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# Harnessing power of the digital patient

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**Harnessing power of the digital patient**



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The biopharmaceutical industry is facing a number of macro-environmental factors, which underscore its need to think of itself not as a developer of singular products, but as a critical part of an interoperable system. This fundamental shift must include a strategic approach for engaging with an increasingly informed and connected patient population.

The amount of medical information now available to patients online is truly remarkable. Coupled with a decrease in the amount of time physicians can actually spend with their patients, today's health care consumers are savvy, engaged and have a strong desire to learn as much as they can about their diseases. Increasingly, patients are searching for health information online via a growing cadre of digital tools that enable self-education and greater personal control, even before consulting their physicians. Patients then use what they've learned online to enhance the dialog with their health care provider; they now enter the conversation about their health care needs far more informed than at any other time in history.

While dramatic advancements in communications have empowered the digital patient, eroding patient access to physicians has accelerated their plight. Physicians are now seeing nearly 17 percent fewer patients per day than they did in 2008.

Among other reasons, these dynamics are fueling the patient empowerment movement.

Patients, in fact, may be the most underutilized resource in the healthcare system, because many of the traditional approaches for interacting with patients were born in an unwired century. Understanding the digital patient and enabling them to become actively and appropriately involved in achieving better healthcare outcomes must become a new priority for the

health care industry.

We have now entered an era in which the digital world will dramatically shape health care, much as it has done to other industries. Today is the age of the digital patient-with the patient at the center of the networked environment-and patients are actively seeking information about their health without the constraint of geographical boundaries or physician intermediaries.

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By properly engaging with digital patients, more effective healthcare products can be developed at significantly less cost and time compared to what the industry has spent in years past. Engaged patient relationships can also be leveraged to study product value and safety, and also to help biopharma companies maximize the return on their development investment through realization of time, and cost efficiencies in product development, and patient retention during product commercialization. To be successful in the age of the digital patient, biopharma companies will need to be expert in their ability to interact with patients who are equipped with information and empowered to approach their health care providers based on this information obtained on the internet.

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**Harnessing the Power of the Digital Patient**
At the heart of engaging the digital patient is a relationship built on trust. As with any relationship, it starts with an introduction (awareness), which can happen at any number of digital destinations. By continuously providing content that has clear utility to that individual, the relationship can progress to familiarity and favorability. Providing content to patients on demand (as requested) begins to build a two-way dialog through which a trusting relationship can be forged.

With incentives aligned, the digital patient wants to participate in creating better health outcomes. In fact, patients will go "out of their way" to help. Quintiles published research across 206 feasibility and recruitment screening studies involving 8,599 patients indicate that 72 percent of patients are willing to be contacted to participate in clinical research, and 81 percent of patients are willing to provide personal health information to assist in observational research (Applied Clinical Trials, July 2012). More importantly, this participation is happening in practice.

Engaging the digital patient in this manner makes it simple for the pa- tient to participate, and far more cost effective and expeditious for the biopharma company. Furthermore, harnessing the power of the digital patient will have a profound effect on

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- Streamlining product developmentÃ?Â
- Accelerating product adoption and adherenceÃ?Â
- Demonstrating product value and safety

**Streamlining Product Development**
The ability to conduct clinical research efficiently is dependent upon enrollment into clinical research studies. Yet, a study published in Annals of Internal Medicine by Luce et al, reported that more than 90 percent of industry-sponsored clinical trials experience delayed enrollment, and a Tufts Center for the Study of Drug Development report found that 37 percent of investigative sites fail to enroll a single patient. A lack of study participants creates delays in new drugs entering the market, which not only prolongs the time it takes to get new therapies to patients, but also adds to the overall development cost to the biopharma company. In addition, failure to enroll the necessary number of patients at each investigator site in a timely manner can compromise a trial's statistical power and scientific validity. The use of digital tools and online communities offers a host of opportunities to improve upon the clinical research process from beginning to end.

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**Accelerating Product Adoption and Adherence**
Upon product launch, the objective is clear for biopharma and patients alike: to enable as many patients to benefit from the product as possible. This takes on two forms: Product Adoption and Product Adherence. Driving both ensures the greatest marginal return along the product lifecycle for biopharma companies and the best patient outcomes for the greatest number of people.

With an embedded universe of engaged patients made possible by the clinical trial alumni community, there is ample opportunity to help accelerate the product adoption process. Typically, there are hundreds of clinical trial alumni, and, as a

result of product approval, most of them have already experienced the benefits of the product. The engaged patient relationship enables the biopharma company to immediately contact these patients and notify them that the product is commercially available.

In addition, data from these patients on their patient-reported outcomes - quality of life, work productivity, etc. - can be extremely helpful in supporting market access by integrating this data into formulary dossiers and budget impact, and other health economic models. Finally, information from these patients can be a supplement to the observational and market research being conducted to better understand patient attitudes, behaviors, and treatment patterns as they change over time with introduction of other new products and services.

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The challenge is greater than simply getting patients onto the therapy - it's maintaining therapy. With an engaged patient relationship, this is made possible. The key to success is three-fold: understanding patient motivation, providing value-added services to drive that motivation and enabling contact via the appropriate communication vehicle.

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**Demonstrating Product Value and Safety**
Increasingly, healthcare payers and provider organizations are looking for proof of economic value when making decisions about which therapies they will and won't reimburse. At the same time, regulators are increasingly insistent upon measuring ongoing product safety. Biopharmaceutical companies face the pressure of doing both and typically use a combination of physician-constructed patient registries and long-term investigator follow-up.

Both of these tried and true methods are important, and can be enhanced or in some cases offset by direct-to-patient methodologies. Executing direct-to-patient engagement strategies requires a unique combination of patient engagement and analysis made possible by collecting patient reported outcomes (PRO), medical records and in many cases lab data.

By working directly through the patient, we can now conduct some types of observational research by obtaining consent for medical record access, generating a laboratory prescription for sample collection, and/ or delivering a DNA collection kit directly to the patient's home. Similarly, we can collect data from a growing universe of biosensor devices.

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In addition to validating patient condition, this linkage between PRO, electronic medical records (EMR), laboratory information (Labs), and device data (Device) begins to closely approximate the type of information that can be generated through longitudinal, physician- based, observational registries (i.e., PRO+EMR+Labs+Device).

Further, directly engaging with patients in this manner enables remote follow-up of clinical trial participants. Instead of asking a patient to return to their physician for assessment, outcomes data can be gleaned from the patient him or herself, thereby reducing study attrition as well as the considerable time and cost of traditional physician-based follow-up.

**The Digital Patient's Impact on Future Research**
The digital patient is pushing the biopharmaceutical industry to make fundamental changes, many of which present solutions to a number of the industry's biggest challenges. Harnessing the digital universe can not only help to save money from the health care system, but also improve patient outcomes. Online patient communities represent new opportunities for the industry, and help to raise patient awareness about clinical research, how to manage and cope with illnesses and available treatments.

Investing in patient-driven services and online communities that help to build a networked model of communication among patients, their health care providers and other stakeholders will be critical for the biopharmaceutical industry going forward. Companies that embrace the idea of digital patients and learn to successfully engage with them will distinguish themselves.