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**A creative future for information and digital literacy**

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**Abstract**

As we mark the 50th anniversary of information literacy it is timely to predict that the future of information (and digital) literacy will involve a creative turn. An epistemological movement towards cooperative inquiries, embracing learner creativity and the inclusion of previously hidden voices is emerging in response to calls to decolonise and liberate our libraries. Library creativity has gained traction through the library makerspace movement. Library makerspaces provide a physical location for co-creation, collaboration and active dialogue in a making environment. Positioning learners from marginalised groups as co-leaders and knowledge creators and attending to power and belonging is vital to the success of this movement.

**Keywords**

creativity; digital literacy; information literacy; liberation; makerspaces; transformative learning

# Introduction

## Information and digital literacy (IDL) is taking a creative turn. As universities seek to decolonise learning, and libraries seek to decolonise and liberate collections, questions have emerged about the reductionist and positivist knowledge bias of universities (Ewing, 2022). An epistemological movement towards cooperative inquiries, embracing learner creativity, is emerging in response. Through cooperative inquiries (Heron & Reason, 2008) the propositional positivism of universities is disrupted and reframed. Creative, maker style learning positions learners as producers of knowledge, re-centring practical, presentational and living forms of knowledge in a collaborative learning environment. Collaborative learning environments facilitate interdisciplinarity, epistemic inclusion and dialogue, attributes which are essential to a cooperative inquiry. Information literacy’s (IL’s) creative turn is situated within this movement.

## Freire (1970, 1998) articulates the relationship between creativity and liberation, highlighting the importance of creativity in enabling intellectual freedom for all. This article predicts a creative future for IDL by exploring the relationship between library makerspaces and the literacy of information creation. Creativity might enable library liberation by disrupting knowledge hierarchies and actively including previously marginalised voices but caution should be taken not to lead makerspaces with technology. The Creative Library Project, an AHRC-RLUK funded project, is exploring the relationship between information creation and library liberation by positioning students from marginalised groups as co-leaders of library based creative workshops in an emerging makerspace at the University of Sheffield, UK.

## Information creation and library makerspaces

Information creation is increasingly featured in IDL frameworks (for example: ACRL, 2015; Coonan & Secker, 2011; Open University Library, 2012; University of Cape Town Library, 2020; University of Sheffield Library, 2019). This positions learners as active knowledge creators within the information ecosystem. Recognising “information creation as a process” (ACRL, 2015) encompasses a call for students to reflect on their own choices as they produce information. Creativity in both educational and public libraries has attracted considerable attention worldwide over recent years through the movement to establish library makerspaces. Makerspaces provide a physical location for co-creation, collaboration and making. They will typically afford access to technology including, for example 3D printers, laser cutters and digital sewing machines.

In the UK a Libraries Taskforce was established by the government in 2017 to support public libraries in developing makerspaces (United Kingdom. Department for Digital, Culture, Media & Sport, 2017). At the University of Stellenbosch Library, SA a makerspace was established alongside their information and digital literacy offer to enable “collaborative prototyping, inventing and learning” (University of Stellenbosch Library, 2023). In the House of Wisdom based in Sharjah, UAE a recognition that knowledge in libraries is not only consumed but also created through a process of engagement has led to the establishment of their own makerspace - the FabLab (House of Wisdom, 2023). At McIntyre Library at the University of Wisconsin-Eau Claire, US, a makerspace was developed to share resources during a time of austerity (Markgraf and Hillis, 2020). Librarians highlighted the importance of community, dialogue, creativity and multimedia in the library, stressing that “students acquire, communicate, share, and create knowledge through more than the printed word.”  Librarians based at Auraria Library, Denver, US (Ippoliti, Merkel and Swauger, 2020) developed a makerspace through a critical lens. Recognising the dreams and aspirations associated with making, they deconstructed and reconstructed the offer through the lens of anti-sexist and anti-ableist pedagogies. A similar approach emerged at the Creat’R Lab, a partnership makerspace established between the University of California Riverside Library, US and the University’s Office of Research and Economic Development. Envisioned as a student-driven offer for innovation, entrepreneurship, and creativity, the space was set up in the science library and equipped with technology. Librarians were left to question power, race and gender inequalities which weren’t easily resolved. Technical diversity, such as the inclusion of digital sewing machines, doesn’t address a culture of mastery. As Marshall and Melo (2020) note “equity doesn’t emerge from the number of sewing workshops that a makerspace offers” (p.86). In fact, adopting a tech-centred approach has been found to further pronounce marginalisation of minority groups. Attending to power redistribution through a people centred approach and active dialogue is essential if makerspaces are to authentically achieve their open and collaborative ethos (Marshall and Melo, 2020). Literature review research at the University of Alberta in Canada (Zhang, 2021) looked at digital storytelling, self-representation, decolonial learning and Indigenous Knowledge in library makerspaces. Zhang articulates how the immersive and complex approach of digital storytelling can enable students to explore and challenge their existing beliefs in a transformative way, by working in dialogue with Indigenous Peoples. These critical approaches mirror the work of educational philosopher Paulo Freire who rejected the banking of knowledge in favour of dialogue through connected, creative and re-creative ways of knowing (Darder, 2017).

1. **Creativity and transformative learning**

Positioning students as connected knowledge creators has the potential to enable a transformative learning experience through critical dialogue and a critical understanding of the world (Mezirow, 2000). Freire (1970; 1974) describes this process as conscientization. Conscientization recognises that the creation of expert knowledge is constructed within contextual traditions. Freire calls for a move away from the passive banking of knowledge towards learner centred creativity, collaboration and dialogue. Democratising approaches for information creation has gained traction over recent years through research into digital literacy. Belshaw (2012) emphasises creative remixing as paramount to digital literacy. Citing memes as an example he advocates for a move beyond the “elegant consumption of information”. Drawing on images remixing student protesters with historical events, Belshaw effectively demonstrates how digital creativity and playfulness can enable critical engagement with learning. Fister (2015) articulates that cognitive conflict is inherent to critical engagement. Libraries, she maintains, provide a place of safety and belonging which is essential in preventing retreat when ideas come into conflict. In essence, this is what enables libraries to become sites of transformative learning. Transformative learning creates change in world views towards a more inclusive frame of reference (Mezirow, 2000). Broadening knowledge production, disrupting epistemological privilege and enabling learners to seek knowledge justice through the inclusion of previously unheard voices has the potential to include new forms of authority within a scholarly setting. Focusing on information democracy and student empowerment as a form of liberation, Donovan and O’Donnell (2013) assert that IL should allow for authority to be positioned within the student. Moreover, they advocate for the “creation of cognitive conflict” (p.124) necessitating discomfort in the process of student learning. This, they maintain, develops as students move away from being receptacles of knowledge (Freire, 1970) towards becoming a creative force which enables students to develop a sense of themselves as authors and knowledge producers thereby allowing a conversational approach to information (ACRL, 2015).

1. **Cooperative inquiries**

Ewing (2022) articulates how Western principles of empiricism, positivism and universality have colonised knowledge. The creative turn for IDL draws on advocacy for epistemological justice. Epistemological justice requires extending epistemology through co-operative inquiries where propositional knowledge is extended to include presentational, practical and experiential ways of knowing (Heron and Reason, 2008). Experiential ways of knowing capture the essence of “information creation as a process” (ACRL, 2015). It involves being present with another, knowing through the immediacy of perceiving, through dialogue and in the moment encounters, such as those found in a library based collaborative space. The quality of this way of knowing is dependent on the quality of the connection, the dialogue and the safety to be. Presentational forms of knowledge emerge when narrative experiences are captured. This might, for example, be through life, reflective and creative writing, painting, music, stitch-craft, clay making and poetry. Practical knowledge is skills based and includes, as an example, the skills to use a 3D printer or digital sewing machine. Propositional knowledge is the traditional knowledge of Western modernity, based on intellectual theories, universality and a reductionist approach. In her work on teaching to transgress, hooks (1994) problematizes theoretical knowledge when it is used to set up unnecessary knowledge hierarchies which then act to enable epistemological domination. Library makerspaces have the potential to disrupt the domination of Western propositional knowledge by creating a space for presentational, practical and experiential ways of knowing. Inclusivity requires that makerspaces are developed through a critical lens, which attends to power distribution through minority communities.

1. **Liberating information and digital literacy**

Freire (1970) recognises the importance of experiential knowledge in the process of decolonisation and yet initiatives to decolonise the library remain largely focussed on developing inclusive collections (RLUK, 2023) with little research into experiential forms of knowledge.  Assimilative epistemologies based on colonised approaches of Western modernity (Darder, 2017) have hindered the movement to liberate the library. The creative and collaborative power of library makerspaces has the potential to enable knowledge justice through epistemological inclusion. This requires a critical approach to library makerspaces, and an active resistance from librarians. Neither the space, the technology nor the making should lead library makerspaces. The creative turn for IDL needs to be learner centred, starting from a position of inclusivity and a reframing of knowledge hierarchies towards collaborative approaches, for the purpose of enabling active and creative learning, critical dialogue and a transformative experience for learners. A liberated library is epistemologically inclusive. IDL can be both liberated and liberating by embracing knowledge creation.

1. **Conclusion and next steps**

A creative turn for IDL has the potential to disrupt knowledge hierarchies towards an epistemologically inclusive information ecosystem. Library makerspaces are emerging at locations throughout the world, providing an opportunity for learner creativity and a more cooperative form of inquiry. Makerspaces re-centre the creation of practical, presentational and living forms of knowledge in collaborative learning environments. Taking a critical approach to library makerspaces involves attending to power and working in partnership with marginalised groups. Playful creativity can disrupt power and enable intellectual freedom by actively seeking to include previously hidden voices. Taking a learner, rather than technical centred approach to library makerspaces, redistributing power and adopting a critical lens can enable a liberated library. Library makerspaces have the potential to disrupt the Western bias of propositional knowledge by creating a space for learner creativity, collaboration, critical dialogue, epistemological justice and a liberated future for information and digital literacy.

An AHRC-RLUK Professional Practice Fellowship project, *The Creative Library,* has been established to explore the creative turn of IDL through a lens of library liberation. The project is adopting participatory action research methodology to co-produce creative workshops which position students from marginalised groups as active knowledge creators. Situated within the Digital Commons, an emerging makerspace in the Information Commons (IC), University of Sheffield, UK and working in partnership with the Students’ Union Liberation Officers, the project aims to liberate the library in a sustained and meaningful way. Freire (1970, 1998) articulates the relationship between creativity and liberation highlighting the importance of creativity in enabling intellectual freedom for all. Taking a Freirean approach to IDL enables an exploration of the relationship between creativity and library liberation. The project is still in its infancy and it is too early to say if this is providing a transformative learning experience for students. Early indications show that adopting a learner centred approach and positioning students from marginalised groups as co-leaders in planning and facilitating activities enhances a sense of belonging in the library makerspace. This is a prerequisite to a transformative learning experience. Makerspaces provide an emerging opportunity for IDL librarians. Calls to liberate the library require a rethinking of who the knowledge creators are in our libraries and what types of knowledge we consider valid. Follow the progress of the **Creative Library Project at:** <https://sites.google.com/sheffield.ac.uk/thecreativelibrary/welcome>

## Declarations

**Ethics approval**

The Creative Library is a research project, with ethical approval from the University of Sheffield Ethics Committee, reference 056864, received 11th October 2023.

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**AI-generated content**

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