User Experiences with Smartphone Applications for Spirituality: How Do Spiritual Mobile Application Users Construct Spirituality?

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Abstract

In our progressively digitalized world, numerous activities once conducted in an analog form have transitioned into "smart" mobile applications (apps), encompassing spiritual practices among them. Society's growing fascination with spiritual apps, offering features aligned with alternative spirituality like meditation, mindfulness, self-reflection, or astrology, stands in contrast with the limited amount of research dedicated to this burgeoning field. This study aimed to shed light on how spiritual mobile app users construct spirituality. A discourse analysis (DA) was applied on 26 interview transcripts, based on which 16 discursive constructions and five discourses of spirituality emerged, which include (a) The role of spirituality in an individual's life – Personal significance (b) Seeking harmonious balance – An integrated self (c) The best of different worlds – Scientific rationality and spiritual beliefs (d) Religious parallels – Being religious without being religious (e) Spirituality as a state of being – Unveiling the essence. This study contributes to a better understanding of the diverse ways spirituality is constructed.

Keywords: Spirituality, Spiritual Mobile Applications, New Age, Discourse Analysis, Construction of Spirituality

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In our increasingly digitalized world, more and more activities once conducted in an analog form have found their "smart" way into our mobile phones. This includes spiritual practices as well. Prominent instances of mobile applications (henceforth "apps") designed to address spiritual inclinations include Headspace, Calm, and Insight Timer (Koetsier, 2020). These mobile apps are emblematic of a discernible surge in the contemporary resurgence of New Age spirituality within mainstream culture, as expounded upon by Nikolić (2021). The spiritual app users' construction of spirituality has never been subject of scientific investigation before (Ahmad et al., 2021). Therefore, the current study focuses on analyzing interviews with people who use apps that in this study are termed "spiritual apps", trying to shed light on the meaning-making of spiritual app users by applying a discourse analysis.

Spirituality is a multifaceted concept that defies limitation to a single meaning. In the past, spirituality primarily denoted individuals with strong religious beliefs. As per Delagado (2005), the term *spirituality* can be traced back to its Latin root *spiritus*, which translates to "breath" and is connected to the concept of the breath of life. Throughout most of Western history, the terms *spiritual* and *spirituality* were understood as distinctly religious (Koenig, 2008). Following this, a person described as spiritual was someone believed to be inhabited by the "Spirit of God", frequently referring to individuals within the clergy (Koenig, 2008). However, its scope has since broadened to encompass not only those who are deeply religious but also those with more superficial religious connections, entirely secular people, as well as individuals on a quest for well-being and happiness (Koenig, 2008).

A scoping literature review by Dyson and colleagues (1997) from the field of nursing care revealed that the core components of spirituality, representing the broader experiential domain, encompass the self, others, and the concept of "God". Additionally, various themes

such as meaning, hope, relatedness/connectedness, and beliefs/belief systems can be framed within the context of these fundamental elements. Spirituality has been described as broader than religion, "a personal, individual value system about the way people approach life" (Laukhuf & Werner, 1998, p.62). This system varies from person to person and evolves over the course of one's life, constituting a personal journey in search of meaning and purpose (Delgado, 2005; Laukhuf & Werner, 1998).

Spirituality and religion are often viewed on a spectrum, with the extent of their distinction or overlap depending on individual beliefs and experiences. Advocates of both concepts emphasize that they each tackle the fundamental concerns of individuals and provide a sense of personal and collective identity (Hill et al., 2000). Spirituality enthusiasts often critique religion for its perceived adherence to outdated, rigid, patriarchal, and dogmatic teachings (Van Niekerk, 2018). They argue that religion tends to impose rules from higher authorities and maintain hierarchical structures (Van Niekerk, 2018). Spirituality seems to offer a more fluid and open-minded approach, allowing individuals to tailor their practices and beliefs to align with their unique ideas and values (Heelas, 2002). Nevertheless, spirituality is not immune to criticism, especially due to its absence of a central religious essence or what Berger (1969) referred to as a "sacred canopy" to provide cohesion. The underlying concern is that individuals drawn to spirituality often yearn for a sense of community, desiring to connect with like-minded individuals (Van Niekerk, 2018). However, the dilemma arises from the possibility of this longing transforming into an institution, resembling what they initially opposed in the religious realm (Van Niekerk, 2018).

The New Age movement, which emerged in the mid-20th century, represents a relatively modern and alternative form of spirituality. The term New Age reflects the idea that humanity was entering a new era of spiritual awareness and personal growth where humans will operate on a higher level of consciousness (Ferguson, 1980; Hanegraaff, 1997). It alludes

to the astrological concept called the "Age of Aquarius", envisioned as an epoch marked by harmony, collaboration, and spiritual enlightenment, in contrast to the preceding "Age of Pisces", believed to be violent, selfish, and materialistic (Berg, 2007). New Age is much concerned with personal quality of life and offers both a philosophy of life and various therapeutic practices, presumed to raise happiness (Berg, 2007). Importantly, New Age beliefs also diverge from organized religions. Those identifying as New Agers typically reject the concept of an overarching god, instead embracing the belief that a divine essence can manifest within anyone or anything (Berg, 2007; O'Neil, 2001; Sjöberg, & Wåhlberg, 2002). Criticisms of New Age spirituality vary, among them it is referred to as "do-it-yourself religion" (Baerveldt, 1996), "pick-and-mix religion" (Hamilton et al., 2000), and "religious consumption à la carte" (Possamai, 2003). These terms reflect the somewhat amorphous nature of the New Age, on both ideological and organizational levels. In line with that, Stark and Bainbridge (1985) argue that New Age spirituality lacks a distinct core belief and instead adapts and evolves to align with the societal requirements of a given era to attract a wider audience.

New age spirituality is characterized by its openness to a wide array of beliefs and practices, including astrology, the concept of spiritual energy in objects and tarot card readings. The ideas of reincarnation and karma hold a significant place in the beliefs of certain New Agers (Amaral, 2015). Souls are reborn based on their deeds in earlier life, but unlike the way Buddhism or Hinduism may perceive it as a curse, New Agers often view this cycle as a positive opportunity for personal growth and development (Sjöberg, & Wåhlberg, 2002). This unique perspective of New Agers stands in stark contrast to that of atheists. Whereas atheists perceive the world as governed by measurable and controllable physical forces, New Agers envision a realm filled with mysterious energies, spirits, and even aliens, as suggested by Sagan (1996), along with other metaphysical phenomena (Sjöberg, &

Wåhlberg, 2002). Such beliefs, which emphasize personal intuition and metaphysical concepts, might be labeled as "superstitious thinking" by some, given their departure from conventional scientific paradigms.

Understanding these distinctive aspects of New Age spirituality becomes integral when exploring how users of spiritual mobile apps construct their spirituality and engage within these unconventional beliefs through technology. New Age spirituality and spiritual mobile apps are interconnected due to their shared focus on providing individuals with resources to explore their spirituality (Basci, 2015). These apps serve as a convenient platform for individuals to access information, engage in spiritual practices, and connect with others on their spiritual journey, thereby bridging the gap between traditional spiritual practices and modern technology (Basci, 2015).

Psychology in its early stages often leaned towards a more secular and behaviorist orientation, predominantly focusing on observable behaviors (Pargament, 2007). The emergence of positive psychology has shifted spirituality into focus by recognizing its integral role in fostering personal growth and a sense of meaning and purpose in life (Baysal, 2022). The pioneers in the field, Seligman and Csikszentmihalyi (2000), inspired researchers to study the positive aspects of human experience. Positive psychology seeks to initiate a shift within the field of psychology, moving beyond the sole focus on fixating on the negative aspects of life and instead emphasizing the cultivation of the positive qualities that enrich our lives (Seligman, 2002). The emergence of positive psychology has brought forth certain virtues that hold specific spiritual relevance, such as compassion (Gilbert, 2005), hope (Berg et al., 2008), gratitude (Emmons & McCullough, 2003), forgiveness (Wade & Worthington, 2005), humility (Krause, 2010), and resilience (Bonanno, 2004). These virtues hold specific spiritual relevance because they embody qualities that promote personal well-being, ethical behaviour, a sense of interconnectedness, and a deeper connection to the divine in various

spiritual traditions and are expected to play a role in the construction of spirituality. According to Barton and Miller (2015), the levels of personal spirituality (assessed through frequency and intensity of spiritual and transcendent experiences common to everyday life) were found to highly coincide with the level of positive psychology traits (e.g. forgiveness, gratitude, optimism), suggesting that personal spirituality and positive psychology go hand in hand. Transcendence describes the experience of going beyond the ordinary self and connecting with something greater (Maslow, 1969). As per the findings of Marshall et al. (2020), the increasing significance of positive psychology mobile apps in contemporary times suggest that merging positive psychology and spirituality into a single app could serve diverse purposes.

Despite the focus of this research being the construction of spirituality by spiritual mobile app users, existing research offers valuable insights regarding the possible impact of spirituality on individuals' lives. So far, research has explored the positive impact of spirituality in terms of personal relevance, beliefs, and practices. Existing studies have identified a positive correlation between spirituality and various aspects of psychological well-being and flourishing (Fabricatore et al., 2000; Falb & Pargament, 2014; Rye et al., 2013). The results from the cross-sectional and longitudinal analysis by Marques and colleagues (2013) suggest that hope and spirituality (assessed with a single item: ''How important is spirituality to your life?'') , but not religious practice, were strongly linked to adolescents' life satisfaction. Cowlishaw and colleagues (2013) concluded that spirituality (examined using the "Spirituality Perspective Scale", measuring spiritual beliefs and behaviours) may influence older adults' experience and perception of life events, leading to a more positive appraisal of these events where they are seen as more meaningful. Spiritual well-being (analyzed using the "Spiritual Well-Being Questionnaire") has also shown to be positively correlated to happiness in older adults (Rowold, 2011). Specifically, studies have

indicated a direct link between daily spiritual experiences and resilience against life stressors (Gnanaprakash, 2013; Rahmawati, 2014) and physiological stress response (Labbé & Fobes, 2010).

Whilst research on spiritual apps is rare (Zainal et al., 2015; Ahmad et al., 2021; Gorichanaz, 2022; Park et al., 2023) there are scientific papers investigating mindfulness apps. Mindfulness-based apps have been evaluated in terms of many topics, for instance how they train mindfulness meditation (e.g. Daudén Roquet & Sas, 2018), their quality and features (e.g. Mani et al., 2015), and their effectiveness in enhancing well-being and mental health (e.g. Gál et al., 2021). Gorichanaz (2022) has initiated an exploration into the affordances and interaction styles in terms of digital spiritual wellness in a selection of mobile apps. He suggests that further research on spiritual apps could enhance society's comprehension of the potentialities of technology and digital wellness (Gorichanaz, 2022). The term spiritual digital wellness highlights the trend where people increasingly rely on technology to aid their spiritual practices and personal growth (Buie & Blythe, 2013; Gorichanaz, 2022).

While most scientific papers agree that spirituality is part of the human condition and thus worthy for scientific inquiry, authors hold differing perspectives regarding the precise state of the art of scientific understanding concerning spirituality: Baysal (2022) holds the opinion that positive psychology has given researchers and practitioners a new perspective on human beings, reinvigorating studies on religion and spirituality that were previously overlooked. On the other hand, Walach (2017) strongly expresses the viewpoint that spirituality is, scientifically speaking, the taboo of our time. The author claims that while science has been developed over the last 650 years or so into a powerful instrument of discovery, with a clear method and structures for controlling error and bias, no such methodology is available for spirituality. A major concern related to assessing spirituality is

that certain measures of spirituality may inadvertently gauge subjective well-being, which does not inherently form a part of the spirituality construct (Koenig, 2008) and the presence of this could lead to inflated correlations between spirituality and positive mental health (Baumsteiger & Chenneville, 2015). Van Niekerk (2018) suggests that further empirical research is needed to ascertain more accurate definitions of spirituality and understand the precise intentions behind individuals identifying as spiritual, fostering a more authentic understanding of the concept. Regarding the research method, there are relatively few scholarly papers employing qualitative research methods to examine contemporary spirituality and its individual relevance within the context of spiritual mobile apps (Zainal et al., 2015; Ahmad et al., 2021), often concentrating on specific demographic groups, such as elderly Islamic individuals' spiritual user experience (Ahmad et al., 2014) or older adults' use of spiritual apps within certain geographic regions like Malaysia (Zainal et al., 2015). The present paper aims to address this gap, utilizing discourse analysis as a research method to investigate how spiritual mobile app users employ language to articulate their understanding of spirituality. Thus, the central research question guiding this study is: "How do spiritual mobile app users construct spirituality?".

Method

Study Design

This study was part of a larger research focusing on user experiences with spiritual mobile apps, wherefore the data analysis was performed on a set of interviews conducted by a group of Bachelor's and Master's students at the University of Twente. A qualitative design was employed for this study since qualitative research has the unique capacity to provide deep insights and unravel valuable indications regarding the construction of spirituality and it allows for studying spiritual app users' construction of spirituality from the bottom up (Laurie &

Blandford, 2016; Sofaer, 2002). This research project was officially approved by the ethics committee BMS of the University of Twente[1].

Participants

The participating interviewees were recruited via SONA systems, a portal for students at the University of Twente. Moreover, the group of students looked for additional interview subjects in their personal network, using purposive sampling and the study was posted on social media (e.g. Instagram, LinkedIn, Reddit). To be included in the study, participants needed to be at least 18 years old and use a spiritual mobile app. This pertains to any app that a participant incorporates into their spiritual practice. There were 26 participants, whose demographic characteristics are composed as follows: The ages of the participants involved ranged from 18 years to 50 years. Seventeen of the participants identified as female (65%), seven identified as male (27%), one identified as both female and nonbinary (4%), and one did not mention their gender (4%). The participants represented a total of eleven different nationalities. Participants were most frequently of German (50%) or Dutch (19%) origin.

Materials

The participants received a briefing information letter (see Appendix A) and an ethical consent document (see Appendix D). The interview guide protocol (see Appendix C) has been developed in collaboration, with Dr. Heidi Toivonen, Dr. Timothy Gorichanaz, and a group of students. It contains a first part in which the purpose of the study as well as how the data will be treated is explained once again and information about whom to contact in case of questions. The second part consists of 17 interview questions about spirituality, New Age, and several detailed questions about the use of spiritual mobile apps. Several interview questions in the interview guide protocol also include prompting questions. In the context of this study, the most important question in terms of generating data relevant for answering the research question is

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[1] Request number: 221430, see Appendix B

question number one which reads as follows: *"Is "spirituality" a word that describes your beliefs and values well? If yes, would you like to tell me more about what it means to you?"*. However, the other sections of the interviews were taken into consideration as well, looking for relevant data, matching the research question at hand. The interviews were conducted using Microsoft Teams or in person and the students decided what recording device they wanted to use to record the interview.

The spiritual mobile apps that have been mentioned throughout the interviews include: Balance[1], Calm[2], Co-Star[3], Daylio[4], Falcı Bacı[5], Headspace[6], Healthy minds innovations[7], Insight Timer[8], Mindspace[9], Moonly[10], Plum Village[11], Sadhguru[12], Saged[13], Sanvello[14], The Pattern[15], The Work[16], Unwinding Anxiety[17], and Waking Up[18]. Taking a more detailed look into the focus of the apps, Balance, Calm, Headspace, Healthy minds innovations, Insight Timer, Mindspace, Plum Village, Sanvello and Waking Up offer guided meditation sessions and related content for different needs of the users, such as anxiety symptoms or experiencing high levels of stress. In addition to meditations, the Sadhguru app offers yoga practices, music, and chants. The app called Co-Star is an astrological social networking service where users enter the date, time, and place they were born to receive an astrological chart and daily horoscopes which they can compare to those of their friends (Costarastrology.com). Daylio and Saged are both apps that invite users to reflect in an online journal about their daily thoughts and experiences (Daylio.net; Sagedapp.com). Falcı Bacı is a Turkish future telling app based on online coffee mug readings (Kaavefali.com). Moonly is a lunar calendar and ritual app that is marketed as helping the user live according to the moon rhythm (Moonly.app). It also uses tarot, rituals, runes, and daily affirmations designed to help users find harmony. The pattern offers users insights into their personality and life patterns based on astrological and psychological principles (Thepattern.com). On their website, The Work is described as an app based on a spiritual teacher called Byron Katie's method of

identifying and questioning thoughts by applying a certain set of questions to a situation or thought. This process is aimed at promoting personal growth and self-awareness, aligning with spiritual principles of inner transformation. Unwinding Anxiety is an app-based program developed with the goal of reducing anxiety through guided lessons, mindfulness exercises, and community support (Unwindinganxiety.com).

[1] *Balance: Meditation and Sleep.* (n.d.). https://balanceapp.com
[2] *Calm: Sleep, Meditate, Relax.* (n.d.). https://www.calm.com
[3] *Co – Star: Hyper-Personalized, Real-Time Horoscopes*. (n.d.). https://www.costarastrology.com/
[4] *Daylio - Journal, Diary and Mood Tracker*. (n.d.). https://daylio.net/
[5] *Kaave Falı - Her zaman yanınızdaki kahve falcınız*. (n.d.). Kaave Falı. https://kaavefali.com/
[6] *Meditation and Sleep Made Simple - Headspace.* (n.d.). https://headspace.com/
[7] *Healthy Minds Innovations: Guided, Mindful Meditation.* (n.d.). https://hminnovations.org/meditation-app
[8] *Insight Timer: Free Meditation App for Sleep, Relax & more.* (n.d.). https://insighttimer.com
[9] *Mindspace: Meditation, Sleep, and Wellness.* (n.d.). https://www.mindspaceapp.com
[10] *Moonly — Moonly — Moon Calendar*. (n.d.). Moonly — Tarot. https://www.moonly.app/
[11] *Mindfulness Apps | Plum Village*. (n.d.). Plum Village. https://plumvillage.org/de/mindful-apps/
[12] *Sadhguru: Yoga & Meditation.* (n.d.). https://isha.sadhguru.org/us/en/sadhguru-app
[13] *Saged.* (n.d.). https://www.sagedshop.com/
[14] *Sanvello | On-demand help for stress, anxiety, and depression*. (n.d.). https://sanvello.com/
[15] *THE PATTERN | The Pattern*. (n.d.). The Pattern. https://www.thepattern.com/
[16] *The Work: The way to peace of heart.* (n.d.). https://thework.com/the-work-app/
[17] *Unwinding Anxiety: Anxiety Management & Relief Program.* (n.d.). https://unwindinganxiety.com
[18] *Waking Up: A New Operating System for Your Mind*. (n.d.) https://www.wakingup.com/

Procedure

Dr. Heidi Toivonen and Dr. Tim Gorichanaz conducted some trial interviews to test the interview protocol and together with the students the final protocol was created. After reading through the briefing information letter and agreeing to participating, the participants were invited to the interview and signed the informed ethical consent. The interviews were conducted in one-on-one sessions and were semi-structured, which allowed for flexibility in questioning and exploring unexpected insights or delving further into specific topics as they emerge during the interview. The participants got informed about the beginning and the end of the recording. The interviews lasted around one hour, on average. The interview recording then got transcribed with the online transcription tool Otter.ai or Microsoft Teams. Afterwards, the transcripts were "cleaned", meaning any misspelled words were corrected and the transcript was manually anonymized, and the interviewee got named with a

pseudonym. The team of researchers aimed for verbatim transcripts, which means that every word and utterance is included in the transcript exactly the way the appeared during the interview.

Data Analysis

To explore how spiritual app users construct spirituality, this thesis employed a Discourse Analysis (DA). DA offers a way to analyze language in use and is based on the details of speech that are relevant to the arguments the analysis is trying to make (Gee, 2014). Discourse is recognized as a dynamic platform through which individuals as well as collective actors engage in the formation and exploration of diverse perspectives and social frameworks (Gill, 2000). This is because the social landscape is understood as being shaped through verbal exchanges (Potter, 2004, 2012). DA goes beyond a content analysis and enables a deep insight of how language and communication shape our understanding of the world (Potter & Wetherell, 1987) and how in this case spiritual app users construct spirituality.

The first familiarization with the data (interview transcripts) happened during the transcription process. However, I only transcribed three of the interviews since the rest were already transcribed. I read through all the transcripts to get a first idea of the dataset. During the second and third round of reading, I focused on specific parts that seemed relevant to answer my research question. I selected excerpts that provide rich, detailed descriptions or narratives about participants' spiritual experiences. I also identified those parts of the transcripts where participants articulate their processes of meaning-making in relation to spirituality, focusing on excerpts revealing how participants interpret, evaluate, and integrate spiritual beliefs and experiences into their lives. Additionally, I looked for passages that discuss the participants' beliefs about the nature of existence, purpose, and other foundational aspects of spirituality.

Throughout several iterative readings of these transcript excerpts, I wrote down anything that came to my head regarding how participants construct spirituality. I focused on how participants reflect on their spiritual growth, development, or transformation facilitated by their engagement with the respective spiritual mobile app(s). I specifically highlighted reflections on the significance of spirituality in the participants' lives and how it influences their worldview. I also paid attention to how these beliefs on foundational aspects of spirituality are articulated and how they shape individuals' understanding of spirituality. Furthermore, I looked for linguistic expressions, metaphors, and symbols that convey meanings and understandings of spirituality and questioned the use of those. Whenever I felt the need, I created mind maps as a visual and flexible representation of the key themes related to constructions of spirituality. A particularly helpful tool for me was to draw little sketches of the constructions I encountered in the interview excerpts. Sketching allowed me to visually represent the various components of a construction discussed. It helped me clarify my own understanding of the constructions of spirituality described by the participants and provided a tangible way to organize my thoughts. It also supported me in identifying key (recurring) concepts, themes, and connections within the transcripts. As I drew out the various constructions, I could also question their underlying assumptions, implications, and interpretations, leading to deeper insights and analysis.

I narrowed down the dataset to five transcripts that appeared most important to answer my research question and started creating the table of discursive constructions of spirituality (Table 1). After having extracted all constructions from these five transcripts, I went through all transcripts several times until I encountered no more new constructions. Finally, I specified the frequency of every discursive construction of spirituality across all 26 transcripts. The analysis led to 16 constructions of spirituality and five main discourses of spirituality. The five discourses are aligned with the five transcripts that were most rich in the

way in which constructions of spirituality were discussed. This organization allows for a more systematic presentation of the findings since they also serve as headings for the results section. Categorizing constructions of spirituality into broader discourses not only helped me focus on the most salient and meaningful aspects of spirituality as articulated in the interviews, but also enabled me to delve deeper into the underlying meanings, enriching the analysis and contributing to a more nuanced understanding of spirituality as constructed by participants. Additionally, it is important to note that while some constructions may align predominantly with one discourse, many do not exclusively match to any single discourse, highlighting the complexity and diversity of participants' perspectives on spirituality.

Results

Based on the DA of 26 interviews, 16 discursive constructions of spirituality appeared. All constructions are based on the interview transcripts from spiritual mobile app users. The table below (Table 1) presents the 16 different ways of constructing spirituality. The middle column gives a short explanation of each construction of spirituality, while the last column indicates how frequently the respective spirituality construction appeared in the interview transcripts. Below the table, the five carefully chosen discourses of spirituality are discussed. The discourses include (a) The role of spirituality in an individual's life – Personal significance (b) Seeking harmonious balance – An integrated self (c) The best of different worlds – Scientific rationality and spiritual beliefs (d) Religious parallels – Being religious without being religious (e) Spirituality as a state of being – Unveiling the essence. Each discourse deliberates on one or more extract from the interviews. Since the interviews were conducted by different people, X is used within the extracts to represent the interviewing person. The name stated is the pseudonym that has been given to the respective interviewee. The underlined parts are to illustrate one or more specific construction of spirituality and the number in brackets refers to the corresponding number in Table 1. The presented extracts have undergone minor modifications to facilitate readability.

Table 1

Discursive constructions of spirituality

Spirituality construction	Spirituality is described as…	Frequency*
1. Lifestyle	A certain way of living life	4
2. Ambition	Achieving an anticipated/desired state of being	2
3. Self-actualization	Using (spiritual) practices to facilitate personal growth	3
4. Central role	Intertwined with an individual's existence (shaping their life purpose/meaning)	7
5. Transcendence	Connection to/ believing in something greater than oneself	8
6. Dual Nature	Highlighting the idea of two fundamentally distinct and separate realities	8
7. Mystical influence	Beyond the ordinary, transcendent energy or presence	3
8. Non-empirical	Not based on / beyond empirical observation or measurement	4
9. Fulfillment	Offering individuals (enjoyable) experiences	8
10. Interconnectivity	Giving a sense of a cohesive whole	7
11. Reassurance	A source of confidence and guidance (in times of uncertainty)	7
12. Well-being	A means of self-soothing (during moments of distress)	3
13. Religious parallels	Sharing some common elements with religion (but may not be bound by dogma)	20
14. Embodiment	Including an experiential component (a state of being that goes beyond mere comprehension)	2
15. Exploration	A dual focus on self-exploration and exploration of the external world	6
16. Present moment	Including practices of mindfulness (cultivating a greater awareness of thoughts, emotions, and experiences in the present moment)	3

*Frequency across all 26 interviews.

The role of spirituality in an individual's life – Personal significance

This discourse reflects an exploration of spirituality's significance in an individual's life from a personal perspective. It includes an investigation into how spirituality influences and holds importance for an individual, highlighting the subjective and deeply meaningful aspects of spiritual beliefs and practices in shaping one's identity, values, and experiences.

In his interview, "Tom" constructed spirituality as a deeply personal and intrinsic aspect of his life and identity. Spirituality is portrayed as a core component that gives meaning and purpose to his existence:

X: OK. So maybe would you like to tell me about what spirituality means to you?
Tom: Spirituality for me means <u>to have my own personal practices that are oriented towards reaching my own personal potential (3).</u> Umm. And it's for me <u>it's a way of life (1)</u>. <u>It's an aspiration I have in life to fulfill my potential that is inherent to my person (2).</u>
X: And you would say for yourself that you fully identify with the word uh, spirituality?
Tom: Umm I mean…Fully identify…<u>I would say that spirituality takes on like I would say, my life's purpose or life's meaning is to…spiritually develop myself (4).</u>
X: Yes.
Tom: Umm. So yeah, in that sense, I would say that I do, definitely identify as a spiritual being. <u>So it's like it has prime importance in my life for sure (4).</u>

In this extract, spirituality is constructed as a way of life (1, Lifestyle). Tom also described spirituality as a set of personal practices oriented towards reaching his own potential (3, Self-actualization). Tom suggested that spiritual practices are the "tools" to achieve personal growth and self-actualization. Like Tom, many people's construction of spirituality included spiritual practices that are incorporated into their daily lives, which can become integral to their lifestyle. In the interviews, these practices revolved largely around the use of spiritual mobile apps. Around half of the participants indicated to use their app daily, with "Sebastian" mentioning that he "might even visit the app more than ten times a day".

Furthermore, spirituality is constructed as setting an individual out on a quest. In Tom's case the quest consisted of fulfilling a potential that is inherent to a person (2, Ambition). Interestingly, what the anticipated/desired state of being would look like, is not specified. The construction of spirituality often framed it as a "spiritual journey". In literature and everyday language, the word "journey" is often employed to represent more than just physical travel. The metaphorical use of "journey" is a common way to symbolize a broader and deeper human experience including progress, self-discovery, and potential for transformation (Huang & Aaker, 2019).

Throughout the interviews, spirituality is often constructed as something that people are, a key aspect of their identity. After being repetitively asked by the interviewer whether he identifies with the word spirituality, Tom stated that spirituality takes on his life's purpose and meaning (4, Central role). Spirituality is presented as central in his sense of both direction, and significance in life. The interviewee emphasized that his life's meaning is to spiritually develop himself, which underscores the idea that spirituality is a dynamic and ongoing process of growth. It also alludes to the pursuit of spiritual development being synonymous with finding meaning in life.

Seeking harmonious balance – An integrated self

This discourse of spirituality is centered around an exploration of how spirituality can contribute to achieving a sense of inner equilibrium and wholeness, fostering the integration of various aspects of the self – including mind, body, and spirit.

In her interview, "Catherine" explored the complex relationship between the physical, material body and the transcendent, non-material aspects of an individual's identity:

X: Would you like to tell me something about what it means to you, spirituality, for you personally.

Catherine: Well, <u>spirituality for me is…is connection to the spirit, as the word says, right?</u> <u>So, I believe that we come to this world, in the embodied self, but we also have the spirit self</u> <u>that is connected somewhere else, right (6)</u>? So, <u>I believe the spirit is, is a part of universe,</u> <u>the universal power, universal intelligence. And I believe that we have that connection with</u> <u>our spirits (5)</u>. So, we come here the spirit comes here, gets embodied, to experience the world to go through, you know, life experiences, through the body, through the senses, but the spirit is there as well. So, <u>spirituality for me means as we are here, embodied in this realm of</u> <u>senses, we still keep that connection with our spirit, right (6)</u>? <u>That can guide us, (11)</u> <u>that</u> <u>have the highest intelligence, that is like knows everything (7)</u>. So, <u>being spiritual to me is</u> <u>being connected to that part of me that is part of the whole right (6)</u>? This is how I understand it.

X: Beautiful, very interesting. So, the connection to something bigger than ourselves.

Catherine: Then our life here, our embodied self, which means how we come to this live right?

X: Very interesting. Thank you. Okay, and if there's anything to add for you...is there anything you would like to add that comes to your mind to this question?

Catherine: No, I don't think so I think yeah, basically, to me, spirituality means that connection with the spirit, and then <u>you have different ways of staying connected to that there</u> <u>are different tools to keep us connected throughout life, right? One of them is practice of yoga</u> <u>(3)</u>. And there's a lot of practices within the term of yoga that keep us connected to the spirit. <u>And this is basically what we want that work (2)</u>. <u>The spirit is our true self (6)</u>.

Catherine constructed the distinction between an embodied self and a spirit self (6, Dual nature). Spirituality involves the belief that the spirit chooses to come into the world in an embodied form to experience life and the challenges that come with it. The connection of the embodied self to the spirit self suggests a purposeful aspect to existence. The spirit self serves as a source of guidance (11, Reassurance) and wisdom (7, Mystical influence). The spirit self is portrayed as "our true self". The concept of the "true self" is juxtaposed against the notion of possible "false selves", suggesting a dichotomy between genuine and superficial expressions of selfhood. By framing spirituality in terms of the "true self", Catherine highlights the quest for self-discovery and fulfillment, striving to unveil and embody the

essential spiritual nature amidst the complexities of worldly existence. The discourse emphasizes the significance of aligning with one's innate spiritual essence, underscoring the transformative potential of embracing one's "true" identity within the spiritual journey.

The frequent use of "us", "our", and "we" suggests that Catherine is constructing herself as belonging to a bigger community of people seeking connection of embodied and spiritual self. Catherine constructed spirituality as an ambition to achieve goals and aspirations that are shared among individuals. She is situating herself within a construction of spirituality that is frequently pursued and embraced collectively. By saying "this is basically what we want", she suggested that people collectively seek to stay connected to the spirit and explore different tools for achieving this connection. Catherine emphasized the practice of yoga as a specific practice to achieve spiritual connection, whilst in other interviews practices such as listening to chants and guided meditations (using the spiritual mobile apps) have been mentioned to achieve a feeling of connection with a higher power.

Overall, the extract reflects wider discussions in society on holistic well-being. Holistic well-being emphasizes that well-being is not solely about physical health but encompasses the entirety of a person's existence (Silcox, 2016). Taking care of one's spirit self, which involves nurturing spiritual and transcendent aspects, represents an important part of achieving a balanced and fulfilling life. The theme of work-life balance has gained increasing attention throughout as well as after the COVID-19 pandemic as people faced the challenges of balancing work, family, and personal life. "Kelly" pointed out she started using the Headspace app when COVID-19 started. "Magda" mentioned that she started using the app Co-Star "two and a half years ago during the pandemic" and like many other participants she uses her app when "feeling stressed" or "overwhelmed". Other functions of spiritual mobile apps, used by the participants that are clearly related to the overarching topic of holistic well-being including gratitude journals and sleep casts, a type of audio content

designed to help people relax and fall asleep. In this context, the increasing prominence of the discourse around holistic well-being seems to have caused businesses and industries to respond by providing a wide range of products, such as spiritual mobile apps (Buie & Blythe, 2013).

The best of different worlds – Scientific rationality and spiritual beliefs

Within this investigation, individuals navigate the intersection between empirical understanding and transcendental experiences, aiming to synthesize insights from both realms for a more comprehensive understanding of reality. The discourse involves discussions on the compatibility and complementarity of scientific and spiritual worldviews, as well as the potential synergies between empirical inquiry and intuitive wisdom in addressing existential questions and personal growth.

In her interview, "Charlotte" constructed spirituality as compatible with a scientific worldview. Spirituality and science are presented not as conflicting, but rather as diverse ways of understanding the world. Spirituality is portrayed as aligning with and contributing to the human experience:

X: So first of all, is spirituality a word that describes your beliefs and values well?
Charlotte: Um, I would say somehow, yes. So, I'm someone who has a very scientific view of the world I´d say. Umm but this doesn't necessarily have to interfere with my spirituality, I would say (8).
X: Okay, that´s interesting.
Charlotte: […] But I guess in my daily life, I see spirituality, umm a little different to this, umm, to my need for scientific reason. Umm, in my daily life, I sometimes feel the need for connection and then, it helps me to kind of think spiritually (9). So, I think like, there is something that connects me with others or also something that is taking care of me and who has an eye on me (9). So I guess, me thinking, umm spiritually gives me trust in something and also trust for myself, that, that I am on the right track in my life (9,11) and a sense of self-

care (12). Yeah, I´d say like this. Umm, wow, it´s hard to describe my thoughts, hope my wordings were understandable.

In the last part of the extract from the interview with Charlotte, she constructed spirituality as a source of trust (11, Reassurance). Engaging in spiritual thinking provided her trust in something and a sense of validation that she is on the right track in life. Next to the construction of spirituality as a watchful force ("something who has an eye on me"), it also served as a guiding and validating force. Lastly, Charlotte emphasized spirituality as a source of self-care (12, Well-being). Spirituality seems to play a role in nurturing and attending to one's own emotional and psychological needs.

Charlotte, as Paul (see below), positioned herself as someone who has a scientific worldview. Within the framework of utilizing his spiritual app, Tom referred to the content being founded upon scientific substantiation. By stating that in this context of being part of a research interview in the Netherlands, all three participants might have wanted to prevent seeming "foolish". Some individuals in Western societies, particularly in more secular or atheistic countries (including the Netherlands), might view spirituality with skepticism. Notably, six female participants, all of whom mentioned to use the spiritual app Co-Star, consistently pointed out that they are using the app "just for fun". Throughout the interview with the participant with the pseudonym "Anna" there is much laughter observable when she explained how she uses the tarot card and rune function of her spiritual app called Moonly:

X: So it gives you a daily rune or how does it work? What's this functionality?

Anna: Yeah. So basically, it gives you a daily rune. This is a Tarot *(showing the app on camera).* You basically press on a Tarot card, and it gives you the Tarot of the day and then it gives you an explanation. I don't really place a lot of, you know, power on these things because it's just for the bit of fun. This one is a bit of fun. Pattern *(another spiritual app)* is more for me the- but also the runes, you just press, and you get a daily rune and then it gives you the meaning of that rune. So it's quite funny. (laughter)

Laughter and expressions like "I don't really place a lot of power on these things" and "it's just for the bit of fun" can be a way to ease any potential prejudice or skepticism that might be associated with tarot card readings. By framing it as a fun and non-serious endeavor, Anna might have been trying not to appear foolish in front of a researcher. Throughout her interview, Anna repetitively underlined how "accurate" another spiritual mobile app, The Pattern, is. Perhaps highlighting the precision of an astrology app is another subtle defense against scientific skepticism. These defense strategies could serve to legitimize her engagement with spiritual mobile apps, portraying them as potentially insightful and advantageous tools, regardless of any reservations they might encounter from scientific or rationalist viewpoints.

Overall, the extracts reflect an overarching construction of spirituality where it is about drawing upon the best of different worlds. Spirituality does not have to interfere with someone's scientific perspective, reflecting a common discourse in Western society where spirituality and science are often viewed as potentially compatible. Many people share the idea that spirituality often deals with questions of meaning, purpose, and values, and these may not be subject to the same empirical scrutiny as scientific claims. Furthermore, Western societies are often characterized by cultural and religious pluralism (Berger, 2014). This diversity has contributed to individual freedom in choosing and combining belief systems in ways that feel authentic to an individual (Bielefeldt et al., 2022).

Religious parallels – Being religious without being religious

This discourse of spirituality explores the concept of being spiritual without adhering to traditional religious practices or institutions. The discourse involves discussions on the parallels between spiritual experiences and religious traditions, as well as the reinterpretation or repurposing of religious elements within a broader spiritual framework.

With the example extract from the interview with "Paul" the construction of spirituality as having religious parallels will be further explained:

X: So is spirituality, a word that describes your beliefs and values well?
Paul: Yeah, <u>I'm going back and forth on that question, but I think yes, I think that's the most accurate way to describe it (4)</u>. Because I mean, in a way, <u>I'm atheistic, but also I would, I would definitely lean more towards spiritual. I would say (13)</u>, I'm fairly scientifically minded.
X: Okay. And would you like to tell me something about what spirituality means to you?
Paul: It is, in a sense, <u>it's like being religious without being religious (13)</u>. Because, you know, in a, in a more deep sense, you know, okay, if you're religious, you believe in God. I mean, most people would sort of agree with that statement, I think. But for me, it's the, you know, the people that I truly appreciate who are religious, they're sort of they're trying to live up to an ideal. You know, sort of emulate Jesus, you know, if you're a Christian, or, I mean, I have to be honest, I don't know. Too many, like, very practising Muslims or people from other religions. So. But, you know, <u>sort of believing in something bigger than us something transcendent (5)</u>? And I think that's for me, I think that's what spirituality means that there is. <u>There's a force greater than me than, you know, any one particular individual (7).</u>

After some pondering, Paul associated himself with spirituality, suggesting that he thought it was the "most accurate way" to describe his beliefs and values. However, Paul was grappling with the construction of his belief system: He described himself as "atheistic" but also "spiritual" and "fairly scientifically minded". This first part of the extract immediately conveyed a sense that the concept of spirituality being multifaceted and that individuals may not fit only into one of the traditional categories like "religious" or "atheistic". Paul framed his understanding of spirituality in relation to religion. He stated it is "like being religious without being religious" (13, Religious parallels). This statement suggests that Paul constructed spirituality as sharing some elements with religion. The clear difference seems to be not having to adhere to specific religious practices or doctrines. Paul was one of eleven

participants referring in one way or another to religion when constructing spirituality. What can be noted here, is that only three participants explicitly mentioned that next to being spiritual, they identify with a certain religion. Paul goes on describing spirituality as meaning that there is a force "greater than me than, you know, any one particular individual". The force is depicted not as limited to a single person but, as a unifying and inclusive experience that goes beyond individual boundaries to encompass humanity or even the entire cosmos.

Jackson: "[…] I wouldn't consider myself as a really religious person. Definitely a spiritual person, but not a religious person. And I think in general, umm, religion is about frameworks, but I believe spirituality is really about freedom of individuality and it is different for everyone but everyone kind of achieves the same, and that is personal strength and development […]"

Jackson, like many other participants introduced a dichotomy between spirituality and religion. They frame religion as being characterized by "frameworks", "a box where you have to fit in", "formal structures", "dogma", or "rigid". In contrast, they portrayed spirituality as being about "freedom", "individualism", and "openness towards different ideas and traditions".

Ella: "[…] I don't feel like I belong to any particular religion. But, uh, I would also not identify as atheist, so, uh, I would use the term spirituality. I think it fits the most to, describes my beliefs. […] I don't believe in a full book like the Bible or something like that I can just take aspects and, and say, okay, I, I can identify with that."

Ella's construction of spirituality separated spirituality both from organized religion and atheism, positioning it as a suitable category for those who do not fully align with traditional religious doctrines but still seek a sense of meaning and belief in certain aspects of spirituality. This construction underscored the personal and selective nature of spirituality.

According to Walach (2017), the scientific process of being able to explain the natural world has led to religion being regarded unfavourably. In contrast, spirituality, with its

experiential essence, is seen as a relic of the past (Walach, 2017) and is perceived as the unseen connection that binds all religions (Estanek, 2006).

Spirituality as a state of being – Unveiling the essence

This title signifies a discourse of spirituality centered around the concept of spirituality as a fundamental state of existence, involving an inquiry into how spirituality is not merely an activity or belief system but a fundamental aspect of human nature and consciousness.

In his interview, "Sebastian" described spirituality as including an experiential component that goes beyond mere comprehension:

X: And would you like to tell me something about what spirituality means to you?
Sebastian: In a sense, what it means to me is. It's not physical. Anything beyond the physical dimension is spiritual (6, 7, 8). So it is worth, I mean it means to me in the sense that I want to grasp it or rather be spiritual. The state of being spiritual than to understand it (14).
X: OK, you said stay with being on the state of spiritual. Can you tell me something more about what that state entails?
Sebastian: Yeah, being outside of their realm without being that we can always give definitions a million things to say. Spirituality, religion and anything else we can say that's spiritual (13). That's spiritual. But without being spiritual, we cannot really know what it is to be spiritual. So I think that state is of the becoming of it is what makes the difference than keeping assumptions going (14).

Sebastian began by constructing spirituality as something that is "not physical". He went on explaining that in his perspective, "anything beyond the physical dimension is spiritual". He emphasized the importance of "being spiritual" over merely understanding it (14, Embodiment). In Sebastian's understanding, there was a clear separation between being spiritual and not being spiritual, implying that spirituality is a different state of being. The phrase "than keep assumptions going" contrasted the experiential understanding of

spirituality with the reliance on assumptions. It highlighted that relying on preconceived notions about spirituality without a lived experience may be insufficient for genuine understanding.

Sebastian's way of discussing spirituality aligned with that of seven other participants, in the sense that spirituality is a personal and dynamic feeling, not just an abstract concept.

Lena: "[…]it's also kind of a feeling. So you start to feel that when you're like in a situation where you are, um, dealing with it. So for example, I don't know, I think especially with like mindfulness exercises or when you have- um, I think also in nature maybe, um, I feel like, I don't know if you know the word- like "flow", like flow experience. So you have, um, I feel like this is also some kind of energy that like things are very like effortless and, um, so on one side, like maybe effortless and also very enjoyable."

Lena repeatedly emphasized the role of feeling in spirituality. She described spirituality as a "kind of feeling" and she "starts to feel" it in specific situations. The mentioning of being in a particular situation where one is "dealing with it" implies that spirituality is not a constant state but is activated or experienced under certain circumstances. Lena refered to mindfulness exercises and nature as practices that elicit this state of being spiritual. The idea that spirituality is linked to a heightened state of awareness and connectedness is shared by many participants. They indicated being spiritual means being "one with nature and the individuals", "connected with the world and yourself" and "connected with your own needs and wants, but also emotions and physical state". Many spiritual traditions emphasize the interconnectedness of all living beings and the natural world.

What the analysis revealed was that particularly participants engaging with mindfulness-based apps like Headspace, Sanvello and Calm expressed various emotional and mental states attributed to their use of these spiritual mobile apps. Participants used language to convey feelings of being "completely calm, conscious and at peace", "very in touch with

my emotions", "connected to my inner experience", "grounded", "fulfilled", or "in sync with myself". The language employed in these phrases echoes the idea that spirituality is constructed as a state of being, accentuating the participants' heightened levels of awareness, mindfulness, inner harmony, serenity, and connectedness. These linguistic patterns resonate with the contemporary Western emphasis on personal growth, self-care, and mindfulness practices. It reflects how spirituality is often constructed as a state of being in tune with one's emotions, inner experiences, and a sense of inner and outer connectedness in the Western cultural context.

Discussion

This thesis revealed how 26 spiritual mobile app users constructed spirituality. By applying a DA on the transcribed interviews with the spiritual app users, 16 different ways of constructing spirituality and five discourses have been identified. The five discourses include (a) The role of spirituality in an individual's life – Personal significance (b) Seeking harmonious balance – An integrated self (c) The best of different worlds – Scientific rationality and spiritual beliefs (d) Religious parallels – Being religious without being religious (e) Spirituality as a state of being – Unveiling the essence. Consequently, these results answer the research question of this thesis, "How do spiritual mobile app users construct spirituality?".

This thesis contributes to the relevant research of how language is employed to construct spirituality. The results of the DA revealed that in many ways, spiritual mobile app users constructed spirituality as permeating many aspects of their existence. Spirituality was for instance described as *Ambition* (Achieving an anticipated/desired state of being), *Lifestyle* (A certain way of living life), and *Central role* (Having a central and defining role in (the purpose and meaning of) an individual's life). The participants explained that spirituality shaped their values, beliefs, and daily decisions, guiding them towards a deeper

understanding of themselves, others, and the universe. In that sense, spirituality was more than a passive belief system; it was an active aspiration or in other words, an ongoing journey towards achieving an anticipated state of being. The state of being spiritual was outlined as "one with nature and the individuals", "connected with the world and yourself" and "connected with your own needs and wants, but also emotions and physical state". For some, the anticipated state of spirituality involved experiencing profound moments of transcendence. For others it entailed living in alignment with their values and principles, cultivating virtues such as gratitude and authenticity, or deepening their sense of empathy and interconnectedness with all living beings. The results align with previous research conducted by Kiesling et al. (2008), which found that spirituality offered respondents a profound sense of connection with their most valued aspects of self. The findings of this study support this by demonstrating that spiritual mobile app users constructed spirituality not only as framework for understanding the nature of existence but also as a catalyst for self-discovery, empowering individuals to embrace their true selves and live authentically in alignment with their spiritual values.

The concept of the true self was juxtaposed against the notion of possible false selves within the discourse "Seeking harmonious balance – An integrated self", suggesting a dichotomy between genuine and superficial expressions of selfhood. According to Merton (1972), the true self is the part of humans that is deeply connected to the divine and serves as a source of inner wisdom, compassion, and authenticity. In contrast, the false self is constructed out of fear and insecurity and often leads to the pursuit of external markers of success and identity, rather than living in alignment with values and purposes. By cultivating a deeper connection with the true self by embarking on a spiritual journey that involves shedding the layers of the false self, Merton (1972) suggests that individuals can experience greater peace and fulfillment.

Spirituality served as a foundational element that influenced spiritual app user's beliefs, and values, ultimately shaping their identity and quest for self-actualization. Coined by Abraham Maslow, self-actualization is a fundamental psychological concept aimed at unlocking an individual's full potential – a person's need to be and to do whatever the person was "born to do" (Simons et al., 1987). Maslow created the so-called *Hierarchy of Needs* which takes the form of a five-level pyramid, depicting various human needs, with the lower levels representing the more basic needs like physiological needs and safety, and the upper point representing the need for self-actualization (Simons et al., 1987). Self-actualization closely resembles what many participants hope to achieve through spirituality. Among others, the description of spirituality by the participant with the pseudonym Tom as "an aspiration [he] has in life to fulfill [his] potential that is inherent to [his] person" echoes the core idea of self-actualization. Based on research by Itai (2008), there are cultural differences, particularly between individualistic and collectivistic societies, significantly influencing the understanding and pursuit of self-actualization. Therefore, in the context of this study, where participants mostly represent Western, individualistic societies, it is reasonable to expect self-actualizing pursuits due to their cultural orientation (Itai, 2008). As a result of this cultural inclination, the users of spiritual mobile apps who participated in this study were prompted to prioritize autonomy and individual development. Hence, spirituality among these participants is predominantly framed within the context of individual experiences and aspirations, rather than communal or collective ideologies.

Whilst traditionally, spirituality has often been associated with communal gatherings and shared rituals (Rumbold et al., 2011), for none of the spiritual app users was spirituality about community. Rather than seeking communal connection in real life, the participants found that their spiritual journey was deeply personal and introspective. There are constructions of spirituality as *Fulfillment* (offering individuals enjoyable experiences) and

Interconnectivity (giving a sense of a cohesive whole). Spirituality as *Fulfillment* revolved around the construction of spirituality as offering reassurance, satisfaction, and trust. Participants who adhered to this perspective sought spirituality to enhance their own well-being and find joy in their lives. Viewing spirituality as a pathway to personal growth and happiness again shows how spirituality is chiefly framed within the realm of individual experiences and aspirations. On the other hand, spirituality as *Interconnectivity* centered around a sense of belonging and interconnectedness with a larger whole, while no real-life connections necessarily were involved. This construction highlighted the importance of spiritual mobile app users to feel interconnected, even in the absence of tangible relationships or communal experiences. These results align with previous research by Heelas (1999) and Woodhead et al. (2005), which suggest that contemporary spirituality is characterized by a pervasive emphasis on interconnectedness, emphasizing the sense of inherent oneness and interrelatedness of all existence.

The discourse on "Religious parallels – Being religious without being religious" emerged from the construction of spirituality as an endeavor to establish an individualistic connection with the divine, tailored to each individual's interpretation. This aligns with Legere's (1984) assertion in their paper, having portrayed spirituality as an individualistic and subjective encounter. The findings of this study are further supported by the research of Rice (2005), who observed that individuals who describe themselves as spiritual but not religious usually seek a private connection with the divine yet demonstrate no interest in religious institutions. An increasing number of people in Western societies are eschewing the pursuit of religious traditions or organizational affiliations. Instead, they are seeking avenues that facilitate their personal spiritual exploration, a phenomenon known as "Religious individualism" (Rice, 2005). The tendency explains the rise of New Age Spirituality, often referred to as "pick-and-mix religion" (Hamilton et al., 2000). Those who are religious on

their own terms do not face the constraints and demands that established religion make of their adherents (Rice, 2005). Nevertheless, the results of this study show that religious frameworks can provide a foundation or vocabulary for expressing spiritual experiences and beliefs. Additionally, participants have most likely been exposed to religious ideas and practices throughout their lives, whether through family upbringing, cultural influences, or societal norms.

Limitations and Future Directions

The proliferation of digital technologies has ushered in a new era in which spirituality converges with the digital realm. Spiritual mobile apps have gained traction among individuals seeking avenues for spiritual fulfillment in the digital age. The unique contribution that this study makes to the spiritual literature is that it captures the subjective content of the spiritual app user's constructions of spirituality. In the realm of qualitative research, particularly when applying a discourse analysis, the selection of an appropriate sample size is paramount to the depth and quality of insights gained. The sample size of 26 spiritual app users stands out as a robust choice, contributing to the richness and rigor of the results obtained. The achievement of data saturation within the sample is noteworthy, since saturation is a hallmark of rigorous qualitative analysis (Fusch & Ness, 2015). By reaching saturation, researchers can be confident that their exploration of the discursive landscape is comprehensive and in the case of this study, the research question has been answered.

Nevertheless, one of the primary limitations of this study is its focus on spiritual app users, representing a narrow subset of the general population. Consequently, the findings derived from this sample is limited in its generalizability, limiting the broader applicability of research outcomes. The construction of spirituality within this research context may be skewed, failing to ensure external validity. Moving forward, it is recommended that future research focuses on comparative studies to examine whether the five discourses and 16

different ways of constructing spirituality are complete and more widely applicable. Adopting longitudinal research designs would be particularly interesting, considering that many participants used the metaphorical framework of a "journey" when constructing spirituality. By tracing participants' spiritual trajectories over time, researchers can delve deeper into the possible dynamics of the construction of spirituality, by examining how individuals linguistically navigate their spiritual journeys. This approach could capture the evolution of spirituality in response to life events, technological advancements (in case of online spiritual practices), and socio-cultural influences.

A potential avenue for future research also involves enhancing the diversity of the sample. Specifically, broader inclusion of older cohorts within participant demographics is crucial to capture the divergent constructions of spirituality across different generations. For instance, targeting the elderly demographic becomes pertinent as spirituality assumes an increasingly salient role in their mental and physical well-being during later stages of life (Peteet et al., 2018). It would be interesting to research if is reflected in how spirituality is being constructed and whether there are indeed differences to other generations. Moreover, ensuring gender diversity remains essential to foster inclusivity within research outcomes and accurately portray the linguistic features utilized in spiritual discourse. Furthermore, while the present study exhibits a commendable breadth of representation, predominantly comprised of European nationalities, extending the sample to encompass participants from a more expansive array of nations holds promise for yielding more nuanced insights, particularly concerning the dynamics between individualistic and collectivistic societies.

When reflecting on the process of this study, the fact that only very few transcripts contain utterances, which encompass non-verbal elements such as hesitations, laughter, or emphasis in speech, can be seen as a limitation. These paralinguistic features play.an important role in DA as they contribute to the contextual understanding of communication.

The absence of these paralinguistic cues limits the researcher's ability to fully capture the intricacies of communication (Potter, 2004). Hesitations might denote uncertainty, laughter could signify agreement, sarcasm, or light-heartedness, and emphases could alter the meaning of a statement. Therefore, omitting these nuances may lead to hampering the richness and depth of understanding within DA.

Another limitation pertains to the methodology employed for conducting the interviews. The interviews were administered in collaboration with fellow students who focused on different research inquiries within the same sample. Given each student's inclination to prioritize their respective research question, there existed the potential for inadvertently omitting pertinent details or follow-up questions. Nevertheless, it could also be the case that the involvement of different interviewers may have augmented the robustness of the current research.

Lastly, acknowledging the contextual framework and perspective underpinning this study is essential for transparency and ensuring the credibility of its findings. Thus, the present results could be influenced by the writers' preconceptions and beliefs (Solbue, 2011). To clarify my role in this research, I am a 24-year-old female Master's student born and raised in Germany. Given that this thesis forms part of the academic culmination in positive clinical psychology, the analysis naturally adheres to the tenets of this disciplinary domain. Additionally, it is pertinent to note that I have personally explored several spiritual mobile apps as part of this research endeavor. Moreover, conducting a DA for the first time added another layer of complexity to this study. Ongoing critical self-reflection and heightened self-awareness during the iterative data analysis process allowed for recognizing my personal preconceptions, which may have impacted the interpretation of the data. However, it also fostered affording opportunities to entertain alternative interpretations and refine analytical approaches accordingly. In any case, this was my first time conducting a DA.

Conclusion

To conclude, users of spiritual mobile apps construct spirituality in many diverse ways. These constructions reflect prevalent discourses on identity, self-actualization, religiosity, and individualism in Western society. This study contributes to a better understanding of the diverse ways spirituality is comprehended among spiritual app users, offering valuable insights into the intersection of technology and spirituality. However, the exclusive reliance on spiritual app users as a sample population warrants careful consideration regarding generalizability, therefore future research is needed to build upon this study's results in many ways.

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Appendix A

Information sheet

Participant information sheet

Research Project: **User Experiences with Smartphone Apps for Spirituality**

Smartphone applications focusing on modern spirituality (New Age) have been increasing in number, but very little is known about the experiences of people using such apps. This study is conducted as a collaboration between Assistant Professor Heidi Toivonen from Psychology, Health, and Technology at the University of Twente, the Netherlands, and Assistant Teaching Professor Tim Gorichanaz from the College of Computing and Informatics at the Drexel University, Philadelphia, the US. We study the experiences of people who use spiritual applications such as Saged, Sadhguru, Spiritual Stories Daily, or any of the other applications available focusing on modern spirituality/New Age lifestyle and practices. Note that we are not recruiting participants using applications focused on traditional religions, such as any of the existing Christian or Muslim applications.

Participation in this research is voluntary and no incentive for participation will be provided. The research involves participating in a one-on-one interview on an online video call, using e.g. Zoom or Teams. The interview will be conducted either in English but also in other languages, in case the interviewer is fluent in it and it is the participants' first language. The interview will last for 30-60 minutes. The participant will be asked questions about their personal views on modern spirituality and their thoughts and experiences of using any smartphone application related to spirituality. The participant can decline to participate and withdraw from the research at any time, without any negative consequences, and without providing any reasons.

The interviews will be audio- and videorecorded. The interview data will be fully anonymized upon transcription, and all interviewees will be referred to with pseudonyms throughout the analysis and in the final written works produced from the data. Individual participants cannot be identified from the articles written using this data. The data will be stored online in a safe environment according to the rules of the University of Twente for a period of ten years. The interview data will be used for scientific research published in research articles written by Profs. Toivonen and Gorichanaz.

Responsible researchers and contact persons for questions about the research and rights of research participants: Assistant Professor Heidi Toivonen h.k.toivonen@utwente.nl and Assistant Teaching Professor Tim Gorichanaz gorichanaz@drexel.edu
If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the Secretary of the Ethics Committee/domain Humanities & Social Sciences of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscommittee-hss@utwente.nl

Appendix B

Ethical approval

UNIVERSITY OF TWENTE.

FACULTY BMS

221430 REQUEST FOR ETHICAL REVIEW

Request nr:	221430
Researcher:	Toivonen, H.K.
Supervisor:	-
Reviewer:	Klooster, P.M. ten
Status:	Approved by commission
Version:	2

1. START

A. TITLE AND CONTEXT OF THE RESEARCH PROJECT

1. What is the title of the research project? (max. 100 characters)

    User Experiences with Smartphone Apps for Spirituality

2. In which context will you conduct this research?

    Academic research conducted by a faculty member

3. Date of the application

    02-12-2022

5. Is this research project closely connected to a research project previously assessed by the BMS Ethics Committee?

    No/Unknown

B. CONTACT INFORMATION

6. Contact information for the lead researcher

    6a. Initials:

    H.K.

    6b. Surname:

    Toivonen

    6c. Education/Department (if applicable):

    BMS-PGT

    6d. Staff or Student number:

    77024080

    6e. Email address:

    h.k.toivonen@utwente.nl

    6f. Telephone number (during the research project):

+358407458418

6g. If additional researchers (students and/or staff) will be involved in carrying out this research, please name them:

h.k.toivonen@utwente.nl

6h. Have you completed a PhD degree?

Yes

8. Is one of the ethics committee reviewers involved in your research? Note: not everyone is a reviewer.

No

C. RESEARCH PROJECT DESCRIPTION

9a. Please provide a brief description (150 words max.) of the background and aim(s) of your research project in non-expert language.

This is an exploratory study on the experiences of people who use smartphone applications somehow connected to spirituality (New Age) lifestyle and practices (e.g. Saged, Sadhguru, Spiritual Stories Daily). Me and my co-researcher, Assistant Teaching Professor Tim Gorichanaz from the Drexel University College of Computing & Informatics, are planning to recruit people who are already using these apps and conduct semi-structured interviews with a phenomenological approach. The study aims to understand the role and function the users perceive the apps as having in their everyday life and meaning-making, as well as the connection of the app to their values and worldviews. While there is an increasing number of conceptual studies on modern spirituality and New Age, often from a critical standpoint, there are very few studies focusing on the experiences and perceptions of self-declared spiritual people themselves. Furthermore, while different mobile applications revolving around New Age beliefs and practices are becoming increasingly common, there are no studies investigating the use of these apps and the meanings given to them by the users. The study aims to contribute a) to our understanding of the deeper user experiences of mobile applications with a focus on a group of less known apps and b) to HCI field with a new methodological approach, which combines qualitative narrative analysis of the users' stories to a comparative analysis of the stories told by the apps (researcher construct based on the functionalities, visualities, and text materials included in the apps). Findings of the study will increase our understanding of the interplay of the increasingly common New Age lifestyles with technology use and thus, expand the current understanding of wellbeing applications towards the direction of spiritual wellbeing.

9b. Approximate starting date/end date of data collection:

Starting date: 2022-12-31

```
End date: 2023-12-30
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9c. If applicable: indicate which external organization(s) has/have commissioned and/or provided funding for your research.

Commissioning organization(s):

```
Not applicable
```

Funding organization(s):

```
Not applicable
```

2. TYPE OF STUDY

Please select the type of study you plan to conduct:

```
I will be collecting new data from individuals acting as respondents,
interviewees, participants or informants.
```

4. RESEARCH INVOLVING THE COLLECTION OF NEW DATA

A: RESEARCH POPULATION

20. Please provide a brief description of the intended research population(s):

```
The research population covers adults who have already (prior to the
interview) been using any mobile application that they themselves
consider spiritual/New Age (some examples are apps such as Saged or
Sadhguru). Participants will be recruited using the researchers' own
networks, ads on social media, contacting the app developers, and
possibly by using the student pool SONA. The participants can be of
any nationality and live anywhere in the world, as long as they can
participate in an online interview conducted in English or in another
language in which the interviewer is fluent (Finnish, Swedish, etc.).
```

21. How many individuals will be involved in your research?

```
We expect to include at least 10 and up to 40 interview participants
altogether.
```

22. Which characteristics must participants/sources possess in order to be included in your research?

```
The participants must be at least 18 years old, able to speak English
well enough to participate in an online interview (or native in some
other language in which the interviewer is fluent), as well as have
used for any period of time any of the various spiritual applications
out there. We will recruit participants that have been using an app
(or several of them) that the participants themselves define as
"spiritual". That is, we will not be pre-defining what
spirituality/New Age means or which apps they should have been using.
However, people who have only used apps that have to do with
traditional religion (e.g., any of the various Christian or Muslim
apps) will not be included in the study.
```

23. Does this research specifically target minors (<16 years), people with cognitive impairments, people under institutional care (e.g. hospitals, nursing homes, prisons), specific ethnic groups, people in another

country or any other special group that may be more vulnerable than the general population?

    No

24. Are you planning to recruit participants for your research through the BMS test subject pool, SONA

    Yes

B. METHODS OF DATA COLLECTION

25. What is the best description of your research?

    • Interview research

26. Please prove a brief yet sufficiently detailed overview of activities, as you would in the Procedure section of your thesis or paper. Among other things, please provide information about the information given to your research population, the manipulations (if applicable), the measures you use (at construct level), etc. in a way that is understandable for a relative lay person.

    The study set up is transparent: We will recruit participants that
    have been using any modern spirituality related smartphone
    application. The recruitment text will name some examples, such as
    Saged, Sadhguru, or Spiritual Stories Daily. The participants will
    take part in a semi-structured interview in an online setting such as
    Teams or Zoom. The interviews will be recorded. The questions asked
    will concern 1) the participant's definition and experiences of New
    Age spirituality and 2) their experiences of using a particular app or
    apps revolving around spirituality. The interview will start out by
    asking e.g., "How do you define spirituality?" and "What does
    "spirituality" mean to you?" and then proceed to more specific app-
    related questions such as "What app (or apps?) do you use as part of
    your spirituality?", "How do you use this app?", and lastly, "Tell me
    about the last time you used the app. Try to place yourself in that
    situation and share with me as much detail as you can."

How much time will each participant spend (mention the number of sessions/meetings in which they will participate and the time per session/meeting)?

    One interview of 30-60 minutes

C: BURDEN AND RISKS OF PARTICIPATION

27. Please provide a brief description of these burdens and/or risks and how you plan to minimize them:

    The participant burden is minimized by keeping the interview scheme as
    concise as possible and by only including questions that are needed to
    answer the research question. Since some of the interview questions
    are relatively personal (e.g., concerning their views on
    spirituality), it cannot be excluded that some participants might feel
    discomfort about this. To minimize any discomfort, the interview
    questions are kept relatively open to allow the participants
    themselves define at what depth they will be answering the questions;
    by making clear to all participants that they can discontinue the
    interview at any point without any consequences for them; and by

conducting the interview itself in a sensitive and professional manner. Should any students participate in collecting the data, they will be trained beforehand to make sure they conduct it in the best way possible. In case the participants will feel any psychological discomfort during or after the interview, they are offered the chance to discuss with the interviewer and provided with both the main researchers' (Heidi Toivonen and Timothy Gorichanaz) contact information to be able to contact them later to discuss the interview.

28. Can the participants benefit from the research and/or their participation in any way?

Yes

Please Explain:

The interview is designed to offer the participants an interesting chance to have a reflective discussion on their personal views and lifestyle, from the perspective of their use of spiritual mobile applications.

29. Will the study expose the researcher to any risks (e.g. when collecting data in potentially dangerous environments or through dangerous activities, when dealing with sensitive or distressing topics, or when working in a setting that may pose 'lone worker' risks)?

No

D. INFORMED CONSENT

30. Will you inform potential research participants (and/or their legal repsentative(s), in case of non-competent participants) about the aims, activities, burdens and risks of the research before they decide whether to take part in the research?

Yes

Briefly clarify how:

The participants will be provided with an information sheet, sent to them by email after they indicated interest in participating in the study. The sheet will explain the aim of the study, how the interview is conducted and what topics will be covered, as well as the participants' rights and how their anonymity will be protected.

32. How will you obtain the voluntary, informed consent of the research participants (or their legal repsentatives in case of non-competent participants)?

Signed

33. Will you clearly inform research participants that they can withdraw from the research at any time without explanation/justification?

Yes

34. Are the research participants somehow dependent on or in a subordinate position to the researcher(s) (e.g. students or relatives)?

No

35. Will participants receive any rewards, incentives or payments for participating in the research?

- No

36. In the interest of transparency, it is a good practice to inform participants about what will happen after their participation is completed. How will you inform participants about what will happen after their participation is concluded?

- Participants will receive the researcher's contact details, so that they can contact the researcher if they have questions/would like to know more.
- Other (Please specify):
  Participants who indicate their interest will receive the final publication(s) written using this interview data.

E. CONFIDENTIALITY AND ANONYMITY

37. Does the data collected contain personal identifiable information that can be traced back to specific individuals/organizations?

Yes

38. Will all research data be anonymized before they are stored and analysed?

Yes

39. Will you make use of audio or video recording?

Yes

• What steps have you taken to ensure safe audio/video data storage?

The videos will be stored in the UT Teams environment, in a Teams folder accessible only to the researchers of the project.

• At what point in the research will tapes/digital recordings/files be destroyed?

After the interview has been fully transcribed into text, the original video will be destroyed.

5. DATA MANAGEMENT

- I have read the UT Data policy.
- I am aware of my responsibilities for the proper handling of data, regarding working with personal data, storage of data, sharing and presentation/publication of data.

6. OTHER POTENTIAL ETHICAL ISSUES/CONFLICTS OF INTEREST

40. Do you anticipate any other ethical issues/conflicts of interest in your research project that have not been previously noted in this application? Please state any issues and explain how you propose to deal with them. Additionally, if known indicate the purpose your results have (i.e. the results are used for e.g. policy, management, strategic or societal purposes).

I do not anticipate any ethical issues or conflicts of interest.

7. ATTACHMENTS

Participant information sheet.pdf, Informed consent sheet final.pdf

8. COMMENTS

9. CONCLUSION

Status: Approved by commission

The BMS ethical committee / Domain Humanities & Social Sciences has assessed the ethical aspects of your research project. On the basis of the information you provided, the committee does not have any ethical concerns regarding this research project. It is your responsibility to ensure that the research is carried out in line with the information provided in the application you submitted for ethical review. If you make changes to the proposal that affect the approach to research on humans, you must resubmit the changed project or grant agreement to the ethical committee with these changes highlighted.

Moreover, novel ethical issues may emerge while carrying out your research. It is important that you re-consider and discuss the ethical aspects and implications of your research regularly, and that you proceed as a responsible scientist.

Finally, your research is subject to regulations such as the EU General Data Protection Regulation (GDPR), the Code of Conduct for the use of personal data in Scientific Research by VSNU (the Association of Universities in the Netherlands), further codes of conduct that are applicable in your field, and the obligation to report a security incident (data breach or otherwise) at the UT.

Appendix C

Interview guide

Welcome to this interview about spiritual mobile applications. My name is ___ and I am doing this interview because____ (I am part of a group of students working on this project, and we will collect interview as data for our Bachelor's theses and eventually a research paper written by our supervisor.)

Have you read the information form? Are there any questions at this point?
I will need your written consent by email in order to be able to use this interview.

Do I have your permission to record this interview? [If yes, turn on recorder.] Is it okay if I make some notes for myself during the interview?

Your participation in this interview is voluntary. Remember, you can choose to skip any question for any reason. You can also end the interview at any time.

The information I'm collecting today will be stored separately from any of your personally identifying information, such as name and email address. The interview will be transcribed and anonymized so that you cannot be identified from it.

Quotations from the interviews may be used in Bachelor's theses or publications based on this research, but all data will be presented anonymously. I will go to every length to make sure you cannot be identified, even implicitly, from your words or any locations or services you describe.

If you ever have any questions about this interview, you can contact me at____ or my supervisor Heidi Toivonen at h.k.toivonen@utwente.nl. If you have any questions about your rights as a research participant, you should contact my supervisor.

Now, let's start the interview! First, I would need some basic background information about you. Could you tell me your age, gender, and nationality as well as in which country do you live at the moment?

Thanks, now we'll go to the actual interview questions.

1. Is "spirituality" a word that describes your beliefs and values well?
    - If yes, would you like to tell me something about what it means to you?

    - If not, what concept describes your beliefs and values better, and could you tell me something about what it means to you?

2. Do you recognize the term "New Age"? If yes, do you think it describes your views on spirituality?

3. Now, let's talk about spiritual mobile applications. What spiritual app (or apps?) do you use on a regular basis?

(If they use multiple apps, ask these questions for each app)

4. When did you start using this app?

5. What made you download this app?

6. Can you tell me something about why you use this app?

7. Next, I'm going to ask you to tell me something about how you use the app. Firstly, what kinds of features does the app have and how do you use them?

8. How often do you use it?

9. When you open the app, how long do you usually spend on it?

10. Tell me about the last time you used the app. Try to place yourself in that situation and share with me as much detail as you can.
   - If you don't remember the last time you used the app, tell me about any recent time you recall
   - *Prompts: When was this? Why did you use the app? How did you use it? Who were you with? Where were you? How did it feel to you?*

Note to the interviewer: Try to understand the situation, the nature of the interaction with the app. Try to get the interviewee discuss the meaning of the app, what it makes them think and feel.

11. Would you say using this app has had an impact on you or your life?
   - On your thoughts, feelings, or experiences?
   - Has using this app had an impact on your daily habits and/or routines?

12. Has using this app had an impact on your mental wellbeing?
   - If yes, which functionalities have been beneficial/detrimental to your wellbeing?

13. Has using this app helped you in your social relationships?
   - If yes, which functionalities have been helpful to your social relationships?

14. If you could change one thing about the app, what would it be?

15. How well do you think this app fits with your worldview? Is there something that isn't a fit?

NOTE: IF THERE IS ANOTHER APP TO BE DISCUSSED, GO BACK TO QUESTION 4!

16. Has the use of these apps inspired you to seek additional information on other spiritual practices outside the app?

17. Would you like to add any additional comments?

Appendix D

Consent form

Informed consent

This is a research project concerning spiritual smartphone applications. The project is designed to gather information about people's experiences and thoughts on applications revolving around modern spirituality/New Age.

Consent Form for *User Experiences with Smartphone Apps for Spirituality*
YOU WILL BE GIVEN A COPY OF THIS INFORMED CONSENT FORM

Please tick the appropriate boxes	Yes	No
Taking part in the study		
I have read and understood the study information dated [02-12-2022], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	☐	☐
I consent voluntarily to be a participant in this study. I understand that I will not be paid for my participation. I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason and without any negative consequences. If I decline to participate or withdraw from the study, no one will be told and it will not affect my relationship with the University of Twente or with Drexel University.	☐	☐
I understand that taking part in the study involves being interviewed on the Zoom or Teams video call platform. The interview will last approximately 30-60 minutes. Notes will be written during the interview. The interview will be audio- and video recorded, and after the video call has been transcribed into text, the recording will be destroyed.	☐	☐
Use of the information in the study		
I understand that information I provide will be used for scientific articles published in academic journals. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure.	☐	☐
I agree that my words can be quoted in research articles. The research output will refer to me with a pseudonym and I will not be identifiable from the paper.	☐	☐

I agree to be audio/video recorded. Yes/no □ □

I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview. □ □

Future use and reuse of the information by others

I give permission for the transcribed, anonymized interview that I provide to be archived in an online repository by the University of Twente for 10 years, so it can be used for future research and learning. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions. Personal information collected about me that can identify me, such as [e.g. my name or where I live], will not be shared beyond the study team. □ □

Signatures

_____
Name of participant [printed]

_____ _____
Signature   Date

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

_____ _____ _____
Researcher name [printed] Signature   Date

Study contact details for further information: h.k.toivonen@utwente.nl

Contact Information for Questions about Your Rights as a Research Participant

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the Secretary of the Ethics Committee/domain Humanities & Social Sciences of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscommittee-hss@utwente.nl