Introduction

The sound of chimes, gentle, melodic. It's my alarm clock, which means that all the strange stuff that's been happening was just a dream. This has me at once relieved and nostalgic. When I turn off the alarm, my phone wishes me good morning and shows me the day's weather. I notice a text message and another notification, but I put the phone down, not wanting to get distracted so early in the morning. I'm surrounded by books. My cat Toaster is whining, so I feed him, and then I go outside for a short walk. I notice the stoplights, but don't necessarily obey them, and I'm struck by just how many signs there are all around me: license plates, traffic signs, banners, notices... Back inside, I make some coffee and then settle at my computer to write.

The world is happening around us as the flow of existence, and we experience this flow from our respective perspectives on the world. This is a matter of perception through our sensory organs, as well as processing through our nervous system, with a dose of mental feedback by which we can revisit our own thoughts and perhaps think them differently. That we have this experience is one of the things we mean when we say we are conscious.

Our experience is mediated by information. In one sense, we understand this as a unique aspect of the present age. As my vignette above shows, from the first moment of waking for many of us, digital and analogue information technologies are present, guiding us through our days. But one might reply that

human experience has *always* been mediated by information: before there were digital alarm clocks, the sunrise provided information about when to wake up. Others might say that our experience is *by definition* mediated; even before we know about any of our perceptions, our sense organs and nervous system have already performed significant processing and abstraction. We don't experience reality per se, but rather we interface with reality through our bodies (Hoffman, 2019). More deeply still, some even construe existence itself as fundamentally information. All this is to say that the sentence, "Our experience is mediated by information," may be more or less meaningless.

Just as in information studies we must grapple with the ambiguity and polysemy of the very word "information," I contend that it is illuminating to grapple with the concept of information experience. If information is anything to us humans, then it can be an object of experience, and so we should seek to understand what that means. Regardless of whether all of our experience is already informational, there are certainly things in the world that we identify as information and which are part of our experience. If the purpose of information studies is to understand how humans relate to information with the eventual goal of designing better information—whether as librarians or writers or web developers or whatever—then investigating how people experience information can help us with that goal.

In addition to information experience, the past few decades have witnessed the rise of concepts such as user experience, customer experience and student experience. In this book, I offer a statement on information experience that draws from relevant insights regarding these other "experience" concepts while also helping to disambiguate these terms.

0.1 Disciplinary Setting

Before going further, I want to reflect on the disciplinary setting of this work. In brief, this work draws broadly from the human-centered areas of information studies, as well as a few corners of philosophy.

The human-centered areas of information studies include the literature on information needs, seeking and use, such as that on information behavior, outcomes of information, information practice and information literacy. I would note that all these terms are debated. The term "information behavior," for example, is taken by some to narrowly refer only to work done within the behaviorist paradigm, while others take it to be a capacious umbrella term that includes all aspects of needing, seeking, searching, encountering, using… information, embracing all the paradigms within this research field (Bates, 2017). In this book, I use the term in the latter, expansive sense. It is also notable that these different research areas have been, to various extents, siloed apart, even despite their conceptual synergies. In my view, working with information experience is a way to identify the shared concerns among these areas and help bring forward their shared mission.

As a case in point, consider information literacy (IL) and information behavior (IB). While it is difficult to satisfactorily define either of these areas, IL is roughly about educating people to recognize when they need information, where to get and how to interpret the most suitable information, and so on. On the other hand, IB is about how people recognize and interpret their needs for information, where they look for and find information, and what they do with it; whereas IL is rooted in education, IB emerged out of library practice. As Shenton and Hay-Gibson (2011) write, IL explores an idealized vision of the

interactions of humans with information, with a pedagogical or design intent; while IB explores what actually happens in the interactions of humans with information, with a descriptive, explanatory or perhaps predictive intent (though IB work does sometimes have an implicit intent regarding the design of better services or systems). This analysis suggests that IL and IB are two sides of the same coin: with some simplification, IB research explores what is, and IL takes those insights to create what will be.

Clearly, IL and IB are related. But for better or worse, IL and IB have proliferated rather independently, with distinct literatures, journals and conferences and appealing to different models and theories. There has been some overlap, to be sure, but it is disappointingly limited. As I mentioned above, information experience may be a way to bring these paths back together. Indeed, Bruce (1997) seems to point toward this possibility in her work on experiences of information literacy, suggesting that IL research has synergy with the "broader field of information needs and uses" (pp. 63–67; p. 175). An example of one piece of research that may prove to be transitional in this sense is the article "Informing Practice: Information Experiences of Ambulance Officers in Training and On-road Practice" by Lloyd (2009); this study is descriptive and empirical as characteristic of IB research, it is framed within the IL literature, it centers around the concept of information experience, and it was published in *Journal of Documentation*, one of the rare journals in our field where such cross-cutting discussions can be had.

To date, most of the work in information experience has been in the area of information literacy (IL), with a smaller part in information behavior (IB) (Savolainen, 2019). By considering all the human-centered areas of information studies (this also

broadly construed), I have also drawn insights from human–computer interaction (HCI), which is is another field that is ripe with discussions on how humans experience computer interfaces and devices. Research in HCI spans description, experimentation and design. While both IL and IB have traditionally been part of library and information studies (by whatever name), HCI has traditionally been housed in computer science departments, with strong ties to the tech industry. Consequently, the HCI literature is quite separate from the IL and IB literatures, with rare exceptions. As you well know, much information today is accessed through computer systems, causing the spheres of HCI and IL/IB to overlap considerably.

While we should respect the different aims of these fields and work to understand the historical contexts in which each arose, I believe that today's sociotechnical and educational climate call for a hearty dose of synthesis. This is essentially the view of the iSchool Movement, which seeks to maximize human potential at the confluence of information and technology through interdisciplinarity. Many have commented that today's biggest problems require interdisciplinarity, and I would be happy if the ideas in this book could contribute to solving even small problems. I will revisit these points in the conclusion of the book.

0.2 Philosophical Foundations

Philosophically, much of the work to date in information experience has been rooted in phenomenography, which seeks to describe the different ways in which people experience a given thing. Phenomenography originated in the field of education (Marton, 1986); it may be unsurprising, then, that it has been

widely adopted and applied in information literacy research (Forster, 2016).

My approach in this book is not rooted in phenomenography, but rather phenomenology. Phenomenology is the description of aspects of human lived experience (Käufer and Chemero, 2015). There are a handful of schools of phenomenology, and I draw in particular from hermeneutic phenomenology, which is an interpretative form of phenomenology. This school was developed by Martin Heidegger in the 1920s and carried on by a number of philosophers through the present day. Scholars in information studies who engage with hermeneutic phenomenology include Rafael Capurro and Ronald Day, among others. As described by Heidegger (2010), hermeneutic phenomenology seeks to allow something that normally remains hidden to be revealed—somewhat arcanely, hermeneutic phenomenology can be described as the "letting-be-seen" of "things themselves" (Heidegger, 2010). While on one hand hermeneutic phenomenology is a philosophical discipline, it has formed the foundation of a wealth of empirical human science research, particularly following the methodological guidelines of van Manen (1990, 2014).

Whether and how phenomenography is related to phenomenology has been contested; one analysis suggests that phenomenography has roots in phenomenology, but as phenomenography is practiced today, its concerns are more narrowly focused than those of phenomenology (Cibangu and Hepworth, 2016). Bruce (1997), in one of the early examples of information research using phenomenography, frames the research approach within the hermeneutic and phenomenological traditions. One area of difference is that phenomenography seeks to provide insight into the generalized variations across subgroups of study participants, while phenomenology attempts to

stay attuned to the uniqueness of each experience while plumbing the essence of that experience. Another difference is that, as implied above, phenomenography is usually conducted for the purposes of designing better educational services, while the aims of phenomenology tend to be simply descriptive. As well, in practical terms, both traditions by now have long histories and have developed many terms of art which require significant unpacking to do any illuminating comparison; even terms as seemingly innocuous as "meaning," "conception" and "phenomenon" have very specialized connotations and applications.

Still, one central shared point bears mentioning: Both phenomenology and phenomenography take a first-person perspective, as opposed to a third-person perspective. In the information field (indeed, in social science research generally) most research took a third-person perspective until about the mid-1980s (Gorichanaz, 2018). Just as we see different things from the vantage of the sidewalk compared to looking out a fourth-story window, adopting different research perspectives allows researchers to apprehend different objects. From the third-person perspective, only those phenomena that can be observed from the outside are accounted for. People's behaviors may be visible, but there is no access to their motivations, feelings, etc. From the first-person perspective, on the other hand, researchers seek to understand other people's experiences as they live them. First-person perspectives allow a researcher to approach the deeply felt, ineffable elements of experience.

In my view, the phenomenological first-person perspective overcomes the limitations of third-person research (including systems research and even that on information practices) as well as earlier first-person research in information studies that was more narrowly focused in the cognitivist paradigm (Gorichanaz, 2018). Moreover, it helps information studies to overcome what

Suominen (2007) has called *userism*, the idea that information systems are resources to be exploited by particular users. Another way to understand this is with respect to the research concept of unit of analysis: while most information research takes either individuals or groups as its unit of analysis, the very notion of unit of analysis does not apply straightforwardly to phenomenological research; rather, we might consider the experience or one's lifeworld to be the "unit of analysis" (Gorichanaz et al., 2018).

Besides phenomenology, in this work I draw on relevant discussions from a few other philosophical areas. Chief among these is Luciano Floridi's philosophy of information, which intends to be an expansive philosophical system covering ontology, ethics, epistemology and politics (Gorichanaz et al., 2020).

0.3 A Brief History of Information Experience

Consideration of the first-person aspects of people's dealings with information emerged in the mid-20th century. An early precedent is Robert Taylor's work on question formulation, which introduced concepts such as a person's felt "visceral need" for information (Taylor, 1968).[1] Even at that time, however, and for the following decade or so, most research in information studies (by whatever name, as usual) took a third-person or "system" perspective. By the late 1970s, methods for studying human activities from other fields were brought to bear on ques-

[1] While this line of thinking was later developed into cognitivist and behavioral notions, such as the anomalous state of knowledge, I'm struck by the aptness of the term "visceral" for today's embodied and relational understandings of information experience.

tions of information studies, resulting in an alternative, human-centered paradigm (Dervin and Nilan, 1986), which went on to proliferate (Case and Given, 2016). However, that work did not necessarily look at experience as such, or conceptualize experience in any way.

Questions of experience came to the fore beginning in the 1970s and were burgeoning by the 1990s. One example is the emergence of the experience economy, wherein a consumer's felt sensations and memories are the main product, was perhaps first observed by Toffler and Toffler (1970) in *Future Shock* though it wouldn't become a household term until 1998 with the publication of the article "Welcome to the Experience Economy" (Pine and Gilmore, 1998). To give another example, the theory of experiential learning, a new angle on the age-old "learning by doing," was developed in the 1980s based on, among others, the experience-based and pedagogical philosophy of John Dewey (Kolb, 1984). At this time also, Don Norman was publishing his pioneering work on user-centered design, which led to his coining of the term "user experience" (UX) in 1993. The term, and its eponymous office at Apple Computer, recognized that consumer electronics were by now far more than just digital interfaces (Norman et al., 1995). As Norman says in a video interview, a product's UX encompasses everything from when a person discovers the product, sees it in a store, buys it, brings it home, unboxes it, sets it up, uses it over time, tells other about it, and so on (Norman, 2016).

Bruce (1997) presented the first experiential research on information literacy, based on her dissertation research conducted since the early 1990s. She uses the term "experiences of information literacy" as shorthand for a number of phenomena: experiences of successfully or unsuccessfully needing, finding and/or using information, as well as experiences of undergoing

information literacy instruction, both from the learner's perspective and from the teacher's. In this study, Bruce developed a relational theory of information literacy, which came to be an influential counterpoint to the behaviorist paradigm that dominated information literacy at the time. While she didn't use the term "information experience" in this work, the book has been often cited as originating the concept, e.g. by Lloyd (2009).

The first use of the term "information experience" in the sense we're investigating here seems to be a report on information services for career development among school counselors from 1988, drawing on experiential learning theory. Late in the report, we find a single use of the phrase "career guidance information experience" (Waidley, 1988, p. 11). A few years later, the term appears again, and again only in passing, in an IEEE editorial. Discussing the industrial revolution and the consequent rise of the 20th century mass media, Wheeler (1995, p. 58) writes, "The result was a shared information experience which became a unifying force in society."

Observing the advent of the experience economy, Senese (1997) published a trade article titled "The Information Experience," which seems to be the first use of the term more than just in passing. In this article, Senese foretells the importance of information experience in the digital age. For her, the concept emphasizes: the personalized nature of digital information as opposed to the mass media of the prior generation; adaptive challenges when information professionals no longer "own" the information, such as having to shift from providing answers to helping people frame questions.

In the following years, "information experience" appeared many times in the literature, though usually without any conceptualization. For example, Hepworth (2004) uses the term as part of a study of the information behavior of informal carers in

an attempt to synthesize models of information behavior. Information experience appears to be a central concept in the study, but Hepworth does not define it in any way.

Concurrently, the term information experience was being explored in the UX practitioner literature. In this context, information experience is about strategy, making sure information is organized and presented in such a way that people can understand it and act upon it appropriately. It explores how matching people with the right information in the right way can produce satisfaction, efficacy, etc. For the most part, this conceptualization of information experience is constrained to textual information (Lior, 2013). However, this time period also saw the birth of the Information Experience Design master's program at the Royal College of Art, in London, UK, which admitted its first students in Fall 2012. This program takes a multimedia and multisensory approach to information experience, allying UX with the arts and sociotechnical design. A few years later, the Pratt Institute School of Information, in New York City, inaugurated a similar degree program.

The next major milestone was the 2014 publication of *Information Experience*, a volume edited by Christine Bruce, Kate Davis, Hilary Hughes, Helen Partridge and Ian Stoodley. As befitting a phenomenographic approach, the editors sought to provide a variety of ways of understanding and exploring information experience. At the time of this writing, the book has been cited over 50 times, and it seems to have stimulated research interest in the area. In a survey of the work done on information experience to date, Savolainen (2019) reviews 43 relevant studies, even with a constrained search (he excluded, for example, publications on document experience). Savolainen concludes from his review that "the construct of information experience has remained quite vague" (p. 1). He presents a few open questions

for the research area, such as whether all cases of dealing with information should be considered "experiences" (p. 9). All in all, even despite Savolainen's initial skepticism, he shows that there is a bright and intriguing future for information experience, and much work to do.

0.4 Conceptualizing Information Experience

Whereas Bruce et al. (2014) offered a variegated look at information experience, in this work I take a different approach. Rather than giving a sample of a number of ways to think about information experience, I offer a deep view of a single way. It will be the rare person who agrees with everything I say in this book; but there is value in articulating a particular perspective as it helps other perspectives see more clearly where they stand and how they differ. To begin with, we must better understand what is meant by "experience."

0.4.1 Experience

The word "experience" broadly has two senses: on one hand, it can refer to a slice carved out from a person's first-person perspective of the flow of existence, while on the other hand the word can refer to an accumulation of the flow of existence. Savolainen (2019) points out that the German language uses two different words for these senses: *Erlebnis* and *Erfahrung*, respectively. To see the difference, consider these two sentences:

- *I had a strange experience today.* This sentence carves out a particular experience from the flow of existence. Of all the

things that happened to me today, I'd call this particular set of things "an" experience.

- *I have 12 years of experience working in libraries.* Over time, I've built up a set of skills and intuitions when it comes to librarianship, through my time and activities spent in libraries.

In information experience, we are concerned primarily with the first sense of the term "experience," though the two are related: experiences add up over time.

The issue of perspective is eminently relevant when discussing experience. Human consciousness is always directed—it is not consciousness tout court, but rather always consciousness of something. In phenomenology, this is the concept of intentionality (Käufer and Chemero, 2015). In this way, we can only experience that which we attend to (of course, we don't always choose what to attend to, as some things call our attention on their own). In information experience, this highlights that information is not an objective thing—at least not an entirely objective thing—but rather it is what a person attends to, what a person experiences as informative.

It is interesting to note that not everything we experience ends up being identified as "an" experience. As long as we're not in a dreamless sleep, we spend the whole day (or at least much of it) experiencing things; yet it doesn't make sense to ask how many experiences a person had yesterday. There is experience, and then there are experiences. While it may seem that identifying experiences as subjective, this is not entirely the case. We can't simply will whatever we want to be an experience; it has to have some heft on its own. We experience some things as meaningful and salient, and others not. Oftentimes we only realize an experience was meaningful after the fact. Ac-

cording to Dewey (1934), experiences that we identify from the flow of existence have a narrative structure, with a beginning, middle and end. Having a narrative structure, they involve some measure of tension and culmination. Though we pick experiences out as objects of particular interest from our ongoing experience, discrete experiences are linked to our broader experience, and their meanings build up and deepen in complexity over time. Jackson (1998) suggests that researchers can use these concepts as analytical tools to understand experiences more deeply.

Though experience hasn't been much conceptualized in library and information studies, as Savolainen (2019) finds, it has seen much discussion in HCI. The classic statement is McCarthy and Wright's 2004 *Technology as Experience*, which was more fully developed into their experience-centered design framework (Wright and McCarthy, 2010). McCarthy and Wright draw their ideas from Dewey's philosophy, and they emphasize the inseparability of knowing, doing, thinking and feeling. In their design framework, they offer tools for thinking about the composition of experience in terms of narrative, as well as the sensual, emotional and spatio-temporal aspects of experience.

Other writers have continued to conceptualize UX, emphasizing that UX encompasses not only instrumental needs, but also the subjective and dynamic perceptions of the user (Hassenzahl and Tractinsky, 2006). Writing about product experience, Desmet and Hekkert (2007) articulate three dimensions of experience: aesthetic experience, experience of meaning, and emotional experience. All in all, this work shows that experience is multidimensional and dynamic. When it comes to design, it emphasizes that designing for particular kinds of experiences require a human-centered approach and attention to more than just the designed interface.

0.4.2 Two Senses of Information Experience

In the second chapter of *Information Experience*, Partridge and Yates (2014) offer the insight that information experience is both a research object and a research domain. Understanding this distinction is a vital part of conceptualizing information experience. In this section, I discuss this idea, though I prefer slightly different terms, perhaps an artifact of my phenomenological orientation: phenomenon and research domain. As a phenomenon, an information experience is a person's in-the-moment engagement with information; as a research approach, information experience is a way of investigating any aspect of the information–communication chain, which spans the gamut of activities relating to information, from creation to understanding (Robinson, 2009).

Information Experience as a Phenomenon

Information experience in the first sense is a person's experience with some information, such as a document. Other terms we might use for this include reading, engagement, interaction, encountering, beholding, etc.

Sometimes this is referred to as "information use." But this term has notoriously been used imprecisely (Fidel, 2012; Kari, 2007). As a solution, Kari (2007) proposed the concept of outcomes of information. For Kari, an outcome of information is anything that ensues from an individual's contact with some information. Outcomes of information include functionally using information, socially communicating information, cognitively processing information and autonomously being affected by information. Outcomes of information constitute only one possible type of outcome of information *seeking*; for seeking, after all, might result in no information being found. According to Kari

(2007), other possible outcomes of information seeking include:

- Relevance judgments
- Internalizing, processing and engaging with information-as-thing
- Outcomes of information
- Using sources in other ways

While Kari goes on to focus mostly on outcomes of information, information experience focuses on engaging with information-as-thing as well as the connection of such engagement to other links in the information–communication chain. That is, while information experience begins by looking at the information encounter, it recognizes that such encounters do not stand in isolation: People's reasons for seeking information play upon their in-the-moment experience of information, and their expected outcomes of information also figure into their interpretations. So information experience goes beyond identifying information sources that people use, to examining how people are informed by information—and not just "informed," but formed and transformed, terms I borrow from Vamanu and Guzik (2015).

In his review article, Savolainen (2019) proposes that there are two aspects to information experience: experiencing sensory information and experiencing cognitive-affective information, where "experiencing" means both receiving and interpreting the information. Roughly, sensory information comes from outside a person (e.g. seeing that a trash can is overflowing), while cognitive-affective information comes from within (e.g. remembering that there's another trash can across the street). Savolainen notes, however, that in many lived experiences these two aspects of information may be intertwined.

Information Experience as a Research Approach

The second understanding of information experience is as a research approach. In this sense, information experience is a metatheory. Metatheories can be distinguished from methodologies, theories and other concepts; briefly, a metatheory is a set of principles that underlies a study or theory and guides inquiry into a phenomenon (Bates, 2005).

As a research approach, information experience engages with the interpretivist paradigm (Partridge and Yates, 2014). Interpretivist research is characterized by "an interest in the meanings and experiences of human being" (Williamson and Johanson, 2018, p. 9). This paradigm maintains that much of the social world is constructed by humans rather than naturally occurring, and as such it is sensitive to contextual factors; and interpretivist research favors naturalistic settings, inductive reasoning and qualitative data.

Information experience is grounded in and influenced by phenomenology, meaning that it attends to concrete, lived-through moments of experience rather than people's explanations, rationalizations or opinions. A key concept in information experience research is the lifeworld (Gorichanaz et al., 2018). The lifeworld is our world as we live it in ongoing experience, where perceptions are taken as real in themselves rather than subject to scrutiny. Experiences in the lifeworld are multimodal and embodied, and there is no subject–object distinction (such a distinction arises in post-hoc rationalizations).

While as a phenomenon, information experience examines human–information interactions at the moment of their unfolding, as a research approach information experience offers a toolkit or lens for examining other aspects of information behavior and information literacy. It is through this lens that

we can examine "information seeking experiences" (one of the terms Savolainen used in his literature review, discussed above) as well as "information literacy experiences."

0.4.3 Maxims of Information Experience

To conclude this section, I would like to articulate three maxims of information experience. These maxims are meant to guide fellow researchers using the approach or investigating the phenomenon of information experience.

Don't assume what is or isn't informative In her paper "Bringing out the Everyday in Everyday Information Behavior," Ocepek (2018a) criticizes much research in everyday information behavior for defining "information" too narrowly. Because of its origin in researching library services, information behavior research has assumed that only certain kinds of things in the world can be informative, such as books and articles. But even when the field opened itself to studying non-library and non-work contexts, these assumptions remained as a vestige. As Ocepek writes, "Instead of overly relying on traditional information sources and ways of knowing, [researchers] can look to narrative, lived experience, and other non-traditional forms of information as valuable resources and means for understanding everyday life" (Ocepek, 2018a, p. 404). In her own empirical work, Ocepek has examined the information experience of grocery shopping, showing how, for instance, touching a piece of fruit can be informative (Ocepek, 2018b). When researchers assume from the start what kinds of things in the world are and are not informative, they may miss out on the ways people actually become informed.

Think of information as a process In one of the most influential papers ever published in the *Journal of the Association for Information Science & Technology*, Buckland (1991) wrote that information can be construed in three ways: as knowledge, or mental content; as a thing, or a physical object; and as a process. Buckland points out that information systems can only deal with information in the "thing" sense, and this insight grounded his future work in document theory (Buckland, 1997)—documents being the paragon information-as-thing. Besides the "thing" sense, researchers have focused most heavily on the "knowledge" sense of information. To be sure, there are great insights to be had from such focuses, including for information experience. But more attention should be paid to information as a process, hence this maxim. If the field wants to better understand how people actually become informed and what happens when a person encounters a piece of information, whether thing or knowledge, then we must attend to information as process.

Step back to see as much of the picture as possible Researchers seem to thrive on thinly sliced questions and narrow methods. These, of course, are hallmarks of the scientific method, and they have helped us understand, little by little, so much about the world. Such questions and methods afford incremental discoveries and innovations, but they are not so good for helping researchers spot new opportunities and directions, or for responding in a changing world. These methods must be balanced by other approaches, ones that aid us in cultivating curiosity and discovering new possibilities. The philosopher Thomas Nagel wrote, "Every theoretical field faces a contest between extravagance and repression, imagination and rigor, expansiveness and precision. Fleeing from the excesses of the

one, it is easy to fall into the excesses of the other" (Nagel, 1979, p. ix). So if our impression of information studies is that it's currently prey to the excesses of repression, rigor and precision, we must be careful not to fall off the opposite cliff. This maxim serves as a reminder to step back every once in a while. When we're looking at a painting, for example, it is well and good to stand up close and examine the details. Only up close can we see the particularities of the artist's technique, the way the colors build up through layers of paint, the way the texture of the canvas shows through in certain places... But we must remember that there's much more that can be said of a painting than only what can be seen up close.

0.5 Structure of the Book

This book includes three parts, each comprising four chapters, to present a multifaceted view of information experience. The intention is to supply readers with a spectrum of concepts to conduct research with an information experience approach as well as insights into information experience as a phenomenon. The book's parts frame information experience, and the chapters offers different focuses within each frame, as shown in Table 0.5.

Each part of the book frames information experience in terms of a different philosophical area: first epistemology, then ontology, and finally ethics. Epistemology is the study of knowledge or understanding, posing questions such as what knowledge is, what we know and how we know we know it. Ontology is the study of being, posing questions about what exists, how we might categorize things and what it means to exist in the first place. Ethics is the study of action, posing questions such

Table 0.1: Structure of the book

Pt	Ch	Frame	Focus	Key Concept
I	1	Epistemology	Epistemology	Understanding
	2		Ontology	Questioning
	3		Ethics	Moral knowledge
	4		Design	Slowness
II	5	Ontology	Epistemology	Self
	6		Ontology	Identity
	7		Ethics	Ontic trust
	8		Design	Self-care
III	9	Ethics	Epistemology	Meaning
	10		Ontology	The good life
	11		Ethics	Craft
	12		Design	Poiesis

as what we should do to live a good life, what a good society might entail and how we can tell right from wrong. In each frame, a key concept for information experience emerges: from epistemology, understanding; from ontology, the self; and from ethics, meaning.

Through each of these frames, the chapters focus on different philosophical branches. Chapter 3, for instance, focuses on the ontological dimensions of understanding, which is broadly an epistemological concept. This structure arises because neither epistemology, nor ontology, nor ethics stand alone. Writers such as Karen Barad encapsulate this idea in terms such as "onto-ethico-epistem-ology" (Barad, 2007, p. 90), acknowledging that we are part of the world (*onto*) that we seek to know (*epistem*) and act in (*ethico*). And so in this book the concepts of understanding, self and meaning are each explored in their epistemological, ontological and ethical dimensions.

As well, each part concludes with a chapter on design. The purpose of these chapters is to offer some insight for operationalizing the concepts from the previous chapters in each part for creating better information systems, drawing also from research in human-centered design, participatory design and value-sensitive design. Unlike epistemology, ontology and ethics, design has never been a traditional branch of philosophy (at least not without some acrobatics of imagination). However, Floridi (2019) has made the case that philosophy is a kind of design—conceptual design—and that attention to the logic of design is urgently needed in today's world. As for information studies, HCI and information literacy have from the start been concerned with designing better systems and services, though other branches of the field have been less interested in design. Recently Clarke (2018) has argued that information studies may be fruitfully construed as a design field, not unlike what Floridi

has done in philosophy.

While I have tried to distill and bring forward the chief conceptual insights in the design chapters, it is likely, and hopeful, that you will find interest and inspiration throughout this work. The book is largely philosophical, but I hope approachable. Much of our field has shied away from philosophical discussions—in my view, to our detriment. Our reluctance in dealing with philosophy may stem, in part, from the idea that nothing comes of philosophy—that we can't do anything with this idle, arcane chitchat. But "even if *we* can't do anything with it, may not philosophy in the end do something *with us*, provided that we engage ourselves with it?" (Heidegger, 2014, p.13). You never know.

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