

PRINCIPLES OF DIGITAL HEALTH STRATEGY DEVELOPMENT

by Christian Milaster
Founder & President of Ingenium Digital Health



These days “Digital Transformation” seems to be everybody’s favorite term. Yet few organizations and boards truly know what a *digital transformation* would actually look like in their organization, other than sensing that *something* should be done about it.

While other industries — manufacturing, finance, retail, sales, real estate, hospitality, transportation, travel, etc. — have embraced and are well on their way to fully integrating digital technologies into their businesses, healthcare’s adoption has mostly been mandated (oftentimes through agonizingly ill-advised regulations) and not very proactive.

Digital Health Strategy Drivers

Many healthcare organizations are now recognizing the need to do something **more strategic, more proactive, and more effective** with Digital Health than simply implementing the bare minimum. A multitude of drivers are pushing healthcare leaders to arrive at these insights. Here a just a few:

Owing to a variety of societal dynamics, the role of the patient is changing from the subservient recipient of healthcare services to an empowered, educated **healthcare consumer**. This *modern healthcare consumer* is now expecting and demanding a very different level of service and free access to data and information than the patient of the past.

The disparate technical systems that have been put in place over the past decades do not talk to each other. Clinicians cannot make good decisions because they can’t **access critical data timely**. Transforming the current set of technologies with a set of integrated solutions is the goal of many healthcare CIOs and CEOs and vitally important to frustrated clinicians.

The analogous problem afflicts the C-suite. Organizations are now realizing that the vast trove of (electronic) data all their systems are generating — at huge expense — is not being put into context, and paired with experience, so it can be used for clinical, administrative, and operational decisions. Leaders thus rightfully demand that their hoard of hidden data be unearthed, analyzed, and harnessed to achieve the organization’s strategic objectives.

Given the explosive increases in the cost of care from year to year, leadership must demand solutions that support all of the organization’s strategic objectives. Technology solutions, when selected and implemented correctly, can significantly improve effectiveness (doing the right things) and efficiency (doing things right), while opening up new revenue opportunities. Technologies poorly chosen or poorly utilized have the opposite effects.

Between extensive consolidation on one hand and cost pressures on the other, **competitive pressures** over the past few years have increased in most markets by an order of magnitude. With the emergence of care solutions that no longer require a visit to the doctor’s physical office, the geographic boundaries that used to protect organizations have suddenly been eroded by telehealth and telemedicine services.

As it has for decades, centuries, and millennia, medicine is constantly evolving. We have now reached a point where the speed and accuracy of technologies allow us to realize the vision of personalized medicine, where I, as a patient, am provided access to drugs optimized to my genetic profile. Replacement organs or bones are no longer templated, but build just for me. We can now explore the genetic code of the body’s microorganisms to detect, prevent and diagnose

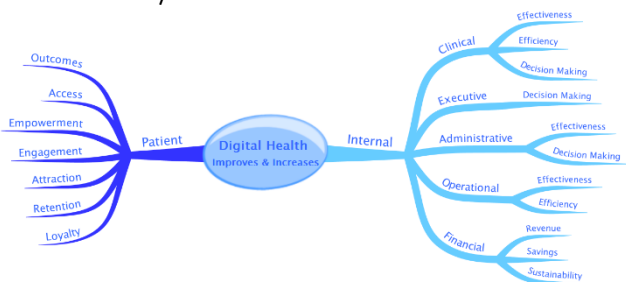
infections and other diseases. These advances also fall under the Digital Health umbrella and they provide a way to practice and deliver medicine that the modern healthcare consumer expects - otherwise, they will take most of their healthcare business elsewhere.

Digital Health Outcomes

Like all strategies, a Digital Health Strategy must prioritize outcomes to use the limited resources efficiently. That (digital) technologies are used to build solutions that achieve those outcomes is of secondary importance at best.

The diagram below depicts the improvements that a Digital Health Strategy, effectively implemented, can achieve. As with all good business strategies, a Digital Health Strategy must focus on the customer, the modern healthcare consumer. From the healthcare consumer's perspective, there is a mix of evidence and hope that employing digital tools will help to improve health outcomes and increase access to health care; that it will empower and engage patients to become and stay well; and that we can leverage them to attract and engage patients to increase loyalty and retention.

From an internal perspective, Digital Health aims to improve efficiency, effectiveness and decision making at all levels, ultimately driving revenue and savings, the financial key performance indicators, leading to financial and organizational sustainability.



Ingenium's Principles for Digital Health Strategy Development

So what approach should your organization follow to develop or improve its own Digital Health Strategy? The following list describes our six most important guiding principles that we apply as we

work with healthcare organizations' leadership teams to develop their Digital Health road map:

There is no silver bullet. By itself, technology can never be the answer to a problem. It takes People + Process + Technologies to achieve "digital change".

Don't put the horse behind the cart. Technology selection (the "horse") should always be preceded by the identification and quantification of the needs (the "cart" to be pulled).

You can't copy 1:1. Healthcare organizations are as complex as living organisms of different species. A solution that may work in one healthcare organization, no matter how similar, may not yield the same results in your organization. Epidemiology, the leadership culture, the physician-nurses-administrator power balance, the socio-economic and demographic factors of the workforce and of your targeted healthcare consumers, the payor mix, and your state legislation all have a significant impact on what solution will work.

A great technology solution is necessary, but not sufficient. While you might get a mediocre solution to work, just selecting a great technology alone will not guarantee success.

The Only Thing That Is Constant Is Change. For any Digital Health solution to be adapted, attitudes have to change, workflows have to change and, in most cases, the way that the clinical and medical staff think about Healthcare delivery has to change. The change will be constant as the technology in use will continue to evolve.

Culture eats Strategy for Breakfast. An overused quote, but nonetheless true. Turning people's (and especially physicians') energy around resistance to change into positive support is the single most important ingredient for the success of any change initiative, but particularly critical in the implementation of Digital Health solutions.

What other drivers are creating the need for a Digital Health Strategy for your organization? Which principles have you successfully employed? Which principle is currently holding your organization back from reaping the full benefits of a pragmatic Digital Health strategy?

DIGITAL HEALTH DEFINED AND DECOMPOSED

by Christian Milaster

Founder & President of Ingenium Digital Health

Digital Health is quite the broad term that it is challenging for many healthcare leaders to put their arms around the totality of it all, when trying to decide where to focus their attention (and investments of time, money, and people).

I'd like to remind us that technology primarily exists to serve us, to make our lives easier or safer — or both. When looking at Digital Health it is thus important to understand how that technology is supposed to help us.

Our healthcare system exists to help people to get well and to stay well. To accomplish this, clinicians **assess** the patient's condition, **decide** on how to learn more, and **treat** the patient by fixing the problem and healing the patient.

At its core, each hospital, health system, or clinic manages three basic sets of activities

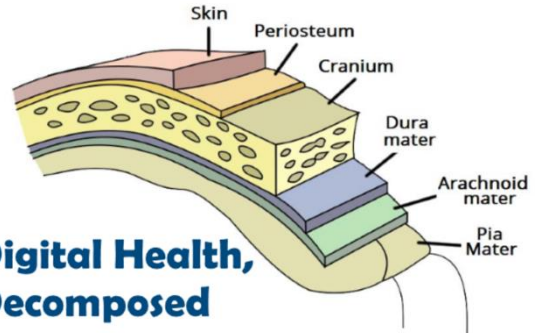
- Care Decisions – for diagnosis and treatment plans
- Care Delivery – assessments (exams, consults) and treatment (procedures, therapy)
- Healthcare Logistics – e.g., scheduling, ordering, billing, hiring, etc.

My definition of Digital Health therefore is simple:

Digital Health is the use of Digital Technologies to improve the Efficiency and Efficacy of Care Decisions, Care Delivery, and Ancillary Healthcare Processes.

While efficacy is about doing the right things, efficiency is about doing things right. And digital technologies can help us to accomplish both.

In the **avalanche of digital health** that's barreling toward us, I see four different distinct areas of innovation that all need to be addressed and managed in parallel:



- Offering a highly personalized, exceptional care experiences (**Personalized Care**)
- Empowering patients to get well and stay well anywhere, any time (**Connected Health**)
- Tailoring medical treatment to a patient's unique characteristics (**Individualized Medicine**)
- Empowering physicians, patients and administrators to make better decisions (**High-Quality Decisions**)



Personalized Care



Connected Health



Individualized Medicine



So why would an organization need to spend resources on each of those four realms?

Healthcare consumers' expectations also create the notion that scheduling, receiving and paying for healthcare should be as easy as paying a friend via Venmo, ordering a book from Amazon, or renting a movie from Netflix. One key aspect of convenience here is **Connected Care** with its digitization of healthcare information and helping to transcend geographic boundaries through virtual and tele-technologies.

A **Personalized Care** approach is necessary as patients have evolved into **healthcare consumers** and have much higher expectations from their care experience. This starts with the scheduling of appointments, continues with the check-in process and culminates in the personalized approach used by the clinician. Digital Health solutions, such as healthcare CRM (customer relationship management) systems and optimized EMRs can greatly support the physician and allied health staff to provide a great service experience.

With the increasing insights into how unique humans are in their health, it also behooves healthcare providers to at a minimum provide access to early **Precision Medicine** services, e.g., such as (tele) genetic counseling. As solutions become more accessible and financially feasible, they can be integrated into your current care decision and care delivery processes.

THE FOUR REALMS OF DIGITAL HEALTH

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A Definition

Our healthcare system exists to help people to get well and to stay well. To accomplish this, clinicians **assess** the patient's condition, **decide** on how to learn more, and **treat** the patient by fixing the problem and healing the patient.

Finally — and most importantly — the realm of enabling **High-Quality Decisions**. Healthcare's most valuable asset is undoubtedly the clinical data. Without good access to good data, physicians cannot make decisions about diagnosis or treatment. The same goes for patients who, as the current debate goes, cannot make good financial decisions regarding their care, because there is no good data.

Over the next weeks I'll dive deeper into each of those four realms because the better you understand the implications of each, the better informed decisions you can make where to invest your and your organization's resources into digital health innovation.



The 4 Realms of Digital Health



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The Four Realms of Digital Health

In the [avalanche of digital health](#) that's barreling toward us, I see four different distinct areas of innovation that all need to be addressed and managed in parallel:

- **Personalized Care:** Offering a highly personalized, exceptional care experiences
- **Connected Health:** Empowering patients to get well and stay well anywhere, any time
- **Individualized Medicine:** Tailoring medical treatment to a patient's unique characteristics
- **Quality Decisions:** Empowering physicians, patients and administrators to make better decisions



Investing in Digital Health

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Looking Ahead

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3 DIGITAL HEALTH NEW YEAR'S RESOLUTIONS

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The dawn of a new year is always a great opportunity to start afresh, resolving to not let another year pass without making good on last year's promises and insights.

For healthcare delivery organizations I declare it of the utmost importance for 2020 to develop and embrace a Digital Health Strategy that defines where and how digital health solutions should be leveraged.

I define Digital Health as the provision of care and its associated processes enabled and supported by digital technologies. In their most useful application, Digital Health solutions improve the efficiency and efficacy of care decisions and of the delivery of care.



As I laid out a few weeks ago, there is an avalanche of digital health solutions barreling toward us. Health systems thus need to improve their ability to quickly evaluate, validate, and deploy digital health solutions.

The most successful healthcare organizations I have worked with embrace the following three resolutions:

1. Have the courage to **stop** digital health projects that are not delivering on their promised outcomes.
2. Have the audacious goal to **transform** their delivery of care through digital health.
3. Allocate qualified **resources** to digital health adoption

The Courage To Stop Projects

The single word that most successful entrepreneurs use is "No". Only "No" makes room to allow successful entrepreneurs — and successful companies — to focus on the one thing or the critical few things that will make a difference right now.

As this article's picture illustrates, it is not only important to declare new resolutions (the domino bricks to the right) , but to first make room for the new ways by stopping the old ways that are not working and that are bringing the system down. Similarly most new habits leading to improvement can only form when old habits leading to dysfunction are unlearned.

To free up resources (time, people, and money) to make room for leveraging digital health solutions, great health systems measure the performance of their initiatives and consciously stop those that are not delivering.

One step into this direction is to establish an Enterprise Project Management Office (outside of IT!) that manages all projects that affect more than one department or fall under the connected health or individualized medicine umbrella. Only through central management and accountability can the inefficiencies of flailing enterprise projects be made visible ([contact me](#) to learn more).

Transform Through Digital Health

The second resolution is the insight that in order to stay relevant in this time of rapid innovation your organization needs to embrace innovation and harness it, put it under your control. As a reminder, Uber, Air BnB, LinkedIn, Twitter, Snapchat, Facebook, etc. did not exist in their current form even 15 years ago, the typical time it takes a physician to become a full-fledged, established physician. And if you don't take control, others (e.g., Amazon Care, OneMedical, CVS MinuteClinic) will do so for you to bring innovation to the patients that expect it.

The leaders in the field (and those wanting to stay relevant) very intentionally embrace digital health as a way to transform the way they are delivering care and practicing medicine. In its essence, healthcare is about making decisions about a diagnosis and about the appropriate treatment and then delivering that treatment. And numerous digital health solutions focus on improving the efficiency and efficacy of those key care processes.



As an example Mercy in Missouri established in 2015 the world's first [virtual care center](#), taking the use of telehealth technologies to a whole new level. At last count its service offerings have grown beyond 12, ranging from TeleStroke to SpecialtyConsults, from virtual sepsis screening to TeleICUs. Here is a leader who is investing into the future, while continually improving their traditional care model, too, and augment it with the new virtual care services.

Allocate Qualified Resources

Just as you wouldn't hire a plumber to fix your heating system (though he could) or just as in the early days of solar you could not just hire any electrician to maintain your solar system, such is the case with leading digital health adoption.

Digital Health adoption is, in most cases, very different from the standard health technology implementations of the past decades. In most cases, digital health solutions are used to create distinctly new clinical service offerings and most of the solutions are highly specialized to each service. This requires systems thinking, clinical workflow design, clinical service marketing, agile project management, and organizational change management skills that are rarely available in healthcare organizations.

It is thus crucially important that a forward-thinking healthcare organization leverages the expertise of those who have been involved in a broad variety of digital health adoptions and possess the necessary skills. While you may not find a full-time employee to lead your efforts, you can tap into the expertise of advisors — like [myself](#) or the [team of experts](#) at Ingenium Digital Health.

Into the Unknown

The next decade holds much promise and much change in store for healthcare and it behooves leaders of our incumbent healthcare systems that serve most of the US's population to fully embrace digital health before others do.

As with most resolutions (exercise more, lose weight, journal every day, call mom once a week) they are not pressing, but rather aspirational, addressing what's important and not (yet) urgent. You don't want to wait until digital health adoption becomes critical, so I urge you now to declare your digital health resolutions today and let everyone in your organization know that you are committed to the future of healthcare.