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Emerging Markets

eHealth – transforming healthcare in disruptive times

Where is eHealth in Ireland heading and where could it lead us?

Examining the state of eHealth, its challenges and opportunities at the European Association of Hospital Managers congress in Dublin.

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With digital innovations dramatically transforming every layer of the healthcare landscape, intensive discussions are required to manage the direction that digitalisation takes. With a view on tackling these challenges, the European Association of Hospital Managers (EAHM) held an influential conference on 28–29 March that examined the theme of "eHealth – transforming healthcare in disruptive times". The EAHM Executive Summit 2018, held in Dublin, Ireland brought together leaders from 28 leading hospital management associations in 25 European countries, all with a goal of furthering dialogue and understanding, sharing industry solutions and innovations, while reaching potential and evading threats posed by this digital age.

The why, what and how of digitalisation

The opening of the second day of the EAHM Executive Summit in Dublin was delivered by professor of healthcare management and president of the German Association of Hospital Controlling Prof. Dr. Bjorn Maier. He discussed the idea that digitalisation is not predictable, spanning from consumer-friendly wearables to hospital devices, and expressed that we are largely unprepared for disruption. He spoke about the acceleration of supercycles within our economy—digitalisation being a huge part of this acceleration—and the need for hospital managers to make it their priority to keep up. He approached the question of digitalisation in terms of why, what and how.

The focus on "why" allows us to see the risk-opportunity balance of digitalisation more clearly. A vision of the digitalisation strategy, with identifiable benefits to patients and teams, is instrumental to making this journey successful.

Addressing the "what" of digitalisation allows us to consider our new competitors in the healthcare industry and it is more helpful to view them as friends. This approach will help to uncover new business models, digital treatment and, most of all, refocus on patients, their needs and values.

To deepen the hospital manager's understanding of "what" their hospital's digitalisation should look like, Prof. Maier proposed questions such as whether we should follow the patient's journey end to end and how we can leverage the potential of advanced analytics.

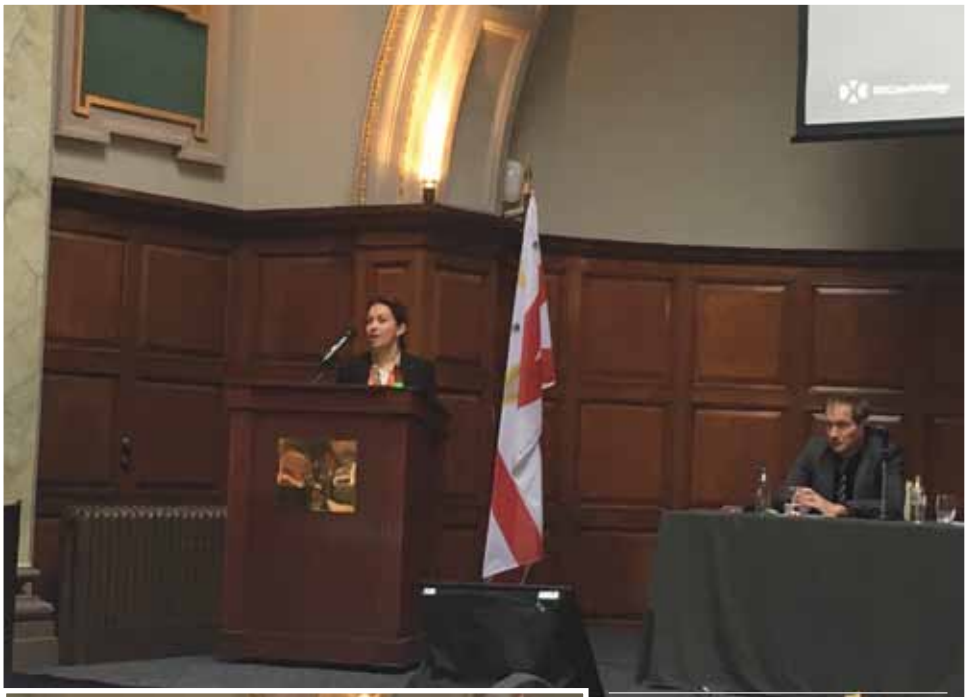
> "COST-EFFECTIVE AND SECURE USE OF ICT TO IMPROVE COMMUNICATION AND COLLABORATION IS THE CURRENT PRIORITY IN EHEALTH IMPLEMENTATION"

Finally, arriving at the "how", the hospital manager will need a road map for digitalisation. It is important to identify the obstacles for change and think about the existing assets available to be leveraged on this digitalisation journey.

The role of Chief Digital Officer (CDO) is the heart and soul of digital transformation, expressed Prof. Maier. This is ideally someone who is a keen innovator with a strategic approach, a coach and a leader or a networker within the rapidly growing digital world. He focused on the importance of thinking of processes rather than departments. Ultimately, the question to be answered is how can IT help us be better and faster in the digital world.

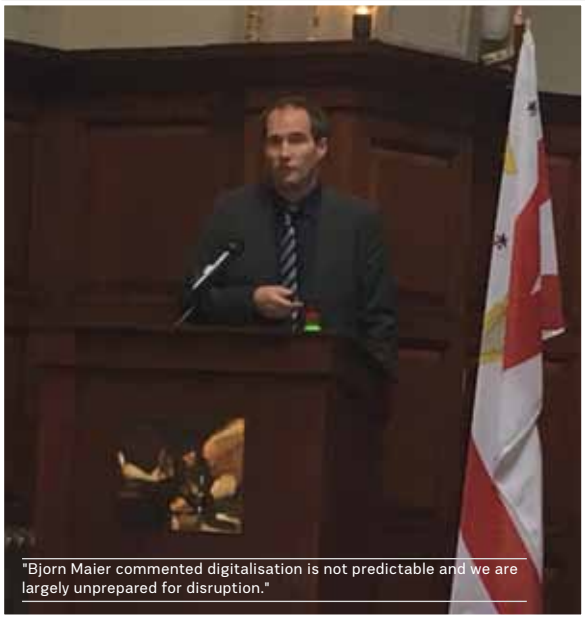
Ireland's eHealth journey

Fran Thompson, programme director for the Strategic e-Health Programme in Ireland, discussed the importance of engagement with digitalisation in terms of the change it brings to end users. He shared a number of success stories he was part of through his work with the Health Service Executive in Ireland, including the implementation of the national imaging solution

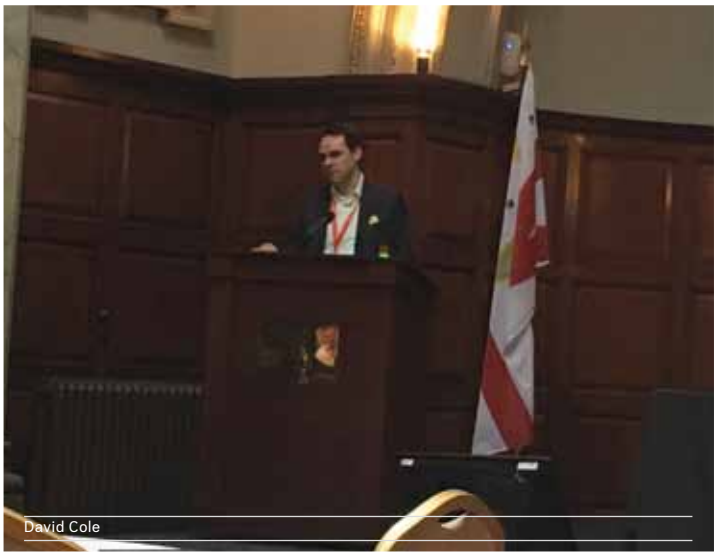


"Catherine Barras of DXC Technology focused on the complexity of chronic disease"

Francis Magann



"Bjorn Maier commented digitalisation is not predictable and we are largely unprepared for disruption."



David Cole

NIMIS-PACS. Now scans can be accessed across hospitals and reports are available in 24-48 hours rather than in weeks. One of the key insights he derived from this digitalisation is that a long-term commitment to implementation is needed and a cookie cutter approach does not work.

Another topic Thompson spoke about was The Shared Record Programme that is currently underway in Ireland. He emphasised it isn't just down to the technology changes associated with electronic health records (EHR), but also changes at an organisational level, a change in culture and in associated operational processes, such as those related to pharmacy and discharge.

Through the steps of substitution, augmentation, modification, redefinition, it is possible to impact the patient experience, use resources more efficiently, and increase access and safety.

Key themes impacting on the use and development of eHealth

Elaine Daly of Grant Thornton health practice identified two top challenges of the current healthcare landscape: changing demographics that demand

healthcare reform and rising chronic illness. She expressed sustainability in relation to funding and staff shortages as another key consideration, as is choosing the right eHealth opportunities to drive efficiency and improve patient autonomy. Focusing on eHealth, Ms. Daly identified cost-effective and secure use of ICT to improve communication and collaboration as a priority.

In Ireland, the eHealth journey started off slow, with a budget of only 0.85 percent versus 2-3 percent in peer countries, said Daly. The situation has improved. This can be seen through the presence of a high-tech drug hub that integrates 1,800 pharmacies nationwide as well as an end to end national online medical card system with 1.6 million users. She noted that the focus of eHealth has now started to move towards AI, telemedicine and data analytics.

Finally, she summarised the keys to successful change in eHealth: clear governance and leadership with an identifiable leader, new operating models, project management coordinated with best practice, stakeholder management and workforce up-skilling.

Enabling clinical transformation through a next generation healthcare platform

In keeping with other speakers, Catherine Barras of DXC Technology focused on the complexity of chronic disease, access to convenient services, complex cases requiring high resource utilisation and expensive hospital care rather than better value community care. She presented four different models of digital strategy: agile defender, optimiser, disruptor and composer, and spoke about organisational alignment, starting with key performance indicators (KPIs), followed by culture, process, roles and finally technology as the ingredients of healthcare transformation.

Delivering digital health transformations

Brendan Casey of SwiftQueue spoke about his service as a real-time patient flow management solution. In a UK centre, rather than having 10, 000 patients come to one centre, as would have normally happened, SwiftQueue was able to allow patients to choose to go to another centre, closer to home, to get their bloods done. As well as increasing convenience, it increases the patient's engagement and ownership over their own health.

In terms of the rollout of a digitalisation project, Casey remarked that it can be a complicated operation, but sometimes it can be up and running within three weeks from the hospital first hearing about it.

Understanding the value of location services in a healthcare environment

The smartphone is the centre of gravity with the potential to reduce downtime and enhance patient flow, suggested Simon Wilson of Aruba. His solution uses location services on people's phones to better manage patient flow and match services to patient demand.

Wilson is using what he learnt in the airline, hospitality and retail industries to improve the patient experience. Just like AirBnB allows us to see where we were and when, Aruba's solution allows the patient to note when they were in the hospital and offers insights. The location service based solution can also be used to ease navigation around busy hospitals and tag valuable belongings.

Talking point in discussion

The discussion of the session resulted in a number of interesting points. Firstly, investing in eHealth doesn't always come with an expensive price tag and maximising the assets we already have is the starting point of the eHealth journey. Further to this, deploying innovation incrementally is one of the keys to success, since a coordinated, measured environment will ultimately allow for a better patient experience.

Business intelligence/artificial intelligence

The final session of the summit was opened by Coleman Casey, director of the Health Innovation Hub Ireland. He focused on the importance of listening to what the patient has to say, and cautioned against this pitfall that is becoming increasingly likely with advancing digitalisation. He suggested that patients are often drowned out by the beeping of a myriad of devices, and they are not heard by the clinicians trying to help them.

Delivering transformation through insights

Both patients and providers of care are frustrated by lack of information, suggested Francis Magann of Change Healthcare. Change Healthcare focuses on delivering transformation through insight—its solution matches availability with demand by using analytics. This allows hospital managers to maximise their return on investment for capital items.

Magann highlighted that by removing the manual component of management reports, Change Healthcare can save a significant expense. His experience is that it takes three to four days per month to develop a management report, which when multiplied by the

number of departments and months in the year can be significant.

Standardisation of data is often a key challenge. Above all else, prioritising people and change management over technology itself is necessary for success, said Magann. He explained that developing a culture of change within the organisation is an important result of his work. With regard to innovative processes, he remarked that iterations lead to leaner processes.

Avoiding harm: uncovering opportunities for healthcare transformation

James Ferris of Aptean focused his talk on avoiding harm through effective patient flow. He reiterated the words of the NHS—ten years' worth of muscle ageing occur in ten days of hospital stay for someone over 80 years of age. Aptean's solution aims to reduce the length of stay by reducing the days where patients don't benefit from being in a hospital, eg waiting for a scan. The solution helps decision makers monitor who may be ready for discharge.

IBM Watson Health

The closing session of the EAHM Summit addressed the irreducible conflict between the security of data versus making data available in order to derive insights. Initiated by Prof. Pascal Verdonck, Chairman of the Board of Directors, AZ Maria Middelares Belgium, the session discussed why hospital managers should be cognisant of how exactly they use patient data to make sure it is both helpful in making decisions and safe.

Digitalisation has come in three waves: automation, mobile and artificial intelligence (AI), highlighted Prof. Verdonck. Mobile and AI are genuinely new to hospital managers, with mobile having introduced connected care and having caused significant disruption within the sector.

David Cole, IBM Watson Health innovation lead Europe, added to the discussion, expressing the importance of AI. He conveyed that data is a vital part of eHealth, and even though we have a lot of data, the vast majority of it is unstructured, which is where AI comes in.

Cole discussed that the way that we currently use the term "artificial intelligence" is somewhat inaccurate. What is really being discussed under that name at this time is deep learning, machine learning and neural networks, focused on one domain at the moment, not like the human brain that can move between domains.

Watson AI technology is a cognitive system that learns and reasons, much like we do. It is possible to interact with it using natural language, the same way one would with another human being.

Speaking specifically of Watson Health, Cole illustrated its decision support capability with their oncology solution. It was able to scan through the available literature and patient records and come up with treatment paths. Watson for Oncology could predict what may happen to patients and had a 93 percent concordance with the multidisciplinary team in a study in Manipal hospital, India. This is available through *Annals of Oncology* (Somashekhar et al. 2018).

Watson is able to highlight certain aspects of a patient's medical record if they are relevant. It is also useful for identifying patients who are the most suitable for clinical trials. Cole suggested that in the not too distant future, not using AI or a decision support system will amount to medical negligence.

Speaking of medical records, Cole discussed that the exorbitant amount of time that clinicians have to spend on records is a consequence of the lack of technology in healthcare. This leads to attrition of health professionals because people who go into clinical disciplines want to spend time with patients - not making records. It is therefore vital to put the kind of technology that is available in other industries into healthcare.

Lucy Nugent, President of the Health Management Institute and Deputy CEO of Tallaght Hospital, made some final remarks reminding the audience of hospital managers to focus on patients, thinking not only of the time that they spend with us, but also outside the hospital. ■

KEY POINTS

- ✓ Digital innovation is dramatically transforming every layer of healthcare
- ✓ It is important to identify obstacles to change and leverage existing assets for digitilisation development
- ✓ A change in culture is necessary for acceptance and implementation of digital culture
- ✓ The role of Chief Digital Officer (CDO) is the heart and soul of digital transformation
- ✓ It is important to listen to the patient voice during the digitalisation journey

REFERENCE

Somashekhar SP et al. (2018) Watson for Oncology and breast cancer treatment recommendations: agreement with an expert multidisciplinary tumor board. Ann Oncol 29(2): 418-23.