E-health 2.0

Web 2.0 in the Health Sector: Industry Review with UK Perspective

eHealthInsider

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About E-Health Media or E-Health Insider

E-Health Media Ltd, launched in June 2001, is an electronic B2B publisher focused on technology in the healthcare sector. Its primary publication is E-Health Insider which has successfully grown to become the leading portal for developments in the UK health IT sector, providing the key information source for healthcare providers and their IT partners. Based on this success E-Health Media has since launched E-Health Insider Primary Care, E-Health Jobs and most recently E-Health Europe, along with industry events and research reports.

Foreword by Sir Muir Gray

Manuel Castells argues that we are in the third industrial revolution, but his argument is particularly relevant to healthcare. The first industrial revolution was based on common sense not on science. It was empirical but not based on science as we know it today. As with the first industrial revolution, so with the first healthcare revolution, because the control of communicable disease started before the micro-organisms responsible had even been identified.

The second industrial revolution, from about 1950 to 2000, was driven by scientists, by chemists and physicists and engineers, and so too was the second healthcare revolution. However, the second healthcare revolution, although it achieved wonders and reduced mortality and morbidity, did not solve all the problems of healthcare, and eight problems can be seen in every healthcare system:

- errors;
- poor quality care delivery;
- poor experience of patients;
- waste;
- unknowing variations in policy and practice;
- failure to introduce high value interventions;
- uncritical adoption of low value interventions; and
- failure to recognize uncertainty and ignorance.

The third industrial revolution, which is happening at the moment, has, in the view of Castells, three main drivers - citizens, knowledge and IT. As with the third industrial revolution, so with the third healthcare revolution.

This publication summarises some of the effects of the revolution and identifies directions in which the revolution will drive in future. The report of the revolution will, like all reports of revolutions, please some people and frighten others, but the accuracy and insights are important for all. The term "e-health" has proved an illusive one to define and it may be that it is beyond definition, in part because it is used by so many people.

It may be that we do not need to worry about this. When Tim Berners-Lee was asked in the Millennium edition of Wired what his ambition was for 2010, he said that his ambition was that no-one would use the word "Internet" in 2010. I doubt if anyone will use the word "e-health" in 2020, or perhaps even in 2010. When we buy an airline ticket online we don't tell our friends that we are e-travelling to Italy, we are just flying. All health services will be influenced by the third healthcare revolution in which information technology plays an important part. At present e-health is a useful concept and this report provides an excellent summary of its achievements and potential.

Sir Muir Gray

Executive Summary

The purpose of this report is to provide evidence-based industry analyses of selected e-health 2.0 applications from around the world. The report profiles 20 leading e-health 2.0 providers; compiled using a survey and follow-up interviews.

The report offers insight into each application's unique selling point, business model and provides a prognosis of sustainability. Web 2.0 tools are permeating the World Wide Web to enhance usability, provide a collaborative platform and facilitate co-development of open source applications. These technologies take the form of mashups, RSS feeds, blogs, wikis, social media (including tagging), and search. When applied to consumer-facing applications at the enterprise level, the true benefits of web 2.0 can be realised. While at a very early stage, this revolution has now begun in healthcare.

A major September 2007 conference in California helped catalyse interest in web 2.0 in health. Forward-thinking industry leaders and healthcare providers have begun to realise the profound effect these technologies and tools will have across the healthcare industry. As well as many innovative start-ups, large enterprises - including Microsoft and the UK NHS - have created platforms and applications based on web 2.0 concepts.

Executive Summary

Who should buy this report?

The report is written for anyone wanting to better understand how web 2.0 is beginning to reshape healthcare delivery, challenge past assumptions and place power in the hands of consumers. The report provides health planners, providers, strategists and business leaders with insight and understanding on how they can begin to use these new technologies and networks to deliver what the report terms 'e-health 2.0' services.

The report calls on leaders from all areas of healthcare to be aware of the ways e-health 2.0 is beginning to redefine the practice and business of healthcare. Specifically, the report is aimed at policymakers, technology vendors, healthcare providers and clinicians who are interested in how e-health 2.0 can not only improve the delivery of healthcare, but enable new models of delivery and offer new business strategies.

Analysts and market researchers in parallel industries will also benefit from the content in the report. The trends identified in this report are likely to prove highly disruptive and, therefore, need to be watched closely. The effect of the current shift in the healthcare delivery model has international appeal - changing the role of patient and provider irregardless of the health system in question.

Many of the applications profiled in this report have originated on the American West Coast, but their penetration into the UK and European health sectors is on the rise. Organisations, such as Patient Opinion, RateMDs and Patients Talking, are utilising web 2.0 technologies to improve healthcare delivery, facilitate provider transparency, and enhance individual's overall health experience.

From a national perspective, these e-health 2.0 applications have huge potential for scalability - an opportunity the UK NHS is already seeking to capitalise on. The report provides original insight and analysis of the steps that need to be taken in order to incorporate web 2.0 technologies into the health system.

Those who choose to ignore the deep trends of e-health 2.0 risk missing the early stages of a social, economic and technological tectonic shift. However, those who explore and experiment now, using the ideas and technologies detailed in this report, have the potential to be placed at the cutting edge of this trend. As a result, these organisations would be better positioned to develop new ways of interacting with patients with greater immediacy, create more empowered communities of interest, tap the potential of user-generated content and create new models of care delivery.

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Introduction

Web 2.0 in the Health Sector: Industry Review with UK Perspective

Healthcare systems of Western societies are undergoing a series of complex transformations. Consumers are demanding better services and more information - information that enables provider transparency and a more personalised service delivery model. The shift in healthcare provision has already begun whether or not the healthcare enterprise is yet ready to respond. We are moving away from the traditional model of paternalistic medicine and towards a patient-centric model with the intent to deliver care more efficiently whilst improving patient outcomes.

This evolution in attitude towards healthcare has long antecedents, but the advent of new web 2.0 technologies is serving as a powerful catalyst. The increasing expectations of consumers are a reflection of wider societal changes that have been evolving for many years; however, the pace of these trends has recently accelerated. In particular the ability to articulate and communicate preferences and demands - often referred to as the democratisation of voice - has been made far easier with advancing web technologies. Such tools have enabled even novice internet users to create and edit content online.

The rise in user-generated content (UGC) has dramatically accelerated with the rise of web 2.0 technologies, including blogs, social networks and open source applications. As the number of users establishing their presence on the World Wide Web rises, the disruptive effect of web 2.0 becomes even more evident, triggering waves of change across various sectors. The technologies are disruptive because the resulting networked information economy enables anyone to have a digital voice. Consequently, "the [web 2.0] technology that drives sites such as Amazon, YouTube and MySpace is as potentially disrupting to health services as Napster and peer-to-peer file sharing have been for the recording industry".[1] Therefore, it is critical that feedback acquired through this evolving medium is used constructively. Consumers are demanding that the often conservative and slow-moving healthcare industry act in response to their evolving needs.

Web 2.0 is the child of a series of shifts: the increase of internet access via broadband and mobile devices; the enhanced ability to connect with individuals in other social networks; the continuing ease in submitting content online; and the growing participation of users with similar interests in online communities.[2]

As the application of web 2.0 technologies in the health sector continue to grow, the benefits at the enterprise level begin to be realised. People are flocking to online communities to share personal health experiences as well as learn from others with similar experiences or conditions. Patient feedback on treatments and providers has begun to develop into an online system that generates transparency in the health system. In addition, some patients are even beginning to use web tools to take responsibility for managing their own health status, rather than always relying on experts or the 'doctor knows best' assumption. This self-service trend has far-reaching national consequences.

In the US in particular, healthcare consumers are faced with greater responsibility of managing their healthcare, both in terms of procurement and payment of those services. It is because of this shift in accountability, American healthcare consumers want greater control and visibility. New consumer tools and service models for chronic conditions such as diabetes management, often linked to Personal Health Records (PHRs), are taking shape as vendors, health providers and

Introduction

continued

other organisations create and refine these new e-health 2.0 applications to better serve consumers and their previously unmet or unarticulated needs.

This report seeks to provide evidence-based industry analyses of selected e-health 2.0 applications from around the world. The report offers insight into each application's unique selling point and business model as well as providing a prognosis of sustainability. For capacity reasons, this report is a snapshot of web 2.0 in the health sphere over a period of four months, October 2007 to January 2008. It is crucial to keep in mind that the applications included in this report are in perpetual beta, in keeping with the software as a service model - a key theme in web 2.0.

Though the bulk of these applications have originated on the American West Coast, their penetration into the UK health sector and other European and Asian healthcare systems is on the rise. In the UK, organisations such as Patient Opinion and NHS Choices along with RateMDs and PatientsLikeMe in the US, are already successfully using web 2.0 technologies to improve healthcare delivery, facilitate provider transparency, and enhance individual's overall health experience and status.

From a national perspective, some e-health 2.0 applications have the potential for scalability, as seen in the UK with NHS Choices. This report outlines how different stakeholders in the healthcare enterprise can begin to redefine the practice and business of healthcare by adopting or exploring the potential of these concepts and technologies. It outlines how web 2.0 technologies can facilitate better communication among patients and providers while relieving unnecessary costs from the healthcare system as consumers become better informed healthcare decision makers.

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