

**K102\_6**

**Innovation in health and social care practice**

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# Contents

* [Introduction](#Introduction1)
* [Learning outcomes](#LearningOutcomes1)
* [1 Changing professional practice](#Session1)
* [2 Making care digital](#Session2)
* [3 Technology and practice](#Session3)
* [4 Critical perspectives on incorporating technology](#Session4)
* [Conclusion](#Session5)
* [References](#References1)
* [Acknowledgements](#Acknowledgements1)
* [Solutions](#Solutions1)

## Introduction

This free course, Innovation in health and social care, focuses on how digital technology and innovation changes the expectations and jobs roles for health and social care practitioners. During the course, you will learn about what these expectations might be on practitioners and also about common responses and criticisms that may arise from transforming practice through technology. In many instances, professionals’ views about how services and their job will change should be carefully considered so as to ensure that key lessons and learning are not missed – professionals are able to help identify possible challenges and problems that might arise from technological change. At the end of this course, you will also be introduced to a way of planning and evaluating change that empowers professionals to use their knowledge and expertise in designing service improvements and innovation.

This OpenLearn course is an adapted extract from the Open University course [K102 Introducing health and social care](http://www.open.ac.uk/courses/qualifications/details/k102).

## Learning outcomes

After studying this course, you should be able to:

* identify how innovation and digital technologies impact on the role of health and social care practitioners
* evaluate some of the criticisms that arise from transforming practice through technology
* explain how planning and evaluating change can empower practitioners to use their knowledge and expertise in designing service improvements.

## 1 Changing professional practice

Technology is changing professional practice in a vast number of ways. For example, diagnostic technologies enable some tests to be performed rapidly and in a less invasive manner than previously, such as a fingerprick test, in which the results are produced within a few minutes and do not need to be sent off to a lab (Jones et al., 2016). These changes mean that patients have less waiting and inconvenience than in the past, but they also signify that professional practice has changed. In the example of the fingerprick test, we can see that a health and social care worker may need to be aware of these changes, and some may have to offer and support these new diagnostic tests (for example, a practice nurse or doctor at the GP surgery, pharmacists). Carers may also have to understand and engage with these new technologies.

In fact, new technologies have implications for many health and social care workers, including:

* understanding the purpose and value of the technology to the care being provided
* understanding the technology and how to use it
* understanding any results or monitoring from the technology
* understanding how to act on and share information from the technology to other team members who are involved in care
* explaining and communicating about the technology and its results to patients or service users
* trusting the technology and its processes and results.

Technology can also have an impact on how social care and care in community settings is being offered as well as changing some job roles and aspects of care jobs. For example, art or music therapy can be delivered via technology, and psychosocial support and therapy groups can also be offered at a distance (Lorenz et al., 2019). Care professionals working in these roles will have to learn to use technology and provide care in new ways.

Start of Figure



End of Figure

In the first activity, you will learn more about the ways in which technology will change professional practice.

Start of Activity

**Activity 1 The rise of technology in care**

Start of Question

Read the following news article, detailing how technology can revolutionise care and change professional practice.

[The rise of technology in care: how will it affect workers?](https://www.theguardian.com/careers/2018/dec/04/the-rise-of-technology-in-care-how-will-it-affect-workers)

Now answer the question below to test your comprehension of the points raised by the article.

Which of the following ethical issues does the article suggest might affect professional practice as a result of technology? Choose the answers you feel fit this description.

End of Question

1. Service users may want to be assisted by a human rather than a machine.

2. There isn't a clear moral or ethical framework for using technology in care.

3. Machines and robots are expensive.

4. Some people may feel uncomfortable with technology or have a 'fear of tech'.

5. Professionals may lose their jobs to machines or robots.

6. Machines can be used to keep an eye on workers by monitoring them such as when and where they turn up to work.

7. Technology is time-consuming to learn to use.

[View answer - Activity 1 The rise of technology in care](" \l "Session1_Interaction1)

End of Activity

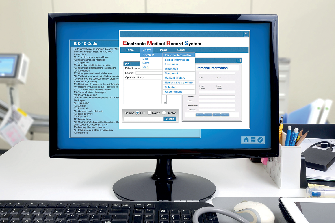
In addition to transforming care for patients and service users, technology has the power to change professional job roles and duties as health and social care professionals are increasingly being expected to incorporate technology in the care they offer. In the next section, you will learn more about what those changes to job roles might be like in greater detail.

## 2 Making care digital

In Wales, the [digital health and social care strategy](https://gov.wales/sites/default/files/publications/2019-03/informed-health-and-care-a-digital-health-and-social-care-strategy-for-wales.pdf) suggests that professionals will need to be supported in order to change practice and incorporate technology into care. Staff in health and social care in Wales will be expected to:

* be able to capture information about the service and input this information correctly into the electronic record
* be able to understand the electronic record and other technological sources of data and information about the service user to offer coordinated and ‘joined up’ care
* use technological tools to communicate where appropriate (e.g. email, text and videoconferencing)
* use data to look at outcomes and make improvements to the services where appropriate (such as learning from errors or incidents)
* keep up-to-date with digital and technological changes and be skilled enough to engage with new ways of working.

Start of Figure



End of Figure

In the next section, you will discover more about how these changing ways of working might be experienced by using an example from healthcare settings.

## 3 Technology and practice

Technology has the power to transform expectations around practice. Service users and patients may expect their electronic health record to be correct and up-to-date and this implicitly requires practitioners to be able to engage with and use technology. But there will also be unexpected outcomes or results from the changing nature of professional roles. In the next activity, you will learn about this through the example of doctors in hospitals using instant messaging for work.

Start of Figure



End of Figure

Start of Activity

**Activity 2 Instant messaging and care professionals**

Start of Question

Read the following, which is an extract from an article: ‘[Wanted: a WhatsApp alternative for clinicians](http://www.open.edu/openlearn/ocw/mod/oucontent/olinkremote.php?website=K102_6&targetdoc=Wanted:%20a%20WhatsApp%20alternative%20for%20clinicians)’, about the using of digital messaging at work in healthcare settings. Then answer the following questions:

1. How is WhatsApp already being used by Helgi Johannsson?
2. What advantages does the article suggest that WhatsApp have over the conventional bleep system?
3. What are the main concerns or limitations to WhatsApp?

End of Question

*Provide your answer...*

[View discussion - Activity 2 Instant messaging and care professionals](" \l "Session3_Discussion1)

End of Activity

In this section, you have learned about how digital technology can change professional practice, but that may raise a number of issues and questions about what is appropriate and ethical.

## 4 Critical perspectives on incorporating technology

Professionals may have a number of criticisms or questions about the use of technology in care. For example, some professionals may feel that they cannot offer the same quality of care if they are delivering some aspects of it digitally (such as responding to a service user via email rather than verbally or face-to-face). This highlights how not all critical perspectives on the role of technology are about resistance to change or not being comfortable with new technology. Take a look at the figure below (Deloitte, 2015) to see some common questions that professionals might have about technology changing care.

Start of Figure

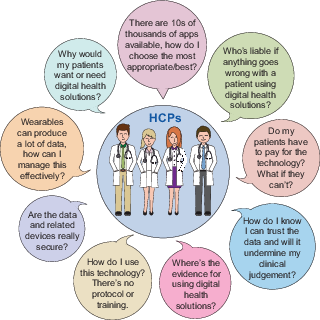


Figure 1

[View description - Figure 1](" \l "Session4_Description1)

End of Figure

In the next activity, you will be asked to read results from an intervention study about telemonitoring in Scotland to get a detailed idea about the experiences of healthcare staff during a digital intervention.

Start of Activity

**Activity 3 Delving into problems with digital interventions**

Start of Question

In this activity, you will be asked to read the findings of an intervention study and then reflect on them. The article, [‘Telemonitoring for chronic heart failure: the views of patients and healthcare professionals – a qualitative study’](http://www.open.edu/openlearn/ocw/mod/oucontent/olinkremote.php?website=K102_6&targetdoc=Telemonitoring%20for%20chronic%20heart%20failure), describes a telemonitoring intervention in Scotland for people with chronic heart conditions. As you read, note answers to the following questions:

1. Why might patients’ levels of confidence in telemonitoring be misplaced?
2. Why might the anticipated cost savings of telemarketing not be realised?
3. What suggestions are made for developing the service successfully in the future?

End of Question

*Provide your answer...*

[View discussion - Activity 3 Delving into problems with digital interventions](" \l "Session4_Discussion1)

End of Activity

In this section, you have learned about some of the challenges in changing practice through digital and technological change. Such technological interventions have clear implications and repercussions for professional practice and it is useful to delve a bit deeper into these promises and pitfalls to ensure that services change in positive ways. From the activity, you have had the chance to see how important it is to offer staff the opportunity to reflect and feedback on changes as there may be some negatives that have not been foreseen at the time of the digital and technological change or intervention.

## Conclusion

In this free course, Innovation in health and social care practice, you have learned about how technology and digital innovations have transformed health and social care for the professional workforce. You have also learned about some of the reservations and criticisms that staff may have as change is introduced. The PDSA cycle represents an important way that staff can plan and study change to ensure that they steadily improve care whilst at the same time looking out for and mitigating against the negative effects of digital and technological change.

This OpenLearn course is an adapted extract from the Open University course [K102 Introducing health and social care](http://www.open.ac.uk/courses/qualifications/details/k102).

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## Acknowledgements

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Figure 1: Adapted from Connected health, How digital technology is transforming health and social care, Figure 6, Deloitte Centre for Health Solutions analysis, 2015

## Text

Activity 2 reading: Reproduced from Wanted: a WhatsApp alternative for clinicians. Kim Thomas. (2018). With permission from BMJ Publishing Group Ltd.

Activity 3 reading: Fairbrother, P et al. Telemonitoring for chronic heart failure: the views of patients and healthcare professionals - a qualitative study. Wiley Online Library

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## Solutions

## Activity 1 The rise of technology in care

#### Answer

**Right:**

1. Service users may want to be assisted by a human rather than a machine.

2. There isn't a clear moral or ethical framework for using technology in care.

4. Some people may feel uncomfortable with technology or have a 'fear of tech'.

5. Professionals may lose their jobs to machines or robots.

6. Machines can be used to keep an eye on workers by monitoring them such as when and where they turn up to work.

**Wrong:**

3. Machines and robots are expensive.

7. Technology is time-consuming to learn to use.

[Back to - Activity 1 The rise of technology in care](" \l "Session1_Activity1)

## Activity 2 Instant messaging and care professionals

#### Discussion

1. WhatsApp is used to ask an opinion, share results or get advice from a colleague, or to upload photos or information describing a patient's issue in order to get advice.
2. In crises and emergencies, communicating via instant messaging can be useful. As an advantage, instant messaging allows you to communicate with many people or a whole team at once, rather than the old-fashioned pager that is commonly used in hospitals.
3. You cannot control where information and data is stored. Some instant messaging services, such as WhatsApp, are based outside of the UK and do not need to store data in line with UK laws and regulations. For the clinician, traditional instant messaging may also constitute information overload and just add another layer of complexity to the job.

[Back to - Activity 2 Instant messaging and care professionals](" \l "Session3_Activity1)

## Activity 3 Delving into problems with digital interventions

#### Discussion

1. A high degree of confidence was expressed by patients because there was an over estimation of the consistency of monitoring and speed of potential response by healthcare professionals.
2. While there could be savings on the costs of hospital admission as a result of using telemonitoring, healthcare practitioners are concerned that these may be outweighed by the cost of the equipment, installation and maintenance costs and the cost of training and support for those running the system.
3. Professionals emphasised the need for effective leadership and professional development, there is a need for the active involvement and engagement of stakeholders and systems are needed to ensure regular feedback and evaluation from patients in particular.

[Back to - Activity 3 Delving into problems with digital interventions](" \l "Session4_Activity1)

# Figure 1

## Description

In the middle of this figure is a circle in which there are four health care professionals. Outside of the circle are a number of speech bubbles. These contain the following questions: ‘There are 10s of thousands of apps available, how do I choose the most appropriate/best?’ ‘Who’s liable if anything goes wrong with a patient using digital health solutions?’ ‘Do my patients have to pay for the technology? What if they can’t?’ ‘How do I know I can trust the data and will it undermine my clinical judgement?’ ‘Where’s the evidence for using digital health solutions?’ ‘How do I use this technology? There’s no protocol or training.’ ‘Are the data and related devices really secure?’ ‘Wearables can produce a lot of data, how can I manage this effectively?’ ‘Why would my patients want or need digital health solutions?’

[Back to - Figure 1](" \l "Session4_Figure1)