PERFICIENT digital

LIFE SCIENCES IS GOING DIGITAL 30 EXAMPLES FROM INDUSTRY LEADERS

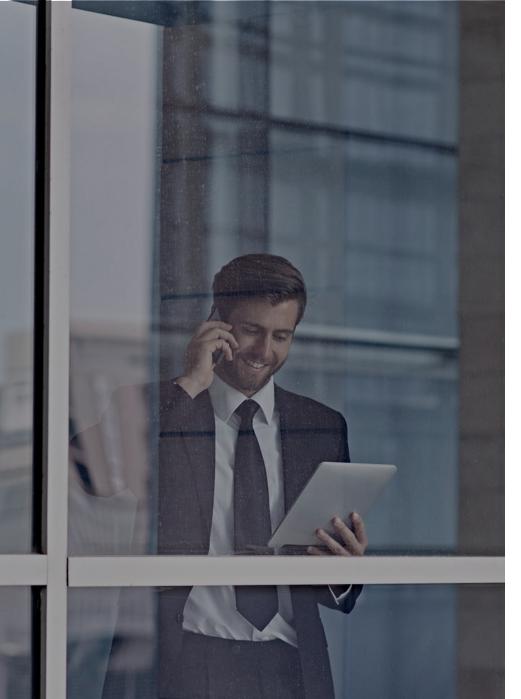
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We have become a digital society. We use mobile devices to guide us through rush hour traffic, to find a great new spot for lunch, to research recipes for dinner, to do our shopping, to track our exercise, to entertain, to connect with friends and family, and to wake us up the next morning to do it all over again.

What might not be as obvious is that the way we operate outside of work is no different from the way our customers operate. Our own expectations for finding information and interacting with businesses are exactly the same as our customers'. This is why businesses across all industries – including life sciences – are now going through what's known as "digital transformation."

OUR OWN EXPECTATIONS FOR FINDING INFORMATION AND INTERACTING WITH BUSINESSES **ARE EXACTLY THE SAME AS OUR CUSTOMERS'.**





DIGITAL TRANSFORMATION DEFINED

While it means different things to different people, digital transformation is a movement. According to the research firm Altimeter, the definition of digital transformation boils down to this:

"The realignment of, or new investment in, technology and business models to more effectively engage digital customers at every touchpoint in the customer experience lifecycle."

Digital transformation doesn't just mean investing in technology or churning out an app or two. It means cultivating and maintaining a company culture focused on stakeholders' experiences, be they patients, investigators, customers, employees, research partners, or even regulatory agencies.

Organizations that have undergone digital transformation have not just digitized their offerings, they've integrated digital into their overall business strategy.



WHY DIGITAL TRANSFORMATION MATTERS

In today's digital age, consumers have evolved to become far more independent and self-sufficient. They expect access to information, services, and products to be quick, easy, useful, engaging, and even entertaining. Businesses that are not yet meeting these new expectations are falling behind the curve.

But this particular curve is not just the trend of today that's going to be gone tomorrow; it represents a fundamental shift in the marketplace. What was once a straightforward B2C or B2B relationship in which the businesses located nearest the consumer essentially had a monopoly is now a far more complex paradigm. Now, thanks to the Internet and social media, consumers have access to exponentially more businesses and - most importantly to each other. And they share information like crazy.

This is why the customer/stakeholder experience has become paramount. If a customer has a bad experience with a company, not only will they stop patronizing that business, they'll share their bad experience with the world. On the flip side, when a customer is consistently happy with a business, they become a loyal brand advocate, sharing their good experiences with everyone.

Cultivating those loyal brand advocates is what digital transformation is all about.

HOW DIGITAL TRANSFORMATION BEGINS

Most digital transformation initiatives begin with customer journey mapping, a process that helps one fully understand the dynamics of the target customer and their behavior. Journey mapping connects the dots from a customer's initial interaction with a brand, through their entire experience with that brand via multiple channels (e.g., website, mobile app, phone call, direct mail coupon), to their choices related to that brand and the reasons why.

In life sciences, customer groups include clinical subjects, investigators, site personnel, customers/patients, physicians, employees, research partners, regulatory agencies, and more. Because customer journey maps are not one-size-fits-all, each customer group (and, possibly, sub-groups within each group) requires its own journey mapping effort.

Once a company possesses a solid understanding of stakeholder needs, wants, and expectations, it can build product and services to meet them. And, of course, never stop gathering and analyzing stakeholder data and refining strategies accordingly.





EXAMPLES OF DIGITAL TRANSFORMATION INITIATIVES

Similar to the way digital transformation means different things to different people, there are myriad types of projects and initiatives that fall under the concept of digital transformation, including:

- / Implementing methods that enable changes to be made quickly on digital platforms, such as websites, mobile, social, and portals
- / Developing websites and portals that are mobile-friendly
- / Creating a seamless customer experience by integrating various technology, such as social media platforms, the web, and mobile
- / Upgrading customer-facing systems to improve and expedite interactions
- / Forming a social media program that is first-rate among competitors
- / Transforming customer service that leaves a good impression

30 EXAMPLES OF DIGITAL TRANSFORMATION IN LIFE SCIENCES

(CLICK EXAMPLES TO DIG DEEPER)

CLINICAL TRIALS

SUBJECT

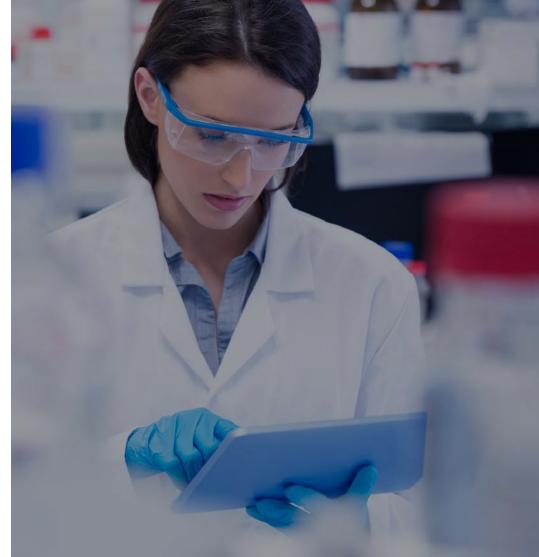
- / TrialReach matching patients with clinical trials
- / ICON using IBM's Watson artificial intelligence computer to match patients with clinical trials

CLINICAL RESEARCH

- Roche developing a mobile app to assess the severity of a patient's Parkinson's disease
- / Boston Children's Hospital and M.I.T Media Lab using digital devices in teddy bears to gather data from pediatric patients
- / Medical centers and nonprofits using Apple's ResearchKit platform to develop apps that gather information from patients about asthma, glucose, Parkinson's disease, chemotherapy, and cardiovascular disease
- / GlaxoSmithKline and Purdue Pharma considering using Apple's ResearchKit platform

CLINICAL OPERATIONS

- / The FDA providing guidance on how to leverage technology, such as Skype, for informed consent
- / Quintiles identifying current study data issues and preventing potential ones through riskbased monitoring



INTERNAL OPERATIONS

DIGITAL TECHNOLOGIES AstraZeneca simplifying and improving existing processes (and employee satisfaction!) through new cloud and mobile solutions

/ Genentech being the first to implement a variety of digital technologies, including iPhones, an internal app store, and mobile signature capture

POST-MARKET

ONLINE/ Leading pharma companies changing the overallPRESENCElook and feel of their websites

MARKETING/ ADVERTISING

- Valeant integrating its marketing campaign for JUBLIA across multiple digital platforms
- Duchesnay using Kim Kardashian's Instagram following to raise awareness of its morning sickness drug
- Imprimis Pharmaceuticals using a website and social media to educate patients and healthcare providers about its interstitial cystitis product

PUBLIC EDUCATION

/ LEO Pharma investing in SkinVision, the developer of a mobile app that helps detect melanoma

- Pfizer educating patients in China about sexual health-related topics
- Pfizer creating the mobile app Moodigo to encourage mental health in Hong Kong
- / Pfizer engaging with the older population through a digital hub called Get Old

PATIENT SUPPORT

- / Eisai supporting patients who take BELVIQ through a portal
- / Walgreens enabling web users to view selfreported data from other patients who have taken the same medication
- / Iodine creating an online review forum, similar to Yelp and Angie's List, for drugs

MEDICATION ADHERENCE

- HealthPrize creating custom apps for pharma clients that improve patient medication adherence through gamification
- / PillPack creating an online pharmacy that breaks out your medications into daily doses and packets
- / AiCure capturing a patient's medication intake and ingestion through facial recognition and motion sensors
- / Proteus developing a digital pill that tracks patient data and reports it to an electronic data capture system
- Pfizer improving medication adherence with a mobile app



POST-MARKET

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ADVERSE EVENT REPORTING

The Medicines and Healthcare products Regulatory Agency (MHRA) augmenting its webbased Yellow Card Scheme with a mobile app

/ FDA showing interest in leveraging Google search for signal detection

CONSUMER ENGAGEMENT

/ Pfizer, UnitedHealthcare, MedStar Health, Georgia Tech Research Institute, and AARP learning how the economically-powerful 50-plus segment feels about technology

PHYSICIAN / The Merck Manual going completely digital and multilingual



UCB PHARMA

In an interview with Eugene Sefanov, marketing manager for Perficient's life sciences practice, Bharat Tewarie, executive vice president and chief marketing officer for UCB Pharma, opened up about digital transformation (DT) at UCB.

Eugene: How is UCB employing DT to discover and engage with patients, build brand and product awareness in the marketplace, or to empower its own employees be more successful in their jobs?

Bharat: At UCB, we believe that an investment in digital is an investment in our patients and we focus heavily in the areas of social listening and patient education. We utilize social listening platforms to derive insights that are then used to frame our patient programs to ensure we are delivering the greatest value to our patients. These platforms also enable us to identify patients with questions or concerns about our products so that we can, when appropriate, reach out to them proactively and address their issues – thereby also building a relationship and trust with those patients.

UCB is also committed to online community building for people living with severe chronic diseases. Social communities are an important resource for patients; they are a place where individuals who may feel otherwise isolated can connect with people who understand them, and where they can find valuable resources related to the diseases they may be living with. For UCB, they provide a venue to directly engage with patients to better understand their needs and to provide valuable educational resources and tools.

UCB also cooperates with stakeholder platforms (PatientsLike/Me and MyHealthTeam), while managing therapeutic patient communities because we believe that a greater understanding of the disease and better education for patients are a priority. However, now that a strong foundation of awareness and education is in place, we are also looking at refocusing on branded activities moving forward.

Within UCB, there is a culture of collaboration and we have digital tools in place to enable colleagues to engage with each other



virtually. We believe that empowering our colleagues to share and ideate will ultimately deliver value not only to our organization, but to the customers we serve. Social media and digital are increasingly used internally to support the rollout of our patient value strategy, culture, and behaviors. Internally, cross-functional collaboration is increasing via UCB Plaza, our intranet platform. Our company's "Helpfulness & Generosity" culture is demonstrated via the increase in colleagues who are sharing best practices through microblogging, requesting expertise outside their immediate spheres, and offering their knowledge to colleagues in other countries and departments working on similar projects. Patient value discussions are always at the heart of social conversations.

We also employ digital means to reach future colleagues. Online channels such as LinkedIn and Glassdoor are key to attracting and engaging potential talent. We have focused efforts on showcasing "UCB on the inside" to do just that.

Eugene: What is your biggest DT accomplishment to date?

Bharat: We are proud of the investment we have made in growing patient communities on social channels. UCB's EpilepsyAdvocateTM Facebook community is the largest epilepsy community on Facebook with more than 173,000 very engaged members. Having this two-way dialogue with patients is invaluable- it has enabled us to understand their individual journeys and to piece numerous individual stories into a broader picture of the patient experience of someone living with this disease. The ability to use real-time patient engagement to frame the programs we then deliver back to those patients is immeasurable.

In 2014, we also brought together a multi-disciplinary team for the purpose of reimagining how our internal U.S. contact centers were meeting the needs of our customers. We aligned our customer service, drug safety, and medical information departments into a new customer experience center called UCBCaresTM. We enabled the newly launched UCBCares team to reach out to patients proactively via social media to address individual patient inquiries. This opened another key door to two-way dialogue with our customers.

Outside the U.S., we have also created a digital hub for our other core stakeholders – healthcare professionals (HCP). We launched Neureca®, a destination for HCPs that provides neurology resources



and educational webinars. It also enables us to understand better what kind of information HCPs are looking for so that we can create more content that meets their needs and have more meaningful conversations.

Eugene: What are some of the challenges that you have faced in your DT initiatives?

Bharat: Digital transformation is just that – transfor-mation – and adapting all aspects of the way we work to meet the needs of so much change can be challenging. It requires a culture of innovation and a comfort with risk-taking, something that is not easy in a space as regulated as the pharmaceutical industry. Digital allows for greater agility but our internal structures and processes need to match that agility.

Eugene: What advice related to DT do you have for your colleagues in pharma?

Bharat: To create the greatest value for our customers, it is critical to define where along the value chain we can create impact – R&D, HCPs, patients, etc. If we remain focused on an area and keep stakeholder insights top of mind, it will help prevent barriers to implementation. It's also important to share key learnings and best practices across an organization. Create a culture that fosters a learning environment because collaboration leads to innovation, new ideas, and value to our patients.



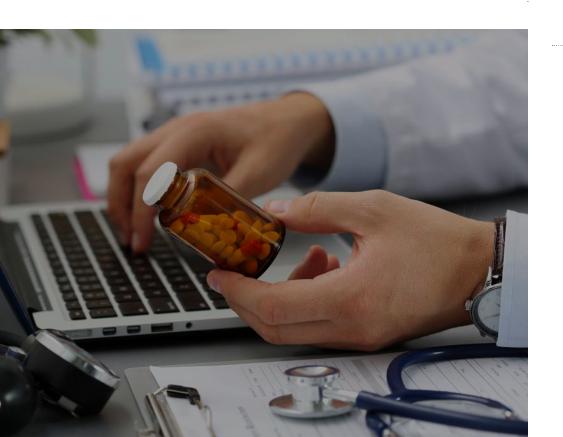
With examples and stories from across the industry, it's clear that the life sciences industry – like many aThe process may seem overwhelming at first, but with the right data, technology, and strategy, the metamorphosis can lead to beautiful things: more effective clinical studies, more engaged patients and physicians, increased sales, more efficient internal operations, more satisfied employees, and a better bottom line.

ABOUT THE AUTHORS

MARIN RICHESON

LEAD BUSINESS CONSULTANT, LIFE SCIENCES, PERFICIENT

Marin joined the life sciences industry in 2001. Over the course of her tenure, she has held roles in clinical finance, IT, quality assurance, and validation. The diversity of her experience provides her with a unique perspective on the interconnectedness of this complex, multi-faceted industry.



EUGENE SEFANOV

MARKETING MANAGER, LIFE SCIENCES, PERFICIENT

Eugene Sefanov, is the marketing manager for Perficient's life sciences practice. He is responsible for all life sciencesrelated marketing activities, which includes the promotion of the company's services, accelerators, and partners to pharmaceutical, biotechnology, and medical device companies, in addition to contract research organizations (CROs) and academic research institutions (AROs). Eugene brings more than 10 years of marketing experience to Perficient, more than half of which is in the life sciences industry.

PERFICIENT DIGITAL +

Perficient Digital and Life Sciences combine the creative imagination of an agency with technology consulting and industry knowledge, to empower life sciences organizations by giving them the tools they need to stay connected to their customers. Our data-driven approach uses insights gathered from the entire user journey to create an intuitive experience that tells a consistent story, whether engaging with a patient, physician, partner or other stakeholder. We help you meet and reach your users where they are – across mobile, tablets, and desktops – keeping them connected.

Our full-service offering is designed to tackle your everchanging, ever-increasing business challenges. End-to-end is just the beginning.

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PERFICIENT + LIFE SCIENCES

Perficient's life sciences practice provides strategic consulting and technology services to pharmaceutical, biotechnology, and medical device companies, as well as contract research organizations (CROs) and academic research organizations (AROs). For nearly two decades, we have partnered with more than 200 life sciences companies to help streamline internal operations, improve quality and compliance, increase market share, and engage with customers.

Contact us today to learn more: sales@perficient.com