Digital literacy in practice
Lifelong learning skills

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Objectives

• To understand what is meant by digital literacy and why it is important

• To consider different models we might choose to implement within lessons
What do we mean by digital literacy?

Why is it important?
What digital literacy is not

The ability to use digital technologies.

Being able to understand how a tool works does not tell us how effectively it is being used, or the value or purpose for which it is being used.

Limited definitions suggest digital literacy is a set of basic computer skills related to the use of hardware, software and online resources, and the ability to apply these in context.

Others consider digital literacy to be the ability to operate digital technology and related resources in a safe and secure way. Whilst e-safety and security are essential aspects of digital literacy, this is far from the whole picture.
What employers are looking for

Exhibit 7.6 Employer satisfaction with graduate applicants’ work-relevant skills (%)

In 2016, global Internet traffic reached 1.1 zettabytes per year. By 2019, global traffic is expected to hit 2 zettabytes per year.

One zettabyte is the equivalent of 36,000 years of high-definition video. It is estimated it would take 305.5 billion pages of A4 to print the whole Internet. The world's digital information alone would overshoot the moon if stored on stacked CDs.

In many ways, artificial intelligence already outperforms human cognitive capacity.

Why is digital literacy important?

The importance of digital literacy is highlighted by UNESCO

Modern societies are increasingly based on information and knowledge. So they need to:

- build workforces which have information, communication and technology (ICT) skills to handle information and are reflective, creative and adept at problem-solving in order to generate knowledge
- enable citizens to be knowledgeable and resourceful so they are able to manage their own lives effectively, and are able to lead full and satisfying lives
- encourage all citizens to participate fully in society and influence the decisions which affect their lives
- foster cross-cultural understanding and the peaceful resolution of conflict.

3 Models of Digital Literacy

- Hague and Payton DL Across the Curriculum
- Jenkins New Media Literacies
- Belshaw 8 Essential Elements of DL
Hague & Peyton DL across the Curriculum

- Functional Skills
- Creativity
- Critical Thinking and Evaluation
- Cultural and Social Understanding
- Collaboration
- The Ability to Find and Select Information
- Effective Communication
- E-Safety

Consider DL in terms of the key skills students need to develop with help from teachers.

By focussing on the skill it helps develop transferable skills

Then consideration can be given to the technology to use

By embedding skills across the curriculum in different subjects they become more meaningful

*FutureLab Handbook: Digital literacy across the curriculum* Available at: 
[https://www.nfer.ac.uk/publications/FUTL06/FUTL06.pdf](https://www.nfer.ac.uk/publications/FUTL06/FUTL06.pdf)
New Media Literacies (Jenkins)

<table>
<thead>
<tr>
<th>Play</th>
<th>The capacity to experiment with the surroundings as a form of problem solving.</th>
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<tbody>
<tr>
<td>Performance</td>
<td>The ability to adopt alternative identities for the purpose of improvisation and discovery.</td>
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<tr>
<td>Simulation</td>
<td>The ability to interpret and construct dynamic models of real-world processes.</td>
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<tr>
<td>Appropriation</td>
<td>The ability to meaningfully sample and remix media content.</td>
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<tr>
<td>Multitasking</td>
<td>The ability to scan the environment and shift focus onto salient details.</td>
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<tr>
<td>Distributed cognition</td>
<td>The ability to interact meaningfully with tools that expand mental capacities.</td>
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<tr>
<td>Collective intelligence</td>
<td>The ability to pool knowledge and compare notes with others toward a common goal.</td>
</tr>
<tr>
<td>Judgement</td>
<td>The ability to evaluate the reliability and credibility of different information sources.</td>
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<tr>
<td>Transmedia navigation</td>
<td>The ability to follow the flow of stories and information across multiple modalities.</td>
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<tr>
<td>Networking</td>
<td>The ability to search for, synthesise, and disseminate information.</td>
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<tr>
<td>Negotiation</td>
<td>The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms.</td>
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Schools need to devote more time to cultural competencies and social skills embracing collaboration, networking and deep learning that digital technologies might support.

## 8 Essential Elements of DL (Belshaw)

<table>
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<tr>
<th>Cultural</th>
<th>An understanding of technology use in different contexts and an awareness of the values and concepts specific to varying contexts.</th>
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<tbody>
<tr>
<td>Cognitive</td>
<td>The mastery of the use of technological tools, software and platforms. Expertise in the use of digital tools to enhance learning.</td>
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<tr>
<td>Constructive</td>
<td>The re-using and remixing of resources and knowledge depending on need, or adapting them into new resources. Digitally literate users create new data and artefacts and share these with others.</td>
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<tr>
<td>Communicative</td>
<td>An awareness of different communication devices both digital and mobile and being able to communicate through various media in different ways.</td>
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<tr>
<td>Confidence</td>
<td>The ability and knowledge to use digital tools, environments and opportunities to practice skills and self-learn.</td>
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<tr>
<td>Creative</td>
<td>The ability to create new data in digital environments based on personal interests and need, and a willingness to take risks and try innovative new approaches to learning and creating.</td>
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<tr>
<td>Critical</td>
<td>The ability to understand and challenge various perspectives and the nature and origins of information and data. The appreciation of the different contexts, perspectives, needs and circumstances of others.</td>
</tr>
<tr>
<td>Civic</td>
<td>Developing and practicing democracy and global citizenship through the use of digital technologies. The ability to work with others and participate in the digital society in a range of online and digital environments.</td>
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Embedding a model of digital literacy

• Consider the lesson you have been asked to deliver

• Using the model of DL you have been given, plan a lesson to include the elements required
The SAMR Model for Technology Integration

**SAMR**

**NO TECH**
- Substitution: Tech acts as a direct tool substitute, with no functional change.

**ENHANCEMENT**
- Augmentation: Tech acts as a direct tool substitute, with functional improvement.

**TRANSFORMATION**
- Modification: Tech allows for significant task redesign.

**REDEFINITION**
- Redefinition: Tech allows for the creation of new tasks, previously inconceivable.

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Where does our current practice lie?

Taking the SAMR Model with respect to your lesson, how did the technology you used fit into the framework of:

Substitution
Augmentation
Modification
Redefinition
“Do our development objectives form a personal wish list or are they rooted in school priorities?” p.79
Questions