Digital literacy across the curriculum

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This article has been prepared from edited extracts of Digital Literacy Across The Curriculum (1.48MB), a handbook developed by Futurelab in Britain. The handbook is aimed at educational practitioners and school leaders, in both primary and secondary schools, who are interested in creative and critical uses of technology in the classroom.

Technology is playing an increasing role in culture generally and particularly in the lives of young people. Multiple, distributed online networks, especially those used for social networking and online gaming, have enabled young people to connect even when they are widely dispersed geographically. (Wiegel et al, 2009; Davies et al, 2009)

In order to negotiate this environment effectively, young people need to be digitally literate. Digital literacy consists of the skills, knowledge and understanding that enable critical, creative, discerning and safe practices with digital technologies. It is about cultural and social awareness and understanding, as well as functional skills. It is also about knowing when digital technologies are appropriate and helpful to the task at hand, and when they are not.

This article summarises Digital Literacy Across The Curriculum, a handbook prepared by Sarah Payton and Cassie Hague of Britain’s Futurelab organisation. The handbook addresses a range of issues faced by school leaders and teachers, in both primary and secondary schools, who are interested in creative and critical uses of technology in the classroom. The handbook is a result of a project in which Futurelab researchers worked with eight primary school and six secondary school teachers to co-develop ways to foster digital literacy in the classroom. The teachers involved in the project planned teaching activities aimed at developing digital literacy alongside subject knowledge, and trialled these activities in their own classrooms. The article outlines key insights arising from the project.

Digital literacy and subject areas

Digital literacy allows students to engage with traditional subject areas in new ways, as textbooks are now complemented, and sometimes contradicted, by internet resources.

Teaching digital literacy in subject areas is not about being fashionable or simply about trying to engage students in learning. It is about addressing the changing nature of subject knowledge and acknowledging that young people will need different kinds of skills, knowledge and understanding in order to develop their subject expertise.

Functional skills and beyond

There are good arguments for digital skills to be included in both ICT lessons and other subjects. Just as students practice writing across all school subjects, not only in specific English lessons, so should students be developing digital literacy practices in all subjects, including ICT.

Fostering digital literacy means going beyond functional skills and the ability to complete basic internet searches and PowerPoint presentations. It means giving students the opportunity to use a wide range of technologies collaboratively, creatively and critically.

Teachers and functional skills

Some teachers feel, however, that their own functional skills are not as developed as their students’ and therefore question their ability to teach digital literacy. These concerns can be lessened by the realisation that functional skills are just one element of being digitally literate. The ability to critically engage with the knowledge and meaning that is communicated through digital technologies is the larger part of digital literacy. Even where teachers feel their functional skills could be developed, teachers have invaluable expertise they can use to help their students negotiate the ideas they encounter and express when using digital technologies.

It is also important to remove the mystique that surrounds technology use so that teachers can feel more comfortable incorporating it into their subject teaching. For example, the task of making a podcast may be intimidating at first glance, but is in fact a fairly straightforward process: using a computer microphone to record some audio, editing it using a free piece of software such as audacity.com, and then uploading to the school learning platform or website (the person who manages the website may be able to help with this). The handbook gives examples that demystify the use of technology.

Here are some general tips for using digital technologies for teaching and learning.

- Ensure that your kit is working in advance, make sure you are familiar with it and prepare some other activities that students could do in case of any problems with the technology. Think about the resources you will need and book them well in advance. When students use digital technologies, this can result in large amounts of data. Develop a plan to manage this ahead of time (Where are children going to save their work? How will you store data and make sure it is not lost? How will you access it, and so on).
- If a particular website is blocked, talk to the IT manager if you have one or contact your local authority’s ICT helpdesk directly. They may be able to unblock the site to allow you access.
- Be aware of copyright if students are producing work that will be uploaded to a public website.
- It can be tempting to intervene to ensure a high-quality end product (eg filming groups of students yourself rather than allowing them to operate the camera themselves). Support students to think about how they can improve the quality of their
Digital natives?

It is often assumed that young people are ‘digitally native’ whose skills with digital technology far surpass those of their ‘digital immigrant’ parents and teachers. (Prensky 2001) It is true that many young people are confident in using a wide range of technologies and often turn to the internet for information. They seem able to learn to operate unfamiliar hardware or software very quickly and may take on the role of teaching adults how to use computers and the internet.

However, several important qualifications are needed to the ‘digital natives’ concept. For one thing, digital skills and knowledge are not evenly spread amongst all young people. Their distribution is affected by class, race, gender and nationality, creating a ‘participation gap’. (Jenkins et al, 2009)

Young people’s confidence with technology can also be misleading. Students frequently struggle when applying ICT to research tasks, and teachers sometimes complain of ‘copy and paste syndrome’. Students can find it difficult to work out whether information on an unfamiliar website is trustworthy, with many of them relying on their chosen search engine’s rankings for their selection of material. (Ofcom 2009) Many have little understanding of how search terms work or of the powerful commercial forces that can result in a particular company being top of the search engine’s list.

Educators therefore have a crucial role to play in ensuring that students are digitally literate across a number of dimensions of learning.

Communication

The internet and web 2.0 technologies have greatly extended the choice of communication media available to young people, in forms such as email, instant messaging, social networking sites, forums, blogs and wikis. Young people need to be able to judge when to use these tools and when to select more traditional communication media for any given task, based on the nature of the task rather than interest in the technologies in themselves. They also need to be supported to understand how their choice of media affects their ability to communicate. This involves, for example, thinking about what you might be able to say visually that is more difficult to express in traditional text.

Digital media also raise issues surrounding the public availability of students’ output. Teachers may wish to hold whole-class discussions on issues such as the relevance, suitability and security of the information that students communicate publicly. These issues include the question of what students should include in their public online identities. They should also cover the issue of digital permanence: once information is online, it is not necessarily easy to remove.

Supporting young people to focus on an audience encourages them to source information that they can understand and then re-contextualise so as to pass it on to others, making purposeful decisions about what information to include and how to re-purpose and express that information.

The ability to find and select information

Students also use digital technologies for their research, and here once again technologies should be matched to particular purposes. For example, students need to be able to judge whether the internet or books are likely to give the best results for a particular information search.

Students need to engage critically with the content of material they find on the internet, relating it to the subject knowledge they already have and are seeking to develop. This means going beyond simply checking the reliability of information by searching on multiple sites.

Critical thinking and evaluation

More generally, students need skills in critical thinking to analyse, shape and contribute information. Fostering critical thinking in the classroom means turning away from the traditional emphasis placed on outputs and completing a task within the designated time frame of the lesson, and instead slowing the pace of the classroom to allow for thought and questioning. Students should also be encouraged to reflect on and evaluate their work throughout the process of producing it, rather than saving the evaluation for the finished piece.

Cultural and social understanding

Digital media often heighten young people’s exposure to the global community and to peers with different cultural backgrounds. Such exposure increases the need for young people to recognise the social, cultural and historical influences that shape their own and others’ understanding and learning. For example, they need to understand that the same actions may have different meanings in different cultures, and that many things which appear at first glance to be natural and neutral are in fact created by particular cultural and social understandings.

Digital technologies, particularly online spaces, provide young people with opportunities for many new forms of interaction. Increasingly, these interactions are mediated by different modes of representation such as images and sounds. Being able to decode these multimodal texts requires an understanding of the social and cultural practices that surround their creation.

Using digital technologies in the classroom can provide teachers with the opportunity to make links between school learning and popular culture. When students are supported to reflect on and critically examine digital media such as websites, photos or films, they can begin to understand that the way we create and communicate meaning is affected by our cultural understandings and experiences, and that even our own imaginations have been shaped by popular culture.

E-safety

When seeking to develop students’ digital literacy, is it important that teachers make explicit links to e-safety – whether this be about age-appropriate content, concern over the predatory behaviour of adults, acceptable use and cyber-bullying or issues of plagiarism, copyright and virus protection. In recent years, the e-safety agenda has moved from a paternal emphasis on protecting children to the idea that we should support children to develop the skills, knowledge and understanding that will enable them to make informed...
decisions in order to protect themselves on an ongoing basis. Considered choices will help to keep young people safe when exploring, communicating, creating and collaborating with digital technologies.

Conclusion

Teaching digital literacy is important not only in supporting students to become independent, critical learners but also in narrowing the gap between children’s lived experiences inside and outside of school. The handbook offers teachers practical ideas and support for developing the components of digital literacy in their teaching in all classrooms at both primary and secondary level. It aims to provide a useful starting point that examines the issues and inspires individual practitioners and school leaders alike to begin to develop their own approach to supporting students’ digital literacy in the classroom.

References


This handbook aims to introduce educational practitioners to the concepts and contexts of digital literacy and to support them in developing their own practice aimed at fostering the components of digital literacy in classroom subject teaching and in real school settings. http://www.futurelab.org.uk. Read more. Free. Loading Save for later. Preview and details. Files included (1). Digital literacy is an important entitlement for all young people in an increasingly digital culture. Every school should have an organized policy for language across the curriculum. Two documents, two eras. The first from FutureLab (UK) – a wonderful introduction to, and handbook for, digital technology and learning. The second from the influential UK government report – “A language for life” – the Bullock Report HMSO 1975. I was a teacher in London when the Bullock Report was published – an orange-mustard colored compendium of review, research and government recommendations for schools. Word “In this second edition of Active Literacy Across the Curriculum, Heidi connects refreshed contemporary literacy strategies to contemporary teachers in every class and in every grade level. She connects teachers to digital tools to interact, connect globally, and make media. She connects ideas about different types of vocabulary, different forms of notetaking, and different types of discussion. She invites teachers to connect their work to each other by documenting their contemporary upgrades in a collaborative curriculum map. This culture of connection increases transparency and opportun