Stranger in a strange land; enabling information resilience in resettlement landscapes

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Received 26 April 2014
Revised 9 December 2014
Accepted 10 February 2015

Abstract

Purpose – The purpose of this paper is to introduce and explore the concept of information resilience.
Design/methodology/approach – The concept of information resilience emerges from a qualitative study that explored the health information experience and information practices of resettling refugees. Semi-structured face-to-face interviews were employed and the data collected were analysed using an grounded theory approach.
Findings – The present study describes information resilience as an outcome of information literacy practice. As an emerging concept information resilience has the potential to focus research attention towards the critical role that information and information practices such as information literacy have in supporting people whose knowledge bases, social networks and information landscapes have become disrupted during transition.
Practical implications – Public libraries role in support the development of information resilience is considered.
Social implications – The paper draws from a study of the health information experiences of refugees during resettlement (Lloyd, 2014). The concept of information resilience emerges as an outcome of information literacy practice, for people whose knowledge base has become disrupted; and, who because of this disruption, must engage with new information environments and construct new information landscapes to rebuild social capital and bridge the transition into a new community.
Originality/value – Introduces the concept of information resilience as a focal point for investigating transition from an information studies perspective.

Keywords Information literacy, Transition, Refugees, Resilience, Information, Health information
Paper type Conceptual paper

Introduction

Resilience is an ability to bounce back in times of stress, and communities that have endured significant trauma or risk have been a focus of research in psychology, social welfare and public health. Common among these studies is a view of resilience as being imbued with a type of stretchiness that supports the ability to bounce back after adversity. There is also an emphasis on the subjective experience: on personal traits, emotional and institutional support, spirituality and religiosity. While an inability to find information is often alluded to, missing from these studies is an understanding about how mastery of the information environment, through information practices such as information literacy can act as a critical strategy to reduce uncertainty in times of transition.

In this paper, information and information literacy practice are bought to the forefront of an analysis of resilience. An information-focused perspective is adopted to draw attention to, and emphasise, peoples experience and use of information as a central tenet of its research interest. This paper highlights an emerging concept of information resilience. In doing so it draws from the literature in other fields that describe resilience and then it goes on to describes research into the resettlement

Journal of Documentation
Vol. 71 No. 5, 2015
pp. 1029-1042

0022-0418
DOI 10.1108/JD-04-2014-0065

practices of a group of refugees as they learn to access health information (Lloyd, 2014). An information-focused perspective locates information and its operationalisation as focal points that act as a catalyst and underpins the emergence of resilience. In times of adversity or uncertainty, having the capacity and ability to engage with, access, and use information (i.e. to operationalise information literacy practice or to effectively work with information), should be viewed as a critical indicator of a person's resilience. It is also connected to the ability of a person to adapt and to transition through uncertainty. Information resilience is associated with the ability to re-establish social capital that will furnish support in navigating a strange and unfamiliar land.

An information-focused approach to resilience draws from information literacy, information behaviour, information practice and from concepts such as everyday spaces. It is framed through socio-cultural and practice theories (Bourdieu, 1986; Lave and Wenger, 1991) and seeks to highlight how refugees who arrive without established community networks bridge the transition of the resettlement process, engage with new information environments and establish new information landscapes that will allow them to operate within and learn in formal and informal spaces, along with the information affordances these spaces furnish. From this perspective, learning as an ongoing practice that involves the acquisition and transformation of information into new knowledge is context-driven and inextricably entwined with relationships, and identity formation that emerge from co-participation of practice (Billett, 2001; Lave and Wenger, 1991).

When an information-focused approach is employed to explore the concept of resilience, a central theme becomes learning how to go, that is, in times of stress, or uncertainty people require information that will enable them to "go on": to construct strategies that enable them to adapt and transform in order to meet the immediate and ongoing demands of everyday life, or the significant demands created when knowledge bases become disrupted.

Engaging with information and creating an understanding of the larger information environment and its multiple landscapes occurs through interaction with, and exchange of, information. Becoming resilient is therefore predicated upon: learning how to enter, map and navigate new environments; creating communal relationships with others in order to draw from internal and external banks of knowledge; of sharing information; and, in turn, developing shared understanding and meanings.

To emphasise an information-focused approach, the term information resilience has been adopted (Lloyd, 2013, 2014). As a concept, information resilience highlights the role of information, and the contribution that information practices and use play in the resilience process. The idea of resilience in information studies research was introduced to the field by Hersberger (2010), who briefly examined some key theoretical concepts drawn from psychology as an aid to helping librarians understand how to "better to serve users who have experienced stressful or adverse life effects" (p. 1). The term has been extended in this paper and focuses on the information literacy practices and information strategies that people employ to support and guide their capacity to adapt and transform in times of adversity and uncertainty.

In exploring the nascent concept of information resilience, this paper will be guided by a number of questions, for example:

- How has resilience been conceptualised?
- How is resilience understood from an information studies perspective?
- What concepts help frame an understanding of information resilience?

- What is information resilience?
- What role do libraries play in building and supporting strategies that enable resilience? How does the library act as a site of information resilience training?

How is resilience conceptualised?

Early work in resilience research and still much of the focus today, centres on the negative effects of adversity and the psychology of individual responses to adverse situations or conditions (Hutchinson and Dorsett, 2012; Luthar *et al.*, 2000; Masten and Wright, 2010). The locus of this research is primarily focused on risk factors in relation to chronic illnesses in adults, and vulnerability in relation to children (Pooley and Cohen, 2010, p. 30).

There also appears to be no consensus on a definition of resilience, and this is largely due to whether resilience is conceptualised as a process, or as a personal quality or trait. When resilience is viewed as a personal quality or trait, a number of factors emerge that emphasise the affective aspects of personal character, focusing on the optimism, personal strength, adaptability and perseverance (Ahern *et al.*, 2008; Hutchinson and Dorsett, 2012; Pooley and Cohen, 2010). As a process, resilience has been defined more holistically to include the psychological, and the interaction between the "ecological context" and the person (Curtis and Cicchetti, 2007, p. 811). This is the approach taken in this current paper.

Resilience has also been considered as a positive outcome that can occur despite adversity or serious threat. Masten and Wright (2010) describe resilience as "an outcome in spite of serious threats to adaptation or development" (p. 228). Extending this concept of resilience as process and outcome, Masten and Wright (2010) view resilience as a process of interaction between people and changing environments.

The stretchiness of resilience has been described through the metaphor of a bouncing rubber ball (Hegney *et al.*, 2007) as the ability to bounce back. In their study of individuals in rural Queensland the authors describe individual resilience as a rubber ball that will spring back into shape regardless of the stress that is placed upon it. This metaphor is in keeping with the Latin origin of the term resilire which means to bounce back (Neaga, 2010).

Luthar *et al.* (2000) suggest that two markers must be present in order to determine that someone is demonstrating resilience or can be characterised as resilient. These markers are described as adversity, which creates a negative situation or experience, and successful adaption or competence in relation to tasks (p. 543). Continuing with the theme of adaption, Norris *et al.* (2008) have drawn from a wide range of fields to present a theory of resilience that focuses on "stress, adaption, wellness, and resource dynamics" (p. 127). These authors consider resilience to be "a process linking a set of adaptive capacity to a positive trajectory of functioning and adaption after a disturbance" (p. 130).

An ecological approach has been advocated by Ungar (2008, p. 225) who defined resilience:

> In the context of exposure to significant adversity, whether psychological, environmental or both, resilience is both the capacity of the individual to navigate their way to health-sustaining resources, including opportunities to experience feelings of well being, and a condition of the individual family, community and culture to provide these health resources and experience in culturally meaningful ways.

Pooley and Cohen (2010) build on this early work to accommodate recognition of context and propose the following definition: "The potential to exhibit resourcefulness

by using available internal and external resources in response to different contextual and developmental challenges" (p. 34). Resilience is associated with the adaptability of learning and the ability to use learning to transform, while at the same time continuing to function (Pooley and Cohen, 2010). Interestingly, while adversity is always associated with significant challenges brought about by major disruptions (such as dispossession, war, or significant social or physiological trauma) it may also refer to the challenges bought about by less significant but still traumatic challenges such as those of losing a job or having to cope with rapid and repeated workplace or organisational change.

Recently, research undertaken with the military (Cacioppo *et al.*, 2011) has broadened the focus of resilience away from individual resilience to consider social resilience, defined by the authors as "the capacity to sustain positive relationships and to endure and recover from life stressors and social isolation" (p. 44). These authors then expand this concept by suggesting that social resilience has a "unique signature" because it transforms "adversity into personal, relational, and collective growth through strengthening existing social engagements and developing new relationships […]" (Cacioppo *et al.*, 2011, p. 44). Social resilience therefore emphasises peoples ability to work in-consort with others, in joint enterprise, to develop shared meanings that are underpinned by the capability to operationalise information.

In the organisational science field the notion of organisational resilience has been applied to descriptions of systems. In this domain, the concept is associated with the ability to rebound and move forward in adverse organisational situations. Alternatively, the term may also relate to the capacity to develop new strategies and capabilities in order to take up new opportunities (Ponis and Koronis, 2012, p. 923). As a result, two approaches exist in the organisational studies field (Frelas and Burnett, 2014). The first describes resilience as an ability to bounce back from a stressful and adverse situation and to regain control. The second approach suggests that resilience acts as a catalyst for change and focuses on the new capabilities that may be developed (Ponis and Koronis, 2012, p. 923). Frelas and Burnet (2014) have indicated that while these approaches have produced a range of definitions, the common theme in all is the notion of uncertainty. These authors draw attention to the work of Nonaka and Takeuchi (1995, p. 5) who suggest that uncertainly produces periods of external knowledge accumulation as a means of addressing the adverse situation. Frelas and Burnett (2014), working from a knowledge management perspective, have indicated that the organisational resilience literature "places little explicit emphasis on the role of knowledge, and as such the relationships between organisational resilience and the application of knowledge within organisational context are still relatively ill-defined" (p. 3).

The concept of resilience is often closely aligned with studies of social inclusion, wellness and well-being often associated with specific socio-economic groups. Hutchinson and Dorsett (2012) have explored the literature specifically related to refugees and resilience in Australia, but also drew from international studies in order to supplement the paucity of literature in this area. These authors identified themes, which contribute to a view of resilience, relating to: personal qualities, support, religion and spirituality. Key barriers include language, racism, discrimination and labelling, which emphasise the deficit models related to assumptions made about experience with trauma.

In summary, resilience is associated with the ability to bounce back and adapt and to transform in times of adversity and uncertainty. While the concept has been explored in the ecological, psychological, health, social welfare, community and more recently business sectors – currently there is no agreement on a single definition (Luthar *et al.*, 2000; Pooley and Cohen, 2010). However, what is agreed upon is that

disruption is a significant indicator, and while major trauma and distress are often viewed as the common catalysts – this is not always case. Resilience may be influenced and built by a range of factors, one of which, it is argued here, is access to information and the development of sound information literacy practices.

Resilience in information studies literature

In the library and information studies literature, the conceptualisation of resilience as an individual or community construct is nascent and still emerging. However, as research in other fields suggests, a primary resource for resilience is information. As such, the concept should be of interest to researchers and practitioners in this field, particularly as the concept has congruence with information literacy (as outcome of information literacy practice). What is required is the development of a construct of information resilience that has resonance within the library and information studies discourse and community.

Introducing the concept into the library and information studies literature, Hersberger (2010) focused on stress, homelessness and a role for public libraries. This author drew attention to how public and virtual spaces created by libraries can contribute to a sense of place for people who are homeless, abused or neglected.

The idea of community resilience and the role of the public library have recently been explored by Grace and Sen (2013). These authors report that "there is no literature directly concerned with public libraries promoting community resilience" (p. 514), which they suggest is a process "comprising of interrelated adaptive capacities" (p. 534) and concerned with the wider issue of the sustainability of society (p. 518). The autoethnographic study reported by these authors focused on day-to-day working practices, and sought to understand how public libraries enable or constrain community resilience. The study identified the disjuncture between the social worlds of library user and library staff, the use of technology, the constraining effect of professional discourse on technology use, and the role of outreach as potential areas for policy development (p. 513).

The relationship between information and resilience has recently been considered in relation to the workplace by Lloyd (2013). Here it has been suggested that modern workplaces are information intensive and characterised by the need for information to leverage a competitive edge and by the rapid implementation of technologies. This intensification requires staff who are information resilient in times of rapid change, with the ability and agility to adapt and change as the knowledge bases of their workplace also change (Lloyd, 2013).

In light of the range of definitions drawn from a variety of fields including library and information studies, the view of resilience that guides this exploratory paper is that resilience is a quality that is borne through the ability to address times of significant disruption which produces uncertainty. When viewed through an information-focused perspective, the capacity to address the disruption and uncertainty, to employ information literacy practices to enable access to information relative to need, to construct new information landscapes, and to re-establish social networks can be termed information resilience.

Learning to go on: becoming information resilient

The concept of information resilience emerges from a recently reported study of health literacy and the health information experience of resettling refugees (Lloyd, 2014). The study investigated how resettling refugees build an understanding about the

health information landscape of their new country and developed ways of knowing to inform their health-related decision making (Lloyd, 2014). The methodology for this study has been described in detail in Lloyd (2014) and is briefly summarised here as a qualitative study that employed grounded theory method to analyse data. The study sample comprised 20 participants, mainly of African background, which in itself is culturally diverse. Data were collected through a series in-depth semi-structured interviews, which were transcribed by transcriptionists trained in complex accents and then checked by the researcher against the audio recording.

The study identified a number of major themes that serve to explain the association between information practices and the construction of resilience. Resettlement was viewed as a transition that was fraught with difficulty and uncertainty. A major theme emerging from the study described the disruption of a person's knowledge base, requiring reorientation, adjusting and reframing. These phases were simultaneously entwined with a need to construct new information landscapes and this, in turn, required the recognition of affordances to access information and information sources and to operationalise information skills that were appropriate and relevant to the new setting. It also required the establishment of new strategies to deal with the complexity of established environments. These major themes have been described in detail in Lloyd (2014) and are summarised below.

Disruptions to the knowledge base: reorienting, adjusting and reframing

The circumstances of uncontrolled displacement are experienced by participants in this study as a disruption to their existing knowledge bases, ways of knowing and an inability to recognise information affordances or ways of knowing how to access information. This disruption was made more complex for participants who had limited language and literacy capability. Transition impacts on people in a number of ways particularly in relation to the loss of reference points related to familial social relations, extended social networks, and cultural, social, institutional/organisational systems and how they operate (e.g. health, welfare, education). The disruption emerges as a loss of information that is inherent within these reference points. The transition to new environments is underscored by uncertainty (Kuhlthau, 1993) and there is a need to allay this situation by developing knowledge and skills that are appropriate and effective in the new information environments.

For the participants in the refugee health information study this disruption required them to:

- reorient towards their new environments and in doing so begin to connect with and recognise the affordances that will fill in information gaps and reduce uncertainty;
- adjust/modify their previously established ways of knowing to accommodate this disruption; and
- reframe their knowledge in the context of their new environments (Lloyd, 2014).

Reconstructing disrupted landscapes

A feature of resettlement is the disruption of knowledge and the need to establish new social relations and networks. In this respect, and in the context of the health information environment, resettling refugees' information resilience can be associated with the capacity to map the health information of their new setting and to identify places and spaces that will afford practical and affective support. The activity of

mapping enables newcomers to address-specific needs and provides support needed to avoid information overload, which can often result in information avoidance (Johnson and Case, 2012).

In the refugee health information study, the health information landscape was composed of a number of nodes, which represent particular types of associations, social networks and pathways. Formal sites within the information landscape were classified as those with legislative or institutional capacity. Service agencies that tender for refugee support services include: medical sites such as refugee clinics and counselling services, aid agencies' and welfare supports. These sites represent a physical presence and enable access to institutional and compliance information that must be adhered as part of the resettlement contract.

Other sites that constitute place in the landscape were identified as everyday sites such as church groups, sporting teams, social groups, community meetings. For refugees in this study, these sites represented places where affinity groups were located. They also represent sites where incidental information, which differed from the purpose of the site, could be obtained (e.g. health information offered in conversation after mass).

Common to these sites was a range of media and information sources. These were identified as the internet for the principle use of Facebook, e-mail and web browsing, e.g., Google. Other media that acted as an important source of information included: television, newspapers, magazines, pamphlets and books. The static print-based sources were often considered more important because they gave participants with emerging literacy and language skills more time to comprehend the information; while "Googling" was seen as a easy way to obtain information, this information was often printed off.

Dealing with disruption: collective coping

A significant strategy that is central to resilience is that of collective coping. This concept refers to the process of "engaging with others in meaningful, purposeful and culturally congruent ways" (Kuo, 2012, p. 4). Participants in the study employed this strategy to deal with the uncertainty that new information environments present. Participants recognised the importance of socially mediated information and everyday spaces such as faith-based groups and community groups. Collective coping represented a joint activity where refugees who are faced with a health issue, and with limited knowledge of the new health environment worked together to pool fragmented information and combine limited literacies (information, digital and functional literacies) and skills to locate information in order to reduce uncertainty (Lloyd, 2014).

Pooling

Pooling of information describes collectivising bits of information from a wider range of sources in order to gain a more comprehensive picture. In the present study, pooling activity was associated with the incidental activity of everyday spaces and within community sites or family groups where there was is a high level of trust. Pooling occurred on two levels related to understanding where information was located and how to access it. Participants in the study were able to identify the types of information they need (where to get cheaper medicines, information that explains symptoms) and where to obtain sources of information from within the system (from the internet, from TV, from the doctor). However, difficulty in piecing that information together, comprehending the information, and understanding the meaning or consequence was also reported. To alleviate the stress created by knowledge disruptions and to solve

particular problems this transition caused, participants reported sharing and piecing together information to solve issues or problems. As a collective-coping strategy, pooling could occur purposively, where people came to deliberately share information about a particular health issue, but it was also identified as occurring coincidentally in everyday sites.

Discussion: situating a conception of information resilience in library and information science

Information resilience emerges from this research as a concept that enables library and information science researchers to focus on the information literacy practices (activities and skills) and strategies that people must engage with to cope with the disruption of their knowledge base and their need to re-establish information landscapes that reflect changed or altered situations and ways of knowing. While numerous definitions and descriptions of resilience are present in the broader literature, a key marker that appears to be missing from these is the identification of knowledge disruptions and the creation of knowledge gaps that are caused when situations alter or significantly change (e.g. because of trauma), or when adverse conditions prevail. This disruption creates gaps in the information landscape and uncertainty that require the transition from unknowing to knowing and rebuilding of cultural capitals to enable people to transition and build new information landscapes. To further frame information resilience, the concept of social and cultural capital building are introduced as a theoretical lens, because social relationships are often cited as a catalyst for building social capital, but more importantly they are central to the resettlement experience and act a catalyst for resilience (Bourdieu, 1986; Portes, 1998).

The idea that people enter new landscapes in the resettlement transition has been identified by Lloyd *et al.* (2013) and prior to this in relation to the workplace (Lloyd, 2006). The concept of an information landscape lends itself as a metaphor and as an emerging methodology from which to explore information resilience. The concept of uncertainty is also employed to emphasise the impact that a disruption of knowledge creates when a new environment is entered and new information landscapes are created.

Information landscapes

The concept of information landscape (Lloyd, 2006, 2010) as being constituted socially and constructed within larger information environments is central to understanding the impact of knowledge disruption. Information landscapes represent the "total relationships that exist between people who engage in similar performances" (Ingold, 1993), for example, in medical environments there may be many landscapes constructed by, and specific to, the various professions associated with the practice of medicine. Information landscapes have both physical and metaphysical characteristics, which are entwined and inseparable. Information landscapes are grounded by collaborative practices, maintained through membership (e.g. affinity groups with similar interests, purposes or experiences), and composed of social, textual and physical information, drawn from performance, endeavour, situations or pursuits. Ways of knowing these landscapes are complex and rest upon understanding how information is accessed and used, on one level, and how it is produced reproduced, circulated on another.

Our constructions of information landscapes are at first tentative, we need to become familiar with the larger information environment first and understand how it is shaped, what affordances it offers, we must learn to operationalise the information practices and skills and we learn about what information is legitimised. This

information helps us to shape our specific information landscape. Landscapes act as knowledge spaces (representing embodied ways of knowing). They are constructed through access to social, textual and physical information modalities that are relevant to the practice, endeavour or situation (Lloyd, 2006). This access is shaped by an array of socio-cultural, socio-material and economic-political practices. Information landscapes can therefore be viewed as complex information ecologies, which frame and situate particular discourses and narratives, thus entwine people within time and place (Lloyd, 2006, 2010).

The concept of information landscape is informed by an ecological view of information as "any difference that makes a difference" (Bateson, 1972, p. 453), and by affordances (Gibson, 1979) whereby people take up opportunities furnished by the setting. These opportunities are provided by the landscape and are recognised through an understanding of what constitutes information and knowledge in the particular setting.

This view of landscape has resonance with Somerville's work in place literacies because the creation of an information landscape is intricately entwined with learning. Where place is understood to be "both a specific local place and a metaphysical imaginary place […] as an alternative lens through which to construct knowledge about the world" (2007, p. 149). For Somerville place is pedagogical "as centres of experience places teach us about how the world works, and how our lives fit into the spaces we occupy" (Somerville, 2007, p. 151).

For example, when people enter a doctor's office they enter a physical location, which is imbued with meaning. When they enter into a relationship with their doctor they are entering into a space through which inter-subjective agreement about the meaning of their interaction is traded. Information and knowledge are exchanged at both levels creating the information landscape. This information landscape is socially constructed and emplaced within a larger health information environment, which is in turn composed of a wide range of domain specific and structural knowledges.

The health information landscape for example, may be centred on particular knowledge, e.g. diabetes, chronic disease management and ways of knowing how to access this knowledge. It will have spatio/temporal features locating it within time, e.g. in the context of a health information need, and connect to spaces, such as the locations related to health, or the inter-subjective spaces where people agree upon health, e.g. discussions, conversations, narratives (Lloyd, 2014).

The concept of information landscape has the following elements:

- it is both a physical and metaphysical place but focused on particular themes in everyday life which are more complex, e.g., health landscapes reflect the larger information environment;
- it is constructed through engagement with different sites of knowledge and with varied sources of information that are embodied, social and textual;
- its construction involves the recognition of varied sources and categories of knowledge and the multiple connections, inter-connections and saliences that make knowledge possible; and
- information and knowledge are exchanged in ways that are complex, will often be contested but are recognised as meaningful.

When newcomers such as refugees enter a new information environment (e.g. health), they may be exposed to different knowledges (procedural, declarative, local, contingent) and ways of knowing that differ from their established ways of knowing. This disjuncture

between established and new information environments, results in a knowledge disruption or a gap, which in turn acts as a catalyst for uncertainty and anxiety (Kuhlthau, 1993, 2004). Kuhlthau (2006) has tied information to the reduction of uncertainty in her work on the search process and she suggests, "[…] people are likely to experience heightened uncertainty in the face of unique, incompatible, inconsistent information that requires construction and interpretation to be personally understood" (p. 233). In the case of refugees, uncertainty is the result of forced movement away from familiar places, people and established ways of knowing that had formed part of their information landscape. This is also extended into an inability to adequately gauge meaning and make sense of a new information environment because of limited language and literacy competencies.

Rebuilding capital in the disrupted landscape

The concept of social capital lends itself to understanding how information resilience emerges, because the development of social relationships and networks is often cited as a central feature of developing resilience. The idea that social capital represents the networks that build up around individuals has been explored by Hope (2011, p. 94). Earlier, Bourdieu (1986, p. 248) defined social capital as "the aggregate of the actual or potential resources, which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition". From an information perspective, resources can be identified as information and knowledge about the nature, flow and location of information and the operationalization of information skills within a social system. The emphasis here is on access to relationships and access to embodied capital, which can increase their cultural capital (Bourdieu, 1986; Portes, 1998).

Here the idea of bonding and bridging (Putnam, 2000) capital may also provide the explanatory power that may contribute to understanding how information resilience is built. Refugees often arrive in new countries without connections or the immediate support of social networks, and what connections that they do have may be limited to the formal and institutionalised relationships with resettlement agencies. They therefore lack social and cultural capital, and must learn to create social relationships with established and situated groups who will provide a bridge for them into the social setting and allow them to develop bonds. Bridging capital refers to making connections with people who may not be similar and identifying locations that help people to connect. While bonding capital refers to the elements that bring people in groups closer together, e.g., same race, or religion, and establishes and maintains networks (Putnam, 2000). Holland (2009, p. 340) suggests that while bonding capital helps people to get by, bridging capital enables them to "get on". One of these elements is the development of shared understandings and ways of knowing that come from agreement about what information and knowledge are important and legitimate (Lloyd, 2010).

To successfully connect with a new landscape, newcomers will need to operationalise ways of knowing on two levels. The first focuses on the landscape's structure and on ways of knowing how the structure is shaped, how to navigate within the landscape and how access to information is operationalised – it is therefore epistemological in nature. At another level, people engage with situated knowledges of the landscape (the "know why" knowledges). At this level they are engaging with the ontological nature of the site, in this case knowledge related to health.

What is information resilience?

Researching issues related to resettlement from an information-focused perspective emphasises the role of information and people's experience of information and learning

how to go in a new environment. The use of the term information resilience, describes the outcome of practices such as information literacy and places emphasis on the central role that access and use of information plays in enabling people to transition through times of uncertainty. While other fields recognise that there is a need for information, research in these fields tend to focus on producing descriptions that highlight the process or attributes of resilience. The result is the underlying catalyst -the need for information – and response – the operationalization of skills that address the need – are still largely missing from the literature.

The resonance of information resilience as a researchable and an explanatory concept resides in its ability to frame the outcome of people's engagement and experience of information when knowledge bases are disrupted, and to frame the practices and literacies (information, digital, functional) that are required in order reduce uncertainty. This approach brings the need for information to the forefront and advocates a user centred perspective. While the concept is closely associated with adversity and risk, these elements should be viewed along a trajectory from significant (uncertain about changes in the workplace) to catastrophic (the need to obtain information during high-risk events such as natural or man-made disasters).

Central to resilience is the capacity to understand how information is situated and shaped within an environment, to recognise the affordances that will enable access to information and to construct an information landscape that reflects the situated experience. The ability to operationalise information skills to address challenges becomes part of this practice. The idea of information resilience has congress with the concept of information literacy and while further research is considered necessary, it may be tentatively described as a general outcome of information literacy practice.

The concept of social and cultural capital (Bourdieu, 1986) and the role of bridging and bonding capital (Putnam, 2000) also present useful ways to frame research into information resilience and to address questions about why and how information landscapes are constructed. The need to establish and maintain social relationships is important to the building of social and cultural capital and results in the need to access information that bonds people and groups together but also one that creates bridges to new resources that will enable resilience to occur. In this context, the strategy of pooling information becomes a central theme to building resilient information practices where people's knowledge base has become disrupted due to adversity or significant change.

While the concept of information resilience is nascent in the library and information science field, and further exploration is required, the present study conceives information resilience an outcome of the ability to engage with information practices, and information tools and to operationalise these tools to through knowledge disruption. While this current discussion has been located in transition health information environment, it may be that the concept has salience in other sectors, particularly in relation to the transition from education into work and the transitions that are required in rapidly changing workplaces.

Supporting information resilience training: a key role for public libraries

The concept of information resilience provides a lens with which to examine the impact that public libraries play in supporting the everyday learning needs of this specific cohort, and for other disadvantaged or socially excluded groups identified by Hersberger (2010). For refugee groups, becoming information resilient requires a safe and non-judgemental place, where assistance is offered to enable the developing information literacy practices that will support transition. In this respect public

libraries are uniquely placed, to meet the local demands of resettling groups, by providing information, resources and training that target groups and individuals experiencing trauma or stress in resettlement. The study of refugee health information experiences indicates that health information is one of these areas.

Conclusion

The increased movement of people across the globe has implications for all professions including researchers and practitioners in the library and information science professions. Understanding the implications of transition and resettlement from a perspective that inherently understands the role of information (or lack of it) in people's lives put us in a unique position of being able to make a significant contribution that can impact on the lives of people whose lives are now fraught with uncertainty.

In using the term information resilience, an attempt has been made to open a door to emphasise and focus attention towards information as the central resource required to rebuild information landscapes, and for rebuilding social and cultural capital, which enable resilience and support people in difficult situations to learn how to go on. The health information landscape and health-related information practices of resettling refugees has been used to highlight this concept and to bring together a series of sensitising concepts, which may focus further work in this emerging area.

However, the scope of this concept should not be confined to a single area of library and information science research and further work is required across a range of different information landscapes to develop the a theory of information resilience which may be used an analytical lens through which to explain people's experience and use of information as they transition through times uncertainty and change.

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About the author

Dr Annemaree Lloyd works at the School of Information Studies at the Charles Sturt University. Annemaree has extensive interests in information literacy and information practice in theoretical and applied settings. Her current research programme is focused on exploring information literacies and information practice in workplace and community contexts. Annemaree has published extensively in the areas of information literacy in workplace contexts, the role of information literacy in embodied learning, information affordances and communities of practice. She has also published in areas of information practice and social inclusion. Dr Annemaree Lloyd can be contacted at: anlloyd@csu.edu.au

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1. E-7703-2016 PollakAngela Angela Pollak Angela Pollak completed her PhD in Library and Information Science at the University of Western Ontario where she examined experience as an information source in rural, blue collar and leisure contexts. Her interdisciplinary, often innovative theoretical and methodological approach to information behavior research has earned her several awards including the ALISE/Proquest Methodology award (2014) and the Eugene Garfield Dissertation award (2016). Angela is an Active Member of the Association for Library and Information Science Education, the Canadian Rural Revitalization Foundation, and the Canadian Association for Leisure Studies, and served as Co-chair for the Annual Canadian Association for Information Science Conference (Calgary, AB, June 2016). She is currently a Postdoctoral Fellow at the University of Alberta's School of Library and Information Studies in Edmonton, Alberta, Canada. Faculty of Information and Media Studies, University of Western Ontario, London, Canada . 2016. Information seeking and use in the context of minimalist lifestyles. *Journal of Documentation* **72**:6, 1228-1250. [Abstract] [Full Text] [PDF]