Unavailability and Holism: Rethinking HCI with Concepts from Theology

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Current trends in technology suggest that making everything available (e.g., services, products, other people) is a valuable end in itself and that the whole person can be understood and addressed if only enough data is collected and processed about them. Our work in projects with HCI researchers and Protestant theologians made us question such assumptions. In this position paper, we share two themes that emerged from our interdisciplinary work on technologically-mediated religious communication, namely *unavailability* and *holism*. We argue that *unavailability* is an essential condition of being human and that being human consists of more than just a static sum of its parts. We present related examples from our work and detail the Protestant theological perspective on *unavailability* and *holism*. In doing so, we hope to bring new impetus to HCI and to stimulate reflection.

CCS Concepts: • **Human-centered computing → Empirical studies in HCI**; **HCI theory, concepts and models**.

Additional Key Words and Phrases: religion, faith, interdisciplinarity, ritual

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1 INTRODUCTION

As interactive technology continues to spread into all areas of life, the focus of many human-computer interaction (HCI) publications also moves away from the more pragmatic aspects of technology and interaction to others like enjoyment, mindfulness, meaning, or reflection [e.g., 2]. From our point of view, faith, religion, and spirituality are further aspects that can be added to this series and we consider them to be particularly important in these times of uncertainty and isolation marked by the pandemic. Faith, religion, and spirituality are associated with experiences that have always been part of the human condition and existence: Human search for meaning and for experiencing something greater than oneself.

We are well aware that this line of argumentation is not new. Buie and Blythe, for example, have argued that HCI could benefit from analyzing and reflecting on the vast amount of real-world faith- and spirituality-related applications years ago [3]. However, while many real-world applications were already available years ago, the past two years of living in pandemic times have increased real-world religion- and spirituality-related applications and users. Not only individual communities but also the great church institutions had to expand their presence in the digital sphere [9, 12]. In turn, interaction with technology in religious and spiritual contexts is even more widespread than a few years ago. Understanding how technology and interaction design influence experiences in such contexts is now more important than ever. However, this increased need for knowledge is not yet visible in HCI publications, and there is an urgent need for more research. And while the above argumentation might be motivation enough, we believe HCI could benefit even more from research in this area: HCI can gain new perspectives on technology use, design and evaluation more generally. Similar to how work on religious objects

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in households inspired a broader call for *extraordinary computing* [15], we would like to present two themes that emerged from our work with Protestant believers, and that can bring new impetus to HCI.

We base this claim on our experiences of continued cooperation between HCI researchers and Protestant theologians. Together, we work on several projects that aim at designing technology for religious communication like rituals, blessings, or online worship services. In the following, we present two themes that might stimulate thinking about technology design, use, and evaluation from new perspectives. We hope to demonstrate that integrating aspects of faith, religion, and spirituality in HCI might be valuable and lend HCI new perspectives.

2 UNAVAILABILITY

Current technology concepts are about making everything available at any time: From vast amounts of music and films (e.g., streaming services), to our loved ones (e.g., video chat or chat anytime and anywhere), to online worship services. In the western world, we are used to receiving immediate fulfillment of our desires and wishes by technology. However, the availability of everything might not always be a valuable end in itself. Sometimes even the opposite, *unavailability*, might be the better choice. *Unavailability* can highlight what one particularly values about what is available and can generate the experience of something unique or special. In the following, we will present two examples that demonstrate how we came across the theme of *unavailability*.

The first example originates in our work on blessings. In a design probe study with Protestant believers, we tried to understand what blessing experiences are, what essential aspects blessing experiences consist of, and where or when they happen in believers' everyday lives. Participants described that the feeling of being blessed can occur anytime, anywhere, but is most intense when it is unexpected and surprising (e.g., *unavailable*). One participant shared the following story when asked to describe an experience of being blessed:

"I had a conversation with a friend who told me about her happiness as a mother, how it was to hold her newborn baby in her arms for the first time, how much love she was surrounded by, and how proud she was. And that was very strange for me because she had to deliver the child dead. And, um, I didn't expect that. And at that moment, well, that was so.... so that overwhelmed me. [...] So she knew her child would be born dead, she knew she would have a silent birth, and yet there was a lot of pride and happiness and love, and she is still proud to be a mother, even though her child was born dead. And I just find that ... "Wow"! So my rational brain said, "Well, that cannot be for real, that doesn't fit," and I was also afraid of the conversation with her. Um, and then I was, so that's what got me. [...] So that was surprising, yes, or maybe also what I hoped for. So sometimes it [the blessing] is also a fulfilled hope." –P05

Not all examples of blessing experiences were as drastic as the one above. However, we think the example demonstrates the aspects of unexpectedness and surprise very well. In this specific example, the participant did not even hope that the conversation with her friend could take place in a positive attitude. She was even afraid of the conversation. And then everything turned out quite differently than expected. She could not have worked out this twist or influenced the situation in this direction with certainty - it simply came as it came. The unavailability also became apparent in further examples. Many participants described that they used to bless each other, although they can never be sure whether the blessings are effective - it is beyond their control. For our participants, Protestant believers, this control was attributed to god. The aspect of unavailability generated friction and excitement in peoples' experiences: It opened up room for hope, speculation, and surprise (e.g., when good wishes come true, when something unexpected and positive happens).

Our second example on *unavailability* shows the opposite: namely, what happens when the unavailable becomes available. In another project, we investigated the experiences of online worship services during the pandemic [14]. We accompanied Protestant believers while participating in online worship services and tried to understand how specific design elements lead to specific experiences. One prominent element that influenced the experiences dramatically was availability and easy access. Usual worship services are not an everyday occurrence for believers, but something special, and believers usually invest some effort to mark the worship

service experience as distinct from everyday life and routines, e.g., dressing up, changing places, and taking the time. In contrast, online worship services are available anytime and anywhere, which invites specific modes of usage (e.g., to watch it on the side). One couple reported a situation that shows the tensions such constant availability can create: On one Sunday, the couple woke up later than usual, and they were in the middle of their breakfast when realizing that the online worship service was about to start. Invited by the flexible and accessible design of current online worship services, they watched it using a laptop at the breakfast table. This was practical, but they quickly became annoyed with themselves. They realized that they had turned what had been a formerly extraordinary experience into something ordinary. Constant availability changed the way worship services were experienced. The online worship service turned into something ordinary and less essential. Constant availability may be convenient and allow for flexible access. However, convenience and flexibility are nothing compared to the cherished *unavailability* of worship services that take place at the same place and time every week and are unavailable in between.

So far, *unavailability* seems to be a concept that is given little consideration in HCI and that even opposes current trends of making everything available. The two examples show how *unavailability* affects experiences. We think it is worth looking at the concept more closely, as it can reveal new perspectives on technology design. In the following, we will turn to Protestant theology and sociology in order to learn more about the concept of *unavailability*. Theology has long been concerned with *unavailability*, and sociology shows how the concept of *unavailability* is essential for human experiences also beyond the context of religion, faith, and spirituality.

The German sociologist Hartmut Rosa has studied unavailability in his works [10, 11]. Rosa describes our time as a time of acceleration and suggests the concept of resonance as a possible solution [11]. For Rosa, resonance is a form of world-relationship formed by affectation and emotion, intrinsic interest, and self-efficacy expectation, in which subject and world touch each other and transform at the same time. The nature of the world relationship is to be understood as reciprocal. Not only is the relationship defined between subjects and objects, but they also define a new relationship to the world [11, p. 298ff]. The experience of resonance is opposite to the experience of alienation, a world-relationship in which the subject and the world are indifferent or hostile (repulsive) to each other and thus inwardly disconnected from each other (relationship of "relationshiplessness") [11]. For Rosa, resonance is the human motivation that guides all actions. Subjects are "existentially shaped by a desire for a resonant relationship."[11, p. 293] Rosa argues that it is resonant relationships and experiences that we are striving for and a central, constitutive aspect to such experiences is *unavailability*: "Aliveness only arises through the acceptance of the unavailable" [10]. For Rosa, four conditions for resonant relationships must coincide [10]:

(1) touch (something touches me),
(2) a reaction to the touch,
(3) change of world relation (the person acts, thinks, etc.) and
(4) *unavailability*.

Even if conditions 1-3 occur, the momentum of *unavailability* is needed for a successful, resonating experience. The individual experience of the world can neither be planned nor accumulated. This aspect shows the underlying problem of the currently prevailing focus on making everything available at all times through technology. It is not the availability that renders experiences successful, resonating, and thereby valued but their specific quality. And part of what makes their quality is that people are not in control of everything and cannot make the world available to the last. It is precisely in this that Rosa sees a necessity. Space must be given to the concept of *unavailability* because only in this way are resonating experiences possible.

Regarding Christian religion, the necessity of the unavailable for a successful world experience as described by Rosa becomes particularly clear. All objects of the Christian religion, such as God, Christ, the Holy Spirit, grace, living a successful life, or blessings, cannot be made available to human beings and demanded. Even in an increasingly secularized world, religion itself remains something that fascinates and attracts people. Albeit no

longer in the forms of the established religious communities. The search for meaning inherent in religions is both an attempt to make the unavailable available and the realization that ultimately *unavailability* is constitutive for religious experiences. It is precisely this unavailability that makes dealing with religion interesting to people. If religion were made available, it would become uninteresting and lose relevance for resonant experiences.

The theme of *unavailability* prompts HCI to reconsider current trends of making everything available. Also, it asks us to think about designerly ways to open up spaces of *unavailability*.

3 HOLISM

Although rarely explicitly mentioned, specific human images always manifest themselves in technologies. For example, a prominent focus in current technologies is personalizing services and products and taking the "whole" individual into account by monitoring and calculating all areas of human life, be it steps, calories, sleeping patterns, phone frequencies, room temperatures, etc. Similarly, the choice of measurement tools and procedures in the development and evaluation of technologies reflects a particular idea of a "good technology" that a certain kind of people need. For example, many HCI evaluations of novel technologies suggest that the "whole" technology is good/bad based on short-term studies of technology usage measuring individual aspects, like effectiveness, efficiency, or satisfaction.

We believe that it can be valuable to question such underlying assumptions to gain new perspectives on the design and evaluation of technologies. To this end, we turn to Protestant theology to gain new perspectives on what it might mean to design for the "whole" person. More specifically, we suggest taking into account the volatility of *holism* over time and the aspects that are not available to data and algorithms. In the following, we will present two very different examples from our work that, among others, made us generate the theme of *holism*.

In one of our studies some years ago, we investigated technologies used in transition rituals, more specifically in relationship transition rituals [8]. We got interested in the topic by the phenomenon of people hanging up love locks on bridges, which was a ritual less formalized and bound to tradition than, for example, marriages, but that nonetheless, countless people across the world engaged in. We created a prototype that captured heartbeats and generated light animations to understand better how technologies could support less formalized relationship transition rituals. In an initial study of the prototype, we asked couples to explore it independently and tell us about their experiences later on. What was striking about this study was that couples did not only report on how they used the prototype but also how they would use it in the long term and how it would structure space and time on a higher level for them. Couples imagined interacting with the prototype when moving into their first shared apartment and then positioning it at a prominent place within this apartment to mark and integrate the relationship transition into their story of life. Visiting friends could then see the prototype and start a conversation if wanted. While the moment of interaction was important, and couples even asked for it to be more prolonged, it also became essential to think about the prototype's role in peoples' life (e.g., what would it do after several weeks, months, or even years?). The prototype's purpose, meaningfulness, and value unfolded and changed over time and were volatile rather than fixed or determined.

Our second example illuminates the theme from a somewhat different angle. In our project on blessings, we also performed a study where we asked Protestant believers to describe a blessing experience and evaluate this experience regarding its ability to satisfy psychological needs like autonomy, relatedness, or morality [4]. We had no specific hypothesis about the need satisfaction but wondered whether we might find similar patterns as for positive experiences. Is a blessing experience a typical, positive experience? Is there more to it? Can we capture it? It has often been reported that in positive experiences with technology, one or two needs are specifically satisfied and that one could even categorize experiences according to the needs most satisfied [e.g., 5, 6]. However, we found a different pattern: Overall, mean need satisfaction was higher than had previously been reported for

positive experiences with technology, and instead of only for one or two needs, the satisfaction was high on almost all needs. Blessing experiences addressed the whole range of human needs, and the pattern was different from "merely" positive experiences, which only addressed specific needs. Blessing experiences touch all areas of human need. Positive experiences with technology, on the other hand, often only touch on individual sub-areas.

In the above examples, *holism* is a concept that is not always directly visible but is often indirectly related to underlying understandings of what it means to be human: What constitutes the human being as a whole? What aspects of being human does technology address? While there can be various understandings of *holism*, we will present one originating in Protestant theology as we are working together as HCI researchers and Protestant theologians with Protestant believers. By *holism* we mean the unity of body, psyche (soul), socialization, and transcendence (the realm of reality beyond possible experiences and pre-found reality). *Holism* is more than the sum of measurable parts. Human beings and religious experiences contain a depth dimension that cannot be measured. "Religion is the dimension of depth in all functions of human spiritual life" [translated from 13], and this includes the experience of the transcendent. These dimensions of human experience are reciprocal. Body, psyche, socialization, and transcendence experiences cannot be considered as separate parts. They must be addressed in their *holism*. The reciprocal consideration of these dimensions also clarifies that a simple summation of the individual dimensions is insufficient. In addition, the concept of *holism* of human beings is not static. Only with a view to the past, present, and possible futures can the individual be described holistically at a given point in time, and this description changes over time: *holism* is always provisional and fluid.

The theme of *holism* makes several prompts to HCI and can lead to new perspectives. HCI should reflect on the human image underlying the technologies developed. HCI should focus on more than the moment of interaction when evaluating technologies: How does the technology relate to one's surroundings, life, and relationships? How will the technology's purpose and meaning change over time? We do not claim to foresee every possible development or impact of technology over time; however, reflecting on the "whole picture" might help ask different questions and make different design decisions. HCI should rethink what "good" interaction means and whether current perspectives (e.g., dialogue, transmission, tool use, embodiment, experience, control [7]) are enough to capture it all.

4 CONCLUSION

This position paper argued that it is worth integrating faith, religion, and spirituality in HCI. We have reported examples and experiences from our joint work with theologians and HCI researchers researching technologically-mediated religious communication such as rituals, blessings, or online worship services. Based on this work, we presented two themes, *unavailability* and *holism*. The themes make specific requests to HCI and could stimulate thinking about technology design, use, and evaluation beyond the context of religion, faith, and spirituality. With these two themes, we do not want to provide a recipe for a "better" approach to HCI, but rather to show that bringing in concepts from other fields such as theology can challenge HCI, stimulate reflection, and thus push HCI forward. We conclude with a last quote for reflection:

"We should [...] speak of God. But we are human beings and as such cannot speak of God. We are to know both, what we ought to and what we cannot do, and precisely in this way give glory to God." –translated from Barth (1929)

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