Digital Literacy - New wine in old bottles? (0113)

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Background

This paper discusses the conclusions of a focussed review of predominant frameworks, models and definitions of digital literacy (DL). The analysis of these (and of meta-analyses) highlights that while our understanding of the scope of DL continues to develop there are fundamental aspects which are not yet well represented. This ultimately means that existing paradigms are being re-enforced in a field where there are opportunities for new ones to emerge.

The underlying themes of most work around DL are the need for individuals and organisations to respond to the challenges and opportunities offered by emerging technologies and the increasingly digitised and networked nature of society (Hague & Payton, 2010; Littlejohn, Beetham, & McGill, 2012)

There is considerable consensus around the main skills, knowledge and attitudes that are needed in response. These can be characterised into two related but distinct perspectives:

- A focus on the **digital skills / literacy** that have become universal entitlements necessary for individuals to access learning and participate fully in professional and civic life. (Ferrari, 2012; Hague & Payton, 2010; Littlejohn et al., 2012)

- A focus on the **practices, flexibility and criticality** that are vital if individuals and organisations are to take advantage of opportunities to transform learning, working and participation. (Hall, Atkins, & Fraser, 2014; Sharpe & Beetham, 2010)

The importance of incorporating both of these perspectives has been widely recognised and most definitions / frameworks attempt this. (Hall et al., 2014; Sharpe & Beetham, 2010) We argue however that, to date, models have not succeeded in integrating them coherently. In most cases practical, foundational skills are identified and then additional areas or levels are added, to account for the creative exploitation of technology and digital forms. Crucial higher order skills, and more emergent characteristics, are therefore accommodated but in ways that imply they are essentially additional skills or bits of knowledge that can be added incrementally to technical ones. The field of DL as a whole is therefore characterised by a contrast. There is a strong recognition of the importance of context and situated practices as well as flexibility, agility, and judgement and yet most frameworks include sets of (often reified) competencies, de-contextualised knowledge and prescriptive outcomes.

We argue that, however valuable in other ways, unless it can be reframed work around DL, is likely to re-enforce limiting tendencies in how educational institutions respond to disruption and digitisation. These tendencies allow the institutional context to be maintained while the focus is put on what students and staff should do differently.

In addition we argue that existing models and frameworks fall short of being able to represent the range of skills, knowledge and attitudes involved in DL in ways that support our understanding of their development. (Beetham, McGill, Littlejohn, & Committee, 2009)

To illustrate these issues and to further discussion of this challenge an initial framework is proposed. This has been done by mapping the areas / elements that are commonly recognised as constituting DL against three broad levels of development.

The 'proto' definitions below attempt to capture and synthesise the most important characteristics used in the literature to distinguish levels and stages of development in DL. We have particularly emphasised contextual factors, such as degree of autonomy / agency and criticality. At the same time as incorporating the range of skills within most models we place an emphasis on the development of the attitudes, practices and dispositions that are possible (and arguably increasingly needed) within digital, networked environments. (Hall et al., 2014; Sharpe & Beetham, 2010)

Proficiency – accessing and consuming digital information and resources for specific activities within relatively prescribed contexts, often with established rules or guidelines.

Participation –using and adopting technologies, digital forms and communities for learning, sharing and collaborating. These can increasingly form part of a developing digital identity.

Fluency –exploiting and adapting technologies, digital forms and networks, flexibly in response to differing contexts. These can be integrated into inter-dependent and critical ways of being.

A developmental matrix of digital literacies – synthesising domains and levels
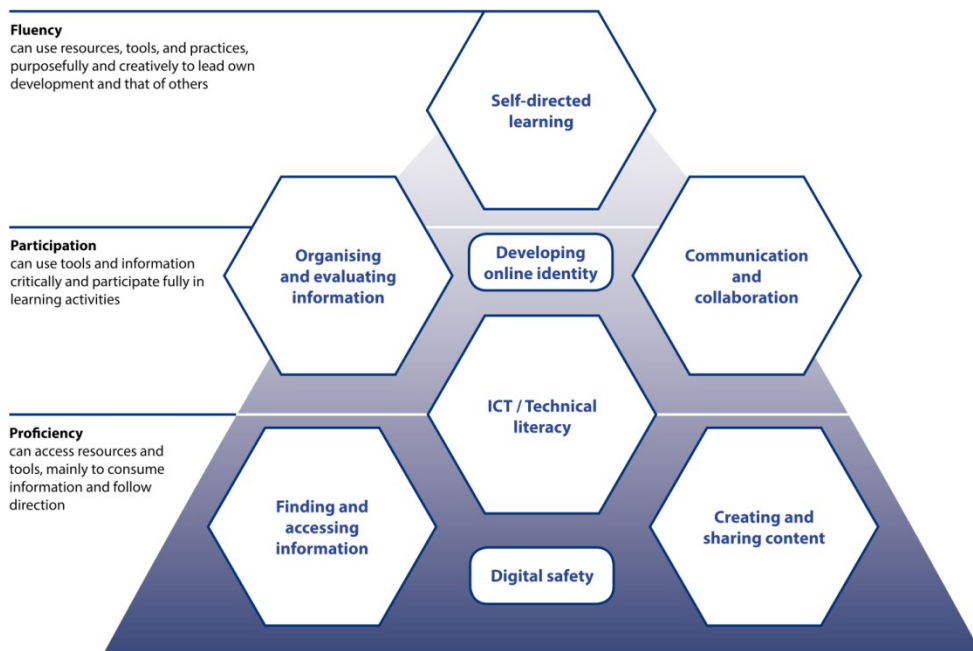
In this representation the central column contains the core areas of DL, organised to suggest how learning is underpinned and supported by other areas. ICT and technical literacy here are central but expressed through other domains / practices. Digital safety is a foundation

whereas online identity is a vital link between areas and levels. Self-directed learning, at the top of the matrix is supported by the integration of other areas and equates closely to the level of fluency where individuals and communities can exploit tools, forms and networks.

The left hand column is orientated initially toward the individual, learning and bringing together information. We suggest that both agency and judgment can develop from these often along with increasing participation within communities. The right hand column shows a similar progression with more focus toward working with others and using digital / media forms for creating, sharing and collaborating.

The form of a matrix overlaid on a pyramid is used to suggest a developmental relationship between areas of knowledge, skills and attitudes. Some forms of engagement are shown as potentially providing foundations for active participation and ultimately, for engaging with the complexity of emerging technologies and practices. Transitioning upwards suggests greater awareness and making more active, informed and critical choices.

There is some commonality here with Beetham and Sharpe 'pyramid model' of DL development (2010). Although finding this useful for discussing progression and development we differ from their approach in a number of ways. Notably, by mapping types of activities / domains against levels in a flexible matrix we suggest the benefits of integrating a developmental perspective with the more common approach of defining areas and skills.

We also use this representation to highlight other potential directions for models of DL. For example, the value of representing independent learning as integrated with, rather than opposed to, working within networks. Therefore when using the term 'self- directed learning' we concur with Brookfield's use, and emphasise the autonomy of individuals and not their isolation or atomisation. (Brookfield, 2009)

References

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