Are You Ready for the Democratization of Healthcare, Education and Retail?

July/August 2012:

In 2000, leading management thinker Peter Drucker opined that "For the first time – literally – substantial and rapidly growing numbers of people have choices..." In the last decade his words have been demonstrated as incredibly prescient. People have choices, and they are making them, often with friends, or communities, or networks, but choices are happening. The impact is being felt from the political leadership of Middle Eastern countries to the stores on the high street to the way we seek ideas and knowledge. Everything can be influenced – and even done – by an individual or collection of individuals with a purpose and objective, plus perhaps some new technologies. Everything is being democratized.

Are you ready? Already the impact is being felt in many industries – how about yours? For this brief we take a brief look at how democratization is working in practice in healthcare, education and retail. And by the way, we don't really think of them as "industries" any more – to see how your playing field is really changing, start by defining markets around consumer or customer needs. Even if we don't cover your markets, take a few minutes to think about how consumer and community power could play out in future for your market – what are the opportunities and challenges your organization will face?

DIY healthcare, anyone?

People are living longer and the burdens on the world's health care system are increasing. Costs are rising for providers, payers and patients as healthcare remains expensive for many. However, healthcare is reshaping itself. Technology is creating new competitors, new services and new ways for consumers to be involved in their own health. With easier access to information people are no longer just satisfied with the knowledge they get from professionals and experts.

Patients are changing from being passive receivers of treatment to actively taking matters into own hands. Point-of-care is moving from hospitals and clinics to the home, into the hands of the patient and other caregivers as cutting-edge technologies improve self-monitoring and, eventually, self-understanding of

one's medical conditions and lifestyle. Does this development mean we no longer need professionals for routine tasks? What are the risks? What does it mean for the health of your employees?

In Action!

mHealth: Mobile healthcare is exploding, though still a tiny fraction of the overall global healthcare market. In 2010, the smartphone application market for mobile healthcare reached US$ 104 million and in 2011 US$ 718 million. It is estimated to reach US$ 1.3 billion in 2012 (Source: Research2Guidance). Mobile healthcare makes sense and can make a difference in many situations, from the person who falls ill in a rural village in Africa where they are otherwise cut off from healthcare to the need to provide lifestyle guidance to a western couch-potato whose diet and lack of exercise is leading to ill-health and a potential drain on health resources. It can be what makes the difference between life and death. (Source: Mobithinking Health Guide)

DIY health checks where you want them: By August 2012 there will be more than 13,000 iPhone health apps available for consumers. The Do-It-Yourself health wave is hitting us big time and the largest groups of consumer health apps in the AppStore are cardio fitness apps (16.36%), diet apps (14.15%) and stress and relaxation apps (11.44%) (Source: MobiHealthNews). Examples of DIY health apps include: Posture Suspenders which alerts wearers to poor posture, a sweat-sensing wristband that may be able to predict seizures, Skin Scan which analyses and monitor over time development of moles, and Lifelens which can diagnose malaria with a drop of blood.

Being your own doctor by networking: More and more medical sites are popping up, linking patients to the best treatments and to other patients with the same conditions. Patients Like Me has almost 154,000 users who post their experiences with medications for more than 1000 conditions and is by far the biggest data-driven social networking site of its kind. Others include Cancer Commons, a site to help cancer patients focus on the most promising treatments by tapping into the collective wisdom of the medical crowd. Medify offers users with various long-term illnesses a raft of information about the research and treatments that have worked best for others.

Look Out For...

The death of expensive medication and healthcare: Dreaming of a cheaper healthcare bill? Help might be on the way**.** At India's Narayana Hrudayalaya Hospital open-heart surgery is performed at much lower cost than in the US and labor cost cannot explain the difference. It uses the same world-class equipment as top US hospital the Mayo Clinic but by using it 20 times more, costs are driven down. In the Cayman Islands, just a 60-minute flight from Miami, the Narayana Hrudayalaya Hospital is now building a 2,000-bed hospital to serve American patients – potentially the first step in radically shaking up the US healthcare industry (Source: An interview with Professor Vijay Govindarajan via DNA). Another cost reducing platform is My Coupon Doc, launched in April 2012 and designed to connect consumers with healthcare-related coupons and discounts. Users can search over 400 coupons by either medication or illness (Source: Betakit). MedMonk is another web-based tool that allows pharmacists to find discounts on medications for patients who are in financial need (Source: PSFK).

Point-of-care diagnostics: Crash and everything goes black. Next thing you remember is waking up in the ambulance, worried about your pre-existing conditions. Luckily the future is already here. Asahi Kasei has developed an RFID-enabled cellphone charm holding your electronic medical record and important health care information that can be crucial in the case of emergency, while France's Code d'Urgence created a QR code with similar abilities (Source: Mashable). Life square, a Silicon Valley start-up wants residents to input personal information about their medications into its

website, and then place corresponding QR code stickers where emergency responders can scan them with an iPhone. (Source: MacWorld). Under development is the app EveryHeartBeat, which is not unlike Shazam (a very popular app that recognizes music) for heart sound. With time people will be able to record a snippet of their own heart sounds, upload it to an analytics engine through the smartphone app, and receive a diagnosis. (Source: MobiHealthNews)

DIY health at work: A survey of 588 larger companies by Towers Watson reveals that nearly 25% already have on-site medical clinics for both factory and office workers, and next year, another 12% of those corporations will open new clinics for employees. This fall, Intel will open its own medical clinics on campuses in Hillsboro, Ore., and in Rio Rancho, N. M., hiring its own doctors and staff to care for the 9,043 employees who work there. The goal? Lower insurance costs, improved employee health and higher productivity. They are not alone. Michelin North America has built a medical clinic on its campus in Greenville, S.C., Hewlett-Packard has opened one in Palo Alto, Calif., and drug maker Sanofi-Aventis has opened a clinic and pharmacy in Bridgewater (Source: CNN).

Also look out for other interesting health innovations...

- 3D Printers Could Be Used To Produce DIY Pharmaceuticals At Home
- 3D Printed Prosthetics Company Bespoke Acquired By 3D Systems
- ROBOT-Rx, the automated medication dispensing system
- Robotic device helps disabled people to independently stand and travel with ease

The new (digital) world of education

Say education and most people associate it with physical classrooms, blackboards, and boring teachers or professors, but it doesn't have to be that way. Emerging technologies are breaking down barriers to an often highly rigid and bureaucratic academic world. Disruptive forces are changing traditional education from face-face learning towards virtual and interactive learning. Classrooms are increasingly digital, learning environments are getting collaborative and peer-to-peer friendly. Check out the impact of new technologies in education in a new visualization by Michell Zappa at Envisioningtech.

Whether living in rural Africa or Mongolia people now have the chance to educate themselves, easing the often hard-to-see road to prosperity and allowing them to gain more control of their lives. The advent of affordable, education-friendly devices to deliver high-quality, low-cost computing functionality like e-readers, tablets, cheap computers along with growing worldwide access to the internet is increasingly reducing the technological divide between wealthy and poor children as well as adults.

It's not just the technology – content is exploding! People have a host of new choices, channels and communities from which to source knowledge and education anytime, anywhere. No longer happy with the "teacher knows best" classroom approach, people increasingly want to design their own customized, learning experiences. For companies this means new challenges both in ensuring their future employees focus on the right skills, and in helping their current employees to learn and develop in new ways.

Welcome to the new world of education: Connected, personalized and engaged.

In Action!

MOOCS: Schools and academic institutions are no longer the gatekeepers of education and information. Massive Open Online Classes are reinventing education as we know it. If you want to teach you can teach as everyone now has a platform from which to teach, and anyone who wants to learn can learn

anything, anywhere, anytime. Ventures like Udacity, ShowMe, LearnZillion, and Skillshare increase the efficiency of the learning market by lowering barriers to knowledge acquisition. It's not just higher education that is changing. New models like Big Picture Learning schools, Science Leadership Academy, Bricolage Academy are emerging players in primary and secondary education.(Fast Company).

M-learning: There is an app for everything and education is no exception. M-leaning is exploding. A recent Ambient Insight's report suggests that the global market for Mobile Learning products and services will almost triple from US$3.2 billion in 2010 to reach US$9.1 billion by 2015. For instance BBC Janala is a mobile service taking part in a nine-year English language education program called English in Action (EIA) helping 25 million people in Bangladesh to develop their language skills. The countries with the highest mobile learning growth rates (all over 60%) are China, India, and Indonesia. The countries with the lowest growth rates (all under 5%) are Japan, South Korea, and Taiwan, the three most mature markets in the world.(Source: Ambient Insight)

Wikipedia and self-published textbooks: In the "good old days" getting information could be a long, tedious and expensive process but Wikipedia changed all that. It welcomes you into a world of almost limitless information – though ranging substantially in terms of accuracy, reliability, quality and value. Here, unlike most traditional information sources and channels (scientific research, books and magazines) no one has approved the content before it is made public. The next avenue for educational content: Self-published textbooks – benefitting the author, the student and people in general as costs are substantially lower than textbooks published the "old fashioned" way. And often they are available in ebook form. Quality control might be an issue but as the ne(x)t generation explores and populates the digital world our standards for where and how to get reliable information are continuously changing!

Look Out For...

Top notch education for everyone: It sounds like a dream – Ivy Legue education for free – but it could be a dream coming true. Harvard University and MIT have announced "edX", a combined US$60 million joint initiative to offer their college-level courses online for free, to be launched in autumn 2012. It will be delivered through MITx OpenCourseWare platform. However, course completion will not earn college credits at either institution and the certificates will be issued from edX, not through either university. About 120,000 students already signed up for the first MITx course, "Circuits and Electronics'' in March 2012. The four top universities Stanford, Princeton, Michigan and Penn have given birth to a similar open platform program Coursera. However, it differs from "edx" by being a for-profit-program. (Source: Singularity Hub, The Atlantic)

Gamification of education: Research from Gartner indicates that by 2015, 50% of organizations that manage innovation processes will gamify those processes and that by 2014 more than 70% of Global 2000 organizations will have at least one gamified application. Last year Xerox decided to look at gamification across the organization. The main reasons: to engage users, simplify processes, and compete for mindshare. Xerox has also integrated the use of the social enterprise network Yammer with its gamified learning programs (Source: InformationWeek). Using gamification in business organizations as a learning tool is still an emerging trend but more and more business are riding the wave, e.g. SAP taught their employees sustainability through gaming, while organizations like Marriott, Deloitte, Aetna and the US Department of Defense are all using gaming to recruit, develop and motivate employees to live a healthier life. (Sources: Enterprise-gamification.com, Forbes)

Building talented communities: Despite high unemployment rates worldwide, the talent war is intensifying. Companies worldwide are increasingly getting involved in education to build people with the right skills for their industry as well as getting the opportunity to connect with communities. In India Tata Power has launched a "Village Education Excellence Program" to cover villages surrounding the company's proposed project site. The education program designed by Tata Power focuses on conducting

Math, Science and English classes twice a week for 450 students (Source: The Hindu Business Line). Brazilian giant Odebrecht, a global organization serving many industries, is strengthening relationships with community educational projects, e.g. "Building up talents through the history of professions" in Angola where 250 young people participate in courses including accountancy and management, plumbing, carpentry and masonry, computer services, machines and motors services, low tension electricity, electricity services and electronics (Source: Odebrecht). In England Google provide the funds to support Teach First - a charity which puts "exceptional" graduates on a six-week training program before deploying them to schools where they teach classes over a two-year period (Source: BBC).

Consumer-driven retail

Life used to be so simple, even a few years ago, say 1985, before the internet reshaped the world. There used to be firms who sold things – real, physical things that you could touch and feel – and those that sold services which you typically went to their (or their distributors') premises to consume. Then there were channels, including distributors and retailers, who brought the firms' offerings to market, through their stores (bricks'n'mortar) and other outlets. Finally there were consumers who did just that, consume. They chose between what was offered by the brands that they liked and every so often might pay the premium for a customized item or service, but not as a regular habit. However, today traditional business patterns are being disrupted by the new technologies and retail – just like healthcare and education, is being democratized. As the world becomes increasingly interconnected through social media and other digital platforms, businesses are increasingly feeling the pressure to be where their customers are. "Location, location, location" is still the mantra – just in cyberspace, and by the way, on the consumer's terms…

In Action!

M-commerce: Mobile technology is picking up faster than any other technology, even faster than the first generation of web technology in the late 1990s. Consumers now spend more time on the mobile devices than on desktops driving the growth of the mobile commerce landscape. According to Adobe's Digital Marketing Insights report which compiles data from 16.5 billion visits across more than 150 retailers, the average order value when shopping on a tablet was US$123, compared with US$102 on a desktop. The same Adobe study has found that tablet owners more often fall in the 18-34 age demographic and that 29% have an annual income over $75,000. This group has proven a lucrative customer segment for m-commerce players (Source: Mashable).

Target "ME" ! Retail is becoming increasingly social and customer-driven as customers are being brought into the merchandising process by collaborative creation solutions delivered anywhere/anytime via mobile devices and integration with social media. Today ordinary goods and services are no longer the way to attract and retain consumers. Nor is it only about receiving a tangible product or service. Individualism, personalized experience and uniqueness are the key**.** A survey of 2000 adults in the US reveals that 59% of feature phone users preferred personalized offers over those focused on timing (18%), lifestyle (16%) or location (8%). Smartphone users responded in similar fashion, with 60% preferring personalized offers over promotions based on timing (17%), lifestyle (10%) or location (14%) (Source: Upstream).

Customized mass-manufacturing: We all want to be unique in our own way, whether it's our personality, style or home decorating. The online platform Etsy has turned the hand-crafted look into a poplar corporate trend. In addition established brands from American retailer Target to the American home furnishings and home décor store Pottery Barn have products on the shelves that are mass-manufactured to look like one-of-a-kind finds. Target, for example, has performed a brilliant job of bringing a sense of design and individuality to the middle-class who cannot afford luxury brands. (Source: The Harbus)

Location – based technology, the new must!? Location-based services (LBS) are rolling into their second wave, moving beyond the check-in only. The new wave: better deals integration, social recommendation engines and specialty services making it easier for advertisers and businesses to target their audience. (Source: Clickz). Outdoor e-commerce apparel retailer The North Face, for instance, has an opt-in program called Summit Signals, powered by location-based digital advertising company Placecast. Interested customers sign up on The North Face website with their phone number and their gender and select the number of texts they wish to receive per week. While North Face's Summit Signals program is active today, similar geo-fencing pilots run by other brands — like Starbucks and Sonic drive-in — have since ended (Source: Direct Marketing News).

Virtual shopping: U.K.-based online clothing retailer Banana Flame offers a virtual dressing room which lets online shoppers "try on" the clothes featured on the retailer's website. Using the computer's webcam and Zugara's AR e-commerce software dubbed "Webcam Social Shopper," shoppers can immediately see what clothes would look like on them and can ask friends for an opinion via Facebook and Twitter (Source: ReadWriteWeb). In August 2011 South Korean/British discount store Homeplus opened what it calls a "fourth generation retail store," Homeplus Smart Virtual Store, at Seolleung subway station in southern Seoul. It says it's the first of its kind in the world. Here customers can purchase items with their smartphones by scanning QR codes or barcodes using the Homeplus app (Source: Korea Joongang Daily).

Desktop factories in your home: 3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file. The process is not new. It has been used for years in the manufacturing industry. The new thing is that the 3D printing technology is now entering the mainstream market transforming the retail shopping experience dramatically. Today physical products can be printed on demand in a similar way to consumers printing out digital photos. Fujifilm, for instance, is looking to break into the 3D printing retail market with a new line of consumer devices that could fabricate personalized products like jewelry, toys and other home design items. Some printers would be sold to consumers for home use and others would be sold to businesses as in-store kiosk 3D printers (Source: On 3D Printing). For fun check out this link to see the world's first 3D chocolate printer or the Cube 3D Printer at CES 2012. This could be real game changer for the retail industry!

In September: Look out for trends in action on Social Business!