The Live Persona: Exploring the Value of Richer Transfers of User Research Insights

Arthur Geel
Department of Industrial Design
Eindhoven University of Technology
a.j.geel@student.tue.nl

ABSTRACT

Modern design processes are built on a foundation of knowledge and user research. However, conducting effective- and impactful research remains challenging because of limited of (financial) resources and hard-to-find user segments. Making sure the insights are properly shared is another challenge. In this project, we consult professional design practitioners to evaluate user research practices. Consequently, we present the *Live Persona*, a tool for communicating user research insights with a focus on transferring empathy. In a series of supervised sessions, we had designers utilise this tool to support their design processes. Based on analysis on their behaviour and comments, we were able to better understand the benefits- and limitations of this novel tool.

KEYWORDS

User Research, Design Practice, Personas, Empathy, Knowledge Sharing

1 INTRODUCTION

Modern product- and service-driven organisations pursue innovation by basing their decisions on the insights of a human-centered design approach [19]. Human-centered design is an approach to solving problems that focuses on developing a rich understanding of the target audience in order to develop solutions that truly solve their problems [3]. A widely adopted method in understanding- and generating empathy with a focal user group is conducting ethnographic design studies [13]. These studies generate insights from interviews with stakeholders and users, or observations of user behaviour.

The insights from an ethnographic design study are often shared with the product development team in written- or verbal communication in order to aid their decision-making. One such tool is the persona [15]: an abstraction of groups of similar users that includes physical traits, personality, motivations, goals, concerns and frustrations. Personas are commonly used throughout projects to reflect on how design decisions may impact end-users, ensuring their wishes and needs are met [10].

However, conducting impactful user research comes with challenges. It is very time- and cost-intensive, which can be a problem for small- and medium-sized enterprises as they either lack expertise or financial means. Additionally, user research deliverables traditionally are static snapshots based the time of creation, reflecting the end-users' behaviours, needs and goals of that period of time. As time progresses these static deliverables may no longer portray the users, rendering them ineffective in further design processes. Finally, traditional ethnographic methods are bound by accessibility to the end-users. Those outside the geographic- or social circles of the researchers can prove to be difficult to reach.

In this study, we aim to find alternatives to executing- and communicating user research studies. We present this paper with the following structure: Section 2 describes related work that aims to solve similar problems, and helped form the rationale behind the design of the Live Persona. In Section 3, we discuss the contextual inquiry held among professional designers. Section 4 explains the Live Persona concept, relating it to current practice. Sections 5 and 6 describe the experiment setup and analysis of the results. Section 7 discusses the implications of the Live Persona for communicating user research insights, its drawbacks and the limitations of this study. Finally, we conclude the paper in Section 8.

2 RELATED WORK

2.1 Crowdsourced- and Automated Research

In search of faster, more scalable user research studies, designers have turned to crowdsourcing. Crowdsourcing can be seen as a participative online activity, where individuals are openly called upon to voluntarily complete tasks [5]. With regard to design research, this implies that researchers are more easily able to reach large audiences of participants of varying demographic composition. Behrend et al. [1] consider platforms such as Mechanical Turk an appropriate means to aggregating survey data for behavioural research. In an examination of crowdsourcing-related studies and research methods, Zhao and Zhu agree with this sentiment by sharing a positive outlook, although they also list a number of concerns [21]. The researchers note that a vast majority of responses are produced by a small fraction of participants. Furthermore, they reinforce the need for a submission evaluation mechanism to filter out low-quality submissions.

In a 2016 study, Palmer and Stuart propose a process for utilising crowdsourcing in gathering user needs by using text analytics [14]. By collecting online customer reviews, text analysis software is able to infer product characteristics desired by customers. While they acknowledge that this process is relatively limited in scope, they anticipate the system to be extended in functionality to provide richer insights. Similarly, Tuarob and Tucker [20] used an automated data mining approach on social media platforms to identify lead user groups alongside novel functionalities desired by them. Finally, in [11], Jung et al. integrate analytics data originating from the YouTube video platform to identify- and document user groups in automatically generated personas.

In [16], Retelny et al. seek to employ crowdsourcing for complex tasks, such as design- and engineering processes. Through expert crowdsourcing, they assemble teams consisting of individuals with

a specific set of skills that are better able to complete these complex tasks. They present positive results: the teams were able to more efficiently complete tasks when compared to traditionally self-managed teams. However, the process of assembling the teams requires substantial human efforts, as it cannot be automated yet.

2.2 Conclusion

The cases highlighted above demonstrate the interest shown- and progress made in streamlining the process of conducting user research by focusing on crowdsourcing and automation. Additionally, we touched upon the promise of utilising crowdsourcing to locate individuals with a specific expertise- or background that could take part in user research studies. However, a number of challenges remain. Firstly, in the context of user research studies, the results produced by crowdsourced or automated approaches are thought to be limited in richness of data. It is uncertain whether these sources of data would suffice in exploring a design context. Furthermore, there is no known automation process available for recruiting participants for user research studies.

3 CONTEXTUAL INQUIRY

In order to assess whether the problems previously outlined are representative of the real world, we held a series of semi-structured interviews [18] with professional design practitioners as part of a contextual inquiry. We recruited five User Experience (UX) Designers (22-27 years old) with professional experience ranging from one- to four years. All designers were of Dutch origin, and professionally active in the Netherlands. To become more familiar with their perspectives, the participants were asked to describe the responsibilities of their job alongside their experience with user research. Later, an open discussion was held, focusing on the problems outlined through literature study. The resulting quotes were processed using a thematic analysis [2, 9]. Throughout this paper, we have translated all Dutch quotations into English.

3.1 Interview Findings

User research and contact with users or stakeholders are important parts of the participants' design processes. Participant 4 shared that *"A big part of our process is 'shadowing', following employees or stakeholders closely for multiple days. It allows us to build up more empathy for what they do"*. Empathy is a tool often used throughout design projects, as it helps designers understand the implications of design decisions. However, allowing others to feel empathy as a result of reading research insights is considered difficult. Instead, Participant 2 took a different approach: *"I try to take developers with me on my visits to customers. To be honest, I think it's a lot better if our people know some of the clients"*.

A common experience among participants is the fundamental misunderstanding by colleagues or stakeholders about the role of designers. Often, the act of designing is seen as creating aesthetically pleasing objects, neglecting the heavily process-oriented responsibilities designers have. Participant 3 remarked that *"The challenge for now is to share the responsibilities- and importance of UX on a company-wide level. Not everyone understands what I do all day"*. A common experience among participants is the fundamental misunderstanding by colleagues or stakeholders about the role of designers. Often, the act of designing is seen as creating aesthetically pleasing objects, neglecting the heavily process-oriented responsibilities designers have.

Designers find it hard to demand user research in projects because others don't realize the importance, or misunderstand its process. Participant 1 mentioned that *"My responsibilities in design never end. I started introducing the company to UX by doing user research, planning visits, contacting clients, anything to validate our product. Yet I don't always feel backed in my efforts."*, while Participant 4 recalled that *"I really wanted to user test* [our design], *but managers at our client said that'd be difficult. They told me they would handle it, so in the end I am unsure if that actually happened"*. Finally, Participant 2 mentioned that *"They don't really understand what we mean by 'we want to do research'. They think the research would take a lot of time ... while it could be to call three customers, something finished at the end of the same day"*.

Designers employ different strategies to communicate research insights. Written communication (i.e. research reports, messages on workplace chat services, e-mail) is often used, while direct communication (i.e. stand-up meetings, phone calls) is also common. In communication of research insights, crucial aspects are credibility and straightforwardness. On the interdisciplinary cooperation with developers, Participant 4 remarked that *"What I tell them needs to be based on research, not intuition. If they don't trust it, they will not use it"*. Additionally, they mentioned that *"for developers or other stakeholders, it's important that it* [the research insight] *is easy to understand, so that they know how it impacts things"*. In line with this, Participant 1 mentioned that *"I did everything I could to make it* [the research findings] *as concise as possible, however I ended up with 10+ pages. I added an executive summary of three sentences, and I found that the CSO only read those, and none of the other content"*. Later on, they continued, saying *"In my two-year review of UX accomplishments I wanted to share what we had accomplished. I thought: I could write a full report, or I can write everything out in a very to-the-point way. I did the latter: fitting everything on one sheet of A4. Others really appreciated this"*.

3.2 Conclusion

Through contextual inquiry we confirmed that (user) research plays an important role in designers' everyday processes. Especially the empathy towards end-users, generated during studies is considered essential. However, designers face a number of challenges in sharing insights and empathy among colleagues and stakeholders. An efficient and impactful transfer of insights and empathy requires the communication to be concise, while at the same time credible.

4 THE LIVE PERSONA

The *Live Persona* is method for storing- and communicating insights about targeted user groups, used in the design of products and services. Inspired by the traditional persona [15], it communicates insights on user behaviour, frustrations, goals and tasks in a visual format. Responding to the challenges outlined in the literature review and contextual enquiry above, the Live Persona aims to enhance communication towards colleagues and other stakeholders by focusing on credibility and ability to generate empathy.

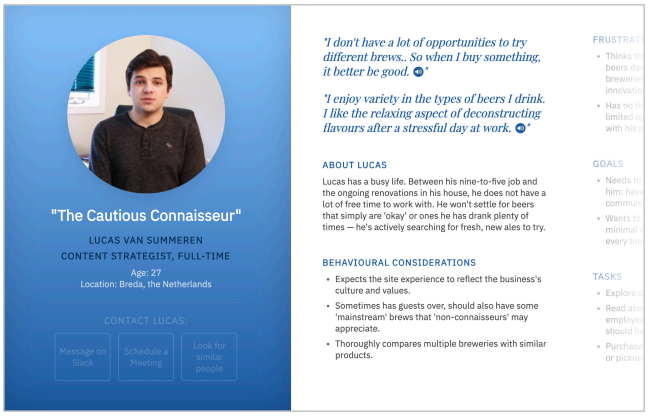

Figure 1: Close-up of the Live Persona. This research deliverable can be used to visually communicate insights generated during user research studies.

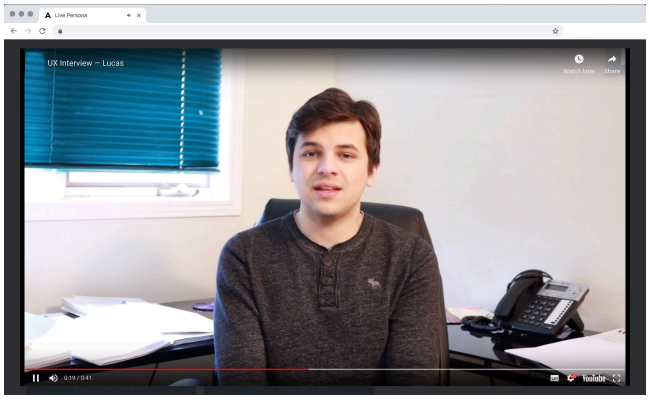

Figure 2: The video module of the Live Persona is able to provide contextual information by showing clips from interviews held with the end-user.

In the design, we took note of recent criticism on personas. For example, personas are known to be imposed on others, without involving them in the process [7]. The personas are then perceived poorly in terms of credibility, and not used in future processes. Additionally, personas risk becoming outdated over time, thus losing their impact [6]. The Live Persona is a web-based document that can be rendered by any modern browser, allowing it to be easily shared among colleagues and stakeholders. The Live Persona can be exported as a PDF file for printing, or other means of sharing. This web-based document consists of three main layers of functionality, which will be discussed below.

4.1 Traditional Persona

The first layer of the Live Persona communicates the processed insights on the users (Figure 1). In line with the format of traditional personas, insights on user demographics, behavioural considerations, goals and tasks are included in a bulleted list format, laid out on a poster-sized document. The intent of this surface layer is to transfer insights on user groups in an easily digestible format, similar to traditional personas. By reviewing factors that influence the end-users' behaviour (i.e. behavioural considerations and goals), factors that clarify their thoughts (i.e. frustrations) and factors that explain their needs (i.e. tasks), others are empowered to better understand the requirements a product or service needs to have to better suit the focal user group.

4.2 Nuanced Information

The second layer provides supplementary information regarding the insights communicated on the surface layer. By interacting with elements displayed on the persona, unprocessed data produced during the user research can be retrieved. For example, the profile picture depicting one of the users of the focal user group can be clicked with the cursor. This summons a series of videos that display the researcher interviewing the participants (Figure 2). By viewing these source materials one can get a richer understanding of the user and their context.

Unprocessed data can capture a range of nuanced information that are hard to describe in words, yet extremely helpful in empathising with the interviewee. Through the video, a large amount of subtleties can be identified, such as the mannerisms they use when talking, the sound of their voice, the way they have decorated their environment, and so on. While subtleties like these may not be important enough to share when trying to effectively convey insights to others, they are of great value in empathising with the participant. In addition to videos of the interviewing process, other unprocessed data could be included such as voice clips of the interview, a written log of observations, 360-degree photo-spheres showing the surroundings, and so on. However, for the scope of this research, only video- and voice-clips produced during the interview were integrated.

The aims for the inclusion of this nuanced information are twofold: firstly, we intend to better transfer the empathy generated during user research to others, empowering them to better understand the context. Secondly, we aim to add credibility to the research insights. By showing unprocessed data, others are able to deduce what conclusions were drawn, and evaluate its credibility. Additionally, it allows for the synthesis of new insights. The unprocessed data contains potentially undiscovered insights that were irrelevant in the initial scope, but might be interesting for related projects in the future.

We feel it's important to emphasize that it is not necessary to review this additional information to understand the overall insights provided by the persona, however it can add extra insights when desired. In order to avoid reducing the impact generated by the persona by overloading the user with unprocessed data, additional information remains hidden until the user requests it.

4.3 Extracting Extra Value

The final layer of functionality of the Live Persona is envisioned to extract extra value from the process of user research. By extending the functionalities of the Live Persona, it can 1) make the processes of sharing knowledge more efficient, 2) work towards making the insights stay top-of-mind, and 3) serve as the basis for locating potential participants for future user studies.

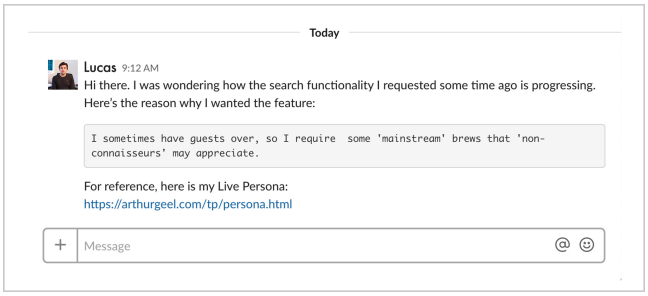

Figure 3: The video light-box module of the Live Persona showcasing clips from interviews held with the end-user.

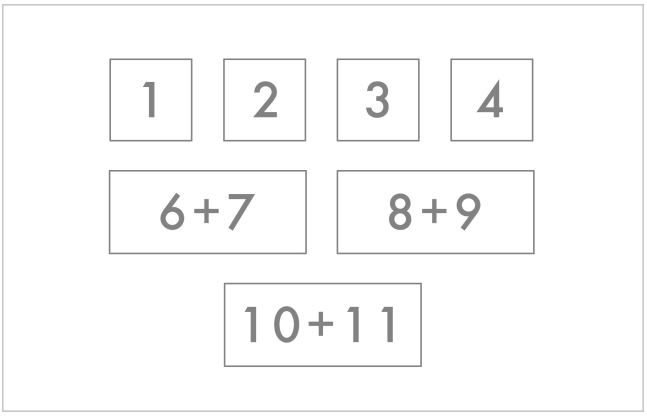

Figure 4: Visual overview of the grouping of participants during the evaluation sessions. Every block represents a separate session.

User research studies are commonly conducted for a specific, predefined purpose. Some insights gained during a studies do not fit that purpose, and are discarded. Additionally, some of the documented insights might also be applicable to other contexts. However, they are incorporated in a larger cluster of insights, and therefore difficult to locate. Similar to the Polaris platform [17], the third layer of the persona enables researchers to store granular insights in an indexed repository of research, allowing others to locate- and re-use these.

A common challenge in user research is ensuring the insights are internalized among the stakeholders. Generally, insights from user research are communicated in one major transfer of information: during an early briefings or meetings with stakeholders. However, as time passes, the information is not accessed again, negatively impacting design decisions. To address this, the Live Persona has a feature that periodically reminds stakeholders of the users' wants and needs by initiating contact on their behalf. Figure 3 showcases an example of a message sent in Slack, initiated by the Live Persona.

Finally, a frequent challenge in user research is locating- and recruiting representative users. In [16], we observed crowdsourcing being used to recruit users for flash teams. Similarly, we could use the metadata that characterises users as search input for expert crowdsourcing to recruit similar participants for our research. However, since the challenges outlined in the Related Work section have not been solved yet, we were unable to functionally implement this. Instead, the methodology of experience prototyping [4] was used to make participants believe that they were. This approach was taken due to the exploratory nature of this work: we aimed at prompting the research participants to envision these functionalities in order to explore them. In order to explore a large range of potential features with less time spent on development, experience prototyping was used.

5 IN-CONTEXT EVALUATION

To evaluate the value of embedding unprocessed data in the communication of insights using the Live Persona, we designed a study to 1) evaluate the usability and perceived usefulness of the Live Persona format in design processes and 2) explore the emergent qualities resulting from the inclusion of raw data.

5.1 Pre-Study Preparation

In order to evaluate the value of the Live Persona, 1) a realistic design challenge- and 2) suitable user research relevant to the challenge were required. Therefore, a fictional company was created who would act as the client for the design process. This local start-up distributes a consumable product, and are looking for low-fidelity mock-ups (i.e. wireframes) of a website which allowed them to offer their product online. All information regarding the company, wishes for their website-to-be and images of their product were combined in a digital design briefing, accessible to the participants during the study.

Additionally, the knowledge required to work on this design briefing were compiled in the Live Persona format. A brief round of user research was carried out real-life people that were deemed suitable to be the fictional company's potential customers was carried out, and insights related to their wants and needs regarding the website-to-be were uncovered. The processed insights were displayed in the surface layer of the Live Persona, while the nuanced insights (e.g. videos taken during the interviews, audio segments of quotes) were attached to the second layer.

5.2 Study Design

The Live Persona aims to aid designers in gaining a rich understanding of a design context through documented insights. For this reason, we limited the participants for this study to designers with previous design expertise. A total of eleven participants (21-33 years old) with a varying range of professional design experience (1 to 10+ years) were recruited. Their job descriptions ranged from Junior UX Designer (5/11) to Senior UX Designer (2/11). All participants were living- and working in the Netherlands, not all participants were of Dutch origin.

The participants were invited to a total of 7 sessions to work on the design challenge. Participants 1 through 5 were invited for an individual session where they worked on the challenge on their own, while participants 6 through 11 joined group sessions where they cooperated with one other designer. The user study was estimated to last 60 minutes, consisting of a five-minute introduction, 25

minutes to work on the assignment and 30+ minutes for a follow-up discussion.

Upon the participant's arrivals, they were asked to sign an online consent form, in which the protocol of the experiment and their responsibilities were explained. After consenting, the web-page was redirected to the design briefing. Additionally, this started a timer which kept track of the active design time. The participants were encouraged to follow the think-aloud protocol [8] during the design challenge, with a microphone placed inside the room recording all audio. Throughout the experiment, the researcher remained present in the room, documenting observations on the participants' behaviour, and offering support to the design process when asked.

The overarching aim of this project is to explore a design space: alternatives to communicating user research insights. Consequently, we focused on collecting qualitative data in the evaluation study to work towards this aim. The qualitative data (i.e. participant quotes and observations by the researcher) were analyzed using thematic analysis [2, 9].

6 ANALYSIS

The findings of this evaluative study are derived from qualitative data that was generated during a total of 7 sessions with 11 participants. The data was analyzed using a thematic analysis: quotes and observations were clustered with regards to similarity to identify underlying themes. The thematic analysis yielded three themes with relevance to the aim of this study. These themes have been grouped under the names of *'Looking Beyond the Conclusions'*, *'Acquiring Deeper Empathy with the Users'* and *'Reducing the Apparent Barriers to Users'*.

6.1 Looking Beyond the Conclusions

A shared sentiment among the participants was the appreciation for seeing additional contextual information in the Live Persona. At the start of a session, Participant 10 remarked *"I want to make sure they (personas) are representative, high of quality. I need see the decision making so that I can understand if it makes sense"*. Later in the session, they revisited this, saying *"I had my doubts at first ... but seeing that there was actual research done for this persona was refreshing"*. The designers who were handed the research deliverable were eager to use the second layer in the Live Persona to learn how the analysis took place.

Metadata on the research (i.e. dates, locations) enclosed in the second layer was noticed by Participant 3, who reflected on past experiences: *"Something I often miss (about research done) in projects is the context: when was it done, how, with who[m]?"*. Being able to see contextual information on when- and how the research took place allowed them to more easily evaluate whether the insights were still relevant.

The information additionally available through the Live Persona seemed to stimulate a critical mindset among the participants. Participant 7 mentioned that *"I would want to talk to the person. Cause now, there is a lot of information, and I cannot tell what is unbiased ... I would prefer to know the original quotes rather than reading the bullet points on the persona"*. Moreover, his partner in the session stated *"It's hard to see what is true, and what the researchers interpreted. A talk with this guy would help, because the information shown here is like ... all the conclusions"*. The second layer in the Live Persona allowed these two designers to look beyond the bias that might have been caused by the researcher, because they had access to the unprocessed data. Being able to compare the conclusions of the work with the material that was used in generating them gave the participants better handles in evaluating the credibility and value of the work presented to them. Despite this, none of the participants drew conclusions differing radically from the ones originally presented in any of the sessions. However, that was not the intention of the evaluation: in producing the Live Persona we tried to understand user needs to the best of our abilities.

6.2 Acquiring Deeper Empathy with the Users

In the contextual inquiry we established that feeling empathy towards focal user groups is important in being able to make the right design decisions. Participant 2 shared related insights on their experience relating to this: *"Design is done from perspective, usually one's own perspective. I think this is missing if I only see things people say about people, and not talk with the people themselves. If I can't relate well to the user, I find it hard to make good decisions for them"*.

Throughout the sessions, we noted that the participants expressed feelings of stronger connectedness to the personas. Participant 11 remarked *"It's more interactive when compared to just reading ... it's more immersive for me. You could see things that you can't read from the persona itself"*. Participant 10 chimed in: *"I could get a better feeling of who Lucas is. I'm not sure if it directly helped me in doing this assignment, but I think it did in an indirect way"*. Similarly, Participant 2 mentioned that *"For me, just hearing what he said helped me in seeing the big picture, but seeing him say it was even better"*.

However, Participant 4 voiced more critical thoughts: *"Now we saw our user in his personal context, but it felt a bit staged. Maybe it would be more natural if there are more people, so that it would have been a 'natural' conversation"*. Likewise, Participant 7 stated: *"I like seeing him in his room. But I think it still would be better for me if I got to speak with him in real life"*.

From this we deduce that while the Live Persona succeeded in allowing readers of research insights to better build up empathy with the focal user, it did not reach the level we had originally intended. When asked, participants remarked that especially the videos of the user in their natural environment helped in feeling connected to them, yet the way we requested the interviewee to repeat (parts of) their quotes caused it to feel staged. We see potential in this approach of increasing the empathetic qualities of research deliverables, though evidently alternatives need to be considered to increase them further.

6.3 Reducing the Apparent Barriers to Users

Throughout the sessions we implicitly stimulated the participants to consider the shift in role research deliverables could have. As explained in Section 4.3, the Live Persona is equipped with a number of functionalities that aim at making research more impactful, such as providing unprompted reminders of existing insights, and by allowing further users to be recruited using the existing user metadata.

Especially the latter was received well. We only offered an explanation on this functionality as the participants had found- and clicked on the button that would invoke the functionality. In response, Participant 9 mentioned *"It makes this kind of button valuable: we could ask questions like these to the people, and validate them before we actually design them. An easier connection would allow us to save time spent thinking"*. Their partner, Participant 8, added: *"Yeah. I could also use an option like this to further explore the design context: talk to some other people and see if they have different needs"*. Locating- and recruiting representative users for exploratory- or validating studies was a common challenge among the participants. Participant 5 commented *"I think an option like this would make it a lot easier to actually involve people. Most of the time now, we find colleagues that somewhat fit the description, that'll do"*. Later, they mentioned *"It's a pity your user matchmaking service does not work. I would have liked to see what it would have come up with"*. Participant 2 concluded with *"We try everything to go around it, but sometimes just going face to face is the best solution"*.

Finally, some participants received a message in the name of the user during the evaluation sessions. This message was sent when the researcher noted that the designers were making (too) little progress in the session, and needed guidance in their process. The message contained an insight that was also included in the Live Persona, but seemed to be ignored by the participant. Participant 3 was made aware of the range of users the website should support. They commented *"Apparently this was in the Live Persona, but I didn't see it at first. I did not consider this but it's important for accessibility"*. To others, the message sent on behalf of the user served a role in immersing them. Participant 10 remarked *"So this message is just a simple 'hi there' ... with some information. Yeah, I enjoyed it. It made me feel more engaged with this person"*.

We conclude that the Live Persona has the potential to reduce the barrier between the designer and the user, a significant obstacle in current design practice. On one end, it can be used to periodically remind stakeholders in design processes of user needs and wants, assisting in fostering a user-centered mindset. On the other end, we believe the live persona could help make the process of locating- and recruiting representative users for exploratory- or evaluative purposes easier by utilising user metadata in expert crowdsourcing recruitment.

7 DISCUSSION

7.1 Exploratory Nature of this Work

In this research we aimed to discover- and explore a new design space: alternatives to conducting- and communicating user research insights. We created a tool for sharing user research results with a focus on embedding rich, contextual information that is otherwise discarded. In its evaluation, we focused on a relatively small sample group in order to acquire qualitative insights.

We stress that the conclusions presented in this work are not manifested as absolute truths, but rather as pointers for future studies. In order to thoroughly assess the empathetic qualities that the Live Persona may or may not possess, follow-up quantitative studies are required that compares this new standard to a ground truth. Similarly, the same applies to the Live Persona's ability to provide research insights with a more consistent role throughout design processes.

7.2 Limitations of the Live Persona Format

An topic often raised in post-experiment discussions was the standard of effort required to employ Live Personas in practice. Beyond analyzing insights on (un)known user groups, the researchers are required to systematically document their process in video- and audio format. This puts a burden on the researchers in question: their process of conducting user research takes more time to produce assets indirectly used. While we consider an open accessibility to the unprocessed data as valuable to those using a Live Persona, it is not yet clear if it is valuable enough to justify the extra work required in facilitating this.

Similarly, the visually-oriented nature of the unprocessed data disclosed in the Live Persona can be regarded as intrusive on the research participant's privacy. In traditional research practices, a participant's privacy is protected by anonymizing data. However, the goal of showcasing unprocessed research data is to allow secondary researchers to analyze the work independently directly conflicts with this practice. We can not offer a straigthforward solution that retains all the richness of video footage.

7.3 Future Work

We believe some of the previously discussed richness that would be lost when anonymizing the data can be preserved with a form of abstraction: by focusing on sensoriality. By allowing the participants to express themselves sensorially (i.e. sounds, textures, flavours, etc) we can work towards restoring their privacy. In previous work, Karana et al. [12] explored sensorial properties of various production processes- and materials in order to discover relations to meanings attributed to them. For example, strong relations were found between material properties and meanings such as *'professional'*, *'nostalgic'* and *'aggressive'*. Similar constructs could be used to make the users epxress themselves sensorially. However, it is currently unknown whether this approach still allows the Live Persona to accomplish its empathetic aims.

In post-research discussions with academic peers we sought to explore the different use cases of the Live Persona. Interestingly, some saw potential in the tool for educational means. The contextual information embedded in the Live persona could be used to teach designers about the process of constructing personas. In a challenge format, the designers would be given access to the user research data-set, tasked to create an insightful persona. In addition to that, others saw value in using the Live Persona as a means to analyze unprocessed data. In a data-enabled fashion, researchers would be able to cluster- or sort the unprocessed data, constructing narratives of insights.

Finally, the setu-up of our experiment caused us to only evaluate the short-term impact of the Live Persona on designers' processes. It would be valuable to examine whether the format is viable in longitudinal, commercial contexts, especially if the novelty effect wore off. For this direction, we believe that especially the functionalities of better integrating the research insights by communicating on behalf of the user would be interesting to explore in more detail.

8 CONCLUSION

In this work we studied professional design practice to evaluate the role of user research in modern processes. We utilised these insights in the design of the Live Persona, a tool for communicating user research insights with a focus on transferring empathy. In a series of supervised sessions, we had designers utilise this tool to support their design processes. Based on analysis on their behaviour and comments, we were able to better understand the benefits- and limitations of this novel tool.

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A ONLINE PROTOTYPES

The materials used by participants during the in-context evaluation study (i.e. the design briefing- and Live Persona communicating user insights, both created specifically for the user study) are publicly available. They can be retrieved with the following URL:

- https://arthurgeel.com/tp/persona.html

Additionally, all source code created for this project is publicly available for all to see- and re-use. It has been made available under the MIT License, and can be retrieved with the following URL:

- https://github.com/ajgeel/tp-research

B DATASETS

The qualitative data (i.e. quotes and observations) produced during the in-context evaluation part of this study are made publicly available, and can be retrieved with the following URL:

- https://github.com/AJGeel/live-persona-dataset