

Meaning-making on gender: Deeply meaningful information in a significant life change among transgender people

Aira Huttunen | Terttu Kortelainen

Information studies, University of Oulu,
Faculty of Humanities, Oulu, Finland

Correspondence

Aira Huttunen, Information studies,
University of Oulu, Faculty of
Humanities, PO Box 1000, 90014 Oulu,
Finland.
Email: aira.huttunen@oulu.fi

Funding information

Kone Foundation

Abstract

The purpose of this paper is to report on the seeking of deeply meaningful information, also including embodied information, connected to significant, intensely personal life changes having lifelong impacts. The concepts of “meaning-making,” “transitioning,” and information seeking in “deeply meaningful and profoundly personal contexts” are used in order to understand transgender individuals’ information seeking in the contexts of gender identity formation. Based on the literature, emotions and information seeking connected to a significant life change were divided into four phases to study how they could be identified in the 25 qualitative interviews with transgender individuals from Finland between the ages of 15 and 72. Based on the findings of this study, in significant life changes, an individual needs reliable, sensible and identifiable information. Serendipitous encounters and embodied experiences characterize information seeking during transitional stages. Peer communities are important for minorities in order to find places where interviewees feel safe to share information and experiences. These communities can also be found online. The concept of “deeply meaningful information” highlights the effect information has on information seekers. Deeply meaningful information can serve as a trigger for life change, helping people forward during the transitions.

1 | INTRODUCTION

Separation of information seeking into everyday life and work-related information practices (see Savolainen, 2010) has been challenged (Clemens & Cushing, 2010; Dalmer & McKenzie, 2019) since the dichotomy does not take into account the diversity of information seeking activities. In the context of significant life changes, information seeking has special meaning for the information seeker and happens in *deeply meaningful and profoundly personal* contexts where the “trigger” for information seeking is, for

example, a personal crisis (Clemens & Cushing, 2010). Information needs in personal crises differ from everyday information needs (Westbrook, 2009), sources an information seeker has previously relied on may not be accessible, relevant, or authoritative (McKenzie & Willson, 2019) and the process of information gathering differs from what it was before (Ruthven, 2019).

Information seeking in life-changes can be understood through the concepts *meaning-making* (Ruthven, 2019) or *transitioning* (Chick & Meleis, 1986). Ruthven (2019) suggests meaning-making as a concept to

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2021 The Authors. *Journal of the Association for Information Science and Technology* published by Wiley Periodicals LLC on behalf of Association for Information Science and Technology.

understand processes in which people aim to seek information to understand their lives and how to live their lives differently. The concept of transitioning refers to life events where an individual's life phase changes. This qualitative study aims to understand how the process of information seeking in a significant life change is formed among transgender individuals in the process of identity construction. For transgender people, the process of transition may involve several major changes, such as name, gender, and appearance (Haimson, 2018), causing information needs and strong emotions during the process.

2 | LITERATURE REVIEW

2.1 | Information seeking of transgender people

Transgender is an umbrella term referring to a range of gender-variant identities, practices, and communities. As an identity category, broadly defined, transgender includes those who do not identify with the gender they were assigned at birth, people whose relation to gender fluctuates as well as those who do not identify with the gender-binary at all (Kähkönen & Wickman, 2013). In Finland as well as other Western countries, there is a growing number of people (approx. 800 in 2017) who seek medical treatment—hormones and reassignment surgery—to alter their physical bodies to align their gender identities (Kärnä, 2018; Mattila & Tinkanen, 2015). However, all transgender people do not want medical interventions or choose not to reveal their identification to others or on official forms (Schilt & Bratter, 2015) because of the fear of being discriminated against, for example. Transgender people face significant discrimination, violence, and harassment in several areas of social life (Grant et al., 2011; Nordmarken & Kelly, 2014).

Transgender people usually acquire information on transgender experiences serendipitously (Floegel & Costello, 2019; Pohjanen & Kortelainen, 2016) since the individual does not know the words or concepts to describe their experienced gender, although in many cases there is an experience of dissonance and that “something is wrong” (Beemyn & Rankin, 2011; Huttunen, Hirvonen, & Kähkönen, 2020; Huttunen, Kähkönen, Enwald, & Kortelainen, 2019). Gender dysphoria causes strong bodily and/or social discomfort and it can escalate to a point where it is not possible to live without change. These “dead ends” can shape into information needs, which in turn trigger information seeking (Huttunen et al., 2020). After encountering information, an active state of information seeking occurs (Adams & Peirce, 2006; Floegel & Costello, 2019; Pohjanen & Kortelainen, 2016).

Several kinds of barriers can affect the information seeking of transgender people (Pohjanen & Kortelainen,

2016), involving limited media appearance of queer narratives (Beemyn & Rankin, 2011; Floegel & Costello, 2019; Huttunen et al., 2019). Transgender people themselves play an important role in producing information about transgender issues, especially in online spaces (Austin, 2019; Hawkins & Watson, 2017). Twitter, YouTube, Instagram, and Tumblr are platforms for sharing information, including embodied information in relation to the transition process (Haimson, Dame-Griff, Capello, & Richter, 2019; Hawkins & Haimson, 2018; Karami, Webb, & Kitzie, 2018; Kitzie, 2017). Online technologies may even serve as a taken-for-granted part of the identity work of transgender individuals (Cavalcante, 2016) and offer places where they can find a community where they can be accepted, validated, and empowered (Cannon et al., 2017). Social media platforms can also be used for being seen in the correct gender role (Kitzie, 2019) and experimenting with a new identity anonymously (Haimson, Bowser, Melcer, & Churchill, 2015) if the physical body and sociocultural expectations are felt to be too restrictive.

2.2 | Information seeking in significant life changes

Meaning-making is a vital reaction to significant life changes (Ruthven, 2019) in a *deeply meaningful and intensely personal* context with lifelong impacts (Clemens & Cushing, 2010). Existing information seeking behavior frameworks do not necessarily match these contexts (Clemens & Cushing, 2010; Lloyd, Pilerot, & Hultgren, 2017) involving spiritual awakenings, widowhood, pregnancy, divorce, trauma, sexuality, gender, health issues, recovery from addiction (Ruthven, 2019), migration (Lloyd et al., 2017) or relinquishing a child for adoption or sperm donor offspring trying to uncover the identity of their donor (Clemens & Cushing, 2010). A life change can be a significant event or gradual awakenings (Ruthven, 2019) and the process of the identity construction of transgender individuals can be understood to be both (Huttunen et al., 2020).

Transitions and meaning-making are processes in reaction to an event and the results may differ markedly for different people (Chick & Meleis, 1986; Ruthven, 2019). The concept of *transitioning* refers to life events where an individual's life phase changes (McKenzie & Willson, 2019). Its roots are in anthropology (Kralik, Visentin, & Van Loon, 2006) and it is most comprehensively studied in the fields of education and nursing (Hicks, 2018). The patterns of transition, for example how much an individual has control over the situation, can affect features of information practices that the transition may trigger (Chick & Meleis, 1986; Kennan, Lloyd, Qayyum, & Thompson, 2011; Lloyd et al., 2017).

Transition traditionally has been framed as a process, a linear movement between settings or from one life phase to another (Chick & Meleis, 1986; Hicks, 2018; McKenzie & Willson, 2019), for example developmental stages like puberty, adulthood or old age, and major life events like marriage, illness, or starting work (Hicks, 2018; Schumacher & Meleis, 1994; Willson, 2019). Transitions can also be seen as cyclical, moving backwards and forwards (Haimson, 2018) and can contain strong emotions (Willson & Given, 2020). In the context of migrants, Kennan et al. (2011) have represented three phases: transitioning, settling in, and being settled, while Bronstein (2019) has described the transitions of migrants as an ongoing, recurring, and unending process, constantly requiring new skills and knowledge.

In LIS, transitions theory has been used to understand the information practices of individuals such as migrants (Bronstein, 2019; Kennan et al., 2011), students (Hicks, 2018, 2019), early career academics (Willson, 2019) and pregnant women (McKenzie & Willson, 2019). Haimson (2018) studied the transitions of transgender people on social media by using van Gennep's (1909) liminality framework where life changes involve three stages: a separation stage in which a person separates from their previous identity, a transitional period, and finally an incorporation stage where the person is incorporated back into a social world after the transition (Haimson, 2018; Van Gennep, 1909). Part of the transition process is sometimes to separate in some ways from one's existing networks and become part of a new community (Haimson, 2018; Van Gennep, 1909). Hicks' (2018, 2019) study on information literacy practices of students learning a language highlighted how students use their own bodies as well as the bodies of others to guide their activity and the development of knowledge. Furthermore, Guzik (2018) studied information sharing as an embodied practice in the context of conversion to Islam and found out how material aspects and interplay between the personal and the public is important when trying to understand transitions in which people strive to belong in a new community.

Body and embodiment have only recently emerged as a central part of information seeking (Gorichanaz, 2015; Huttunen et al., 2019; Lloyd, 2007; Lloyd, 2009; Olsson, 2016, 2010; Olsson & Lloyd, 2017). Embodied information may involve sensorial information and corporeal experiences (Cox, 2019; Gorichanaz, 2015; Lloyd, 2007), as well as learning from other bodies (Bonner & Lloyd, 2011; Hicks, 2018; Huttunen et al., 2019). The role of affects as part of the information-seeking process have been studied in their models by Wilson (1981), Kuhlthau (1991), and Nahl (2007), for example. Affects are deeply embodied (Gallagher, 2014). In this study, we see affects and emotions as an important part of the meaning-

making and transition process, forming an understanding of what "deeply meaningful" information is, and guiding the identity work of an individual.

2.3 | The process of information seeking in significant life changes

Based on Willson and Given (2020), Hicks (2018, 2019), McKenzie and Willson (2019), Bronstein (2019), Ruthven (2019), Lloyd et al. (2017), Kennan et al. (2011) and Clemens and Cushing (2010) the process of information seeking in significant life changes seems to consist of at least the elements described below.

In the early stage of a significant life change, emotions may be negative: depression, uncertainty, and confusion (Ruthven, 2019). An individual can feel isolated, entering an "unfamiliar territory" (Clemens & Cushing, 2010), or alone in the universe (McKenzie & Willson, 2019). This may be followed by meaning-making, a process of exploration, learning, and testing (Ruthven, 2019), which can also happen online (Kitzie, 2019; Haimson, 2018). The information necessary to meaning-making is often obtained in several phases, not in a single search session, and the process itself is often iterative (Ruthven, 2019).

In the beginning of information seeking, an individual may not even know which words to use to find information and may not want to reveal their true information needs to others (Clemens & Cushing, 2010; Huttunen et al., 2020). However, there is a need to understand the phenomenon and individual uses several ways to obtain information (Ruthven, 2019), including sifting, observing, and self-observing (Hicks, 2018). The need to master a new role, and the insufficiency faced in it may be manifested in negative symptoms, such as depression, anxiety, and a feeling of powerlessness (Ruthven, 2019), also causing stress and frustration (Willson & Given, 2020).

Literature, autobiographical fiction and social media can help in understanding the new situation of life and, in the case of marginalized groups, be the only way to access representations of the new situation (Ruthven, 2019). Fear-based life changes lead to seeking people in similar situations to be able to judge normality and share experiences with them (McKenzie & Willson, 2019; Ruthven, 2019). Sharing information with others who are similar can increase the feeling of safety (Bronstein, 2019; Lloyd et al., 2017; Willson & Given, 2020). Social interaction is both a source of information and a site for information sharing guiding how to live with a new identity within a new community (McKenzie & Willson, 2019; Ruthven, 2019).

Sharing stories can be a part of modeling ways of coping, renegotiating a new identity and position, and provide reassurance to a newcomer (McKenzie & Willson,

2019). It can also happen online through blog posts, for example (Haimson, 2018; Pohjanen & Kortelainen, 2016). In order to increase stability and a feeling of belonging, individuals may want to create effective information relationships with people in their new community (Willson & Given, 2020). The “process of learning social norms and practices for conversion and belonging” may not solely involve active information seeking but, rather, people are receptive to information on a particular theme (Ruthven, 2019, p. 2). People who have gone through transitions are more aware of their information needs, and increasingly confident in their ability to find and evaluate information sources to ensure that their information needs are met (Kennan et al., 2011).

Based on the literature review above, we divided the process of information seeking in significant life changes into four stages, as described below (Table 1). We divided activities and emotions that previous studies have found to happen into different stages of significant life changes.

Three phases of the above table are connected to the transition stage of van Gennepe's model and the fourth one to its incorporation stage. Transition begins with meaning-making and learning about the new situation, and the separation stage mentioned first in van Gennepe's model is less clearly present (Van Gennepe, 1909). When compared to the transitions model of Kennan et al. (2011), transitioning is similar to the first phase of the table above, the second and third phases are similar to

TABLE 1 Information seeking in a significant life change

Phase of significant life change	Activities	Emotions
Early stage of significant life change	Lack of words to use to find information (Clemens & Cushing, 2010; Huttunen et al., 2020) Several phases of obtaining information (Ruthven, 2019) Observing and self-observing (Hicks, 2018)	Feelings of “something is wrong” (Huttunen et al., 2020) and feelings of isolation (Clemens & Cushing, 2010) Entering an “unfamiliar territory” (Clemens & Cushing, 2010) Negative emotions: depression, uncertainty, and confusion (Ruthven, 2019)
Seeking information for a significant life change	Lack of words to use to find information (Clemens & Cushing, 2010; Huttunen et al., 2020) Need to understand the phenomenon and how to deal with it (Ruthven, 2019) Several ways to obtain information (Hicks, 2018; Ruthven, 2019) A process of exploration, learning and testing, looking for a new normal (McKenzie & Willson, 2019; Ruthven, 2019)	Negative symptoms such as depression, anxiety of a feeling of powerlessness (Ruthven, 2019) Stress (Willson & Given, 2020) Frustration (Willson & Given, 2020)
Finding the community	Literature, autobiographical fiction and mass media as sources to help to understand the new situation of life (Ruthven, 2019) Social interaction (McKenzie & Willson, 2019; Ruthven, 2019) Social settings shape the seeker (McKenzie & Willson, 2019; Ruthven, 2019)	Feeling safe (Bronstein, 2019; Lloyd et al., 2017; Willson & Given, 2020)
Becoming part of the community	How to live with a new identity within a new community (Ruthven, 2019) Sharing experiences with similar others (McKenzie & Willson, 2019; Pohjanen & Kortelainen, 2016) Passive information seeking (Ruthven, 2019) Effective information relationships (Willson & Given, 2020)	Self-confidence in information seeking (Kennan et al., 2011)

settling in, and the fourth to being settled (Kennan et al., 2011).

2.4 | Research question

Based on the literature review, the concepts of meaning-making and transitions focus on understanding information seeking that happens in deeply meaningful and profoundly personal contexts. This can be understood as a significant life change, where a person has to use new sources to encounter information, information which has special meaning to the seeker, and the information needs to differ from the previous ones. In the present study, we approach a transgender individual's identity formation as a significant life change through the qualitative interview data and, therefore, form the research question: How are the four phases of a significant life change process identified in the interviews of transgender people? Based on the interview data, our aim is to look into activities and emotions in the four phases of a significant life change and see how they are represented.

3 | METHODOLOGY

Taking a social constructivist approach, this qualitative study uses a purposive sampling method. Social constructivism presumes that individuals live in a world that is physically, socially, and subjectively constructed and that societal conventions, history, and interaction significantly affect individuals' thinking (Talja, Tuominen, & Savolainen, 2005). In this study, we presume that the process of meaning-making and transition is both embodied and social, and individual experience cannot be separated from the social world. This study is part of a doctoral dissertation study of information seeking of transgender individuals, and the interview theme list is based on the study of Pohjanen and Kortelainen (2016), (see also Huttunen et al., 2019; Huttunen et al., 2020). Potential interviewees were approached via an online questionnaire on gender diversity related information seeking in Finland in spring 2016, designed and administered by the first author of this article. Of the 162 survey respondents, 41 willing to participate in the interviews were contacted by e-mail. Since some of the interview candidates did not respond or chose not to participate to the subsequent interview 25 individuals participated in semi-structured interviews conducted in 2016 by the first author in Finnish: 17 face-to-face, five via Skype, and three by phone. Five face-to-face interviews were conducted in private places that felt comfortable for the interviewees, for example, in a library group-work space or a meeting

room. The interviews concerned gender identity-related information needs, sources, information sharing, and factors affecting information seeking (see Data S1).

All of the interviewees gave their consent to audio record the interviews and use the data for research purposes. The average interview lasted approximately an hour. The interviewees did not receive any financial or material payment for their participation. The names of the interviewees were altered in the data and other personal information were excluded. Ethical guidelines for integrity, meticulousness, and accuracy in conducting research as well as in recording, presenting, and evaluating the research results for human and social sciences were followed throughout the research (Finnish advisory board on research integrity TENK, 2012, 2019).

The interviews were transcribed and coded using NVivo Plus software. This study utilized a theoretically driven, mostly deductive content analysis. The focus was to map the four phases of information seeking in a significant life change (represented in Table 1) of transgender individuals. Table 1 also worked as an analyzing frame. However, topics beyond the analyzing frame were also taken into account in the analysis, making it partly inductive. Transcriptions were 349 sheets long in total. All of the transcriptions were carefully read and reread line by line. Activities and emotions worked as subcategories for analysis, and all of the statements concerning information seeking, encountering, and sharing on gender identity were picked into these categories. These statements contained one or several sentences on the same theme. The research material was rich, including both a great variety of (trans)gender experiences, and experiences of all the activities and emotions represented in Table 1, consequently also reaching saturation in this respect. Table 2 represents examples of the original expressions, reduced expressions, and categories and subcategories of the analysis.

All interviewees were asked to define their gender identity with their own words. Definitions of their gender varied from one-word descriptions to more complex descriptions of one's gender identity. In order to represent the variety of identity labels, descriptions of the interviewees were shortened into following definitions: transman (4), gender non-conforming (3), man (2), woman (2), agender (2), something between a woman and man (1), third option (1), man/other/who cares (1), transgender woman (1), transgender man (1), fluid/gender nonconforming (1), boy/transboy (1), transgender (1), transboy (1), androgyne man (1) and non-binary transmasculine guy (1). One interviewee did not want to define their gender.

The ages of the interviewees were between 15 and 72, the average being 33. Five of the interviewees mentioned belonging to a sexual minority group. The

TABLE 2 Examples of the categories of the content analysis

Original expression	Reduced expression	Category (phase of significant life changes)	Subcategory (activities and emotions)
When I was something like fifteen, I found the word androgyne. Although I realized it was not exactly what I feel I am.	Finding the concept of an androgyne	Seeking information for a significant life change	Lack of words to use to find information
There are a couple of transgender people who talk quite openly of their medical transition process, so I think I could ask them but somehow it feels quite embarrassing to ask details on that.	Feeling embarrassing to ask questions about personal details in peer support groups	Finding the community	Social settings shape the seeker
If there is a feminist group, for example, I may tell them about my own experience as a transgender individual. However, I have to feel it is a safe place in order to do that.	Sharing information of one's own experience in places that feel safe	Sharing experiences with others who are similar	How to live with a new identity within a new community Feeling safe

interviewees were highly educated on average, lived in urban areas, and were read as white. One of the interviewee's native language was not Finnish, and all but one lived in Finland at the time of the interview. Three reported having ADHD and one reported having an autism spectrum disorder. Eighteen had finished or were in the middle of a medical transition process. Four were considering or aiming to complete a medical transition process, and three aimed not to go through the process (see also Huttunen et al., 2019; Huttunen et al., 2020).

4 | FINDINGS

4.1 | Early stage of a significant life change

All four stages of the process of information seeking in significant life changes presented in Table 1 could be recognized in the interviews. At the early stage of a significant life change, the embodied experiences, such as strong discomfort toward one's body, triggered information seeking. These embodied experiences involved feelings of the body being odd or out of place. Sometimes information needs were caused by embodied feelings starting at the time of puberty, when changes in one's own body caused strong discomfort and even gender dysphoria (see also Huttunen et al., 2020). A lack of information had caused feelings of isolation as well as

uncertainty and confusion. Only the youngest interviewee, Leino, (aged 15) had gained relevant information on transgender people from school. For some of the interviewees, it was a significant event when the information that they found matched their own experience. Mikko, aged 33, described how he found the term from fan fiction:

I actually found it from one fan fic story, and I was, like, what is this? Then I started to clarify it for myself and found out this is something, like this kind of people do exist, that explains a lot. And I thought this describes me a lot, there it was. (Mikko, 33, transman).

Interviewee Mikko tells above how he found the term "transman" from fan fiction at the age of 20, sought more information on the topic and found that the term explained a lot of his experience. For him, the serendipitous encounter with the term opened the possibility of starting to seek more information and enabling the transition, making it a significant event in the process of identity construction. The first encounter with information on transgender people and gender diversity can be described as "deeply meaningful" (Clemens & Cushing, 2010) since it opens the possibility for transitions. In other words, the information itself was found to be important, even vital, for the understanding of oneself

and starting the transition. Deeply meaningful information can be seen as a starting point of a new path in one's life, something that makes the "turn" in the life possible. If information is defined as "any difference which makes a difference" (Bateson, 1972, p. 453; Lloyd, 2014, p. 86), deeply meaningful information is information that makes a *significant* difference, for example, understanding of oneself. Havu, aged 25, describes this experience below:

It was a term you kind of knew existed all along. It's like, if you find a term for some experience, like the experience of *déjà vu*. If you have the experience and you find out there is a term for that, that it's so common there is a term for it. And if your whole identity is intertwined around that, it feels like a big thing. (Havu, aged 25, agender).

In the description above, the interviewee tells how important it felt to find the term for his gender experience and compared the experience to finding the word for the experience of *déjà vu*. For some interviewees, finding their transgender identity was considered a "gradual awakening." Janne, aged 57, for example, described how he identified himself as a cross-dresser from the age of 13, and in the past 2 years has started to feel that the experience is more about gender identity and a feeling of being "sometimes man, sometimes woman, sometimes neither."

At the time of the interviews, the interviewees' descriptions of their information seeking seem to represent stages from two to four. For example, Luka, aged 30, described how he identifies himself now and how he is actively seeking information:

At the moment, the term transman is the one I use to describe myself. (...) I am really, really at the beginning of this process, so it is a new thing kind of. So, from that point of view also, I thought it would be good to participate in this interview since I am currently in the active information seeking stage. (...) I need new information all the time now. (Luka, 30, transman).

Interviewee Luka describes above how he is unsure of the term he wants to use of himself, stating that the gender identity construction is still in process. However, several interviewees did not seek anymore information actively in relation to their gender identity and they had all the information they need at the moment.

For all of the interviewees, the Internet was the key source for encountering information on the topic.

Platforms where transgender people were able to produce information themselves offered information that was easy to relate to. Found information usually reduced the experience of "being the only one in the world," making the own identity construction possible. However, reflecting with the information could take some time and cause the feeling of entering an "unfamiliar territory." Tuure, aged 24, described how accepting the own experiences had been difficult in their adolescence:

At the beginning, it was like I kind of couldn't admit it or that would concern me because it is, because it has always been like that. (...) I did not look for it to be different or anything like that. I am kind of, for me, the process of finding myself has been quite multidimensional. So, there was a kind of an experience that wherein I have to bear this also, or something like that. (Tuure, 24, third option).

In the description hereinabove, the interviewee explains the difficulties on accepting their own gender experience after gaining information on transgender people. It seems that the information one has gained resonated with the own experience and, therefore, felt important, but accepting it had taken some time.

4.2 | Seeking information in a significant life change

After finding the right words to start to seek for information, interviewees used several information channels, for example, peer support online and offline, social media sites, such as YouTube and Instagram, organizations, and friends. Serendipitous encounters with deeply meaningful information also happened in this phase. Otava, aged 30, describes how their serendipitous encounter with the information lead them toward medical treatment when they was at a photo exhibition of androgynous people:

I read one of the self-descriptions and then, on the way home, I called my mother and said that I had, for the first time in my life, found a person who was the same gender as me. This person was undergoing medical treatment at that time and I found out that such medical treatment was also possible with the so-called "other" diagnosis. So I sought a referral [for the medical treatment] soon after that (Otava, 30, man/other/who cares?).

Interviewee Otava tells above how they found at a photo exhibition someone with similar gender experience to them and this person had undergone medical treatment. This information served as a trigger for them to seek medical treatment too. According to the interviewees, bodily experiences and affects relating to their own body played an important role in the transition process. That involved the process of exploration, what Johanna, aged 49, describes:

So, it is like, you go to seek information from clothing stores, the Internet, make-up department of what exists. (...) After I came out of the closet, it was like my nights dragged on, and sometimes I ended up crying after trying on clothes for four hours and it felt like those were still not how they should have been. (Johanna, 49, transgender woman.)

Above, interviewee Johanna tells how, after coming out of the closet, the process of finding her feminine looks had taken a lot of time and effort. The “process of exploration, learning, and testing” was emotional in tone, involving negative feelings, and the information sources at this stage were new to her. In this kind of information search, the guiding question was the feeling of “what is good for me?”, also involving embodied experiences of oneself. Self-observation offered information during the transition process. For example, for Valo, aged 27, self-observation involved recording their own voice during hormonal treatment in order to follow how the hormonal treatment affected it.

4.3 | Finding the community

Discussion forums and social media, including Facebook groups, Reddit, Tumblr, and other blogs and WhatsApp groups, played an important role in accessing information that offered something to relate to. They were found to contain subjective information but, on the other hand, it could be the only information available. YouTube and Instagram were found as good sources of information in relation to the transition process enabling access to embodied information from other people through photos and videos, for example video diaries. This involved information on bodily changes during hormonal treatments and surgeries, among other things.

Finding a new community was an important part of the transition for many interviewees. Transition processes sometimes involved becoming separated from existing networks (see also Haimson, 2018; Van Genneep,

1909), since sometimes family members or friends did not accept their gender transition. Jukka, aged 23, describes how it has been a relief to find a community where people have a similar background:

They are people who think you are just like everyone else, which is quite nice. And you kind of get to be by yourself, because, well, I know some trans people who do not have any people outside of their own bubble as a friend, and I totally get it. Because if you are kind of traumatized by how you have been treated before, it is kind of, kind of normal to not want that because of the fear. (Jukka, 23, man).

Above, the interviewee Jukka tells how he understands why some transgender people only want to be friends with people from a similar background because they are afraid of how they may be treated by people who are not transgender. The feeling of being safe and not being afraid was an important part of the community. Support groups were places where interviewees usually felt safe to share their thoughts and ask for help.

4.4 | Becoming part of the community

Social media, discussion forums, and face-to-face peer support groups all lead interviewees to become part of the community. Overall, most of the interviewees felt that they knew where to seek information if they needed to. Peers were trusted as information sources, or it was felt that they could guide them to sources if needed. However, for some of the interviewees finding a community was difficult or they did not feel part of it. Tuomo, aged 72, had not found that their peers had much in common with them:

When I think about these things, and how much I have taken part in these meetings, it has been hard for me to talk about my own things there. (...) I haven't been able to open my mouth. (...) Though it is precisely a group for this. (...) And I think it is because of my age because I am from another world and I have different interests to others and different problems and so, so I have ended up being a listener (Tuomo, 72, did not define their gender).

Interviewee Tuomo describes above how they feel like they are too old for sharing thoughts and questions in

peer support group meetings. Peer support best served the interviewees who felt that the people there were in the same situation as themselves. Additionally, for some of the interviewees sharing experiences with peers was not easy and made them feel that they did not belong in the group. These experiences represent feelings of not finding enough support from peers, which also causes negative emotions. Nevertheless, Tuomo had found both emotional support and information about medical treatment from social workers from an organization targeted at transgender people, and this service had helped them through the transition process.

After transition, the information needs of the interviewees were more at societal level and information seeking became more passive. These interviewees' role in the community changed, and they gradually became sources of information rather than information seekers. Most of the interviewees who had undergone transition had self-confidence in their information seeking, since they knew where to seek information if needed, and they knew how to evaluate the information.

5 | DISCUSSION

This study aims to understand how the process of information seeking in a significant life change is formed among the identity construction of transgender individuals by combining the theory of transitions (Bronstein, 2019; Hicks, 2018; McKenzie & Willson, 2019; Willson, 2019; Willson & Given, 2020) with the concepts of *deeply meaningful and profoundly personal context* (Clemens & Cushing, 2010) and *meaning-making* (Ruthven, 2019). Based on previous studies, information seeking in significant life changes differs from everyday information seeking, since the individual cannot proceed as one has done before (Clemens & Cushing, 2010; McKenzie & Willson, 2019). In the context of significant life changes, information is highly personal for the information seeker (Clemens & Cushing, 2010; Kari & Hartel, 2007), information sources may not be similar as before (Hicks, 2018; McKenzie & Willson, 2019), and the process of information gathering may differ from what is was like earlier, involving also strong emotions (Ruthven, 2019; Willson & Given, 2020). These results indicate that in this context, the information itself can be understood as deeply meaningful. *Deeply meaningful information* is information that a person considers important during their transition, something that resonates with their own experience and has long-lasting, profound meaning. Deeply meaningful information is information that not only makes a difference, but instead, makes a difference that is significant for a person. How deeply meaningful

information differs from “any information” is that it pushes individual forward during the transition. In other words, without deeply meaningful information the transition process does not proceed.

In this study, we divided the process of information seeking in a significant life change into four stages: (a) Early stage of a significant life change, (b) seeking for information for a significant life change, (c) finding the community and (d) becoming part of the community. We found that, in transgender individuals' information seeking process on their gender identity, these four stages existed, and this division offered understanding on what activities and emotions these stages involve. The concept of deeply meaningful and profoundly personal context of information seeking offers an understanding of identity construction of transgender individuals as a personal process, giving the agency for transgender people themselves. With using the social constructivist lens, the theories of transitioning and meaning-making help to understand the importance of the community and other people for the transitioning process.

The interview data of from 25 participants, indicated that in the *early stage of a significant life change* gradual awakenings and significant events triggered information seeking that could lead to transitions. Gradual awakenings might start from embodied experiences of “something being wrong” and turn into information needs in order to better understand one's own experience. Significant events were often serendipitous encounters with deeply meaningful information with providing terms describing one's own embodied experience.

In the stage of *seeking information for a significant life change*, after finding the right words, several information sources could be used. Serendipitous encounters with deeply meaningful information also happened in this phase. Similar to findings of Haimson et al. (2019) embodied experiences were in this stage crucial for evaluating the information, including learning and testing new styles. In this phase, negative emotions, stress, and frustration were apparent, supporting the findings of Willson and Given (2020). Sometimes the interviewees followed their bodily changes by documenting them in order to follow up on their own transitions (see also Haimson, 2018).

In the stage of *finding the community*, people in similar situations became the most important source of information, as noted also in previous studies (Guzik, 2018; Ruthven, 2019). These communities, which were also online, can be especially important for transgender people (see also Cannon et al., 2017; Cavalcante, 2016; Haimson et al., 2019). Social media offered important channels for finding peers and information that resonated with the own experience. As noted in previous studies (Bronstein, 2019; Lloyd et al., 2017), a feeling of being safe in the community is important during transitions.

In the stage of *becoming part of the community*, interviewees were no more in the active information seeking stage, and their role in the community was mostly to share information. They had built “effective information relationships” with peers they trusted as sources of information. Similar to the findings of Kennan et al. (2011), the interviewees had self-confidence in their ability to find information, if needed. However, in contrary with the findings of previous studies, not all of the interviewees in this study found a community where they felt they belonged, and some of them also experienced negative emotions at this stage. Services targeted at transgender people were found to be helpful in their successful transition.

This study does not exist without limitations. This is a qualitative study and the results cannot be generalized. This study only covers gender identity-related information seeking processes studied among transgender individuals, and the phases of significant life changes can be different among some other groups of people. However, the theory background looks promising and should be studied among some other group of people encountering perceived significant life changes as well.

6 | CONCLUSIONS

In a significant life change that happens in a *deeply meaningful and profoundly personal context* (Clemens & Cushing, 2010) involving long-term, even embodied and social consequences, seeking information is crucial to enabling *meaning-making* (Ruthven, 2019) and *transitioning* (Bronstein, 2019; Hicks, 2018; McKenzie & Willson, 2019; Willson, 2019; Willson & Given, 2020), such as identity construction of transgender individuals. In such cases, *deeply meaningful information* also involves embodied information, or information that resonates with one’s own experience. What makes this kind of information deeply meaningful is that it can serve as a trigger for life change, helping people forward during the transitions.

This study highlights embodiment, emotions and affects as part of information seeking during a significant life change, reinforcing this part of existing theories on transitions and meaning-making. In this study, we understood the concept of meaning-making as supporting transition theories, focusing especially on actions and emotions during information seeking on transitional periods. These theories highlight that for transgender people, transitioning is a deeply meaningful, embodied and profoundly personal context where information plays an important role in their identity construction. The concept of a deeply meaningful and profoundly personal context focuses more on information seeking as a

personal, private project while the concepts of meaning-making and transitions highlight the importance of peers and other people as part of the process. For the study on transgender people’s information seeking transition theory and the concept of meaning-making give a framework that help to analyze how information seeking and emotions change during the transition process.

Transitions theory in nursing context has been criticized for positioning individuals as passive recipients of expert assurance during transitions (Hicks, 2019). However, the theory of meaning-making places individuals as active participants of the process of life change and highlights the person’s own agency of becoming a part of the new community. Therefore, combining these two theories serves the purpose of understanding significant life change as a process where an individual has agency of one’s own transition, but also need for social support.

We divided the process of information seeking in a significant life change into four stages. The findings highlight that at the early stage of a significant life change people need information containing something to relate in order to understand your own, often embodied experiences. While seeking information for a significant life change embodied experiences provided a crucial basis for evaluating received information. Finding the community was important for the interviewees, and these communities were important actors in providing and sharing information. Gradually interviewees became part of the community and they had self-confidence in their information seeking. However, not all felt that they belonged in the community even after transition. These individuals in particular are in need of information and support at an organizational level. Minority communities also exist online and, therefore, it would be important to study how online communities are formed and how they support information seekers in the different stages of significant life changes.

ACKNOWLEDGMENTS

This study was funded by Kone Foundation. Special thanks go to all of the research participants for their willingness to participate in this research. Thanks to the anonymous JASIST reviewers for useful and thoughtful feedback.

REFERENCES

- Adams, S. S., & Peirce, K. (2006). Is there a transgender canon? Information seeking and use in the transgender community. In *Proceedings of the Annual Conference of the Canadian Association of Information Science 2006, Toronto, June 1–7, Alberta: University of Alberta Library.*
- Austin, J. (2019). Lines of sight and knowledge: Possibilities and actualities of transgender and gender non-conforming youth in the library. In B. Mehra (Ed.), *LGBTQ+ librarianship in the 21st century* (pp. 167–196). Bingley: Emerald Publishing.

- Bateson, G. (1972). *Steps to an ecology of mind*. San Francisco: Jason Aronson Inc.
- Beemyn, G., & Rankin, S. (2011). *The lives of transgender people*. New York: Columbia University press.
- Bonner, A., & Lloyd, A. (2011). What information counts at the moment of practice? Information practices of renal nurses. *Journal of Advanced Nursing*, 67(6), 1213–1221.
- Bronstein, J. (2019). A transitional approach to the study of the information behavior of domestic migrant workers. *Journal of Documentation*, 75(2), 314–333.
- Cannon, Y., Speedlin, S., Avera, J., Robertson, D., Ingram, M., & Prado, A. (2017). Transition, connection, disconnection, and social media: Examining the digital lived experiences of transgender individuals. *Journal of LGBT Issues in Counseling*, 11(2), 68–87.
- Cavalcante, A. (2016). “I did it all online:” Transgender identity and the management of everyday life. *Critical Studies in Media Communication*, 33(1), 109–122.
- Chick, N. & Meleis, A. I. (1986). Transitions: A nursing concern. In P. L. Chinn (Ed.), *Nursing research methodology* (pp. 237–257). Boulder, CO: Aspen Publication. Retrieved from: <http://repository.upenn.edu/nrs/9>.
- Clemens, R. G., & Cushing, A. L. (2010). Beyond everyday life: Information seeking behavior in deeply meaningful and profoundly personal contexts. *Proceedings of the American Society for Information Science and Technology*, 47(1), 1–10.
- Cox, A. M. (2019). Learning bodies: Sensory experience in the information commons. *Library and Information Science Research*, 41(1), 58–66.
- Dalmer, N., & McKenzie, P. (2019). Noticing the unnoticed: Lines of work in everyday life information practices. *Proceedings of the Association for Information Science and Technology*, 56(1), 386–389.
- Finnish advisory board on research integrity TENK (2012). *Responsible conduct of research and procedures for handling allegations of misconduct in Finland*. Helsinki: Finnish Advisory Board on Research Integrity. Retrieved from http://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf.
- Finnish advisory board on research integrity TENK (2019). *The ethical principles of research with human participants and ethical review in the human sciences in Finland*. Helsinki: Finnish Advisory Board on Research Integrity. Retrieved from https://www.tenk.fi/sites/tenk.fi/files/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2019.pdf.
- Floegel, D., & Costello, K. L. (2019). Entertainment media and the information practices of queer individuals. *Library and Information Science Research*, 41(1), 31–38.
- Gallagher, S. (2014). Phenomenology and embodied cognition. In L. Shapiro (Ed.), *The Routledge handbook of embodied cognition* (pp. 9–18). New York: Routledge.
- Gorichanaz, T. (2015). Information on the run: experiencing information during an ultramarathon. *Information Research*, 20(4), paper 697. Retrieved from <http://InformationR.net/ir/20-4/paper697.html>.
- Grant, J. M., Mottet, L. A., Tanis, J., Harrison, J., Herman, J. L., & Keisling, M. (2011). *Injustice at every turn: A report of the national transgender discrimination survey*. Washington: National Center for Transgender Equality and National Gay and Lesbian Task Force. Retrieved from <https://www.thetaskforce.org/injustice-every-turn-report-national-transgender-discrimination-survey/>.
- Guzik, E. (2018). Information sharing as embodied practice in a context of conversion to Islam. *Library Trends*, 66(3), 351–370.
- Haimson, O. L., A. E. Bowser, Melcer, E. F., & Churchill, E. F. (2015). Online inspiration and exploration for identity reinvention. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)* (pp. 3809–3818). <https://doi.org/10.1145/2702123.2702270>
- Haimson, O. L., Dame-Griff, A., Capello, E., & Richter, Z. (2019). Tumblr was a trans technology: The meaning, importance, history, and future of trans technologies. *Feminist Media Studies, AHEAD-OF-PRINT*, 1–17. <https://doi.org/10.1080/14680777.2019.1678505>
- Haimson, O. L. (2018). Social Media as Social Transition Machinery. *Proceedings of the ACM on Human-Computer Interaction. Article No: 63* <https://doi.org/10.1145/3274332>, (1–27). New York: Association for Computer Machinery.
- Hawkins, B., & Haimson, O. (2018). Building an online community of care: Tumblr use by transgender individuals. In *Proceedings of the 4th conference on gender & IT* (pp. 75–77), New York: Association for Computer Machinery. <https://doi.org/10.1145/3196839.3196853>
- Hawkins, B., & Watson, R. J. (2017). LGBT cyberspaces: A need for a holistic investigation. *Children's Geographies*, 15(1), 122–128.
- Hicks, A. (2019). Mitigating risk: Mediating transition through the enactment of information literacy practices. *Journal of Documentation*, 75(5), 1190–1210.
- Hicks, A. (2018). The theory of mitigating risk. Information literacy and language-learning in transition. Thesis for the degree of Doctor of Philosophy at the Swedish school of library and information science. University of Borås Skrifter från Valfrid, no 66. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:hb:diva-15000>.
- Huttunen, A., Hirvonen, N., & Kähkönen, L. (2020). Uncomfortable in my own skin—Emerging, early stage identity-related information needs of transgender people. *Journal of Documentation*, 76(3), 709–729.
- Huttunen, A., Kähkönen, L., Enwald, H. & Kortelainen, T. (2019). Embodied cognition and information experiences of transgender people. In *Proceedings of the Tenth International Conference on Conceptions of Library and Information Science, Ljubljana, Slovenia, June 16–19, 2019. Information Research*, 24(4), paper colis1940. Retrieved from <http://www.informationr.net/ir/24-4/colis/colis1940.html>.
- Karami, A., Webb, F., & Kitzie, V. (2018). Characterizing transgender health issues in twitter. *Proceedings of the Association for Information Science and Technology*, 55(1), 207–215.
- Kari, J., & Hartel, J. (2007). Information and higher things in life: Addressing the pleasurable and the profound in information science. *Journal of the American Society for Information Science and Technology*, 58(8), 1131–1147.
- Kennan, M. A., Lloyd, A., Qayyum, A., & Thompson, K. (2011). Settling in: The relationship between information and social inclusion. *Australian Academic & Research Libraries*, 42(3), 191–210.
- Kitzie, V. (2019). “That looks like me or something I can do”: Affordances and constraints in the online identity work of US LGBTQ+ millennials. *Journal of the Association for Information Science and Technology*, 70(12), 1340–1351.

- Kitzie, V. (2017). Affordances and constraints in the online identity work of LGBTQ+ individuals. *Proceedings of the Association for Information Science and Technology*, 54(1), 222–231.
- Kralik, D., Visentin, K., & Van Loon, A. (2006). Transition: A literature review. *Journal of Advanced Nursing*, 55(3), 320–329.
- Kuhlthau, C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science*, 42(5), 361–371.
- Kähkönen, L., & Wickman, J. (2013). Sukupuolen moninaisuus ja queer-näkökulmat. *SQS: Suomen Queer-tutkimuksen lehti*, 7(1–2), I–X.
- Kärnä, T. (2018). Transsukupuolisuus. *Lääkärikirja Duodecim*. dlk01195 (032.006). Retrieved from http://www.terveyskirjasto.fi/kotisivut/tk.koti?p_artikkeli=dlk01195.1.
- Lloyd, A., Pilerot, O., & Hultgren, F. (2017). The remaking of fractured landscapes: Supporting refugees in transition (SpiRiT). *Information Research*, 22(3). Retrieved from <http://InformationR.net/ir/21-1/paper764.html>.
- Lloyd, A. (2014). Informed bodies: Does the corporeal experience matter to information literacy practice. In C. Bruce, K. Davis, H. Hughes, H. Patridge, & I. Stoodley (Eds.), *Information experience. Approaches to theory and practice* (pp. 85–99). Bingley: Emerald Publishing.
- Lloyd, A. (2009). Informing practice: Information experiences of ambulance officers in training and on-road practice. *Journal of Documentation*, 65(3), 396–419.
- Lloyd, A. (2007). Leaning to put out the red stuff: Becoming information literate through discursive practice. *The Library Quarterly*, 77(2), 181–198.
- Mattila, A., & Tinkanen, H. (2015). Transsukupuolisuuden hoito Suomessa. *Lääketieteellinen Aikakauskirja Duodecim*, 131(4), 363–364.
- McKenzie, P., & Willson, R. (2019). Transitions and social interaction: Making sense of self and situation through engagement with others. *Proceedings of the Association for Information Science and Technology*, 56(1), 459–462.
- Nahl, D. (2007). The centrality of the affective in information behavior. In D. Nahl & D. Bilal (Eds.), *Information and emotion: The emergent affective paradigm in information behavior research and theory* (pp. 3–37). Medford, NJ: Information Today, Inc.
- Nordmarken, S., & Kelly, R. (2014). Limiting transgender health: Administrative violence and microaggressions in healthcare systems. In L. Harvey & T. Heinz Housel (Eds.), *Health care disparities and the LGBT population* (pp. 120–139). Maryland: Lexington Books.
- Olsson, M., & Lloyd, A. (2017). Being in place: Embodied information practices. *Information Research*, 22(1), CoLIS paper 1601. Retrieved from <http://InformationR.net/ir/22-1/colis/colis1601.html>.
- Olsson, M. (2016). Making sense to past. The embodied information practices of field archaeologists. *Journal of Information Science*, 42(3), 410–419.
- Olsson, M. (2010). All the world's a stage: Making sense of Shakespeare. *Proceedings of the American Society for Information Science and Technology*, 47(1), 1–10.
- Pohjanen, A., & Kortelainen, T. (2016). Transgender information behaviour. *Journal of Documentation*, 72(1), 172–190.
- Ruthven, I. (2019). Making meaning: A focus for information interactions research. In *ACM SIGIR Conference on Human Information Interaction and Retrieval 2019*, New York: The University of Strathclyde. Retrieved from <https://strathprints.strath.ac.uk/66828/>.
- Savolainen, R. (2010). Everyday life information seeking. In M. J. Bates & M. N. Maack (Eds.), *Encyclopedia of library and information sciences* (3rd ed., pp. 2735–2746). Boca Raton, FL: CRC Press.
- Schilt, K., & Bratter, J. (2015). From multiracial to transgender? Assessing attitudes toward expanding gender options on the U.S. Census. *TSQ: Transgender Studies Quarterly*, 2(1), 77–100.
- Schumacher, K. L., & Meleis, A. L. (1994). Transitions: A central concept in nursing. *Image: The Journal of Nursing Scholarship*, 26(2), 119–127.
- Talja, S., Tuominen, K., & Savolainen, R. (2005). Isms in information science: Constructivism, collectivism and constructionism. *Journal of Documentation*, 61(1), 79–101.
- Van Gennep, A. (1909). *The rites of passage*. Chicago: University of Chicago Press.
- Westbrook, L. (2009). Crisis information concerns: Information needs of domestic violence survivors. *Information Processing & Management*, 45(1), 98–114.
- Willson, R., & Given, L. M. (2020). "I'm in sheer survival mode": Information behaviour and affective experiences of early career academics. *Library & Information Science Research*, 42(2), 101014.
- Willson, R. (2019). Transitions theory and liminality in information behaviour research. *Journal of Documentation*, 75(4), 838–856.
- Wilson, T. (1981). On user studies and information needs. *Journal of Documentation*, 37(1), 3–15.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

How to cite this article: Huttunen A, Kortelainen T. Meaning-making on gender: Deeply meaningful information in a significant life change among transgender people. *J Assoc Inf Sci Technol*. 2021;72:799–810. <https://doi.org/10.1002/asi.24447>