

# Digital literacy: existing educational resource mapping and analysis



A report produced by The Research Base

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### Foreword

This paper was undertaken following extensive research into the domains of digital literacy and builds a resource base for use in developing and improving the digital skills of the health and care workforce in the United Kingdom.

The Technology Enhanced Learning (TEL) Programme was established in 2013 with the vision that healthcare in the UK be underpinned by world-class education and training that is enhanced through innovation and the use of existing and emergent technologies and techniques. The Programme has a wide remit and has a number of ongoing projects, one of which is the Digital Literacy Project.

The Digital Literacy Project concerns itself with the ability of all within healthcare to become, and to remain, digitally literate. This is so that all are able to learn, work and develop effectively in a digital workplace and society. The project aims to promote the adoption of clear education, training and development strategies that will enable this and which will also promote and support the adoption and spread of new technologies and techniques.

Health Education England (HEE) is the national body formed in 2012 to undertake leadership and co-ordination of education and training within both the health and public health workforce. This includes workforce development, planning and evolution in line with key changes, including the impact of technological advances. HEE is responsible for delivering a better health and social care workforce for England. It is the organisation responsible for the education, training and personal development of every member of staff and for recruiting for values.

### Executive Summary

The purpose of the report is to provide HEE with a database of tools and resources to continue its work supporting health and social care professionals to become, and remain, digitally literate.

The report builds on previous research of developing a digital literate workforce that focused on (i) identifying resources and tools relevant for health and social care professionals with different digital needs and levels of competence; (ii) encouraging the leadership and culture across the health and social care sectors to support digital learning and technological innovation in service delivery; and (iii) developing digital champions within the health and social care workforce to share their digital expertise with others.<sup>1</sup>

A 2016 UK Government healthcare report - 'Making IT Work' - identified the need for greater workforce development in digital skills across the NHS health and care sectors as part of a broader digital strategy to improve the dual pillars of efficiency and quality of care.<sup>2</sup> The report also highlights the need for NHS staff that develop enhanced digital skills to be provided with the resources and authority to act as change agents on the ground.<sup>3</sup>

The Government response has included an increase in funding to support 'digital excellence' across the NHS, part of which is earmarked for training in digital skills for NHS staff.<sup>4</sup> This fits within the Government's wider commitment to improving digital skills and inclusion for all members of society, from basic digital skills to enhance digital capabilities for the workplace.<sup>5</sup>

In addition, the National Information Board has created the Building a Digital Ready Workforce programme to work with professional groups, such as nurses, to identify pain points and work to help them define what they need to become digitally expert to the level they need.<sup>6</sup>

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<sup>1</sup> Ibid.

<sup>2</sup> Wachter, R. (2016), Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England, Report of the National Advisory Group on Health Information Technology in England.

<sup>3</sup> Ibid.

<sup>4</sup> Department of Health (7th September 2016), 'New plans to expand the use of digital technology across the NHS'.

<sup>5</sup> Department for Culture, Media and Sport (1st March 2017), Digital Skills and Inclusion, Policy Paper.

<sup>6</sup> HEE (1 August 2017): <https://hee.nhs.uk/our-work/developing-our-workforce/building-digital-ready-workforce>

## Key Research Question

To what extent do existing educational tools and resources meet (or are able to meet) the education and training needs of health and care staff, as specified in the HEE definition of digital literacy and its domains?

## Subsidiary Research Questions

What specific educational tools and resources are there freely available to health and care staff and who are they provided by?

What specific paid-for educational tools and resources are there available to health and care staff and who are they provided by?

How well and in what proportion do identified resources map to the HEE digital literacy domains? Are some domains covered more than others?

## Needs Analysis

Research has found that the quality of care delivered by health and social workers on the ground improved significantly when they felt confident integrating digital tools and technology into their everyday services, for example using web searches during home visits to provide service users with evidence-based response to their queries.<sup>7</sup> The same research also identified a number of barriers that may inhibit health and social care workers for making effective use of digital technology in the workplace, including ‘past experiences of technology that promised to make things easier but actually got in the way’, suggesting that building digital confidence is equally important as developing digital skills.<sup>8</sup>

As well as developing a baseline in digital literacy for health and social care workers, there is also a growing need for specialised training. Findings from an EU report on digital skills for health professionals highlight that need for training in e-health and m-health to build upon current initiatives focused on general digital literacy training. Access to specialised training would support the growing trend towards digital healthcare solutions across EU member states, including the UK.<sup>9</sup> Equipping the health and social care workforce with the knowledge and skills to implement digital healthcare solutions is essential to empowering patients to manage aspects of their own health by improving the scope and quality of care on offer.<sup>10</sup>

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<sup>7</sup> Leeds City Council (2016), Developing Digital Practitioners: Discovery Report and Model.

<sup>8</sup> Ibid.

<sup>9</sup> European Health Parliament (2016), Digital Skills for Health Professionals, Committee on Digital Skills for Health Professionals.

<sup>10</sup> European Health Parliament (2016), Digital Skills for Health Professionals, Committee on Digital Skills for Health Professionals.

### Best practice

Best practice in developing the digital skills of the health and social care workforce involves more than simply producing or identifying training content, rather it requires a holistic approach to personal and organisational learning that creates an enabling environment for relevant and effective digital skills development across the health and social care sectors.

There is a clear emphasis across the literature in the health and social care sectors that individuals and organisations should make use of existing tools and resources before designing new tools and resources in order to maximise efficiency and reduce duplication.

Leeds City Council's report on Developing Digital Practitioners identifies a number of implementation recommendations that underpin the delivery of digital skills training within the health and social care context, which apply to both newly developing and existing tools and resources. These comprise:<sup>11</sup>

- Fix the basics by ensuring that digital systems within an organisation are fit for purpose, as a complement to effective training in how to use those systems.
- Help practitioners to reflect on the relevance of digital to their roles and tailoring training accordingly.
- Enable teams and individuals to pull support when, where and how they need it, for example, by offering a suite of resources for teams and individuals to draw upon as needed.
- Keep a constantly updated and easily accessible set of resources.
- Offer a range of learning opportunities to fit the time available, including a mix of online, face-to-face and blended learning opportunities.
- Support managers to enable their teams, including recognising that junior team members may possess the greatest digital knowledge within the team.
- Recognise the role of senior leaders in creating a conducive learning environment

### Key Findings

The core finding from this research project is that there is a broad range of high quality resources that meet the education and training needs of health and care staff across most but not all of the domains of digital literacy identified by HEE.

Taking a bird's eye view, the domain with the greatest number of relevant resources is 'Technical Proficiency', although many of these resources relate to using the Microsoft Office suite that may be of limited relevance to individuals seeking to develop other areas of technical proficiency. The domain with the least number of relevant resources is 'Creation, Innovation and

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<sup>11</sup> Leeds City Council (2016), Developing Digital Practitioners: Discovery Report and Model.

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Scholarship', in part because the skills covered in this domain focus on creating new digital resources and learning change within a team or organisations - skills that depends on competencies developed across the other five domains. Likewise, the 'ability to demonstrate and champion' a positive, ethical and appropriate attitude in relation to each of the six domains was implicit rather than explicit within the resources collated in the final database.

The majority of resources collected within the database offer generalised digital literacy training; out of the 136 resources included within the database, only 20 were developed for/by the health and care sectors. These resources are primarily developed by the NHS and its partners, such as HEE and e-Learning for Healthcare, with a small number of online courses in digital technology and healthcare offered by learning platforms such as Future Learn. As well as being directly relevant to health and social care professionals, these resources are also of a consistently high quality across the various providers.

Of the remaining resources, there are a marginally higher proportion of education sector resources compared with the commercial sector (with some overlap in the boundaries between these two sectors). Across both education and commercial providers, there is a fairly even split between paid-for and free to access resources. Some resources are also free to access but require some form of payment or subscription to receive certification, for example, the majority of courses on the Future Learn platform offer this kind of free/paid-for option.

Taken together, the suite of resources collated in the final database showcase the range of different providers, types of resources, and breadth of digital skills training on offer to health and social care staff. These resources are all readily available to health and social care professional seeking high quality educational tools and/or training to improve their digital skills, although cost and location may have an impact on the accessibility of specific resources.

### Gaps in Provision

Based on evidence from searches conducted for this project, there appears to be a number of discreet areas in which the range of digital tools, resources and training opportunities for health and social care professionals and/or general populace is more limited. These include:

- Limited evidence of m-learning apps to develop general digital skills.
- A number of the most well-known US-based agencies offering mass open online courses (MOOCs) offered a limited range of open courses; the majority of courses were highly specialised and unlikely to be relevant to health and social care workers. In contrast, UK education providers offering MOOCs provided individuals with a broader range of courses from introductory to advanced level.
- A survey of higher education institutions that offer the CPD courses for health and social care workers identified only a limited number of courses relevant to developing digital literacies, focusing instead on clinical practice and soft skills development.

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- There is little evidence of resources and training to support health and social care workers to become literate in eHealth initiatives; however, recent studies cited in the literature review point towards a growing need for further training in this area.

### Recommendations

HEE may wish to use the current database as a starting point to develop a bank of resources accessible to all NHS health and social care professionals. There are a number of interlinked recommendations that would support this kind of project:

- Mapping the current digital literacy skills and confidence of health and social workers across and/or within specific occupational groups and levels of seniority in order to identify the areas and levels where digital literacy training is needed and what the challenges might be. This could include both a quantitative and qualitative element, for example, open survey questions. There could be potential to identify further resources not currently included within the database that health and social care workers have already used to improve their digital literacy skills, which would strengthen the database by harnessing 'bottom up' learning
- The proposed mapping exercise would also allow some streamlining of the current database to help create an accessible, centralised resource of health and social care workers and teams who want to improve their digital literacy in the workplace. As well as adding new resources, this may include keeping only the most relevant or high quality resources at various skills levels (for example, reducing the number of resources aimed at basic proficiency if the evidence supports it).
- Commissioning, or working in partnership with other organisations, to develop new resources where persistent gaps in current provision exist, for example, tools and resources to support individuals to become 'change agents' for digital literacy within their team or organisation, or generalised resources to support health and social care workers with the transition towards eHealth initiatives across the NHS. The development of any new resources could also be carefully aligned with each of the domains of digital capabilities.

### Educational resource database

The educational resource database can be found as Appendix 2 of this report.



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# 1. Introduction

## Research Scope

This report analyses the nature and extent of digital literacy tools and resources available to all those who work in health and social care, including online and physical resources across the healthcare, higher education and private industry sectors. These tools and resources are mapped according to Health Education England's (HEE) definition of digital literacy and its domains. The report also identifies gaps in the existing provision of tools and resources across the domains of digital literacy relevant to health and social care professionals.

The purpose of the report is to provide HEE with a database of tools and resources to continue its work supporting health and social care professionals to become, and remain, digitally literate. This investment in the digital literacy of health and social care professionals is based on the need to improve digital capabilities in order to enhance the quality of care and outcomes for everyone working in and/or benefiting from public health and social care in England.<sup>12</sup>

This research follows on from previous research commissioned by HEE that identified '*insufficiently high digital capabilities*' as one of the barriers facing health and social care professionals from harnessing the innovations offered by digital technologies to maximise the quality of care offered in a system that is experiencing increasing pressures on physical resources.<sup>13</sup>

The current report builds on previous research of developing a digital literate workforce that focused on (i) identifying resources and tools relevant for health and social care professionals with different digital needs and levels of competence; (ii) encouraging the leadership and culture across the health and social care sectors to support digital learning and technological innovation in service delivery; and (iii) developing digital champions within the health and social care workforce to share their digital expertise with others.<sup>14</sup>

## Research Questions

### Key Research Question

To what extent do existing educational tools and resources meet (or are able to meet) the education and training needs of health and care staff, as specified in the HEE definition of digital literacy and its domains?

### Subsidiary Research Questions

What specific educational tools and resources are there freely available to health and care staff and who are they provided by?

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<sup>12</sup> <https://hee.nhs.uk/our-work/research-learning-innovation/technology-enhanced-learning/digital-literacy>

<sup>13</sup> <https://hee.nhs.uk/our-work/developing-our-workforce/building-digital-ready-workforce>

<sup>14</sup> Ibid.

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What specific paid-for educational tools and resources are there available to health and care staff and who are they provided by?

How well and in what proportion do identified resources map to the HEE digital literacy domains? Are some domains covered more than others?

## 2. Methodology

The search strategy has focused on identifying high-quality tools and resources to help those who work in health and social care improve their digital literacy skills. This includes tools and resources developed for a broader audience that may be relevant to individuals working within the health and social care sector, including both freely available and paid-for tools and resources.

The following inclusion criteria have been used to determine tools and resources presented in the final database: tools and resources developed in the last three to five years within the educational, commercial and healthcare sectors that cover the whole spectrum of digital literacy, from those with low digital skills or confidence through to the highly literate and specialised. Research has focused on tools and resources developed for a UK audience, although tools and resources developed by International companies and/or agencies have been included if deemed relevant and easily accessible to individuals working within the UK context.

The following mapping of keywords has been used to determine search strings. These keywords have been used in various combinations to find relevant sources. Example searches conducted using Google include 'digital literacy healthcare social care professionals', 'digital learn\* health and/or care profession\* training.

### Mapping Keywords

**Digital literacy • Digital capabilit\* • Digital competen\* • Digital skill\* • Digital proficiency • Digital learn\* • Digital knowledge • Technical ability • Technical proficienc\* • Information technolog\* and/or IT and/or ICT skill\* • Computer literacy • Computer skill\***

**Health and/or care profession\* • Health and/or care worker\* • Health and/or care staff • healthcare • NHS profession\* • NHS worker\* • NHS staff • Public health worker\* • Social care worker\* • healthcare professional • health and/or social care professional**

**Online training • Online courses • Online resources • Online tools • MOOCs • e-learning • m-learning • elearning • mlearning • Professional development training • CPD • Training courses • Training resources • Education\* resources • Education\* tools • toolkit • apps**

Each tool or resource included in the final database has been assessed for relevance and quality. Manual searches were also conducted of a series of websites including higher education institutions offering CPD courses for health and social care professionals; key organisations working within the health and social care sectors, ranging from the Royal College of Physicians to e-Learning for Healthcare; and providers of mass open online courses (MOOCs) such as Future Learn. For providers offering multiple courses and/or modules, our research team selected the most relevant examples of those courses/modules.

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While the main focus of this project has been to identify and collate tools and resources to improve digital literacy, our research team identified and analysed a number of further sources to provide relevant background context for the database. A summary of findings has been presented in the narrative summary which follows.

### 3. What is Digital Literacy?

#### Definition

Health Education England has developed a definition of digital literacies after extensive consultation with a broad range of stakeholders. The resulting definition is designed to be clear and accessible to people '*in all walks of life*' including but not limited to those working in health and care. It reflects a person-centred understanding of how people interact with digital technology.<sup>15</sup>

**'Digital literacies are the capabilities which fit someone for living, learning, working, participating and thriving in a digital society' (Health Education England).**

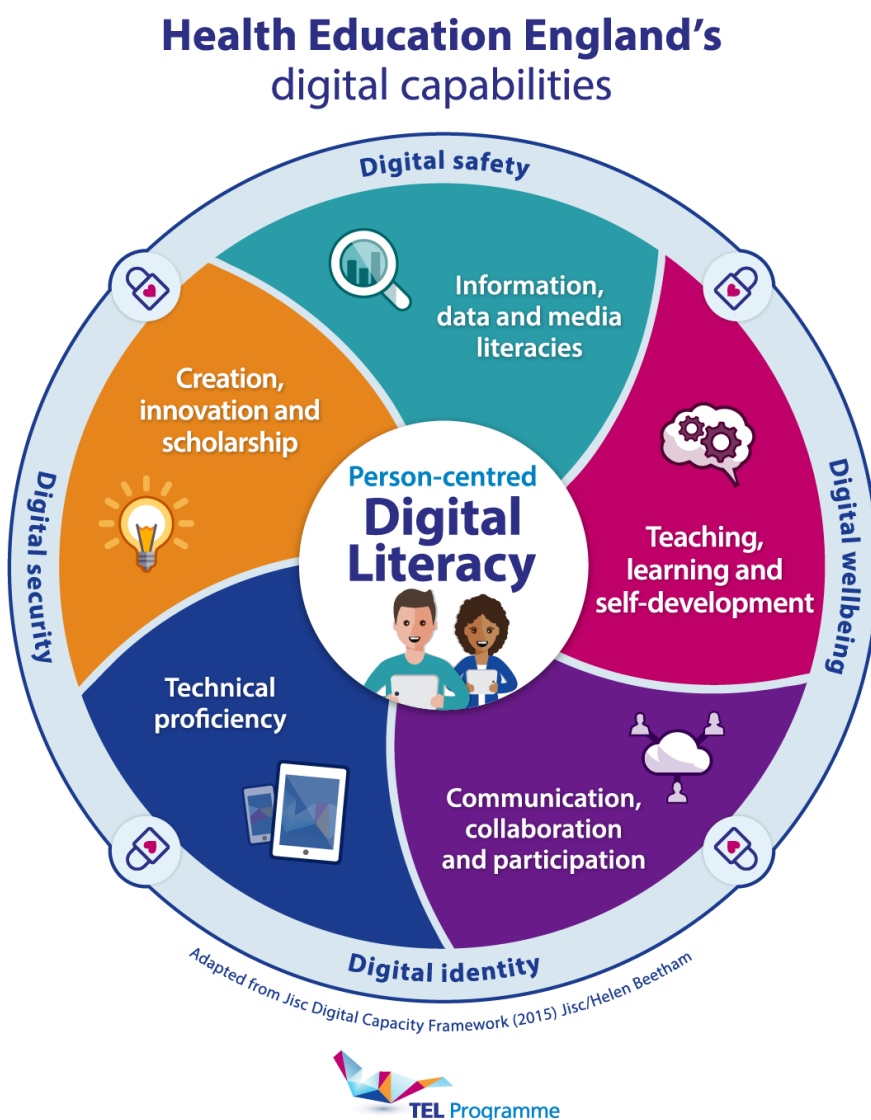


Figure 1 - Health Education England's digital capabilities

<sup>15</sup> <https://telblog.hee.nhs.uk/2017/03/28/what-is-digital-literacy/>

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HEE's definition comprises six interlinked domains of digital capabilities essential to developing the digital skills and behaviours to live, learn, work, participate and thrive in a digital society as illustrated in Figure 1<sup>16</sup>. The overarching domain of digital identity, wellbeing, safety and security sets the framework for the six domains:

1. Digital identity, wellbeing, safety and security
2. Communication, collaboration and participation
3. Teaching, learning and self-development
4. Technical proficiency
5. Information, data and media literacies
6. Creation, innovation and scholarship

Health Education England's definition of digital literacies and accompanying domains of digital capability align closely with other organisations involved in promoting digital literacy across the health and education sectors. Key examples include Skills for Care's Core Digital Skills,<sup>17</sup> JISC's Digital Literacies for Further and Higher Education,<sup>18</sup> and Open University's Digital and Information Literacy Framework.<sup>19</sup>

### Digital Domains

The following digital domains, and the capabilities encompassed by them, were identified by Health Education England as part of the process of developing a clear and meaningful definition of the digital skills and competencies relevant to health and social care professionals, as illustrated in Figure 1 above.<sup>20</sup>

#### 1) Digital identity, wellbeing, safety and security

- a. The ability to develop, promote and safeguard appropriate digital identity(ies) that support a positive personal and organisational reputation.
- b. The ability to use digital technologies in ways that support personal wellbeing and safety and that of others.
- c. The ability to recognise and act upon digital situations and events that might compromise personal, professional or organisational security.
- d. The ability to demonstrate and champion ethical, positive, healthy and appropriate attitudes and behaviours in relation to digital identity, wellbeing and safety of self and others.

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<sup>16</sup> Ibid.

<sup>17</sup> Skills for Care (2016), Core Digital Skills in Social Care.

<sup>18</sup> JISC (2015), 'Developing Students' Digital Literacy', Interactive Guide.

<sup>19</sup> Open University, (2012), Digital Information and Literacy Framework. See also: <http://www.open.ac.uk/libraryservices/subsites/dilframework/>

<sup>20</sup> Client documentation, 'Digital Literacy Domain Descriptors v0.03 150317'



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### **2) Communication, collaboration and participation**

- a. The ability to use a wide range of digital technologies to communicate with people and to understand the different nature, purpose and function of different methods of digital communication, acting accordingly and appropriately.
- b. The ability to use digital technologies to communicate respectfully and appropriately with all people and to recognise one's responsibility to not engage in or allow others to engage in inappropriate, irresponsible, offensive or harmful communication activities.
- c. The ability to work collaboratively with others using digital technologies and tools.
- d. The ability to participate actively in digital networks.
- e. The ability to demonstrate and champion ethical, positive, sensitive and appropriate attitudes and behaviours in communicating, collaborating and participating with anybody and everybody.

### **3) Teaching, learning and self-development**

- a. The ability to use digital technologies and tools for personal learning and professional development.
- b. The ability to use a wide range of digital technologies and tools in teaching, coaching, mentoring others.
- c. The ability to demonstrate and champion a positive attitude in seeking out appropriate and innovative digital technologies to enhance learning for self and others.

### **4) Technical proficiency**

- a. The confidence, ability and proficiency to use a wide range of digital devices in a personal and professional context. The confidence, ability and proficiency to use a wide range of software and applications for personal and professional use.
- b. The ability to resolve technical difficulties and problems.
- c. The ability to support others with resolving technical difficulties and problems.
- d. The ability to demonstrate and champion ongoing commitment to the maintenance and development of technical proficiency.

### **5) Information, data and media literacies**

- a. The ability to find, manage, organise and store digital information.
- b. The ability to understand, to create and to communicate digital messages across a range of digital media e.g. graphics, text, audio, haptic, animation.
- c. The ability to understand and act upon appropriate guidelines, protocols and safeguards in the use of differing media and data.
- d. The ability to critically analyse and/or interpret information and data.
- e. The ability to demonstrate and champion the effective, secure, appropriate and innovative use of data and information.

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### 6) Creation, innovation and scholarship

- a. The ability to create new digital resources and/or curate existing ones working individually or in collaboration with others.
- b. The ability to use digital technologies and tools to support research/scholarship activities.
- c. The ability to use digital technologies to support or create new ways of doing things.
- d. The ability to act as a digital champion or change agent.
- e. The ability to demonstrate and champion the effective, appropriate, creative and innovative use of digital technologies in research, scholarship, presentation, collaboration, teaching and learning activities.

### 4. Context

#### Government Policy

A 2016 UK Government healthcare report - 'Making IT Work' - identified the need for greater workforce development in digital skills across the NHS health and care sectors as part of a broader digital strategy to improve the dual pillars of efficiency and quality of care.<sup>21</sup> The report also highlights the need for NHS staff that develop enhanced digital skills to be provided with the resources and authority to act as change agents on the ground.<sup>22</sup>

The Government response has included an increase in funding to support '*digital excellence*' across the NHS, part of which is earmarked for training in digital skills for NHS staff.<sup>23</sup> This fits within the Government's wider commitment to improving digital skills and inclusion for all members of society, from basic digital skills to enhance digital capabilities for the workplace.<sup>24</sup>

In addition, the National Information Board has created the Building a Digital Ready Workforce programme to work with professional groups, such as nurses, to identify pain points and work to help them define what they need to become digitally expert to the level they need.<sup>25</sup>

#### Needs Analysis

Health and social care workers are encouraged to undertake professional development training to improve their skills and practice across a broad range of competencies. While the recognition that digital literacy should be counted as a core capability is fairly recent, there is an increasing body of evidence that highlights the benefit of and need for investment in the digital literacy tools, resources and training for health and social care professionals. This is also reflected in the policy and strategy adopted by leading NHS organisations and associated professional bodies, for example, the Royal College of Nursing recently introduced an initiative, *Every Nurse An e-Nurse*, with the aim that all nurses will be supported to develop the digital capabilities needed for nursing in the 21st century.<sup>26</sup>

To achieve a digitally literate health and social care workforce requires an understanding of the current skills and training needs across the workforce. The following summary identifies a number of key trends and considerations in meeting these needs going forward.

Research conducted by Leeds City Council, as part of their Digital Practitioner Programme, found that the quality of care delivered by health and social care workers on the ground improved significantly when they felt confident integrating digital tools and technology into their

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<sup>21</sup> Wachter, R. (2016), Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England, Report of the National Advisory Group on Health Information Technology in England.

<sup>22</sup> Ibid.

<sup>23</sup> Department of Health (7th September 2016), 'New plans to expand the use of digital technology across the NHS'.

<sup>24</sup> Department for Culture, Media and Sport (1st March 2017), Digital Skills and Inclusion, Policy Paper.

<sup>25</sup> HEE (1 August 2017): <https://hee.nhs.uk/our-work/developing-our-workforce/building-digital-ready-workforce>

<sup>26</sup> <https://www.rcn.org.uk/clinical-topics/-/link.aspx?id=C97125688EBA4630B6754CA85F25309A&z=z>

everyday services, for example using web searches during home visits to provide service users with evidence-based response to their queries.<sup>27</sup>

### Case Study: e-Learning for Healthcare Educator Hub and IT Skills Pathway

Summary: There are two key resources available on the e-Learning for Healthcare portal: the Educator Hub and the IT Skills Pathway, both of which are free to use.

The Educator Hub is designed for educators in the health and social care sectors to enhance their skills in training others. Framework areas include teaching and facilitating learning, as well as continuing professional development for educators.

The IT Skills Pathway is provided by a third party via the e-Learning for Healthcare portal. They are accessible to all health and social care staff, and are designed to improve workforce technical proficiency. Modules are intended to support independent learning and can be completed in the learner's own timeframe. Training and assessment can also be customised to suit the needs of each user, and the platform is designed so as to help learners identify their IT skills gaps and design their learning requirements around these.

Best Practice: Both programmes were developed to improve the safety and effectiveness of patient care through training. The IT Skills Pathway is intended to act as a workforce-wide recognised route of certification, which if implemented would reduce skills inconsistencies between NHS workers. The Educator Hub is also a rare example of a programme designed to enhance digital teaching skills within the health sector.

The report also identified a number of barriers that may inhibit health and social care workers for making effective use of digital technology in the workplace, including '*past experiences of technology that promised to make things easier but actually got in the way*', suggesting that building digital confidence is equally important as developing digital skills.<sup>28</sup>

There may also be a difference in the use of workplace digital technology among health and social care workers depending on level of seniority within the organisation. A rapid evidence review conducted by Skills for Care, for example, indicates that the use of digital technology is well-embedded amongst professional and managerial social care staff but not for the remainder of the workforce. The review also found that there was a limited evidence-base on the extent to which the social care workforce use digital technologies in the delivery of care; at the same time, the report emphasised how digital literacy skills can improve the quality of care provided to patients and their families.<sup>29</sup>

As well as developing a baseline in digital literacy for health and social care workers, there is also a growing need for specialised training. Findings from an EU report on digital skills for health professionals highlight that need for training in e-health and m-health to build upon current initiatives focused on general digital literacy training. Access to specialised training

<sup>27</sup> Leeds City Council (2016), Developing Digital Practitioners: Discovery Report and Model.

<sup>28</sup> Ibid.

<sup>29</sup> Dunn, S. and A. Braddell (2014), Digital Capabilities in the Social Care Workforce: Rapid Evidence Review, Skills for Care.

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would support the growing trend towards digital healthcare solutions across EU member states, including the UK.<sup>30</sup> Equipping the health and social care workforce with the knowledge and skills to implement digital healthcare solutions is essential to empowering patients to manage aspects of their own health by improving the scope and quality of care on offer.<sup>31</sup>

There are a number of additional studies that point towards the need for specific training for the health and social care workforce in using work-based digital technologies. A case study conducted with pharmacy workers in the North East of Scotland found that the majority of participants rated their digital literacy at a basic level and expressed a need for further training in using management information systems and e-health applications.<sup>32</sup> Further studies suggest that digital skills for personal activities do not always translate readily to the workplace,<sup>33</sup> and even that students entering the healthcare sector may over-estimate their digital competence in the workplace based on the skills needed within their personal lives, such as using social media and communication resources.<sup>34</sup>

### Cross-Sector Learning

There are a number of organisations working in sectors closely allied to the health and social care sector that have developed tools, resources and training to support individuals to improve their digital skills. These include:

- JISC provides a central portal for skills training and resources for further and higher education professionals. This includes hosting a series of courses and workshops, and creating their own digital leaders programme.<sup>35</sup>
- The Skills Platform has developed a digital toolkit for charity and third sector organisations. Many of the areas covered in the toolkit would be relevant for managers and leaders working in the health and social care sector, either as a model for developing a sector-specific toolkit or drawing on the Skills Platform toolkit as an example of cross-sectoral learning.

While these tools, resources and training opportunities lie outside of the scope of the current project, they may provide useful models in the development of any future tools, resources and training for health and care workers. The 'Digital Champions' case study below offers a good example of the successful development of cross-sectoral learning to promote digital literacy skills.

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<sup>30</sup> European Health Parliament (2016), Digital Skills for Health Professionals, Committee on Digital Skills for Health Professionals.

<sup>31</sup> European Health Parliament (2016), Digital Skills for Health Professionals, Committee on Digital Skills for Health Professionals.

<sup>32</sup> MacLure, K. and D. Stewart (2015), Self-Reported Digital Literacy of the Pharmacy Workforce in North East of Scotland, *Pharmacy* 3.

<sup>33</sup> Leeds City Council (2016), Developing Digital Practitioners: Discovery Report and Model.

<sup>34</sup> Evangelinos, G. and D. Holley (2014), A Qualitative Exploration of the DIGICOMP Digital Competence Framework: Attitudes of Students, Academics and Administrative Staff in the Health Faculty of a UK HEI, Research Article, European Alliance for Innovation.

<sup>35</sup> JISC Training Opportunities: <https://www.jisc.ac.uk/advice/training>

### Case Study: 'Digital Champions Training' by Digital Unite

Summary: The Digital Champions Training is aimed at equipping prospective digital skills teachers with a comprehensive skill set for educating others in basic digital literacy topics, such as Microsoft Office, internet security, online shopping and banking, applying for jobs online, and helping learners select and use appropriate software for different tasks. The course is free, and completion of the training is recognised by a Mozilla Open Badge.

Best Practice: The Digital Champions Training is an accessible and well-designed online resource which can be completed in the user's own time frame and promotes knowledge sharing. It is particularly likely to be beneficial for organisations seeking to promote an internal learning environment. Originally developed for professionals working within the social housing sector, the programme has expanded to cover cross-sector organisations with Skills for Care recently becoming a member of its Digital Champions Network.

## Best Practice

Best practice in developing the digital skills of the health and social care workforce involves more than simply producing or identifying training content, rather it requires a holistic approach to personal and organisational learning that creates an enabling environment for relevant and effective digital skills development across the health and social care sectors.

There is a clear emphasis across the literature in the health and social care sectors that individuals and organisations should make use of existing tools and resources before designing new tools and resources in order to maximise efficiency and reduce duplication. HEE's Guidelines for Commissioning Technology Enhanced Learning (TEL) in the NHS, for example, stipulate that organisations should confirm that a genuine demand for a specific learning resource is needed, appropriate and not met by current resources prior to commissioning or designing new tools and resources in-house.<sup>36</sup>

Leeds City Council's report on Developing Digital Practitioners identifies a number of implementation recommendations that underpin the delivery of digital skills training within the health and social care context, which apply to both newly developing and existing tools and resources. These comprise:<sup>37</sup>

- Fix the basics by ensuring that digital systems within an organisation are fit for purpose, as a complement to effective training in how to use those systems.
- Help practitioners to reflect on the relevance of digital to their roles and tailoring training accordingly.
- Enable teams and individuals to pull support when, where and how they need it, for example, by offering a suite of resources for teams and individuals to draw upon as needed.

<sup>36</sup> Health Education England (2017), Guidelines for Commissioning Technology Enhanced Learning in the NHS.

<sup>37</sup> Leeds City Council (2016), Developing Digital Practitioners: Discovery Report and Model.

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- Keep a constantly updated and easily accessible set of resources.
- Offer a range of learning opportunities to fit the time available, including a mix of online, face-to-face and blended learning opportunities.
- Support managers to enable their teams, including recognising that junior team members may possess the greatest digital knowledge within the team.
- Recognise the role of senior leaders in creating a conducive learning environment.

### **Case Study: 'The Digital Practitioner' by Leeds City Council, NHS Leeds and mHabitat**

Summary: The digital practitioner programme was designed to develop the digital skills and confidence of health and social care staff. The programme offers online training modules including online safety, information, governance, and managing risk; programmes on social media, video calling, and conferencing for communication; and modules on digital tools and information, and finding and evaluating information online. It was designed to support independent and organisational learning, and modules can be completed according to the user's time frame.

Best Practice: The pilot phase of the programme promoted the value of digital technologies across NHS Trusts in Leeds. The programme therefore had the same objective as HEE in developing digital literacy within the healthcare sector, with modules tailored to sector needs.



# 5. Resources

## Introduction

The database compiled on behalf of HEE for this study is conceived as a bank of resources that health and social care professionals, including teams and organisations, can draw on to find training content to meet their needs.

The database comprises 136 different tools, resources and training opportunities designed to support individuals to improve their digital literacy capabilities. These tools, resources and training opportunities range from basic to advanced proficiency. All resources included within the database have been assessed for relevance and quality, with the case studies included within this report highlighting examples of good practice and/or tools and resources with the greatest relevance for the health and social care workforce.

The database also maps each individual resource against the six domains of digital capabilities identified by HEE, illustrated in Figure 1. An analysis of the resources by domain is presented in the summaries below. It should also be noted that certain digital skills overlap more than one domain, for example, developing the technical proficiency to use apps for handling data (domain 4) and knowing how to manage and analyse data (domain 5). As far as possible, this breadth has been captured in the record of relevant domains in the database, and the analysis of resources that follows below.

### Case Study: 'Learn My Way' by The Good Things Foundation

**Summary:** Learn My Way is a high quality resource offering basic digital skills training to all, regardless of previous competence. It consists of over 30 free courses to help beginners get started, covering online basics and safety, using a computer, and using social media for communication. More advanced courses are also available for those who wish to develop further specific skills, such as confidence in using online health services and managing their finances online.

**Best Practice:** This is an example of a resource designed for people who are very new to computing, which is high quality, well designed and accessible for a wide audience.

## Domain 1: Digital identity, wellbeing, safety and security

### Overview of Resources

Of the 136 resources in the database, 52 covered some aspect of digital identity, wellbeing, safety and security. This makes it one of the less well-represented domains in terms of the quantity of resources when compared with other domains.

Around half the resources identified are free, while half are paid-for or include a combination of free and paid-for courses and learning material. A majority of the resources identified are from

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the education sector, while a significant minority have been developed by the commercial sector. Only two of the resources identified are targeted towards learners in the healthcare sector, while one resource is from a third sector organisation.

A significant majority of the resources identified appear to be targeted at learners with a limited digital proficiency, including several courses on IT fundamentals and security. A small number of resources include intermediate or advanced learning content; examples in these areas include several courses from techUK, such as how to develop an information security policy targeted at board members, executives and others with responsibilities for security.

### Training Content

A majority of the resources and courses identified include learning content related to the ability to develop digital identities that *'support a positive personal and organisational reputation'*. Examples include keeping personal and organisational information safe, identity theft, and other approaches to digital safety. Only a very small number of courses focus on the aspect of developing and promoting digital identities, such as building an online profile and managing online identities.

Most of the resources in the database focus on skills related to digital security, such as the *'ability to recognise and act upon digital situations and events that might compromise personal, professional or organisational security'*. Example content in this area includes how to identify and avoid online scams and spam emails, and anti-virus approaches. A smaller number of courses contain more in-depth security content, including how to manage security risks in a threat landscape, cryptography and working with firewalls.

There is a significant overlap between resources that cover aspects of digital identity and wellbeing related to *'the ability to use digital technologies in ways that support personal wellbeing and safety and that of others'* and *'the ability to demonstrate and champion ethical, positive, healthy and appropriate attitudes and behaviours in relation to digital identity, wellbeing and safety of self and others'* with similar areas in the following domain of communication, collaboration and participation; see discussion below for further detail.

### Case Study: European Computer Driving License (ECDL)

Summary: The ECDL curriculum is available in purchasable separate modules to hone skills in a particular program or skill, or as a full package. The course is divided into beginner, intermediate, and advanced levels, which follow on from each other and result in recognised qualifications at each stage. The curriculum covers a wide range of competencies, and therefore satisfies all of HEE's domain. Modules include internet safety, advanced Excel skills, creative IT uses such as image editing and web design, and digital media for communication; there is also a specific module on health information system usage.

Online ECDL courses can be followed at the user's own pace, although several providers also offer taught classes. The course comes at a charge, with some providers offer a 10% NHS staff discount.

Best Practice: The ECDL is a long-standing and internationally accredited curriculum, which many workforce sectors encourage their staff to pursue. The curriculum is revised routinely to ensure it still satisfies the requirements of today's workforce. It is suitable for a wide audience.

### Training Quality and Emerging Gaps

There are a large number of resources available in this area, the majority of which cover digital safety and cyber security as part of a broader focus. Only a small number of resources having a specific focus on this domain. While the overall quality of resources is high, the majority of these resources target individuals with basic or limited digital proficiency, which may be less relevant for health and social care professionals that have already achieved a basic level of digital literacy.

Emerging gaps include the lack of resources focusing on digital identity, wellbeing, safety and security in the context of the health and social care sector. There is also a notable lack of resources and courses focusing on digital wellbeing and championing ethical and positive attitudes online.

## Domain 2: Communication, Collaboration and Participation

### Overview of Resources

45 of the 136 resources identified relate to the domains of communication, collaboration and participation. The resources are fairly evenly split between those that are paid-for and those that are free. A majority of the resources are targeted for learners with limited digital proficiency, although around half are also suitable for learners with intermediate or advanced knowledge and skills in the area, such as developing a social media strategy and intermediate level courses on social media for business.

Most of the resources identified are from the commercial sector, while a smaller proportion are from the education sector. Five resources are targeted specifically towards learnings in the health and social care sector, while another resource is from an organisation in the third sector.

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Many of these resources are developed and offered by well-established organisations, such as Accenture's 'Go Digital' programme in the commercial sector, and Open University's 'Being Digital' in the education sector.

While there are a growing number of courses offered online to allow individuals to study at the time and pace to suit their needs, there are also local providers offering in-person training. Key providers of in-person training are local councils offering digital literacy programmes and further education colleges that provide adult education courses. Many of the in-person courses are pitched at beginner level, for example, Brighton Metropolitan College's part-time course in 'IT Skills for Work' covers networking and communication skills for the workplace.

### Training Content

More than half the resources identified relate to the third and fourth skill areas: '*the ability to work collaboratively with others using digital technologies and tools*' and '*the ability to participate actively in digital networks*'. Learning content focusing on digital collaboration includes use of IT for networking and collaboration, working in virtual teams, approaches to streamlining communication, establishing community groups online, and how to use video conferencing and other communications applications, such as Skype. For digital networks, a majority of the resources focus on social media platforms or other digital platforms such as Google's Blogger, WordPress and wikis.

There are a small number of the resources that cover the second skill area, such as how to use digital technologies '*respectfully and appropriately with all people*', and the fifth skill area, regarding how to '*champion ethical, positive, sensitive and appropriate attitudes and behaviours*' in online communication. It is possible however, that these skills may be covered within training material for courses that only provide a brief synopsis of content in the public domain.

It is also important to note that there are some high quality resources available to the NHS workforce within this domain on the use of social media, including resources on appropriate etiquette when using social media and how to tackle cyberbullying within the NHS, developed by NHS Employers. A further example of good practice in this area is WeCommunities, who provide resources for nurses using Twitter in a professional capacity, as well as expecting all members to adhere to the *Guidance on Using Social Media Responsibly* produced by the Nursing and Midwifery Council.

Additional examples of appropriate and respectful use of digital technologies in this area include resources and modules on how to develop a code of practice for online communication, business email etiquette, as well as a specialised course focusing on social media as a mass communication tool during infectious diseases epidemics.

There are also a relatively low number of resources that appear to relate to the ability to '*understand the different nature, purpose and function of different methods of digital communication*'. Examples in this area include courses focusing on digital marketing, including

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email campaigns, as well as methods for developing a digital strategy.

### Case Study: 'Social Media in Healthcare' by Future Learn

**Summary:** Social Media in Healthcare is an online course exploring how social media can be used in the healthcare setting to communicate, exchange, and create information, including opportunities and challenges. The course materials are free, but certification requires a paid-for subscription.

**Best Practice:** The course is specifically targeted towards the healthcare sector, and is therefore likely to be highly relevant for HEE audiences. It also targets a particular knowledge gap identified by HEE and can be used in isolation, or in concert with other resources which focus on broad technical proficiency.

### Training Quality and Emerging Gaps

Communication, collaboration and participation is among the least covered of the digital literacy domains. There is also a significant degree of overlap in the resources identified in terms of the five areas of communication, collaboration and participation; only a few of the resources identified cover any one skill area in great detail or depth, but instead cover aspects of different areas, such as how to use specific applications for online collaboration.

It is worth noting that a number of the resources identified were excluded from this domain as they focus on very basic aspects of communication, collaboration and participation, such as dedicated courses on how to send and receive emails and how to use Outlook; however, these resources were retained in the main database because of relevant content for other domains.

Emerging gaps include a lack of resources focusing on the areas related to using digital technologies respectively and appropriately, championing positive and ethical attitudes online, and understanding the purpose of different methods of digital communication. There is also a lack of courses with a more in-depth focus on digital communication, collaboration and participation as a whole.

## Domain 3: Teaching, Learning and Self-Development

### Overview of Resources

Almost all the resources identified relate to some aspect of teaching, learning and self-development by virtue of supporting individuals to improve their digital literacy in some capacity. The majority are paid-for resources, although a sizeable minority offer training content for free. While most of the resources are from the education or commercial sector, there are a good number of resources (19) that are specifically targeted towards learners in the health and social care sector.

The resources identified cover a range of skill levels, from limited digital proficiency to

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intermediate and advanced skills. The resources also include both online and in-person training opportunities. A small number of resources move beyond self-development to offer training in how to support others to enhance their digital skills, as well as examples of tools such as HEE's Healthcare Library and Knowledge Service that provides health and social care professionals with access to evidence-based research to support their learning across a broad range of topics alongside specific training in digital skills.

### Training Content

All of the resources identified relate to the first skill area regarding the '*ability to use digital technologies and tools for personal learning and professional development*'. This includes a mixture of resources for self-directed learning as well as more formal taught courses, including one-day workshops and courses lasting several weeks. There is an even divide between online resources and courses taught in-person or in a classroom setting, including some courses offering blended learning.

Only a small number (7) of the resources appear to relate to the second area of skills, such as '*the ability to use a wide range of digital technologies and tools in teaching, coaching, mentoring others*'. Examples include courses to train learners to become Digital Champions to teach basic digital skills to others, as well as courses and e-learning resources for educators in health and social care, including one course for doctors working towards RCP educator accreditation on how to deliver training to others. Some resources also seek to promote group-centred and community learning.

Only two resources appear to relate to the area regarding the '*ability to demonstrate and champion a positive attitude in seeking out appropriate and innovative digital technologies to enhance learning for self and others*'. Training content in this area includes developing self-confidence and motivation in others, as well as supporting and monitoring educational progress.

#### Case Study: 'Information and Digital Literacy CPD Course' by University of West England

**Summary:** A twelve-week course of two-hour sessions per week for post-graduates that offers a broad range of modules on digital literacy and technology, including how to support information literacy in others, and how to teach information and digital literacy skills. The course also looks at tools for collaboration and sharing resources with a broad audience.

**Best Practice:** The course is designed to teach future digital literacy teachers, and therefore offers comprehensive technical grounding as well as teaching techniques. While other Universities offer technical proficiency classes, few offer a comparable focus on developing teaching skills; unfortunately, the location and cost may limit accessibility for many learners.



### Training Quality and Emerging Gaps

It has been more difficult to assess quality in this area due to the wide range of different resources included, although all resources included in the database are pre-assessed for quality and relevance. The quality of the resources will also to some extent depend on the learners themselves, for example whether they prefer structured or self-directed learning, as well as the overall aims of the training for individuals and organisations. The body of resources where the quality is most variable are YouTube resources from self-directed study, although a number of the specific YouTube resources identified for inclusion in the database were developed by well-established institutions, for example, the Colegau Cymry (CollegesWales) 'Essential Digital Literacy Skills' webinar.

Emerging gaps in this area include the relative shortage of resources focusing on how to train and mentor others in digital literacy, particularly how to champion a positive attitude in enhancing learning for others.

## Domain 4: Technical Proficiency

### Overview of Resources

Another well-represented domain, 105 of the 136 resources identified relate to technical proficiency. A similar proportion of resources are from the commercial and education sectors; only nine are specifically targeted at learners in the health and social care sector. There are also a greater number of paid-for compared with free resources covered in this domain.

A majority of the resources identified appear to be tailored towards learners with limited proficiency, including a large number of resources focusing on basic computer applications, such as the Microsoft Office suite. A smaller number of resources are targeted towards learners with intermediate skills, including resources on productivity programmes, as well as a few targeting more advanced skills; examples of the latter include those focusing on computer programming or using computer-aided design (CAD) software.

### Training Content

All of the resources identified appear to relate to technical proficiency in using different digital devices and applications, such as *'the confidence, ability and proficiency to use a wide range of digital devices in a personal and professional context. The confidence, ability and proficiency to use a wide range of software and applications for personal and professional use.'*

A majority of the resources in this area focus on developing proficiency in specific applications and software by different providers, including Microsoft, Cisco, Google and VMware, as well as a few focusing on Open Source applications. Some resources also focus on how to use different digital devices and operating systems, including tablets and smartphones.



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None of the resources appear to specifically relate to the remaining three skill areas for the ability to '*resolve technical difficulties and problems*', '*support others with resolving technical difficulties and problems*', or '*demonstrate and champion ongoing commitment to the maintenance and development of technical proficiency*'. It is very likely, however, that many resources and courses will focus on these aspects as part of other learning content; for example, resolving technical problems related to specific software packages.

### Case Study: Log On To Care

Summary: Log On To Care is a comprehensive e-learning site providing tailored courses to the social care sector, including resources covering basic Microsoft Office skills. There is a membership fee that some Local Authorities, Care Associations and private/voluntary organisations will pay on the learner's behalf; otherwise annual membership fee is £10 + VAT.

Best Practice: The advantage of this website is that it recognises digital literacy as an essential skill set in social care, alongside core social care technical skills and policy. It is a resource to which many healthcare workers will already have access, and learning can be completed at time and pace to suit individual needs. However, it only covers the very basics and does not provide benchmarks for future development or the opportunity to pinpoint skills gaps.

### Training Quality and Emerging Gaps

The resources cover a range of different applications and programmes with a particular emphasis on the Windows operating system and Microsoft Office suite. There are a small number of resources specific to health and social care professionals, for example, the NHS 'IT Skills Pathway' that provides e-learning resources on Microsoft Office tools tailored to the requirement of different NHS job roles.

The lack of resources focusing specifically on resolving technical difficulties is a key emerging gap in this area, although as noted previously this may be covered in a more narrow manner as part of other learning content. It is also worth noting that the majority of resources tend to focus on developing proficiency in specific applications and software packages, as opposed to a more holistic approach to building key technical skills.

## Domain 5: Information, Data and Media Literacies

### Overview of Resources

58 resources relate to the domain for information, data and media literacies; comprising resources that focus specifically on using, managing and analysing information and data with training content related to using applications such as Excel and other Microsoft Office tools only included for resources that look at the how these apps support information and data

## Digital literacy: existing educational resource mapping and analysis

management and analysis.

Overall, there is a broad range of resources targeting learners with different levels of digital proficiency, including courses for beginners and more advanced content for experienced learners. A majority of the advanced resources are related to data analysis and information management, however, with fewer resources targeting advanced digital media skills.

An even number of resources are from the education and commercial sectors; six resources directly target learners in the health and social care sector, including free courses offered by King's College London for NHS staff at Guy's and St Thomas' hospitals and King's College hospitals that cover how to query NHS databases and carry out critical appraisals of qualitative and quantitative data. In general, a greater proportion of resources across all sectors are paid-for rather than free to access.

### Training Content

More than half the resources relate to the analysis of data and information, such as the '*ability to critically analyse and/or interpret information and data*' and the '*ability to demonstrate and champion the effective, secure, appropriate and innovative use of data and information*'. These include resources and courses focusing on data analysis using Excel, including beginner and advanced levels, as well as other statistical software packages such as R and RHadoop. Other examples include resources on data literacy, data collection, methods and approaches to data analysis, data visualisation and data manipulation. Some courses also include more advanced learning content, such as statistical inferences, mathematical modelling and analysis of big data.

A significant number of resources cover the area related to finding, managing, organising and storing digital information. Examples in this area include database management, electronic bookkeeping and other approaches for storing digital information, including cloud storage and specific data management and storage systems such as Microsoft SharePoint, Microsoft Access and Microsoft PowerShell. Some resources also focus on how to find information and sources online, including keywords and search strategies.

A smaller proportion of the resources relate to the skill to '*understand, to create and to communicate digital messages across a range of digital media*', although some resources mentioned within the domains for technical proficiency and communication and collaboration may also be relevant in this area. Learning content focusing on digital media skills include digital video and video editing, photography, web development, and digital audio, including podcasting.

Only one of the resources identified appears to relate to the ability to '*understand and act upon appropriate guidelines, protocols and safeguards in the use of differing media and data*'; this included a course focusing on accuracy, precision and common errors in the handling of data.

### Case Study: 'Using Numbers and Handling Data' by The Open University

Summary: This online course is available to all users, but is aimed specifically at those with low confidence in numeracy and is intended to support independent learning. While it does not focus on digital literacy as such, it satisfies the HEE domain for analysing and interpreting data and information, such as how to analyse and extract information from graphs. Participation in the course is free, and a statement of participation can be printed upon completion of the course.

Best Practice: The course is likely to be particularly relevant for HEE audiences with a low proficiency in numeracy. There are also elements that are especially relevant for health and social care staff, such as how to record measurements in the healthcare context.

### Training Quality and Emerging Gaps

There are a broad range of different resources and courses in this area from basic proficiency to advanced skills in handling and using information and data. There are also a number of courses tailored specifically for health and social care professionals that cover areas such as using healthcare databases and analysing data in the context of health and social care.

A key emerging gap includes the lack of resources focusing on guidelines and safeguards in the use of digital media and data; it is possible however that this is covered as part of broader learning content across some of the resources in the database. Dedicated courses on data protection - which have not been included in the research for this report - may also be of interest in this area.

## Domain 6: Creation, Innovation and Scholarship

### Overview of Resources

The domain for creation, innovation and scholarship is one of the least covered domains, with only 40 of the resources identified relating to this area. More than half of the resources are paid-for, while the remainder free. A similar number of resources are from the education and commercial sectors, while only three resources are targeted towards the health and social care sector.

The resources identified are available at several different levels and are suitable for learners with limited, intermediate and advanced digital proficiency. For example, resources on coding and computer programming include both entry-level courses, such as the '*Coding for Parents*' resource by Barclays Bank, as well as more advanced learning content.

### Training Content

A majority of the resources in this domain relate to the first skill: *'the ability to create new digital resources and/or curate existing ones working individually or in collaboration with others'*. There is a significant level of overlap between this and other domains: for example, many resources relate to skills that are also covered elsewhere, but with greater emphasis on creative and design aspects, such as web design, coding and computer programming, data visualisation and graphic design, including tailored courses on Photoshop.

Four resources focus specifically on developing the *'ability to act as a digital champion or change agent'*. Three of the resources - from University of Cumbria, Sheffield Hallam University and the NHS Digital Code4Health - focus specifically on health and social care professionals to develop a business plan for change and become digital change agents within their organisation. Another resource by Youtube is designed with the view of persuading learners to share information and integrate digital literacy skills as part of other learning.

Only a small number of resources appear to relate to the skill area for using *'digital technologies to support or create new ways of doing things'*; these include a course on mind-mapping tools to brainstorm, create, and manage research and documentation, as well as an advanced course on the use of nanotechnology within the healthcare sector.

None of the resources identified appear to relate specifically to the second and fifth skill areas regarding the ability to use digital technologies and tools to support research and scholarship activities, although a number of the resources identified in the previous domain to analyse and interpret information and data are also likely to be relevant for research purposes.

#### Case Study: NHS Digital Code4Health Learning Platform

Summary: The Learning Platform is a free e-learning hub designed to support NHS workers to learn to code and build apps, with the aim of developing high quality digital solutions within the emerging open digital health network. The intention of the website is to encourage community and platform collaboration to realise these digital developments, and therefore satisfies HEE's objectives for communication, collaboration and participation, as well as self-development. It also enhances creation and innovation through learning resources and objectives which cover an introduction to coding, and how to create an app in a day.

Best Practice: The Learning Platform is a rare example of digital innovation that is specifically targeted at the healthcare sector. Unlike other similar sites which focus on enhancing technical proficiency rather than encouraging creativity, it aims to provide a safe environment to share and discuss ideas.

### Training Quality and Emerging Gaps

It is difficult to assess quality in this area due to the broad definition of the skills included, as well as the likely overlap with other digital literacy domains, but the most relevant courses appear to

be those focusing on developing digital champions or change agents; these courses are also likely to be highly relevant for HEE audiences due to their specific focus on health and social care contexts.

One key gap in this area is the absence of resources identifying new ways of working through digital technologies, although this area is arguably subjective and different resources are likely to be relevant for different learners and organisations depending on what would constitute new ways of working for them.

## 6. Discussion

### Key Findings

The purpose of the findings is to analyse the key research question (KRQ1) and subsidiary research questions (SRQ1-3) in light of evidence from the literature review and database resources. The key findings presented below extend upon the evidence and analysis preserved for each of the domains above; these findings have been presented in narrative summary in order to integrate analysis across the key and subsidiary research questions.

- KRQ1: To what extent do existing educational tools and resources meet (or are able to meet) the education and training needs of health and care staff, as specified in the HEE definition of digital literacy and its domains?
- SRQ1: What specific educational tools and resources are there freely available to health and care staff and who are they provided by?
- SRQ2: What specific paid-for educational tools and resources are there available to health and care staff and who are they provided by?
- SRQ3: How well and in what proportion do identified resources map to the HEE digital literacy domains? Are some domains covered more than others?

The core finding from the current research project is that there is a broad range of high quality resources that meet the education and training needs of health and care staff across most but not all of the domains of digital literacy identified by HEE. It should be noted, however, that the time limited nature of the searches mean that there is likely to be further resources and training content relevant to specific domains and skills, especially specialised skills required by specific occupational roles within the health and social care sectors.

Taking a bird's eye view, the domain with the greatest number of relevant resources is 'Technical Proficiency', although many of these resources relate to using the Microsoft Office suite that may be of limited relevance to individuals seeking to develop other areas of technical proficiency. The domain with the least number of relevant resources is 'Creation, Innovation and Scholarship', in part because the skills covered in this domain focus on creating new digital resources and learning change within a team or organisations - skills that depends on

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competencies developed across the other five domains. Likewise, the '*ability to demonstrate and champion*' a positive, ethical and appropriate attitude in relation to each of the six domains was implicit rather than explicit within the resources collated in the final database.

All resources were assessed for relevance and quality prior to inclusion in the database; however, our research team were also sensitive to the fact that the needs and interests of health and social care professionals varies enormously across different occupations and levels of seniority. It is also notable that the beginner and advanced resources and training content are better represented across the database compared with intermediate level resources.

While some NHS workers may already have a high degree of digital literacy, and feel confident using those skills within a professional capacity, other professionals may have more limited skills and confidence in using digital technology within the workplace, as evidenced by the Skills for Care report on the basic digital proficiency of many care workers currently working in the NHS. For this reason, we interpreted the criteria of relevance as widely as possible to capture resources ranging from basic to advanced digital proficiency, including those that target a general audience as well as resources developed specifically for health and social care workers.

The majority of resources collected within the database offer generalised digital literacy training; out of the 136 resources included within the database, only 20 were developed for/by the health and care sectors. These resources are primarily developed by the NHS and its partners, such as HEE and e-Learning for Healthcare, with a small number of online courses in digital technology and healthcare offered by learning platforms such as Future Learn. As well as being directly relevant to health and social care professionals, these resources are also of a consistently high quality across the various providers.

Of the remaining resources, there is a marginally higher proportion of education sector resources compared with the commercial sector (with some overlap in the boundaries between these two sectors). Across both education and commercial providers, there is a fairly even split between paid-for and free to access resources. Some resources are also free to access but require some form of payment or subscription to receive certification, for example, the majority of courses on the Future Learn platform offer this kind of free/paid-for option. The cost of some courses, as well as the location of many in-person courses offered in by local authorities and educational institutions, may limit accessibility for health and social care professionals, although there is evidence of funding and subsidies offered by providers that work in partnership with public and/or third sector organisations, such as the Log On To Care programme.

The principal education providers can be grouped into CPD courses offered by universities and further education colleges; courses and training provided by local authorities; and mass online open courses (MOOCs) offered across various learning platforms.

In general, the CPD courses developed by higher and further education institutions tend to be of a higher quality than those provided by local authorities; the latter often focus on developing basic digital proficiency skills for socially marginalised groups, such as those currently without employment or retired from work. That said, these courses are often highly accessible and typically offer in-person training to support the development of basic digital skills. While CPD



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courses tend to be pitched at an intermediate skill level, a number of these courses take place during the daytimes, which may not be ideal for NHS professionals working a standard week. As noted below, the relevance of MOOCs offered by learning providers varies considerably, with UK platforms such as Future Learn and the Open University offering a greater range of online training courses in digital literacy for basic and intermediate skill levels.

There was a much broader variation in the type and style of training content offered by commercial providers. Providers include major corporations offering free training as part of their social responsibility programme, for example, Barclays Bank's 'Digital Wings' or Microsoft's 'Virtual Academy'; online courses developed by commercial organisations, such as Skillsoft e-learning and m-learning content; and in-person training developed by specialist providers, for example, techUK in-person digital skills training for public sector workers. These resources offer a broad range of high quality opportunities to develop both generalised and specific digital literacy skills at beginner, intermediate and advanced level.

The final category of resources comprises YouTube training videos, classified as public content within the database. Extensive searches of YouTube identified a relatively small pool of high quality resources that offer general digital literacy training; only 9 resources were added to the final database. It is possible, however, that health and social care professionals that required targets supported may find specific resources on YouTube that align with their learning needs, for example, 'how to' video on completing basic and/or advanced tasks in software such as Microsoft Office and Excel.

Taken together, the suite of resources collated in the final database showcase the range of different providers, types of resources, and breadth of digital skills training on offer to health and social care staff. These resources are all readily available to health and social care professionals seeking high quality educational tools and/or training to improve their digital skills, although cost and location may have an impact on the accessibility of specific resources.

### Gaps in Provision

Based on evidence from searches conducted for this project, there appears to be a number of discrete areas in which the range of digital tools, resources and training opportunities for health and social care professionals and/or general populace is more limited. These include:

- Limited evidence of m-learning apps to develop general digital skills. Searches conducted across Apple and Android mobile learning platforms, including databases of available apps and m-learning tools such as iTunesU, found a number of apps designed to support individuals in the basic skills needed to use mobile and tablet devices, as well as a range of highly specialised technology and computing m-learning opportunities, but very little offered in the mid-range of digital skills development.
- A number of the most well-known US-based agencies offering mass open online courses (MOOCs), such as Coursera and edX, offered a limited range of open courses to develop generalised digital capabilities; the majority of courses were highly specialised and



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unlikely to be relevant to health and social care workers. In contrast, UK education providers offering MOOCs, such as Open University and Future Learn, provided individuals with a more broader range of courses from introductory to advanced level.

- A survey of higher education institutions that offer the CPD courses for health and social care workers identified only a limited number of courses relevant to developing digital literacies, focusing instead on clinical practice and soft skills development.
- There is little evidence of resources and training to support health and social care workers to become literate in eHealth initiatives; however, recent studies cited in the literature review point towards a growing need for further training in this area.

## Recommendations

HEE may wish to use the current database as a starting point to develop a bank of resources accessible to all NHS health and social care professionals. There are a number of interlinked recommendations that would support this kind of project:

- Mapping the current digital literacy skills and confidence of health and social workers across and/or within specific occupational groups and levels of seniority in order to identify the areas and levels where digital literacy training is needed and what the challenges might be. This could include both a quantitative and qualitative element, for example, open survey questions. There could be potential to identify further resources not currently included within the database that health and social care workers have already used to improve their digital literacy skills, which would strengthen the database by harnessing 'bottom up' learning.
- The proposed mapping exercise could also allow some streamlining of the current database to help create an accessible, centralised resource of health and social care workers and teams who want to improve their digital literacy in the workplace. As well as adding new resources, this may include keeping only the most relevant or high quality resources at various skills levels (for example, reducing the number of resources aimed at basic proficiency if the evidence supports it).
- Commissioning, or working in partnership with other organisations, to develop new resources where persistent gaps in current provision exist, for example, tools and resources to support individuals to become 'change agents' for digital literacy within their team or organisation, or generalised resources to support health and social care workers with the transition towards eHealth initiatives across the NHS. The development of any new resources could also be carefully aligned with each of the domains of digital capabilities.

## Appendix 1

### Google Search Strings

digital literacy  
digital literacy definition  
filetype:pdf digital literacy definition  
filetype:pdf digital literacy definition healthcare  
filetype:pdf digital literacy healthcare social care  
filetype: pdf digital literacy nhs  
digital literacy healthcare social care workers  
digital literacy healthcare social care professionals  
digital literacy social care worker\* e-learning  
digital literacy online training  
digital literacy CPD  
digital literacy MOOCs  
digital literacy e-learning  
digital capabilit\* online training  
digital capabilit\* MOOCs  
digital competen\* e-learning  
digital proficiency mlearning  
digital learn\* health and/or care profession\* training resources  
digital learn\* public health worker\* toolkit  
digital learn\* NHS staff toolkit  
digital learn\* toolkit  
digital learn\* MOOCs  
information technolog\* and/or IT and/or ICT skill\* health and/or care worker\*  
information technolog\* and/or IT and/or ICT skill\* health and/or social care professional  
education\* tools  
information technolog\* and/or IT and/or ICT skill\* health and/or social care professional toolkit  
information technolog\* and/or IT and/or ICT skill\* public health worker\* toolkit  
digital learn\* healthcare online training  
digital learn\* NHS online training  
computer literacy NHS staff online resources  
computer literacy NHS staff education\* resources  
computer literacy health and/or care profession\* training resources  
computer literacy health and/or social care professional education\* tools  
computer literacy CPD  
computer literacy CPD NHS  
computer literacy e-learning  
computer skill\* healthcare professional professional development training  
computer skill\* healthcare professional training courses  
technical ability CPD  
computer skill\* NHS worker\* training resources  
computer skill\* NHS professional development training  
computer skill\* health and/or social care professional  
computer skill\* health and/or social care professional education\* tools  
professional development training  
technical ability NHS education\* tools  
technical ability NHS professional development training  
technical ability health and/or social care professional education\* tools

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digital knowledge social care worker\* professional development training  
digital knowledge healthcare professional development training  
IT skills health and/or care profession\* training resources  
digital skills apps  
digital capabilit\* apps mlearning  
best apps for mlearning digital skills  
mlearning digital literacy  
digital skills training social care  
health social care sector digital skills professional development training  
university professional short courses CPD healthcare health and social care  
university professional short courses CPD healthcare health and social care digital skills  
technology  
computer literacy courses for adults  
IT skills courses for adults  
IT skills courses ECDL  
IT course for business  
IT course education\* tools  
Information technolog\* and/or IT and/or ICT skill\* MOOCs  
computer literacy training courses  
computer skills healthcare elearning  
computer skills elearning  
computer skills mlearning  
computer skills professional development training  
computer literacy training courses  
computer classes for adults  
computer classes NHS staff  
microsoft office for beginners  
FE part time adult courses in IT and computing  
IT courses council  
further education IT courses NHS  
further education IT courses

### YouTube Search Strings

digital literacy  
digital literacy definition  
filetype:pdf digital literacy definition  
filetype:pdf digital literacy definition healthcare  
filetype:pdf digital literacy healthcare social care  
filetype: pdf digital literacy nhs  
digital literacy healthcare social care workers  
digital literacy healthcare social care professionals  
digital literacy social care worker\* e-learning  
digital literacy online training  
digital literacy CPD  
digital literacy MOOCs  
digital literacy e-learning  
digital capabilit\* online training  
digital capabilit\* MOOCs  
digital competen\* e-learning  
digital proficiency mlearning  
digital learn\* health and/or care profession\* training resources

## Digital literacy: existing educational resource mapping and analysis

digital learn\* public health worker\* toolkit  
digital learn\* NHS staff toolkit  
digital learn\* toolkit  
digital learn\* MOOCs  
information technolog\* and/or IT and/or ICT skill\* health and/or care worker\*  
information technolog\* and/or IT and/or ICT skill\* health and/or social care professional  
education\* tools  
information technolog\* and/or IT and/or ICT skill\* health and/or social care professional toolkit  
information technolog\* and/or IT and/or ICT skill\* public health worker\* toolkit  
digital learn\* healthcare online training  
digital learn\* NHS online training  
computer literacy NHS staff online resources  
computer literacy NHS staff education\* resources  
computer literacy health and/or care profession\* training resources  
computer literacy health and/or social care professional education\* tools  
computer literacy CPD  
computer literacy CPD NHS  
computer literacy e-learning  
computer skill\* healthcare professional professional development training  
computer skill\* healthcare professional training courses  
technical ability CPD  
computer skill\* NHS worker\* training resources  
computer skill\* NHS professional development training  
computer skill\* health and/or social care professional  
computer skill\* health and/or social care professional education\* tools  
professional development training  
technical ability NHS education\* tools  
technical ability NHS professional development training  
technical ability health and/or social care professional education\* tools  
digital knowledge social care worker\* professional development training  
digital knowledge healthcare professional development training  
IT skills health and/or care profession\* training resources  
digital skills apps  
digital capabilit\* apps mlearning  
best apps for mlearning digital skills  
mlearning digital literacy  
digital skills training social care  
health social care sector digital skills professional development training  
university professional short courses CPD healthcare health and social care  
university professional short courses CPD healthcare health and social care digital skills  
technology  
computer literacy courses for adults  
IT skills courses for adults  
IT skills courses ECDL  
IT course for business  
IT course education\* tools  
Information technolog\* and/or IT and/or ICT skill\* MOOCs  
computer literacy training courses  
computer skills healthcare elearning  
computer skills elearning  
computer skills mlearning  
computer skills professional development training

## Digital literacy: existing educational resource mapping and analysis

computer literacy training courses  
computer classes for adults  
computer classes NHS staff  
microsoft office for beginners  
FE part time adult courses in IT and computing  
IT courses council  
further education IT courses NHS

### Manual Website Searches

JISC  
Higher Education Academy (HEA)  
Open University  
Health Education England  
e-Learning for Healthcare  
Future Learn  
Royal College of Physicians  
ICT Literacy  
Skills Platform  
edX  
Coursera  
MIT OpenCourseWare  
iTunesU  
British Medical Association  
University of Greenwich  
Manchester Metropolitan University  
Birmingham City University  
Bournemouth University  
Sheffield Hallam University  
Middlesex University  
Teeside University  
University of Derby  
University of Hertfordshire  
Plymouth University  
Find Courses  
Hot Courses  
Train Up

## Appendix 2

### Resource Database

Resource Name	Resource Summary	Sector	Free /Paid	Digital identity, well-being, safety and security	Communication, collaboration and participation	Teaching, learning and self-development	Technical proficiency	Information, data and media literacies	Creation, innovation and scholarship	Weblink
Accenture: Go Digital	Training course for individuals and organisations to improve digital skills for employment and entrepreneurship. Pilot programme delivered in person; online version of the training currently in development.	Commercial	Not specified	Training includes digital fundamentals.	Training includes digital marketing, and social media.	Training designed to support independent and/or organisational learning.		Training includes analytics and user experience.		<a href="https://www.accenture.com/t00010101T000000_w_gb-en/_acnmedia/PDF-17/Accenture-Go-Digital-Interactive.pdf#zoom=50">https://www.accenture.com/t00010101T000000_w_gb-en/_acnmedia/PDF-17/Accenture-Go-Digital-Interactive.pdf#zoom=50</a>
Agindon & Witney College: Part-time Computer Courses	A range of courses, ranging from 'Everyday Computer Skills' to classes addressing one program eg Excel or one skill eg web design.	Education	Paid-for			Classroom-based learning and assessment.	Depends on the course.	Courses on Excel data management.	Courses offered on web design.	<a href="http://www.abingdon-witney.ac.uk/coursesearch/?area=Computing&amp;type=PT">http://www.abingdon-witney.ac.uk/coursesearch/?area=Computing&amp;type=PT</a>
Alison: ABC IT-Computer Training Suite	Self-certifiable online training course covering the basic concepts of computing. Fee for certificates.	Commercial	Free			All modules are designed to support independent learning and self-development.	Modules cover basic proficiency in Word, email.			<a href="https://alison.com/course/ABC-IT">https://alison.com/course/ABC-IT</a>
Alison: Digital Literacy and IT Skills	How-to video tutorials for individual learning, ranging from beginner to advanced level. Users can earn certificates and diplomas as they progress through the modules. Fee for certificates.	Commercial	Free		Example courses include using Google Blogger.	All modules are designed to support independent learning and self-development.	Modules cover using Microsoft, Adobe and other software applications.	Example courses include use of Python, video editing, and web development.	Modules include coding and computing.	<a href="https://alison.com/courses/it">https://alison.com/courses/it</a>

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Atomic Learning	Online course aimed at absolute beginners to equip them with basic digital literacy. It starts with 'logging on'. Paid for via subscription to the site.	Commercial	Paid-for	Internet safety is covered in a module.	Modules cover email etiquette	Designed for self-directed study.	Designed for novices to give them very basic navigation skills around a computer.			<a href="https://www.atolearning.com/computing-literacy-basics-training">https://www.atolearning.com/computing-literacy-basics-training</a>
Barclays Bank: Digital Eagles	How-to guides for basic online skills. Suitable for people with limited digital proficiency. Option for face-to-face training in Barclays branches, and 'Tea and Teach' sessions in branches and/or local community venues.	Commercial	Free	Example guides include setting up an email account and how to search/be safe online.	Example guides include setting up a community group and using Skype.	All guides are designed to support independent learning and self-development.	Example guides include how to use YouTube and how to use online banking.			<a href="http://www.barclays.co.uk/digital-confidence/eagles/">http://www.barclays.co.uk/digital-confidence/eagles/</a>
Barclays Bank: Digital Wings	Modules to help people develop their digital skills, aimed at those who already have a basic digital proficiency. Users earn badges for completed modules.	Commercial	Free	Modules include staying safe online, and buying and selling online.	Modules include using social media.	All modules are designed to support independent learning and self-development.	Modules include programs and software.	Modules include digital trends and data, and business tools.	Modules include coding and computing.	<a href="https://digital.wings.uk.barclays/topics-and-modules/">https://digital.wings.uk.barclays/topics-and-modules/</a>
BBC: Webwise	Directory of video and written guides to help people develop basic digital skills	Educational	Free	Guides include accessing the web, safety and security, and fulfilling essential online tasks.		Guides are designed to support independent learning and self-development.				<a href="http://www.bbc.co.uk/webwise/0/20595791">http://www.bbc.co.uk/webwise/0/20595791</a>
BCS The Chartered Institute for IT: IT User Qualifications	IT qualifications for employability delivered by an accredited BCS centre. Accredited qualifications on level 2/3 in the QCF. Fees are taken by way of membership to the Institute. Also suitable for absolute beginners.	Commercial	Paid-for	Qualifications cover e-safety, and computer and online basics.		All modules are designed to support independent learning and self-development.	Qualifications over digital skills, including using basic software and apps.	Basic introductions to these as part of ECDL and other courses available, but the emphasis is on building up skills basic skills rather than case studies which involve		<a href="http://www.bcs.org/category/14405">http://www.bcs.org/category/14405</a>



## Digital literacy: existing educational resource mapping and analysis

							handling data or specialist courses.		
Blackpool Council: Adult Learning	Offers a range of courses on particular skills, including introduction to Cloud computing, basic computing for Windows 10, word processing, using an iPad. Two hour classes once per week.	Education	Paid-for			Classroom-based learning.	Depends on course, but most designed to give an overview of one aspect of the Office suite.		<a href="https://www.blackpool.gov.uk/Residents/Education-and-schools/Adult-Learning/Courses.aspx">https://www.blackpool.gov.uk/Residents/Education-and-schools/Adult-Learning/Courses.aspx</a>
Bracknell & Wokingham College: Adult Leisure / Adult Work Courses	A range of courses and qualifications on offer, some addressing one program eg Excel and others tailored to workplace learning eg 'Fast Track Office IT Skills'.	Education	Paid-for			Classroom-based learning and assessment.	Depends on the course.		<a href="http://www.bracknell.ac.uk/courses/course-search?k=IT+and+computing">http://www.bracknell.ac.uk/courses/course-search?k=IT+and+computing</a>
Brent Council: Adult Learning Services: Business and IT	Offers 'Using ICT Entry 3 OCR'. One full day per week for ten weeks, working towards a qualification. (Cost = £170, with discounts for concessions and the out of work)	Education	Paid-for	Internet safety is covered.	Covers use of IT for networking, communication.	Classroom-based learning with the aim of attaining an award.	Designed to give an overview of the Office suite and other software programmes.	Depends on course, but many media are covered.	<a href="https://ebs4portal.brentlive.msoutsourcing.co.uk/">https://ebs4portal.brentlive.msoutsourcing.co.uk/</a>
Brighton Metropolitan College: IT Skills for Work	Part-time adult education course on IT skills. Many similar courses offered by city and regional further education colleges.	Education	Paid-for		Course covers include mail-merge and other communication skills	In-person delivery for enhance skills and employability.	Course covers office suite.	Covers the Office Suite including working with data and databases.	<a href="http://www.ccb.ac.uk/public/courses/parttime/it-skills-for-work-jan-17-5728.html">http://www.ccb.ac.uk/public/courses/parttime/it-skills-for-work-jan-17-5728.html</a>
Bristol Council: Adult Learning Courses: IT and Digital Skills	Offers computer skills workshops, introduction to Windows 10, introduction to Android and tablets, website creation.	Education	Paid-for		Emphasis on enhancing technical skills for communication.	Classroom-based learning.	Designed to give an overview of the Office suite and other software programmes.	Courses on Wordpress and blogs; photoshop.	<a href="http://www.bristolcourses.com/download/Find%20a%20Course/Adult%20Learning%20Service/BD8275-Adult-Learning-Course-Guide-2016-WEB.pdf">http://www.bristolcourses.com/download/Find%20a%20Course/Adult%20Learning%20Service/BD8275-Adult-Learning-Course-Guide-2016-WEB.pdf</a>



## Digital literacy: existing educational resource mapping and analysis

Cardiff University: Continuing and Professional Education	Designed to give a student with very little knowledge of computing a sound foundation in particular areas. The courses 'Computer Forensics Investigation and Response' and the course 'Data Security and Networking and Network Forensics' are ideal for students who are managing a network of computers. For those students with an interest in databases, the course 'Database Systems using Oracle' is a good introductory course.	Educational	Paid-for			Classroom-based learning and assessment.	Depends on the course.	Will equip students to produce databases and documents. Varies according to course, but this objective is hit by all of them.		<a href="http://learnlive.cf.ac.uk/learn/choices/computer-studies/">http://learnlive.cf.ac.uk/learn/choices/computer-studies/</a>
Career Change Wales: ECDL Cardiff	In-person classes designed to equip students with ECDL skills in a short space of time. Classes run over a few weeks.	Educational	Free	The first module is titled 'IT Fundamentals and Security'	Key communication contacts include being able to connect to a network.	Classroom-based learning resulting in a qualification.	Covers the Office Suite, treating it as a skills foundation onto which more advanced skills can be developed.	Covers the Office Suite at beginner, intermediate, and advanced stages.	Intermediate courses offer image editing, web editing, and digital marketing.	<a href="http://www.careerchangelwales.co.uk/ecdl-training-cardiff/">http://www.careerchangelwales.co.uk/ecdl-training-cardiff/</a>
CBT Nuggets	An online database where courses can be purchased according to program or vendor.	Commercial	Paid-for		Covers how to improve and streamline communications	Follow online courses at your own pace.	Includes options on a range of software packages.	Covers the Office suite over several modules, including the four major components as well as OneNote and Sharepoint.	Includes options for Visio and coding.	<a href="https://www.cbtnuggets.com/it-training#vendor">https://www.cbtnuggets.com/it-training#vendor</a>
City of Stoke-on-Trent: Computer Courses for Absolute Beginners	Evening classes for adult learners seeking to acquire basic computer skills. Many courses are free for people on Job Seeker's Allowance or Employment Support Allowance.	Educational	Paid-for			Classroom-based learning.	Designed to give an overview of the Office suite.			<a href="http://www.stoke.gov.uk/ccm/content/xml-feeds/adult-learning/new/adult-learning---full-list-of-courses.en?bbps=1&amp;form.adult-learning---full-">http://www.stoke.gov.uk/ccm/content/xml-feeds/adult-learning/new/adult-learning---full-list-of-courses.en?bbps=1&amp;form.adult-learning---full-</a>

## Digital literacy: existing educational resource mapping and analysis

										list-of-courses=visited #
CityLit: IT Courses	Offers a range of day-long courses at the London centre in Digital Skills, Getting Started, Access, Android, Building a Computer amongst others.	Commercial	Paid-for		Courses offered on social media communication and Android.	Classroom-based learning.	Provides a range of courses, including a basic digital literacy overview for beginners, to more advanced and specific courses on Excel.			<a href="http://www.citylit.ac.uk/courses/technology-science-and-business/computing-skills">http://www.citylit.ac.uk/courses/technology-science-and-business/computing-skills</a>
Cornwall Council: Adult Education Courses: IT	Offers a range of courses on Functional Skills ICT, Computer Basics, as well as more specialist classes such as 'How to Buy and Sell on eBay'.	Education	Paid-for	Internet safety is covered.		Classroom-based learning with the option of attaining an award for some courses.	Designed to give an overview of the Office suite and other software programmes.		Courses on Photoshop for beginners.	<a href="https://www.cornwall.gov.uk/media/22855435/ae-directory-2016_final.pdf">https://www.cornwall.gov.uk/media/22855435/ae-directory-2016_final.pdf</a>
Cumbria Council: Learning and Skills	Host ICT drop-in sessions and ECDL courses. Sessions can be one-off drop-ins or 20-week part-time courses.	Education	Paid-for	Internet safety is covered.		Classroom-based learning with the option of attaining an award for some courses.	Designed to give an overview of the Office suite and other software programmes.	Excel data management is covered in ECDL.	Web design and Photoshop for beginners is covered in ECDL.	<a href="https://www.cumbria.gov.uk/learningandskills/">https://www.cumbria.gov.uk/learningandskills/</a>
Derby Council: Adult Learning Service: Computing	A range of courses on offer, including several manifestations of ECDL and a couple of Functional Skills courses. There are also courses for beginners, and computer skills for work or leisure.	Education	Paid-for	Depends on course, but covered in ECDL.		Classroom-based learning leading to a professional qualification for some courses.	Designed to give an overview of the Office suite.	Depends on course, but covered in ECDL.	Depends on course, but covered in ECDL.	<a href="http://www.adult-learning-derby.org.uk/course-search-results?searchword=computing&amp;searchphrase=all&amp;areas[0]=allsearch">http://www.adult-learning-derby.org.uk/course-search-results?searchword=computing&amp;searchphrase=all&amp;areas[0]=allsearch</a>

## Digital literacy: existing educational resource mapping and analysis

Digital Unite: Digital Champions Training	Online training to help people develop the skills to become Digital Champions to teach basic digital skills to other. Skills for Care is a member of the Digital Champions Network to improve digital skills in the social care workforce. Course is recognised with Mozilla badges.	Educational	Free			Training support individuals to teach digital skills to others.				<a href="https://www.digit alunite.com/online-courses">https://www.digit alunite.com/online-courses</a>
Digital Unite: Guides & Support	Online written guides for people with limited or basic digital proficiency to improve their skills and confidence.	Educational	Free	Guides include internet security.	Guides include using email and Skype, and social networking and blogs.	Guides are designed to support independent learning and self-development.	Guides include creating documents, and computer basics.			<a href="https://www.digit alunite.com/guides">https://www.digit alunite.com/guides</a>
e-Learning for Healthcare : Educator Hub	e-learning resources for educators in the health and social care sectors to improve their professional practice and improve skills in training others.	Healthcare	Free			Framework areas include teaching and facilitating learning, and continuing professional development as an educator.				<a href="http://www.e-lfh.org.uk/programmes/educator-hub/more-information/">http://www.e-lfh.org.uk/programmes/educator-hub/more-information/</a>
e-Learning for Healthcare : IT Skills Pathway	e-learning resources provided by a third party and offered through the e-LfH portal for all health and social care staff.	Healthcare	Free			All modules are designed to support independent learning and self-development.	Modules focus on improving IT skills to use Microsoft Office apps.			<a href="http://www.e-lfh.org.uk/programmes/it-skills-pathway/">http://www.e-lfh.org.uk/programmes/it-skills-pathway/</a>
E-Learning Office	Purchasable modules on Microsoft Office for PC and Mac, with estimates for the number of hours of independent study needed for each.	Commercial	Paid-for		Covers email navigation, Skype for Business, and the digital workplace.	Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="http://www.elearning-office.com/courses/microsoft-office-2016-elearning-courses">http://www.elearning-office.com/courses/microsoft-office-2016-elearning-courses</a>
Ealing Council: Computer Courses	Part-time courses (one class per week) on computing for beginners and courses on MS office skills. Classes take place during the day.	Educational	Paid-for	Internet safety is covered.		Classroom-based learning.	Designed to give an overview of the Office suite.			<a href="file:///C:/Users/Owner/Downloads/2016_2017_Course_Guide.pdf">file:///C:/Users/Owner/Downloads/2016_2017_Course_Guide.pdf</a>

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Eastleigh College: Computing Courses	Part-time adult education courses. Offering a range of options, including overviews for beginners, and targeted classes on particular programs eg Excel for beginners, intermediate Excel.	Educational	Paid-for			Classroom-based learning and assessment resulting in a qualification.	Designed to give an overview of the Office suite.			<a href="http://www.truro-penwith.ac.uk/search/course-results?category:groupings=10&amp;category:type=all&amp;category:departments=all&amp;category:mode=all&amp;category:location=all">http://www.truro-penwith.ac.uk/search/course-results?category:groupings=10&amp;category:type=all&amp;category:departments=all&amp;category:mode=all&amp;category:location=all</a>
ECDL: ECDL	The original online course following the ECDL curriculum, which gives a details structure of the components for beginner, intermediate, and advanced levels. It also offers a specific module on 'Health Information System Usage'. Note: This appears to be the most clearly structured of the ECDL courses on offer, although it may be offered at a discount rate or as separate modules elsewhere, which will suit some learners.	Commercial	Paid-for	The first module is titled 'IT Fundamentals and Security'	Module on online collaboration, including social networks, blogs and wikis	Follow online tutorials at your own pace, resulting in a qualification.	Covers the Office Suite, treating it as a skills foundation onto which more advanced skills can be developed.	Covers the Office Suite at beginner, intermediate, and advanced stages.	Intermediate courses offer image editing, web editing, and digital marketing.	<a href="http://ecdl.org/about-ecdl">http://ecdl.org/about-ecdl</a>
ECDL: Online Training	Online course following the ECDL curriculum, with a 10% discount for NHS staff. There are also a wide variety of alternative providers also offering ECDL courses online.	Commercial	Paid-for	The first module is titled 'IT Fundamentals and Security'		Follow online tutorials at your own pace, resulting in a qualification.	Covers the basics of the Office Suite, and a foundation onto which more advanced skills can be developed.	Covers the Office Suite including working with data and databases.		<a href="http://ecdl-training.co.uk/?gclid=Cj0KEQjwxPbHBRCdxJLF3qen3dYBEiQAMRyxSy86QGz4KybfiNpKWOwnn8HmbLg2UX7LQcqHMn1NpakaAkNP8P8HAQ">http://ecdl-training.co.uk/?gclid=Cj0KEQjwxPbHBRCdxJLF3qen3dYBEiQAMRyxSy86QGz4KybfiNpKWOwnn8HmbLg2UX7LQcqHMn1NpakaAkNP8P8HAQ</a>
edX: Introduction to Data Storage and Management Technologies	edX offer a range of courses from Higher Education providers, many of which focus on advanced digital and computing skills. Exceptions include the course on data storage and management technologies delivered by IEEE. Course content is free, but certificates require payment of a fee.	Educational	Free			All modules are designed to support independent learning and self-development.		Course include modules in data storage, management, networking, and cloud computing.		<a href="https://www.edx.org/course/introduction-data-storage-management-ieee-storage101x-0#!">https://www.edx.org/course/introduction-data-storage-management-ieee-storage101x-0#!</a>

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edX: Windows Server 2016 Infrastructure	edX offer a range of courses from Higher Education providers, many of which focus on advanced digital and computing skills. Exceptions include the intermediate level course on Windows Server Infrastructure; there are also a number of other Microsoft courses that may be of interest to individuals wanting to develop computing skills. Course content is free, but certificates require payment of a fee.	Education	Free			All modules are designed to support independent learning and self-development.		Modules include how to install and manage Windows Server. Prior knowledge of client and server architects, and Windows Powershell, is expected.	<a href="https://www.edx.org/course/windows-server-2016-infrastructure-microsoft-inf211x#!">https://www.edx.org/course/windows-server-2016-infrastructure-microsoft-inf211x#!</a>
European Commission: eskills for jobs	A resource aimed primarily at teachers to build digital literacy, but accessible and relevant to all. A series of online videos and files, with a section for self-assessment.	Education	Free		Emphasis on developing skills to enhance communication.	Designed for self-directed study.	Covers the basics of computer literacy.		<a href="http://eskills4jobs.ec.europa.eu/training-and-learning;jsessionid=183EE3310DCA700926A3D9DEBAEAD55E?p_p_id=lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu&amp;p_p_lifecycle=0&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_column_id=column-1&amp;p_p_col_pos=2&amp;p_p_col_count=3&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_action=&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_pageNumber=2&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_keepSession=true">http://eskills4jobs.ec.europa.eu/training-and-learning;jsessionid=183EE3310DCA700926A3D9DEBAEAD55E?p_p_id=lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu&amp;p_p_lifecycle=0&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_column_id=column-1&amp;p_p_col_pos=2&amp;p_p_col_count=3&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_action=&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_pageNumber=2&amp;lregalleryportlet_WAR_Iruploadportlet_INSTANCE_3MBu_keepSession=true</a>

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Find Courses: Square One Access Training	A one-day course at the learning centre in Liverpool, for targeted learning of a specific program. They also offer day courses on other programs. (Cost £195)	Commercial	Paid-for			Classroom-based learning.	Builds competency in Access: targeted skills improvement.			<a href="https://www.findcourses.co.uk/training/squareone-e-training/access-level-1-137863">https://www.findcourses.co.uk/training/squareone-e-training/access-level-1-137863</a>
Find Courses: Wise Owl Advanced Excel Training	A two-day course in Manchester or London targeting Excel skills. Offered from beginner to advanced. (Cost £525-650 excl VAT)	Commercial	Paid-for			Classroom-based learning.	Builds competency in Excel: targeted skills improvement.			<a href="https://www.findcourses.co.uk/training/wise-owl/advanced-excel-375307">https://www.findcourses.co.uk/training/wise-owl/advanced-excel-375307</a>
Find Courses: Woodthorpe IT Training Basic Excel	A one-day course available at locations across the country, offering Excel tuition from beginner to advanced level. (Cost £500 excl VAT)	Commercial	Paid-for			Classroom-based learning.	Builds competency in Excel: targeted skills improvement.			<a href="https://www.findcourses.co.uk/training/woodthorpe-it-solutions/basic-excel-training-584745">https://www.findcourses.co.uk/training/woodthorpe-it-solutions/basic-excel-training-584745</a>
Future Learn: Big Data Analytics	Series of four interlinked courses delivered by Queensland University of Technology via the Future Learn platform. Course can be completed as standalone units or as a series. Access to course materials is free, but certification requires a paid-for subscription.	Educational	Free			All modules are designed to support independent learning and self-development.	Courses include 'From Data to Decision' looking at tools and frameworks for collecting, storing and managing data.	Courses include 'Statistical Inference and Machine Learning' and 'Mathematical Modelling' both of which focus on analysing data.	Courses include 'Data Visualisation' looking at creative, visual solutions to presenting and sharing data.	<a href="https://www.futurelearn.com/programs/big-data-analytics">https://www.futurelearn.com/programs/big-data-analytics</a>
Future Learn: Introduction to Cyber Security	Online course focusing on cyber security. Access to course materials is free, but certification requires a paid-for subscription.	Educational	Free	Modules include threat landscape, cryptography, and managing security risks.		All modules are designed to support independent learning and self-development.				<a href="https://www.futurelearn.com/courses/introduction-to-cyber-security">https://www.futurelearn.com/courses/introduction-to-cyber-security</a>



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Future Learn: Managing Big Data with R and Hadoop	Online course offering introduction to high performance computing (HPC) facilities for big data analysis, including R and Hadoop. Access to course materials is free, but certification requires a paid-for subscription.	Educational	Free			All modules are designed to support independent learning and self-development.		Modules include first steps with R and RHadoop, and statistical learning with RHadoop.		<a href="https://www.futurelearn.com/courses/big-data-r-hadoop">https://www.futurelearn.com/courses/big-data-r-hadoop</a>
Future Learn: Managing Your Identity	Online course focusing on digital identity, delivered by the University of Leeds via the Future Learn platform. Access to course materials is free, but certification requires a paid-for subscription.	Educational	Free	Modules include building your profile, and evaluating current approach to managing online identity.	Modules include defining and applying a personal code of practice for online communication.	All modules are designed to support independent learning and self-development.				<a href="https://www.futurelearn.com/courses/online-identity">https://www.futurelearn.com/courses/online-identity</a>
Future Learn: Nanotechnology for Health	Online course that looks at how nanotechnology can be used for innovative designs in medical diagnosis. Access to course materials is free, but certification requires a paid-for subscription.	Healthcare Education	Free			All modules are designed to support independent learning and self-development.			Modules focus on developing knowledge and skills in using nanotechnology within the healthcare sector.	<a href="https://www.futurelearn.com/courses/nanotechnology-health">https://www.futurelearn.com/courses/nanotechnology-health</a>
Future Learn: Social Media in Healthcare	Online course looking at how social media can be used in healthcare setting to create, communicate and exchange information. Access to course materials is free, but certification requires a paid-for subscription.	Healthcare Education	Free		Modules include looking at social media in the context of healthcare.	All modules are designed to support independent learning and self-development.				<a href="https://www.futurelearn.com/courses/social-media-in-healthcare">https://www.futurelearn.com/courses/social-media-in-healthcare</a>
GCF LearnFree	Online learning platform offering modules on basic computer literacy, largely revolving around basic internet skills and the Microsoft Office Suite.	Educational	Free	Modules include online basics, and online safety.	Modules include internet skills, which covers using social media.	All modules are designed to support independent learning and self-development.	Modules including learning to use Microsoft Office.			<a href="https://www.gcflearnfree.org/">https://www.gcflearnfree.org/</a>
Gloucestershire Council: Adult Education: Information and Communication	Various courses on offer, including internet safety, internet basics, managing your money online.	Educational	Paid-for	Course on internet safety available.		Classroom-based learning.	Designed to increase basic computer literacy and awareness.			<a href="https://www5.gloucestershire.gov.uk/terms/AvailableCoursesList.aspx">https://www5.gloucestershire.gov.uk/terms/AvailableCoursesList.aspx</a>

## Digital literacy: existing educational resource mapping and analysis

Technology										
Good Things Foundation : Learn My Way	Online course offering modules for people that lack basic digital proficiency	Third Sector	Free	Modules include online basics, and online safety.	Modules include internet skills, which covers using social media and becoming a digital champion.		Modules include using a computer.			<a href="https://www.learnmyway.com">https://www.learnmyway.com</a>
Google: Safety Centre Resources	Series of resources and links on good practices for online safety and security, including tools specifically targeted at educators.	Commercial	Free	Resources focus on digital safety and security.						<a href="https://www.google.com/safetycenter/resources/">https://www.google.com/safetycenter/resources/</a>
HEE: Healthcare Library and Knowledge Service	Services offers physical and digital access to knowledge and information for NHS professionals, including access to training materials.	Healthcare	Free			Service supports the self-development and training of NHS professionals, including access to online journals and other digital resources.	Service includes information skills training, and advice knowledge management to NHS professionals.			<a href="https://hee.nhs.uk/sites/default/files/documents/Knowledge%20for%20healthcare%20-%20a%20development%20framework.pdf">https://hee.nhs.uk/sites/default/files/documents/Knowledge%20for%20healthcare%20-%20a%20development%20framework.pdf</a>
Hemsley Fraser	Consultancy group which will deliver day training courses to business or individuals, as well as offering services to enhance digital learning within organisations.	Commercial	Paid-for			The training session(s) are led by an instructor.	Available modules cover the Microsoft Office Suite, Cisco, and ITIL; the latter with the option of an exam.		Expertise in digital learning shared through courses and/or consultancy.	<a href="https://www.hemsleyfraser.co.uk/courses/information-technology/view-all-courses">https://www.hemsleyfraser.co.uk/courses/information-technology/view-all-courses</a>
Hot Courses: CIW Database Design Specialist Training	12-month online course. People need a basic level of database literacy. Aims to give participants the ability to design product-focused databases for business. (Cost: £595)	Commercial	Paid-for			Online self-study resulting in a qualification subject to passing the end-of-year	Emphasis on developing technical proficiency towards achieving a	Database optimisation.	Database design and optimisation	<a href="https://www.hotcourses.com/courses-by-subject/CIW-Database-Design-Specialist-">https://www.hotcourses.com/courses-by-subject/CIW-Database-Design-Specialist-</a>



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with Exam						exam.	professiona l qualification .			<a href="https://www.hotcourses.com/courses/56613938/">Training-with-Exam-courses/56613938/</a>
Hot Courses: Computing for Work: Digital Skills	12-week part-time classes at the London centre, aimed at beginners and covering the standard range of digital literacy programs. (Cost: from £323)	Comme rcial	Paid- for			Classroom- based learning resulting in a qualification.	Emphasis on developing technical proficiency towards achieving a professiona l qualification .			<a href="https://www.hotcourses.com/courses-by-subject/Computing-For-Work-Using-Digital-Skills-Entry-courses/56802956/">https://www.hotcourses.com/courses-by-subject/Computing-For-Work-Using-Digital-Skills-Entry-courses/56802956/</a>
Hot Courses: Entry-level Functional ICT	Beginner's course working towards a Skills Level 2 qualification. Class-based learning at their London centre. Part-time evening course, 57 hours in total. (Cost: from £302)	Comme rcial	Paid- for		Emphasis on developing skills to enhance communication.	Classroom- based learning resulting in a qualification.	Emphasis on developing technical proficiency towards achieving a professiona l qualification .	Covers basic media and data literacy.		<a href="https://www.hotcourses.com/courses-by-subject/Entry-Level-Functional-Skills-ICT-courses/56813708/">https://www.hotcourses.com/courses-by-subject/Entry-Level-Functional-Skills-ICT-courses/56813708/</a>
Hot Courses: ICT Functional Skills Level 1	Class-based learning at the London centre, during which participants will work towards a qualification. 11 weeks, part-time day classes. (Cost: from £110)	Comme rcial	Paid- for		Emphasis on developing skills to enhance communication.	Classroom- based learning resulting in a qualification.	Emphasis on developing technical proficiency towards achieving a professiona l qualification .	Covers basic media and data literacy.		<a href="https://www.hotcourses.com/courses-by-subject/ICT-Functional-Skills-Level-1-courses/56812110/">https://www.hotcourses.com/courses-by-subject/ICT-Functional-Skills-Level-1-courses/56812110/</a>
ICT Literacy: Digital Learn	Online course involving interactive activities aimed at people who lack basic digital proficiency.	Educati on	Free	Modules on passwords, online scams, and privacy	Modules include and introduction to Skype and Facebook.	All modules are designed to support independent learning and self- development.	Very basic modules for beginners, including how to use Microsoft Word and			<a href="https://www.digitalllearn.org/">https://www.digitalllearn.org/</a>

## Digital literacy: existing educational resource mapping and analysis

							send an email.			
ICT Literacy: Home & Learn	Online information site designed as a database of step-by-step instructions, aimed at people who lack basic digital proficiency.	Education	Free			All modules are designed to support independent learning and self-development.	Modules include technical proficiency in computer basics.		Modules include web design and coding.	<a href="http://www.homeandlearn.co.uk/NET/vbNet.html">http://www.homeandlearn.co.uk/NET/vbNet.html</a>
ICT Literacy: IT Desk	Online course aimed at beginners with the intention of increasing global digital literacy and access to information. Mostly consists of video tutorials. The site will send verification of acquired computer knowledge and skills upon completion of modules.	Education	Free	Modules include basics of using a computer, and becoming an 'e-citizen'.		All modules are designed to support independent learning and self-development.	Modules include using a computer, browsing the web, and email.		Modules include Computer-Aided Design (CAD), web design, and image processing.	<a href="http://www.itdesk.info/en/e-citizen-program/">http://www.itdesk.info/en/e-citizen-program/</a>
Kent Adult Education Services: Business and IT	Introduction to computing, introductions to all aspects of the Office suite, getting to know your laptop.	Education	Free/Paid-For	Internet safety is covered.		Classroom-based learning with the aim of attaining an award.	Designed to give an overview of the Office suite and other software programmes.		Course on building websites available.	<a href="https://kentadulteducation.co.uk/shop/cid_32072/Business--and--IT.aspx">https://kentadulteducation.co.uk/shop/cid_32072/Business--and--IT.aspx</a>
King's College London: Free Courses for NHS Staff	Taught introductions to healthcare databases, NHS evidence resources, qual and quant critical appraisal, good clinical practice. Free hands-on training courses for staff at Guy's & St Thomas' and King's College Hospital.	Healthcare Education	Free			Designed to improve vocational IT skills through hands-on training.		Example modules include introduction to healthcare databases, and qual and quant critical appraisals.		<a href="http://libguides.kcl.ac.uk/nhs/training">http://libguides.kcl.ac.uk/nhs/training</a>
Learn Direct: Digital Skills Qualification	Face-to-face qualification completed with the support of a tutor at a Learn Direct centre (typically local libraries and community centres)	Education	Free		Modules include social networking, and digital media.	All modules are designed to support independent learning and self-development.	Modules include computer basics and online basics.			<a href="http://www.learn-direct.com/digital-skills-qualification#tab1">http://www.learn-direct.com/digital-skills-qualification#tab1</a>

## Digital literacy: existing educational resource mapping and analysis

LearnDirect: Microsoft Office 2010	Purchasable modules in the basic Office Suite, as well as Access, Visio, and Sharepoint.	Commercial	Paid-for			Follow online tutorials at your own pace.	Purchasable modules means that particular literacy weaknesses can be targeted for improvement.	Purchasable modules in Sharepoint.	The user can choose the Visio package if they wish to focus on design.	<a href="http://www.learn-direct.com/store/office-computing/microsoft-office-2010/access-2010">http://www.learn-direct.com/store/office-computing/microsoft-office-2010/access-2010</a>
Learning and Performance Institute: Happy Computers	Offers a range of one-day courses on Office programs, accounting software, project management, web use.	Commercial	Paid-for		Some courses are tailored to using media to communicate or as a business platform.	One-day teacher-led training course.	Targeted skills day focussing on one program.	Courses available on Office programs, MS Access.	Course available for manipulating photographs, web design.	<a href="http://www.happy.co.uk/happy-computers/">http://www.happy.co.uk/happy-computers/</a>
Leeds City College: Courses & Apprenticeships: Computing & IT: Digital Literacy Workshop	A part-time course for adults seeking to enhance the whole range of HEE target areas. The course can be 15 hours (£50) or 30 hours (£75).	Education	Paid-for	Keep up-to-date with online safety	Use of social and digital media; send and receive emails	Classes are taught.	Introduction to computers, tablets, and smartphones for the very beginners.			<a href="http://www.leeds-citycollege.ac.uk/courses-apprenticeships/18plus-adult-departments/computing-and-it/">http://www.leeds-citycollege.ac.uk/courses-apprenticeships/18plus-adult-departments/computing-and-it/</a>
Lethbridge College: eLearning Café	Online resource of useful links to direct you to other sites which cover the skills learners may wish to improve. This includes links to mLearning options.	Education	Free	Links to informational sites on cyber security.	Covers email navigation and social media tools.	Designed for self-directed study.	Links to informational sites which cover the basic range of technical proficiencies.		Includes links to mind-mapping tools.	<a href="http://www.lethbridgecollege.net/elearningcafe/index.php/elearning/improving-computer-skills">http://www.lethbridgecollege.net/elearningcafe/index.php/elearning/improving-computer-skills</a>
Lewisham Council: Adult Learning ICT	Courses available for beginners and improvers. Courses focus on using Excel in the workplace, email. Two hour classes once per week.	Education	Paid-for			Classroom-based learning.	Designed to give an overview of the Office suite.			<a href="https://www.lewisham.gov.uk/my-services/education/adult/find-a-course/Pages/Adult-education-ICT-courses.aspx">https://www.lewisham.gov.uk/my-services/education/adult/find-a-course/Pages/Adult-education-ICT-courses.aspx</a>

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Liverpool City Council: Computers - Skills for Work	Part-time courses over 11 weeks designed to get adult IT skills up to the modern workplace standard.	Educational	Paid-for			Classroom-based learning.	Designed to give an overview of the Office suite. Emphasis on technical proficiency.			<a href="https://liverpool.gov.uk/schools-and-learning/adult-learning/our-courses/course-list/">https://liverpool.gov.uk/schools-and-learning/adult-learning/our-courses/course-list/</a>
Lloyds Bank: Digital Champions	Face-to-face digital skills training delivered in local libraries in partnership with Lloyds and Halifax. Sessions have been held in 80 libraries to date with further sessions and library partnerships planned for the future.	Commercial	Free	Skills cover basic digital literacy, including safety and security.	Skills cover basic digital literacy, including sending emails and shopping online.		Skills cover basic digital literacy, including using apps.			<a href="http://lloydsbankinggroupdigital.com/digital-champions-sharing-skills-in-libraries-around-the-country/">http://lloydsbankinggroupdigital.com/digital-champions-sharing-skills-in-libraries-around-the-country/</a>
Log On To Care	An elearning club providing free courses to the social care sector. There is a membership fee that some Local Authorities, Care Associations and private/voluntary organisations have already paid for you. If this is not the case, the annual membership fee is £10 + VAT per person.	Public	Free/Paid-For			Designed for self-directed study.	Designed to give an overview of the Office Suite.	Covers Excel and is tailored to the social care sector.		<a href="https://www.logontocarelearningcentre.org.uk/course/index.php?categoryid=44">https://www.logontocarelearningcentre.org.uk/course/index.php?categoryid=44</a>
Lynda: Building Your Technology Skills	Series of videos focusing on honing skills for users who already have strong IT skills.	Commercial	Paid-for	Working with firewalls is covered, as are more advanced security topics.	Includes use of Skype and email	Follow online tutorials at your own pace.	Users must have strong computer skills in order to understand these courses, as they are designed for technical specialists rather than for everyday users.	Covers subnetting and supernetting, nesting VMs. Highly technical data management	Complex computer navigation for internet use, tech creativity.	<a href="https://www.lynda.com/IT-tutorials/Building-Your-Technology-Skills/432862-2.html?srchtrk=index%3a10%0a linktypeid%3a2%0aq%3acomputer+skills%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2">https://www.lynda.com/IT-tutorials/Building-Your-Technology-Skills/432862-2.html?srchtrk=index%3a10%0a linktypeid%3a2%0aq%3acomputer+skills%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2</a>

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Lynda: Computer Literacy for Mac	Very basic introduction to use of a Mac computer, including printing documents, sending an email, searching the internet. 10-day free trial, subscription after that.	Commercial	Paid-for	Includes dealing with spam email but nothing on internet safety.	Teaches the user how to share files.	Follow online tutorials at your own pace.	It aims to teach the user how to navigate their personal device.			<a href="https://www.lynda.com/Mac-OS-X-tutorials/Computer-Literacy-Mac/196799-2.html">https://www.lynda.com/Mac-OS-X-tutorials/Computer-Literacy-Mac/196799-2.html</a>
Lynda: Computer Literacy for Windows 10	Very basic introduction to Windows 10, including how to open and save files, how to print documents. There are also versions for 'IT Pros' and more advanced users.	Commercial	Paid-for	Includes dealing with spam email and how to protect yourself from viruses.	Includes use of Skype and email	Follow online tutorials at your own pace.	It aims to teach the user how to navigate their personal device.			<a href="https://www.lynda.com/Windows-tutorials/Computer-Literacy-Windows-10/449032-2.html?srchtrk=index%3a6%0alinktypeid%3a2%0aq%3acomputer+skills%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2">https://www.lynda.com/Windows-tutorials/Computer-Literacy-Windows-10/449032-2.html?srchtrk=index%3a6%0alinktypeid%3a2%0aq%3acomputer+skills%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2</a>
Manchester Adult Education Services	A selection of in-person 12-week classes for adults around Manchester on IT skills and digital literacy. There is a Beginner's option, a 'Digital Skills for the Workplace' option, and a drop-in. However, there is little information on what is covered in the courses.	Education	Paid-for			Weekly classes taken by an instructor, with homework set in between.	Designed to help users develop basic and intermediate skills.			<a href="http://www.manchester.gov.uk/info/200004/adult_education/5854/adult_education_courses/4">http://www.manchester.gov.uk/info/200004/adult_education/5854/adult_education_courses/4</a>
Manchester Metropolitan University: Collection and Analysis of Data CPD Module	Majority of CPD courses focus on clinical practice and soft skills; only one course looks at technical skills relevant to developing digital capabilities. All courses may be taken as stand-alone CPD or as part of an ongoing degree. Modules may be funded for NHS North West staff.	Education	Free (for NHS North West staff)			Module focuses on offering continuing professional development training to health and social care workers.		CPD module on collection and analysis of data.		<a href="https://www2.mmu.ac.uk/hpsc/courses/cpd/list/">https://www2.mmu.ac.uk/hpsc/courses/cpd/list/</a>

## Digital literacy: existing educational resource mapping and analysis

Medway Council: Computing Courses	A range of qualifications to work towards, as well as basic skills sessions.	Educational	Paid-for			Classroom-based learning with the option of attaining an award for some courses.	Designed to give an overview of the Office suite and other software programmes.			<a href="http://medway.misportal.net/Coursefinder/(S(kupwnx2i1bb24plt3zimzuz5))/searchresults_all.aspx">http://medway.misportal.net/Coursefinder/(S(kupwnx2i1bb24plt3zimzuz5))/searchresults_all.aspx</a>
mHabitat: Digital Practitioner Programme	The digital practitioner programme was designed to develop the digital skills and confidence of health and social care staff. The programme was delivered in partnership with the Leeds City Council and the NHS in Leeds.	Healthcare	Not specified	Programme model includes modules on supporting people to be safe online, and information, governance and managing risk.	Programme model includes modules on social media, and video calling, conferencing, and consultation.	Programme model designed to support independent and/or organisational learning.		Programme model includes modules on digital tools and information, and finding and evaluating information online.		<a href="http://wearemhahabitat.com/wp-content/uploads/2016/09/Developing-Digital-Practitioners.pdf">http://wearemhahabitat.com/wp-content/uploads/2016/09/Developing-Digital-Practitioners.pdf</a>
Microsoft: Digital Literacy	Modules to help people develop basic ICT skills using Microsoft operating system and applications, including Office. Digital certificate available to users who complete all modules.	Commercial	Free	Modules include computer security and privacy.	Modules include the Internet, Cloud Services and World Wide Web.	All modules are designed to support independent learning and self-development.	Modules include productivity programmes.	Modules include digital lifestyles.		<a href="https://www.microsoft.com/en-gb/DigitalLiteracy/curriculum4.aspx">https://www.microsoft.com/en-gb/DigitalLiteracy/curriculum4.aspx</a>
Microsoft: Virtual Academy	Online training centre for students, data scientists, IT specialists, and developers. Skills can be validated.	Commercial	Free			All modules are designed to support independent learning and self-development.	Modules on specific softwares and coding types for developers.	Modules include Cloud services.	Modules include game development and web development.	<a href="https://mva.microsoft.com/">https://mva.microsoft.com/</a>
Milton Keynes Council: Computer Skills	Selection of one-day courses and part-time courses in specific skills, eg use of Excel, eBay, web design.	Educational	Paid-for			Classroom-based learning.	Designed to hone skills in a particular program or tool.	Specialist Excel courses on offer.	Specialist courses on offer for web design.	<a href="https://www.milton-keynes.gov.uk/courses?k=&amp;d=&amp;a=6">https://www.milton-keynes.gov.uk/courses?k=&amp;d=&amp;a=6</a>

## Digital literacy: existing educational resource mapping and analysis

Mindflash	Online elearning portal which can be purchased by an organisation for use by their staff. Includes many exercises aimed at improving typing speed and mouse exercises. US-based.	Commercial	Paid-for		Covers business e-mail etiquette and email campaigns	Designed for self-directed study.	Designed to give an overview of the Office Suite, as well as basic use of email and CDs.			<a href="https://www.mindflash.com/blog/online-computer-skills-training-resources/">https://www.mindflash.com/blog/online-computer-skills-training-resources/</a>
MOOCLab: Digital Literacy	Online community of e-learners to help each other develop digital skills throughout a massive open online course.	Commercial	Free			Collaborative learning style.	Digital literacy modules focus on Microsoft office apps.			<a href="https://www.mooclab.club/groups/categories/digital-literacy.11/">https://www.mooclab.club/groups/categories/digital-literacy.11/</a>
NHS Digital Code4Health: Learning Platform	Learning and resources to support NHS workers to learn to code, build apps, and contribute to emerging open digital health network.	Healthcare	Free			Emphasis on shared and community learning.			Learning resources include innovation and introduction to coding, app in a day, and using open information models awareness training.	<a href="https://code4health.org/learning">https://code4health.org/learning</a>
NHS Digital Code4Health: Open Resources	Catalogue of open resources that NHS workers can use to improve use of digital technology in provision of care and other services.	Healthcare	Free						Open content resources developed for health and social care to allow others within the NHS to become change agents within their organisation.	<a href="https://code4health.org/api-catalogue">https://code4health.org/api-catalogue</a>



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NHS Employers: Social Media Publications	Catalogue of open resources for NHS employers and workers to provide guidance and support in the use of social media in the workplace and/or in a professional capacity.	Healthcare	Free		Resources cover use of social media, building a social media strategy, and tackling cyberbullying.	Resources designed to improve professional practice through self-directed study.				<a href="http://www.nhsemployers.org/search-results?q=social+media">http://www.nhsemployers.org/search-results?q=social+media</a>
NHS Milton Keynes: Building Your Computer Skills	Information on I.T. training opportunities offered to PCT staff within the Milton Keynes Health Community. Courses range from basic I.T. skills to advanced Word and Excel. Training needs analysis protocols are provided to help choose the training sessions that address learning needs. However, it seems that their link to the database is broken.	Healthcare	Free			Unclear due to broken link, but likely to be self-development.	Tailored modules to hone specific skills.			<a href="http://www.miltonkeynesccg.nhs.uk/computer-skills/">http://www.miltonkeynesccg.nhs.uk/computer-skills/</a>
NHS: ICT Training	e-learning and classroom training options available. The ECDL course can be followed but the emphasis is on equipping healthcare administrators with the requisite IT skills.	Healthcare				e-learning and through in-person tuition. Learning directed at vocational requirements.	Course options include Microsoft Office.	Course options include Clinical Systems, and Patient Administration Systems.		<a href="http://www.training.iphis.nhs.uk/New_Site/courses/courseindex.shtml">http://www.training.iphis.nhs.uk/New_Site/courses/courseindex.shtml</a>
NHS: IT Skills Pathway	e-learning resource tailored to different NHS job roles covering the basics of Microsoft Office.	Healthcare	Free			All modules are designed to support independent learning and self-development.	Modules aimed to achieve competency with Microsoft Office Suite as required by specific NHS job roles.			<a href="https://www.itskills.nhs.uk/whatsinit.aspx">https://www.itskills.nhs.uk/whatsinit.aspx</a>
NHS: Microsoft Office Skills Training	Created in 2010 to support NHS departments and organisations so they can offer official Microsoft Office Skills Training and Microsoft Office Specialist Certification to Staff. Optional exams.	Healthcare	Free			Training delivered by consultants.	Modules aimed to achieve competency with Microsoft Office Suite.			<a href="http://www.nhsmost.co.uk/">http://www.nhsmost.co.uk/</a>



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NHS: NELFT Training	Training sessions in basic digital literacy, focused on increasing staff competency with NHS databases, critical appraisals, and other essential daily IT requirements.	Healthcare	Free			Training delivered by NHS staff.		Training limited to daily NHS admin		<a href="http://www.nelft.nhs.uk/library-training">http://www.nelft.nhs.uk/library-training</a>
North Lincolnshire Council: Adult Education Services:	Courses on computer basics, as well as 'First Steps in Computing' award tuition, ECDL, and IQT Award in It User Skills on offer. One two-hour class per week, either in the afternoon or in evenings.	Education	Paid-for	Depends on course, but basic internet safety is covered by most.		Classroom-based learning with the opportunity of attaining an award.	Designed to give an overview of the Office suite and other software programmes.	Depends on course, but many media are covered.	Depends on course, but covered in ECDL.	<a href="http://northlincolnshire.firmstep.com/popup.aspx/RenderForm/?ID=Skm9erxSEH2&amp;F.Name=MvocRgubKB7&amp;fs2s=AV8fdLyPa48&amp;HideToolbar=2">http://northlincolnshire.firmstep.com/popup.aspx/RenderForm/?ID=Skm9erxSEH2&amp;F.Name=MvocRgubKB7&amp;fs2s=AV8fdLyPa48&amp;HideToolbar=2</a>
North Yorkshire County Council: ICT and Computing	Offers 'Learn my way UK online basics computer course' as well as a range of ECDL levels. Classes are one day a week.	Education	Paid-for	Internet safety is covered.		Classroom-based learning.	Designed to give an overview of the Office suite.	ECDL covers the Office Suite at beginner, intermediate, and advanced stages.	ECDL Intermediate courses offer image editing, web editing, and digital marketing.	<a href="https://coursefinder.northyorks.gov.uk/Coursefinder/(S(p045fn55dulgraipee3gxu45))/SearchResults.aspx">https://coursefinder.northyorks.gov.uk/Coursefinder/(S(p045fn55dulgraipee3gxu45))/SearchResults.aspx</a>
Northampton College: Starter ICT Level 1	Part-time taught further education course. Aimed at students who wish to work towards an IT qualification. (Cost: £60 for aged 24+)	Education	Paid-for			Classroom-based learning and assessment.	Designed to give an overview of the Office Suite.	Will equip students to produce simple databases and documents.		<a href="https://www.northamptoncollege.ac.uk/courses/computing-it/390-level-1/953-starter-ict-level-1.html">https://www.northamptoncollege.ac.uk/courses/computing-it/390-level-1/953-starter-ict-level-1.html</a>
Open University: Being Digital	Activities and pathways to develop digital skills with a particular focus on skills needed for further study.	Education	Free	Pathways include trust online.	Pathways include making the most of social networking, and communicating online.	Pathways include effective searching, and referencing sources.		Pathways include the right tool for the job, and exploring your information landscape.		<a href="http://www.open.ac.uk/libraryservices/beingdigital/">http://www.open.ac.uk/libraryservices/beingdigital/</a>
Open University: Digital Literacy Online Course	Online course focusing on ' <i>succeeding in a digital world</i> '. Digital badge offers learners recognition for completing course.	Education	Free	Modules include staying safe and legal, and your digital life.		All modules are designed to support independent learning and self-development.		Modules include critical consumption, and the right tool for the job.		<a href="http://www.open.edu/openlearn/education-development/digital-literacy-succeeding-digital-world/content-section-overview">http://www.open.edu/openlearn/education-development/digital-literacy-succeeding-digital-world/content-section-overview</a>

## Digital literacy: existing educational resource mapping and analysis

Open University: Finding Information in Health and Lifestyle	Online course for people with basic proficiency to learn more about conducting searches and evaluating information in health and lifestyle.	Educational	Free			All modules are designed to support independent learning and self-development.		Modules support learners' to develop basic skills in information retrieval and analysis.		<a href="http://www.open.edu/openlearn/health-sports-psychology/health/health-studies/finding-information-health-and-lifestyle/content-section-0">http://www.open.edu/openlearn/health-sports-psychology/health/health-studies/finding-information-health-and-lifestyle/content-section-0</a>
Open University: Using Numbers and Handling Data	Introductory level course on using numbers and handling data in the healthcare sectors.	Educational	Free			All modules are designed to support independent learning and self-development.		Modules include accuracy, precision and common errors, and handling data.		<a href="http://www.open.edu/openlearn/health-sports-psychology/health/public-health/using-numbers-and-handling-data/content-section-0">http://www.open.edu/openlearn/health-sports-psychology/health/public-health/using-numbers-and-handling-data/content-section-0</a>
Pitman Training: IT	A range of purchasable courses, some offering a Diploma or Award upon completion. Covering a wide range of topics from 'Blogging for Business' to Access, Excel, CSS Essentials (Photoshop), and 'Adobe Creative Cloud Award'. This can be supervised, self-paced training at a centre, or users can take part in structured classes.	Commercial	Paid-for			The courses are either taught or supervised, and training takes place in centres throughout the UK.	Offers a wide variety of specific courses, many of which can be benchmarked to the attainment of a professional qualification.	Courses available on programming, electronic bookkeeping (ie databases), multimedia.	Emphasis on creative courses such as Photoshop, blogging, programming.	<a href="https://www.pitman-training.com/our-courses/">https://www.pitman-training.com/our-courses/</a>
QA: Transforming Performance Through Learning	Online portal offering multiple e-learning courses, including technical IT training courses in various software systems and coding programmes. Aimed at advanced IT users.	Commercial	Paid-for			All modules are designed to support independent learning and self-development.	Module options include multiple softwares, programming, CAD.	Big data and programming included.	Coding and web management covered.	<a href="https://www.qa.com/training-courses/technical-it-training#all-courses">https://www.qa.com/training-courses/technical-it-training#all-courses</a>

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Queen Margaret University: Digital Literacies CPD Module	Module can be studied as a stand-alone course or as part of an undergraduate or post-graduate course in health and social care.	Educational	Paid-for			Module provides professional development training in digital literacies for health and social care workers.				<a href="http://www.gmu.ac.uk/courses/UGCourse2016.cfm?c_id=102">http://www.gmu.ac.uk/courses/UGCourse2016.cfm?c_id=102</a>
Robust IT	Online courses offered in Computing for Beginners, Creativity in IT Design, IT and Networks, Programming, Apps, and Gaming. The beginners' course results in a qualification. They also provide the option of classroom-based training.	Commercial	Paid-for	Includes a module on security basics		All modules are designed to support independent learning and self-development.	Courses on the Microsoft Suite as well as software and programming.	Includes a module on networking and virtual cloud training	Covers audio and video editing, graphics creating and editing, and web development.	<a href="http://www.robusttraining.com/comptia-courses.html">http://www.robusttraining.com/comptia-courses.html</a>
Rochdale Council: Help with IT and the Internet	The Council has a database of local centres offering digital literacy classes alongside their web addresses and contact details, as well as links to online portals. Local classes cover a range of topics, such as iPad training sessions, although there is insufficient detail to fill in the competencies without researching each local hub separately.	Educational	Paid-for			Support group centred learning.				<a href="http://www.rochdale.gov.uk/jobs-and-training/training-and-courses/pages/help-with-i.t-and-the-internet.aspx">http://www.rochdale.gov.uk/jobs-and-training/training-and-courses/pages/help-with-i.t-and-the-internet.aspx</a>
Royal College of Physicians: Acute Care Toolkit e-Learning Module	Online course to provide clinicians with the skills and information that they need to use data to improve quality of care. Access is free for members, but costs £30 for non-members. Individuals can also gain free access to the course via the Future Learn platform, although certification requires a paid-for subscription	Healthcare Education	Free			All modules are designed to support independent learning and self-development.	Modules include Web Design, Computer-Aided Design, and Image Processing.	Modules focus on when and how to use different kinds of data, and how to link data analysis to quality improvements.		<a href="https://www.rcplondon.ac.uk/education-practice/courses/acute-care-toolkit-e-learning-module">https://www.rcplondon.ac.uk/education-practice/courses/acute-care-toolkit-e-learning-module</a>  <a href="https://www.futurelearn.com/courses/data-improve-healthcare">https://www.futurelearn.com/courses/data-improve-healthcare</a>

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Royal College of Physicians: Peer Support Network	The training course offers doctors working towards RCP educator accreditation three 1-day workshops together with an online forum for collaborative learning, reflection and evaluation. The course provides opportunity to develop skills in using digital platforms for collaborative working, as well as putting those skills into practice through small-scale educational workshops.	Healthcare	Free		Primary element of the training course includes collaborative online learning.	Training course feeds into broader course on developing doctors' skills to deliver training to others.				<a href="https://www.rcplondon.ac.uk/education-practice/course/peer-support-network">https://www.rcplondon.ac.uk/education-practice/course/peer-support-network</a>
Salford City College: Digital Skills ITQ Certificate	Adult learning course leading towards a professional qualification. Designed for beginners.	Education	Paid-for	Internet safety is covered.	Covers social networking.	Classroom-based learning and assessment.	Designed to give an overview of the Office Suite.		Covers digital media, digital photography, digital music.	<a href="https://www.salfordcc.ac.uk/courses/adult/it/9B3367FC-9FF2-4E9E-BC14-F1C98A3C5E18_601/">https://www.salfordcc.ac.uk/courses/adult/it/9B3367FC-9FF2-4E9E-BC14-F1C98A3C5E18_601/</a>
Sheffield Hallam University: Technology Enhanced Learning for Healthcare Education CPD Module	Module supports individuals to learn more about using technology to develop education resources relevant to the healthcare sector. Module can be studied as a stand-alone course or as part of post-graduate qualification; distance learning option also available.	Education	Paid-for			Module focuses on using technology to develop education resources for healthcare sector.	Module provides an introduction to a suite of education technologies, as well as exploring the limitation of these media.		Provides learners with knowledge and skills to act as change agents.	<a href="https://www.shu.ac.uk/study-here/find-a-course/health-and-social-care/short-courses-and-modules/technology-enhanced-learning-for-healthcare-education">https://www.shu.ac.uk/study-here/find-a-course/health-and-social-care/short-courses-and-modules/technology-enhanced-learning-for-healthcare-education</a>
Skills & Learning: Bournemouth, Dorset, Poole: Computing and Creative Technology.	One-day courses offered regularly on each of the four main components of the Office suite, for beginner and intermediate levels.	Education	Paid-for			Classroom-based learning.	Designed to improve specific targeted skills.	Specialist Excel courses on offer.		<a href="http://www.webenrol.com/SkillsAndLearningbdp/?page=list&amp;cat=6&amp;locationCollection=0&amp;">http://www.webenrol.com/SkillsAndLearningbdp/?page=list&amp;cat=6&amp;locationCollection=0&amp;</a>

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Skills Platform: Digital Training	Offers classroom-based training courses in social media, media strategy, digital impact consultancy at centres throughout the UK with certificate of attendance/completion.	Commercial Healthcare	Paid-for		Training addresses social media strategy and search-engine optimisation.	Training delivered by an external consultant.				<a href="https://www.skillsplatform.org/health/health-digital-training">https://www.skillsplatform.org/health/health-digital-training</a>
Skills Platform: IT Skills	Offers classroom-based training courses in Microsoft Office at centres throughout the UK with certificate of attendance/completion.	Commercial Healthcare	Paid-for			Training delivered by an external consultant.	Training aimed to improve competency in Microsoft Office Suite, with courses offered at beginner, intermediate, and advanced levels.			<a href="https://www.skillsplatform.org/health/it-skills">https://www.skillsplatform.org/health/it-skills</a>
Skillsoft: IT Collections	Online courses available upon purchase of a subscription. Mostly targeted around Microsoft and Windows, with some opportunity to learn programming.	Commercial				Designed for self-directed study.	Provides a range of options to become highly skilled at Office and Windows, as well as programming.	Opportunity to learn programming. Focussed around the Microsoft media packages.	Opportunity to opt for modules programming and software development.	<a href="http://www.skillssoft.com/catalog/curriculum.asp?obj=5001568&amp;obj=5000435#5000435">http://www.skillssoft.com/catalog/curriculum.asp?obj=5001568&amp;obj=5000435#5000435</a>
Skillsoft: Learning App	m-Learning app for Android and iOS to give users access to mobile learning courses tailored to their interests, including courses relevant to digital literacy.	Commercial	Paid-for	Course catalog includes video tutorials on security, and internet use.	Course catalog includes video tutorials on networks and telecommunications.	All modules are designed to support independent learning and self-development.	Course catalog includes video tutorials on Microsoft office.	Course catalog includes video tutorials on data and databases.	Course catalog includes video tutorials on graphics and design.	<a href="http://www.skillssoft.com/about/press_room/press_releases/august_25_15_mobile_learningapp.asp">http://www.skillssoft.com/about/press_room/press_releases/august_25_15_mobile_learningapp.asp</a>

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Southstep	Online training course following the ECDI curriculum. The site requires you to build your own training package and purchase it as a whole. Certificates offered upon completion. Classroom training also an option.	Commercial	Paid-for	Integrated into all packages	Communication networks are covered	All modules are designed to support independent learning and self-development.	Designed so as to build skills gradually, advancing from beginner level to advanced over time and according to ECDL technical standards.	Modules on how to build and maintain PC's, covers major media, Excel.		<a href="http://www.southstep.co.uk/index.html">http://www.southstep.co.uk/index.html</a>
Stockton Council: Adult Learning Computing	Offers a range of courses in digital skills and IT skills for beginners and intermediate learners. One morning a week for three months.	Education	Paid-for	Depends on course, but basic internet safety is covered by most.		Classroom-based learning.	Designed to give an overview of the Office suite.			<a href="https://www.stockton.gov.uk/media/7272/prospectus-2016-2017.pdf">https://www.stockton.gov.uk/media/7272/prospectus-2016-2017.pdf</a>
Surrey Council	A wide range of courses mostly aimed at beginners. Includes options on social media, web design, digital imaging, Microsoft Office, Microsoft Word.	Education	Paid-for		Specialist courses on offer for social media.	Classroom-based learning.	Designed to improve specific targeted skills.		Specialist courses on offer for web design, digital imaging.	<a href="https://www.surreycc.gov.uk/data/assets/pdf_file/0003/63192/Course-Directory-2016-17-Work-Skills-and-IT-courses.pdf">https://www.surreycc.gov.uk/data/assets/pdf_file/0003/63192/Course-Directory-2016-17-Work-Skills-and-IT-courses.pdf</a>
techUK: Training Courses	Online and face-to-face training courses to develop digital skills, including courses designed for public sector workers.	Commercial	Paid-for	Example online course includes Certificate in Information Security Management Principles.			Example face-to-face course includes An Introduction to the NHS and Technology	Example face-to-face course includes Masterclass in Big Data & Analytics.		<a href="https://www.techuk.org/training/public-sector-courses">https://www.techuk.org/training/public-sector-courses</a>
TED Talks	Series of talks with experts on a broad range of topics, including a small number relevant to digital literacy and learning around digital healthcare. Talks encourage further learning rather than offer direct training.	Education	Free	Example talks include '6 tips for better online security'.				Example talks include 'how can we find ourselves in data' and 'what do we do with all this big data?'		<a href="https://www.ted.com">https://www.ted.com</a>



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Teeside University: Data Analysis Methods CPD Module	CPD module in postgraduate continuing education. Module can be studied as a stand-alone course or as part of post-graduate qualification; distance learning option also available.	Education	Paid-for			Module focuses on offering continuing professional development training to health and social care workers.		Module focuses on how to use digital tools to analyse qualitative and quantitative data in health and social care sectors.		<a href="http://www.tees.ac.uk/parttime_courses/Health_&amp;_Social_Care/UCPE_Data_Analysis_Methods.cfm">http://www.tees.ac.uk/parttime_courses/Health_&amp;_Social_Care/UCPE_Data_Analysis_Methods.cfm</a>
Teknimedia	Series of training courses which cover the basic concepts. US-based.	Commercial	Paid-for			Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.teknimedia.com/html/digital-literacy-training.html">https://www.teknimedia.com/html/digital-literacy-training.html</a>
Torfaen City Council: Adult Learning IT	Courses offered on specific skills eg payroll, photoshop, as well as ECDL for beginners and intermediates. One day a week for several weeks.	Education	Paid-for			Classroom-based learning leading to a professional qualification for some courses.	Designed to improve specific targeted skills.	Specialist payroll training courses on offer.		<a href="http://www.torfaen.gov.uk/en/EducationLearning/AdultCommunityEducation/Adulteducationcourses/Adult-Education-Courses.aspx?AdultEducationListing_category=0/1/482/483/496">http://www.torfaen.gov.uk/en/EducationLearning/AdultCommunityEducation/Adulteducationcourses/Adult-Education-Courses.aspx?AdultEducationListing_category=0/1/482/483/496</a>
Truro and Penwith College: Basic Computer Skills	Part-time adult education course on IT skills. Many similar courses offered by city and regional further education colleges. Courses cover basic computing skills, and computing technology.	Education	Paid-for			In-person delivery for enhance skills and employability.	Course covers basic technical proficiency in computing skills.			<a href="https://www.truro-penwith.ac.uk/course/entry/basic-computer-skills-penwith-college-parttime">https://www.truro-penwith.ac.uk/course/entry/basic-computer-skills-penwith-college-parttime</a>
Udacity: Intro to Data Science	Courses on data science available at beginner, intermediate, and advanced level.	Commercial	Free			All modules are designed to support independent learning and self-development.	Modules include programming basics, virtual reality, building websites, and	Emphasis on data manipulation, data analysis with statistics and machine learning, data visualisation, and big data.		<a href="https://www.udacity.com/courses/data-science">https://www.udacity.com/courses/data-science</a>



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							learning business analytics.			
Udacity: Intro to Web Development	Courses on web development available at beginner, intermediate, and advanced level.	Commercial	Free			All modules are designed to support independent learning and self-development.	Modules include programming basics, building websites, and learning business analytics.	Emphasis on building websites, creating database schemas and configuring server-side technologies.	Designed to walk through the process of creating a website from scratch.	<a href="https://www.udacity.com/courses/web-development">https://www.udacity.com/courses/web-development</a>
Universal Class	Variety of self-paced courses to purchase as you go, ranging from beginner level computer set-up to coding. US-based.	Commercial	Paid-for		Courses on how to use social networking sites.	All modules are designed to support independent learning and self-development.	Improving technical proficiency is the main aim of the website, however there is also a clear emphasis on creativity and innovation.	All these literacies can be honed by selecting the relevant courses.	How to use desktop publishing for communications materials, graphic design, Adobe and coding.	<a href="https://www.universalclass.com/">https://www.universalclass.com/</a>
University of Cumbria: Digital Health and Social Care Education and Training	CPD modules offered as credits towards a Postgraduate Certificate. Modules aimed at practitioners, managers and commissioners with responsibility for implementing and managing digital health technology in health and social care sectors.	Educational	Paid-for			Modules have a clear focus on professional development for health and social care workers.	Course supports learners to develop greater awareness of digital technologies to improve services offered across health and social care sectors.		Course support learners to become change agents within their organisation by implementing a 'hands-on' digital project.	<a href="https://www.cumbria.ac.uk/research/centres/catch/digital-health-and-social-care-education-and-training/">https://www.cumbria.ac.uk/research/centres/catch/digital-health-and-social-care-education-and-training/</a>

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University of Derby: Digital.ME	Online course focusing on <i>'managing your digital self'</i> based around JISC's definition of digital literacy. Completed units are recognised with a Mozilla badge.	Educational	Free	Modules include fostering a positive digital reputation, and maturity in managing technology.	Modules include collaborative living and working, and life management and online communities.	Modules include new meaning of the ideas of a class, and encouraging diverse thinking and pro-active learning.				<a href="https://www.derby.ac.uk/online/moc/digital-me">https://www.derby.ac.uk/online/moc/digital-me</a>
University of the West of England: Professional Course in Information and Digital Literacy	Twelve two-hour sessions over twelve weeks teaching basic core competencies. The course is really aimed at those planning to teach digital literacy to others. The course is assessed by a short piece of coursework and a viva. Acceptance onto the course is based on entry requirements of a 2:2 grade in a first degree, or industrial experience.	Educational	Paid-for		Strong emphasis on tools for collaboration, including using and sharing Open Educational Resources, and using Virtual Learning Environments.	Classes are taught and assessed.	Theory and practice of technical proficiency.	Covers information Literacy models and tools, types of information.		<a href="https://courses.uwe.ac.uk/Z41000089/information-and-digital-literacy">https://courses.uwe.ac.uk/Z41000089/information-and-digital-literacy</a>
Wakefield Council: Adult Learning Computers	Offers a range of courses, including ECDL, 'Get started on computers' and 'Get on computers'. One two-and-a-half hour class per week.	Educational	Paid-for			Classroom-based learning.	Designed to give an overview of the Office suite.			<a href="http://www.wakefield.gov.uk/Documents/jobs-learning/adult-education/adult-education-brochure-2017.PDF">http://www.wakefield.gov.uk/Documents/jobs-learning/adult-education/adult-education-brochure-2017.PDF</a>
WeCommunities	WeCommunities organise twitter chats for NHS health and social care professionals to share learning and best practice. In addition, WeCommunities run workshops on using digital technology within a professional context.	Healthcare	Free	Workshops include digital footprint and digital professionalism, and the impact/uses/pitfalls of social media.	Twitter chats use digital platform to share learning.	Emphasis on shared and community learning.				<a href="http://www.wecommunities.org/resources/workshops">http://www.wecommunities.org/resources/workshops</a>
Westminster Adult Education Service: Entry-level Functional Skills ICT	Part-time adult education evening classes taking the student through the functional skills modules. 19 sessions. (Cost = £302)	Educational	Paid-for	Internet safety is covered.		Classroom-based learning and assessment.	Designed to give an overview of the Office suite.			<a href="https://www.waes.ac.uk/category/computing-ict/qualifications">https://www.waes.ac.uk/category/computing-ict/qualifications</a>

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York Learning (City of York Council): Computer Courses	A range of full-time and part-time courses for adult learning. Ranges from comprehensive IT introductions for beginners, to specialist computer courses such as web design, photoshop. Also on offer are Diploma courses and ECDL.	Education	Paid-for	Internet safety is covered in some modules, including beginner modules.		Classroom-based learning and assessment which may result in a qualification, depending on the course.	Depends on the course, but most cover the whole Office suite.	Specialist Excel courses on offer.	Specialist courses on offer for web design and photoshop.	<a href="file:///C:/Users/Owner/Downloads/York_Learning_for_Everyone_2017%20(1).pdf">file:///C:/Users/Owner/Downloads/York_Learning_for_Everyone_2017%20(1).pdf</a>
Youtube: Basic Computer Literacy Course	Youtube has a lot of e-learning resources, although they are not interactive and are difficult to benchmark for skills development as they do not involve module tests or certificates for module completion.	Public	Free		Includes use of Skype and email	Follow online tutorials at your own pace.	Designed to give an overview of basic Windows functions.			<a href="https://www.youtube.com/watch?v=sp09PMILEz8">https://www.youtube.com/watch?v=sp09PMILEz8</a>
Youtube: Basic Digital Literacy Concepts	Series of video demonstrations of basic IT skills.	Public Commercial	Free	Internet safety is covered in the video, as is anti-virus software.		Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=7_LPdttKXPc&amp;list=PLZIY6x0zil7wdjpQodYwj53BNoBdnjhCw">https://www.youtube.com/watch?v=7_LPdttKXPc&amp;list=PLZIY6x0zil7wdjpQodYwj53BNoBdnjhCw</a>
Youtube: Colegau Cymru: Essential Digital Literacy Skills Webinar	Series of video demonstrations of basic IT skills aimed at adult community learning.	Public Commercial	Free	Internet safety is covered in the video.		Designed for self-directed study.	Designed to give an overview of the Office Suite.		Designed with the view of persuading users to share information and integrate digital literacy skills into other classes.	<a href="https://www.youtube.com/watch?v=dyCXGEk6VRA">https://www.youtube.com/watch?v=dyCXGEk6VRA</a>
Youtube: Computer Skills Tutorials	Harvard Extension School (MOOC) tutorial on computers and the internet.	Public Commercial	Free	Internet safety is covered.		Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=PLigQUosV34&amp;list=PLenB-FThB0NRRHlJoASEx2oK9dMH1zc">https://www.youtube.com/watch?v=PLigQUosV34&amp;list=PLenB-FThB0NRRHlJoASEx2oK9dMH1zc</a>
Youtube: ICT Functional Skills (Level 1 test 1)	Series of video demonstrations of basic IT skills following the Ecdexel curriculum.	Public Commercial	Free			Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=KKtjt439fbo">https://www.youtube.com/watch?v=KKtjt439fbo</a>

## Digital literacy: existing educational resource mapping and analysis

Youtube: Learn Computer Basics Tutorial for Beginners	Series of video demonstrations of basic IT skills.	Public Comme rcial	Free			Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=cXBVMyKQ3ZY&amp;list=PLj16qF7wxNpr80IPxE_xqdZ-wiMyI7LbPE">https://www.youtube.com/watch?v=cXBVMyKQ3ZY&amp;list=PLj16qF7wxNpr80IPxE_xqdZ-wiMyI7LbPE</a>
Youtube: Microsoft Digital Literacy Training Videos	Series of video demonstrations of basic IT skills for Microsoft.	Public Comme rcial	Free	Internet safety is covered in a module.		Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=1a3R_xdHJ4k&amp;list=PLBdd5WZbp6_58UrsbazwNnjHsw16bfL44">https://www.youtube.com/watch?v=1a3R_xdHJ4k&amp;list=PLBdd5WZbp6_58UrsbazwNnjHsw16bfL44</a>
Youtube: NCFE Webinar: Functional Skills	Series of video demonstrations of basic IT skills following the Edecxel curriculum.	Public Comme rcial	Free			Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=5Emof7_68og">https://www.youtube.com/watch?v=5Emof7_68og</a>
Youtube: Windows 7 - Full Tutorial	Series of video demonstrations of basic IT skills for Windows.	Public Comme rcial	Free			Designed for self-directed study.	Designed to give an overview of the Office Suite.			<a href="https://www.youtube.com/watch?v=odLZiGf-6bY">https://www.youtube.com/watch?v=odLZiGf-6bY</a>