Abstract

Who could have imagined the revolutionary changes that have taken place since the dawn of the digital era? Two digits – 0 and 1 – have the capability to take humans to the next stage of evolution, and carry machines along with them. Self-learning, a characteristic that human beings pride ourselves on, is now a trait that machines are also identified by.

The entire economic foundation of the world is being laid upon the technological innovations in the digital domain. Customer relationship management (CRM) has shifted the focus of businesses from their own products or services to the people buying their products. The relationship between a company and its customers has undergone a shift from ‘you’ and ‘me’ as two separate entities to ‘we’ as one entity. In this digital era, data is king, and humans and technology are becoming increasingly intertwined.
Evolution – Retail Industry

Evolution is a fact of life, not only with regard to the development of the human race, but also in our activities. Just as we graduated from stone and wooden tools to the metal machines of the Industrial Revolution, the evolution in industry and retail also saw gradual shifts from traditional industrial business models to technology-oriented digital models.

What exactly is the evolution of the retail story? It probably began with an enterprising individual in a central location providing the daily needs of his community, through the barter system. The next stage involved expansion, both local and international, via land and sea routes. At some point, traders gathered together at one spot to sell their goods, which eventually evolved into the department store concept.

The digital era – the Internet, to be precise – has created a disruption in the traditional retail industry. No longer is trade bound by physical distance, geographical boundaries, or payment methods. With the advent of e-commerce, it is the consumer who is king – it is (s)he who decides when, where, and what to buy. Buyers also undertake pre-purchase research online about the products they are interested in, no matter who the seller is, and no matter what the delivery method is. In some cases, they can even virtually test products before they buy.

But this does not mean that brick-and-mortar stores will have to pull down their shutters any time soon. Many buyers still want to touch and feel the product they fancy, before they buy.

But will traditional retailers with no other value proposition than price alone be able to survive in an increasingly digital marketplace? The short answer: No.

While price will certainly continue to be an important factor, customer loyalty will be driven by the flexibility of the enterprise, consumer experience across all touchpoints with brand, availability of products, and speed and mechanism of delivery. It is a transition from a purely physical model to a mix of physical and digital, popularly known as ‘phygital’.

But what does ‘digital’ really mean? Is it only about technology or channels? Is it about finding better or more innovative ways to engage with consumers? Or is it about radically changing the current mode of doing business?

For leadership teams, these different perspectives lead to a lack of vision and alignment about the future direction of business. The result – inaccurate efforts and fragmented initiatives leading to missed opportunities, weak performance, or incorrect starts.

Digitization is a profound transformation for which a simple definition might not suffice. It is predominantly a shift in the approach to doing business – a disruption that involves a transformation in the existing strategy. On the one hand, it means finding new avenues for the business to generate more value for the company and consumer; on the other, it also involves a critical assessment of existing processes and hierarchy to improve enterprise speed and agility.

Another facet of this transformation is to transform the consumer experience across all touchpoints between consumer and brand across all channels; and to create a synergy between all available online and offline channels. The role of technology is limited to facilitating the overall shift in strategy.

Why is a digital transformation required? Simple – many online companies have overtaken traditional companies in overall revenue, profitability, and market reach in the span of a few years. Revenue targets and market penetration, which traditional companies took decades to achieve, were achieved by these newcomers in comparatively very little time. Now, it is not merely a matter of being a market leader any more, it is a question of survival.
Value-driven Symbiosis

When two organisms exist in close contact with each other, and this contact leads to mutual benefit for both the organisms, that co-existence is called symbiosis. In retail, the aim is to find the best value for every consumer. Consumers now look for fulfillment when they buy a product or service. A purchase is no longer just a functional fulfillment – the human spirit has to be satisfied. Consumers want to be informed about and associated with the values of companies from which they buy the product or service. So companies must begin seeing their consumers as human beings, if they want to remain relevant in the long term.

Stephen Covey said that a human being consists of four basic components, which includes, a physical body, a heart to feel emotions, a mind proficient of independent thoughts and analysis, and a spirit which is a human’s soul or philosophical center.

There are four models created around symbiosis which can also be combined to produce true value for the consumer:

1. Shared values: The business creates a long-term competitive advantage by engaging on a deeper level with society as a whole, for instance by providing education to farmers and their families or by taking care of basic needs such as better transportation, and providing farmers with the means to improve their production capability. Consumers in the digital era appreciate such initiatives as they have moved beyond merely being consumers to seeking an experience that touches them spiritually. Sharing these values, and addressing their anxieties and desires, and supplying spiritual meaning by becoming part of their dream, is the future value proposition for companies.

2. Age of participation and co-creation: Businesses count on consumers to add meaning to the product or service that the business provides e.g. World of Warcraft, Facebook, LinkedIn. The future lies in collaborative marketing where the company provides consumers a platform for communication, interaction, fun, and to come together to create value by spreading information and ideas. Technology also helps spread and mould public opinion.

3. Platform or standard-centered symbiosis: It refers to the integration between consumers, the owner of the platform, and multiple partners. A good example of symbiosis based on platforms and actually shared value is Microsoft and Windows. The leading position of the platform drives third-party IT developers to use the platform and develop inexpensive and efficient applications for the platform and for themselves.

4. Coalition: It refers to multiple companies working jointly for a consumer e.g. UK-based Nectar loyalty card, which has created synergy between multiple companies to provide higher value to consumers. It is the additional consumer value which helps companies win against competitors.
### Breadth of Digital Interface

1. **New avenues for the business:** For an enterprise, being digital means being willing to completely revisit and review the way of doing business. Being digital also requires exploring new areas of business to generate additional value for the company as well as the consumer. These aspects can be interpreted differently by different companies. Some might move to a new business in adjacent categories, and others might focus on exploring and considering a new value pool in current or different sectors. Usage of sensors, analytics, and big data has worked wonders in improving the efficiency of the supply chain in logistics companies, while the automotive industry is seeing growth with the development of self-navigation.

2. **Improve consumer experiences and consumer journeys:** It is about rethinking the use of new capabilities to improve the way consumers are being served by the company across their different journeys with the brand. Every touchpoint and every step of the consumer journey must be meticulously understood across all channels. Then, the digital capabilities are planned to improve every step of the consumer journey to provide the best possible consumer experience to each individual.

There are four core capabilities for implementation:

2.1 **Proactive decision making:** It refers to the process of making decisions which are based on intelligence. The aim is to work on the preferences and the options which are more relevant to consumers and provide them personalized content and experience. The ideal example of this capability would be remembering consumer preferences. However, it also includes moving to personalize and optimize the next step in the journey of the consumer.

2.2 **Contextual awareness:** Every consumer engages with a brand in different ways. It is about understanding multiple ways of engagement and changing those interactions to enhance the consumer experience. An example of this is unifying the content and experience when a consumer moves from one channel to another, or when an individual moves from the process of scrutinizing a brand to finally making a decision to purchase. The emergence of Internet of Things and wearable technology has increased the complexity further.

2.3 **Real-time automation:** In order to support repetitive give-and-take with consumers, extensive automation is required. By automating consumer interactions, an increase can be caused in the amount of self-service options, and a movement toward quickly solving problems is possible. Bespoke communication will be more precise and will be able to deliver continuous journeys of the consumer, regardless of the time, or the channel, or the device.

2.4 **Innovation focused on journey:** When companies serve consumers well, they have an opportunity to be more innovative in their interaction with consumers, resulting in companies being able to sell more e.g. when the current consumer journey is expanded into new businesses and services, which in turn strengthens the relationship of the company with the consumer, benefiting both the parties.

3. **Foundational capabilities (agility and architecture):** The third element of being digital is about people and technology improvements, which allow speed and agility in an enterprise.

There can be two critical elements in this:

3.1 **Mindsets:** Being digital is about making use of data to make faster and better decisions. Decision making should not be centralized and there should be a faster and iterative way of performing tasks. It requires companies to eliminate the existing hierarchical structure and increase cross-functional collaboration, resulting in a more conducive environment to help generation of new ideas. It also involves adoption of prevalent agile methodologies at the enterprise level and pursue the journey of agile transformation in business and IT.

3.2 **Architecture (system and data):** Connected digital IT platforms should be used. Continuous delivery models (CI-CD) must be adopted to automate manual processes. Decoupling of legacy systems from current age systems which support fast moving consumer facing interactions may also be required.
Customer relationship management (CRM) is not a simple application or a system or technology. CRM is a philosophy – it is an all-inclusive course of strategy that puts consumers at the center of all business operations. CRM allows a company to optimize profitability, income, and also the satisfaction levels of the consumer by making use of consumer-focused processes, nurturing behavior that satisfies the consumer, and organizing policies and processes around the consumer. A CRM strategy should be included in the vision and mission of a company to emphasize its importance. CRM at the strategic level clarifies that a company respects its consumer and its purpose is to provide customer satisfaction.
Strategy in Action

**Shift to Data-driven Decision Making**
Companies that are relatively more advanced in the digital world are making investments to find out how consumers are consuming content and what makes them interact. Advanced analytics is being used to continuously measure consumer engagement and assess their content’s value to make it more relevant and engaging. Personalization of enterprise content specifically targeted toward each consumer is a business imperative. Personalization is used to improve customer satisfaction and increase their loyalty quotient by providing them personalized service driven by automated analysis of their behavior. Companies can present their consumers with more appealing and more engaging offers by leveraging real-life segmenting. Poorly targeted personalization can irritate visitors and cause much harm. Data is the foundation for the strategy. Advanced enterprises are focusing on understanding their consumers by investing in several measurement and optimization tactics. The main focus areas are -

1. **360-degree Single Consumer View and Data Management Platforms (DMP):**
   The purpose of having a 360-degree consumer view is an integrated view of the consumer across the enterprise. In order to provide consistency in services to consumers across various departments such as operations, marketing, sales, finance, and other business functions, it is imperative to have a 360-degree view of the consumer. Privacy of individuals and legal frameworks are important while using third-party data for marketing.

Key approaches around DMP solutions include: Lookalike modeling (authenticated to anonymous) and remarketing / retargeting (anonymous to authenticated).
2. **Prescriptive and Predictive Reach:** Businesses need to process data such as browsing behavior, information regarding demographics, clues related to contexts, and data collected from all sources including first and third party to form a cohesive picture of the consumer. These pictures of consumers are termed as unique consumer DNAs and are used to form personalized actionable insights.

3. **Attribution modeling:** Data by itself is not all that powerful. The key is to combine data from multiple sources to determine the complete sequence of events that leads a consumer to buy products, not just the first or last click. Algorithmic attribution which is centered on machine learning and advanced statistics is becoming important for leading companies to judge the exact effect of every marketing touchpoint (social media, videos, display advertisements) in a consumer’s journey to conversion.
Identification of Consumer Personas

In order to characterize the important behavior of a group of consumers, a hypothetical character known as a ‘persona’ has been developed. An understanding is required regarding how different personas can be crafted and managed over time. It will give you a vivid idea of the target audience. The purpose of developing personas is to form digital marketing strategies keeping several groups in mind. These personas will help optimize the journey of the user at every step. In general, five research modalities in combination are used to derive personas:

1. Demography: Refers to the basic standard characteristics of the population such as level of education, geography, and income.
2. Psychographic: Deals with pointers such as opinions and values including interests, aspirations, attitudes, and lifestyles.
3. Ethnographic: Focuses on participatory observation which marks collecting insights by observing the subjects while they go about their daily tasks, and recording whatever is not clearly reported.
4. Transactional: Includes first-party and third-party histories regarding purchases and service records that are post sale. This method is used to uncover insights with the help of studying the consumer relationship history.
5. Behavioral: Records data by recording interaction with channels and content that can show how audiences behave during a relationship.

The role of digital designers is to mix the behavior of persona and internal goal details with the right context (mobile device availability can be one) to suggest segments. It is these scenarios or segments that build the backbone of a preliminary campaign, or of UX design, or of storytelling.

Understanding Consumer Journeys

Below are steps to map personas to the consumer journey:

<table>
<thead>
<tr>
<th>JOURNEY</th>
<th>Awareness</th>
<th>Consideration</th>
<th>Purchase</th>
<th>Retention</th>
<th>Advocacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONAS</td>
<td>Suspect</td>
<td>Prospect</td>
<td>Consumer</td>
<td>Loyal</td>
<td>Advocate</td>
</tr>
<tr>
<td>Thinking and needs</td>
<td>• Remind a need • Recognize I have a problem</td>
<td>• I don’t know what • Draw me a scenario</td>
<td>• Deal with immediate need • Be relevant</td>
<td>• Personalize • Privacy / Trust</td>
<td>• Satisfaction • Co-create • Partnership</td>
</tr>
<tr>
<td>Micro moments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel touchpoints</td>
<td>SEARCH</td>
<td>VIDEO</td>
<td>SOCIAL</td>
<td>NATIVE</td>
<td>E-MAIL</td>
</tr>
<tr>
<td>Barriers</td>
<td>Relevance, trust, fear, time, convenience, distraction</td>
<td>Style, approach, language, expectations, knowledge of client</td>
<td>Literacy, risk tolerance, convenience, time, commitment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. The first step is to build personas. Usually, four or five personas are sufficient to improve general usability. More personas will be required to target specific behaviors. The idea is to pick one main persona and assume that if that one is satisfied, the rest are also likely to be satisfied. While there are multiple ways to define personas, one possible way is building them around types of consumers such as spontaneous, methodical, competitive, and humanistic, or alternatively around suspect to advocate.

2. Describe paths that can attract audiences all the way from engagement and lead them to conversion and finally to advocacy. These paths can be designed keeping two specific points in mind:
- Buying path for a particular offering
- Lifetime association with a known consumer

### Enriching Consumer Experience with AR and VR

Augmented reality (AR) and virtual reality (VR) are the new realities in engagement / experiential marketing. AR and VR are being utilized to engage consumers with a company’s product using as many senses as possible. Consumers get a chance to experience the product through AR and VR. Augmented reality is defined as the enhancement of human sensory perception through information processed and manipulated electronically, which cannot be perceived with the five senses. The vision of reality is enriched with virtual elements such as images, sounds, and widgets. Virtual reality refers to a computer-generated environment with options for the consumer to converse using special hardware provisions. The basic power to revolutionize our buying behavior and change our purchasing habits lies in VR and AR. A new layer of sensory perception is added and new forms of reality seem to have transformed the entire consumer experience.

### Move from Cross Channel to Omnichannel

In the cross-channel approach, multiple channels are utilized interchangeably and effortlessly to interact, market, and sell products to the consumer. The point is to mix different channels and use them together in order to make the consumer experience smoother. For example, the ‘Click and Collect’ feature lets clients order online and pick up the product in-store.

The omnichannel approach shifts the focus from corporate silos to the consumer.

With the enablement of mobile and social aspects, consumers can now use different channels simultaneously instead of switching between them. It is the addition of simultaneity to the cross-channel strategy. A good example is when a consumer visits a bookstore to buy a book, but is unable to find it on the store’s shelves. The store assistant tells him that it can be procured via the online option. The consumer purchases the book and makes the payment online from the shop itself and the book is delivered to the buyer’s home. So, one channel serves the other one and allows a consumer to purchase any product, anywhere, at any time.

The popular classification of online channels is: search engine optimization (SEO) / Search Engine Marketing (SEM), social, video, content, e-mail, mobile, and affiliate.
Future – Gravitational to Technological Singularity

What is at the core of being digital? Is it not the quest to improve human abilities? Analytics, big data, mobile, cloud, social or IoT technologies are not digital in themselves, but a combination of technologies to create a new ecosystem which can create new values, raise the individual and collective ability of human beings. The digital domain promises to help us in our pursuit to improve our lives, meet our needs, achieve our ambitions, become more informed and predict the future. The biggest change which digital technology has brought in the world of business is to shift the focus of companies from a plethora of processes to the people.

Digital technology is going to take us to that state where everyone will be communicating and interacting with everything - animate and inanimate. Neuro-linguistic programming (NLP), cognitive learning, wearable technology, and human-like interactions with intelligent software are providing more natural interfaces for human interactions, transforming people into ‘better versions’ of themselves. With these advances, the evolutionary force is not stopping.

The digital era is a revolution because it promises to do the next thing: when the accumulated learning of the world will get transmitted to the big brain in a flash and continue to stay updated through a monster computer, true of any revolution.

We ourselves are a product of a giant ‘gravitational singularity’, which billions of years ago culminated in the form of a ‘Big Bang’, which laid the foundation of our universe. The origin of humanity and everything beyond humanity lies in the womb of the gravitational singularity.

While too many gravitational singularities still exist in the universe, human life is going to be drastically redefined by a new singularity which is popularly known as technological singularity. Our journey from gravitational singularity to technological singularity is only decades away from culmination. Only time will tell if the human race will successfully be able to come out of the whirlpool of technological singularity.

If we remain as fortunate as we have been, we shall survive for sure, but may or may not be in the same form of existence.

Digital technology is certainly taking us to an era of revolution or possibly another evolution.

A decisive phase of human evolution has just begun.
About Authors

Deepak Thukral is Senior Project Manager with Infosys and has ~16 years of experience in IT Industry. He is a Certified Agile Practitioner and leads global delivery team in Digital Transformation and CRM portfolio space for Infosys. He has rich experience across Retail, Banking/Finance and Health Insurance domains. His functional expertise includes Portfolio/Program management, Digital transformation, IT Product development and Agile Coaching. Deepak has worked on various international assignments in all the phases of software development life cycle in both offshore and onshore model with various roles and responsibilities and have managed multiple nationality teams as well.

Lalit Arora is Certified Product Owner (CSPO), Certified Scrum Master (CSM), Certified Salesforce Marketing Cloud specialist and currently working as Technology Lead with Infosys. He has overall ~12 years of experience in IT Industry with specialization in project delivery management and consulting in Retail-CRM, Telecom-Billing and Process Manufacturing domains. On technology front he has rich experience in Digital tools like Adobe Campaign and Salesforce, ERP solutions (Oracle Apps) and Java based custom implementations. He has played multiple roles from Project Manager to Solution Architect, Business Analyst and Scrum Master, across multiple assignments in Agile as well as Waterfall model of delivery.