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Ending the dance: a research agenda for affect and emotion in studies of information behaviour

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Abstract

Introduction. Current trends necessitate the need to consider affect and emotion in information behaviour. A research agenda is required to ensure a systematic and holistic approach to information behaviour scholarship that will align research foci, methods and theories with the practical needs of society at large: where are information behaviour studies focusing on affect and emotion needed and what are the foci of studies to date?

Method. The cornerstones for a research agenda are outlined before discussing findings from an exploratory literature survey.

Analysis. The literature review is organised around six broad themes: where, how, whom, why, when and what, with specific reference to information activities and interactions involving affect and emotion. For each theme, relevant information behaviour research is noted, and opportunities to extend research on affect and emotion are identified.

Results. A research agenda is suggested that calls for tighter conceptualisation of affect and emotion, methods for setting research agendas, and researcher and research participant self-awareness of emotion and affect. These recommendations address the broad agenda themes, and have potential to align research findings with practical outcomes.

Conclusions. This paper provides a foundation to explore a research agenda which addresses significant information-related needs, and expands the scope of information behaviour scholarship.

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Introduction

It is becoming apparent that across the globe increasing numbers of people are facing hardships, uncertainty, emotional trauma, challenges in excelling and keeping a competitive edge, and dealing with challenges to quality of life. These troubling situations represent their lived-experiences ([Broome 2014](#); [Ekwall, Ternstedt, Sorbe and Sunvisson 2014](#)). Technology has changed the mode and speed of sharing information and experiences, and geographic distances are not the issue they once were. Systems and cognitive approaches to information provision, sharing, using, and seeking, as well as to the design of information systems, are increasingly recognised as insufficient ([Gossen and Nürnberger 2013](#); [Nahl and Bilal 2007](#)). These traditional approaches were never sufficient; Savolainen ([2014](#)) reminds us about early encouragement by Wilson, Kuhlthau and Dervin to consider emotion in information behaviour and sense-making.

For all people, a number of emotionally laden situations manifest on a daily basis. Not only traumatic and sad, but also joyous situations such as promotions and celebrations, require coping, sense-making, dealing with stress and anxiety, making choices and taking decisions ([Fulton 2009](#); [Savolainen 2014](#)). In such situations, information can impact on emotions; emotions can be detected, or emotions can be steered or influenced by information. Emotions can have an impact on motivation, actions, and behaviour ([Savolainen 2014](#)). Emotional experiences are embedded in information behaviour and information behaviour can trigger or change emotional experiences. Information interactions can be tailored to elicit positive emotions and ameliorate negative emotions ([Nahl and Bilal 2007](#)). This brings us to the need to deepen our understanding - to study information behaviour from an affective paradigm ([Fourie and Julien 2014](#); [Nahl and Bilal 2007](#)). We need to fill the "emotion" gap in information behaviour research, and ensure that this research holds practical value.

Affect and emotion have frequently been noted in information behaviour and information science literature ([Julien, Pecoskie and Reed 2011](#); [Lopatovska and Arapakis 2011](#); [Thellefsen, Thellefsen and Sorensen 2013](#)). The emotionally-laden nature of work in libraries and information services has also been recognised ([Matteson and Miller 2013](#)). Nahl in the introduction to Nahl and Bilal ([2007: xxvii](#)) strongly encourage an affective paradigm focusing on affect and emotion in information behaviour. She states, "[a] focus on affect in information behavior can breathe new life into research by expanding research environments to include every setting where people use and exchange information, including the mental and societal information environment, and promote a cumulative and holistic approach to understanding human engagement with information."

More recent reflections by Fourie and Julien ([2014](#)) and Julien and Fourie ([submitted](#)) show that although interest continues, it appears as though information behaviour researchers are merely "dancing around affect and emotion." We argue that it is time to end the dance, and attend seriously to these aspects of information behaviour. There are no notably successful attempts at tight definitions and conceptual clarity, and research studies tend to reflect *ad hoc* projects or personal paths of interest. Apart from suggestions for a research agenda on the emotional labour of librarians and information specialists ([Matteson and Miller 2013](#)) and Lopatovska and Arapakis ([2011](#)) on theories and methods, the authors are not aware of more recent proposals for a research agenda for affect and emotion in information behaviour.

Research problem and scope of the paper

The question thus arises: how do we move research on affect, emotion and information behaviour forward in terms

of a research agenda and advocating for the value of such research for practice? A research agenda determines the research focus, research goals and the priorities of research. This paper will thus address:

- cornerstones of a research agenda;
- a review of recent literature (2009 - 2013) according to broad themes, framed against a brief review of earlier relevant reviews in information science; and,
- suggestions for a research agenda (including both theory and practice).

Cornerstones of a research agenda

A research agenda requires:

- clarity on concepts since these will demarcate research projects (for this paper, *information behaviour*, *affect* and *emotion* are important);
- a spectrum of methods to enhance mapping a research agenda;
- a body of literature that is consulted as a point of departure; and,
- researcher awareness regarding the importance of affect and emotion.

Need for clarification of affect and emotion

The terms "affect" and "emotion" are often used interchangeably and typically remain undefined. Researchers opt for an intuitive, or what Saracevic ([1975:324](#)), in discussing relevance, refers to as an "y'know" interpretation.

According to Russel ([2012:337](#)) '*Emotion researchers face a scandal: We have no agreed upon definition for the term - "emotion" - that defines our field*'.

Emotions are reflected in terms such as boredom, curiosity, frustration, irritation, skepticism, enjoyment, fear, anger, shame, sadness, grief, love, joy, surprise, desire, sympathy, excitement, suspicion and aggression ([Artino and Jones 2012](#); [Bowler 2010](#)). In studies of information behaviour we need a vocabulary of emotions to establish what counts as emotional experiences, to describe what needs to be studied. Emotion can be displayed or expressed, or can remain hidden. Emotions are interpreted by people; displays or expressions of emotional experiences are interpreted by researchers and portrayed in their research findings.

Affect refers to attitudinal and emotional responses, as well as behavioral intention, and is often measured on a Likert scale, e.g. like-dislike, difficulty-ease, confidence-anxiety, and interest-boredom ([Lee and Ke 2012](#)). We need to parse affect and emotion more carefully, for instance by using tools such as the Geneva Emotion Wheel, or other relevant instruments (cf. [Lopatovska and Arapakis 2011](#)).

A lack of clarity on the interpretation of terms can be addressed in various ways. Pastrana, Jünger, Ostgathe, Elsner and Radbruch ([2008](#)) offer a good example of a *systematic review* of definitions of palliative care. Wetherell ([2012](#)) looks for a *pragmatic way* to define affect and emotion, acknowledging *interpretations from different disciplines* such as sociology, psychology, and education. Disciplines such as affective computing ([Geller 2014](#)) might also shed light on this challenge. Conceptual clarity can be sought from *philosophical or semantic* points of view. The October 2012 edition of *Emotion Review* focused several articles on defining the concept - notably Dixon ([2012](#)) on the history of emotion as concept. Mulligan and Scherer ([2012](#)) suggest a working definition of emotion that requires an affective *episode*, *intentionality*, *bodily changes* (arousal, expression, etc.) that are felt, and a *perceptual or intellectual episode*. Although many definitions of affect and emotion can be noted in studies of information behaviour ([Nahl and Bilal 2007](#)), there is still a serious lack of conceptual clarity in our field, which limits efforts to move research forward.

Need for clarification of information behaviour - a comprehensive interpretation

Acknowledging a spectrum of definitions of information behaviour ([Case 2012](#); [Wilson 1999](#)) as well as information practice ([Savolainen 2008](#)), for purposes of this paper information behaviour refers to all information-related activities and encounters, including information seeking, information searching, browsing, recognising and expressing information needs, information encountering, information avoidance and information use.

Spectrum of methods to enhance mapping a research agenda

A very wide range of methods can be used to gain clarity on the status quo of research foci and issues that should be addressed by research. These include literature reviews, systematic literature reviews, meta-analysis and content analysis (quantitative and qualitative) ([Krippendorff 2013](#)), Delphi studies (i.e. group consensus) ([Browne, Robinson and Richardson 2002](#)), and participatory audience research ([Kruger, Fourie and Dick 2013](#)). In this paper we offer a basic literature review as first step to map a research agenda.

Body of literature consulted as point of departure

Although studies of information behaviour stretch over a spectrum of disciplines, including health, education, psychology, communication and management, only two key databases in library and information science were searched to provide a point of departure for purposes of this paper: *Library and Information Science Abstracts* (LISA) and *Library and Information Science Source* (incorporating the former Library and Information Science Technology Abstracts (LISTA)). The words *affect* or *emotion* had to appear anywhere in the record; to keep to a manageable number of references, the full text was not searched. Publications for closer inspection were hand selected. The search covered the period 2009 - 2013. As a cornerstone this method should be supplemented by other methods with more refined methodologies for literature searching, such as systematic reviews.

Researcher self-awareness

For studies on affect, emotion and information behaviour, researchers' lived-experiences and emotions, and clarity about working within an affective paradigm should be a fourth cornerstone, i.e. adding a phenomenological point of view to research reports and stressing emotional intelligence. For example, Michels ([2010](#)) reports on the place of the person and his/her emotional experiences in information behaviour research. This understanding might be supplemented by insights on the impact of researchers' information processing styles ([Ford 1999](#)).

Literature survey

The following is offered as an exploratory review from library and information science publications as the "home" discipline for studies of information behaviour. Although it does not nearly reflect the spectrum of human situations that can benefit from information behaviour studies focusing on affect and emotion, nor the complete scope of studies undertaken, this review reveals a manageable framework to support further analysis of the literature to date, and is readily supplemented by other research methods.

Framing against earlier work

Earlier work on affect and emotion has been reported by Julien *et al.* ([2011](#)), Matteson and Miller ([2013](#)), and Nahl and Bilal ([2007](#)), among others. Julien *et al.* ([2011](#)) found that consideration of affect in information behaviour work has not changed appreciably over time. Matteson and Miller ([2013](#)) review attention to emotional labour, which,

with the exception of a study reported by Julien and Genuis (2009), has appeared outside of the information behaviour literature. Nahl and Bilal (2007) devote an entire monograph to reports of emotional aspects of information behaviour. Clearly, the early calls for attention to these variables have had some influence, but the significant potential remains for further work in this area.

Review of recent studies (2009 - 2013) according to broad themes

The literature identified in the two databases (i.e. publications mentioning affect and/or emotion in any field; full-text excluded), revealed six broad themes, as shown in Table 1. These are used to discuss trends in terms of (1) changes and challenges in society that impact on information behaviour and that are notable for emotional experiences, (2) related reports of information behaviour research, and (3) issues for further consideration. The table and detail should be extended and refined as research progresses.

Table 1: Framework for information behaviour research relevant to affect and emotion

	Changes in the environment where people find themselves (physical, virtual)
Where?	Affect and emotional experiences reported regarding the places where people can seek reliable information
How?	Means/media that people use to share information and to express their information needs How they do this, e.g. words, pictures, emoticons
Whom?	People who need and seek information People who are involved with others and who respond to information needs People facilitating information interactions or seeking information on behalf of others (e.g. proxy information seekers, information gatekeepers and information intermediaries)
Why?	Reasons why people need and seek information Reasons why people get involved in information interactions, e.g., in sharing information
When?	Situations and times when people need and seek information Accidental exposure to information
What?	Content that people are sharing Content that people are seeking

Where: environments where people "live" and seek information

The twenty-first century is marked by changes in the environment in which people live and operate and where information interactions manifest. There is an increase in people physically relocating for short periods or long term, as is the case with immigration, thus finding themselves in different and unfamiliar environments (Yao 2009). This applies to changing jobs, education, travel and re-location for political reasons. It involves many potential challenges, including language and cultural differences, enculturation, maintaining personal identity, forming new friendships and alliances, and maintaining personal relationships across distances. The ability to use information communication technology (ICT) such as e-mail, voice-over-Internet, and instant messaging is often crucially important under such circumstances. To complicate these issues, concerns about the digital divide are prominently associated with lower socio-economic and minority groups, and often immigrants (Chen 2013; Hersberger 2003). Changes such as these are strongly associated with affect and emotion in people's lived experiences and in their information behaviour.

An increasing number of interactions and experiences manifest in virtual worlds (i.e. cyberspace). These include education and training, conferences, online support communities, leisure, gaming, and even dating, all which are

associated with affect and emotion ([Artino 2012](#); [Artino and Jones 2012](#); [Partala and Kallinen 2012](#); [Regan, Evmenova, Baker, Jerome, Spencer, Lawson and Werner 2012](#)). References to affect and emotion in virtual environments include situations like cyber-bullying, disillusionment, marginalisation, and public humiliation - sometimes leading to suicide ([Agosto, Forte and Magee 2012](#)).

Many information behaviour studies in virtual environments take note of affect and emotion ([Augustsson 2010](#); [Brubaker, Hayes and Dourish 2013](#); [Campbell, Coulson and Buchanan 2013](#); [Chiu, Cheng, Huang and Chen 2013](#); [Cowan and Jack 2011](#); [Fullwood, Melrose, Morris and Floyd 2013](#); [Kernisan, Sudore and Knight 2010](#); [Lim 2009](#); [Liu and Li 2012](#); [Maloney 2013](#); [McCarthy, Carswell, Murray, Free, Stevenson and Bailey 2012](#); [Nambisan 2011](#); [Percy and Murray 2010](#); [Savolainen 2012](#); [Shiau and Luo 2013](#); [Whalen, Pexman, Gill and Nowson 2013](#); [Yao 2009](#)). Baralou and McInnes (2013) report on emotions and the specialisation of social networks in computer-mediated communication, Lee, Kang and Kang (2013) on the need to relieve aggression in virtual worlds, and Bell (2011) compares experiences of library-based and web-based research.

Research also attends to emotion in physical spaces such as libraries ([Kun-Yu and Chang 2010](#); [Sharp and Williamson 2013](#)). Physical places where people seek information, such as libraries and archives, are also associated with the need to provide care and to take account of clients' emotions - sometimes negative emotions ([Chouinard 2010](#); [Noteborn, Bohle Carbonell, Dailey-Hebert and Gijsselaers 2012](#); [Sheih 2010, 2011](#)).

A deeper understanding is required of people's information behaviour in making sense of new or unfamiliar environments (physical or virtual), in sharing information to connect to other people (specifically in virtual environments), in maintaining relationships, and in coping and adapting to situations in these environments when faced with multiple complexities (e.g. facing health problems, abuse, disability or unemployment as an immigrant). Furthermore, the emotions associated with environments where reliable, trustworthy information can be sought need to be investigated. Affect and emotion related to information behaviour in contexts noted for emotional experiences, such as online education, especially need attention; Muwanguzi and Lin (2010) report on blind students' struggle to achieve academic success in a virtual environment where the "whom" (i.e. blind students) adds to the complexity of the context.

How: means of sharing information and of expressing information needs

"How" refers to the means and media that people use, as well as how they are actually using information, i.e. the words, pictures, emoticons and intensity of emotional expressions ([Kwon, Kim and Kim 2013](#)). Although asking friends, family and professionals face-to-face for information or turning to a library or information service are still relevant, more people are turning to electronic devices and the Internet to seek and provide information. Mobile technology and social media, such as online discussion forums and online communities, are increasingly important. Numerous health and social problems are taken to online communities in quests for answers and peer support: alcoholism ([Chuang and Yang 2012](#)), smoking ([Sadasivam, Delaughter, Crenshaw, Sobko, Williams, Coley, Midge, Ford, Allison and Houston 2011](#)), diet and losing weight ([Savolainen, 2010, 2012](#)), and diseases such as breast cancer ([Setoyama, Yamazaki and Namayama 2011](#)). People seek information and especially emotional support; they ask questions and get answers, and they are trying to make sense of their situation and deal with uncertainties and emotional experiences such as loneliness ([Cotten, Anderson, and McCullough 2013](#); [Nambisan 2011](#); [Savolainen 2010, 2012](#)).

Other research examples include the use of mobiles for real-time opinion sharing ([Schleicher, Shirazi, Rohs, Kratz and Schmidt 2011](#)), for self-monitoring and management in healthcare contexts such as depression ([Kauer, Reid, Crooke, Khor, Hearps, Jorm, Sancu and Patton 2012](#)), as well as the use of mobile therapy and emotional self-awareness in mental health ([Morris, Kathawala, Leen, Gorenstein, Guilak, DeLeeuw and Labhard 2010](#)). Studies of

information behaviour that refer to emotion include tweeting as means of sharing ([Bae and Lee 2012](#); [Goh and Lee 2011](#); [Thelwall, Wilkinson and Uppal 2010](#); [Thelwall, Buckley, Paltoglou, Cai and Kappas 2010](#); [Wohn and Na 2011](#)), smartphones for information interventions for chronic pain ([Kristjánsdóttir, Fors, Eide, Finset, Stensrud, Van Dulmen, Kwon, Kim and Kim 2013](#)), 3DTV ([Shin 2012](#)), and YouTube ([Sylvia Chou, Hunt, Folkers and Augustson 2011](#)). Examining the use of mobiles for online shopping, Lu and Su (2009: 442) note: *'the consumer's self-perception of mobile skillfulness significantly affects anxiety, enjoyment, and usefulness...'* Affect is also an issue in adopting mobile technology ([Karaiskos, Drossos, Tsiaousis, Giaglis and Fouskas 2012](#)).

A deeper understanding is required of how the medium affects what is being shared: the amount of information, the tone, the revealing of deeply personal information and experiences, the choice of words or symbols, and the emotional awareness of people as reflected in information interaction (e.g. factual or emotional). A deeper understanding is also required of cognitive strategies and meta-cognitive awareness required in dealing with emotion and opinion when seeking and sharing information ([Bowler 2010](#); [Pengnate and Atonenko 2013](#); [Wohn and Na 2011](#)).

Whom: people involved in information interactions

"Whom" refers to the people who need and seek information, those who are involved with others and who respond to information needs, and people who facilitate information interactions or seek information on behalf of others. Often people seek and receive information for very emotional reasons. Cushing (2010) reports on the information seeking behaviour of sperm donor offspring seeking their genetic identity. People also give and share information as participants in online support communities ([Shim, Cappella and Han 2011](#)), as bloggers ([Bae and Lee 2012](#)) or as tweeters ([Gruzd, Black, Le and Amos 2012](#)).

Emotional involvement results from caring about people, such as the homeless ([Muggleton and Ruthven 2012](#)), or from the very nature of a profession, such as in healthcare, social work, teaching, law enforcement, in church and clergy and even in librarianship ([Fourie 2009](#); [Fourie and Claasen-Veldsman 2011](#); [Juniper, Bellamy and White 2012](#); [Lippke 2012](#); [Roland 2012](#); [Shuler and Morgan 2013](#)). Dick (2013) notes the need to deal with the emotional experiences of post-graduate researchers. Emotional involvement can lead to proxy information searching (i.e. searching on behalf of others) ([Bitso and Fourie 2012](#)). In professional contexts information is sometimes shared for emotional reasons, such as for gaining acceptance and approval ([Bronstein 2013](#)). Even policy makers have been associated with affect and emotion ([Greyson, Cunningham and Morgan 2012](#)).

People needing information and whose information behaviour has been studied come from every corner and context of life, and include all age groups ([Arndt 2011](#); [Bowler 2010](#); [Choi and DiNitto 2013](#); [Cotten et al. 2013](#); [Gossen and Nürnberger 2013](#); [Hasim and Salman 2010](#); [Nwagwu 2009](#); [McCarthy et al. 2012](#); [Siriarraya, Tang, Ang, Pfeil and Zaphiris 2011](#); [Tukhareli 2011](#)). For example, the information needs and behaviour of young children have been studied in situations when a parent is in an advanced disease stage ([Kennedy and Lloyd-Williams 2009](#)). Although strongly associated with youth, the elderly also find emotional support in online communities ([Cotten et al. 2013](#)). Tella (2013) found that young people in online discussion forums are more willing to talk about sensitive issues such as information on sexual pleasures.

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Emotional aspects of information interactions have been studied for people in particular social roles, such as caregivers, parents, children, and friends ([Børøsd, Cvancarova, Ekstedt, Moore and Ruland 2013](#); [Colineau and Paris 2010](#); [DeMarco, Nystrom and Salvatore 2011](#); [Fourie 2010, 2012](#); [Johnston, Worrell, Di Gangi and Wasko 2013](#)) and as consumers ([Chang, Fang and Tseng 2012](#); [Nei-Ching and Yi-Ju 2011](#); [Reid and Borycki 2012](#); [Ren and Quan 2012](#)). Some are studied in terms of their academic roles as students and researchers ([Chang, Gang and Tseng 2012](#); [Nei-Ching and Yi-Ju 2011](#); [Niu and Hemminger 2012](#); [Reid and Borycki 2012](#); [Ren and Quan 2012](#)). Emotion is also at stake in leisure and entertainment; grief and deception has been noted in gaming ([Rubin and Camm 2013](#)).

Information interactions do not manifest only on an individual level. There is increasing emphasis on collaboration in work and learning, information sharing, the social construction of new knowledge, offering support in online communities, and proxy information seeking ([Bitso and Fourie 2012](#); [Colineau and Paris 2010](#); [Cheung, Lee and Lee 2013](#); [Chuang and Yang 2012](#); [Cyr and Chun Wei 2010](#); [Forman, Kern and Gil-Egui 2012](#); [Fullwood *et al.* 2013](#); [Widen and Hansen 2012](#)). A deeper understanding is required of emotional dynamics in information interactions and intermediary experiences (e.g. of librarians, archivists, and those involved in proxy information seeking). Collaboration raises issues of trust and privacy ([Hagar 2010](#); [Harris, Silience and Briggs 2011](#); [Zhou, Siu and Wang 2010](#)), as well as affect and emotion. The "whom" is no longer only an individual, but a team or group, or even the public at large; there is increasing evidence of people sharing their grief and mourning in public spaces.

In order to be true to lived-experiences, research on affect and emotion should not study people only when they are facing negative emotions and experiences. There is opportunity to expand our focus to pleasant emotions and information behaviour, sharing information for reasons of pleasure, and the interplay between positive and negative emotions and information behaviour in situations strongly associated with positive emotions ([Kari and Hartel 2007](#)).

Why: rationale for information interactions

The reasons why people need and seek information and their reasons for getting involved in information interactions are important in studies of information behaviour. Current challenges associated with significant emotions include financial crises, high rates of unemployment, global acts of terrorism, information censorship and stringent national surveillance, violence and abuse, an increase in people diagnosed with life-threatening diseases and depression, as well as an increase in life-expectancy ([Fourie 2012](#); [Westbrook 2008](#)). There are more challenges to deal with and more problems to solve and situations to make sense of. Sense-making of lived-experiences is, however, not only about solving problems and rationality, it is also about emotion ([Olsson 2010](#)).

People share information to position themselves, e.g. in marketing or advertising, or to be liked ([Bronstein 2013](#)). However, not only positive things are shared; information interactions are also used to spread rumours, gossip and hate ([Goh and Lee, 2011](#); [Hagar 2009](#)) - all with emotional consequences. It is not only important to understand why people share their emotions and sentiments ([Chua and Balkunje 2013](#)), as well as grief ([Brubaker *et al.* 2013](#); [Forman *et al.* 2012](#)), but also to understand why people avoid and hide information and knowledge ([Kumaresen and Swrooprani 2013](#); [Peng 2013](#); [Sairanen and Savolainen 2010](#); [Suh and Shin 2010](#); [Swift and Hwang 2013](#); [Teh, Yong, Chong and Yew 2011](#)). A deepened understanding is also required of why people turn to the public domain with their needs for information and emotional support. Is this strategy about problem solving, coping or sense-making, or sharing the load and responsibility of their challenges?

When: situations involving information interactions

As pointed out, it seems as if people today face more situations and times when they need to seek information, and also face more incidents of accidental exposure to information such as news, which may evoke emotional experiences ([Fong 2012](#)). People face natural disasters such as tsunamis, earthquakes and hurricanes, life-threatening diseases such as HIV/AIDS and cancer, chronic diseases such as diabetes and hypertension, and depression ([Kauer et al. 2012](#); [Marres, Leenen, Van der Slikke and Vermetten 2012](#); [Reid and Borycki 2012](#); [Setoyama, Yamazaki and Namayama 2011](#)). They and their families need to deal with their emotional reactions to diseases and stigmatization, with loneliness and depression, as well as with the anxieties that are experienced when patients are expected to monitor and manage symptoms ([Lingel and Boyd 2013](#)).

Emotion is often faced in jobs, especially when caring for people ([Fourie and Claasen-Veldsman 2011](#); [Niu and Hemminger 2012](#)). Emotion is at stake in learning ([Artino 2012](#); [Artino and Jones 2012](#); [Augustsson 2010](#); [Katz and Yablon 2011](#); [Noteborn et al. 2012](#); [Regan et al. 2012](#); [Rimland 2013](#)), in educating patients ([DeMarco, Nystrom and Salvatore 2011](#)), in decision-making ([Diefenbach, Mohamed, Butz, Bar-Chama, Stock and Cesaretti 2012](#)), in grieving and mourning ([Brubaker et al. 2013](#); [Forman et al. 2012](#)), at times of death ([Goh and Lee 2011](#)), during collaboration ([González-Ibáñez, Haseki and Shah 2013](#)), and when doing research ([Dick 2013](#); [Klentzin 2010](#)). It is also at stake during information literacy training and library instruction ([Bell 2011](#); [Cahoy and Schroeder 2012](#); [Markey, Leeder and St Jean 2011](#); [Schroeder and Cahoy 2010](#)), when preparing for a work task ([Roland 2012](#)), dealing with social problems ([Savolainen 2010](#)), and when experiencing health problems ([Børøsdund et al. 2013](#); [Chiu and Wu 2012](#); [Choi and DiNitto 2013](#); [Kim 2010](#)). People seek information when they need to make an emotional connection ([Yao 2009](#)), when living with a disease and when coping as a survivor ([Chou, Hunt, Folkers and Augustson 2011](#); [Chuang and Yang 2012](#); [Colineau and Paris 2010](#); [McCosker and Darcy 2013](#)), as well as in dealing with situations of crisis ([Westbrook 2008](#)). Emotion is even noted in mobile shopping, electronic commerce and online gift searching ([Jeng 2013](#); [Lu and Su 2009](#); [Young Hoon, Kim and Hwang 2009](#)). Emotion and satisfaction have also been studied in relation to services ([Udo, Bagchi and Kirs 2010](#)).

There are numerous times and situations when information needs and information behaviour manifests - often reflecting affect and emotion. These can be studied in isolation, or individuals can be studied over longer periods to determine how affect and emotion feature in information behaviour in a spectrum of situations (the "when") faced on a daily basis ([Julien and Michels 2004](#)).

What: Content of information interactions

What people are seeking (i.e., what they want), as well as what they are sharing and revealing are important ([McCarthy et al. 2012](#)). People are sharing friendships, relationships and professional connections - increasingly online and in virtual environments. This requires skills in profiling and positioning oneself, willingness to share very personal and intimate information on personal crisis, grief, joy and many other feelings and emotions, but also insults ([Sood, Churchill and Antin 2012](#)). The sharing of such content requires the ability to portray intentions, commitment, understanding, empathy and support; words and emoticons are important in building a presence and gaining and maintaining acceptance in virtual communities - revealing the "inner-self", and "psycho-social well-being" ([Shim et al. 2011](#)). Baralou and McInnes ([2013](#)) refer to the importance of emotional cues in virtual communication. The emotional benefits of information encounters, e.g. enjoyment and involvement, are also relevant ([Shiau and Luo 2013](#)).

Information sharing often involves emotion, whether people are sharing news ([Khoo, Nourbaksh and Na 2012](#)), photos ([Nov, Naaman and Ye 2010](#)), images ([Yoon 2010, 2011](#)), explicit knowledge ([Cyr and Chun Wei 2010](#); [Kumaresan and Swrooprani 2013](#); [Matthews and Stephens 2010](#); [Tsai and Cheng 2012](#); [Veinot 2010](#); [Voorhees, Hsiung, Marko-Holguin, Houston, Fogel, Lee and Ford 2013](#)), tacit knowledge ([Holste and Fields 2010](#)), or their opinions ([Schleicher et al. 2011](#)). People also share explicit emotions and sentiments ([Thelwall 2010](#); [Thelwall,](#)

[Wilkinson and Uppal 2010](#); [Thelwall, Buckley, Paltoglou, Cai and Kappas 2010](#)). They offer empathy, esteem and social support ([Nambisan 2011](#); [Percy and Murray 2010](#)), as well as advice ([Setoyama et al. 2011](#)).

Sometimes emotion is implied or embedded in the nature of a document, such as archival documents ([Chouinard 2010](#)). From an archival point of view, Lamonde ([2010](#)) refers to emotion as information and Rowat ([2010](#)) refers to 'archival thrills: information and emotion'. Perez ([2012](#)) focuses on the sentimental and patriotic value of old photos.

A deeper understanding is required of how information in all its forms can address emotions in information needs, as well as how expressed emotion in situations of significant emotional need, such as for healthcare, can be interpreted in terms of information needs.

Suggestions for a research agenda

We argue for an information behaviour research agenda which expands on each of the cornerstones noted above, as well as for such research to have practical social value.

Conceptualisation of affect and emotion

Apart from interdisciplinary input, a systematic review is required of how affect and emotion are used in the information behaviour literature, and how this literature can be aligned with interpretations from other disciplines. Concept mapping has been widely reported as a method for collecting and comparing disparate definitions ([Rodriguez- Priego, Garcia-Izquierdo and Luis Rubio 2013](#)); it could be explored as a way to integrate an affective paradigm to information behaviour studies. Although important in scholarly research reports, clarity of conceptualisation is not only a theoretical issue, it is especially required for students of information science, who are the researchers of the future.

Methods to explore in setting a research agenda

Not only should a combination of complementary methods be used in setting a research agenda, methods on setting research agendas for research on affect and emotion *per se* should also be explored. Methods noted here, such as systematic literature reviews, content analysis, the Delphi technique and participatory audience research, might serve as starting points. These methods could identify emotionally laden situations where affect and emotion in information behaviour need to be studied. A first practical step to extend this review would be a content analysis to characterise and parse existing research literature in relation to the themes identified here.

Researcher and research participant self-awareness

The emotional self-awareness, meta-cognitive skills and emotional IQ of researchers working from an affective paradigm in studying information behaviour need to be explored. The self-awareness, meta-cognitive skills and emotional IQ of research participants also need to be considered. Scholars and participants require training and guidance in sharing their emotions, in accepting help and support following their efforts to seek information, and also in how to interpret and respond to emotional expressions ([Baralou and McInnes 2013](#)).

Addressing broad agenda themes

Building on our earlier discussion, we offer the following initial suggestions for a research agenda focused on affect

and emotion.

Table 2: Agenda for information behaviour research

Places (where?)	Affect and emotion in information behaviour in extended and unfamiliar environments (physical, virtual): coping, sense-making and dealing with complicating issues such as disability, digital divide Information activities, affect and emotion in positioning to participate in extended and unfamiliar environments
Means (how?)	Impact of the medium used in information seeking, sharing and other information activities on affect and emotion in information behaviour Exploration of factors impacting on how information and information needs are expressed with specific reference to affect and emotion
People (whom?)	Impact of community dynamics on affect and emotion in information behaviour Affect, emotion and information behaviour for information proxy seekers, information gatekeepers and information intermediaries Affect, emotion and information behaviour in a spectrum of roles filled by individuals on a daily basis
Reason (why?)	Affect and emotion as instigators for information behaviour Affect and emotion as instigators and consequences for information behaviour manifesting in public domains
Time/period (when?)	Cross-sectional and longitudinal studies of affect and emotion in information behaviour in a spectrum of situations.
Manifestations (what?)	Affect and emotion revealed in different forms of information Expressions of affect and emotion in seeking information and support

Addressing practical implications

Considering the complexity of emotional challenges faced by individuals and groups on a daily basis, from very early stages of life until the day of dying, and affecting all facets of life, information behaviour research on affect and emotion should not only add to theories and models for studying affect and emotion (as noted by [Lopatovska and Arapakis 2011](#)), but should be directly aligned to practical value for individuals and society. Information systems such as portals, websites, referral systems, and online help systems need to account for emotional aspects of information behaviour ([Marres et al. 2012](#); [Pfister, Wollstadter and Peter 2011](#); [Rosal, Heyden, Mejilla, DePaoli, Veerappa and Wiecha 2012](#); [Sadasivam et al. 2011](#)). The emphasis should be on empowering people and developing community support ([Marres et al. 2012](#)). Among others, Helfenstein ([2012](#)) notes the importance of emotional design. Systems should support different professional and learning styles as well as emotional contexts ([Reid and Borycki 2012](#)). From a practical point of view the willingness and emotional readiness of people to use technology in information behaviour should also be addressed ([Riesenmy 2010](#)).

Conclusion

Ending our current dance around the edges of emotion in information behaviour will require in-depth consideration and openness to the meaning of emotional concepts, as well as a closer look at what is studied, and what might need to be studied. Since there are seemingly endless possibilities for the latter, our goal is to stimulate further discussion and more intense scholarly effort in this area. We have no doubt about the value of this research direction, and we

urge information behaviour scholars to attend to this agenda.

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