



COVID-19 Management

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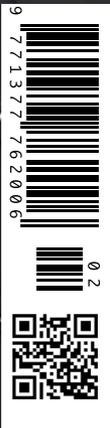
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Health Informatics – ‘Lost Tribe’ No More

An unexpected but positive development the COVID-19 crisis has brought into health-care, is the rise of technology and inevitably, the recognition of the previously obscure field of health informatics. An expert at the NHS Wales Informatics Service talked to HealthManagement.org about the long journey of the profession from ‘the lost tribe’ to the backbone of the NHS.



What has been keeping you busy since the beginning of the COVID-19 pandemic?

In Wales, we've been deploying new projects or accelerating the existing ones, such as our clinical portal where clinicians can see test results across the whole of Wales and which now includes

areas of primary care. Our information teams have been collecting data, working with Public Health Wales and supporting the combination of all the dashboards with all the required data. For those who have switched to remote work things like Office 365 have gone explosive. Not that it wasn't there before,

but now teams are being well-used to video conferencing and GPs can do remote consultations.

Do you think all this will stay after the current crisis is over?

As we see, technology has just been speeded up by COVID-19, expedited

through necessity. Hopefully, when we get through this crisis, technology will be here to stay. People are now seeing the benefit of it, and we can embed it further in.

Our organisation, luckily being what you might call 'techy,' has been able to shift to remote work in about 12 hours. From Sunday night to Monday morning, we had over 98% of our workforce working remotely. We'd been saying to people the week before – take monitors home, take your chairs home, because it's going to come. And when it did come, we were ready. Even people like myself and others who are the 'back office' and not technical experts, have been able to do more than our fair share of work remotely.

much. This crisis has multiplied quickly enabling deployment or adoption. We talk about disruptive innovation here, and to me that comes down to human behaviour – forced behaviour - change.

It's a real, real shame that we needed a crisis of this scale to come to that. But on the positive side, that also highlights how important people working in health informatics (HI) are, how our tech colleagues across the UK have really risen to the challenge. We've had staff, both technicians and people at the front line, working all hours way beyond the call of duty to get some of this technology out there or to collect the data – and everything else in between. That's a real testament of the professionalism of our staff.

as widely known that you could be offered or have a career in HI. It's still a fairly young profession with a small 'p.' Until very recently we were 'the lost tribe,' nobody knew about us. Then we became a backbone – again invisible, but if a system went down people were starting to realise they couldn't do without that system. And now I see us as part of a centre stage with our other colleagues in the health and care system – whether it's working in software development, information, or even modelling the future healthcare requirements. We've got people who work with our clinicians on the front line to show them the best of the systems and to help them. So, whichever part of the HI family it is, I think we've started to come

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Same is true for healthcare staff working on the frontline, as our colleagues across Wales have shown, with GPs working remotely and having video consultations. Our patients, our citizens, also have to adopt these new ways of interacting with health systems. In Wales, there is still some digital isolation, but organisations like Digital Community Alliance work to ensure those isolated people can get an iPad donated to them, so that they can do video consultations with their GP, or keep in touch with their family. The frontline workers have also been supporting that with the use of technology, such as Facetime and other similar platforms.

If you could go 2-3 months in the past, what would you change? I think we've all acted very quickly from the technology point of view. Because all these technologies had already been put in place, whether it's about the data or the systems, they just weren't used that

Not many people know about HI as a career. So, there's something in there for me around how we market and brand all these new developments to show the opportunities for a great career within HI. I wouldn't want to only use COVID-19 as a sort of means here, but for most people the NHS equals to the frontline workers. I am not saying that this is wrong, but that there are many others involved, and it's not just HI, but all the support services that are needed to provide care to the patient, as and when that patient, that citizen needs it.

What obstacles do you see to the development of HI?

There has been a real change over the last few years. I've come from a nursing background into learning and development, into Sussex Health Informatics Service. So I've seen where technology can play a part in the health and care system and what amazing things the people working in the technical field can do.

But I've also seen that it's never been

into our own – even if the general public is not yet aware of us.

What are the main areas of your work?

To start with, it's working with young people. We've joined up with organisations like Technocamps and the Lego Challenge, which have a remit of working with youths in STEM. Now we go out to schools and participate where we can to influence the curriculum and get that message across – that you can be working in STEM, in tech, in the health-care system.

In terms of our medical and nursing students of the future, we'd like to see that HI or the use of technology in general is embedded into their curriculum. Because all of this is about the change of behaviour, isn't it? And we know that's happening. In Wales, the 10-year workforce strategy has what I would call 'golden digital threads' throughout it, not just in HI but in

any use of technology for process automation.

Another issue is how we can show those people who are doing computer science courses at their universities the opportunities for them in the health and care sector. This is how a colleague and I started up with the Wales Institute of Digital Information (WIDI) a few years ago. At the time, Professor Ian Wells was the Head of Computer Science School at the University of Wales Trinity St David. I was in my role as Head of Workforce for the NHS Wales Informatics Service. We talked about how he had computer

the university once a week and have four days a week in the workplace – a proper apprentice-type qualification and role. Back in the beginning we put out four cybersecurity apprentice posts and had 177 applications. The following year we put out three posts and had 275 applications.

What has been your personal journey from a nurse to your current position, from ‘analogue’ to ‘digital?’

When I first moved into tech in 2004, my kids just laughed at me. Until I started in

probably disappear and it would become a much more localised field. That’s when I got the job in Wales, and my work since then has been in what I call my ‘three buckets.’ And all of them are about the people.

What are those ‘buckets?’

The first one is our patients, our ‘citizens’ as I call them, who need to be digitally literate. Here in Wales there is still about 11% of those who are digitally excluded. Together with Digital Community Alliance we’ve been trying to reduce that number.

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science students, and how I had an organisation – and two years down the line we ended up forming a strategic partnership.

WIDI has been absolutely brilliant in terms of mutual benefits to both organisations but, more importantly, to staff and people. Out of that strategic partnership has come what you would see normal for industry and employers, ie students coming over and getting work experience with us and looking for their placements or topics for dissertation. This might be mainstream in some other areas, but not in HI.

We’ve now gone one step further. We’ve looked at the computer science degree and thought if our existing staff or other professionals could come into HI as, say, a second career. And we did that prior to the Welsh government announcing they would fund some degree apprenticeships. We were able to apply to the university that could offer those. There were three pathways: cybersecurity and networking; data analytics; and software development. Currently, over 140 people are following those pathways. They go to

Sussex Health Informatics Service (HIS), my journey had been a nurse working in vocational development. I then became a clinical teacher and later headed up a vocational unit looking at National Vocational Qualifications (NVQs) in health and social care. The benefits of the apprenticeship underpinned by theory have always been clear to me. I developed a course in Brighton where we put health-care assistants who’d got their Level 3 NVQ in health and social care through a secondment opportunity, to then get their diploma in Nursing.

In Sussex HIS, I led their ‘non-tech’ direction (education and staff support) and ended up as their director of corporate services. Back then there weren’t as many opportunities for career pathways and career progression as in some of the other fields within the healthcare sector. This ‘unequal playing field’ was where my passion started. I also helped with Staffordshire University in those days and a couple of other HISs, and around 2010 we created a work-based degree. With all the changes going on in England at the time, we knew the HISs and the national programme for IT would

Then, my second bucket is all those clinicians who use the technology and are digitally literate, but may wish to transfer into HI – how can we help them?

The HI professionals is my third bucket. How do we support them to have a rewarding career?

There are some commonalities in those three areas. I’ve obviously focussed on the last one, the development of the HI professionals. There’s no one entry route here, unlike, say, in nursing where they can go to any university and come out with the same qualification. HI is too broad a church for this – it could be a clinician, or a software developer, or someone working in the educational space of HI. The routes into HI are plenty, but they’re all there to support digital and technology enhancing, transforming the health and care sector. And we’ve seen that in action recently, haven’t we?

What is your take on professional registration of health informaticians?

Across the UK, there are around 60,000 people working in HI, but from what we

see this workforce is not fully supported in terms of opportunities for their career pathways, their continuous professional development (CPD).

With the developments of technology such as AI, there's a growing need, not only in the UK but globally, to ensure the high standards of our profession and safe provision of services alongside our

of these organisations is valued. Currently, there are about 100 professionals on the register. I'm an assessor for them, and I've done eight assessments over the last couple of weeks, so that seems to be quietly growing now.

There are four levels at the moment, namely practitioner, senior, leading and advanced practitioner, and we're looking

"What can I not find on YouTube" sort of thing. That's why we're looking at how we build up people's learning portfolio. If they're interested in this given subject and they're doing that in depth, how can they build up their portfolio and then get accredited? There are many routes into this, and many ways of learning.

Wales is a small country, and here we

Health informatics is still a fairly young profession with a small 'p.' Until very recently we were 'the lost tribe'

clinical colleagues. For me it's critical, for the safety and the sustainability, that we have a recognised profession of informaticians. Another area just as important is to make HI a really good and appealing profession, to support people with their progression so that they get into a CPD mentality and ethos.

All of the main professions in health and care are already regulated. Going forward, we know that the critical nature of this work is going to increasingly depend on the informatics. So, it's not about me saying next week it's got to be mandatory to join a register. It's about individuals and organisations joining a professional body, and then individuals, through that professional body, applying to go on to the register.

In the UK, the players in the arena for the professional body are the British Computer Society (BCS); Association of Professional Healthcare Analysts (AphA); Institute of Health Records and Information Management (IHRIM); Society for Innovation, Technology and Modernisation (Socitm); and Chartered Institute of Library and Information Professionals (CILIP). They came together to create a common register as the Federation for Informatics Professionals (FEDIP), where people go through their professional bodies and can then join on a voluntary basis. Organisations have seen this as a recruitment or retention initiative. People are increasingly aware that membership

at associate practitioner for those who are new into the healthcare sector.

How do you make place for HI education when resources are limited, such as now?

Indeed, with the COVID-19 pandemic the demand for all sorts of technology has risen, but there is no time, energy or money in the system to invest in education and training. Still, there are opportunities. One can look at the apprenticeships that are funded by the government in Wales or through the apprenticeship levy in England as an example. This option can be used with existing staff for upskilling or as a recruitment initiative for new staff coming in.

I've created apprenticeships at Level 4 in Wales, and we're looking to see how we can trailblaze that into England. This is distance learning, so it takes 12-18 months to complete it, but I still think that's really beneficial.

If you ask our techy people, they would want bite-size learning, through YouTube, for example. This is what we've been discussing with our university colleagues – how we respond to this 'on demand' type of learning. We know, especially with our tech colleagues, some of them want the formal qualifications of their degree, such as master's level. I've got four staff doing PhDs now, so we have the longitudinal qualification knowledge gain. But for many of them, it's more of

have the opportunity to work with the University of Wales Trinity St David's. There's a FE (Further Education) college as well, through which we've been able to offer Levels 2, 3 and 4 in HI by means of distance learning. Then there are the degree apprenticeships, the formal PhDs. We've taken the advantage and created those opportunities and now lots of people are doing various levels of that.

Do you think HI will soon become that appealing a profession you want it to be?

I know that our colleagues in England are building a Digital Ready Workforce workstream, and there are pockets of learning across the UK. So the recognition is there, although many people may still not know HI exists. And even though there are many ways to get into this sector, ultimately people want to work with the values of the NHS. I think for many of them an important part is that we are not 'the lost tribe' any more, but very much part of the NHS. In this crisis, people have seen what technology can do, so let's hope it continues to have a real meaningful place in the healthcare system. ■

Interviewee: Wendy Dearing

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