Telehealth

Bob Milstein, BA,LlB was admitted to the New York bar in 1985. Formerly a medico-legal consultant at Phillips Fox, Melbourne, now DLA Piper, he was then Special Counsel at Corrs Chambers Westgarth, in Melbourne. He now runs his own practice, focusing on health-law.
Having written extensively on health-law liability, he was a founding member of the Editorial Board of the Australian Health-Law Bulletin. He was the original author of the chapter on Liability of Medical Practitioners for the landmark publication, 'The Laws of Australia'.
He has appeared in the electronic and print media as a commentator on emerging health-law trends and medico-legal issues. In 1997, he was commissioned by the Victorian Department of Human Services to conduct an international comparative study of the liability and regulatory impediments to the implementation of telemedicine strategies. He has since maintained his interest and involvement in considering the legal issues which arise from an increasing use of information and communication technologies to deliver health care services.
His talk is confined to the medico-legal implications of telemedicine.

The impact of Steve Jobs

The recent death of Steve Jobs generated an enormous amount of media coverage reflecting on his impact on our lives. There was quite a spectrum of views. At one end, you had the hagiographic position, describing him as nothing less than 'the Second Coming'. At the other end of the spectrum was an article in this week's *New Yorker* by Malcolm Gladwell, who basically said that Jobs was brilliant , but that all he did was 'tweak'—that he was an inspired tweaker.
The comments did make me reflect upon the way digital life has penetrated pretty much every aspect of our lives, or if not ours, then perhaps those of some of your children or grandchildren—the 'digital natives' as opposed to us 'digital immigrants'.
A lot of people, therefore, reflect on the impact of this technology on our personal and on our work lives. This has often been broken down into three discrete schools of thought.

- on the one hand, the 'never-betters'—we are living in a golden age;
- at the opposite end of the spectrum are the 'better-nevers'—it's terrible, it's eroding quality, it's raising all sorts of spectres; and
- somewhere in the middle are the 'ever-thusses'.

Similar issues arise when we consider the impact of telemedicine or telehealth (or for that matter e-health) on medico-legal risk. The question I think we need to consider in all its manifestations is this: "Is it an enabler, is it a destabiliser, or is it both?" I think the answer could be "both".

Information technology and health care

In October last year, in the *Medical Journal of Australia*, two prominent Australian safety and quality experts, Geoffrey Braithwaite and Johanna Westbrook, wrote a very interesting article on the impact of information and communication technologies in health care. As they stated:

> *As ICT (information communication technology) markedly alters people's roles and shifts responsibilities, it challenges the status quo, and this is seen by many as a threat to the established routines that enable organisations to function, as well as to other valuable practices. Small wonder then that ICT is viewed by some health professionals as a danger to the things they cherish.*

Mohamed Khadra has explored a number of aspects of this revolution. When we talk about it, we tend to get caught up in a lot of jargon. It has been called at various points of its life 'cybermedicine', now more commonly 'e-health'; Canada at one stage had 'the health infocosm' or 'the healthcare infostructure'.

Electronic health records

We also have various iterations of electronic health records, which Australia has been playing around with, and is apparently poised to deliver in several months.
At one point, it was the 'shared electronic health record', the 'individually owned record', the 'individually controlled record', and currently the 'personally controlled electronic health record', or

'PCEHR'. We also have things called 'EMRs' and 'EHRs'—'electronic medical records' and 'electronic health records', but tonight my focus in health is on 'telemedicine', and to a lesser extent the related concept of 'telehealth'.

I have chosen tonight to give you the definitions I worked with when I was working in this area some years ago, developed by the American Telemedicine Association: 'telemedicine' is the use of medical information exchanged from one site to another via electronic communications to improve the health status of patients; 'telehealth', on the other hand, is a somewhat broader concept, important but broader.

The clinical role of telemedicine

Tonight, I focus on the clinical role that telemedicine can play, and in particular, on the way it might help—or harm—our relationship with our patients. I also want to focus on another buzz word ,which has come recently from the Medical Board of Australia. They use a nice generic expression which I suspect we will be encountering more often in future: 'technology-based consultation'. They describe this as:

> Patient consultations that use any form of technology, including but not restricted to video conferencing" (*which was the old idea of telemedicine*) internet and telephone as an alternative to face-to-face consultations. (*my italics*)

The use of 'alternative' is interesting because it really does raise one threshold quality question: "Is this technology really an alternative or is it a supplement—and what should it be?" The rationale that underpins the delivery of all these technologies is to provide better health for those who traditionally and conventionally don't or can't get it—the disenfranchised, the rural, remote or Aboriginal communities, the vulnerable, or those who might not be far away but might as well be because of their disabilities. But it could apply to anyone down the corridor or around the corner.

Legal issues

The ability to deliver on the promise of technology requires solutions on several fronts. Tonight I am going to be talking about the legal issues. But in reality, there is a raft of barriers quite apart from those the law might or might not pose—be they technological, business systems, intra-operability and access, or difficulties translating pilot projects into sustainable development, as well regulatory and liability issues.

I propose to canvass some of the liability concerns, but I think that it also needs to be recognised that the vision for this is not to generate more liability problems, but in fact to eradicate (or at least reduce) them. The vision is to improve the quality and safety of healthcare. If healthcare is better and safer and is getting across to more people, you have a happier, more contented, and therefore less litigious patient population—or so the reasoning goes.

Tonight, I will focus not only on what might be some of the key medico-legal risks, but also talk a little more broadly on the challenges will be confronted by both lawyers and doctors—and by patients for that matter—as we increasingly move away from the conventions associated with paper-based practice.

The big picture

First, let's consider the big picture—'e-health'. The government is very excited about e-health. They are throwing a lot of money at e-health. They say it will enable a safer, higher quality, more equitable and sustainable health system for all Australians by transforming the way information is used to plan, to manage and to deliver health services. As far as telehealth is concerned, the vision is similar—to transform the way health-care is delivered in Australia by removing distance, time and cost as a barrier to accessing health-care, in other words, delivering better health outcomes for patients.

So much for the rhetoric. Now for the reality. To set the scene for that, I want tell you a bit about what I have done in this area.

The challenges of telemedicine

In the late 90s, I conducted some research for the Victorian Government, looking at a number of approaches in different countries for dealing with the challenges—legal and regulatory, privacy, and liability –posed by telemedicine. Several years later, I did a report for what was then the General

Practice Computing Group (GPGG) on legal issues in general practice computerisation . More recently, I have been doing some work, last year and the year before, with NEHTA, the National Electronic Health Transitional Authority.

Although I looked at many issues back in the Victorian Department of Health Services days and the GPCG days, I have to say that the world is now a very different place medico-legally speaking. Since I prepared that report, a lot has changed. Tort law reform would be one of the big changes. The *Australian Health Practitioner Regulation Agency* (AHPRA) wasn't even a glint in the regulators' eyes. Privacy law has proliferated, including health information privacy laws in several jurisdictions. And, of course, the NBN is about to dawn. As a result, government has finally embraced, from a funding perspective, the promises of telehealth.

What's the big deal?

What, though, is the big deal? Some might say that this is really not particularly novel and therefore not particularly challenging. After all, it is still fundamentally providing medical care, albeit at a distance. Although Mohamed Khadra has suggested that the first recorded case of telemedicine was in 1917, I would like to raise him on that and suggest that the first telemedicine case was in fact in 1876.

When Alexander Graham Bell called Mr Watson, his assistant, he said "Come here. I need you. I want to see you", it was a telemedical consultation, because he had suffered sulphuric acid injury—acid burns from an overturned battery. I think one could therefore argue that *this* was the first case of telemedicine.

Some might say telemedicine is nor more than a 'souped-up telephone'. In fact, that analogy is one of the main concerns for regulators and for governments. Because we don't remunerate telephone calls, are we going down a slippery slope if we start remunerating for what is arguably no more than a variation on a telephone call—a phone call with pictures? (Of course, the Royal Australian Flying Doctor Service has been doing this for a long, long, long time.)

Some legal challenges

I would like now to touch on a couple of the legal challenges which might be posed by telehealth, by telemedicine in particular, but also by the cyber medicine, e-health universe.

One challenge arises because of the variations it poses to our understanding of rights and responsibilities linked to 'traditional', bipartite clinical relationships. Depending on what version of telemedicine we are looking at, we have a three-way relationship. This will raise interesting questions about the allocation of rights, roles and responsibilities,.

But leaving that tripartite challenge aside, I think that the real challenges are yet to be seen, because the more doctors engage with technology in the way their patients are increasingly demanding, the more likely it is that interesting and complex questions will arise as to the legal implications of such engagement.

If a doctor has a website, if a doctor blogs, if a doctor subscribes to social media and talks about medical conditions—at what point does a legal duty exist? In fact, the difficult question is whether the creation of that legal duty is based simply on the creation of a formal doctor/patient relationship or might there be another tort law-based reason to say that the duty exists irrespective of the existence of that formal professional relationship?

Technologically-mediated care

Increasingly, care will be delivered through 'technological mediators'. This can mean several different things. At one level, it refers to the technology through which we see each other and transmit data. Once you have to rely on that technology, then if things go wrong with the technology, if you get let down, things get uglier for you and raise medico-legal questions.

But the mediators of care can be human as well. Increasingly we will be relying on professional people to help facilitate health-care delivery, both internal staff and external providers. Once we deal with external providers, a new issue arises on the medico-legal scenario, namely the increasing importance and role of contractual provisions. Those 'conditions of use' we happily click on in order to get moving

on our computers might come back to haunt us one day—as the terms and conditions under which we engage with the software and the hardware may well underpin any judicial analysis of rights, roles and responsibilities.

For some of us, this is going to require new skills. Some health professionals, as eminent as they are, do not list typing skills among their foremost capabilities, yet that is a fundamental capability at the moment (until voice-activated software takes over).

Information overload

Information overload is another potential concern. One of the promises of this technology is that, literally at the click of a button, you can share an immense amount of data with anyone. Quite apart from the privacy concerns which that raises—and I know they are being looked at— the more interesting concern is liability.

Traditionally, medical liability is often assessed on the basis of analysing what data were available, or should have been reasonably available, to a healthcare professional at the time they provided the relevant service. Traditionally that question is resolved by looking at the 'paper trail'.

If, at the click of a button, health-care professionals can receive an enormous amount of data, does it follow that they have some legal duty to familiarise themselves with it? So that, if with the benefit of hindsight, there was a forensic needle in the medico-legal haystack, will that come back to haunt them? If so, what should be done to prevent that?

And, of course, clinicians will have new responsibilities as their roles shift and as the persons for whom they are legally responsible also change their roles.

A key question is this: "Does the technological opportunity to do things better, does this promise of e-health, actually impose a corresponding legal duty upon you to do so?" If the answer is "Yes", then it might follow that the failure to avail yourself of that opportunity generates legal exposure.

The standard of care owed to the traditionally disensfranchised

It is going to be particularly interesting when courts in future come to scrutinise the quality of health care provided to those communities which have traditionally assumed that all they can expect is a lesser level of care. There has, I suggest, always been an implicit assumption in case law that you really can't expect people in the country—who live far from medical centres of excellence—to get the level of care that people in the city can get. But if, through the promise of technology, those geopolitical boundaries vanish and care can be delivered anywhere, any time, to anyone, then I guess the question is: "What are the legal entitlements of those traditionally under-served and under-serviced communities?" Will courts scrutinise more harshly doctors in the country who do not avail themselves and their patients of the opportunity to take advantage of the promise of technology? I expect the answer will be that, over time, this will be the case, but not in the early years.

Decision-making

As health-care increasingly involves subtle, sophisticated clinical decision-support tools with which to make clinical judgments, this will in turn raise questions about the baseline quality and reliability, and liability, of the people who provide those tools and the skills which doctors are required to get on top of, and to engage properly with, those tools.

I know that there are some commentators, Enrico Coiera most notably, who are saying that we need benchmarking and accreditation of clinical decision-support software, because that software will increasingly drive clinical decision-making and run the risk of hijacking decisions which were traditionally left to the individual.

'Soft copies' in place of 'deadwood'

In the time remaining I want to briefly touch on the medico-legal challenges which might be associated with the move from paper to the electronic environment.

Implicit in almost every e-health initiative we have talked about tonight, and in what government talks about, is the recognition and the assumption that a system of health-care based on a paper record is innately deficient, duplicative, and therefore expensive—and sometimes outright dangerous; and that

the electronic creation, transfer, receipt, storage and sometimes analysis of health information will remove the long-established deficiencies of the paper-based system and will increase the quality and safety of health care.

I would like to suggest that, in the rush to embrace the promise of e-health, the value and medico-legal 'virtues' of paper ought not be forgotten—particularly as the transition from one form of record-keeping to another does raise potentially major medico-legal challenges.

Before we talk about those challenges, I think we have to concede and recognise that it is not as if we are in 'year zero' in the medical community. Many health specialists and areas of practice have already embraced technology—they have already moved away from paper. Many already use, and have long used, patient administration systems, clinical information systems, diagnostic imaging systems, cataloguing systems and practice management systems. Things are happening already, but less so at the coal face of clinical care.

The advantages of paper

The virtues of paper, and the concerns we ought to have before we too speedily abandon it, are these: we understand how paper works, the way data are entered, how changes are made to text, how it is accessed by the reader, how it is stored and how it is shared. It permits, and sometimes requires, the author to enter clinical data in a way that is meaningful to them, if not to others, and therefore requires conscientious and conscious intellectual activity.

Properly done, the paper-based health record provides a valuable communication tool and an *aide memoire*, as well as a highly important piece of evidence. It is future-proof (although subject to fire). And unlike some technologies we are considering this evening, it is relatively easy to determine who wrote what and when. (Admittedly, the 'when' is not so easy, but forensic tools are available.) It is easy to identify and to deliver the record. Of course, if a lawyer or an insurer wants it, we kind of know what it looks like and feels like, and it is more or less secure.

Those virtues will, I suspect, disappear. We will have to re-think how we go about creating, using, analysing, storing and sharing data from a medico-legal perspective, let alone issues of privacy.

The electronic evidence learning curve

There is one other challenge which I think will arise in future—'the electronic evidence learning curve'. At the moment we understand paper. Doctors and their lawyers understand it; barristers, judges and juries understand it. But the electronic record is, relatively speaking, a brave new world. We need to re-think the rules and our assumptions in order to ensure that people's rights are properly represented. To ensure that you get 'everything' is no longer such an easy question. Electronic discovery will raise challenges which many medical professionals, and I dare say legal professionals, are not yet comfortable with. There are some interesting questions about the concepts of 'possession' (under the rules of discovery of documents), particularly in the dawning era of the personally controlled electronic health record, and there will be variable professional practices around these matters.

The good news

Those are some of the concerns, but I would like to emphasise the good news. As with any area of practice, the application of common sense, good record-keeping, and good communication will always be of paramount importance. They influence patient satisfaction and reduce medico-legal risk. That is the good news.

But we need to recognise that there are a range of other e-health initiatives and products which are likely to change the long-held and long-cherished assumptions that we have about the paper process, which provide new opportunities and arguably impose new obligations on us. With new opportunities and new obligations inevitably comes the question of whether or not there are new legal responsibilities, which, not surprisingly, cause new litigation.

Some commentators have said that we are in a modern Gutenberg age, that the dawning of the Internet age, which is only two decades old, is equivalent to what happened with the Gutenberg Press. These commentators suggest that, on that basis, we are right now in about 1643. I think that that is worth

reflecting on because, as Mohamed Khadra said, the pace of change and what's going to be around in decades from now are things that we can't even dream of right now. But at every turn and at every twist, we need to think about medical risk, not for self-protective reasons, but to ensure that people's rights are properly articulated.

Future risks?

We need to be confident about these sorts of things:

- How does this product change the previous business-as-usual model or the rules of clinical engagement?
- What if any medico-legal risks (real or perceived—and sometimes the one is just as important as the other) arise from these changes?
- Who faces those risks?
- What strategies are available to remove them?
- Which stakeholder group or groups are best positioned or most responsible to address risk-removal and risk-minimisation?

The challenges are ahead for all of us and for our children. I wish you all luck with it.