# What Healthcare Systems Can Do to Engage Patients in Chronic Conditions Management

*By Daniel Piekarz, Head of Healthcare and Life Sciences Practice at [DataArt](#)*

I recently watched a [TED talk with Joe Gebbia](#), a designer and co-founder of Airbnb. He told the audience a story of how Airbnb grew by designing for trust. Indeed, in the world where more and more of our interactions happen through user interfaces, reality lends itself to design. If a start up can grow into a billion-dollar company by designing for trust, could we then reach better patient health outcomes by designing for patient engagement? The battle for consumers' attention happens on their devices and success is driven by customization, convenience, frictionless interactions, intuitive interfaces, relevant content and focus on the user experience.

While patient engagement is becoming a popular concept, its application in real life has been quite superficial. It is often associated with Meaningful Use Stage 2 requirements and patient portals, most of which provide no more than minimal, dry functionality. Currently, healthcare systems are starting to realize the necessity of shifting towards customer-centric services and the value of embracing technological advancements in the area of UI/UX design to better engage with patients. A good example is the Ochsner Health System in New Orleans, which launched the O Bar, an in-person center, which recommends and teaches patients to use more than 300 health apps (including nutrition tracking, fitness, expectant mothers' education and chronic conditions management).

The Healthcare Practice at DataArt is focused on creating research-based customer personas and providing customer-centric solutions and immersive user experiences to the healthcare industry. Earlier this summer our healthcare team took part in InnovateNYP, a Pediatric App Challenge of the New York-Presbyterian Hospital. In two weeks our team designed an award-winning prototype of a complete patient engagement solution for pediatric patients with diabetes and their families. The prototype can be customized to any other clinical state and consists of two interconnected applications: one for the child and one for the parents.

The child's application is gamified by an animated interactive squirrel. The squirrel leads the child through daily schedules, rewards for compliance, suggests personalized educational content, captures statistics about the child's condition such as digital glucometer readings and reports it to the parent application. It helps the children along the recovery process by reminding them of the scheduled actions and keeping them on track with the treatment plan.

The education section includes short movies, aligned with the child's medication plan and is available in different languages. Once a new video is available, the squirrel encourages the child to watch it and gives a star reward, which can be used in the entertainment section. With the app, it is easy to track carbs intake for each and every meal. The child simply chooses a type of food and an approximate portion size, and gets instant feedback from the character of how healthy the food is.

Not only is the child involved in making decisions about their health, but so is the family. The child and the parent apps are interconnected and all data captured on the child's device is sent to and available for analysis on the parent's device, allowing the parent to monitor the child's condition and progress through a history of vital indicators (including carbs intake and glucometer readings). The parent's dashboard contains the same schedule as the child's for taking medication and checking blood sugar levels, as well as scheduled doctor visits, reminding parents of the upcoming activities and helping to reduce the number of risk factors.

The parent app also provides educational content on diabetes and its management, recommendations for the child's daily routine, diet and activity, including explanatory videos and articles. Parents can read the doctor profiles, write and read reviews and check schedule for availability. Solutions like Care Companion can help families adapt to new life-changing conditions and improve children's health and quality of life through self-education.

The Care Companion is one example of a good recipe for patient engagement. The ingredients that make it successful include: thorough research into patients' needs, development of patient personas, highly customized services, engaging interface design and relevant content. Solutions like this offer an important avenue for healthcare systems to engage patients in their own health.

Let's assume for a moment that patient portals were designed by the same principles. Patients could track their health trends historically based on chosen indicators, get analytics from connected devices and insights into how their lifestyle affects those important health indicators, while getting data-driven recommendations for improved health outcomes.

What if portals would educate patients about their particular conditions and treatment options, allow them to pick and compare doctors that specialize in their conditions and give feedback on their services? What if these portals were not isolated interfaces but smart omni-channel systems, connected to all our devices, calendars, to do lists, relentless in reminding us to adhere to our health strategy, pushing relevant information to our attention at the right time, helping to manage chronic conditions and prevent them?

The technology for it is already here and legislation is catching up.

Meaningful Use Stage 3 will open up health records for use by external APIs (Application Program Interfaces), allowing third party technology companies to offer their services and apps to patients based on their unique health records. This will inevitably lead to competition between technology companies to become the provider of the universal patient portal- a convenient API-based marketplace for medical care and other health-related services. It will be nothing new to us, we take marketplaces for granted in other industries; when we intend to travel, we go to online travel marketplaces like Expedia or Travelocity where all flights and hotels can be conveniently compared and purchased.

In a similar way, we will turn to a global healthcare system to compare and purchase most convenient healthcare services to us, based on various service qualities (i.e. location, cost, doctor characteristics, user reviews, popularity index), as well as our specific health records. The system will also collect and analyze our use patterns, interests, purchase behavior and other preferences to further customize services and bring the healthcare industry one step closer to becoming customer-centric.

Original article — http://healthitmhealth.com/healthcare-systems-can-engage-patients-chronic-conditions-management/