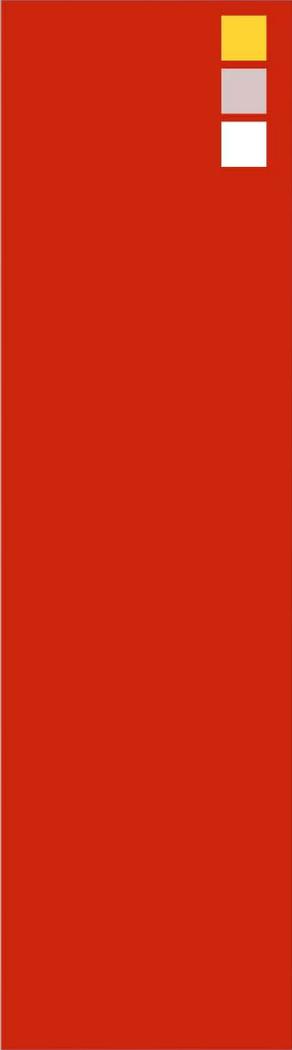




It's January 15, 2020

What Have We Learned About
Healthcare in the **Last Decade?**

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Looking Forward By **Looking Back**

Rapid technological development and relentless innovation are the two key trends that will provide for a forthcoming massive transformation of our health care system in the future.

The real challenge is: with so much knowledge and insight to be shared, is it truly possible to understand where we are really going with the world of health care?

It's often difficult to do so. That's why, for the last fifteen years, Jim Carroll has been providing his guidance into future trends to a wide swathe of global Fortune 1000 companies, associations, and other groups at many events and conferences. This has included a large number of healthcare groups.

He's learned that sometimes, it is easier to open up the minds of people to big trends by taking a look *back* rather than by taking a look forward.

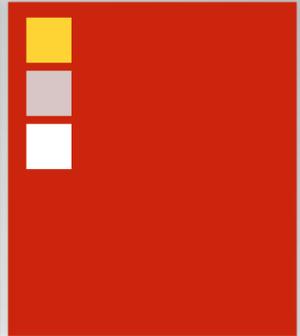
So let's say it's the year 2020.

Let's take a look back over the last decade to see what happened with the world of health care



Keynote Address:

January 15, 2020 by Jim Carroll



In 2008 my message to many was: *"Folks, you need to wake the hell up, focus on opportunity, and seize the health care innovation agenda."* Of course this rubbed some traditionalists as being a little too aggressive!

It's no wonder though! 2008 was a time which saw economic malaise settling in, causing most innovators to shrink away, convinced their ideas for the future had no place and time for consideration. Fear mediocrity and staid thinking ruled the health care agenda; everyone spoke of applying the same old band aid solutions in a different way to the same problems, with no obvious results in sight.

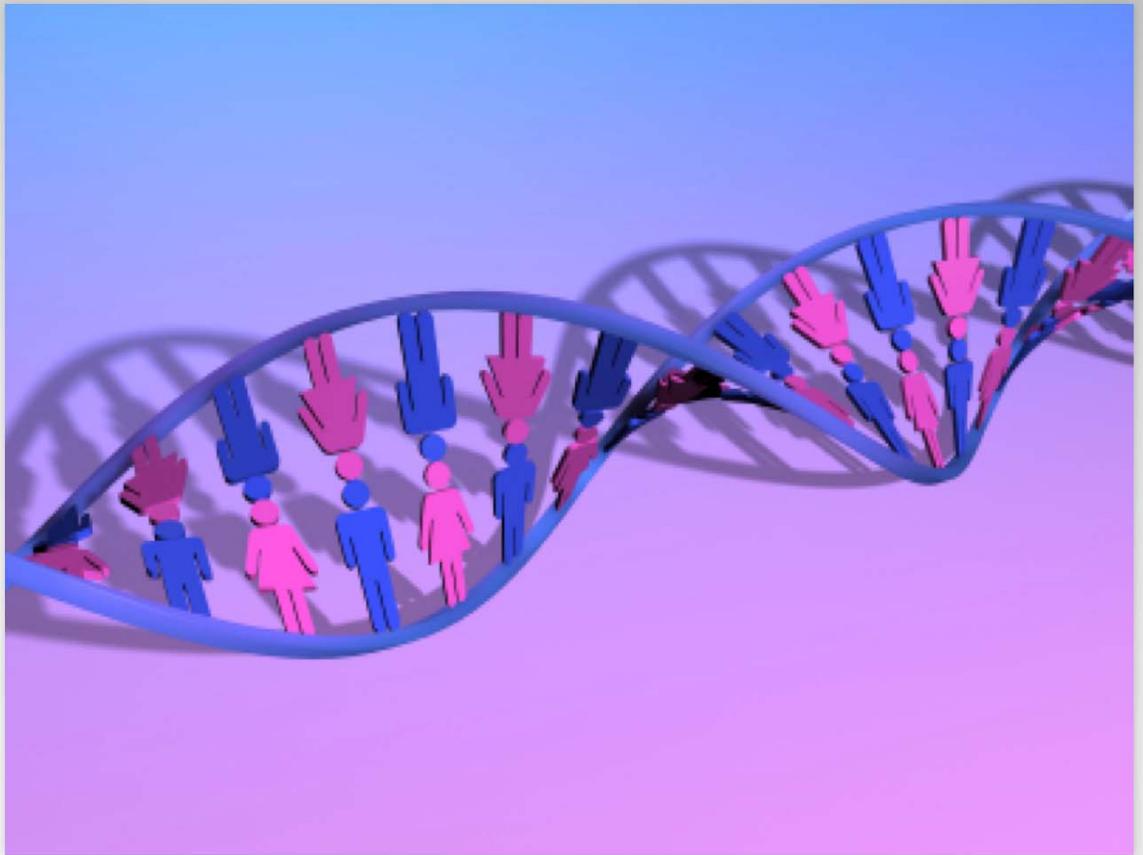
But, 2008 also saw a group of leading global health care thinkers come together, and imagine what "could be." I'm thrilled that in my own small way, my call to action at the 4th World Health Care Innovation & Technology Congress encouraged and inspired these leaders to

seize the future and provide the unique solutions which we so desperately needed at the time.

Back in 2008 these people heard of the need for innovation. They understood the opportunity for growth. They knew that we were on the edge of something big. So they took a deep breath, and forgot about the challenges of today, and began to re-energize themselves on the opportunity of tomorrow.

They became our innovation heroes. They are the people who were willing and able to cut through the clutter of tiny trends and massive noise, able to see the long term transformative trends that would provide for real change, real opportunity, real growth, and real solutions.

Looking back, these are the top 10 changes that have had a major impact on our world of healthcare.



The System Went **Upside Down**

By 2020, we had successfully transitioned the health care system from one which "**fixed people after they were sick**" to one of **preventative, diagnostic medicine**. Treating them for the conditions we know they were likely to develop.

This simple reality, though vastly complex from a scientific, methodology and implementation perspective, resulted in a **dramatic shift** in health care philosophies, a major transition in spending, and an overall improvement in the lives of ordinary citizens.

This was the big transformative trend of the decade, and its impact was powerful and massive. When we first started talking about it in the last years of the 20th century, we really didn't understand its potential impact.

We certainly do now!

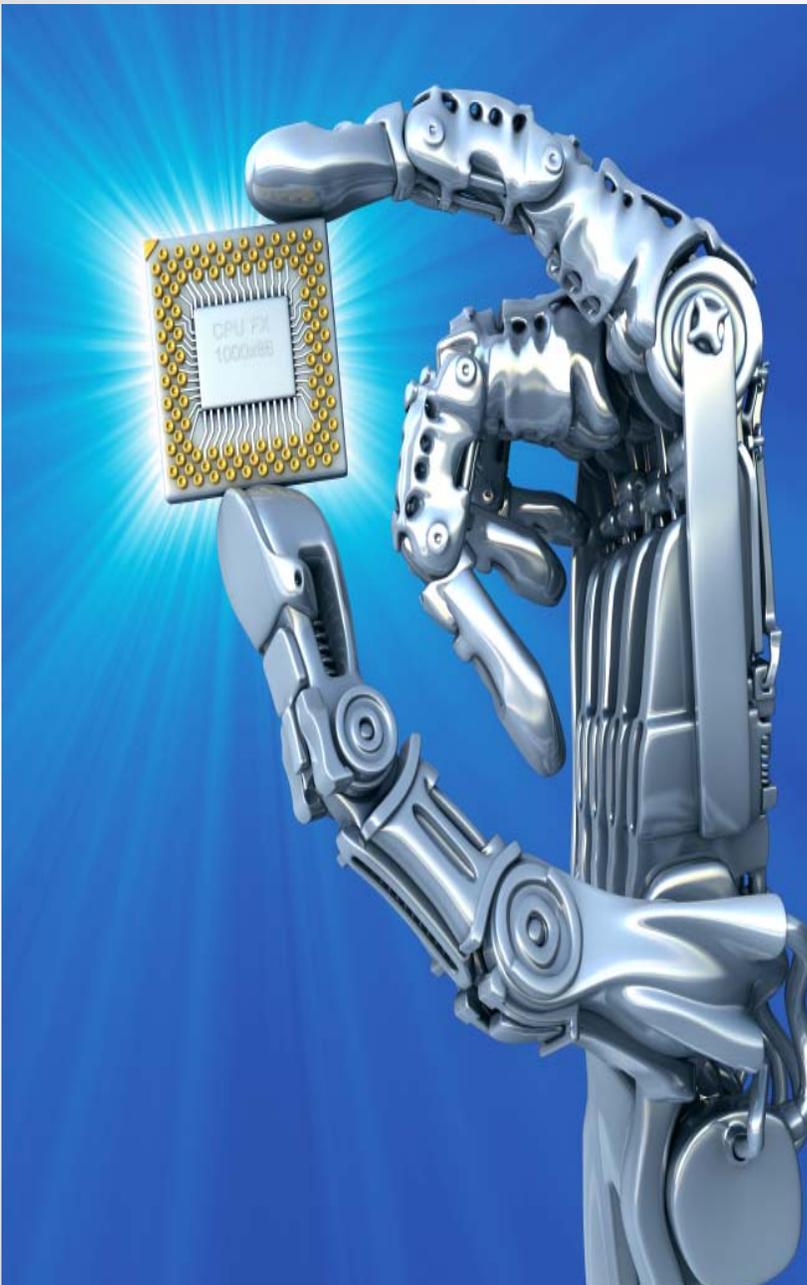


Customer Service Became The **#2 Mission**

The number one priority today, of course, remains ensuring that patients receive top-notch, first-rate health care as soon as they need it. But the revolution in health care service delivery really came when retail, consumer and branding experts took over a good part of the health care delivery infrastructure.

They quickly overhauled and rebuilt the entire philosophical underpinning of the system, so that it was customer focused, friendly, fast, subject to expectation metrics — **service delivered with a smile!** Suddenly, patients came to realize that their health care system was no longer stuck in an adversarial 19th or 20th century mode. It had come to meet the standards delivered by every other industry. The concept of "service" re-energized staff, provided for streamlined operations, and allowed for innovation to flourish in an unprecedented fashion.

The #1 Revenue Source For Silicon Valley Is Now **Health Care Related**



By 2008, most CEO's of any type of technology company realized that the future lay far beyond Web 2.0 and the sometimes over-hyped social networking technologies.

They came to know that the real opportunity lay in aiming the technology-innovation engine straight at the massive health care problems that were then so evident.

People began talking about Health 2.0 — and a world in which technology would play a massive role in the revitalization of the system.

Looking back, the results of their innovation efforts were astounding. They launched new products, new business models, scientific discovery tools, bio-informatics platforms that provided the foundation for diagnostic medicine, and many other incredible items.

When Silicon Valley got involved in a big way, **everything changed.**

Bio-Connectivity Reinvented The **Concept Of Hospitals**

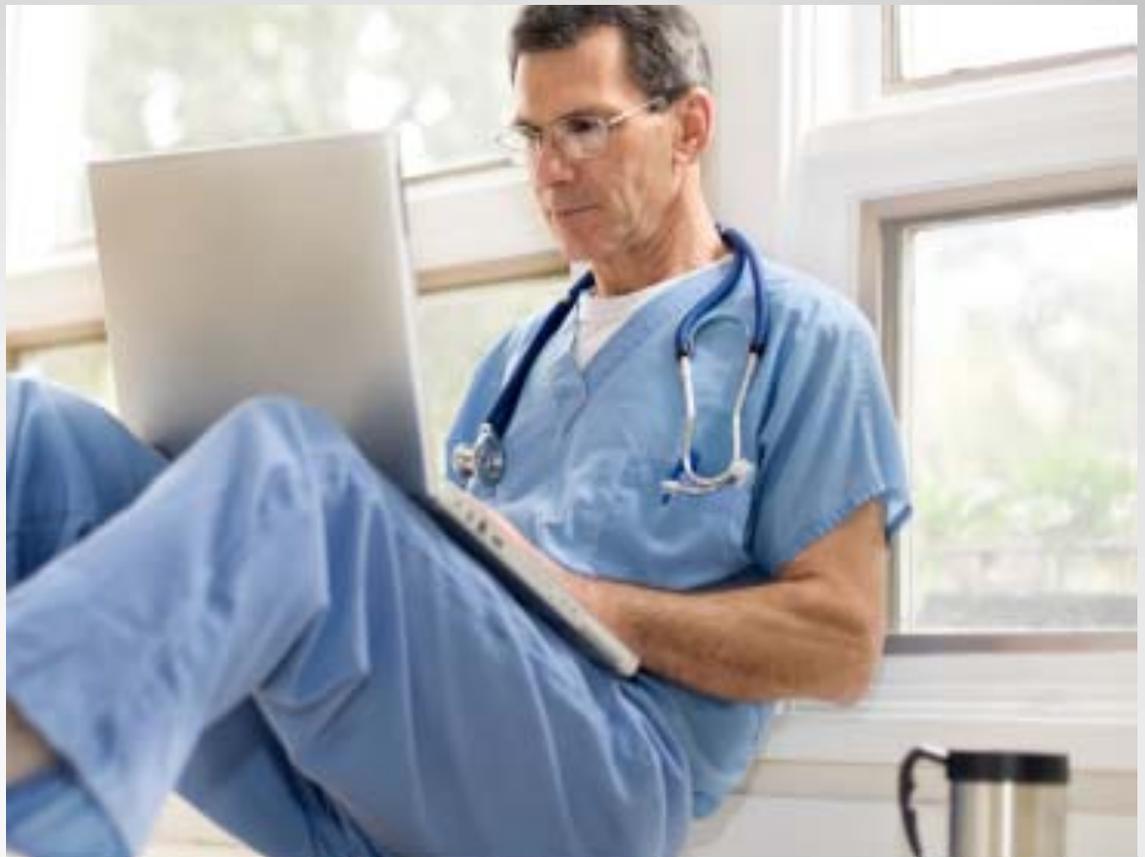
Our medical system of the earlier part of the 21st century looks rather primitive at this point. Expensive hospital beds were stuffed full of non-critical care patients so that they could be closely monitored by medical personnel. A tremendous waste of spending and energy!

The rapid emergence of thousands of different bio-connected devices — home health care medical monitoring, diagnosis and treatment devices — provided for a renaissance in rethinking as to just what constituted a health care facility or hospital.

Today, of course, a good proportion of both critical and non-critical care patients receive health care at home. We've transitioned to a **virtual community oriented caregiving strategy** which has resulted in cost reductions and a refocus of critical health care spending.

Not to mention a far more comfortable experience for the patient.



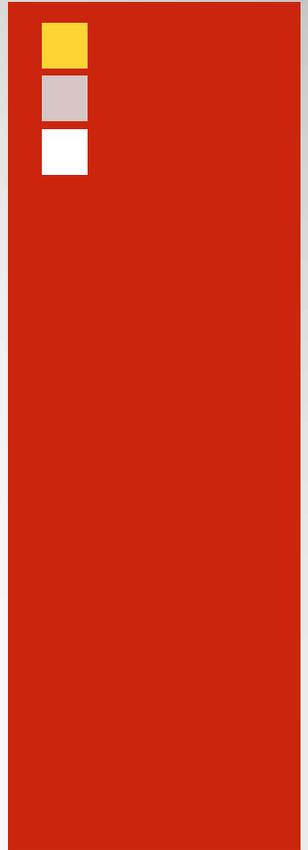


High Velocity Change Became “The New Normal”

It's hard to believe that as recently as 2008, hospitals spoke of the need for insight into change management. The incessant debate over the benefits of the electronic health record dragged on ad-nasuem.

Today, of course, change-adverse baby boomer doctors and other medical professionals have mostly retired. Today's medical professional has their 239th generation iPhone at their side, they're interacting with labs, medical libraries, their social-network-specialists peers and other knowledge-network peers: they continue to drive change forward at a furious pace.

The EHR? It's secure, bio-embedded, and has ripped inefficiency and cost wastage out of the system. We now know that the first of the Gen-Connect generation graduates from medical colleges in 2010 were the catalyst that drove **massive, fast and furious rates of innovative change** throughout the health care system.



The Triumph Of **Device Intelligence**

By 2020, most of us found that our "personal area network" included much more than our MP3's, video players and other digital content: it included huge chunks of intelligence from our daily health interactions.

At some point in the prior ten years, the role of medical packaging transitioned from being a passive protector of the product, to becoming an active component of the overall effectiveness of the particular medication. Today, my prescription bottle now comes with an embedded RFID tag linking it to the Internet, as well as efficient bio-sensors.

The result is that my doctor and I are now provided with an instant, concise summary of the current status of my particular medical condition. Millions of others are similarly linked.

The revolution didn't stop there. Linkage of prescription efficacy to online databases also became a key method by which pharmaceutical companies track the ever more rapid development and release of new drug products.



Computational Analytics Allowed Us To **Rapidly Refocus Resources**

By 2008, we came to realize that many of society's deepest problems had a fairly decent chance of being solved by processing complex analytical algorithms with massive computing horsepower. We aimed our innovation engine at energy, ecological and health care challenges, and the results were staggering.

Looking back, it allowed for a significant shift in thinking. For example, while today we accept the health care location intelligence professional as an integral part of the hospital team, back in 2008 they were but a rare anomaly. Back then, no one believed that it would be possible to link the massive amounts of information found in the global 'data-cloud' to the rapid emergence of particular medical conditions.

Today, of course, most health care facilities use the insight of such professionals to regularly track, monitor, and devise proactive plans to deal with new emerging challenges. We've come to link massive subsets of data to geographic insight, allowing us the ability to better plan, manage and deal with complex circumstances.



We Adapted To Faster Science Through **High-Velocity Structure**

We can now look back at the period of 2010-2020 as an era of profound change when it came to medical innovation.

Given the fast pace of discovery of new medical knowledge, we witnessed a massive acceleration in the number of new medical procedures and treatments, pharmaceuticals and bio-materials, medical technologies and devices, diagnostics and methodologies.

We came to realize that it was our ability to rapidly ingest new knowledge that became a key savior in our re-engineering of the concept of our health care; it was our speed of action that defined our success.

Looking back, we focused on velocity, which brought staggering results.



We Transitioned To A Medical Culture Of “**Just-In-Time-Knowledge**”

Given the constant doubling of medical knowledge in ever shorter time spans we came to know that the system could no longer function based on an antiquated model of one-time knowledge delivery.

Medical schools adapted, providing for the "velocity" of knowledge that was required by ever more rapid scientific advance. They knew a big change was underway, as is now evident. It is now estimated that in 2020, the average doctor and nurse refreshes their entire knowledge base every 18 months.

The result was that the relationship between medical colleges and students changed, from a period of short term, concentrated knowledge delivery, to one of **lifelong, ongoing replenishment and rejuvenation of knowledge**.



We Rose To The **Challenge**

In 2008, we were morose; we had no belief in the future; wracked by economic self-doubt, we came to believe that the health care system would continue to crumble.

And yet, we found inspiration! We heard the soaring phrases of challenge posed by President Obama at his inauguration. We realized that he caught the imagination of an entire generation, who came to know that this decisive, broken and complex industry was now their new Peace Corps.

Along came an awakening that they could turn their attention from sharing quick-knowledge hits on now-defunct networks like Facebook and Twitter, and instead, heed a greater call to action. They aimed their minds towards one of the deepest challenges of our time and turned on their innovation engines. And as we know now, that was a truly transformative moment.



About **Jim Carroll**

When the Walt Disney Corporation went looking for an expert on the topic of innovation and creativity, they went with Jim Carroll. For the last fifteen years, he has provided high energy keynotes for audiences of up to 3,000 people and intimate, detailed customized strategic insight for CEO/Board/Senior Management meetings.

Jim is also the author of *Ready, Set Done: How to Innovate When Faster is the New Fast*, and *What I Learned From Frogs in Texas: Saving Your Skin with Forward Thinking Innovation*. He was recently named by *Business Week* as one of four leading sources for insight on innovation and creativity, and was a featured expert on the prime time *CNBC* series, "*The Business of Innovation*." His clients include Nestle, Motorola, Caterpillar, Verizon, the British Broadcasting Corporation, the Sporting Goods Manufacturers Association, Blue Cross Blue Shield, the World Congress on Quality, and the Swiss Innovation Forum.

Jim's health care and life sciences clients include • Waters Corporation • MDS Nordion • American Society for Health Care Risk Management • VHA Georgia • Blue Cross Blue Shield national office • Association of Organ Procurement Organizations • Phamalinx annual conference • Health Care Industry Distributors Association • Trillium Health Care • Providence Health Plans • Harvard Pilgrim Health Care • Canadian Medical Association • Glaxo Wellcome • American Academy of Ophthalmology • North Carolina Medical Managers Group • Canadian Organization For Advanced Computers & Health • Health Administration Association of BC • Ontario Hospital Association • Roche Diagnostics • Essilor Eyecare.

This article was based on his closing keynote address for the 4th Annual World Healthcare Innovation & Technology Congress in Washington, DC.



Organizations today are looking for deep insight into the trends that will affect their markets and industries. CEO's are focused on the need for innovation, knowing that a world of high velocity change requires that they respond to opportunity and challenge in an instant. They are looking for guidance on establishing high-performance, innovation oriented teams that are focused on achievement.

That's why they've turned to Jim Carroll.

Jim Carroll

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