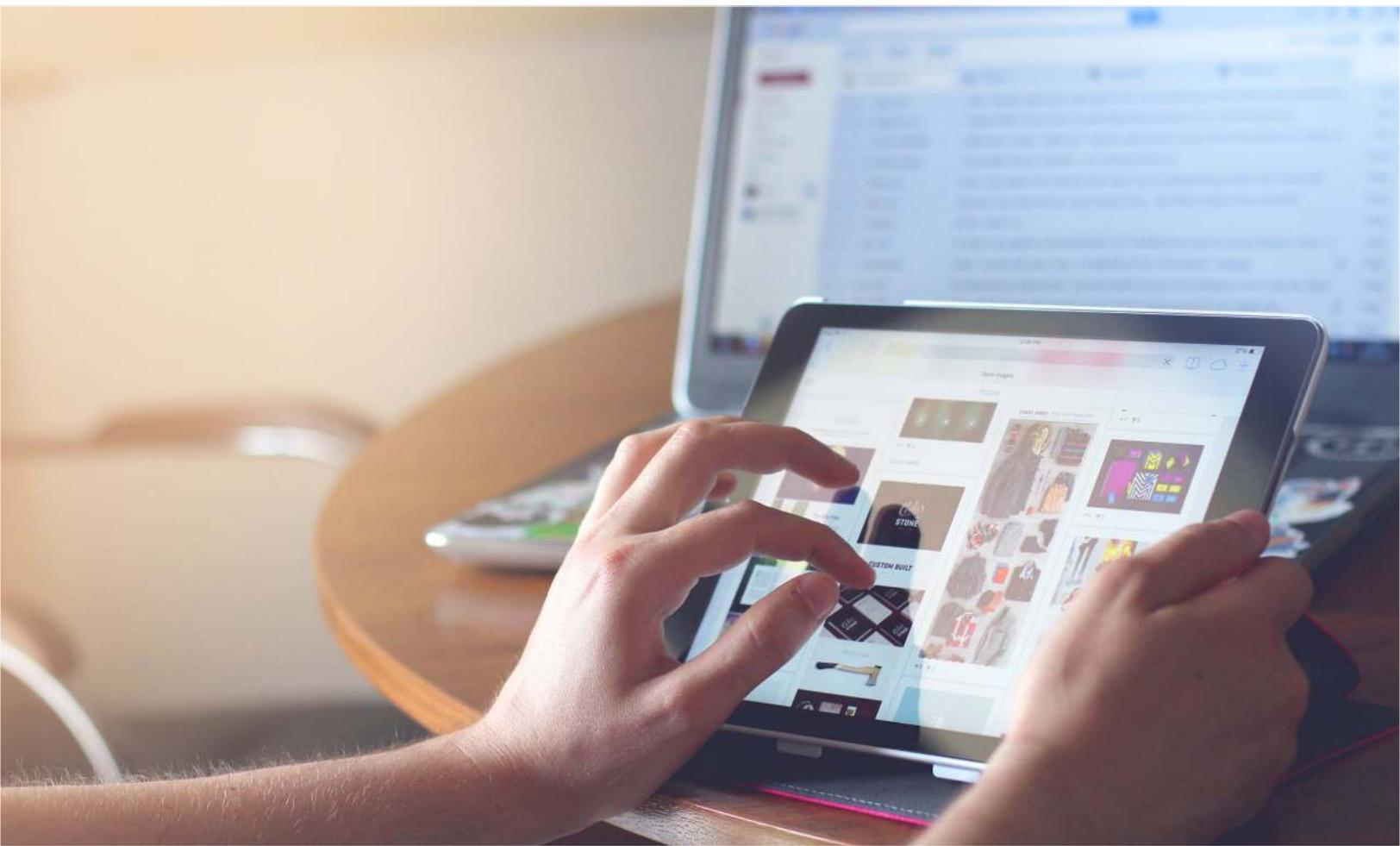


Why Omni-channel User Experience Testing is No Longer Limited to eCommerce

by Shashi Kiran and Anuradha M



Connected customers are interacting with brands in different, unpredictable ways, often moving between channels throughout a single purchase. In this dizzy technological landscape it is no longer sufficient to offer multiple channels with distinctive experiences. Instead, the user takes center stage, and acts on his or her preferences regardless of the channel, blurring the lines between brick-and-mortar and screen-to-screen worlds. As a result, omni-channel businesses strive for omnipresence, providing customers with an integrated, seamless experience regardless of the device.

An ideal design structure for omni-channel should imbibe predictability, i.e. meet or exceed users' expectation of a consistent experience in every single interaction. This has led to a fusion of channels where consumers are able to choose when, where, and how they interact with a brand based on their personal habits and motivations. They could also jump from one touch point to another and from there to one more but they expect nothing less than the same data and options across all platforms.

With so much resting in the hands of the customer, omni-channels' require perfect touch points which can only be achieved by exemplary user testing. Companies which have adopted omni-channel strategies realize that users are at the center of a design process. The secret is to think like the customer. This is not as simple as it sounds as companies which have learnt their lessons the hard way realize that customers do not think and behave the way we would like them to. To make the customer journey seamless from one touch point to the next, with minimal customer effort requires a well-designed strategy in which testing takes center-stage.

Industry-specific influence of Omni-channel

Manufacturing

Manufacturing as a sector is evolving as a result of IoT and the need to offer enriched global customer experiences. To go a step further, they need to think beyond factories to web channels which while playing an important role in optimizing the omni-channel process will no longer suffice to remain competitive. Some companies which have realized this have surged ahead and extended their web channel presence to include sales of spare parts, equipment, and ease of business for sales people across geographies, and devices.

For manufacturing companies to maximize the omni-channel advantages requires them to think beyond the box, and provide as much information as possible on their web channel which will flow seamlessly across all devices. They can also include 3D visualizations to enhance buying experience. According to a report by Frost and Sullivan, B2B online sales are projected to hit \$25 trillion by 2020 and the companies which are at the forefront of the omni-channel revolution will stand to get larger pieces of the pie versus those who are slow to make changes to their current business strategies.

How exactly does omni-channel affect the way manufacturers perform their business? In the current scenario, manufacturers probably employ different business models across geographies, lines of business (LOBs) and products but that landscape is shifting. They now find that their world is not limited to B2B but has become B2B2B or B2B2C. Customization or engineered-to-order scenarios involve multiple functions, parties, and different storefronts. Work-flows, approval mechanisms, and payment terms are more layered, and vary based on business units, customers, geographies, and product attributes. All this requires manufacturing companies to be agile, deal with changes, respond

instantaneously to requirements from anywhere and at any time. This huge responsibility requires more than just omnipresence! It requires perfection.

Travel

The travel industry, in comparison to other traditional industries, was at the center of the dotcom evolution and has therefore had a long time at its disposal to understand that traditional methods of travel engagement have long since been taken over by a rush of online options which travelers are eager to avail of. As a result of this surge in online business, travel brands are investing in top-of-the-range, responsive web presences which are mirrored in high quality smart phones and tablets. The realization has also sunk in for these companies that customers could start a search on their desktops and make their bookings from their mobile devices. In the US, eMarketer estimated that mobile devices accounted for about 36% of travel sales by value. Criteo estimated that mobile sales are 29% of bookings for the US, 28% for the UK and 15% for Germany. A report by EyeforTravel shows that travel customers engage in a complex journey before completing their purchases, meaning travel brands need to assume an omni-channel approach. The reports says that the travel industry has a long tail, with consumers passively consuming travel content for long periods and then actively researching airlines and hotels for more than two weeks, before they make a purchase.

Where other industries are just getting their feet wet in omni-channel strategies, travel brands are focusing on forming emotional connections with their customers. If they need to be the final beneficiaries of bookings, they don't have much of a choice other than to go further down the runway, and offer personalized, exciting, and connected experiences. For example, some travel brands are

using chatbots to recognize the source and context of the customer to provide relevant responses. To explain, if a customer is interested in a particular offer, AI empowered bots, knowing the source of the offer, customizes responses to create more intelligent, relevant experiences for travelers.

Travel industry is thus taking a lead in maximizing omni-channel experience for its customers but its strategies are highly dependent on faultless performance which requires user testing by engineers who are familiar with the industry and next generation technologies.

Financial Institutions

In the financial sector, customer expectation has soared with users expecting consistent services across all channels. Omni-channel approach offers access to financial services across a variety of channels and introduces more consistent interactions with the brand across various touch points. A few forward-thinking financial companies are able to analyze the information being fed in from different channels so that they can build up a detailed and accurate picture of the customers' preferences and behavior. The boom in smartphone apps coupled with this more detailed customer view means that they are able to offer app-based services such as budgeting or financial planning via the mobile: a relatively untapped service to date.

To achieve omni-channel excellence financial institutions need to shift their thinking from legacy systems and siloed information points. Utilizing intelligent strategies to integrate disparate digital and physical channels into a single, seamless experience has to be a priority. By analyzing the activity and priorities of their client base, these institutions can tailor offerings to address the priorities of each individual customer. Mass, low profit parts of the business can be serviced accordingly as can high margin services and clientele.

Streamlined, integrated systems, a single customer view, and optimal customer experience are all objectives to work towards. Omni-channel can deliver much-needed bottom line benefits and provide financial institutions with a viable plan to retain customers and make them more profitable.

Healthcare

Today's patients demand more from their healthcare providers, creating the need for an omni-channel approach in the way these institutions work with patients. Omni-channel approach helps patients who start a transaction on one channel to see it to completion on another. If a member can't find the right information on a payer's website, for instance, click-to-call or click-to-chat software can connect the caller with his or her web activity so that the patient specialist is aware of which pages the caller has already visited. This is only a very small example of the power and reach of an omni-channel strategy.

However, as the healthcare industry, speaking generically, operates on a highly fragmented ecosystem, it mostly takes a siloed approach to channels and technology. To remain competitive, it is important for healthcare organizations to adopt the omni-channel approach by partnering with technology partners who are domain experts with strong testing teams.

Fashion

The fashion industry is sure to benefit from an omni-channel strategy. In the traditional approach, digitally informed consumers entered shops, already well informed about a product's features and prices and expect more from store assistants. Using omni-channel retailing, all channels belong to the same database of products, prices, promotions etc. Instead of perceiving a variety of touch-points as part of the same brand, omni-channel retailers let consumers experience the brand, not a channel within a brand. Merchandise and promotions are not

channel specific, but rather consistent across all retail channels. The brick-and-mortar stores become an extension of the supply chain in which purchases may be made in the store, but are researched through other "channels" of communication. With omni-channel retailing, marketing is made more efficient with offers that are relative to a specific consumer determined by purchase patterns, social network affinities, website visits, loyalty programs, and other data mining techniques.

Ecommerce

A paper on omni-channel user testing will be incomplete without highlighting the industry that has equal if not more at stake in comparison to other industries.

Consumers are more demanding than ever before and expect to be able to order their goods from any device and receive them at a time and place that is convenient for them. Omni-channel fulfilment provides a seamless consumer experience, using the

Reference: [<https://www.entrepreneur.com/article/292792>]

best source for inventory, regardless of where it is located, in order to meet customer needs. Transitioning to omni-channel brings additional advantages and new challenges that require flexible solutions to meet the demands of a rapidly changing environment. Data plays an important role in the fulfilment process as does the software that manages the data. The goal is to utilize software that will ensure the best shipping option for every package, each and every day.

For retailers, omni-channel fulfilment requires a shift from allowing customers to shop from anywhere, i.e. any device to shopping from any part of a supply chain. An order initiated on a mobile device should be fulfilled in a brick and mortar shop. To ensure this seamless transition, retail requires multiple stakeholders and robust technology to work in synchronization. Netflix is an example of a company that does this really well. No matter what device a user is on, the content is uniquely curated to their likes and dislikes.

The Process to Create a Great Omni-channel Customer Journey

Those companies which started on the omni-channel journey real early are already enjoying the fruits of their labor. These companies, put users at the center stage of the design process. The normal reaction to this would be, 'Of course! We all put customers at the front!' But is that really true or is this based on perceptions? In a well-strategized approach, the IT department or technology partner asks some hard hitting questions, "What do your customers want from you? What devices do they use? What formats of communication?" The answers to these questions lie in accumulated data and this is where the real challenge lies. Data could be stored in legendary systems as siloed information. When this data is collated and intelligence is gleaned from it, the customer emerges as a persona. The customer journey literally starts from here.

Having defined the persona and what this person would expect, it is mandatory for QA & testing to be involved to understand the requirement from the user's perspective. QA & Testing engineers, based on their knowledge of a domain or their experience with other customers will provide value added input to the design. They have already begun to 'think' like a customer and this is what is crucial to the success of an omni-channel strategy. To summarize, the testing engineers work with the design team to refine the customer journey.

The next stage, i.e. convergence of digital and physical aspects of the design process brings about its own challenges. Integrating digital and physical aspects of the user experience as a single process is required for the omni-channel strategy to work. For example: offer a customer real-time stock information about the item he/she is looking for online. Send an email or text message when the item is ready for pick up at a physical store. At the store, the customer can pay for the item, and the receipt is sent through email. Print a scannable code on the item's packaging for follow-up actions, like suggestions of compatible accessories or a story about how the item was made through environmentally friendly processes. Combine this with IoT sensors and apps to provide your customers with location-based promotions (or automated restocking of the item that just got bought for the store owner).

In every stage of this integration process, testing plays a vital role. Hundreds of different devices will be at the core

Four Inspiring Omni-channel Success Stories

1) Disney

Disney's 'My Disney Experience' is a classic example of omni-channel excellence. Once can use the tool to plan an entire trip, use one's mobile app to locate the attractions and view the estimated time for each of them.

The imaginative company takes it one step further, though, with the release of its Magic Band program. This tool acts as a hotel room key, photo storage device for any pictures taken with Disney characters, and a food ordering tool. Plus, it even has Fast Pass integration to keep one's vacation moving.

2) Bank of America

Bank of America as one of the biggest brands in their industry, is setting the standard for a dynamic experience, which as of today allows for everything from check depositing to appointment scheduling to be handled by the company's mobile and desktop apps.

3) Oasis

Oasis, a U.K. fashion retailer that's fusing their eCommerce site, mobile app, and brick-and-mortar stores into a simple shopping experience. Their brick and mortar stores have sales associates.

If you walk into one of their stores, you'll find sales associates armed with iPads that are available to give you on-the-spot, accurate, and up-to-date product information. The iPad also acts as a cash register, making it easy for associates to ring you up from anywhere in the store. And the cherry on top? If it appears that something is out of stock, the staff can instantly place an online order for you to have the item shipped directly to your home.

If that's not customer service, I don't know what is.

4) Starbucks

A quick look at the Starbucks reward app will reveal why many consider it one of the top omni-channel experiences out there.

First, you get a free rewards card that you can use whenever you make a purchase. But unlike traditional customer loyalty programs, Starbucks has made it possible to check and reload a card via phone, website, in-store, or on the app. Any change to the card or a profile gets updated across all channels, in real-time.

[Ref: <https://blog.hubspot.com/marketing/omnichannel-user-experience-examples>]

of omni-channel testing. To ensure device compatibility, testing effort requires mobile testing engineers to use both manual and highly efficient test automation tools to validate quality across all pre-defined devices. Usability testing requires that all situations in which a customer switches from one device to another during a workflow or process is anticipated. For example, Google Maps enables you to send an address from the desktop app to your mobile device so the user can continue navigating there. Another great example is online payments at the Dutch ING Bank. When paying through their website, it offers a QR code in addition to traditional login methods. Scanning the QR code from the ING Bank app on your mobile device seamlessly takes over the process in the user friendly mobile application with additional methods to authenticate, like fingerprint and voice recognition. On the mobile phone, all payment details are already filled in, so the customer only needs to enter their PIN code to complete the transaction.

The testing team aims to validate the actual functionality of the omni-channel solution. The test approach is realized through a use case model in which each case is documented, step by step, and run through to validate its actual results against the expected results. Use case-driven tests can be complemented by exploratory testing, in which the tester is given a more loosely defined set of goals to accomplish using the app.

To maximize end-to-end performance, requires measuring app performance, network availability and system integration along with back end performance. Performance testing is not only used for validating system architecture, it is a second-to-none solution for scaling appropriate back end systems.

While testing continuously plays an important role during the evolution of the omni-channel strategy, it actually comes even more on to the center stage at the end. Usability is the cornerstone of a successful omni-channel strategy and omni-channel testers ensure that products when released are assured of user experience excellence. To ensure that the evaluation is fool proof, QA & Testing will distribute the application to a sample group of users and senior omni-channel testers. Their feedback is organized and categorized according to a pre-defined checklist. At the second level, the user interface is compared to similar applications in the market.

The process for creating a great omni-channel experience will be incomplete without underlying the importance of security testing. In a typical omni-channel security testing effort, we need to use tools to validate confidentiality, integrity, authentication, availability and non-repudiation.

About Trigent

Trigent is a CMM Level-4 technology solutions company with its US office at Southborough, MA, and India office at Bangalore. Trigent provides comprehensive solutions for business problems via outsourced software product and applications design, development and quality assurance. Trigent serves customers like Independent Software Vendors (ISVs), enterprises and SMBs in the High Tech, Healthcare, Education, Ecommerce and Manufacturing areas. Trigent's solutions help clients overcome budget, schedule and resource constraints.

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