

The application of ethics of care to PIM: Potential for the study of successful ageing

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ABSTRACT

This paper applies Fisher and Tronto's (1990) four phases of ethics of care (caring about, taking care of, caregiving, and care receiving) to personal information management (PIM), with a focus on PIM maintaining. The author argues that ethics of care can provide a theoretical foundation for PIM by using the four phases of caring to structure questions applied to PIM and using the categories of PIM as self care and PIM as care for others to investigate ageing in the context of PIM. The paper begins by reviewing Fisher and Tronto's ethics of care, cites research in related fields that have applied ethics of care, and then describe how ethics of care could be applied to PIM research. This application is detailed by applying the four phases of caring to three different PIM concepts. To conclude, the author offers suggestions for how ethics of care can be applied to future PIM research in the context of ageing.

KEYWORDS

PIM, ethics of care, personal digital archiving

INTRODUCTION

My research focuses on how digital information is maintained over time in different contexts. Within PIM, I am most interested in how personal information is maintained over the long term and what Jones (2008) describes as "for our lives and beyond". I believe ethics of care can be used to investigate how PIM can assist in ageing successfully and has potential to develop PIM concepts and theory, particularly, maintaining.

Ethics of care prompts researchers to place care at the forefront of social concern, which can influence the way in which humans interact with each other and democracy itself. Below, I suggest that if we place care in the context of how we think about PIM, specifically maintaining personal information over time, it may allow for new insights. I also suggest that ethics of care can be applied to PIM maintaining using two categories: self care and care for others.

Instead of asking, "how can PIM help us age successfully?", ethics of care can help scholars to ask, "what could guide our attempts to apply PIM to successful ageing?" My response, considering what I have found in my own research, is that the ethics of care could guide development of PIM research, tools and methods. Below, I will describe the concepts and elements of the ethics of care that I believe are most applicable, provide examples where ethics of care have been applied in related academic work (STS, archives, HCI, CSCW), describe how ethics of care relates to different models and concepts of PIM, provide examples of how I apply ethics of care to my own previous PIM research and describe how I envision ethics of care can help guide the application of PIM to successful ageing.

ETHICS OF CARE

Many early concepts of ethics of care can be traced to social psychologist Carol Gillian's highly cited 1982 book *In A Different Voice*, which provided a new perspective to the moral development of girls and women, and challenged current beliefs of moral development at the time. Gilligan proposed that women "define their identity through relationships of intimacy and care" (p. 164). When faced with moral judgements, women make moral choices based on intrapersonal relationships, not on impartial understandings of justice, which is the starting point in responsibility-based ethics which was popular at the time (Edwards, 2009). Within moral philosophy, care has been positioned as private and emotional, and romanticised as a "feeling" (Ruddick, 1982, as cited by Tronto, 1993). However, this concept of care does not take into consideration the full context of care, including that care can be work.

Over the past decades, researchers have offered many definitions for care and caring. Fisher and Tronto (1990) categorise writing on the ethics of care into three main categories: 1) the selfish carer, which explores caring as a burden that inordinately effects women; 2) the androgynous carer, which explains caring as devalued in patriarchal societies, and suggests that men become more integrated into caring work; and 3) the visible carer, which suggests

that the worthiness of caring is not valued because it is not visible, and therefore not recognised. The visible carer is where Fisher and Tronto place Gilligan’s (1982) work. Fisher and Tronto are critical of Gilligan’s understanding of ethics of care because they believe it separates the moral and emotional aspects of caring from the work and labour of caring activities. In the example they offer, caring for a child is not just caring for the moral and emotional wellbeing of a child, it is also the labour required to keep the child physically safe and meet their physical needs (i.e. cooking, and cleaning up after bodily functions, etc.).

Fisher and Tronto (1990) broadly define care as “a species activity that includes everything we do to maintain, continue and repair our ‘world’ so that we can live in it as well as possible” (p. 40). Care can be directed toward living or non-living things, although it is most often directed toward people. They emphasise that instead of focusing on the actors and their motivation to care, there is a need to focus on the actual practice and activities that caring involves. This includes “effort to keep life going” (p. 40). As such, care is more of an activity or an action, rather than an idea (Tronto, 1998). Fisher and Tronto define caring as a process with four phases: (1) caring about, (2) taking care of, (3) caregiving, and (4) care receiving. These phases are not necessarily performed in order and do not all have to be performed for caring to have taken place. However, “Good care requires that the four phases of the care process must fit together into a whole” (Tronto, 1993, p. 136). As actions, these phases require certain abilities to be completed, including time, material resources and skill (p. 41).

Phase	Description	Definition
Caring about	Attentiveness	Involves the selection of what to care about, and an orientation to care in particular environments, based on limitations including time and resources. It can also press certain people into care, if they are considered the ones in society who <i>should</i> care about something.
Taking care of	Responsibility	Implies the <i>responsibility and accountability</i> for initiating and maintaining caring activities. Responsibility includes a requirement to find the time and resources necessary to engage in caring activities, even if the individual does not have the power to do so, for example, if their means are limited.
Caregiving	Competence	The detailed, concrete, practical, hands-on work of performing the “work of maintaining and repairing our world” (p. 43). This work is often impeded by a lack of time, resources, skill and knowledge. Caregiving may be fragmented from caring about and taking care of (for example, a paid caregiver), which can alienate caregivers and may lead to oppression.
Care receiving	Responsiveness	“The response to caregiving by those toward whom care is directed” (p. 44). People can become their own caregivers, the caregiving does not have to be done by a different person.

Table 1. Fisher & Tronto’s (1990) four phases of caring

In Western capitalist societies, the caring process is usually organised through the household/community (the private sphere), and the marketplace and the bureaucracy (the public sphere) (Fisher and Tronto, 1990). These different settings can cause conflict in the four different phases of caring. As such, when conceptualising the process of caring as four phases, context plays an important role in how caring is conceptualised and enacted. Ethics of care has been situated in feminist theory because of the role of oppression and power in caring which Fisher and Tronto describe, and also the fact that women are inordinately expected to engage in the four phases of the caring process. Much of the writing about ethics of care from a feminist philosophy offers solutions to alleviate the burden, oppression, and unequal power distributions that women face in the “work of maintaining and repairing our world,” which is heightened in the caregiving phase (p. 43). In this context, the goal is not only to change how care is valued, but to change how society is organised in order to allow for changes to the ways in which care is valued (Tronto, 1998).

APPLICATIONS OF ETHICS OF CARE IN RELATED FIELDS

Frequently, ethics of care has been applied to nursing theory and practice, as well as social work (Edwards, 2009). I found several examples of care being applied in information studies areas. These include Caswell and Cifor (2016; 2019), who suggest that the concept of radical empathy should guide archival ethics, as an ethics of care would allow archivists to demonstrate concepts of social justice, through demonstrating care for content creators and users. This

application of ethics of care demonstrates how the concept of care can change how archivists engage with their responsibility to preserve records and the purpose that those records serve.

Within STS, Jackson (2014) cites Gilligan (1982) in his suggestion that an ethics of care could be used to help scholars shift their focus from innovation to repair and broken world thinking. Jackson emphasises the role of moral responsibility in his discussion of ethics of care applied to technology and innovation by shifting the focus to those who do the work of repairing technology and keeping it going. This echoes Tronto's (1993) claim that care can expose power dynamics and that those who do the work of caregiving, or in Jackson's case, repair, are often low paid and invisible. By contrasting well compensated Americans in Silicon Valley with poorly compensated shipbreakers in Bangladesh, Jackson invokes ethics of care to demonstrate phases of innovation: the elites with the most power do the innovation and the marginalised do the repair work.

In the context of studying health information behaviour, Dalmer (2020) has explored the information practices that result from providing care for family members with dementia. This includes the recognition of the invisible work that these information practices involve, which is further fleshed out by Dalmer & Huvila (2019) and McKenzie and Dalmer (2020). Dalmer and Campbell (2020) directly apply an ethics of care to guidelines for reference work in libraries.

Within HCI and CSCW spaces, Muller (2011) writes about how feminist theory can assist one in understanding the user, and Toombs et al. (2015) applies the values of care theory to understand communities of makers and hackers. Toombs et al. (2018) also led a CSCW workshop in 2018 about how to apply care to CSCW research. Interestingly, this work is overly focused on the marginalisation associated with the caregiving phase and the invisible labour it requires.

HOW ETHICS OF CARE RELATES TO CONCEPTUAL MODELS OF PIM

After I began reading about the ethics of care, what struck me about Fisher and Tronto's (1990) definition was the placement of the terms "maintenance" and "repair" and how they overlap with the concept of maintaining in PIM and personal digital archiving. In Fisher and Tronto's definition of ethics of care, the purpose of caring is "...everything we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible" (p. 40). What if PIM maintaining was positioned in a way that it visibly contributes to that goal of living in the world as well as possible? This echoes Jones's (2008) stated description of PIM as "to manage our information is to manage our reality" (p. 9).

Maintenance and repair have historically been described as activities within PIM; Jones (2008) lists maintaining as a metalevel PIM "activity." Bergman and Whittaker (2016) argue that curating personal data, which includes preservation, is central to PIM. It is also significant that Fisher and Tronto's definition includes care for non-living things, allowing for its application to personal information and therefore, viewing PIM as *caring* for personal information. Fisher and Tronto's phases of caring (caring about, taking care of, caregiving, and care receiving) can be mapped onto different PIM concepts and frameworks, with emphasis on maintaining personal information over time. These include the Jones (2008) and Jones and Teevan (2007) conceptual model, Bergman and Whittaker's (2016) concept of PIM as curation, and concepts of personal digital archiving: Marshall's (2008) strategies for personal archiving and Cushing's (2013) characteristics of digital possessions. This mapping can be useful to understand how an ethics of care can be applied to PIM concepts (see table 2 below).

How PIM is defined is largely dictated by how personal information is defined. According to Jones and Teevan (2007), PIM is "both the practice and the study of activities people perform to acquire, organise, maintain, retrieve, use, and control the distribution of information items" (p. 3). Jones (2008) summarises these practices and study by describing "keeping found things found" as an "essential challenge" of PIM (p. 1). This conceptual model defines personal information as a personal space of information (PSI) as: information a person keeps, information about a person kept under the control of others, information experienced by a person outside of their control, and information directed to a person. A personal information collection (PIC) is a personally managed subset of a PSI. The purpose or motivation of PIM is to "protect our time and attention" amidst our efforts to "to fulfil life's many roles and responsibilities" (Jones, 2008, p. 5). The main activities within this conceptual model of PIM are finding and refinding activities, which are supported by the metalevel activities of organising, maintaining, managing privacy, measuring and evaluating, and making sense.

Bergman and Whittaker (2016) describe PIM as a "process," used to retrieve personal data at a later time, but in comparison to Jones and Teevan (2007), they provide a more limited definition of personal information, which includes only information that is personally created and under one's control. This excludes much of what Jones and Teevan consider to be personal information. In the Bergman and Whittaker definition of PIM, the main activity of

curation is defined as making decisions about what to keep, organising, and developing and enacting strategies to retrieve the information later. While Bergman and Whittaker state that curating personal information is for future retrieval and exploitation (use), “future” is not specifically defined. However, if the purpose is use for the individual, then one can assume that “the future” is meant to end when the individual is no longer living.

Personal digital archiving, which is differentiated from how archival theorists define personal collections managed by institutional archives, describes “long term PIM,” or how people manage personal information over a lifetime (Marshall, 2007). Personal digital archiving does not offer concrete definitions of personal information that can be compared with those definitions offered by Jones (2008), Jones and Teevan (2007) or Bergman and Whittaker (2016), but the emphasis rests on belongings (Marshall, 2007) and digital possessions (Cushing, 2013). Cushing defines digital possessions as having an elevated status among other personal information because a digital possession provides evidence about the individual, represents the individual’s identity, is recognised by the individual as having value, and provides a sense of “bounded control.” The fact that personal digital archiving conceives of personal information differently than other PIM models suggests that that definition of personal information may be contextual and can evolve based on a context of short term versus long term. In the context of PIM, personal digital archiving can be viewed as a more sustainable form of PIM which is concerned with the long term versus the short-term ramifications of managing personal information. Cushing (2012) describes the purpose of personal archiving within PIM as supporting one’s concept of identity over time, but also to build a digital legacy that will exist beyond one’s lifetime.

When compared with Fisher and Tronto’s (1990) definition of ethics of care, all PIM definitions and conceptual models are focused on practices and activities. How these practices and activities breakdown is particularly useful when mapping ethics of care to PIM. In the table below, I attempt to map different PIM models and frameworks to Fisher and Tronto’s four phases of ethics of care.

Caring Phase & proposed question that can map to PIM	Jones (2008); Jones & Teevan (2007)	Bergman & Whittaker (2016)	Marshall (2007); Cushing, (2013)
Caring about <i>How do we select which information is personal?</i>	Finding and keeping activities, which includes what to do with the information.	Deciding what to retain or delete.	Predicting value or “heuristics for assessing item value” (Marshall, 2007); Determining value (similarities to Archival appraisal process (Cushing, 2010)
Taking care of <i>How do we take control of personal information?</i>	The boundaries of a personal information collection (personally managed personal information)	Determining the costs of what to retain or delete and making a decision to expend effort to retain specific information	Curatorial effort (Marshall 2007); defining a digital object as a digital possession (Cushing, 2013)
Caregiving <i>How do we demonstrate PIM?</i>	Organising and maintaining (for now, for later or for our lives and beyond)	Management, which involves organisation	Behaviours associated with maintaining, including backing up information, making copies and keeping them in a safeplace, developing and implementing a system of organisation.
Care receiving <i>Who benefits from PIM practices/activities?</i>	Refinding and reuse (including our own reuse and use by people who “come into our ‘space’”. Information as legacy.	Exploitation-retrieval and future use, for the individual	Representing identity back to the individual, a digital legacy curated for other people.

Table 2. Fisher & Tronto’s (1990) phases of caring mapped to PIM concepts & frameworks

One of the most useful applications of Fisher and Tronto's (1990) four phases of caring to PIM is how the phases can be phrased as questions or areas of inquiry. As questions and areas of inquiry, the four phases of caring can help researchers compare and contrast PIM models, and also help us design research that focuses on PIM solutions to pressing problems.

Jones (2008) states that "better PIM starts by asking the right questions" (p. 14). Table 2 offers such questions for PIM in the context of ethics of care. I suggest that better PIM may start with focusing on different contexts, before asking the "right questions" and that ethics of care can help move PIM research toward that goal. Fisher and Tronto's (1990) ethics of care phases prompt researchers to focus on caring in different situations, relying on the concept of the private sphere and the public sphere. Efforts have been made to expand PIM's beyond its origins of the work context, by acknowledging that one's work and nonwork lives often bleed together. However, by applying the public and private sphere to the concept of work and nonwork within PIM, we can further dig into the context of how PIM operates across both spheres using the framework of the four phases of ethics of care. This may allow us to pinpoint how PIM operates in the context of other societal concepts that also bridge the public and private sphere such as marginalisation, inequality, and invisible labour.

Caring about/How do we select personal information?

Tronto (1993) describes "caring about" as "attentiveness." Fisher and Tronto (1990) describe caring about as "the phase of the caring process in which we select out and attend to features of our environment that bear on our survival and well-being" (p. 41). In this phase an individual selects what to care about and what is worthy of their caring. As care involves the use of limited abilities such as time, resources, and skill, we need to select where to focus these limited abilities. Most definitions of PIM discussed above begin with a discussion of what personal information is and what it is not. This suggests that a core activity of PIM is deciding which information is "worthy" of being considered personal, but also which information is worthy of our management. If, as Jones (2008) states, PIM is meant to "protect our time and attention" (p. 5), and as Bergman and Whittaker suggest, PIM involves weighing up costs of keeping and management, then selection is vital in PIM. In personal digital archiving discussions, selection is more explicit, with determining value a key component in deciding what is worth the effort to keep (Cushing, 2010; Marshall, 2007). While definitions of what constitutes personal information many differ across concepts of PIM, selection remains a key component. Therefore, utilising the concept of "caring about" can be useful to help create boundaries for PIM by asking how we select which information is personal, and worthy of management. We can also be aware of different situations in this phase of PIM, by paying attention to how the information we consider to be personal and worthy of management, can straddle the public and private sphere as well as our work and nonwork lives.

Taking care of/How do we take control of personal information?

Fisher and Tronto (1990) describe "taking care of" as action, or the recognition of responsibility for initiating caring activities. Within PIM, once the boundaries are drawn on what constitutes personal information, the next step in the process is a recognition of control and ownership. Control in PIM is akin to the responsibility that Tronto (1993) describes. Control is mentioned in all the PIM conceptual models described above: Jones (2008) describes how personal information can be controlled or not controlled by an individual, Bergman and Whittaker (2016) clearly define information as created and controlled by the individual and Cushing (2013) defines bounded control as one of the characteristics of a digital possessions in the context of personal digital archiving. Therefore, instead of focusing solely on the activities that happen within PIM, expanding scholarly focus with the concept of control within PIM may be of use when we attempt to research PIM in different contexts, such as ageing and PIM over a lifetime. Describing how control is conceived of and enacted over personal information may yield new insight. Focusing on the different players that use PIM to control a situation can also be useful: my colleague Paraic Kerrigan and I used this method when we found that the Irish government used PIM as a mechanism of control within LGBQ families' access to identity documents and family recognition (2022).

Caregiving/How do we demonstrate PIM?

Fisher and Tronto define "caregiving" as the "concrete (sometimes hand-on) work of maintaining and repairing our world" (p. 43). Tronto (1993) links caregiving with competence, as one displays competence through the care activities. Tronto also suggests that caregiving is most closely associated with marginalisation, as elites are more likely to engage in caring about and taking care of, which often involves decision making, which caregiving involves labour that can be outsourced to the market and is often invisible. The concept of PIM as invisible labour was found to define the inequality that LGBQ parents face in attempting to obtain birth certificates and identity documents for their children in Ireland (Cushing & Kerrigan, 2022). The additional PIM was described as feeling like invisible labour,

which demonstrated how the parents faced inequality in the birth recognition process designed by the Irish government.

Turning to the different PIM models above, the act of management, or the physical process of managing the personal information over time through organisation or “keeping found things found” is akin to the labour involved in caregiving. PIM is invisible labour when it is expected, as Jones (2008) states, “to fulfil life’s many roles and responsibilities” yet it seldom is highlighted, recognised or compensated, as work. When it is recognised as work, it is outsourced, by those who can afford it. The rise of costly personal organising services can be seen as a demonstration of this trend.

Care receiving/Who benefits from PIM practices/activities?

Fisher and Tronto (1990) define “care receiving” as “the response to caregiving by those toward whom care is directed” (p. 44). This is where mapping ethics of care to PIM becomes the most difficult, but also where this mapping has the potential to have the greatest impact. While it is not always explicit, some of the models of PIM in the table above imply that PIM is only for the benefit of the individual who performs it. Cushing (2012) suggests that digital possessions can help create a digital legacy and defines a digital legacy as being “specifically maintained/developed for people other than the individual” (p. 89). However, other people are seldom mentioned as the beneficiaries of the PIM that Jones (2008) and Bergman and Whittaker (2016) describe. This is where I suggest the most radical (?) change in the way we think about PIM, especially in the context of ageing and PIM over a lifetime. PIM scholars rarely ask who benefits from PIM practices or activities because of an underlying assumption that PIM primarily is for the individual who performs it. Going forward, I suggest that scholars ask this question and place the answer in two (not mutually exclusive) categories while simultaneously recognising that PIM can take place in public and private spheres: PIM as self care and PIM as caring for others.

PIM has expanded beyond the concept of the work environment that Barreau (1995) used to define it. I believe this is positive, as it demonstrates how PIM can be applied to understand different information contexts, such as maintaining personal information for a digital legacy and inequality of government practices. By asking who the PIM is for and categorising PIM as self care or care for others, researchers can utilise Fisher and Tronto’s (1990) framework of viewing PIM as care receiving. I believe one of the reasons that Fisher and Tronto’s ethics of care framework is so useful is that it will force PIM scholars to dig into the fact that PIM has ramifications with impact beyond the individual. Asking who benefits from PIM, or who PIM is for, will make those impacts easier to discern.

In proposing this, I acknowledge that asking the proposed questions may have outsized impact on exploring PIM maintaining over time, which is my area of interest. However, I challenge other PIM scholars to attempt to apply Fisher and Tronto’s (1990) four phases of caring to their research, even just by starting to ask “who is the PIM for?” when designing an area of inquiry.

CATEGORIES OF CARING, MAINTAINING PERSONAL INFORMATION OVER TIME, AND FUTURE DIRECTIONS

Below, I briefly provide examples of how Fisher and Tronto’s ethics of care can be applied to the concept of self care and care for others within PIM and provide examples of how these categories fit with my past work on maintaining personal information over time. I then offer suggestions of how the categories of self care and care for others can be used to guide future PIM research.

Maintaining as Self care

The self as a recipient of PIM, or PIM as self care can be scaffolded with previous research about the quantified self and the self care movement in health. In describing the relationship between caring for ourselves and an ethics of care, Ward (2015) is critical of how the term “self care” has been co-opted by neoliberal governments to shift caring responsibilities from government services to individuals. Lupton (2016) argues that the quantified self movement, which includes tracking information about the body, has similar roots in neoliberalism: that self tracking can be contextualised as a way to care for oneself, and caring for oneself is a way to act as a good citizen in a neoliberal democracy. Drawing this work together presents an opportunity to understand how maintaining personal information over time can be understood as an act of self care. If the act of self tracking can be viewed as a demonstration of self care, then the organising and maintaining of that self tracked personal information (which Feng and Agosto, 2019 describe in the context of PIM) could be positioned as a form of identity self care via PIM. In this understanding, PIM becomes an example of “everything we do to maintain, continue and repair our ‘world’ so that we can live in it as well as possible” (Tronto & Fisher, 1990, p. 40). In exploring the characteristics of a digital legacy, I found the digital

legacy was often curated in a way that presented the individual in a positive light. A “positive light” was exemplified by a participant who described choosing to save photos that did not make her look too “old” and another participant who did not want to maintain too many photos that depicted his “immature” actions (Cushing, 2012, p. 90-91). This demonstrates an attempt to care for one’s identity through digital possessions. The concept of a digital possession and digital legacy rest of the understanding that individuals conceive of their personal information as representing their identity.

Exploring the reverse of this understanding, personal information that does not represent one’s identity, also allows for viewing PIM as self care. Cushing and Kerrigan (2022) explore instances of where official personal information (largely birth certificates and passports) did not represent the individual’s identity as a parent, but which the individual had to maintain for the purpose of engaging with society. To counter this “does not represent me” view of the personal information, many participants maintained additional personal information that they thought did represent their identities as a way to “counter” the official documents, and/or work to change data collection systems, to allow for the recognition of multiple family structures. In Cushing and Kerrigan (2023, submitted) individuals that identify as nonbinary discuss a similar requirement to maintain personal information that does not represent them, but that they must maintain in order to engage with a society structured by the gender binary. In one example, a participant spoke of the effort that they expended to write their own obituary, preserve representative documents and find a trusted relative that would honour their gender queer identity through maintaining and sharing the “correct” personal information. In this sense, these marginalised individuals use PIM to care for their true identity in a world where that true identity is not always recognised by formal sources.

Future directions for PIM as self care

An ethics of care can help guide our understanding of motivations for PIM as a form of self care. If self tracking is positioned as the form of the neoliberal reaction to self care that Lupton (2016) identified, then there is ground to further explore self tracking in PIM as self care, which can build on Feng and Agosto’s (2019) work. How is self tracked information maintained over time and how does it demonstrate caring for oneself and their concept of identity? How does it help an individual position themselves within a larger community or their responsibility to a community? How might it assist an individual with navigating the public and private spheres? Bergman and Whittaker (2016) also list quantified self and self tracking data as a future direction for PIM research. How individuals maintain personal information over time for others, including the concept of a digital legacy, also provides fertile ground for future work.

Maintaining as Caring for others

The concept of self care as identity preservation and management is intertwined with caring for those with whom we have relationships (often, friends, family and those within our communities). This is described above in how individuals maintain a digital legacy for others (Cushing, 2012), how at the end stage of their doctoral programme, some doctoral students viewed themselves within a community of scholars and planned to maintain and then share their data as a way of “paying it forward” for others within their academic community (Cushing and Dumbleton, 2017) and also how individuals maintain personal information for a loved one as an act of duty in the context of engaging in participatory archiving events (Cushing, 2018), which Kirk and Sellen (2010) describe as fulfilling obligations. In Cushing and Kerrigan (2022), we found that while individuals maintain alternate personal information to construct their identity for themselves, they also maintain this information for their children, so their children are provided information that demonstrates that they are a family, even if the Irish government does not recognise them as such.

In all these examples, PIM maintaining is described as effort, work, and/or burden, which is similar to the invisible and undervalued work of caregiving that Tronto (1993) describes. PIM burden (PIM-B) can be understood as a form of caregiving: caring for one’s identity through PIM for oneself *and* for others with whom the individual has a relationship (Cushing & Kerrigan, 2022). Dalmer (2020) also found that caregivers often experience burdens from the caregiving they perform. Applying the concept of invisible and undervalued labour from caregiving to PIM may yield new insight going forward, especially in explorations of PIM over large amounts of time.

Future directions for PIM as caring for others

What new insights might develop, if the starting point of PIM is that individuals engage in PIM as a way to demonstrate care for themselves and others? In the context of ageing, ethics of care may be able to help us pinpoint potential events, situations and contexts rich in PIM.

As early as 2001, Whittaker and Hirschberg stated that a period of transition (in their example, an office move) was a good time to explore PIM behaviours because an individual would have been more likely to take stock of the personal

information they manage and their habits for managing that personal information. When considering the question of how PIM can assist in successful ageing, care ethics can be useful as a theory to underpin tools and methods to help individuals over the long term, and during different “ageing events.” An ageing event may be intertwined with one of the four phases of caring. For example, parents often manage the personal information for a child, until the child begins to take on more of this management themselves-Jones (2008) describes this as the information needed to fulfil responsibilities. An “ageing event” in this instance could be the ways in which caregivers teach PIM to children and the transition that follows, as an example of caregiving work within the private sphere. In addition, the points at which family members, often adult children, must begin to transition to caring for the PIM of their elderly parents with diminished capacities also represents an “ageing event” at which PIM as a form of care work can be explored. This is complex and would involve all four phases of caring, and the caregiving may be outsourced. These events represent transitions in the maintaining of personal information over time. What can we learn about PIM from these transition events if the events are viewed as acts of caring mapped to the four phases of caring?

CONCLUSION

Several scholars have pointed out that PIM lacks philosophical direction, theoretical foundations, and principles which are needed to advance research within the field (Bergman & Whittaker, 2016; Dinneen & Julien, 2020; Feng & Agosto, 2019; Nwagwu & Williams, 2022). Applying an ethics of care to PIM may be an avenue to address these concerns, especially in the context of applying PIM to successful ageing and PIM over time. An ethics of care may help scholars focus their area of inquiry within PIM, using the categories of self care and caring for others which can be mapped to Fisher and Tronto’s (1990) four phases of caring in the context of the public and private sphere. It may also help scholars compare and contrast existing PIM conceptual models and frameworks, by focusing on how each model demonstrates different elements of care. Lastly, asking “who is the PIM for?” has been largely absent in previous PIM research, with the underlying assumption resting on the assumption that PIM is largely designed to benefit the individual that performs it. If we challenge that assumption, what new insights be produced and how can this allow for new and broader applications of PIM in the future?

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