TATA ELXSI

Transforming Care Delivery with Omnichannel Patient Engagement

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ABSTRACT

With the current global pandemic having irreversibly altered our way of life, healthcare as a service also finds itself facing disruptive changes. Amidst the growing prevalence of remote communications and consultations between patients and doctors, healthcare providers are focusing on leveraging technology to bring better outpatient care facilities with enhanced patient experiences. Within this growing market need, omnichannel patient engagement has shown its capacity to revolutionize how we approach healthcare.

By offering customizable and accessible solutions that are fully interoperable and vendor-agnostic, the time and trust of patients can be retained by brands looking to build long-standing relations with their customers.

This whitepaper will explore the facets of an omnichannel healthcare experience, including many trends and challenges that shape adoption. The benefits associated with the adoption of omnichannel healthcare platforms; and the value that service providers, like Tata Elxsi, bring to the table.

INTRODUCTION

In today's post-pandemic landscape, the fear of putting oneself in a situation, such as social and professional gatherings where one can risk infection, is a concern that has grown tenfold. This fear is particularly heightened during visits to hospitals and other healthcare facilities. In an effort to ensure continued operations and greater client outreach, businesses across industries have implemented remote working models and increased dependence on IoT and other connectivity tools. Given this new "climate of caution," it should come as little surprise that healthcare must also adapt to the current landscape.

During the onset of the pandemic, telehealth usage surged to levels far beyond what they were before. Reports show that in April 2020, overall telehealth utilization for office visits and outpatient care was 78 times higher than in February 2020. Furthermore, this has led to the freeing up of critical hospital and facility resources and their optimal utilization for COVID and emergency services. With advances in technology and remote care practices presenting new ways for patients and caregivers to interact in safety, the healthcare experience has evolved out of a necessity to move beyond the confines of hospital chambers and visiting healthcare facilities.

Hence, the traditional approach to healthcare and patient engagement is in dire need of an upgrade. As this expansion continues, it has become more vital to provide patients with omnichannel engagement and a holistic healthcare experience.

Despite this need for virtual and omnichannel care, there is occasional skepticism and uncertainty about moving in this direction. Enterprises often believe that such a radical structural overhaul is not viable in the long run and once the current global situation "stabilizes," there will be a return to normalcy and old operating methods. However, it is essential to remember that while the pandemic has accelerated the adoption of virtual care, the shifting behavior of patients, doctors, and administrators indicates that this change will outlive the effects of the pandemic.

Furthermore, a personalized, omnichannel experience is essential in retaining the time and trust of patients as they feel more comfortable with a brand that is easy to access and provides them with the best care experience. This system has already shown significant positive effects for service sectors such as retail and hospitality, where customers can engage with service providers on terms that best meet their needs.

The way forward: A one-stop solution for the entire patient journey that allows hospitals and HCPs to offer a unified path across the patient experience and care continuum and helps deliver healthcare anytime, anywhere. This experience can also be personalized for greater brand engagement while catering to patients across every key touchpoint. A simple and intuitive platform that is truly customizable and interoperable will be the building block for omnichannel care.

TRENDS AND CHALLENGES

The current global telehealth & telemedicine market is valued at about USD 87.8 billion. Additionally, the global remote patient monitoring market is estimated to grow to about USD 48.42 billion by 2026. The previously mentioned massive adoption rates have been a significant reason for this growth.

Within this sharply expanding landscape and upward growth trajectory, the need for a more holistic patient engagement system becomes vital. New technologies will determine how telehealth grows and expands by laying the groundwork to enable holistic patient engagement and an immersive patient experience. Forays into 5G, IoT, AI, AR-VR, and Blockchain, among others, are advancements that can be integrated into the online healthcare experience. These are already starting to show their capabilities in an active user environment, creating new avenues for interconnectivity and interoperability. For example, ultra-low latency 5G networks can seamlessly enable critical healthcare applications such as surgery guidance or remote surgery. Such capabilities help providers extend their networks beyond tertiary care facilities concentrated in urban and metropolitan areas and provide access to high-quality healthcare to larger, underserved populations.

However, enterprises must consider the challenges when moving forward with implementing and integrating new-gen technologies. Several hurdles need to be faced when building an effective omnichannel system come to the fore. This is where a consolidated digital health and care management platform can prove vital in improving the quality of the patient experience.

Such a platform could also address issues with multiple engagement channels, rigid and outdated technologies and treatment methods, COVID-specific care, and overall post-hospitalization care and follow-up treatment.

With that in mind, here are a few key challenges to overcome:

- **The need for better data integration and improved data flow:** To ensure that patient/doctor interactions and treatment occur in a timely and context-sensitive manner, the networks through which critical data is provided and integrated need to be maintained. Technologies such as 5G and IoT provide much-needed modular connectivity and bandwidth to allow effective online medical operations.

- **Better integration and transparency with virtual health-related activities:** Since the more normalized version of telehealth adoption is a recent and rapidly evolving development, enterprises may find it hard to gain visibility into their current or future virtual healthcare ecosystems. Overcoming this requires the strategic use of partners and support systems that will offer the requisite expertise and transparency needed to operate a telehealth framework with certainty.

- **Aligning incentives for virtual health activities with the broader goal of value-based care:** For the most part, there is a disconnect or misconception between physicians and hospitals regarding how virtual healthcare platforms will impact the greater goal of a value-based care ecosystem. As a result, there is either a wariness to adopt digital healthcare models or a movement towards adopting improper or incompletely integrated ones. Overcoming this particular hurdle will require the insights of industry experts and a key understanding and strategizing of what enterprises hope to achieve through digital healthcare initiatives as a whole.

It is important to note that digital healthcare hurdles are not simply confined to doctors and hospitals. As a final overarching challenge, service providers also face significant issues when trying to provide solutions to overcome the hurdles. These include, but are not limited to, high technology adoption and modification costs and greater degrees of user training and experience.

RECOMMENDATIONS, SOLUTIONS, AND BENEFITS

Since the current remote healthcare model is still an emerging trend, MedTech companies have yet to break out of traditional patient engagement methods to provide a seamless experience. This will require a deeper understanding of the outcomes the patient (i.e., the customer), the doctor, and the hospital all want when approaching the creation and integration of an omnichannel healthcare platform.

It is important to keep user experiences in mind and their specific fears, anxieties, and frustrations in the healthcare journey. Telehealth bridges the gaps in treatment, especially for people with anxieties and battling stigmatic conditions. Furthermore, the advantages of telehealth have to be bolstered by patient-centric design and interface platforms that incentivize patients towards health-promoting and disease-alleviating behavior and decisions.

Similarly, the benefits offered to doctors by telehealth, in the form of higher efficiency and reduced data input workload, become trivial if facilitated by poor design and overwhelming tools.

Therefore, a single channel, customizable, patient experience-enabling platform is the need of the hour, where flexible deployment, vendor agnostic architecture, interoperability, and standard compliance are key touchpoints that are covered. This is done by reducing the complexity of the platform – a problem that several specialists and patients have stated is a roadblock for online telehealth services – thus enhancing its accessibility. In addition, a design philosophy that promotes user engagement without being intimidating to access is foundational for a holistic healthcare platform – one which is tailored to the stakeholders and is constantly capable of adapting to their needs.

Under this uniquely designed omnichannel healthcare philosophy, all healthcare solutions can be brought together to improve patient outreach, accessibility, and interconnected rapport between caregivers, clinicians, and patients, resulting in improved patient outcomes and better hospital management. In addition, for holistic healthcare platforms, the benefits that the patient experience framework can impart to providers are significant and include:

1

Optimized Hospital Spending by enabling the adoption of telemedicine services and helping hospitals selectively transit their care services over to telemedicine.

2

Expansion of Care Specialities in hospitals by leveraging telemedicine to bring in more consultant doctors (new doctors or resident doctors from other locations and partner hospitals).

3

Ability to instantly bring in multiple doctors together for providing joint care consultation. This will enable doctors with different specialties to provide a patient with simultaneous assessment and care guidance.

4

Providing seamless digital experience, aligning with the hospital's care workflow and branding and thereby improving the hospital's overall serviceability ranking and economics.

Such platforms will benefit hospitals and doctors who will see a vast improvement in how they practice medicine. As mentioned previously, accessibility and a satisfying UI/UX can be excellent incentives for physicians to start adopting telehealth models. These services can then open up new avenues for patient interaction, and administrative work previously thought unattainable.

Some other specialized applications and benefits of a complete digital health platform are discussed below:

- Ability to transition seamlessly from traditional outpatient care to digital, personalized, and predictive care.
- By implementing a "digital front door" solution to all essential healthcare services, care providers may expand their reach and realize business and clinical outcome benefits.
- Ability to offer a unified experience across the patient journey and care continuum through any device.
- Depending on the platform's architecture, hospitals may deploy an interoperable platform that integrates seamlessly with existing hospital IT infrastructure and workflows, thus allowing for effortless collaboration with clinical and non-clinical functions of the hospital.

- Decrease in administrative workloads such as data entry and reporting, resulting in more time for treating patients.
- To put it simply, an online platform can give both doctors the ability to reach out to patients in a far less intimidating manner while providing optimized levels of care to and from the safety of their homes. In turn, patients gain a more excellent user experience and accessibility, which allows them to build better rapport with their physicians, which translates to a far better healthcare experience. Finally, hospitals will be able to streamline their working processes effectively, thus ensuring better patient retention, brand trust, and greater ROI.

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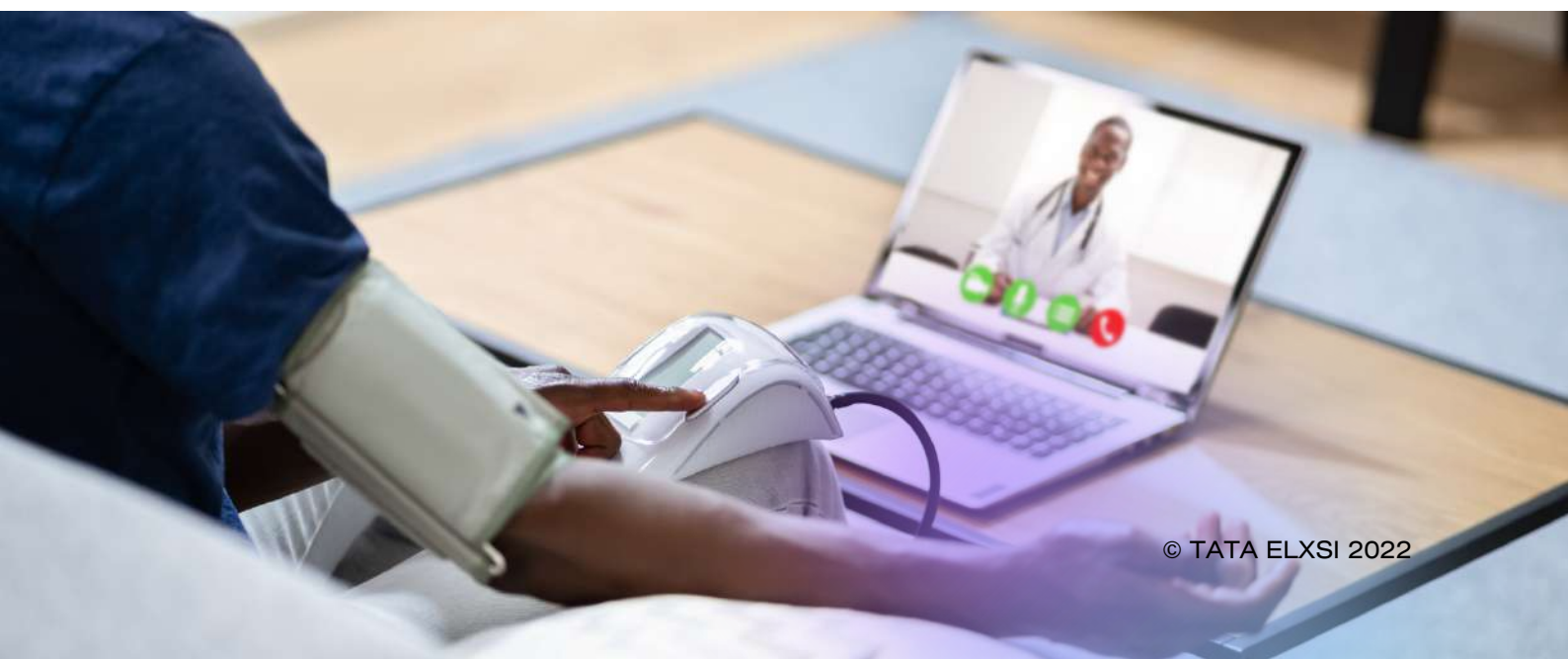
CONCLUSION

With omnichannel customer services having already revolutionized other sectors, the current shift to value-based healthcare models benefits immensely from the same systems. Personalizing and humanizing the core patient experience can be a more beneficial and enjoyable experience for both caregivers and patients alike, with a greater sense of trust between parties and better outcomes.

Tata Elxsi's Digital Health Platform Designed for Omnichannel Care – TEngage

As the "digital front door" to all your essential healthcare services, TEngage is a highly customizable platform that minimizes operational costs and seamlessly transitions traditional outpatient care to a digital, personalized, and predictive care model.
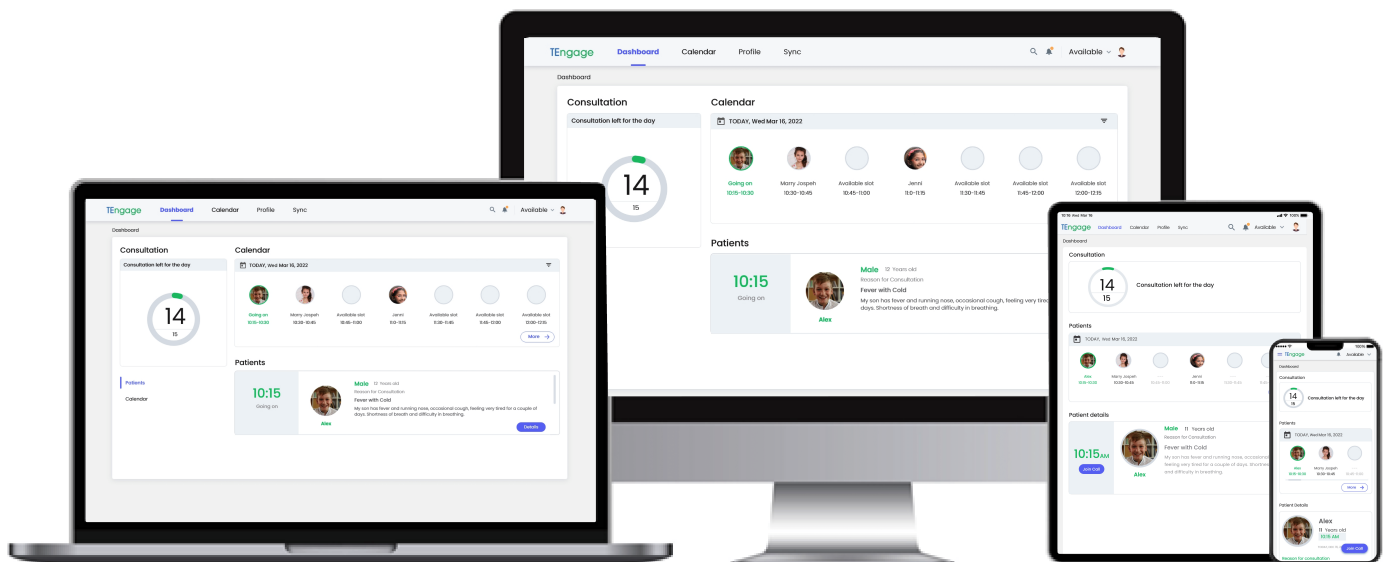
A few key differentiators that establish TEngage as a top of the class healthcare platform include:

Highly customizable with configurable features and support for a variety of third-party tools	**Smooth integration with existing hospital IT infrastructure (billing, insurance, pharmacy, etc.)**
Seamless deployment on any cloud or on-site server	**Easy accessibility to patients and doctors on any device**
Hassle-free post-deployment maintenance and support services	

Future-facing technology partners like Tata Elxsi will be the driving force in creating and adopting these holistic healthcare platforms, and products like TEngage will be the defining systems for an omnichannel healthcare experience.

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Ajay heads the Digital Health practice at Tata Elxsi. He comes with over 18 years of experience in the digital health space and has held various techno-business positions in his career. He leads a team that brings in the required competency, skills, and solution accelerators in the digital health space. His team also owns the R&D for Tata Elxsi's flagship omnichannel care platform - TEngage. Additionally, his portfolio includes managing delivery & innovation for a leading US-based MedTech company. Ajay holds an executive MBA from IIM-Bangalore and a bachelor's in Computer Science Engineering.

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Anshul leads the business and strategy team for the Healthcare and Life Sciences practice at Tata Elxsi. He brings a holistic perspective derived from his experience with patient care and processes management to strategically and operationally define the vision of the healthcare & life sciences business. He takes a special interest in leveraging the digital transformation undergoing in the healthcare industry to improve health and economic outcomes for all stakeholders. Anshul is part of the Tata Administrative Services, is a doctor by training, and holds an MBA degree from IIM Ahmedabad.
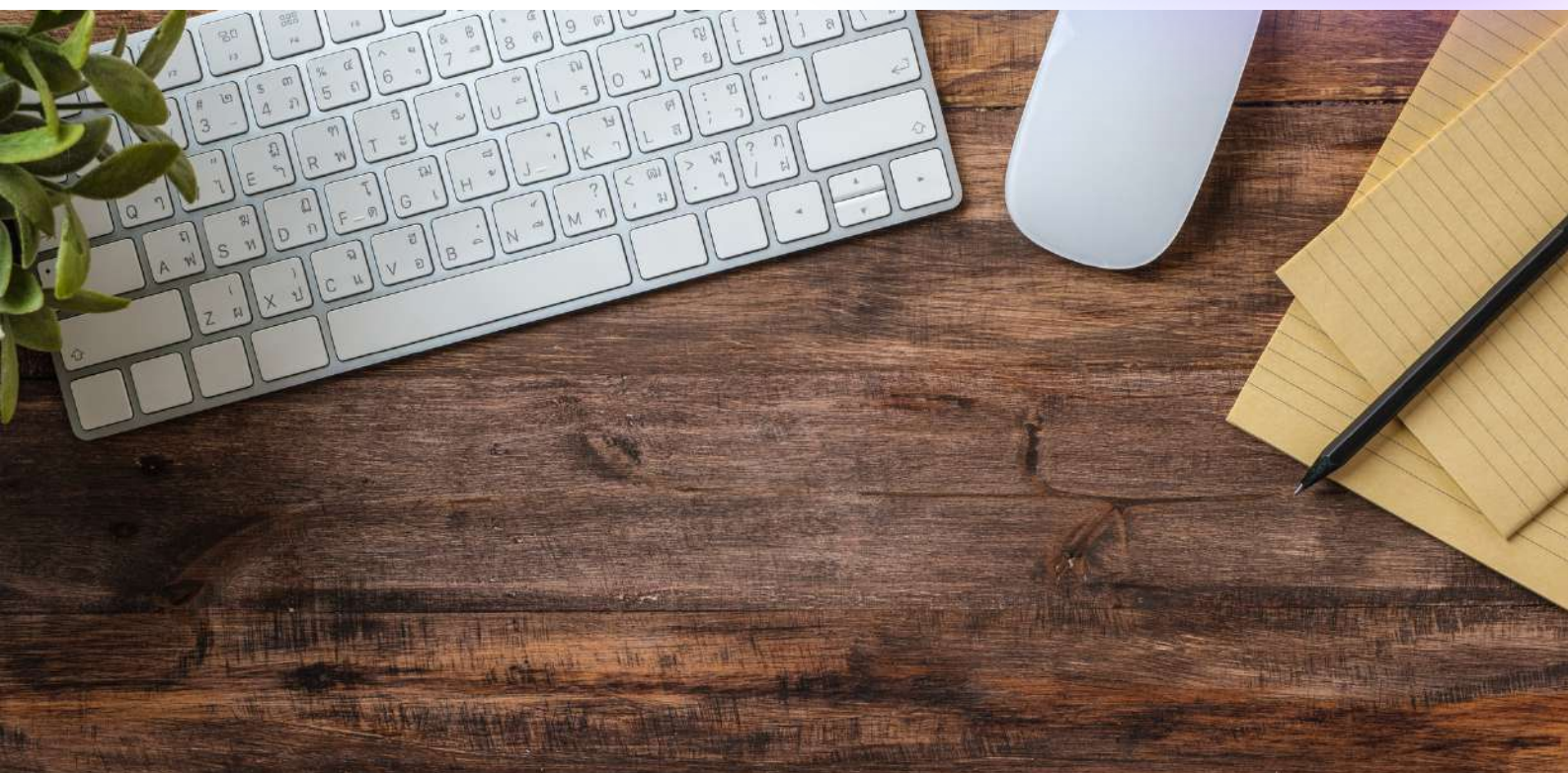
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ABOUT TATA ELXSI

Tata Elxsi, a part of Tata Group, is among the world's leading providers of design, engineering, and regulatory compliance services. With 20+ years of experience in catering to healthcare & life sciences companies, Tata Elxsi has built a comprehensive services and solutions portfolio that adds value at every stage of the customer's product development lifecycle. Tata Elxsi is an established name in technology consulting, new product design, development, verification and validation, and regulatory compliance services.

Tata Elxsi also provides solutions and services for emerging technologies such as IoT (Internet of Things), Big Data Analytics, Cloud, Mobility, Virtual Reality, Cognitive Computing, and Artificial Intelligence (AI). Tata Elxsi has a global presence and is supported by a talent pool of over 9300 employees, a network of ISO 13485 certified design and development centers, and a robust ecosystem of technology, manufacturing, and internationally accredited testing partners.

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