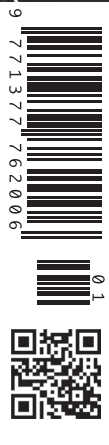




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Reimagined Hospitals



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Healthcare 2030: Transformation in the Next Decade


2020 marks the start of a new decade and, with factors such as the Silver Tsunami, digitalisation and emerging technologies that still have to prove their worth in the mix, it's one which will be game-changing. HealthManagement.org spoke to four experts on what changes they think will lead to the most beneficial transformation in healthcare over the next ten years.

The change in hospital care that I'm most excited about involves reimagining subspecialty consultation. Most hospitalised patients are cared for by generalists – such as hospitalists and intensivists. While these physicians perform crucial oversight and coordination functions, many patients have problems in which subspecialty expertise would be helpful. Currently, the main way to enlist subspecialty help is through a formal consultation, which involves the specialist reviewing the chart, seeing the patient, and writing a note with assessment and recommendations.

In the reimagined hospital, some specialists will mine the hospital's database looking for certain diagnoses or lab abnormalities, such as high glucose or low sodium. When they see opportunities for improvement, they'll offer recommendations. In other cases, a hospitalist will recognise that she could use the help of, let's say, a cardiologist in answering a question or determining the best strategy. She will call up the cardiologist (who may not be in the building) via telemedicine, perhaps while in the patient's room. The consultation will involve a three-way video conversation involving hospitalist, specialist, and patient.

The current duality – either a full-bore traditional consultation or no help at all from specialists – needs to be replaced by more nuanced and flexible models in which technology is leveraged to allow varying levels of subspecialty input at lower cost and less friction. The barriers to this are no longer technological, they are political, cultural, and, of course, economic.

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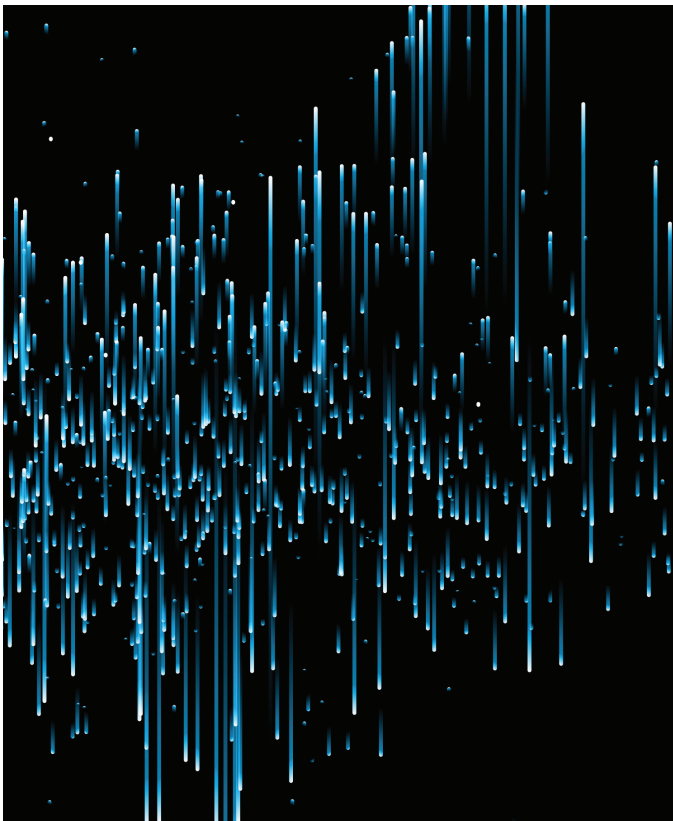
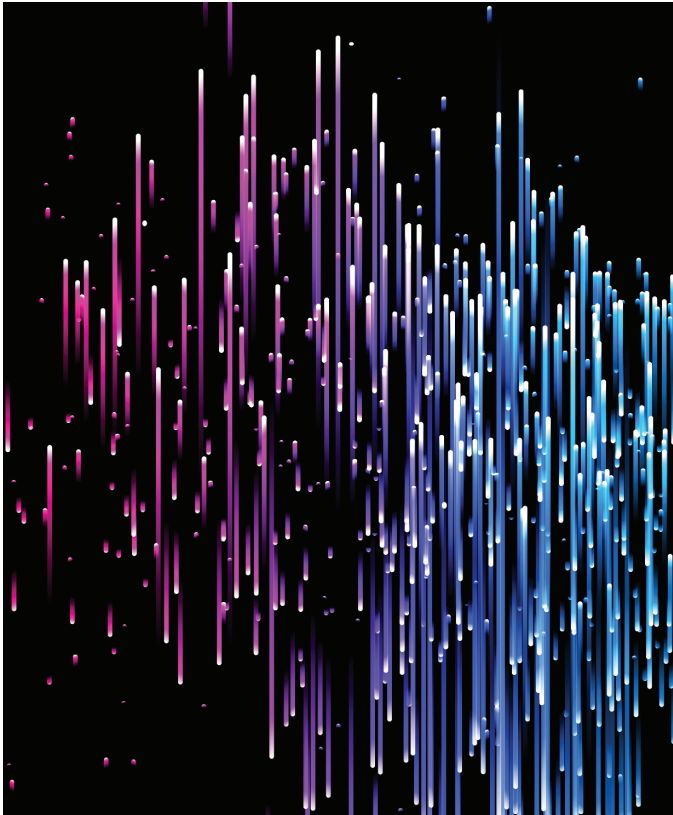
A lot of new technology is coming into the market, like tele- and self-monitoring, wearables and insertables, artificial intelligence and numerous connected devices, to name a few. However, there are so many determinants affecting how these will really impact patient autonomy and care processes, such as education, legal and regulatory frameworks, and interoperability, that it is not clear how this technology will be adopted. Overall, the technology is there but the culture, the care processes and the environment will have to change accordingly and they will most probably change more slowly than many expect.

There is a lot of discussion about the regulatory framework around the technologies out of the digital era, but still too little is being done about the education of care professionals in order to prepare them to use, to understand, and to master these technologies. And this is what I see as one of the most important challenges we have to face.

On the other hand, many tools that are used daily have been progressively enhanced without disruption. One example is imaging, where a growing number of historical players and suppliers of devices, such as PET scans, MRIs, ultrasound, etc have started to embed advanced analytics in their tools. These include artificial intelligence. In a sense, we have had a rebirth of this type of existing technology and I see this continuing in the future.

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With the explosion of direct-to-consumer businesses using technology to empower people to personalise their experiences with companies such as Amazon, healthcare has much to learn. Within cardiology, Apple and AliveCor have taken the lead with at-home ECG monitoring devices that are bridging the gap between consumer tech and medical diagnostics. As doctors and healthcare systems gain more experience integrating these remote, off-site modalities into more traditional practice models, I think we will see a redefinition of what each patient's medical journey looks like. Instead of going to a doctor's office for appointments and testing, telemedicine and at-home diagnostics will likely streamline healthcare systems into a more patient-oriented, modern industry that rivals what we are seeing in the business world.

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One of the most cost-effective ways to reinvent hospitals will be through information technology. Over the next decade we can give hospitals the digital equivalent of brains and nervous systems. The fully digitised hospital of the future will become a healing machine, sensitive to the precise needs of each patient, seamlessly supporting human caregivers and allowing them to focus fully on the individual. Similar care, delivered virtually, will continue to surround the patient at home after discharge. And digitisation can create significant cost-savings as well.

It may sound Utopian, but it's within reach. The technology – smart sensors, ubiquitous wireless networks, artificial intelligence and automation – will advance rapidly and inexorably. But healthcare institutions must require and enforce digital data standards that allow devices and software to interconnect seamlessly. Security is a similar priority: strong cybersecurity is attainable but it will require pressure on the technology suppliers as well as better execution on the hospital side.

In the midst of this transition, we must be careful not to replace caregivers with automation and AI. Too often management sees automation as a way to reduce staff. But the emotional essentials of caregiving are human. Displaced staff can be retrained and redeployed for additional attention and support for individual patients.

By the end of the next decade, smart technology, intelligently deployed, can make hospitals very different places. The fundamentals of healing will still apply – but with more time and resources to deliver truly patient-centred care.

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