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Conceptualizing information work for health contexts in Library and Information Science

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Abstract:
Purpose - This conceptual paper suggests that a closer consideration of the notion of work and, more specifically, information work as a sensitizing concept in Library and Information Science (LIS) can offer a helpful way to differently consider how people interact and engage with information and can complement a parallel focus on practices, behaviours, and activities.
Approach – Starting with the advent of the concept of information work in Corbin and Strauss' work, the paper then summarizes how information work has evolved and taken shape in LIS research and discourse, both within and outside of health-related information contexts.
Findings – The paper argues that information work affords a lens that can acknowledge the multiple levels of effort and multiple processes (cognitive, physical, or social-behavioural) related to information activities. This paper outlines six affordances that the use of information work within LIS scholarship imparts: acknowledges the conceptual, mental, and affective; brings attention to the invisibility of particular information activities and their constituents; opens up and distinguishes the many different lines of work; destabilizes biomedical hierarchies between health care providers and patients; emphasizes goals relating to information activities and their underlying pursuits; and questions work/non-work dichotomies established in existing LIS models.
Originality - This paper is a first in bringing together the many iterations of information work research in LIS. In doing so, this paper serves as a prompt for other LIS scholars to take up, challenge the existing borders of, and thus advance the concept of information work.

Keywords: Health, work, information work, information modelling, information research, health information, information theory

Article Type: Conceptual paper

Introduction

Throughout the years, information studies research has suggested several different ways of naming, framing, and studying information activities. There is little doubt that the most popular concepts that purport to comprehensively cover a majority (if not all) aspects of human engagement with information are information behaviours and information practices. These two terms are sometimes contrasted against one another and are sometimes considered as quasi-synonyms (Savolainen, 2007). Other popular concepts include: information interactions (Fidel, 2012), information activities (e.g. Andersson, 2017; Lundh, 2011) and, for instance, the approach of information in social practice as proposed by Cox (2013). Even if a number of authors have previously noted that greater conceptual clarity would be useful to further our theorizing, writing, and studying information activities (e.g. Savolainen, 2007; Lueg, 2015), there remains little consensus on what these different terms actually mean. This persisting vagueness also applies to other terms that have been used in information research to describe a range of related concepts (e.g. for examples on terms relating to information interaction, see Savolainen, 2018). Even if the use of different concepts has had occasional affinities with specific theories, including practice theory (information practices, e.g. Savolainen, 2008; McKenzie, 2003; Lloyd, 2010; Cox, 2013), cognitive viewpoint (information behaviour, e.g. Belkin, 1990; Ingwersen and Järvelin, 2005), or activity theory (information activities, e.g. Attfield and Dowell, 2003; Nowe Hedvall *et al.*, 2008; Allen, 2011), the links have never been definite across the field. In spite of this, a closer look at these different conceptualizations quickly reveals that whenever a particular conceptualization has been applied, it is done in attempt to emphasize some specific aspect(s) of acting or engaging with information. For instance, in the context of information practice research, the distinctions between information behaviour, information practices, and information in social practices have been used (if not always) to emphasize different perspectives to how activities and information are related to each other (e.g. Savolainen, 2008; Cox, 2013). Whereas information behaviour is often used to refer to patterns or a set of patterns according to which people act with information, information practice has been used to refer to a perspective that puts emphasis on the significance of socially-structured and -mediated doings as a constituent of informational activities (McKenzie, 2003).

Whether the concepts are defined according to a specific theory, the focus of a study on behaviour, practices, activities, or interactions has the potential to frame the inquiry (including questions asked and methods implemented) in a particular direction or to a particular outcome, both implicitly and explicitly. This too applies to the concept of information work, which has been used somewhat sporadically in information research since the 1990s. Rather than suggest certain information activity-related terms should be replaced or subsumed by others, the aim of this article is to take up the concept of information work in order to highlight how the use of terms can emphasize, bring to light, or, conversely, obscure different aspects of informational undertakings. More specifically, we propose that the concept of *work* is a helpful way to differently study about or advocate for the ways people interact and engage with information and can complement a parallel focus on, for instance, information practices, behaviours, and activities.

In this conceptual paper, we begin by outlining early articulations of information work and move into an overview of the application of information work in Library and Information Science

(LIS) research, both in and out of health contexts. The primary focus of this article is on health-related information work and some of the issues identified in this paper come to bear on health and wellness contexts in LIS research specifically. That said, we acknowledge and are excited by the broader potential relevance of information work for LIS scholars. We base our ensuing discussions, reflections, and insights on a series of spirited conversations and debates stemming from a selective review and close reading of earlier literature relating to information work. We conclude by highlight six affordances that the use of information work imparts within LIS scholarship and then finish with points of departures for other LIS scholars to consider and cultivate.

Conceptualizations of health information work

Early approaches to information work: Corbin and Strauss

Our understandings of the concept of information work originate with Juliet Corbin and Anselm Strauss' (1985; 1988) foundational research that took up the concept of *work* to better understand the management of chronic illnesses in the home. Here, work (unpaid work) is understood as taking place within the context of everyday living and is a central structuring concept in their illness trajectory theory, a sociological concept that refers "not merely to (1) the course of an illness, but (2) to all the related work, as well as (3) the impact on both the workers and their relationships that (4) then further affect the management of that course of illness and the fate of the person who has it" (1985, p. 225). This use of a *trajectory* to recognize people's work represents an important shift, moving away from the physiological and medicalized experience of illness and towards the social context, the relationships, and the many different, often invisible and taken-for-granted forms of work that people do to shape their experiences throughout the course of their (or their family member's) illness.

In managing illness and daily life, Corbin and Strauss (1985; 1988) detail the many different types of work patients and their family members might undertake, including: comfort work, identity work, safety work, machine work, illness work, and biographical work. These types of work necessarily include a complex division of labour while engaging and negotiating with children, spouses, friends, and a myriad of health care professionals. Each type of work "consists of clusters of tasks that must be sequenced between and within the types" (Corbin and Strauss, 1985, p. 226). The authors note these many work types will oscillate between the routine and the unusual, with the type, location, and nature of work changing in response to variations in a patient's illness trajectory.

While an undertheorized and, we would argue, narrowly-articulated concept, Corbin and Strauss (1985) first described information work as a subset of illness work which includes activities such as: "networking, scouting out, coaching and training, providing and clarifying instructions, distinguishing between needs and wants, searching for people, places, and necessary things" (p. 244). Affording individuals a sense of agency in their actions surrounding their chronic illness, information work is later defined as "the quest for, the receiving of, and the passing of information" (Corbin and Strauss, 1988, p. 10). Corbin and Strauss' more prominent three lines

of work (illness work, everyday life work, and biographical work) ultimately received the majority of attention in their research and writing, with information work fading into the background.

Contemporary Library and Information Science understandings of health-related information work

Within LIS, Hogan and Palmer (2005) and Souden (2008) are among the first in the discipline to draw from and further Corbin and Strauss' conceptualization of information work in relation to patients' experiences of living with chronic illnesses. Hogan and Palmer (2005), in a nation-wide survey of people living with HIV/AIDS, define information work as being "broader than information seeking but narrower than information behavior" and place emphasis on "the actual labor – the time, effort, resources, and outcomes—necessary in finding and using information, and it accounts for what is done with information it is sought and found." Hogan and Palmer's (2005) understanding of information work focuses on "purposive, conscious [and] intended actions. While the authors also describe information work as "something essential, dynamic, ongoing, and social that intermixes with, complements, supports, and is supported by other kinds of work" (2005), their emphasis on more concrete aspects of information work, however, may overlook more affective, temporal, or relational facets of information work. Chronicling fifteen qualitative interviews with individuals experiencing a variety of chronic conditions, Souden (2008) offers a more holistic approach to information work within the context of health and wellness: "as a type of illness work, information work can play a central role in minimizing and repairing the disruption wrought by illness."

More recently, a number of students and faculty members affiliated with the School of Information at the University of Michigan have taken inspiration from Corbin and Strauss' understanding of information work to examine: the impact of misaligned temporalities on the coordination between patients' and clinicians' information work (Büyüktür and Ackerman, 2017), the relationship between pediatric bone marrow transplant caregivers' information work and emotion work (Kaziunas *et al.*, 2015), and the mediating impact of individuals' everyday, local contexts on their information work as they navigate diabetes, hypertension, and kidney disease (Kaziunas *et al.*, 2013). Veinot, also at the University of Michigan, draws on Strauss' (1993) concept of patient work, the "exertion of effort and investment of time on the part of patients or family members to produce or accomplish something" (p. 64-65) to advance a patient work conceptual framework (Valdez *et al*., 2014). The authors purport that this framework can aid in recognizing patients' (and family and friend caregivers') personal health management work that emphasizes people's agency, context (or work system), and activities.

Centered at the intersection between information work and care work, Dalmer (2018a; 2018b; 2019) has also taken up the concept of information work, departing from the traditionally patient-focused examinations of this concept to instead focus on and account for the information work that family caregivers do on behalf of older relatives living with dementia. Echoing Ehrlich and Cash's (1999) earlier assertion that the "expertise and experience of intermediaries is often invisible" (p. 147), Dalmer conceptualized family caregivers as information mediaries (Abrahamson and Fisher, 2007; Wathen *et al.*, 2008) to shed light on the complex web of everyday (and every night) information work families do: the information sharing work they do

as relays between family members and the constellation of health care professionals involved, the information work involved in coaching other family caregivers, as well as the information work of translating and distilling information for the other older adult in their care. In addition to the impact of relationships and emotional work on family caregivers' information work, Dalmer's work sheds light on new facets of information work, including family caregivers' strategic work of information avoidance and the power family caregivers wield as they intentionally work to either dispense or withhold information from select family members.

LIS and information work beyond health contexts

In the LIS literature, there are also references to information work outside of health contexts even if these references tend to be somewhat sporadic and often refer to several different conceptualizations of the term (Huvila *et al.*, 2016). Furthermore, others such as Pilerot (2014) have referred to the notion of work that builds on Corbin and Strauss's conceptualization (1985; 1988). Huvila *et al.* (2016) have distinguished approaches that refer to information work as either the principal work of a group of (often, information) professionals (e.g. Kuhlthau, 2005; Durrani, 2008) or the work which forms a part of the work of everyone (e.g. Hill, 1999; Huvila, 2013; Yafi *et al.*, 2018); a second-order activity or sub-work (Huvila, 2009) related to other forms of work. In the context of the latter, turning to broader understandings of information work, Huvila (2009) identified references to technology-oriented information work (e.g. Hempel, 2004; Medina-Mora *et al.*,1992), information-centric approaches with an emphasis on information content (e.g. Palmer *et al.*, 2007; Blandford and Attfield, 2010), and colloquial uses of information work and related terms such as e-Work (Nof, 2003) or knowledge work (Newell, 2015) referring to information intensive types of work (e.g. library, information and communication technologies, archives, consulting). The distinctions are not, however, always entirely unambiguous. For example, Liu (2004) sees information work and knowledge work as undertakings that have become more widespread in society due to the introduction of information technologies and the ensuing transformation of working life. Following this type of a hybrid line of reasoning, Clement and Carter (2017), for instance, suggest that "unlike scholars in the humanities more generally, many digital humanists also do the information work needed to support research with digital data, methods, and tools" (p. 1386) – a view that couples an idea of information-work-as-sub-work with the use of particular (digital) technologies. At the same time, however, they note that information work is not exclusive to the digital sphere and indicate that humanities researchers have always engaged in information work, for instance, "administration, teaching, research, service, and writing" (Clement and Carter, 2017, p. 1387).

Information work is, generally, portrayed as an infrastructural secondary activity that supports the principal activity and provides a framework for explicating the informational mechanisms of work. Lloyd (2011) approaches information work in a slightly different sense. For her, information work is a form of labour that emerges as part of workplace practice, as work that connects people with the social structures at a workplace and the modalities and ecologies of information that support them. Being in a sense, "sub-work" (Huvila, 2009) the conceptualization of information work as a second-order activity that supports principal work is closely related to the computing work discussed by Gasser (1986), the concept of patient work (Valdez *et al.*, 2014) based on Strauss' (1993) concept of work, Baker's mediation work (Baker, 2005), and articulation work (Corbin and Strauss, 1985, 1988; Star, 1991; Schmidt and Bannon,

1992). In each of these cases, a specific type or aspect of broader activity is framed as work with information work in a supporting role.

In the context of this article, with information work conceived as a related concept to information activities (including information behaviour and information practices), our primary interest lies in the information-centric conceptualizations. Palmer *et al.* (2007) provide a broad definition of information work "as a general term to refer to information practices at any of these levels of granularity". Blandford and Attfield (2010) similarly suggest that information work is work pertaining to information. In a slightly narrower sense, Huvila uses information work to refer to the information component of human activity. According to him, "all work has an information component and presumes some degree of information processing whether the work is manual labor or highly abstract decision making" (Huvila, 2009). This undertaking can form a primary activity of individuals either in specific information-intensive contexts such as in GLAMs (galleries, libraries, archives, museums) or in domestic, work, or community environments.

Why work?

Proposing an alternative understanding of work

At first blush, it can be tempting to assume that the familiarity and ubiquity of the word work connotes a mutual understanding. As Komlosy (2018) describes, however, work can be "quite the linguistic chameleon: everyone has their own, nuanced definitions, which themselves are in constant flux" (p. 7). As we investigated the ways in which information work has appeared and evolved in existing LIS research, we suggest a more inclusive understanding of work to expand and challenge how information work might continue to be taken up and applied in LIS. Canadian feminist sociologist Dorothy Smith's institutional ethnography offers an alternative and promising way for LIS scholars to think about work. Smith qualifies her definition of work as "generous" and takes work to mean, "anything done by people that takes time and effort, that they mean to do, that is done under definite conditions and with whatever means and tools" (Smith, 2005, p. 151-152). Institutional ethnographers privilege and make visible the work that enables everyday (and every night) life to happen, work that is often so commonplace that it becomes invisible, even to those doing it. This definition considers a host of unpaid, unnoticed, and marginalized activities as work and is evocative of the arguments put forward in the 1970s by feminists bringing attention to the network of unpaid and often invisible work performed by women in the house, often unrecognized as contributing to the capitalistic economy and therefore not counted as "work". We therefore advocate for the integration of Smith's generous understanding of work when studying information work as a means to: first, acknowledge that that the information activities that comprise people's lives are not bound by a paid/unpaid dichotomy; and second, to acknowledge, name, bring value to, and count the often invisible forms of information work that make everyday life possible. Adopting this generous definition of work allows for many lines of work to be incorporated within information work, including affective work (drawing on Hochschild's (1983) early work) and allows for the recognition of information management, sharing, and avoidance as work. Importantly, with this understanding of work, information work is not relegated to happening within GLAMs nor by the staff working

within them, but also includes the work happening in homes, at other places of work (paid, voluntary, or otherwise), on the go, or in the community.

Affordances of a work lens

As already noted, we suggest that the concept of information work as a sensitizing concept in LIS can offer a helpful way to differently think about the ways people interact and engage with information. In this section, we highlight six affordances that the use of information work within LIS research imparts.

First, work affords a lens that can simultaneously acknowledge the conceptual and mental, and even affective efforts of using information, in addition to the more tangible and physical aspects of using information. This particular aspect has been relatively absent from discussions pertaining to parallel conceptualizations of informational pursuits. Second, by building on the extensive literature on the visibilities and invisibilities of work (see, for example, Star, 1991 and Star and Strauss, 1999), a *work* lens can be helpful in bringing attention to the invisibility of particular information activities and their constituents. Star (1991) goes so far as to note that "work is the link between the visible and the invisible" (p. 265). This lens can therefore be used to bring attention to the work that happens in the private sphere, such as the home but also in the public sphere, where particular aspects of informational pursuits (e.g. routines, tasks performed by others or by systems) can more easily escape the attention of both those who perform the work and those who observe it. Stanley (1975), a feminist linguist, noted that the application of certain linguistic forms can erase important details about who is doing what. The ways we choose to think, study, and write about people's activities have the potential to distance and obscure the work, the responsibility, and the agency involved in such activities. And so, much like institutional ethnographer DeVault (1991) argued that the lens of work opened up the possibility of using a language that more adequately captured the work of everyday caring, so too do we see the use of information work as a language that information scholars can apply to capture and make visible the nuances of information activities, including its deeper intellectual, abstract, as well as its emotional qualities.

These two points are particularly salient within contemporary contexts of health and wellness-related information. Trends in the consumption and production of health information arise from changing policies that reflect an "increasing emphasis on the role of individual citizens in maintaining and managing their own health" (Harris, 2009, p. 72). Within the seductive logic of a neoliberal mindset of individualism and healthism (Crawford, 1980) and deregulation and privatization (McGregor, 2001), responsibility for one's or one's family's health increasingly rests on the speculative supposition that "if people are provided with 'good' information, they will be 'empowered' to make 'good' choices" (Harris *et al.,* 2010, p. 212). Governments' delivery of digital health information to patients and families is, for example, portrayed as a strategic and cost-saving way of extending and strengthening the provision of health services (Simpson *et al.*, 2009; Nettleton and Burrows, 2003). These cost-saving benefits rest on a potentially tenuous assumption regarding an individual's ability and willingness to engage with health information and, furthermore, relies on the construct of an informed and empowered patient, as Henderson and Peterson (2002) explain:

> the ‘good consumer’ of health care is compelled to make choices, to exhibit appropriate ‘information-seeking’ behaviour, and to behave in certain prescribed ways (consulting ‘relevant’ expertise, taking the ‘right’, medicine, engaging in personal risk management, and so on). (p. 3)

This enduring “good patient” (and/or “good caregiver”) neoliberal and biomedical discourse hides the complex, emotional, and time-consuming work that is often needed to find, use, share, organize, make sense of, and deal with the implications of the information needed to manage one’s health (or illness). It neglects to take into account the work of navigating health information that can mislead or overwhelm or even change relationships (Barnes and Henwood, 2015). It also fails to account for the work needed to operate and make sense of information from technologies (including smart technologies, telehealth, and telecare) that are increasingly shifting responsibilities to individuals to self-monitor, track, and surveil hours slept, steps taken, calories consumed, or medications administered (Neff and Nafus, 2016). Within this “good patient discourse”, people’s information work, even if seen, is not defined or counted as work, but is simply assumed as one’s participation in their own care. And as a result, a third reason to consider the integration of information work to study and describe people’s health information activities is that is prompts information scholars to open up and distinguish the many different lines of information work required to manage one’s health and wellbeing and to then break each type down into its various task components. Moving away from typical operationalization of health information as concrete countables, including types, amounts, or sources (Lambert and Loiselle, 2007), this allows information scholars a more contextualized and holistic understanding of the information activities people engage with with regards to their health, an understanding that might account for, or at least allow for, the muddled and iterative nature of health information-related activities; “to readily see what actions are involved, who does them, and how the tasks vary in amount, type, degree of difficulty, and amount of time it takes to complete them” (Corbin and Strauss, 1988, p. 9). In response to this biomedical narrative, a fourth affordance in implementing the concept of information work is its ability to help challenge and destabilise traditional biomedical hierarchies between health care providers and patients. Conventional biomedical understandings of health information exchange portray information traveling unidirectionally, from an authoritative, knowledgeable professional to a compliant patient (Johnson and Case, 2012; Lee and Garvin, 2003). The language of *work* as applied to patients’ information work might elevate patients’ agency, destabilise boundaries between producers and consumers of health information, and diminish the polarization between professional and patient or experience and expertise.

Fifth, the concept of work also emphasizes goals relating to (information) activities and their underlying pursuits. Without narrowing down the focus on isolated pieces of action, information work can function as a higher level concept to tasks and work tasks (Huvila, 2008), two popular concepts in information seeking and retrieval literature. In this respect, information work can help to bridge the gap between descriptive and hermeneutic work in information practices as well as behaviour, task, and information needs satisfaction-oriented work in information management and retrieval literature.

Finally, sixth, in taking up a broad and generous understanding of information work as an activity that can happen in everyday (and every night) life, the use of information work in LIS

may prompt its scholars to revisit and question existing, formal LIS models, such as the work/non-work dichotomy established in Savolainen's Everyday Life Information Seeking (ELIS) model. ELIS is currently defined as "the ways in which people acquire information in non-work contexts" (Savolainen, 2008, p. v). Taking up the generous definition of work enables an understanding of people's everyday information work as subject to and embedded in organizational and institutional work practices. We join McKenzie and Davies (2012), Prigoda and McKenzie (2007), and Stooke and McKenzie (2009) in suggesting that constraining individuals' everyday information work to non-work contexts forces a false dichotomy between work and non-work and removes some contextual cues and richness in fully understanding people's everyday information work, including health-related information work. As the everyday is an increasingly important context for LIS scholars (Ocepek, 2018), we suggest ELIS-focused studies investigate participants' paid work contexts not only to examine the information-related skills, habits, and sources that arise from such environments, but for the organizational constraints that paid work contexts impose on people's information work in their domestic and community environments (and vice versa).

Concluding remarks and points of departure

Our aim has been to unpack the notion of *work* (as in information work) as a potential way to begin to think differently about the ways people interact and engage with health information and how it can complement a parallel focus on, for instance, practices, behaviours, and activities. We have purposefully avoided proposing that information work might replace other concepts such as information practices, information behaviours, or information activities nor do we suggest that engaging with the concept of information work would require a new methodological approach or research design. Instead, we suggest that placing an emphasis on *work* can be helpful in highlighting several aspects of informational endeavours that are otherwise at risk of remaining or becoming invisible. This requires LIS scholars to question their focus of what is being studied, how they understand the analyzed and observed actions, and where (and how) they are finding evidence and indications of, for instance, the investment of time and effort, conditions, tools and resources related to the information phenomena under study. As a helpful starting point, McKenzie and Dalmer (In press) offer their reflections and methodological strategies for making visible the information work that may otherwise be hidden, including: attending to the material and the textual, integrating visual methods, privileging the participant's role and expertise, and considering the participant's local and translocal contexts.

It is our hope that this article serves as a provocation for other information scholars to take up, debate, challenge the existing borders of, and ultimately advance the concept of information work. In investigating the complexities of information work's "visible-invisible matrix" (Star and Strauss, 1999, p. 23), there are many unexplored facets related to information work that may serve as helpful prompts for continuing to map the richness of people's information work. A first point for further research includes a deeper examination of the intersections between information work and Corbin and Strauss' "articulation work" (1985; 1988), that is, "work that gets things back 'on track' in the face of the unexpected, and modifies action to accommodate unanticipated contingencies" (Star, 1991, p. 275). There are many potential synergies to explore between information work and articulation work as articulation work can be conceptualised as a form of information work and in broader terms, information work encompasses both formal and informal

management of articulations. Earlier works of Corbin and Strauss (1985; 1988) may provide further guidance to how and where to approach information work and its role, for instance, in the level of tasks, between different lines of information work, and in relation to resources. We propose that the concept of liminality (that is, being betwixt and between, neither here nor there; Turner (1987)) may prove to be a helpful avenue when taking up intersections of information work and articulation work within health and wellness contexts. As individuals navigate their health or illness (or both), they may find themselves moving between one "space" to another, negotiating the ambiguity of, for example, being healthy in some regards yet unwell in others or oscillating between the role of being both patient and caregiver. What might be the information work involved in getting "things back 'on track'" when individuals occupy these porous and "midway" states?

As a second point of departure, information scholars may begin to map and trace the relationship between different kinds of work that intersect with or that may comprise or encompass information work, including adherence work (McCoy, 2009; Senteio and Veinot, 2014), document work (Trace, 2007), the work of keeping track (McKenzie *et al.*, 2014), and the variety of lines of information work itself. These lines may be visible like the work of developing large-scale information systems or giving a TED-talk while others, like colloquial information seeking or using information and information systems, may be invisible and infrastructural to other informational pursuits (Huvila, 2013a; 2013b). In addition to more fully developing the concept of information work and its many components, an important next step includes the formulation of an in-depth comparative analysis between activity theory, practice theory, and cognitive viewpoint theory and the variations between and commonalities with information work.

Third, recognizing that visibility to one's work can simultaneously mean a certain level of legitimacy to that work but can increase opportunities for surveillance (Suchman, 1995), information scholars may elect to look into people's strategic work of keeping some information activities invisible, whether this work is to maintain autonomy over one's health or is to hide embarrassing aspects of a diagnosis, for example (Star and Strauss, 1999).

Finally, and importantly, we cannot help but finish by asserting that framing people's information activities as *work* has the potential to serve as a political and even radical act and process; it has the capacity to make known different mechanisms of power that are linked to the deletion of certain kinds of work. It can give voice and recognition to those whose information work may not be known or whose information work may be so commonplace it is unnoticed and undervalued. This is particularly crucial when studying health-related information activities. The home is a frequent site of health information work. Furthermore, women typically self-identify as "health information managers" (Harris, 2009, p. 74). Together, these two factors mean that "at home, information management, self-care, and health maintenance remain largely invisible and underarticulated" (Harris, 2009, p. 80). In this example, where the information work is being done (the home) and who is doing that work (women) are but two axes on which individuals' information work can be made invisible. Nardi and Engeström's (1999) four types of invisible work: work done in invisible places, work defined as routine or manual, work done by invisible people, and informal work processes, provide a potentially helpful framework to identify potential axes where information work is made invisible. We therefore ask and prompt other information scholars to ask, *how is our understanding of people's information activities changed*

when we restore all of the work? When we restore all of the actors to the story? When we ask who *else* is doing the work involved? These questions are especially important to ask when investigating issues related to health, particularly in current climates of austerity with accompanying declining forms of social protection and community services and increasing emphasis on individualised consumer-based lifestyle narratives.

To close, we propose that *work* affords a lens that can acknowledge the multiple levels of effort and multiple processes (cognitive, physical, or social-behavioural) related to information activities and can emphasize goals relating to (information) activities, consequently bridging a gap between descriptive and goals and needs-oriented lines of LIS research. Building on the extensive work on the invisibilities of work, it can also shed light on the invisibility and visibility of particular information activities, their constituents, and actors.

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