Guide

How AI meets social care:

Professional practice

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Professional practice

Conversations about artificial intelligence often centre on how the associated technologies will impact the way in which we work in the future. The overly simplistic position suggests that AI will reduce the need for workers as technologies increasingly become capable of performing roles previously limited to humans.

However...

In this guide...

Human interaction, observation, relationships and decision-making are integral to the performance of social work. Here, Socitm argues that AI technologies will provide a further tool to augment and enable more personalised and effective care, rather than to replace those working within it.

We explore some challenges specific to the adoption of AI technologies and their impact on social care practitioners, in particular:

01 How are the disruptive impacts of new technologies on practitioners to be minimised?

02 How do we ensure that new technologies empower practitioners in their decision-making?

03 How can AI technologies enable better service outcomes through more personalised and effective care?

01

Disruptive impacts

What's the challenge?

The ways in which AI technologies will influence the ways of working in the social care sector are still broadly unknown and will become clearer as the sector progresses.

It is a safe assumption to make that any adoption of AI technologies within the sector has the potential to bring about a number of tangible changes in the day-to-day practice of social care professionals. Given the vital role that social care plays in the lives of vulnerable people and families, it is vital that any disruptive changes to the roles of practitioners are achieved in ways that are mutually beneficial.

What can be done?

Developing professional practice can be a complex task. There are some practical steps that local authorities and care providers can take to facilitate professional practice for the successful adoption AI in social care.

Embrace change management

Key to the successful delivery of any AI implementation is the organisation's ability to carefully manage the changes involved. Of course, getting the technical aspects right are a critical factor in this, but failure to confront the broader cultural shift needed to utilise the technology is likely to result in a disappointing conclusion to your project. Change management enables organisations to focus on adoption over adaption, providing opportunities to move away from outdated modes of working and to adapt new approaches with technology at the centre.

Through change management, people across the organisation are also involved from the start and will buy-in to changes more readily.

Share skills

The social care sector is diverse in its makeup, with individuals of vastly differing backgrounds and experiences. This diversity is mirrored in the skills of the social care workforce. Some will be more adaptable to the introduction of AI than others. Creating channels through which professionals can share their skills and knowledge of new technologies will provide a supportive environment in which best practices can be made clear to those delivering vital services.

Adopt agile

The widespread adoption of the agile methodology in the delivery of local authorities' IT programmes over the last decade could be pivotal in AI's emergence into the social care sector. The iterative nature of agile methodology is particularly beneficial to those on the frontline of service delivery, as changes to their ways of working are significantly less disruptive. Pilots that have demonstrated improvements in service delivery are then able to be extrapolated into wider practitioner use, enabling disruptive impacts to be mitigated and more successful outcomes to be achieved.

Utilise co-production

Including frontline practitioners throughout the process of identifying local needs and subsequently procuring and implementing new AI technologies provides numerous advantages. Not only is their first-hand knowledge and experience invaluable in informing the requirements of their organisation, but early involvement helps to generate a sense of ownership and advocacy. Engaging practitioners in planning and managing adoption at an early point in the journey enables risks to be addressed openly, a 'fail-fast' mentality to be embedded in an iterative process and more successful outcomes to be achieved.

02

Empowering practitioners

What's the challenge?

As AI technologies gain a foothold in the social care sector, it is vital that practitioners are not left to feel as though their emotional intelligence, intuition and decision-making are being replaced by AI systems and algorithms.

In order for practitioners to perform their roles to achieve the best possible outcomes, they must retain both agency and confidence in their own abilities, not only to maintain their own wellbeing but also to engender trust in the public that decisions regarding their care are open and transparent, and that they remain in the hands of those delivering it.

Social work will continue to support individuals living with varying degrees of independence, including managing long term conditions. However, the backdrop of the health system's re-balance from disease management to prevention will change the nature, content, and emphasis of social work. Internet of Things based technology, coupled with iterative learning and predictive analytics will provide health and social care work practitioners with new information and insights about their clients' current and future health.

What can be done?

Socitm views AI technologies as having the potential to augment decision-making and better equip practitioners in their work rather than driving down the need for experienced and knowledgeable professionals in the social care sector.

Consider local needs

Different localities will have different needs. These needs should be reflected in each local authority and care provider's approach to the implementation of AI technologies within their social care activities. As AI becomes more prevalent, consideration needs to be given to practitioner's needs. What works well in some areas of the country may be of less use elsewhere, and all decisions need to take account of local needs. A uniform approach to the adoption of AI technologies could prevent different service providers choosing what would work best for them.

Focus on care

The language used to introduce AI to practitioners needs to make clear that these new technologies provide a range of new tools to allow them to focus on providing high standards of care, and to make decisions based on a dependable set of data, combined with their own judgement and experience.

Empowering practitioners

In social care settings, there are ethical reasons, as well as legal ones under the Care Act 2012, why certain decisions should only be made by professionals in conjunction with their clients and carers. This needs to be a fundamental principle acknowledged from the outset by those introducing AI to the sector. Where AI is implemented in social care, practitioners need to be assured that the technologies are not there to remove their agency or to lessen their ability to make informed decisions. AI technologies will augment and complement the existing insight of professionals, rather than substituting them, thereby providing support to social care practitioners, and reducing risk.

Provide leadership

AI has the capacity to alter ways of working throughout the social care sector. If these technologies are to produce the benefits that they are capable of, effective leadership is vital to guide practitioners through the integration of AI into mainstream professional practice. There will undoubtedly be scepticism within some quarters of the sector. Positive leadership, underpinned by examples of AI impact and benefit, will be required to engage as broad a spectrum of the workforce with the message as possible.

03

Better outcomes

What's the challenge?

As AI begins to play an increasingly prominent role in social work and the delivery of social care, improving the quality of service outcomes must be the focus.

Too often, in the past, large scale changes to the sector have been rooted in reducing the cost of service provision whilst minimising the effects of increasingly scarce resources. At the heart of this AI movement must be the unambiguous message that these emerging technologies will allow practitioners to deliver more personalised and targeted care, and that the primary motivation for the adoption of AI is one of better outcomes for service users and not one based entirely on the potential to cut costs.

In the case study below, we look at how AI can aid practitioners to make informed care decisions that result in better outcomes for service users.

What can be done?

The emergence of AI into the social care sector will not happen overnight. Care should be taken to learn from best practice, to communicate outcomes and to ensure that staff are trained and equipped to make effective use of AI.

Establish best practice

The limited use of AI in social work and the wider social care sector as it stands indicates that best practice is some way from being established, and that this will emerge as the technologies become more embedded across the health and social care system. This will be a lengthy and ongoing journey, often with competing visions of what best practice looks like. AI technologies have the potential to facilitate the provision of increasingly personalised care, allowing practitioners to deliver more focused and user-centred outcomes. Ultimately, this has the prospect of being mutually beneficial for service users as well as those delivering social care.

Build communications

Social care policy makers advocating introduction of AI technologies have a responsibility to explore and communicate how their adoption will improve the outcomes achieved and will impact the way in which services are delivered. Practitioners and decision-makers must work in unison in order to achieve the best possible standards of care, with practitioners bringing their invaluable wealth of knowledge and experience as well as their intuitions that decision-makers may be lacking. Ensuring the existence of channels through which practitioners and policy makers can communicate will be essential in facilitating the learning process of the AI movement in social care.

Offer training

The diverse makeup of the social care sector is mirrored through the range of digital skills and readiness amongst its workforce. If AI technologies are to yield the most positive impacts possible, they must rise to the significant challenge of ensuring that the workforce is equipped with the necessary skills to apply new solutions in ways that can generate better outcomes. Managers should consider how best to approach the training process and be mindful of the digital literacy of their workforce when doing so.

Identify areas to be impacted

A recent report from McKinsey & Company on Transforming healthcare with AI presents a framework for thinking about the impact of AI on the professional practice of healthcare today. The framework spans six areas where AI has a direct impact on the patient - self-care, prevention and wellness, triage and early diagnosis, diagnostics, clinical decision support (CDS), care delivery and chronic care management - and three areas of the healthcare value chain that could benefit from introducing AI - improving population health, healthcare operations and healthcare-related innovation. In social care, from targeting resources for children at risk, to managing end-of-life care, there are opportunities to harness AI to address the growing demands and pressures on current professional practice, staffing and resources, and to achieve better patient/client outcomes.

Case study

MySense gathers data from fixed and wearable sensors that are used to learn behavioural patterns on an individual level.

Sensors under the seat of a care receiver can monitor their levels of physical activity whilst separate sensors on their taps could identify changes to their water consumption and warn of the risk of dehydration. Wearable sensors can detect changes in heart rate to indicate stress or illness, whilst toilet sensors allow carers to compassionately raise issues that an individual may find too sensitive to share.

Mrs. S, 74.

Mrs. S was readmitted to hospital within seven days of being discharged to her home. Dr. Adrian Hopper, Clinical Director for Patient Safety at the Health Innovation Network reviewed the notifications at home raised by MySense:

> *"MySense captured three vital readings on a high-risk individual and based on the data have a strong case study to demonstrate higher than average heart rate, high blood pressure, or a cardiovascular could be likely.*
>
> *Movement at night was likely a result and her dehydration caused her to get up out of bed. Reduced restful sleep resulted in increased stresses compounded by the above. Together, the above resulted in hospitalisation, and the signs were present from the moment this patient returned home."*

Daphne, 83.

Daphne lives alone and has mobility difficulties. She experiences confusion sometimes and wears a hearing aid in one ear and is deaf in the other. Daphne suffered from recurrent UTIs, visiting A&E six times, and being admitted four times. Daphne had home care visits four times a day. MySense sensors quickly identified that Daphne was not hydrating. It turned out she was pouring her water jug into the pot plant besides her favourite chair. Of greater concern was how Daphne was spending a long time on the staircase en route to her first-floor bathroom.

Her mobility concern regarding access to the toilet meant that she refused to hydrate but had not wanted to lose her home. The MySense data facilitated a new conversation with Daphne and her dashboard showed changes in patterns of behaviour and hydration levels, resulting in halving her care visits to two per day for longer to prevent further escalation and/or deterioration.

Daphne has not returned to A&E since MySense began working with her in September 2016.

John, 74.

John is in his 70s and lives with his wife, who is his full-time carer. John suffers from Parkinson's and has increasing support needs. John is active but has started to fall on occasions and his wife contacted MySense because she was worried about leaving him when she goes to the shops or to meet friends. John's monitoring dashboard allows us to see decline in mobility and triggers for 'bad days', such as after poor sleep, triggering an immediate notification to both his wife and family.

This now allows John's wife to plan for John's needs day-to-day and to think ahead about who needs to be close by ensuring someone gets to John as quickly as possible, if needed. John and his wife remain at home together. Even as a full-time carer, John's wife now has the confidence to meet friends for coffee and maintain her social network, which is vital to her own wellbeing, all in the knowledge John is safe and being monitored.

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