23 were Assertions and eight were Confusions, such as, “Who runs this then, and how, and why?” This results in a proportional rate of Confusions at 26%. This section was the most negatively received Section of the CVP with an average Sentiment score for this Section was -25.8, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Okay,” with 24 occurrences, accounting for 3.4% of the corpus of Reports made in this Section. The most frequent three word combination that arose was “Going to be” with four occurrences.

The Feature related to the Reports made in this Section all pertain to the Data Policy. Regarding the Ad-free Specifiers for the Data Policy Feature, there were four Reports made in direct connection, with Positive-leaning Assertions such as, “That's lovely.” and “That means that there are no ads on Project X. Okay, cool way to say it. Okay, no ads. Nobody likes ads. That's good.” to Negative-leaning Assertions such as, “Okay. Okay, so you only get like...okay, so there are no ads to fund the app.” and “Okay, that was a very complex way of telling me that this is an ad-free product.” Another Data Policy Specifier, Compensation, evoked Somewhat Positive Reports such as, “Okay, okay. So...interesting. So if I get a lot of

Cred, I can even earn with that.” Suggested Donations, another Data Policy Specifier, also evoked Neutral Assertions such as, “It will be interesting to know how much I would have to donate and how much people would be willing to donate.” and negative-leaning Assertions such as “Okay. Okay, so I'm earning credits, but I also need to pay for the app. That's what I'm hearing here.” and “What I'm seeing here is: I am judged by how much work I'm going to be doing, and I have to pay for it.”

The Suggested Donations Specifier also linked to two Factors, one being Personal benefit through a Somewhat Positive Assertion that reported, “Okay. Sounds fair. So if I like it, and I derive benefit from the app, then I would probably pay something for it.” and the other being Trust through a Very Negative Assertion that reported “So I’m reading this and I have the feeling like, it’s a lie, because someone has to pay for the service and stuff. ” On the other hand, the Compensation Specifier was linked three times to the Goal-related Factor, with Somewhat positive Assertions such as, “So...interesting. So if I get a lot of Cred, I can even earn with that.” and Neutral Assertions such as, “So this is actual money. So that means that it actually pays off to be a good person, the way I understand it.” and “So like rewarding the top performers.”

The Data Policy Feature aroused some Confusion, three involving the Ad-free Specifier linked to the Goal factor with Neutral Confusions such as “How do you finance it though?” and Somewhat Negative Confusions like, “Hmm, but how does this app make money?” Moreover, there were four Confusions that circulated around the Compensation Specifier, with a Somewhat Negative Confusion reporting, “I mean, it's the app currency, but does that mean you can change it in for favors? Or is it just like an honor badge?” and a Very Negative Confusions reporting, “My question would be what in case of shortage? Are the investors just going to cover that?” Two Confusions related to the Compensation Specifier were related to the vocabulary, with reports such as, “Recompensed? Re-compensated.” and “So I would say, "surplus" I don't know, but maybe it's something like over the expected amount of donations. Maybe.” As an extension to the Assertion linked to both the Suggested Donation Specifier and Trust mentioned above, a Confusion elaborated upon the research participant’s state of mind, “So I’m questioning it, and I’m like, are they honest with me - because who pays for the service and stuff? Or do they just not tell me that they keep a part of the money?”

Section 6. This section summarized the main points introduced in the Product landing page. All ten research participants read this Section, of whom nine reported Concurrent Reports. A total of 18 Reports were recorded, accounting for 11% of all subject matter spoken about in the CVP. Of the 18 Reports, 17 were Assertions and one was a Confusion, such as, "What's the meaning of Cred again?" This results in a proportional rate of Confusions at 6%. The average Sentiment score for this Section was +22.2, indicating a Somewhat Positive Sentiment. The most frequent adjective that was used was "Okay," with nine occurrences, accounting for 5.8% of the corpus of Reports made in this Section. The most frequent three word combination that arose was "Who can access" with two occurrences.

The Feature related to the Reports made in this Section largely pertain to the Platform with two exceptions, of which Assertions beyond "Okay" included, "Cool," "Makes sense," and "Very important." The Platform feature was linked four times to four different Factors: Goal, Trust, Differentiation, and Target Audience. Regarding the Goal Factor, a Very Negative Assertion was made, stating, "Okay. I still don't know what it does." Regarding Trust, as well a Very Negative Assertion saying, "That's a big claim. Everybody says big claims. So I think we're kind of resistant to, you know, the pompousness of that claim." In terms of Differentiation, there was a Very Positive Assertion that said, "Okay, this is a must. After Facebook, or Meta." Finally, regarding Target audience, a research participant Somewhat positively asserted, "I also care about the future."

Of the two exceptions to the Platform Features reported upon in this Section, one of them was a Data Policy Feature related to the Differentiation Factor, reporting a Very Negative Sentiment that said, "So here, it recognizes the rights, and protects them. Ok, what is so different here?" The other non-Platform Feature was an AoK-related Feature attached to its Gamification Specifier, and was in fact the only Confusion faced in this Section, in which a research participant asked, "What's the meaning of Cred again? Is it like Credits?"

Feature Analysis. Stepping back from the CVP Section analysis, the below provides a holistic view of the Features discussed in this Verbal Protocol. To avoid repetition, Reports as related to a Feature and/or Factor will not again be used in this section to contextualize the findings.

Platform. Ten out of ten research participants made Reports referring to the Platform Feature during their CVP. A total of 63 Platform-related Reports were recorded, accounting

for 39% of all subject matter spoken about in the CVP. Of the 63 Reports, 55 were Assertions and eight were Confusions. This results in a proportional rate of Confusions at 13%. This Platform Feature received an average Sentiment score of +12.7, indicating a Neutral Sentiment, resulting in the highest positivity of any Feature discussed in the CVP. The most frequent adjective that was used was “Okay” with 28 occurrences, accounting for 4.4% of the corpus of Reports made towards this Feature. The most frequent three word combinations that arose were “Don't know what” and “I'm not sure” with three occurrences each.

The Platform Feature had no related Specifiers, but was linked to the following Factors: the Goal Factor on nine occasions, Differentiation on five occasions, Personal Benefit and Target Audience on three occasions each, Trust on two occasions, and Altruism on one occasion. This leaves 39 occasions where the Platform Feature was not linked to a Factor.

AoKs. Ten out of ten research participants made Reports referring to the AoK Feature during their CVP. A total of 44 AoK-related Reports were recorded, accounting for 27% of all subject matter spoken about in the CVP. Of the 44 Reports, 29 were Assertions and 15 were Confusions. This puts the rate of Confusions at 34%, resulting in this Feature containing the highest proportion of Confusions among any Feature broached upon in the CVP. This AoK Feature received an average Sentiment score of -61.9, indicating a Very Negative Sentiment, and was the Feature that received the most negativity of any of the Features discussed in the CVP. The most frequent adjective that was used was “Okay” with 30 occurrences, accounting for 2.6% of the corpus of Reports made towards this Feature. The most frequent three word combination that arose was “Acts of kindness” with six occurrences.

On 25 occasions, the AoK Feature was not related to any Specifiers, but on 12 and seven occasions it was linked to the Valuation and to the Gamification Specifier respectively. It was linked to the Goal and Altruism Factors on two occasions each, and the Trust Factor on one occasion. This leaves 37 occasions where the AoK Feature was not linked to a Factor.

Networking. Seven out of ten research participants made Reports referring to the Networking Feature during their CVP. A total of 17 Networking-related Reports were recorded, accounting for 10% of all subject matter spoken about in the CVP. Of the 17 Reports, 12 were Assertions and five were Confusions. This results in a proportional rate of Confusions at 29%. This Networking Feature received an average Sentiment score of +2.9, indicating a Neutral Sentiment. The most frequent adjective that was used was "Okay" with 11 occurrences, accounting for 2.5% of the corpus of Reports made towards this Feature. There were no significant trends regarding multi-word phrases made towards this Feature.

On nine occasions, the Networking Feature was not linked to any Specifier, but on two occasions each was linked to the Profile/Feed and Recommendations Specifiers. The Networking Feature was only ever linked to the Goal Factor on seven occasions. This leaves ten occasions where the Networking Feature was not linked to a Factor.

Data Policy. Ten out of ten research participants made Reports referring to the Data Policy Feature during their CVP. A total of 38 Data Policy-related Reports were recorded, accounting for 23% of all subject matter spoken about in the CVP. Of the 39 Reports, 28 were Assertions and 11 were Confusions. This results in a proportional rate of Confusions at 26%. This Data Policy Feature received an average Sentiment score of -28.2, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was "Okay" with 24 occurrences, accounting for 3.1% of the corpus of Reports made towards this Feature. The most frequent three word combination that arose was "Are no ads" with three occurrences.

On 12 occasions, the Data Policy Feature was not related to any Specifiers. On ten occasions it was linked to the Ad-free Specifier, while on seven occasions it was linked to the Suggested Donations Specifier, and on nine occasions to the Compensation Specifier. The Data Policy Feature was linked to the following Factors: the Goal Factor on 12 occasions, the Differentiation and Trust Factors on three occasions each, the Personal Benefit Factor on two occasions, and the Competition Factor on one occasion. This leaves 17 occasions where the Data Policy Feature was not linked to a Factor.

RVP

The RVP was conducted immediately after research participants read through the six Sections that formulated the Product landing page and that comprised the CVP. The corpus of

the RVP totaled 108 Reports. Of the Retrospective reports, 76 were Assertions and 32 were Confusions which amounts to 30% Confusions.

Like those in the CVPs, Assertions made during the RVP spanned the whole spectrum of Sentiment, from Very Positive to Very Negative, and there were no Confusions that ranked higher than Neutral. The most frequently reported Sentiment of the CVP was Vert Negative with 50 occurrences, accounting for 19% of the total corpus; the least frequently reported Sentiment was Somewhat Positive with six occurrences, accounting for 2% of the total corpus. The average Sentiment of Retrospective Reports provided by research participants was Somewhat Negative, with a converted numerical score of -39.5.

The Features mentioned in the RVP were linked to Specifiers 29% of the time. On the other hand, Factors were linked to Features 82% of the time.

In the RVP, the Feature that elicited the most Confusions in total was related to the Platform with 14 Confusions, containing questions such as “So like, I want to know, like, what is this platform?” Proportionally, the Feature with the highest rate of Confusion was Networking with 46%, containing questions such as, “What happens if I don't participate [in the Offline Event]? Am I blamed for this?” The Feature with the lowest numerical total of Confusions was AoKs with 5, which was also the Feature that brought about the lowest proportional Confusion with 22%, containing questions such as, “So would you post it on this social network, an act of kindness that you did, and people on the network would validate that you did it?”

The Specifier that elicited the most numerical and proportional Confusion was the Data Policy Feature’s Suggested Donation Specifier, with five Confusions amount to a 63% rate of Confusions, with Reports such as, “Is it enough money to get funds only from donation? Is that realistic? Or will ads be considered also?” The Factor that elicited the most numerical and proportional Confusion was the Goal Factor, with 11 Confusions, with Reports such as “What does it mean, this platform?” while the Factors with the highest proportional Confusion was Competition and Target Audience, with 50% Confusion, with Reports respectively like, “Is the idea that you would have your flatmates or your friends do this and then you like, compete against each other?” and “Can it work with 10,000 users? And if so, how do you address their very specific needs of a niche group?”

In the RVP, the Feature that elicited the most positivity was Networking with an average Sentiment score of +15.4, equating to a Neutral Sentiment, while the one with the most negativity was related to the AoKs with a score of -61.9 or a Very Negative Sentiment. The Specifier that elicited the most positivity was the Ad-free Specifier with +100, or a Very

Positive Sentiment, while the Specifier that evoked the most negativity was the AoK Feature's Gamification Specifier with a score of -83.3 or a Very Negative Sentiment. The Factor that elicited the most positivity was the Differentiation with +26.7, equating to a Somewhat Positive Sentiment, while the one with the most negativity was Mental Health, with an average Sentiment score of -100 or a Very Negative Sentiment. Table 4 below shows the Type of Report, Features, Specifiers, and Factors by the total number of RVP Reports, number of Assertions, number and percent of Confusions, and Sentiment.

Table 4

Type of Report, Features, Specifiers, and Factors by the Total Number of RVP Reports, Percentage of Total Reports, Number of Assertions, Number and Percentage of Confusions, and Sentiment.

Subject	**# RVA**	**% Total**	**# Assertions**	**# Confusions**	**% Confusion**	**Sentiment**
Reports total	108	0.4	76	32	29.63%	-39.52
Features and *Specifiers*						
Platform	54	20.00%	40	14	25.93%	-45.37
AoKs	24	8.89%	19	5	20.83%	-61.90
Valuation	0	0.00%	0	0	#DIV/0!	#DIV/0!
Gamification	12	4.44%	11	1	8.33%	-83.33
Networking	13	4.81%	7	6	46.15%	15.38
Profile/Feed	0	0.00%	0	0	#DIV/0!	#DIV/0!
Recommendations	0	0.00%	0	0	#DIV/0!	#DIV/0!
Offline Event	5	1.85%	3	2	40.00%	50.00
Data Policy	17	6.30%	10	7	41.18%	-35.29
Ad-free	1	0.37%	1	0	0.00%	100.00
Suggested Donations	8	2.96%	3	5	62.50%	-81.25
Compensation	3	1.11%	2	1	0.33	-16.67
Factors						

Altruism	9	3.33%	5	4	0.44	-88.89
Competition	2	0.74%	1	1	0.50	-25.00
Differentiation	15	5.56%	15	0	0.00	26.67
Goal	33	12.22%	22	11	0.33	-36.67
Mental health	5	1.85%	5	0	0.00	-100.00
Personal benefit	13	4.81%	8	5	0.38	-88.46
Target audience	4	1.48%	2	2	0.50	-62.50
Trust	8	2.96%	6	2	0.25	-68.75

The most frequent single word adjective emitted in the RVPs was “Good” with 25 occurrences, accounting for .6% of the RVP corpus. In terms of multiple words, “I don’t know” was the second most frequent combination with eleven occurrences, after “acts of kindness” which occurred sixteen times.

Feature Analysis. The breakdown of the RVP findings as per Features is detailed below.

Platform. Nine out of ten research participants made Reports referring to the Platform Feature during their RVP. A total of 54 Platform-related Reports were recorded, accounting for 20% of all subject matter spoken about in the RVP. Of the 54 Reports, 40 were Assertions and 14 were Confusions, resulting in the highest numerical total of Confusions for any Feature broached upon in the RVP. This results in a proportional rate of Confusions at 26%. This Platform Feature received an average Sentiment score of -45.4, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Social” with 26 occurrences, accounting for 1.3% of the corpus of Reports made towards this Feature. The most frequent three word combination that arose was “I don't know” with eight occurrences.

As previously mentioned, the Platform Feature did not encompass any Specifier. There were five occasions where the Platform Feature wasn’t linked to any Factor. Thus, among the 49 Factor-linked Reports, 20 were linked to the Goal Factor. In this vein, research participants expressed Positive-leaning Assertions like, “I would be happy for this thing to work out, I will be happy for this thing to exist.” and “So it's nice that you can use this

platform to get connected with people and then it's not only about that, if I'm understanding correctly." as well as Negative-leaning Reports such as, "Yeah, so…where's the fun? Social networking is about fun." and "So of that all I've seen, this information was kind of an abstract of intentions, and not really something that is informing me about how I am engaging with this platform."

13 Platform-related Reports were linked to the Differentiation Factor, with Positive-leaning Assertions like, "So it's a good idea. It's sort of the opposite of what we don't like about social networks, that it inspires anger and that it sells your data, and that it's sustained by advertising that reinforces manipulation on the part of the social media owner." and "If it replaces the other [social networking applications], then I think that's a great idea." as well as, "So on a rational level, this would be way better than the social media we have today, because it at least puts the score on the right things." Negative-leaning Assertions cropped up like, "I mean, the concerns are not moral or even on questions of whether I would like it or not. It's more about whether it could work, cause you know, many social media function on the basis of negative emotions and then the simple entertaining. You know, you do it, because you do it because you have one to fill empty spaces in your life with something easy and fast and, and acts of kindness, it's typically not such an easy thing" and "I'm not seeing how this is substituting any social media. Because, first and foremost, social media is not really about creating projects and doing work. Social media is for sharing something that you have already done. So there's no work involved. And it's about instant gratification. So this is not substituting that."

11 Platform-related Reports were linked to the Personal Benefit Factor, composed mostly of Very Negative Assertions such as, "I don't know if I would do it, just because I'm very busy." and "You know, act, I don't need an app for acts of kindness. So I need an explanation for how an app with acts of kindness actually is good for me."

Trust and Mental Health were Factors that were each once linked to the Platform-related Feature, with Negative-leaning Assertions that respectively reported, "I think I said something like, "sounds too good to be true" or something like that. Yeah so why did I say that? First of all, I think you are inclined to think that there is always a selfish reason for any type of business, or at least, maybe for me by training as a journalist and my work as a journalist, I am more inclined than other people to doubt any statements." and "This self-actualization, becoming a better you hype...I am personally not a fan. Because I have the feeling that this is what makes people unhappy."

The Confusions linked to the Platform Feature also mostly touched upon the Goal and Personal Benefit Factors, but as well Target Audience and Altruism Factors. In terms of the link to the Goal Factor, research participants produced Negative-leaning reports such as, “What does it mean, this platform?” and “What would I be doing on this app?” In regards to the Personal Benefit Factor, Negative-leaning Confusions were reported like, “How would it benefit me?” and “I don't know how this platform is going to help me. Is it going to help me financially?” Related to the Target Audience, research participants asked Neutrally, “Can it work with 10,000 users? And if so, how do you address their very specific needs of a niche group?” and Somewhat Negatively, “How do you make the people who don't have time, don't have money, and have the infrastructure to participate in all of those activities?” Regarding the Altruism Factor, there was just one Very Negative Confusion, which stated, “I'm just slightly struggling to see what's the you know, like, what's the common ground between those two concepts, creating a social network and doing acts of kindness...like do we need a good social network to do act of kindness?”

Moreover, there was Negative attention from the research participants allocated to the vocabulary, with Very Negative Reports such as, “I mean, I’m not a native English speaker. My vocabulary is not yours. There have been a few words that I don’t understand, or that I just basically skipped.” and “So human capital is a horrible phrase that no one should be using....It just sounds very capitalistic.”

AoKs. Five out of ten research participants made Reports referring to the AoK Feature during their RVP. A total of 24 AoK-related Reports were recorded, accounting for 22% of all subject matter spoken about in the RVP. Of the 24 Reports, 19 were Assertions and five were Confusions. This results in a proportional rate of Confusions at 21%. This AoK Feature received an average Sentiment score of -61.9, indicating a Very Negative Sentiment, and was the Feature that received the most negativity of any of the Features discussed in the RVP. The most frequent adjective that was used was “Good” with 11 occurrences, accounting for .93% of the corpus of Reports made towards this Feature. The most frequent three word combination that arose was “Acts of kindness” with nine occurrences.

The AoK Feature was 12 times linked to no Specifier, no times linked to the Valuation Specifier, and 12 times linked to the Gamification Specifier. Many of these Gamification Specifiers were linked to AoK Feature Reports that were also linked to Factors, so the exemplification can be found in the rest of this section.

On one occasion, the AoK feature was not linked to any Factor. However, five AoK-related Reports were linked to the Goal Factor, composed mostly of Very Positive Assertions such as, “That could work. Like, you know, initiatives you can document very well and get like crowdfunding, and if it looks good, you just see engagement and the projects get supporters. And then they would assign Creds to it.” and “There’s not much to not like, it’s just inspiring act of kindness. It’s difficult to not like an idea like this.” Negative-leaning Assertions made in reference to the Goal Factor largely revolved around the need for examples, with reports like, “Okay, this is an AoK: now give me an example.” and “What I did not see were any examples. I felt like the acts of kindness were a very generic concept, and I thought it would be nice to see examples of what acts of kindness are.” as well as “Maybe some examples, if you show some examples, then I think it could relate a little bit better.”

Four AoK-related Reports were linked to the Mental Health Factor. In this vein, research participants expressed Very Negative Assertions like, “What happens…if there’s a couple months that you’re not very active on that platform, so you don’t really help others so much because you’re the one that needs help? Well, your score would go down. That then, in turn, would even worsen your personal situation.” and “I think there might be some second order effects, wherein that if you’re not as good as another person and it’s clear and visible on the app, you might feel bad about yourself.”

Four AoK-related Reports were linked to the Altruism Factor, with Negative-leaning Assertions like, “If I help someone...then, I know that I helped someone and that makes me feel good...that would mean more to me than a score.” and “The thing I’m struggling with mentally is that it feels like bragging. Like, “look at me, I’m this philanthropist, I’m this nice person.” And that’s something I don’t like about social media, is that people show off.” as well as, “An app is not going to drive a person towards altruism, I'd say.”

Competition, Trust, and Target Audience were Factors that were each once linked to the AoK-related Feature, with Negative-leaning Assertions that respectively reported, “So yeah, like with with respect to the user retention, whether this isn't a way to like, demotivate them.” and “If you have acts of kindness, they do not necessarily need an observer to forward the kindness. So you know, this could be something that makes it scripted.” and finally, “What kind of asshole needs a social media credit to do an act of kindness?”

The Confusions linked to the AoK Feature also mostly touched upon the Altruism Factor, but as well Competition and the Goal Factors. In terms of the link to the Altruism Factor, research participants produced Very Negative reports such as, “The question is, why

do you eventually do the good thing, then? Do you behave in a good way, or because you can later point to a number and say, ‘my number is higher than yours’?” and “Yeah, I think it has that potential where everybody just comes in and they're like, ‘what's your motivation to really share those acts of kindness?’” Related to Competition, one research participant asked Neutrally, “Is the idea that you would just have your flatmates or your friends do this and then you like, compete against each other? On like, who does more AoKs earns more?” Finally, regarding the Goals Factor, there was one Neutral Confusion which stated, “So would you post it on this social network, an act of kindness that you did, and people on the network would validate that you did it?”

Networking. Seven out of ten research participants made Reports referring to the Networking Feature during their RVP. A total of 13 Networking-related Reports were recorded, accounting for 5% of all subject matter spoken about in the RVP. Of the 13 Reports, seven were Assertions and six were Confusions. This results in a proportional rate of Confusions at 46%, which is the highest proportion of Confusions for any Feature touched upon in the RVP. This Networking Feature received an average Sentiment score of +15.4, indicating a Neutral Sentiment and resulting in the Feature that received the highest positivity of any discussed in the RVP. The most frequent adjective that was used was “Social” with seven occurrences, accounting for 1.7% of the corpus of Reports made towards this Feature. The most frequent two word combination that arose was “What kind” with five occurrences.

On eight occasions, the Networking Feature was not linked to any Specifier, however on five occasions were linked to the Offline Event Specifier, with Positive-leaning Reports like, “I find that important as well, that you can meet online, to get active in the real world.” and “I like very much that you went from the online world to the offline world.” as well as, “I also like the fact of the offline networking event.”

Goal, Trust, and Target Audience were Factors that were each once linked to the Networking Feature, with Very Positive to Very Negative Assertions that respectively reported, “If this actually leads to people like connecting themselves more, like having more of this active community, they can obviously inspire each other.” and “It's not necessarily dislike, it's perhaps more of disbelief that somehow this genuinely creates a community.” and finally, “I have the feeling that at the end of this [onboarding] process, there's only very nerdy people left in this social network.”

The Confusions linked to the Networking Feature mostly touched upon the Goal Factor, but as well regarding the Networking Feature’s Offline Event Specifier. In terms of

the link to the Goal Factor, research participants produced Neutral reports such as, “Participation in the social network: is this only used for acts of kindness, or is it for other social network things that you typically use social networks for?” and “What kind of social networking platform will it be like, a general one or something that goes into the direction of LinkedIn?” Regarding the Offline Event, research participants asked, “What happens if I don't participate? Am I blamed for this?” and “Like a literal party? Like an online/virtual party?”

Data Policy. Seven out of ten research participants made Reports referring to the Data Policy Feature during their RVP. A total of 17 Data Policy-related Reports were recorded, accounting for 6% of all subject matter spoken about in the RVP. Of the 17 Reports, ten were Assertions and seven were Confusions. This results in a proportional rate of Confusions at 41%. This Data Policy Feature received an average Sentiment score of -35.3, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Good” with four occurrences, accounting for .7% of the corpus of Reports made towards this Feature. There were no significant trends regarding multi-word phrases made towards this Feature.

Five Data Policy-related Assertions were not linked to any Factor, but were twice linked to the Suggested Donations Specifier, with Negative-leaning ones like, “Still there are fixed costs that are not covered somehow. For that you need to find a solution.” and “Unfortunately, we are not used to the idea that you have to pay for social media. And so it would be very difficult to make people accept this point.” Positive-leaning Assertions were made towards the Ad-free and Compensation Specifiers, reports of which respectively stated, “I mean, from a bird's eye perspective, I quite like the idea that I wouldn't have to go through ads all the time.” and, “I mean, it would be nice to get money for the good deeds, I guess.” One Assertion was made without a connection to a Specifier, a Neutral one stating, “And, frankly, at this point, the data that I give to social apps, I am not necessarily that worried about somebody seeing what I looked at.”

Four Data Policy-related Assertions were linked to the Trust Factor, among which two were related to the Suggested Donation Specifier, with Very Negative ones such as, “When we go into the business model: relying on donations is always extremely dangerous.” One of these Assertions related to the Compensation Specifier, a Somewhat Negative report stating, “That's the question of game-ability, for example, if you have a lot of followers it’s like ‘please come to the app and vote for me for the credit so we get the funds of the project’ kind of, you know? If it’s gameable, people will probably do it.” The last Assertion that was Trust

Factor-related was not linked to any Specifier, a very negative report stating, “It's also cool, if at this point, sounding slightly utopian, but maybe because I'm just cynical, that like my data, would be safe.”

On two occasions, Data Policy-related Assertions were linked to the Differentiation Factor, a Very Positive report stating, “Yeah, I like the idea of the data protection, obviously that's not given in the other networks. I think that's a good selling point.” and a Neutral one reporting, “I'd say the point that your data is not sold: is going to become, I wouldn't say mainstream, but it's going to become sort of a requirement for anyone who wants to be socially responsible.”

The Confusions linked to the Data Policy Feature were evenly split between the Trust Factor, the Goal Factor, and no associated Factor, however mostly concerned the Suggested Donation Specifier. In terms of the link to the Trust Factor, research participants produced Somewhat Negative reports such as, “I wonder, because I know having ads is like the way apps just make money…I just wonder how much this app can give to us if there's no ads, and they only work on a suggested donations?” and “Is it just enough money to get funds only from donation? Is that realistic? Or will ads be considered also?” Regarding the Goal Factor, research participants stated Very Negative Confusions such as, “But there's still a few question marks when it comes to the whole payment system and what the prime goal is.” and “And then if we have a good social network, do we pay for it in money and the fact that we need to do these cryptic acts of kindness?” In regards to the Data Policy Feature itself, there was one Neutral Confusion which stated, “I have one question: does it include a crypto coin?” and a Somewhat Negative Confusion concerning the Compensation Specifier, that stated, “I'm not sure if I understand correctly, how that works with the money and the donations. If it’s like ‘oh, I've done so much good that some of the money that other people paid is going to me…but is it just for me, or is it so I can get the products for my projects?’”

3.2 Specifier Analysis

Specifiers that arose in the CVPs and RVPs were introduced details of the Product Features. There were 82 Reports that were linked to Specifiers. This comprises 30% of all the Reports. Table 5 below shows the Factor by the total number of Reports, number of Assertions, number and percent of Confusions, and Sentiment.

Table 5

Specifier by the Number and Percentage of Total Reports, Number of Assertions, Number and Percentage of Confusions, and Sentiment.

Feature and *Specifier*	**Total reports**	**% Total**	**# Assertions**	**# Confusion**	**% Confusion**	**Sentiment**
AoKs						
Valuation	12	0.04	7	5	0.42	-33.33
Gamification	19	0.07	16	3	0.16	-65.79
Networking						
Profile/Feed	2	0.01	0	2	1.00	-50.00
Recommendations	2	0.01	2	0	0.00	50.00
Offline event	9	0.03	6	3	0.33	38.89
Data Policy						
Ad-free	11	0.04	8	3	0.27	-18.18
Suggested donations	15	0.06	9	6	0.4	-63.33
Compensation	12	0.04	7	5	0.42	-20.83

A contextualized analysis of the Specifiers is provided below. To avoid repetition, Reports as related to a Feature and/or Factor will not again be used in this section to contextualize the findings.

AoKs

Valuation. Eight out of ten research participants made Reports that pertained to the Valuation Specifier. This Specifier received 12 Reports, accounting for 4% of the total Reports. Of the 12 Reports, seven were Assertions and five were Confusions. This results in a proportional rate of Confusions at 42%. This Valuation Specifier received an average Sentiment score of -33.3, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Okay” with nine occurrences, accounting for 3.9% of the corpus of Reports made towards this Specifier. There were no significant trends regarding multi-word phrases made towards this Specifier.

Gamification. Seven out of ten research participants made Reports that pertained to the Gamification Specifier. This Specifier received the Reports of any Specififer with 19 Reports, accounting for 7% of the total Reports. Of the 19 Reports, 16 were Assertions and three were Confusions. This results in a proportional rate of Confusions at 16%. This Gamification Specifier received an average Sentiment score of -65.8, indicating a Very Negative Sentiment. The most frequent adjective that was used was “Good” with nine occurrences, accounting for .9% of the corpus of Reports made towards this Specifier. “Acts of kindness” was the most frequent three-word phrase in the related corpus, with six occurrences.

Networking

Profile/Feed. Two out of ten research participants made Reports that pertained to the Profile/Feed Specifier. This Specifier received two Reports, accounting for 1% of the total Reports. Of the two Reports, all were Confusions. This results in a proportional rate of Confusions at 100%. This Profile/Feed Specifier received an average Sentiment score of -50, indicating a Somewhat Negative Sentiment. There were no significant trends regarding single adjectives or multi-word phrases made towards this Specifier.

Recommendations. Two out of ten research participants made Reports that pertained to the Recommendations Specifier. This Specifier received two Reports, accounting for 1% of the total Reports. Of the two Reports, all were Assertions. This results in a proportional rate of Confusions at 0%. This Recommendations Specifier received an average Sentiment score of +50, indicating a Somewhat Positive Sentiment. There were no significant trends regarding single adjectives or multi-word phrases made towards this Specifier.

Offline Event. Seven out of ten research participants made Reports that pertained to the Offline Event Specifier. This Specifier received nine Reports, accounting for 3% of the total Reports. Of the nine Reports, six were Assertions and three were Confusions. This results in a proportional rate of Confusions at 33%. This Offline Event Specifier received an average Sentiment score of +38.9, indicating a Somewhat Positive Sentiment. There were no significant trends regarding single adjectives or multi-word phrases made towards this Specifier.

Data Policy

Ad-free. Seven out of ten research participants made Reports that pertained to the Ad-free Specifier. This Specifier received 11 Reports, accounting for 4% of the total Reports. Of the 11 Reports, eight were Assertions and three were Confusions. This results in a proportional rate of Confusions at 27%. This Ad-free Specifier received an average Sentiment score of -18.2, indicating a Neutral Sentiment. The most frequent adjective that was used was “Okay” with nine occurrences, accounting for 3.9% of the corpus of Reports made towards this Specifier. “No ads” was the most frequent two-word phrase in the related corpus, with four occurrences.

Suggested Donations. Nine out of ten research participants made Reports that pertained to the Suggested Donations Specifier. This Specifier received 15 Reports, accounting for 6% of the Reports allocated to the Data Policy Specifiers. Of the 15 Reports, nine were Assertions and six were Confusions. This results in a proportional rate of Confusions at 40%. This Suggested Donations Specifier received an average Sentiment score of -63.3, indicating a Very Negative Sentiment. The most frequent adjective that was used was “Okay” with four occurrences, accounting for 3.9% of the corpus of Reports made

towards this Specifier. “To pay for” was the most frequent three-word phrase in the related corpus, with four occurrences.

Compensation. Seven out of ten research participants made Reports that pertained to the Compensation Specifier. This Specifier received 12 Reports, accounting for 4% of the total Reports. Of the 12 Reports, seven were Assertions and five were Confusions. This results in a proportional rate of Confusions at 42%. This Compensation Specifier received an average Sentiment score of -20.8, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Okay” with seven occurrences, accounting for 1.7% of the corpus of Reports made towards this Specifier. There were no significant trends regarding multi-word phrases made towards this Specifier.

3.3. Factor Analysis

The Concurrent and RVP analysis was structured around the Features that were explicitly proposed in the Product landing page. Factors that arose in these two Verbal Protocols were described above not as direct Product offerings but rather topics that were introduced by the research participants, and treated as associations to those Product offerings. Thus, every Report has a related Feature but not a related Factor.

There were 148 Reports that were linked to Factors. This comprises 55% of all the Reports. Table 6 below shows the Factor by the total number of Reports, number of Assertions, number and percent of Confusions, and Sentiment.

Table 6

Factor by the Number and Percentage of Total Reports, Number of Assertions, Number and Percentage of Confusions, and Sentiment.

Factor	# Total	% Total	# Assertions	# Confusions	% Confusion	Sentiment
Altruism	12	0.04	8	4	0.33	-58.33
Mental health	8	0.03	7	1	0.13	-75.00
User competition	3	0.01	2	1	0.33	-50.00
Target audience	7	0.03	5	2	0.29	-14.29
Differentiation	23	0.09	23	0	0.00	15.22
Personal benefit	18	0.07	12	6	0.33	-77.78
Goal	63	0.23	43	20	0.32	-22.50
Trust	14	0.05	11	3	0.21	-78.57
N/A	122	0.45	89	33	0.27	-2.46

A contextualized analysis of the Factors is provided below. To avoid repetition, Reports as related to a Feature and/or Factor will not again be used in this section to contextualize the findings.

Goal

All ten research participants made Reports that pertained to the Goal Factor. This Factor received the most Reports of any Factor with 63 Reports, accounting for 23% of the total Reports. Of the 63 Reports, 43 were Assertions and 20 were Confusions. This results in a proportional rate of Confusions at 32%. This Goal Factor received an average Sentiment score of -22.5, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Okay” with 23 occurrences, accounting for 1.4% of the corpus of Reports made towards this Factor. After “Acts of kindness,” “I don't know” was the most frequent three-word phrase in the related corpus, with five occurrences.

The Goal Factor is the predominant link to all of the Features except for AoKs (where Altruism was the most frequent link). It was related to the Platform on 29 occurrences (40% of any Platform-related Factor), the Data Policy on 14 occurrences (45% of any Data Policy-related Factor), Networking on 12 occurrences (86% of any Networking-related Factor), and AoKs on eight occurrences (27% of any AoK-related Factor).

Differentiation

Eight out of ten research participants made Reports that pertained to the Differentiation Factor. This Factor received the second most Reports of any Factor with 23 Reports, accounting for 9% of the total Reports. Of the 23 Reports, all were Assertions. This results in a proportional rate of Confusions at 0%. This Differentiation Factor received an average Sentiment score of +15.2, indicating a Neutral Sentiment, and resulting in the Factor with the highest Sentiment score. The most frequent adjective that was used was "Social" with 22 occurrences, accounting for 2.2% of the corpus of Reports made towards this Factor. "Social media" was the most frequent two-word phrase in the related corpus, with 17 occurrences.

The Differentiation Factor is predominantly linked to the Platform Feature, with 18 occurrences (25% of any Platform-related Factor), and linked to the Data Policy on three occurrences (10% of any Data Policy-related Factor).

Personal benefit

Seven out of ten research participants made Reports that pertained to the Personal Benefit Factor. This Factor received the third most Reports of any Factor with 18 Reports, accounting for 7% of the total Reports. Of the 18 Reports, 12 were Assertions and six were Confusions. This results in a proportional rate of Confusions at 33%. This Personal Benefit Factor received an average Sentiment score of -77.8, indicating a Very Negative Sentiment. The most frequent adjective that was used was "Good" with seven occurrences, accounting for 1.2% of the corpus of Reports made towards this Factor. "I don't know" was the most frequent three-word phrase in the related corpus, with six occurrences.

The Personal Benefit Factor is predominantly linked to the Platform Feature, with 14 occurrences (19% of any Platform-related Factor), linked to the Data Policy on three occurrences (10% of any Data Policy-related Factor), and linked once to the AoK Feature (3% of any AoK-related Factor).

Trust

Seven out of ten research participants made Reports that pertained to the Trust Factor. This Factor received the fourth most Reports of any Factor with 14 Reports, accounting for 5% of the Reports allocated to any Factor. Of the 15 Reports, 11 were Assertions and three were Confusions. This results in a proportional rate of Confusions at 21%. This Trust Factor received an average Sentiment score of -78.6, indicating a Very Negative Sentiment. This was the Factor that received the most negativity of any Factor. There were no notable adjectives found in the corpus related to this Factor. “I think” was the most frequent two-word phrase in the related corpus, with five occurrences.

The Trust Factor is predominantly linked to the Data Policy Feature, with eight occurrences (26% of any Data Policy-related Factor), linked to the Platform on three occurrences (4% of any Platform-related Factor), linked twice to the AoK Feature (7% of any AoK-related Factor), and once to the Networking Feature (7% of any Networking-related Factor).

Altruism

Four out of ten research participants made Reports that pertained to the Altruism Factor. This Factor received the fifth most Reports of any Factor with 12 Reports, accounting for 4% of the total Reports. Of the 12 Reports, eight were Assertions and four were Confusions. This results in a proportional rate of Confusions at 33%. This Altruism Factor received an average Sentiment score of -58.3, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Good” with ten occurrences, accounting for 1.4% of the corpus of Reports made towards this Factor. “Acts of kindness” was the most frequent three-word phrase in the related corpus, with six occurrences.

The Altruism Factor is the predominant link to the AoK Feature, with ten occurrences (33% of any AoK-related Factor). It is also linked to the Platform Feature on two occurrences (3% of any Platform-related Factor).

Mental Health

Five out of ten research participants made Reports that pertained to the Mental Health Factor. This Factor received the sixth most Reports of any Factor with eight Reports, accounting for 3% of the total Reports. Of the eight Reports, seven were Assertions and one was a Confusion. This results in a proportional rate of Confusions at 13%. This Mental

Health Factor received an average Sentiment score of -75, indicating a Very Negative Sentiment. The most frequent adjective that was used was “Wrong” with four occurrences, accounting for .5% of the corpus of Reports made towards this Factor. “You’re not” was the most frequent two-word phrase in the related corpus, with four occurrences.

The Mental Health Factor is predominantly linked to the AoK Feature, with six occurrences (20% of any AoK-related Factor) and linked to the Platform on two occurrences (3% of any Platform-related Factor).

Target Audience

Five out of ten research participants made Reports that pertained to the Target Audience Factor. This Factor received the seventh most Reports of any Factor with seven Reports, accounting for 3% of the total Reports. Of the eight Reports, five were Assertions and two were Confusions. This results in a proportional rate of Confusions at 29%. This Target Audience Factor received an average Sentiment score of -14.3, indicating a Neutral Sentiment. The most frequent adjective that was used was “Okay” with two occurrences, accounting for 1.8% of the corpus of Reports made towards this Factor. There were no significant multi-word phrases made towards this Factor.

The Target Audience Factor is predominantly linked to the Platform Feature, with five occurrences (7% of any Platform-related Factor) and the AoK and Networking Features on one occurrence each (3% and 7% of the related Factors of the AoK and Networking Features respectively).

Competition

Two out of ten research participants made Reports that pertained to the Competition Factor. This Factor received the least number of Reports of any Factor with three Reports, accounting for 1% of the total Reports. Of the three Reports, two were Assertions and one was a Confusion. This results in a proportional rate of Confusions at 33%. This Competition Factor received an average Sentiment score of -50, indicating a Somewhat Negative Sentiment. The most frequent adjective that was used was “Driven” with two occurrences, accounting for 2.0% of the corpus of Reports made towards this Factor. “You’re not” was the most frequent two-word phrase in the related corpus, with four occurrences. There were no significant multi-word phrases made towards this Factor.

The Competition Factor is predominantly linked to the AoK Feature, with two occurrences (7% of any AoK-related Factor) and the Data Policy Feature on one occurrence (3% of any Data Policy-related Feature).

3.4. User Analysis

Social Networking Application Usage

Five research participants stated that Instagram was their most predominantly used social networking application, the reasons for which was narrowly focused around: staying up to date with friends, topics of interest, and news; looking at pictures; and discovering places and products.

The second-most predominantly used social networking application by the research participants was LinkedIn, with four research participants stating their reasons as being: researching and applying for jobs; maintaining professional connections; and for job-related sales tasks.

Though not perceived by every research participant as qualifying as a social networking application, the third-most predominantly used social networking application among three research participants was Whatsapp, the overwhelming reason being communicating and coordinating with friends.

Other mentions from research participants regarding their most predominantly used social networking application included Tiktok, Facebook, and Discord.

Research Participant Behavior

Research Participant 3 was the largest contributor to both the CVPs and RVPs, with 30 Concurrent and 21 retrospective Reports respectively. Research Participant 3 again was the largest contributor to the Assertions and Confusions categories, with 36 Assertions and 15 Confusions. The average number of Concurrent and Retrospective Reports made by research participants was 16 and 11 respectively.

The participant that had the highest proportion of Confusions was Research Participant 7 (50% Confusions), and the participant with the lowest percentage of Confusions was Research Participant 6 (9% Confusions). The average percentage of research participant Confusions to total Reports was 28%.

The research participant with the most positivity was Participant 8, with an average Sentiment score of +18.2 which is equated to a Neutral Sentiment. The research participant that elicited the most negativity was Participant 1, with one occurrence of a Very Positive Sentiment (4%), two occurrences of a Somewhat Positive Sentiment (8%), no occurrence of a Neutral Sentiment (0%), two occurrences of a Somewhat Negative Sentiment (8%), and 21 occurrences of a Very Negative Sentiment (80%), for an average Sentiment score of -76 which is equated to a Very Negative Sentiment. Table 7 below shows the research participant behavior by their number and percentage of total Reports, number of Assertions, number and percentage of Confusions, and Sentiment.

Table 7

Research Participant by Number and Percentage of Total Reports, Number of Assertions, Number and Percentage of Confusions, and Sentiment.

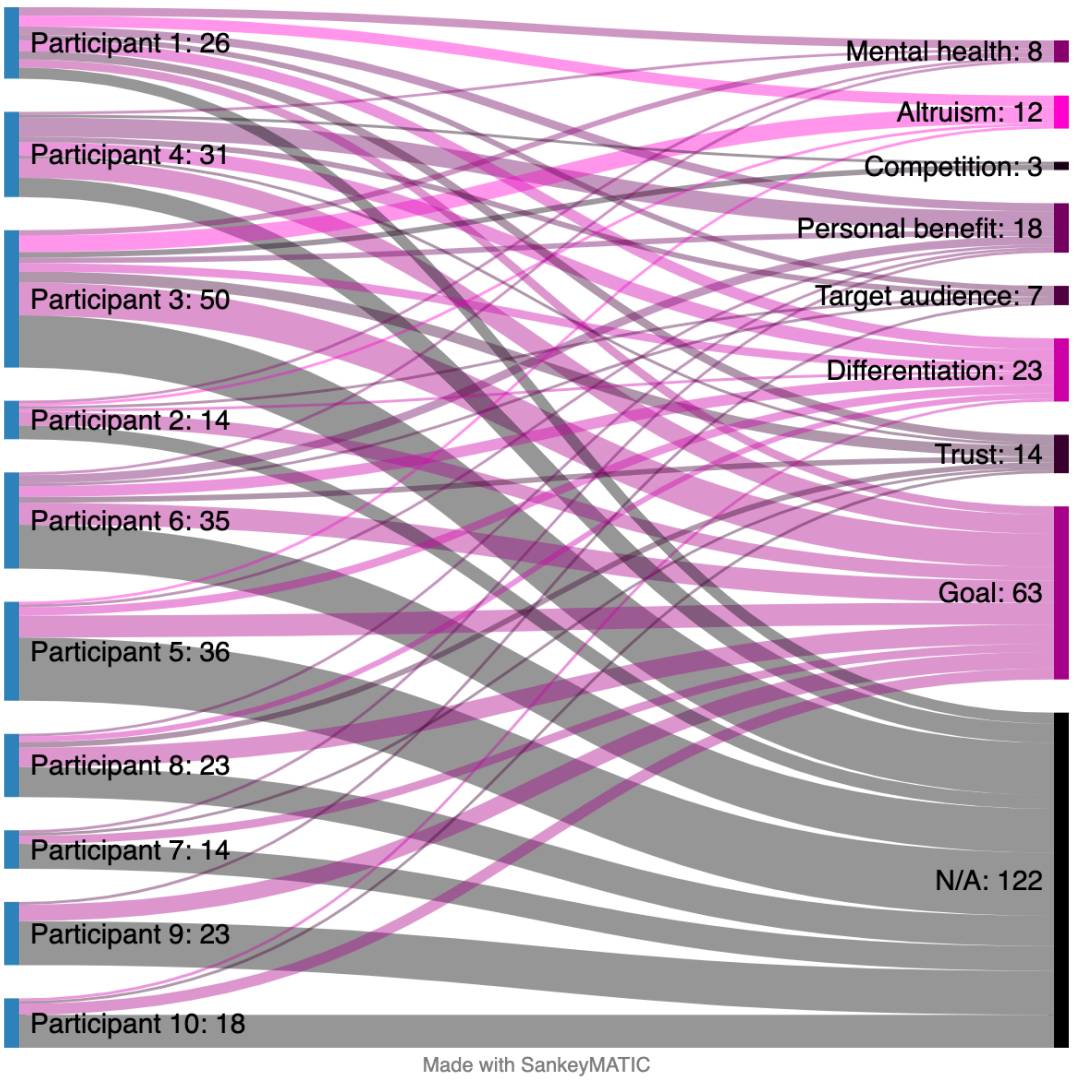
Participant	# Total	% Total	# Assertions	# Confusions	% Confusions	Sentiment
1	26	0.10	21	5	0.07	-76.00
2	14	0.05	9	5	0.07	-3.85
3	50	0.19	35	15	0.21	-55.00
4	31	0.11	21	10	0.14	-54.84
5	36	0.13	26	10	0.14	16.67
6	35	0.13	32	3	0.04	10.00
7	14	0.05	7	7	0.10	-21.43
8	23	0.09	20	3	0.04	18.18
9	23	0.09	17	6	0.09	6.52
10	18	0.07	12	6	0.09	-8.33

The four research participants who have experience in product development (research participants 1, 2, 3, and 4) contributed to 45% of the entire corpus. Moreover, three of these research participants were the top three most negative research participants, with an average sentiment score of -61.9, or Very Negative. These four product-experienced research participants introduced more Factors than non-product experts: four out of four introduced

the Mental Health Factor (against only one non-product development research participant who did); three out of four independently introduced the Altruism Factor (against only one non-product development research participant who did); and two out of four introduced the Competition Factor (against no non-product development research participants). They also linked Features to Factors more prevalently (86 occurrences) than non-product development research participants (30 occurrences), on a scale of nearly 3:1. Figure 10 shows the distribution research participants Reports across the Factors.

Figure 10

Distribution of Research Participant Reports across Factor.



4. Discussion

The main goal of the research was to understand how research participants perceive the Product through qualitative means. To this end, CVPs and RVPs were administered during and after research participants read the Product's description. The CVP intended to not only expose the research participants' perception of the Product, but as well offer insight into the rationale research participants might use while deciding to sign up for the Product. Close attention was paid to the specific words research participants used in their Verbal Reports, and more holistically the positive and negative remarks as well as the questions that research participants made in response to reading the Product landing page. The intention was to discover not only the UX of the research participants regarding the Product, but also the extent to which the Product is seen as useful, and preliminary patterns that may have manifested between research participants and their perceptions of the Product.

Though one of the proposed research questions regarding sign up was omitted from the thesis, nonetheless the qualitative research methods used were effective methods for this thesis research. This is shown not only by the general wealth of feedback but also the fact that a conclusion was able to be confidently reached. The feedback, analyzed by word and by whole thought, was helpful in understanding the emotions and perceptions by research participants while they reviewed the Product landing page (in comparing the researcher's and AI's Sentiment analysis of the entirety of the Reports, there was almost a similar nominal finding however ultimately, the AI scored it as a -4.7, or Neutral, and the researcher as a -20.0, or Somewhat Negative). Though the findings in this thesis research are not applicable to targeting future audiences of the Product as intended, they are valuable

there were nonetheless some critical findings that corroborate best practices in the field of Product development and UX, namely regarding the importance of testing environments.

Thus the basic goal of the thesis research was achieved, and the question of Product perception answered: research participants have a Somewhat Negative perception of the Product. This is primarily indicated through the average Sentiment score of the Reports, placed at -20.0 or Somewhat Negative, and this finding is supported below by a discussion which attempts to highlight and contextualize the results, report upon limitations, and make practical recommendations for future research.

4.1. What Questions Are Asked About The Product?

One of the aims of the research was to understand which questions were being asked by research participants. Therefore, the first place to look for more information is where Confusion is abound: the results indicate that though the Platform Feature elicited the greatest number of Confusions, it had the lowest proportion of Confusions; on the contrary, though the Networking Feature had the lowest number of Confusions, it had the highest proportional Confusions. This finding serves as a reminder to be cautious around proportional data, as the results can be more inflated if the Features have fewer data points. Thus, numerical values should be prioritized more highly than proportional values in the analysis.

That being said, the Platform Feature evoked the most Confusion with 22 reported Confusions. The questions that arose here mostly pertained to the Platform Feature itself where there was no related Factor, namely revolving around the look of the Platform, for example, “How does it look like? I would like to see it, you know?” and “How it's gonna look like?” In terms of Platform-related Factors, the Goal Factor which contains the most Confusions. This Platform-Goal relationship scored a Somewhat Negative sentiment of -39.7 and was accompanied with explicit Confusions as well, such as “What would I be doing on this app?” and “So like, I want to know, like, what is this platform?” This confusion about the goal of the Product and its features is even observed in more Positive-leaning Reports, such as, “So it's nice that you can use this platform to get connected with people and then it's not only about that, if I'm understanding correctly.”

Not only was there confusion around the basic goal of the Product, but as well, unsurprisingly, about the goal and mechanisms of the core Product features. This largely relates to the AoKs, which received 20 Confusions, and of which only two research participants understood the role of the AoKs and its mechanisms with no self-explanation required. Confusions in this Feature are also supported by the existence of a Somewhat Negative sentiment score of -36.2, with its Valuation and Gamification Specifiers receiving a Somewhat Negative sentiment score of -33.3 and a Very Negative sentiment score of -65.8 respectively. Moreover, the Reports exemplify these Confusions in more detail, through statements like, “Okay, I'm lost. So Gages represent your level of engagement on the app. And Cred represents the level of engagement in the community. Okay, right. I get it. Not easy.” and “Cred...ok, now I’m confused. Now I have two things that represent my engagement, namely Gages and Cred. Or is Cred just a way to measure Gages, I’m confused

at this point.” Participant 3 summed it up perfectly, “I would say that from this particular onboarding thing, things are a lot clearer in your head than they are on the figma screen.”

It is also important to note that regardless of the Feature, save for Networking, there was Confusion related to the vocabulary. This was identifiable in 12 Reports, some of which were, “What does it mean like “ol’?”, “Accrediting...I'm not sure what that means.” and “Gages? Gaages? I don’t know how to pronounce this word.”

4.2. Which Negative Aspects Are Possessed By The Product?

AoKs

The research question addressing the less favorable aspects of the Product may be answered by first locating the Feature with the lowest sentiment score. This happens to be AoKs with -36.2, indicating a Somewhat Negative Sentiment. As stated above, this Feature inspired a fair amount of confusion, and research participants clearly stated a need for examples to help demystify the AoKs, with Reports such as “I would probably need a model.” and “If you show some examples, then I think it could relate a little bit better.” as well as “I felt like the acts of kindness were a very generic concept, and I thought it would be nice to see examples of what acts of kindness are.” This obscurity affected the overall perception of this Feature, which is corroborated in one Report which says, “You're trying to get people to do acts of kindness, but at this point, I don't understand them. So I don't know how I feel about them.”

The Factors and Specifiers associated with the negative Reports made towards this AoK Feature provide some direction as to what specifically is so negative about the AoKs. These are notably Altruism, Mental Health, and Competition Factors, as well as the Gamification Specifier. Through the analysis of these Reports with these related Factors and Specifiers, it can be determined that the research participants observe that an attempt to incentivize altruism via a social network may not be in line with the motivations of altruistic people. Wherein social networks work mainly off sharing information, research participants expect altruistic deeds to be generally conducted without the need for recognition or incentive. The clash of these two concepts was inherent in the Assertions such as, “It just sounds like this constantly positive thing, that everybody's always kind, and at one point that just starts looking fake.” and, “It feels like bragging.” Moreover, this clash was apparent in

the questions asked, with one quite perfectly stating, “What kind of asshole needs a social media credit to do an act of kindness?”

Attempting to coincide these concepts of social networking applications, altruism, and gamification can induce competitive motivations of use, one that research participants commented on, for example, “Do you behave in a good way because you can later point to a number and say, ‘my number is higher than yours’?” and “Is the idea that you would just have your flatmates or your friends do this and then you compete against each other, on who earns more AoKs?” This competitive motivation in turn may risk non-retention of users, “With respect to the user retention, I wonder whether this isn't a way to demotivate them.”

This competitive motivation may as well risk negative mental health, despite the intentions of the Product, with Reports such as, “This self-actualization, becoming a better you hype...I am personally not a fan. Because I have the feeling that this is what makes people unhappy. This pressure of always being a better person, comparing yourself against your past self or others.” and “But what happens…you’re having personal problems…so you don’t really help others so much because you’re the one that needs help? Well, your score would go down. Which then, in turn, would even worsen your personal situation.” All in all, these Reports indicate a strong resistance to the idea that people’s acts of kindness should be incentivized by social media or gamification.

Data Policy

The other Feature that evoked the most negativity was the Data Policy Feature with a score of -29.1, or a Somewhat Negative sentiment. This Feature, something that was indicated to be valuable to participants in a previous study conducted by the researcher, was not entirely corroborated in this thesis research. Generally, the negativity was geared towards the Suggested Donations Specifier, which received 15 Reports, for a Very Negative sentiment score of -63.3, through Reports like “Okay, so I'm earning credits, but I also need to pay for the app. That's what I'm hearing here.” and “What I'm seeing here is: I am judged by how much work I'm going to be doing, and I have to pay for it.” One research participant provided an explanation for the incredulousness expressed in these previous Reports, saying, “Unfortunately, we are not used to the idea that you have to pay for social media. And so it would be very difficult to make people accept this point.”

Of any of the related Data Policy Factors, Trust was especially prominent among Negative-leaning Reports that included Suggested Donation Specifiers, with a Sentiment

score of -81.3 indicating a Very Negative Sentiment. These included Assertions like, “So I’m reading this and I have the feeling like, it’s a lie, because someone has to pay for the service and stuff.” and “Okay, I mean, it's cool, but I am, like, empirically, I don't believe that this would actually hold out throughout the lifecycle of the app, like post launch.”

Furthermore, when it came to the Data Policy and Differentiation, there was some controversy about what is considered standard practice, with Very Positive Reports such as, “Yeah, I like the idea of the data protection, obviously that's not given in the other networks. I think that's a good selling point.” and Neutral Reports such as, “I'd say the point that your data is not sold: is going to become, I wouldn't say mainstream, but it's going to become sort of a requirement for anyone who wants to be socially responsible.” and Somewhat Negative Reports like, “Okay, sounds all good but it's something that you might have read on other types of social media as well, maybe.” While not entirely composed of negative Reports, the finding itself is negative in that there is a lack of consensus towards this idea of differentiating data policies.

Readability and Cognitive Load

The Negative-leaning Reports provided by the research participants, both specifically to the AoKs and Data Policy Features and more broadly, exposed a profound lack of comprehension. Comprehension is usually defined as a pragmatic quality (Hassenzahl et al., 2002) and as such, studies involving comprehension have generally focused on measuring its impact from the physical elements of a product, which show that confusion towards the UI can hamper overall satisfaction and UX (Rickenberg & Reeves, 2000; Nadkarni & Gupta, 2007). However in this case, given the ample evidence from the Reports and the fact that the forced physical interaction with the prototype was removed midway through the research period, it is likely that issues with comprehension were not entirely due to the UI but also the quality of the text.

Textual understanding is already compromised by eye tracking studies which suggest that website visitors only read only about 20% of the text thereon (Nielsen, 2008). Stemming from these results, industrial recommendations are to convey information quickly and easily (Krug, 2005). One way to do this is through the employment of “plain language”. Information is in plain language if “its wording, structure, and design are so clear that the intended readers can easily find what they need, understand what they find, and use that information.” (*Plain Language*, n.d.), and studies show that more questions based on website

copy were correctly answered when the copy was written in plain language (Djamasbi et al., 2016). This is especially important when communicating with potential Generation Y, that is those born between 1977-1995, as research shows that this population dislikes reading more than older generations (Djamasbi et al., 2010; Djamasbi et al., 2011). To this end, the text readability of the copy used in the Product landing page was analyzed with readabilityformulas.com. The results for the Product landing page show that the readability according to the Flesch-Kincaid Grade Level was equal to a seventh grade reading level, which is standard for a primarily English speaking 11-13 year old. Given that 50% of U.S. adults are not able to comprehend a book written at the eighth-grade level (*Survey of Adult Skills - First Results*, 2012), it would seem that the Product landing page should be readable; even for non-native English speakers, who comprised 100% of the research participants, and who according to certain studies have an average U.S. ninth-grade reading level (Boudjella et al., 2017). However, the Reports show that, despite all of these research participants being older than a U.S. ninth-grader, nonetheless some struggled.

There are two elements that can contribute to readability, according to the Flesch-Kincaid Grade Level: word complexity and sentence length (Buck, 2020). Reports suggest that both word complexity and sentence length were too high. In terms of word complexity, there were Reports pertaining to both the jargon like “AoKs,” “Gages,” and “Cred” like, “What is “AoKs’?” and “Okay, that's, that's complex.” and “That is difficult for me to understand, but it could be just me.” and non-jargon, for example, “So I would say, ‘surplus’…I don't know, but maybe it's something like over the expected amount of donations. Maybe.” and “What is ‘ol’?” This experience is concisely summarized by one of the research participants, who said, “I’m not a native English speaker. My vocabulary is not yours. There have been a few words that I don’t understand, or that I just basically skipped.” Regarding sentence length, it has been shown that 130-150 characters are optimal for 17-18 year old students (Mikk, 2008). The average character length of the sentences in the Product landing page (ignoring Section headings such as “Everything is AoK” and instructions such as “Read”) is 75. This would suggest that the sentence length is within the realm of acceptance for research participants older than 17-18 years old, and that issues with the readability were mostly because of high perceived word complexity.

The cumulative length of the Product landing page may have also had a negative impact on the perception of the Product. Originally, the Product landing page was drafted under the assumption that longer copies convert to higher levels of engagement. This was shown to be the case for banners, of which longer versions received higher click-through

rates (Robinson et al., 2015), as well as for industrial magazine advertisements, with longer ads being more effective in stimulating interest (Soley, 1986). This subject was independently studied by companies where findings were similar, wherein a landing page 20 times longer than the original performed 30% better for Crazy Egg (Marsh, 2016), and a much longer landing page for Highrise yielded a 37.5% increase in sign ups (Dihiansan, 2011). The choice to use either long or short landing page copy depends on three things, according to Bob Kemper, the Director of Sciences at MECLABS: the user's motivation; the level of anxiety toward the product; and the cost or commitment needed for the desired conversion. Longer copy is useful when the user's motivation is to learn about a product for non-immediate use, when the anxiety level is higher because the user is unfamiliar with the product or brand, and when the cost or commitment of using a product is higher (Burstein, 2011). In the case of this thesis research, the Product seemed to fit these categories. As such, the Product landing page was spread across the prototype that contained a home page, six Sections with Subsections, and a sign up page, for a total of 23 different 'pages' of Product information. However, research participants found the retrieval of new information to be tedious, with one research participant saying, "I keep swiping and the only thing that changes is this was maybe this number here. There is very little information to a lot of action. How many times have I swiped in order to get just one bit of information?" Another research participant said, "This is already like the fourth screen…and I still don't know what's going on." Not only was the information retrieval wearisome, the culminated amount of information was very large. This is indicated in Reports like, "Can I say there was just like so much to take in?" and "There's a lot to read just for signing up for an idea." as well as, "It doesn't feel like a short pitch. It feels like a very long pitch." The time it takes to read about the concept creates some dread about the future as well, with Reports such as, "After reading all this, I still haven't signed up. So I still have to go through the pain of creating an account." These Reports suggest that the Product landing page's length may have burdened research participants with too high of a cognitive load, which occurs when the amount of information to process is greater than the processing ability of the working memory (Brünken et al., 2010), and is shown to correlate with text length (Hahnel et al., 2019). Holistically, this all points to the Product landing page being simply poorly written, a non-starter according to the "Father of Advertising" David Ogilvy, who said "If you want your long copy to be read, you had better write it well." (Sheeks, 2018).

Product Research Method

Usability. It is possible that the challenges involving the Product landing page's readability and cognitive load were compounded by issues of usability. Simply put, usability measures the ease-of-use of human-computer interactions (HCI) (Bevan et al., 1991; Nielsen, 1993). HCI is defined as "a multidisciplinary field of study focusing on the design of computer technology and, in particular, the interaction between humans (the users) and computers." (Carroll, n.d.) Findings from this thesis research imply that ease-of-use of the HCI of the Product landing page, and thus part of its usability, was indeed low.

To read the Product landing page, research participants had to drag their finger over the prototype from right to left in order to read each new Section and Subsection; however, given the remote testing environment selected for this thesis research, there was no real interaction with the Product prototype. Rather, the prototype was kept on the researcher's local disk but broadcast via Zoom, where the research participant had control of the researcher's mouse, which the research participant could use to navigate the prototype. Thus, the research participant had to replicate a dragging motion across the screen with their mouse every time they wanted to see a new Section or Subsection. However, this clash of the research environment and UI created ease-of-use challenges for the research participants, shown through Reports such as, "There is one thing that is not so ideal. There is a touch screen interface but I have to navigate with a touchpad, because I'm on a PC." and, "I think the drag function is not working so great…" as well as, "I think I fucked it up." Moreover, the instructions on how to navigate the Sections were conveyed nonverbally in the Product landing page, with visual cues consisting of a finger and arrow. These visual cues however did not effectively relay the message as intended, and research participants struggled with understanding the interaction early on in the CVP, shown through Reports like, "Is it asking me to drag?" These thoughts were later reiterated in the RVP, with Reports like, "Navigation wise, it could have a few refinements." Thus, while the analysis and discussion attempts to separate perceptions regarding the Product's usability and the Product's description, it is possible that the low ease-of-use of the prototype had a negative effect on the overall usability, which in turn had a negative effect on the UX.

Testing Environment. The usability of the Product was a direct consequence of the prototype's high-fidelity. A low- or high-fidelity prototype refers to the (low or high) similarity between the prototype and the final system (Pernice, 2016). A high-fidelity

prototype was used for this thesis research and in retrospect was not the most appropriate medium by which to conduct this sort of product test. Generally, high fidelity prototypes are used for usability testing, value testing, and demand testing, all of which follow product ideation Cagan, 2017) - the phase in which this Product research currently finds itself. Thus, the Product was not at the point that justified this testing medium. As such, the design of the prototype may have inadvertently raised research participants' expectations, suggested through Reports like, “How does it look like? I would like to see it, you know? The look, the colors.” and “So like, I want to know, like, what is this platform?”

It may be noted that the Reports do not indicate that aesthetic choices manifested on the Product landing page influenced the UX, as described in the aesthetic-usability theory (Moran, 2017). However, there was no control question regarding the aesthetics of the prototype to confirm this. Thus, while it is certainly not a significant contaminant, there should be some consideration that any negative perceptions of the prototype aesthetics may have subconsciously contributed to a poor usability.

Setting. As previously stated, Li’s (2004) recommendations were pursued in an attempt to preserve the quality of the qualitative data. However, it was not possible that every recommendation be followed, perhaps most critically, a near-natural environment. This may be an important consideration to make when reviewing the results as gauging UX is difficult to do in a simulation because experience is tied to actual usage (Forlizzi & Battarbee, 2004). Not only was there not a realistic usage of the actual Product was not reproduced, there were no preceding events which would naturally lead research participants to read the Product landing page, as one said, “At this point if I think if I came to see an app, I would probably know something more about the app, either by word of mouth or I would probably read a little bit about it on the App Store. And at this point, I'm kind of missing the background.” The research setting also inhibited natural research participant behavior in the middle of the research session, for example, “I keep reading and if an app did this to me, it would be off my phone already.” and “If an app started asking me to pay before I know what it does, this would be the moment that I would shut it down.” This thesis is guided by the post-positivist perspective, which states that not everything is completely knowable (Krauss, 2005). And despite the fact that the participants were still able to express their thoughts so that a real life scenario can be envisioned, these Reports ultimately show how the setting can affect the behavior and potentially the perception of the Product landing page.

4.3. Which Positive Aspects Are Possessed By The Product?

The Feature that elicited the most positivity was Networking, with a Neutral score of +8.3. The positivity received by this Feature was mostly geared towards its Offline Event Specifier, which received not only a Somewhat Positive sentiment score of +38.9 with Reports like, “I find that important as well, that and like you can meet online, to get active in the real world.” and “I like very much that you went from the online world to the offline world.” as well as, “I also like the fact of the offline networking event.”

Though the Data Policy Feature did not receive much positivity, it is interesting to note that its Ad-free Specifier was the most positively rated Specifier of that Feature with a Neutral score of -18.2, and was occasionally supported through Reports like, “Okay, no ads. Nobody likes ads. That's good.” and “I mean, from a bird's eye perspective, I quite like the idea that I wouldn't have to go through ads all the time.”

Another interesting finding is Section 1’s Somewhat Positive sentiment score of +22.2, which is tied with Section 6 for the highest score of any Section in the CVP. As mentioned previously, Section 1 describes the problem statement that the Product aims to address: that modern social networking applications are mentally unhealthy, and that social network providers do not share the profits they receive by leveraging their users’ data. This result implies that this problem statement was overall understood and accepted, with Reports such as, “Haha,” “Cute,” and “Okay, so you have beef with social networks.” and a lack of any Confusions save for those related to vocabulary. More explicitly, the research participants’ Reports, even those from some of the most negative research participants, show that this problem statement is recognized and that there is some expressed desire for an alternative social networking application to exist to combat these problems. This is shown through Retrospective Reports such as, “Content-wise, it would be much better for society if we had this as primary social media as opposed to Instagram, Facebook or Twitter.” and “So it's a good idea. It's sort of the opposite of what we don't like about social networks, that it inspires anger and that it sells your data, and that it's sustained by advertising that reinforces manipulation on the part of the social media owner.” as well as, “I would love to see something like this. I would love to see a social media platform that first and foremost takes care of the user, which is what social media doesn't do.” and “I like that it focuses on the things that don’t work about modern social networks and tries to fix that.”

4.4. To What Extent The Product Is Seen As Personally Useful?

Interestingly, this was a research question that research participants easily answered on their own, through their creation of the Personal Benefit Factor. The analysis of this Factor indicates that research participants overwhelmingly did not see the Product as personally beneficial. One Report which said, “Okay. Sounds fair. So if I like it, and I derive benefit from the app, then I would probably pay something for it.” was Positive-leaning, however the overall Sentiment for this Factor was Very negative with -77.8, and with Reports regarding the Personal Benefit of the Platform saying, “Okay, so far I don't know what I'm gaining out of it. It seems like a lot of work.” and “How would it benefit me?”

Reasons as to why there is a general lack of personal benefit associated with the Product can be found by looking at the link between Personal Benefit and the AoK Feature, with Reports like, “I feel if I do good things, I feel good by doing this even without an app. Me, personally, I have a strong moral compass. I know that, and that also rewards me if I do good things automatically. I don't need social media to do that for me.” as well as “You know, act, I don't need an app for acts of kindness. So I need an explanation for how an app with acts of kindness actually is good for me.” Additionally, the Differentiation Factor can be reviewed in tandem to this in order to understand why there is no personal benefit from the Product perceived, indicated in such Reports as, “I'm not seeing how this is substituting any social media. Because, first and foremost, social media is not really about creating projects and doing work. Social media is for sharing something that you have already done…it's about instant gratification. So this is not substituting that.” and “You know, you [go on social media] to fill empty spaces in your life with something easy and fast. And acts of kindness, it's typically not such an easy thing.” as well as, “People don't buy into such a network just because they think this is better for society. People opt in based on something being cool.”

Unsurprisingly, with the personal benefit of the Product lost upon the research participants, there was no discussion of replacing currently used social networking applications, demonstrated in Reports such as, “Like I don't know if I would be so eager to have an additional social network.” and “Whether I would invest my money on this project, would be a different thing. Because there's just so many social media out there.”

4.5. Which Words Are Uttered Most Frequently?

However on the whole, the word analysis did not yield the insightful results as hoped. It was expected that there be more descriptive adjectives to surface and compare between sections, however this was not the case.

The results of this word analysis was: “Okay” with the highest number of occurrences, accounting for 3% of the CVP corpus; “Good” was the second-most frequent adjective with seventeen occurrences, accounting for .5% of this corpus. However these findings should be taken with a grain of salt. Even though “Okay” is purportedly the most spoken word on the planet (*OK, 'Most Spoken Word on the Planet', Marks Its 175th Anniversary*, 2014), it can mean many things: it can be an adjective or adverb that means “Good,” or it can mean “Mediocre” when used in comparison with something good; it can be used as an interjection; and, perhaps most important for this research, it can also implicate some doubt or confusion (Yngve, 1970; Couper-Kuhlen, 2021).

On the other hand, the multiple word analysis helped to solidify the finding that research participants were overall confused by the Product landing page. In these terms, “I don’t know” was the fourth most frequent combination with six occurrences, with the seventh most frequent combination being “don't know what” with four occurrences.

4.6. Do Preliminary Patterns Manifest Between Participant Traits And Their Perceptions Of The Product?

The four research participants who have experience in product development comprised 45% of the entire corpus. This indicates that they generally had more to offer on average than a research participant with no product development experience. Moreover, three of these research participants were the top three most negative. However, these four research participants introduced more Factors and linked more Features to Factors, which suggests they looked at Features more holistically, than non-product development research participants.

While there were no patterns identified in regards to the research participants, their perceptions of the Product, and their most frequently used social networking application, it should be noted that the research participants' reasons for social networking application use appear to be in line with that of the general population’s, with survey results suggesting that the top three most important reasons for use is: 1) to get connected with new people; 2) to stay connected with friends, and; 3) for general communication and socializing (Brandtzæg &

Heim, 2009). However, the research participants' most frequently used social networking applications were not completely aligned with that of the general public's; only Whatsapp was aligned as the third most used social networking application across these two populations, however the general population uses primarily Facebook and Youtube rather than Instagram and Linkedin (which is not even in the top ten most used social networking applications) (*Most Used Social Media 2021*, 2022).

4.7. Limitations

A researcher's scientific knowledge, background context, and values can influence what is interpreted during their research (Beccari & Oliveira, 2017). Thus, one limitation in this thesis research is the lack of strong intercoder reliability, the presence of which may have helped the researcher to overcome biases. Also in this vein, a selection bias might have occurred unintentionally during the RVP Analysis: Retrospective Verbal Reports were ultimately teased out of a larger corpus, and though the researcher attempted to maintain neutrality in the selection of these Reports (basing exclusion factors on perceived relevance to the research questions and repetition among a singular research participant's Reports), it is possible that the researcher was unconsciously selecting Reports that confirmed their beliefs due to the nature of the relationship between the researcher and the research subject. This may also be considered for the Sentiment scoring of the Reports.

Other limitations of the research revolve around the research method itself. Payne (1994) suggests that Verbal Protocols may not paint an entire picture of cognitive processes. Moreover, there have been cultural differences in the acceptance of Verbal protocols as a method, with Kim, (2002) showing that participants of certain cultures might find it awkward and uncomfortable to free-associate their thoughts, and especially when it came to differences between those with East Asian vs. European descent. This cultural factor may shed light on the relatively low number of reports provided by research participants 7 and 10, who are from Japan and Indonesia respectively. Moreover, Verbal Protocols have been criticized for making research participants feel awkward and putting them in critique-mode (Cagan, 2017). These factors may have been manifested in some of the research participant behavior. One research participant forgot to speak aloud during the first half of the CVP; another research participant barely made a sound during the CVP and mostly contributed Neutral Assertions such as "Okay." As well, the general wealth of Neutral Assertions with no related Factors or Specifiers across all the Features suggest that, at times, research participants said things aloud

as filler, perhaps in a subconscious attempt to placate the researcher. The Concurrent Verbal Reports Sentiment is higher (-7.41 or Neutral) than those of the RVP (-39.52 or Somewhat Negative), which may imply some appeasement on behalf of the research participant during the CVP. Though there has been ample rapport built with each of the research participants before the research began, this non-anonymity may have caused some placation on their behalf.

Since UX can be largely determined by the internal state of the user, the external state of the technology, and the context in which the interaction occurs (Hassenzahl & Tractinsky, 2006; Ardito et al., 2007; Law et al., 2008), another limitation was the remote academic testing environment as previously mentioned in this Discussion. This was selected as an approach to reduce social desirability and increase benign online disinhibition, however it did not provide a realistic atmosphere in which to read the Product landing page and extract UX based on more realistic usage.

4.8. Recommendations

Given the findings from this thesis research, it is recommended that the Product refocuses on assessing the problem and demand as well as developing the idea closely with social networking applications users. Some recommended approaches for this are an SEO search to determine demand, customer letters to better frame the problem, and customer interviews or concierge tests to ideate and validate the idea (Cagan, 2017). If and when the point comes to test the idea, it should be stated as simply and clear as possible on a piece of paper, and not be tested in the same way as usability, feasibility, and value is tested, which is usually via a high fidelity prototype with at least 15 testers (Schmettow, 2012). These recommendations are made primarily due to the research participants' overall recognition of mental health problems associated with social networking application use, and the general positivity towards an alternative social networking application.

5. Conclusion

While the correlation of negative mental health and social network app use is recognized among research participants, the desire for an alternative as proposed by the Product in this thesis research is not, a finding supported by Reports indicating a Somewhat Negative perception of the Product. This result is suggested to be mainly a combination of multiple Product factors: the conflicting motivations of social networking application use and altruism, the idea of paying in order to use a social networking application, and the Product landing page's lack of readability and heavy cognitive load. However, given the link between usability and UX, it is also possible that decisions made towards the research method, namely the product and academic testing environments, may have had a negative impact on the overall perception of the Product. It is recommended that future study of the Product involve a demand assessment and ideation in collaboration with social networking application users, and that careful attention remain on the selection of testing environments.

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7. Attachments

1. Research Guide
2. Data Collection
3. Data Analysis

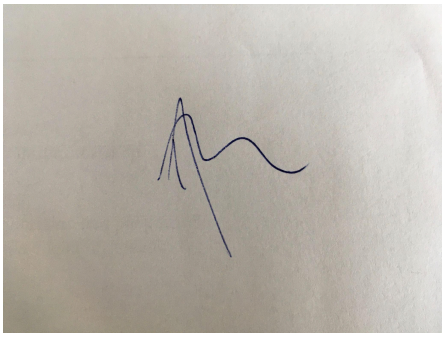
8. Federal Declaration

I hereby declare in lieu of oath that I have prepared the present work independently and without the use of other than the specified aids. All citations and thoughts taken directly or indirectly from external sources are identified as such.

Furthermore, I declare in lieu of oath that the work so far in the same or similar form has not been submitted to any other examination authority and has not yet been published.

Berlin_____ the 02/03/22_____

(place) (date)



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