

# **Service Design Approach; an Opportunity for Indian IT Industry to Move Up the Value Chain**

**Shashank Mehta**

National Institute of Design, Ahmedabad, India

[Shashank@nid.edu](mailto:Shashank@nid.edu)

## **Abstract:**

With the 'Digital Services' expected as the third major digital wave that will revolutionize the businesses and societies of the future, the Indian IT industries need to utilise these opportunities to move up the value chain. The increasingly mass-customised markets of tomorrow demand industries to focus on understanding customers; their unmet needs and expectations. And the customer requires, not the product but the service - the essential function that the product/solution provides. Combining hardware, software and humanware to humanise the interface/s to create positive, pleasurable and aesthetically enriching human-product interactions would be the critical challenge. All these would call for change in approach - from the currently practiced 'inside-out' approach to 'outside-in' approach, primarily a service design approach, to enhance customer experiences and identify new business opportunities. Design will be the driver of tomorrow's digital and innovation economies.

## **Introduction:**

One of the most successful industry with consistent rapid growth over the last few years, the Indian Information Technology sector is expected to grow at a rate of 12-14 per cent in constant currency terms for the FY2016 too.[1] The sector managed to achieve double-digit growth rate in the fiscal year 2014-2015 in spite of uncertainties and major challenges. The sector is expected to triple its current annual revenue to reach US\$ 350 billion by FY 2025.[1] The contributions being made by the IT industry towards the country's GDP has led to a steady growth of the Indian economy. It has helped in changing Indian economy from an agricultural based economy to a knowledge driven economy.[2] Along with this economic transformation of the country, the industry has helped alter the perception of India in the global economy. India's booming IT sector is one of the biggest factors that helped India to make its mark on the world map. India has today emerged as one of the topmost offshoring destination for IT companies across the world. India's IT industry is regarded as a hub of innovators providing world-class technology solutions across the globe. Various international organizations like Google, Cognizant, Accenture etc. have set up their offices here in India.[2] The sector today employs over 10 million skilled workforce.[1] Thus significantly impacting the lives of the people, IT sector has helped the domestic economy to integrate with the world economy.

Over these years, India has proven its expertise in customized IT services delivered using software as a means of production and Internet as a means of transmission. According to AT Kearney, India is considered to be the most preferred destination for companies which are looking for offshoring their IT and back office functions.[3] India's IT sector with its annual growth rate of 8.3 per cent, contributed 9.5 per cent of India's GDP during the year 2015-16 and more than 45 per cent in total service

export in the year.[1] Majority IT players, however are predominantly involved in rendering lower end services to their clients. Having proven its capabilities in delivering both on-shore and off-shore services to global clients, now with the surge in engineering and R&D services, emerging new technologies, increased internet usage, emergent start-up era etc., all offer an entire new gamut of opportunities for the Indian IT industry to move up in the value chain.

### **Changing Market Demands:**

*“Over the next five years, sensors, the cloud, connected smart devices and real time analytics will combine to deliver a new layer of connected intelligence that will revolutionize the ability of brands and organizations to offer interesting and increasingly indispensable digital services to consumers”* ..thus describes Mark Curtis, Chief Client Officer, Fjord, a design and innovation consultancy firm, in his report ‘The Era of Living Services’.[4] Like the previous two waves, the desktop Web in the 1990s and Mobile in the 2000, according to Curtis, the Living Services will form as third major digital wave that will revolutionize the businesses and societies alike.

Majority of IT industry follow offshoring model wherein they cater to the specific requirements of its clients. The services are thus delivered as individual projects, employing their technical and/or engineering expertise and project and quality management skills. The focus here would be to develop applications/solutions for mass consumption for the problem/ project brief defined by the organization/client. Majority of these project deliverables would thus be product solutions, entangled with services and strategies as per the types and demands of the projects. Today’s saturated global markets demand clear demarcations, to then apply domain specific methods and knowledge to develop solution/s.

Global economies have today shifted to service economy and further moving to experience economy. The main markets of Indian IT industries majority of them from developed countries, have now shifted from mass-production to mass-customization, demanding change in approach from that of product centric approach to user centric approach. Services are designed around the needs of the individuals. Addressing the emotional and physiological concerns of the users are now central to the projects to be undertaken. The solutions therefore need to be customized, dynamic, responsive and adoptive to the context. Design would here play a key role in exploiting capabilities of the technology to engage with the human senses at a deeper level.

It is understood that the efforts so far were focused on technological development, more of 'inside-out' approach for design and innovation, based primarily on client's brief and expectations. The technologies thus developed as solutions (as products) then become the basis for further upgradations in terms of their refinements/improvements, value additions through new applications and features etc. Product markets, however are now saturated globally. Industries are struggling to compete solely on prices. Moreover these products/solutions while may satisfy the user's want, however may not satisfy the user’s need. The customer/user is now the dominant reference point for strategy and innovation. And customers are complicated. They have individual needs, feelings, and expectations that cannot be standardised. No machine or computer can cope with these individual needs to offer a totally new

dimension of value. It is not a product that the customer requires, but the service—the essential function—that the product/solution provides. Service is understood as synonym of the customer need. Today's markets thus demand industries to focus on understanding users; their unmet needs and expectations, thus calling for "outside-in" approach to design and innovation for developing new solutions, strategies or business models; primarily a service design approach.

### Digital Solutions:

Most digital solutions would be a heady mix of products (technology applications), their interfaces, services and strategies. It becomes imperative for the IT industry to distinguish them clearly as each of them as independent components demand different approaches.

Product (and/or its interface) will be mostly in tangible form. It can be pre-produced (developed) at distant/different location (not the same location as the location of its consumption). Products can be stored and can be reused (used repeatedly) by many users / customers. Services, on the other hand, are intangible and they are immaterial. Services cannot be pre-produced. They cannot be owned and cannot be stored. Thus, the unique aspect of the services is that they are live. Services thus can only be performed. Service is thus produced and consumed simultaneously. It normally emerges out of the interaction with the client/user. Service thus creates complex experiences (as its deliverables). The overall experience that a user gets, is driven by the service interface. Unlike products, no two service delivery experiences are alike.[5]

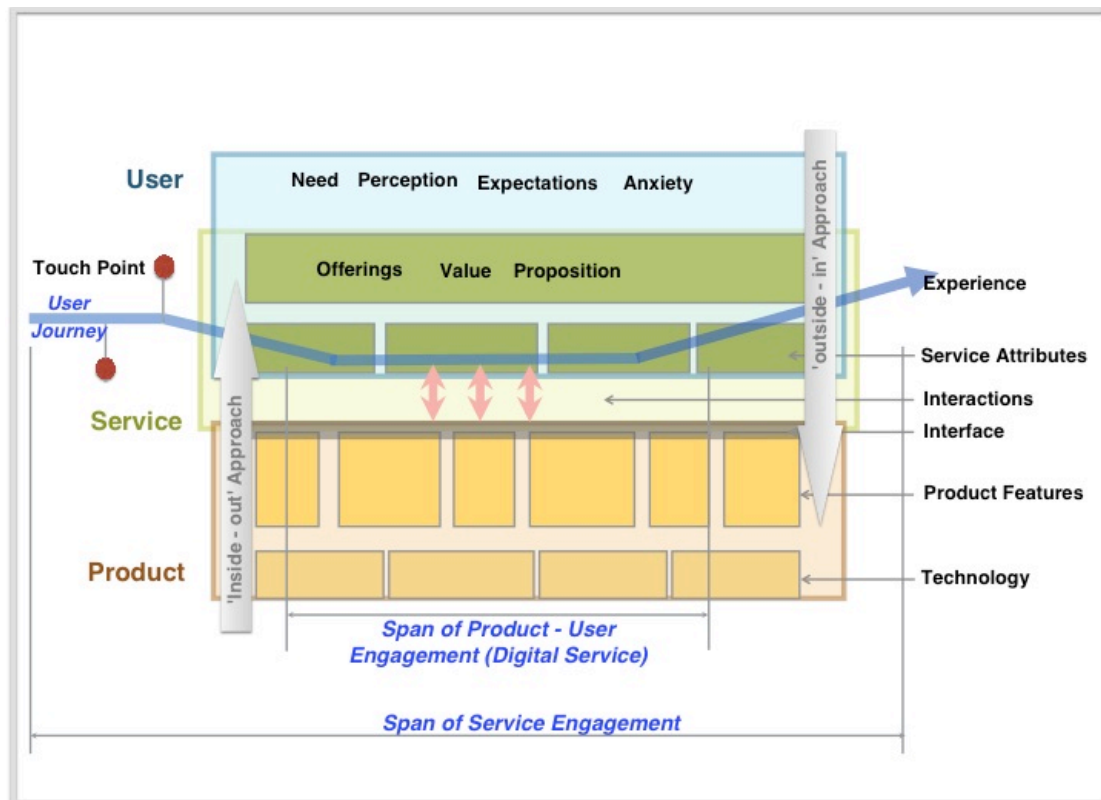


Figure: Product – Interface – Service interactions

The product, here the digital solution/s, interacts with the user through its interface. Mostly a technology solution developed through inside-out approach with limited or no user information, interaction and testings, its interface would thus comprise of technical features. The interaction therefore will depend on user's knowledge, his/her experience and/or tenacity to explore and learn through trial and error. The responsibility to explore and make the best use of the product would thus lie with the user, customer and/or the client. With the emergence of interface design and interaction design as specialised disciplines extending the traditional graphic design discipline, the efforts are now focused towards humanising the same. However there may still be a major gap between the user needs and expectations and the product interface. Service here emerges more as byproduct of the user-product interaction. And the user-product engagement span, the digital service span, as shown in the figure, will be limited and small part of the entire service engagement span of the user (user journey of the service), though it will be the key factor to create user satisfaction, experience and thereby the overall impression of the solution.

### **Humanising Products and their Interfaces:**

Nobuyuki Idei, the former head of the Sony Design Center believes *"the integrated network structure augmented by a potent, emotional persona that blends into a consumer's way of living is perhaps the most compelling feature of the 'Digital Convergence' vision"*.<sup>[6]</sup> Humanising the interface to create positive, pleasurable and aesthetically enriching human-product interactions would thus be the critical challenge. These interfaces and thus the resultant interactions will need to engage the user emotionally, intellectually and physically to yield memorable moment/s. David Gelernter, a computer scientist and the author of the book 'Machine Beauty: Elegance and the Heart of Technology' argues that beauty—the marriage of power and simplicity—is the driving force of the computer industry today and thus, a prerequisite for technical innovation. *"beauty is critical in developing computer software because it helps users "break free conceptually" from the confines of the machine and its internal logic towards a "creative symbiosis" between the human user and the purpose of the activity itself"* says Gelernter.<sup>[6]</sup>

The customer/user will be concerned only with the solution of the problem at hand. The problem or the need may or may not be clearly defined. And s/he may be lost for directions. People are fundamentally analog, adaptive, sensual, emotionally conscious beings who have values, ideals, beliefs, perceptions, and emotions that impact their behavior.<sup>[6]</sup> S/he expects a facilitator, an advisor and a mentor who understands his/her needs, expectations, aspirations, anxiety and guide and handhold him/her through the journey to find the solution. The user will be comfortable and thus expects individual, personal and customised interactions. Humanising interactions - those technological features of the product/ digital solutions, thus designing products/digital solutions and experiences that respect humans for who they are, will be the critical goal for the designers. *"In the world of pure software engineers, empathy isn't part of the goal. The goal is to execute on durable code, test it with code. Code that won't fall down, like a bridge maker, like a person who designed a bridge wants to make sure that, number one, it doesn't fall down. But while doing that, they need to think about the person that's going to cross the bridge. "How does a person crossing the bridge feel?"* writes John Maeda, past president, Rhode Island

School of Design, further adding "*empathy is what designers bring to the table all the time.*"[7]

### **Service:**

Service connects at a human level. It focuses on providing customised solutions. "*Service is a human to human approach, which deals around understanding people and their needs, while adapting to advancement in technologies, giving them solutions which make them feel "special"*", is how one of the student groups of NID's Strategic Design Management programme of 2011 described their understanding of service as an outcome of their assignment as part of Service Design course module. Another group of students, from their detailed study of one of the India's leading travel portals Cleartrip, offering services for booking of hotels, flights, and trains across destinations, developed their understanding as, "*Service is like an interface between product and consumer. It is the communication which understands consumer's needs and connects his mind with heart. Service becomes a product's voice and helps it communicate its value and worth to its users. It also generates the feeling of ownership between consumer and the product. It makes life better for the consumer by giving him an experience which he will cherish and come back for it!*"[8] The group identified the attributes of this service as *Simple, Friendly, Approachable, Trustworthy, Reliable, Humane, Surprising, Honest*; more of human attributes that the user would be unconsciously looking for.

The span of the service engagement as shown in the figure, will normally be larger than the span of product-user engagement. The user would go through stages of decision makings and anxieties before deciding to explore and interact with the product. While handholding the user during this critical stage (pre-service stage), the service should attract and induce the user into the interaction, guide him through the entire product-user engagement cycle, while creating moments of delights, surprises and satisfactions to finally leave the service with meaningful experiences. The journey needs to be aligned with the needs, expectations and capabilities of the user with creative value propositions and service offerings. And the product/ technology features should be aligned with the expected service attributes. The sequence of the journey with each of its touch points need to be carefully designed with required feedback system to avoid ambiguity at any stages. With the scope for required customisation, the interface should engage the user at a deeper level by involving various senses to create enriching experiences.

### **the road ahead:**

*"This is the era of Living Services, the services that are contextually aware and able to react in real time,"* writes Mark Curtis, further adding "*they will transform and improve the way we live, both by removing mundane tasks and offering services that surprise and delight us. By being physically close to us and wrapping themselves around the everyday things we do, Living Services will intuitively learn our habits, likes and dislikes and become tailored to our individual and changing needs.*"[4] And effectively combining hardware, software and humanware, the next generation of interfaces riding on wareble, ubiquitous and pervasive technologies will offer increasingly natural, perceptual and realistic interactions, thereby leveraging users' built-in abilities. "*We are entering a Post-Device, Service-led era. The future of*

*computing seems to be about a set of platform and device-independent services."* writes Bob O'Donnell, president and chief analyst, TECHanalysis Research, LLC, a market research firm.[9]

With the customer as the core focus, 'design thinking' would be the key ingredient for the companies to develop the much needed 'human-centered' approach at every level of its business. *"If you want to improve a piece of software all you have to do is watch people using it and see when they grimace, and then you can fix that"* says David Kelley, the founder member of IDEO, one of the leading design consultancy firm. IDEO defines human-centered design as a creative approach to problem solving that starts with people and ends with innovative solutions that are tailor made to suit their needs.[10] *"Design thinking..."* as Maeda explains *"...is all about organization agility; rediscovering innovation over execution. In the case of design thinking, they'll take Post-it notes and use a whiteboard and think about ideas and move them around as if they're sketching the organization, the people roles. So it's the ability to ideate very quickly."*[7] From creating user-experience to identifying new business opportunities, design will be the driver of tomorrow's digital and innovation economies.

### **Conclusion:**

With its consistent growth over the years, India's booming IT industry has emerged as country's one of the most successful industry sector. Significantly impacting the lives of its people, the IT sector has helped elevate the perception of India in the global economy. Over these years the sector has proven its expertise in customised IT services to global clients. India has now emerged as one of the topmost offshoring destination for IT companies across the world. Majority IT players however are predominantly involved in rendering lower end services to their clients. Delivered as individual projects with product/digital solutions as their final deliverables, the industry adopts mostly 'inside-out' approach to design and deliver the solutions, utilising its technical/engineering expertise and knowledge. These solutions would combine product/s (technology applications), their interfaces, interactions, services and strategies, however each of them demanding different approaches of design. With the product markets now saturated, the focus has shifted to other components of the digital solution, namely interfaces, interactions, services, etc., with resultant deliverable/s as overall user experience. It is not a product that the customer requires, but the service—the essential function—that the product/solution provides. The solution needs to be aligned with the needs and expectations of the user and its interface/s needs to be humanised to create smart, natural and adaptive interactions. Service is understood as synonym of the customer need. It connects at a human level. With the customer being the core focus of the business, 'design thinking' would be the key ingredient for the companies to develop the much needed 'human-centered' approach at every level of its business. While exploiting capabilities of the contemporary technologies to create user experiences, 'design thinking, will help bring in the much needed 'outside-in' approach, primarily a service design approach, to create new business opportunities. Thereby help these industries align themselves with the needs and expectations of the future innovation economies of the world. Design would be the driver for the country's IT industries to move up the value chain.

## References:

1. IT & ITeS Industry in India; <http://www.ibef.org/industry/information-technology-india.aspx>
2. IT Industry in India; <http://business.mapsofindia.com/india-industry/it.html>
3. Sarawgi S.; The Indian IT Industry, A White-paper; <https://www.slideshare.net/mobile/siddharthsarawgi/indian-it-industry-overview>
4. Curtis M.; The Era of Living Services; <https://livingservices.fjordnet.com/media-files/2015/09/living-services.pdf>
5. Mehta S.; Postgraduate Programme in Service Design: Towards India's Sustainable Economic Development; [http://shashankmehta.com/Research%20Papers%20pdfs/India\\_Service%20Design\\_Feb.2013.pdf](http://shashankmehta.com/Research%20Papers%20pdfs/India_Service%20Design_Feb.2013.pdf)
6. Gajendra U.; Design for Beauty: Exploring the human experience of interaction design; <http://www.udanium.com/docs/Beauty.pdf>
7. Krigsman M.; CXOTALK: Design for innovation, digital transformation, and organizational change; <http://www.zdnet.com/article/cxotalk-design-for-innovation-digital-transformation-and-organizational-change/>
8. Mehta S.; The Service Design Course Module: Steering Design Students Towards new Career Opportunities; [http://shashankmehta.com/Research%20Papers%20pdfs/Service\\_Design\\_Shank\\_Mehta.pdf](http://shashankmehta.com/Research%20Papers%20pdfs/Service_Design_Shank_Mehta.pdf)
9. O'Donnell B.; Be Prepared: We're Entering A Post-Device Era; <http://www.fastcompany.com/3061084/were-way-past-steve-jobs-post-pc-era-and-headed-for-a-post-device-future>
10. Lanou S.; IDEO's 6 Step Human-Centered Design Process: How to Make Things People Want; <https://www.usertesting.com/blog/2015/07/09/how-ideo-uses-customer-insights-to-design-innovative-products-users-love/>

\*\*\*\*\*