UNAVAILABILITY: FOOD FOR THOUGHT FROM PROTESTANT THEOLOGY

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The past two years of living in pandemic times have accelerated the spread of technology into all areas of life. This was also evident in the context of religious communities and churches, where the number of applications and users has increased enormously. Not only individual communities but also the great church institutions had to expand their presence in the digital sphere [1]. As a result, interaction with technology in religious and spiritual contexts is now more widespread than even a few years ago. Understanding how technology and interaction design influence experiences in such contexts is more important than ever. However, this increased need for knowledge is not yet visible in HCI publications. We also believe that through more research in these areas, HCI can gain new perspectives on technology use, design, and evaluation more generally. Similar to how work on religious objects in households inspired a broader call for *extraordinary computing* [2] , we would like to introduce a theme that emerged from our work with Protestant believers, and that can bring new impetus to HCI: *unavailability*.

We derive this claim from a continued cooperation between HCI researchers and Protestant theologians. Together, we have been working on several projects that aim at designing technology for religious communication in the form of rituals, blessings, and online worship services. In the following, we want to demonstrate that integrating aspects of faith, religion, and spirituality in HCI might be valuable and lend HCI new perspectives.

Unavailability

The development of current technology is about making everything available at any time: Vast amounts of music and films are available through media streaming services, our loved ones are available through video (chat), and worship services are available online. In most of the Western world, many of our desires can be fulfilled immediately using technology, which focuses on making everything visible, accessible, controllable, and usable [3]. However, this ubiquitous availability might not always be valuable. Sometimes the opposite, *unavailability*, might be the better choice. Unavailability can highlight what one values most about what is available and can evoke the experience of resonance, specialness, or meaning. In the following, we will present two examples that demonstrate how we came across the theme of unavailability in our research.

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, 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 (i.e., 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 described here. However, this story demonstrates the aspects of unexpectedness and surprise very well. The participant did not expect that the conversation with her friend could take place in a positive atmosphere—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* was also evident in other examples within the same study. 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 people's experiences: It opened up room for hope, speculation, and surprise—for example, when something absolutely 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 [4]. 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 ease of access. Usual worship services are not an everyday occurrence for believers, but rather something special; believers usually invest some effort to mark the worship service as distinct from everyday life and routines—for example, dressing up, going to a special place, and reserving the time to attend. In contrast, online worship services are available anytime and anywhere, which invites specific modes of usage (e.g., watching 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 were in the middle of their breakfast when realizing that the 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 their breakfast table. Although this was practical, they quickly became annoyed with themselves. They realized that they had turned what formerly had been an extraordinary experience into something ordinary. Availability changed the way worship services were experienced. The online worship service turned into something everyday and less essential. Constant availability may be convenient and allow for flexible access. However, convenience and flexibility are nothing compared with the cherished *unavailability* of worship services that take place only at a specified place and time 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 sociology and Protestant theology 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 beyond the context of religion, faith, and spirituality.

The German sociologist Hartmut Rosa has studied unavailability (German: *Unverfügbarkeit*; he translates it as “uncontrollability”) in his works [3,5]. Rosa describes our time as a time of acceleration, suggesting the concept of *resonance* as a possible solution [5]. For Rosa, resonance is a type of world relationship formed by affection and emotion, intrinsic interest, and the expectation of self-efficacy, in which subject and world connect and at the same time transform each other. That is, 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 [5]. 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—a relationship of "relationshiplessness" [5]. For Rosa, resonance is the human motivation that guides all actions. A central, constitutive aspect to resonant experiences is *unavailability*. Four conditions for resonant experiences must coincide [3]:

- Touch (something touches me)
- A response to the touch
- Transformation: a change of world-relationship
- Unavailability.

Even if conditions one to three are fulfilled, unavailability is necessary for a successful, resonating experience. The individual experience of the world can be neither planned nor accumulated. This perspective highlights a fundamental problem with the current focus on making everything available through ubiquitous technology: It is not the availability that renders experiences successful, resonating, and thereby valued but rather 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 [3].

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 fulfilled life, and blessings, cannot be made controllable to human beings; they cannot be commanded. Even in an increasingly secularized world, the objects of religion and their unavailability remain something that fascinates and attracts people—albeit no longer only in the forms of the established religious communities. This search for meaning 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 the objects of religion

interesting to people. If God, the Holy Spirit, or Christ were made available, religion would become uninteresting and lose relevance for the resonant experiences as illustrated above. The theme of unavailability prompts HCI to reconsider current trends of making everything available. Recognizing that unavailability might be an essential experiential quality, HCI is challenged to engage in the topic. How can unavailability be experienced when interacting with technologies? What ways, if any, are there to design for the unavailable?

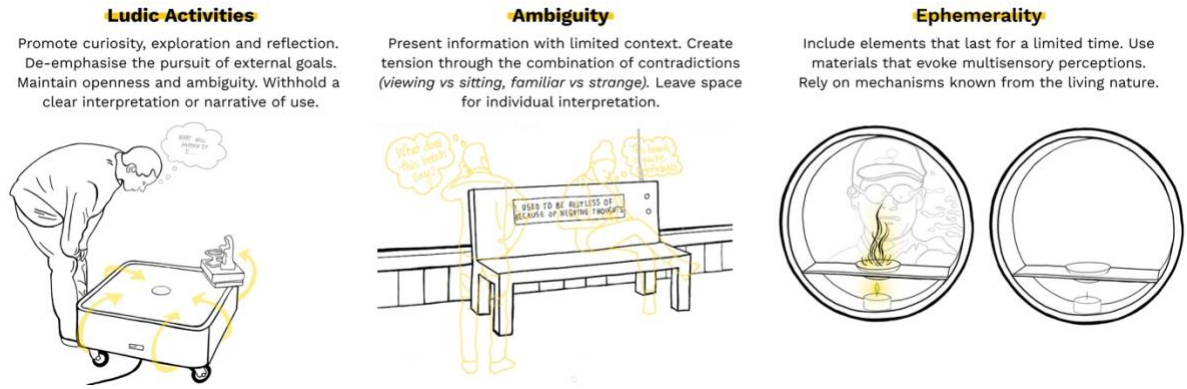
To design or not to design?

Although there seem to be no simple, singular answers to the above questions, we would like to present different perspectives to stimulate discussion within HCI.

Unavailability is a key topic in the Christian religion and tradition. As such, the Christian tradition is constantly confronted with unavailability and tries to create conditions to make experiences with the unavailable more probable. Such efforts can, potentially, be considered as design. To this end, the Christian tradition offers (or designs) activities such as rituals, liturgy, and experiential education that serve as supportive measures, knowing that the unavailable is ultimately unavailable.

On the question of design for unavailability, Rosa builds his argument for resonant experiences. He argued that resonant experiences can arise only with counterparts (e.g., human beings, objects, nature, art) that are not entirely available—meaning visible, accessible, controllable, and usable [3]. Following this, Rosa doubts that technology can be designed at all to become a resonant counterpart: unavailability is uncontrollability and thus "non-engineerability." He expects that translating unavailability to, for example, unpredictability in technology design might lead to frustration rather than resonant experiences. However, Rosa also identifies manufactured objects that evoke resonant experiences, such as poems or art. He expects a poem to be a resonant counterpart as long as one has not fully grasped and processed it, as long as it continues to occupy one and still seems to hide something [3].

With the above arguments and examples in mind, we turned to HCI searching for artifacts and design strategies that might correspond to unavailability. An artifact that shows an essential aspect of the integration of unavailability and technologies, namely the type of activities that a technology enables, is the Drift Table [6]. The Drift Table is a coffee table displaying slowly moving photography that is operated by the distribution of weight on its surface. One could argue that this interaction represents a kind of "control" of the table. However, what is most related to unavailability is not the exact interaction, but rather what the table encourages us to do: The Drift Table was designed not to perform specific tasks or efficiently achieve goals but rather to support ludic activities, "activities motivated by curiosity, exploration, and reflection rather than externally defined tasks" [6]. It is exactly in this way that we think it might correspond to unavailability: A technology that is supposed to have an inherent unavailability must invite us to explore it and not work through it—similar to a poem or a work of art. If it is at all possible to design for unavailability, then the first step must be a change of perspective on the *what* of technology: Away from technology as efficiency-enhancing task support, toward technology as a stimulus for open exploration, reflection, and curiosity.



Three design strategies that can serve as a useful starting point for thinking about design in the context of unavailability. Left: The drift table as an example of design for ludic activities [3]. Middle: The Projected Realities bench as an example for ambiguous design [2]. Right: ThanatoFenestra as an example for ephemeral interfaces [1]. Sketches: Vyjayanthi Janakiraman.

Apart from this concrete example, we also found two particular design strategies within the more speculative and exploratory areas of HCI that are more concerned with the *how* of interaction suitable when designing for unavailability. The first strategy is to design for *ambiguity* [7]. Gaver et al. [7] suggest that ambiguity "frees users to react to designs with skepticism or belief, appropriating systems into their own lives through their interpretations." One way to integrate ambiguity into the design is to distort displayed information to stimulate curiosity and thought. The second strategy to design for unavailability might be *ephemeral*interfaces [8]. Ephemeral interfaces consist of at least one element that lasts only for a limited time and typically incorporate materials invoking multisensory perceptions such as water, fire, or plants [8]. Ephemerality is a design strategy seldomly used in popular, widespread technologies. However, it is an element everyone recognizes from the living, natural world that corresponds well with unavailability.
In conclusion, we hope to have demonstrated the value of turning to contexts such as spirituality, faith, and religion to gain new perspectives for HCI and hope to stimulate discussions on making everything (un)available. We conclude with one 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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Endnotes

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