

New literacies meet school pedagogy: preliminary considerations

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Introduction

This paper's goal is to identify how information literacy (IL) education theory can be harmonized with and applied to public (K12) education, in particular with school pedagogy, conceived for primary and secondary schools as a form of educational theory and practice, built on the assumption that its goals are attainable only in a growingly holistic system of institutions, mutually influencing each other, where pupils act autonomously, and their self-organisation and self-regulation are enabled (Petrikás, 1995).

Information literacy is one member of the information-related new literacies family. Assuming that it is of lesser importance how we call the literacies of the information age and how we delineate them (Bawden, 2001), we will invariably mention all related literacies as *information literacy*, unless the purpose is to differentiate them from each other.

Information literacy can be defined as “the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well fitted to information needs, together with critical awareness of the importance of wise and ethical use of information in society” (Johnston and Webber, 2003, p. 336). Within the framework of information-related new literacies, suggested by Bawden (2014), information literacy can be identified as the most concrete and specific one. Nevertheless, the theory, we plan to elaborate is intended to reach, at least the next, intermediate level, which is similar to more overarching ones, like for instance digital literacy as conceived by Gilster (1997) and characterised by Bawden (2001, 2008).

Devising theory

There are convincing arguments that theoretical foundations of IL need to be strengthened. While there is an abundance of empirical studies on IL and it is often used for labelling a field of activities, a professional practice, or policy-making activity, more attention should be given to its theory (Pilerot, 2016). The lack of a unified theory of IL and its definition, based only on a common pragmatic agreement and formulated in functionalistic terms also reinforces this demand (Špiranec, Banek Zorica, and Kos, 2016). Therefore, clearing the relationship between research and practice is a perpetual challenge (Aharony et al. 2017) both for IL in general and for its application to education.

It is reasonable to suggest that discourses on education and on IL are closely connected to each other and school is one of the information landscapes (communicative spaces), within which IL occurs (Lloyd, 2010). This is underlined among others by the classical definition of information literacy that stresses its connection to lifelong learning and supposes that information literate people have learned how to learn (ALA, 1989).

We believe that harmonizing IL theory with school pedagogy requires that we transcend the views of information users as incompetent non-knowers (Limberg, Sundin, and Talja, 2012). On the other hand, IL theory should be based on a plurality of approaches, i.e. not being restricted to skill-based ones, but retaining their advantages.

The successful exploration of IL requires the acceptance of the views on IL, which need to be adjusted to the properties of the digital environment, taking account of several circumstances (Špiranec and Banek Zorica, 2010). This has several reasons.

Firstly, IL originally was dominated by questions of access, because it has been dealing with media that was not always easily accessible (Livingstone, van Couvering, and Thumin, 2008). However, this situation has changed radically, as there is an overabundance of information that causes information overload to a higher extent than ever (Koltay, 2017).

Secondly, due to the convergence among different forms of media and ICTs (Livingstone, van Couvering and Thumin, 2008), today we see an overlap between information literacy and media literacy that also contributed to media and information literacy's rise to prominence.

The concepts of IL, media literacy, as well as media and information literacy overlap, because all of them aim to foster the same skills, while addressing different information constructs (e.g. the printed word by IL and films and videos by media literacy) (Lau, 2013).

Thirdly, it seems to be feasible that information theory and the theory of learning are converging, as we can accept the idea that learning with information is authentic learning, thus the skills and abilities required of information literate persons are indispensable for successful learning (AASL, 1998). We also can share the belief, associated with this idea that IL is also the outcome of learning, even though it is often approached as an object of teaching (Limberg, Sundin and Talja, 2012).

As indicated above, information literacy should play a significant role in education, but the necessity for IL in the pre-Internet era was mainly advocated by library and information professionals, and it found little echo in schools and other educational institutions (Bawden and Robinson, 2009). A likely reason for this was that IL concepts were unwittingly narrow for other professionals (Freeburg, 2017). Under these circumstances, it is frequently and almost exclusively used to denote the techniques and skills needed for identifying, locating, and accessing information resources by using information tools (ALA, 1989). Such traditional conceptions of literacy stem from predigital, text-based contexts of literacy and they have been challenged by new literacy theories, which distinguish between “autonomous” and “ideological” models of literacy. The former views literacy as a cognitive ability, independent of its context, therefore it is perceived as related to an individual’s intellectual abilities, thus portraying illiteracy as a deficit. Ideological models view literacy as a social practice and counts with the existence of an endless number of different literacies (multiliteracies), having a holistic view of literacy, related to empowerment and community building (Street, 1984; Talja and Lloyd, 2010). Up-to-date approaches of IL account with these developments, signposting a shift into new directions in its conceptualizations (Freeburg, 2017).

It is also clear that most new models of IL share constructivist views on teaching and learning by arguing that learning is an experiential and empowering process. They also posit that learning is experiential in the way that it involves the continuous building, amending and eventually transforming of previous knowledge structures (Walton and Cleland, 2017).

From such approaches, we have chosen three different perspectives, discussed mainly by Limberg, Sundin and Talja (2012): the use of phenomenographic and sociocultural theories, which are explicitly grounded in theories of learning, and discourse analytical approaches that provide a broader historical and sociological perspective.

Phenomenographic approaches

Phenomenography is grounded in a constructivist view of learning by regarding learning as an activity of constructing meaning, without classifying various learning experiences as right or wrong. Therefore, phenomenographic approaches centre on the importance of understanding the learners' perspective, instead of concentrating on a transfer of knowledge from teacher to student (Limberg, Sundin, and Talja, 2012).

In phenomenographic research, data is collected through open questions to explore participants' experiences of a phenomenon, not the researchers' perception. Rather than asking questions about why something happens, questions focus on how and what the participants do and how they feel about it (Morrison and Secker, 2017).

The concept of communities is a key concept of phenomenographic approaches. It can be defined as a set of shared relations that resides in the imaginations of the members, they have a shared identity, intentions, and dispositions (Clarke, 1996). In educational settings we speak about learning communities.

Information landscapes, mentioned earlier in this article are a "productive analogy for thinking about how to describe information in context" (Whitworth, 2014. p. 13) and can be described as "the communicative spaces that are created by people who co-participate in a field of practice" (Lloyd, 2010. p. 2). It should be added that information landscapes, created through the enactment of practice and its socio-material and symbolic elements define the ways of knowing (Lloyd, 2010).

Information practice consists of "information-related activities and skills, constituted, justified and organized through the arrangements of a social site, and mediated socially and materially with the aim of producing shared understanding and mutual agreement about ways of knowing and recognizing how performance is enacted, enabled and constrained in collective situated action" (Lloyd, 2011. p. 285). The information practices perspective acknowledges how people engage with and are shaped by existing and ever evolving discourses through social practices.

Although originating in higher education, the seven faces model of information literacy by Bruce (1997) – also rooted in phenomenography-based research – mirrors a full range of ways, how information literacy is experienced, thus showing which forms of information literacy are relevant to different situations, thus applicable to school settings. This model enumerates the following categories: being able to use information and communication technology (ICT) for seeking and communicating information; seeking and finding information

sources; executing an information seeking process; organising and controlling information; building a knowledge base in a new area of interest; working with knowledge and personal perspectives for novel insights, and using information wisely for the benefit of others, which are important in conceptualising formation literacy.

The sociocultural perspective

While the above approaches offer much, it should be underlined that meeting the demand of the information age for skilled information users, requires information literacy education that is situated within the sociocultural practices (Farrell and Badke, 2015).

The sociocultural perspective emphasises the situated nature of learning and focuses on the relationship between individuals and various forms of collective practices that can be defined as ways of understanding and doing things in the world – in other words – socially structured and structuring patterns and resources that form the core of everyday life activities (Thorne, 2013). Such practices are embodied in communities of practice that can be defined as sets of relations among persons, activities, other communities of practice and the world. Let us add that communities of practice are groups of people sharing similar goals and interests, in pursuit of which they employ common practices, work with the same tools, and use a common language. In a community of practice, we learn not only the rules of the actual performance of practice, but information on determining what practices and knowledge are deemed legitimate. This tacit information is coded and determined by the community, reflecting its history, assumptions, beliefs, values, and rules (Lloyd, 2010).

In the process of learning, we interact with culturally constructed tools of practice, such as objects, signs, symbols, language, and technologies, therefore the sociocultural theory focuses on tool-based IL practices (not confounded with skill-based ones) but do this within the context of learning communities. As learning is connected to specific situations and practices, following sociocultural approaches means questioning the generic nature of learning IL (Limberg, Sundin, and Talja, 2012). While accepting the broad framework of socially contextualised learning experience, this perspective may help in developing educational practices that move the perceptions and experiences of the individual learner to the centre of educational practice (Talja, and Lloyd, 2010).

In the sociocultural perspective, IL is conceptualised as a collective view through a people-in-practice perspective that considers complex social realities and situated learning (Lloyd, 2012). Therefore, we can say that practices are central

both for phenomenographic approaches and the sociocultural perspective, even if they are seen from slightly different points of view.

Sociocultural theories see learning in relationship with social events and interacting with other people, objects, and events in a collaborative environment. This means that they pertain to the family of constructivist approaches, but instead of emphasising the role of the individual, they underline social relations, community, and culture (Wang, Bruce and Hughes, 2011).

The discourse analytic perspective

The central argument of discourse analysis is that language is central to social life and so its study provides a key to social functioning (Walton and Cleland, 2017). There is a similarity between the sociocultural and the discourse analytic perspectives because they both see learning as a social activity that uses tools, practices, and conditions for meaning-making (Pilerot, 2016). The discourse analytic perspective focuses on identifying broad historical information literacy discourses, leading to research outcomes for understanding variation in interpretive repertoires. It shows that IL is constructed differently in different conversational contexts. Discourse analysts do not accept information competences as uncontested phenomena thus they study the interpretive repertoires through which people give meanings to information competences and practices. They define discourses as systems of statements, i.e. sets of interlinked claims, assumptions, and meanings. We are users of already existing discourses, expressions, and conceptualizations, we accept implicit claims about the nature of information, even if we would not necessarily readily accept them as truthful or valid if we could consciously scrutinise them (Limberg, Sundin and Talja, 2012).

In general, it can be said that this perspective also shares several views with the above approaches.

Conclusion

This paper focused on three theoretical perspectives applicable to information literacy. All these approaches offer a perspective that can be characterised as a move “from observation to participation, from documents to communities” (Špiranec, Banek Zorica, and Kos, 2016, p. 249). It has been argued that the perspectives of phenomenography, discourse analysis and sociocultural theory promise a solid theoretical founding for information literacy. They present

different insights into information literacy on both empirical and theoretical levels, without contradicting each other. They offer theoretical tools for studying how new technologies and digital media (especially social media) reshape conditions for learning in contemporary society. Both phenomenographic and sociocultural theories are explicitly grounded in theories of learning, thus they strengthen the pedagogical nature of information literacy. In doing this, the sociocultural perspective is mediated by digital and other tools, while phenomenography and discourse analysis are more directly interested in analysing experiences and interpretations not specifically based on theoretical assumptions about the use of various tools (Limberg, Sundin, and Talja, 2012). When underlining that human realities are mainly socially constructed, we might be aware of criticisms of social constructionist views, which suggest that knowledge should not be separated from its medium, i.e. human (individual) consciousness, where construction may take place (Palmaru, 2016). Although this need has been resonated in the sociocultural perspective, the justification of this warning might be a subject of further examination, especially if we accept learning is inconceivable without learners' existing knowledge, i.e. they start with what is known and become more conscious of what is not known whilst learning (Salisbury and Karasmanis, 2011).

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Abstract

This paper is about the proper application of information literacy education to public (K12) education, based on the idea that its successful exploration requires that we adjust it to the properties of the digital environment. This can be achieved by using phenomenographic and sociocultural theories, which are explicitly grounded in theories of learning, and discourse analytical approaches that add a broader historical and sociological perspective to these.