

Role of Technology

in Service Innovation

INNOFOCO

Co-creating service frontiers

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Background

Technology has dramatically changed the way businesses operate in the last few decades. The internet, in particular, has transformed the rules of game of many traditional industries. The web is zeroing out the role of middlemen and has reduced the entry barriers for many industries. Empowered by the web, customers are kings in an almost transparent market place. The birth of web 2.0 has made communication and collaboration in the internet world an instant reality for all people round the world. The virtual world has become so powerful nowadays – so much so that it is now increasingly shaping the way businesses operate in the real world.

Service businesses tend to innovate by adopting, rather than creating, new technologies. The internet aside, there are other fast developing technologies which can offer numerous service innovation possibilities, such as Radio Frequency Identification (RFID), mobile communications technology and biometrics.



Role of Technology in Service Innovation

Technology has seven broad roles in service innovation:

1. Providing the delivery platform
2. Changing and improving the method of service delivery
3. Facilitating communication and knowledge exchange
4. Developing customer relationship
5. Adding value to a product
6. Creating memorable customer experience
7. Serving as the design and prototyping platform

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Providing the Delivery Platform

Many services are underpinned by a technological platform. The internet has given rise to a new generation of web-based services with business models very different from the traditional industries. Google, one of the largest companies in the world, is a classic example of a new business enabled by the internet. Capitalizing on the online social networking phenomenon, Meetup helps groups of people connected online to meet in the real world. Their tagline is to “Use the Internet to get off the Internet!” Feeder businesses are popping up on social network sites like Facebook with online flower and confectionary stores whereby customers can send a real gift to their network friends.

Changing and improving the method of service delivery

Technology can change entirely the business model of an industry, notably its role in disintermediation. Zopa, a UK-based company, provides peer-to-peer online money exchange, allowing people who have money to lend to those who wish to borrow, instead of using savings accounts and loan applications at traditional banks. The online auctioning system of eBay and last minute booking services of the hospitality industry offer an alternative pricing mechanism. The web has also offered many traditional industries a new channel to deliver their products/services – as in the content industries, travel and financial services. Amazon.com, Priceline.com and Charles Schwab are the respective examples.

Technology also redefines the geographical boundaries on the consumption of services. On-line learning is a good example. Distance learning nowadays features virtual classroom, videos, pod casts, blogs, live chats, wiki etc. Long gone are the days when distance learning was seen as second-class. Ivy League Schools like MIT and Stanford are offering a growing number of degrees online. In the arena of health care, telemedicine is overcoming geographical and/or mobility issues. Medical information is transferred via telephone, the internet or other networks for the purpose of consulting. Telehealth can even enable remote medical procedures or examinations to be conducted.

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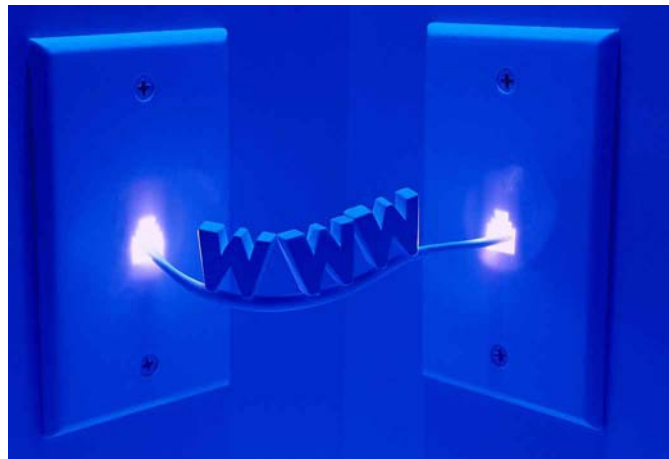
Technology application is also the key to improving the business delivery process. Commercial and public sectors alike face the perennial challenge of maximizing the efficiency and cost effectiveness of service delivery. Technology can contribute immensely by simplifying, bypassing and/or removing some of the processes and the associated resources requirements. More importantly, technology application can increase customer satisfaction. Electronic banking has transformed the way the banking system operates as customers can obtain the service 24 hours a days and 7 days a week. Global Telecom launched G-Cash, a cashless and cardless payment platform in the Philippines. More and more international airports are using fingerprint scanning and face recognition biometrics systems to speed up passenger transit times and increase security. Octopus, the contactless stored value smart card, has enabled the introduction of electronic payments for public transport, convenience stores, supermarkets, fast-food restaurants, on-street parking meters, car parks, and other point-of-sale applications such as service stations and vending machines. Zara, the successful Spanish fashion retailer, brings affordable fashion to the mass through its super efficient supply chain management system. The online tracking systems operated by many courier companies enable customers to know the whereabouts of their parcels. Internally within the organisation, the Dutch Rail System has equipped its train drivers with Wi-Fi enabled PDAs to manage their work, report operational problems and improve communications with managers and passengers.

Facilitating communication and knowledge exchange

Information sharing is crucial to the success of any business in a fast changing marketplace. Indeed mass collaboration (both inside and/or outside an organisation) is rapidly becoming a source of innovation for many companies. Grid technologies allow shared diagnosis and analysis of data by teams working in different locations. Middleware allows visualization of merged data sets to improve the shared understanding and operation of virtual research organizations. Rolls Royce, for instance, uses grid technologies extensively to tap on the expertise of a number of university research centres around the world. With the rise of the web 2.0 platform, it costs almost next to nothing for organizations to harness the wisdom of crowds in generating

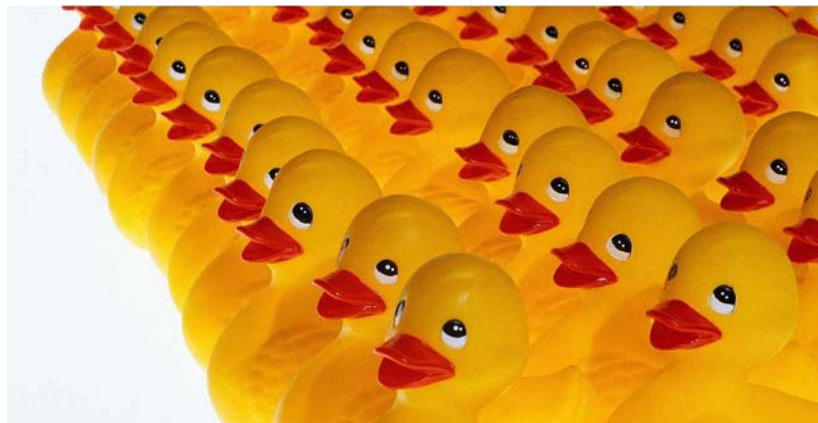
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ideas for new product/service offerings. IBM, for example, has used the wiki to facilitate internal information sharing and exchange of ideas. P&G has also implemented open-source innovation by jamming ideas with its partners and customers over the internet.



Adding value to a product

Commoditisation is eroding the profit margin of many manufacturing companies. To create more value for its offerings, more and more product companies are investing in and capturing more value through their service offerings. McKinsey estimated that 20% of revenues of manufacturing companies in the US come from services associated with the products – from pre-sale to post-sale services.



Today's customers are spoiled by choice. They want to be in charge and the right to shape and influence the product or service offering. Technology has enabled the development of mass-customisation and co-creation with its customers as the tool to combat commoditization and create more value

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for the customers and the product. Ponoko uses 3-D printing technology to offer customized product offerings – from furniture to accessories. Threadless, an online T-shirt vendor, ‘delegates’ the role of design to its customers. Webkinz stuffed toy has an attached tag with a unique Secret Code which allows access to the virtual version of the pet. Every pet gets its own room in Webkinz World and kids can decorate the rooms and buy items for their pets from the W Shop.

Increasingly, we are seeing more and more products that morph their existence in the virtual world into the the real physical world. H&M has recently held a Sims 2 H&M Fashion Runway Contest in which any Sims 2 player could participate by designing an H&M-inspired outfit using the game’s design tool and uploading it to TheSims2.com Exchange. The winning outfit has been made available for purchase in nearly 1,000 H&M retail locations worldwide.

The importance of service innovation is equally applicable to B2B business. SKF (a Swedish bearings manufacturer) helps customers extend the service life of their equipment by using an electronic monitoring tool to alert customers of potential machine failure.

Developing customer relationship

Businesses nowadays can ill afford to treat their customers as a homogenous group. Technology enables businesses to segment their customers as individuals through sophisticated customer relationship management systems. The loyalty programs widely used by credit cards, airlines and retail businesses are a classic example. Tesco, the UK supermarket chain, runs one of the most successful loyalty programmes. Its Clubcard serves two purposes. First, it is a vehicle for rewarding Tesco shoppers and encouraging them to increase their purchases. Second, it is a rich source of data on the shopping habits and preferences of cardholders that enables the company to manage its supply chain, market its products and develop new offerings. The use of internet technology is a key strategy integral to Amazon’s success, enabling the company to cross-sell and up-sell to its customers. Fenwick installed radio-frequency identification technology in its forklifts to gather information on how customers use its equipment, and this serves as the basis for developing its new service offerings.

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The internet's increasing influence on consumers is pushing marketers to shift advertising budgets online. Research has shown that word-of-mouth is one of the most effective channels to build brand preference and loyalty, and social media is one of the most effective platforms to drive word-of-mouth. Levi's attracted young consumers in China with a room-decoration competition conducted via its innovative social networking site. Users can upload their profiles, shared stories, created their own Levi-clad avatars and the perfect living spaces for their avatars. More and more brands are also combining social networking and online gaming to lure their target customers. During the 2008 Olympics, Coca-cola created a Torch Relay game whereby the players had to complete a set of challenges to make it to the finish line and the results were posted on Google Maps.

Creating memorable customer experience

Pine and Gilmore introduced the concept of the experience economy at the turn of the 20th century. We are living in a post-industrial economy where quality and efficiency are no longer guarantees to customer satisfaction. Successful brands know how to engage their customers through a unique, personal and memorable experience. An innovative retail bank based in Oregon (the US) models its customer experience after the hotel industry. A video wall uses RFID Technology to grab the attention of passers-by. Once inside, they can have customizable brochures printed on-demand. PLAY.orchestra recreates an empty orchestra pit of 60 seats at the South Bank Centre, London. Passers-by could take one of the seats and trigger a recording of the correspondent musical instrument. They can further engage with the piece through their mobile phones, by receiving ring tones of the experience they just created, or sending their own sounds.

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Serving as the design and prototyping platform

A new set of platform technologies are fast developing which enable businesses to design and innovate more efficiently and effectively. These include simulation, virtual reality, modeling techniques, visualization and prototyping technologies which have their basis in Computer-Aided Design, Computer-Aided Manufacturing and computer games. They enable the design and development teams to explore options and test combinations of ideas in a virtual environment. The evolution of Second Life as a virtual laboratory for commercial use is a case in point. For example, the Second Life platform is used to test the engineering design of a Personal Rapid Transit concept in LA.



Prototyping the California SkyTran
Using Second Life

Service cannot happen without people. Service innovation through technology application must therefore be first and foremost people (customer/user) centric. Interaction design is a fast developing discipline as technology has become an integral element in many product/service systems. It aims to create a user-friendly and effective interface between the user and technology. Designers strive to make the user experience easy and enjoyable, by first researching and understanding certain users' needs and then designing to meet and/or exceed them.

Making Technology Useful, Usable and Enjoyable

About InnoFoco

InnoFoco is a service innovation and customer experience design company:

WHAT - We help organisations create memorable customer experience, attain service excellence and identify new business opportunities.

WHO - We are a multi-disciplinary network of catalysts, aspiring to make a real difference to business – and to the world. We work closely with world class design and innovation experts in Hong Kong, London, New York, San Francisco, Copenhagen and Helsinki.

HOW - We identify white space in the market, uncover user needs and leverage on technology. We co-create new service blueprints with clients and their stakeholders, and enable organisations to innovate on a sustainable basis.

For enquiries, please visit us at www.innofoco.com, call 852 2560 5226 or email us at rchan@innofoco.com.

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