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Week - 01

Lecture 10

Technology-enabled customer experiences

Hello everyone. As we are discussing about customer experiences with special reference to services, let's explore the role of technology-enabled customer experiences in this session. With the growing popularity of Internet-connected consumer electronic devices, companies have more information on consumers' experiences and needs than ever before. Have a look at this particular data. Global spending on customer experiences or CX technology is forecast to increase from around 500 billion USD in 2019 to over 640 billions by 2022. In recent years, technology has fundamentally transformed the landscape of customer interactions within the service industry.

This paradigm shift has not only redefined how services are delivered, but has also elevated customer expectations. Here is a brief overview of the profound impact technology has had on customer interactions. First, enhance accessibility. Before technology, customers were often limited to physical locations or specific business hours for service interactions.

However, after technology updations, digital platforms, mobile apps, and online services provide 24x7 accessibility, allowing customers to engage at their own convenience. Next, about personalization and customization. Before technology, mass communication and standardized services were the norm. However, after technology, advanced data analytics enabled businesses to tailor services based on individual preferences, creating personalized and customized experiences for each customer. Next, is about digital communication channels.

Before technology, there was only face-to-face interactions, phone calls, or email. Whereas, after technology introductions, social media, chatbots, and messaging applications offer real-time interactive and efficient communication channels, enhancing

overall customer engagement. Next, automation and artificial intelligence. Before technology, there was manual processes and human-intensive customer support. However, today, with the help of automation and AI-driven services, service providers can provide quick responses, efficient issue resolutions, and even 24x7 support through chatbots and virtual assistants.

Next, data analytics for insights. Earlier, there was limited understanding of customer behavior and preferences. Now, with the help of technology, we can have data analytics tools that provide valuable insights enabling businesses to make informed decisions, target specific demographics, and optimize service offerings. Coming to e-commerce and online transactions. Before technology, there was in-person transactions and traditional brick-and-mortar shopping.

However, today, we have e-commerce platforms revolutionizing the way products and services are brought and sold, offering convenience and at the same time broader range of choices to the customers as well. Coming to social media integration. Before technology, there was limited avenues for businesses or service providers to connect and engage with customers. However, after so many technologies of nowadays, for example, social media platforms, it has become a powerful tool for marketing, brand building, and even direct consumer interactions facilitating two-way communication. Coming to blockchain for security and transparency.

Before this technology, there were concerns about data security and transparency in transactions. But because of these tools like blockchain, this ensures secure and transparent transactions, particularly in finance and even supply chain management. And finally, about feedback and review platforms. Before technology, there was limited avenues for customers to share feedback. Whereas today, there are a lot of online review platforms provide customers with a public voice, influencing brand perceptions and informing potential customers.

So what are these technology-enabled customer experiences are? These are nothing but the strategic integration and utilization of advanced technologies to enhance and optimize every facet of the customer journey within the service industry. So what are the key elements of technology-enabled customer experiences? Let's discuss each one of them one by one. First here is integration of advanced technologies. This involves incorporating cutting-edge technologies such as artificial intelligence, data analytics, automation, and digital platforms into the service delivery process. Second element is about seamless interaction.

This element aims to create a frictionless and intuitive experiences for customers, where technology acts as an enabler, ensuring smooth and hassle-free interactions at every touchpoint. Third element is about personalization and customization. This element

focuses on utilizing technology to gather and analyze customer data, enabling businesses or service providers to tailor services based on individual preferences, behaviors, and historical interactions. Another element that deals with efficient communication channels. Here we can prioritize the implementation of digital communication channels, including social media, chatbots, and even messaging applications, to facilitate real-time and responsive engagement between service providers and customers.

Another thing is 24x7 accessibility. Because of technology, service providers can ensure that such types of technologies enable continuous accessibility, breaking free from traditional constraints of time and location, and allowing customers to engage with services at their own convenience. Another element is data-driven decision-making. Here service providers can promote the use of data analytics tools to gain valuable insights into customer behavior, enabling service providers to make informed decisions, enhance their service offerings, and even optimize operational efficiencies. Technology-enabled customer experiences can also enhance security and transparency, wherein they can utilize technologies like blockchain to ensure the security and transparency of transactions, building trust and confidence among customers.

Then we have subscription-based and recurring models, which are fueled by these technology adoptions. Here, companies or service providers can embrace technology to implement subscription-based models, fostering recurring revenue streams, and promoting long-term customer loyalty. Technology through automation can also help to improve efficiency. Herein, firms can leverage automation and artificial intelligence to streamline processes, reduce manual interventions, and enhance the overall efficiency of service delivery. And finally, technology also helps in the aspects of feedback and review platforms.

Here, service providers can integrate technology to collect and analyze customer feedback through online review platforms. This allows service providers to continuously improve and adapt to evolving customer expectations. Now let's have a look at some case studies to understand how technology-enabled customer experiences can happen in real-world scenarios. Consumers do not want any marketing offer or advice. They want offerings that are suited to their own needs.

Customized suggestions, based on purchase and browsing history, may be effective tools for delighting customers and increasing sales. Technology enables businesses to gather a vast amount of customer data, allowing them to gain valuable insights into customer preferences, behaviors, and even pain points. By leveraging data analytics and AI, or artificial intelligence, businesses can deliver personalized experiences tailored to individual customers. Let's have a look at Amazon's personalized recommendation systems. A global e-commerce giant, Amazon, leverages advanced data analytics and machine learning algorithms to deliver highly personalized recommendations to its users.

Let's have a look at this video that talks about how Amazon improvises customer engagement and conversion with Amazon's own personalized feature. Personalization is everywhere. Delivering personalized experiences helps organizations acquire and retain customers, increase engagement, and grow revenue. As the ability to deliver more sophisticated online experiences has evolved, consumers today expect real-time, curated experiences across digital channels as they consider, purchase, and use products and services. Amazon has pioneered the use of machine learning for personalization for more than 20 years.

Amazon Personalize enables developers to build applications with the same machine learning technology used by Amazon.com for real-time, personalized recommendations, with no machine learning expertise required. In just a few clicks, Amazon Personalize automatically processes and examines your data, identifies what is meaningful, uses the best algorithms, and trains and optimizes a personalization model that is customized to your business. You can easily integrate Amazon Personalize into your existing websites, apps, SMS, and email marketing systems to deliver unique experiences for your customers across channels and devices. All of your data is kept private and secure and only used for your customized recommendations.

You only pay for what you use, and there are no minimum fees or upfront commitments. Begin delighting your customers with personalized experiences. Get started with Amazon Personalize today. So how does this Amazon Personalization recommendations work? First, Amazon collects extensive data on user behavior, including browsing history, purchase patterns, and items added to the cart. Then, it utilizes machine learning algorithms to analyze their vast amount of data and identify patterns, preferences, and correlations in user behavior.

Then, based on the analysis, Amazon's algorithms generate personalized product recommendations for each user. These suggestions appear on the homepage, product page, and even in targeted emails. This system is dynamic and continuously updates recommendations based on the latest user interactions, ensuring relevance and responsiveness to changing preferences. Next, users also benefit from a tailored shopping experience, discovering products they are likely to be interested in, which enhances their engagement and increases the likelihood of additional purchases. Not just this, the personalization extends to Amazon EcoDevices as well.

Not just this, the personalization extends to Amazon EcoDevices, where voice-activated technology uses historical data to offer personalized responses, music recommendations, and even suggest new skills for the device. So Amazon's commitment to continuous improvement involves refining these algorithms, incorporating user feedback, and staying at the forefront of innovation in data-driven personalization. Next, have a different example with respect to customer support. Let's have an example of Singapore Airlines.

Airlines have nowadays increasingly adopted chatbot technology to streamline customer support processes, enhance communication, and provide instant assistance to passengers throughout their journey.

For example, what we have is Singapore Airlines' own chatbot named as Chris. So this chatbot Chris is always here and always helpful, right? So what are the things Chris can do for you as a customer? It can retrieve the latest flight status for you, get status of your waitlisted flights, check baggage allowances, and finally find the next available flight as well. Let's have a look at this airline chatbot video that shows how chatbots can help your customer support. Let's understand how chatbots have been used by airline providers to offer seamless customer support. First, chatbots are integrated into airline website and mobile apps to assist users with booking flights, selecting seats, and providing information about baggage policies.

These chatbots offer real-time updates on flight status, gate changes, and delays, keeping passengers informed and reducing uncertainties during their travel. Passengers can use chatbots to check in, receive digital boarding passes, and get information about airport amenities, helping to streamline the pre-flight experience. Moreover, chatbots assist passengers in tracking their baggage, reporting lost items, and initiating the resolution process, providing a quick and efficient way to handle post-flight concerns as well. Many chatbots are designed to support multiple languages, improving accessibility for a diverse range of passengers, and ensuring effective communication across different regions. These chatbots operate 24x7, allowing passengers to seek assistance at any time, regardless of time zones or even traditional business hours.

Apart from these, some advanced chatbots have a human handover feature, seamlessly transferring complex queries or even situations to human customer service agents when needed. By automating routine queries and processes, airlines nowadays achieve cost efficiency and scalability, providing consistent and prompt support to a large volume of passengers. Let's move on to the next example, that is from healthcare, where we are specifically looking at offering patient services. Here we are going to discuss about IoT devices and their applications in terms of real-time health monitoring. The healthcare industry is leveraging IoT, that is Internet of Things devices, to enable real-time health monitoring, allowing patients and healthcare providers to track vital signs and manage chronic conditions remotely.

What are these Internet of Things? So the Internet of Things describes devices with sensors, processing ability, software and other technologies that connect and exchange data with other devices and systems over the internet or other communication networks. So let's understand how hospitals or healthcare systems are using these IoT devices for offering effective and efficient patient services. First patients use wearable devices. In healthcare services, patients use wearable devices such as smart watches or fitness trackers

equipped with sensors to monitor vital signs like heart rate, blood pressure and even activity levels. These devices continuously collect and transmit real-time health data to centralized systems, creating a comprehensive and ongoing picture of the patient's health status.

Healthcare providers can remotely monitor patients, enabling timely interventions and reducing the need for frequent in-person visits, particularly for individuals with chronic conditions. These IoT devices can send alerts and notifications to both patients and healthcare providers in case of abnormal readings or potential health risks, ensuring quick response to critical situations. This collected data seamlessly integrates with Electronic Health Records or EHR, allowing healthcare professionals to assess a patient's complete health history and make informed decisions. Patients with chronic diseases such as diabetes or hypertension benefit from proactive monitoring, early detection of complications and personalized treatment plans based on real-time data. Such real-time health monitoring empowers patients to actively participate in their healthcare, fostering a sense of control and awareness about their wellbeing.

The data from IoT devices can be integrated into telehealth platforms, facilitating virtual consultations as well and enhancing the effectiveness of remote healthcare services. Let's have a look at this particular example which is about Apple's watch and how it saved a man's life. Have a look at this particular video. It was 3.30 am on Saturday, October 15th when Nolan Abel lost control of his car, striking a telephone pole outside of Indianapolis at 70 miles per hour.

So I'm just like in my seat just like fighting to stay conscious and then I hear like hello, like are you there? That voice coming from Nolan's Apple watch. If it weren't for this watch, who knows how long it would have been for help to get to me. Like someone would have found me eventually, but this had EMS to me within five minutes. Nolan purchasing the wearable on a whim only a week before his accident. I was in the Best Buy and just said, hey, why don't I just get this? I didn't really have a reason for it.

Just something told me to get it. The watch comes with Apple's new crash detection feature. Advanced motion algorithms work together in your iPhone or Apple watch for accurate, severe crash detection. This new tech only available in iPhone 14 and 14 plus models and Apple watch series eight and ultra. So I'm fading in and out and then I feel the little haptic on the watch and I know that if I don't interfere with it, it's going to call EMS. This isn't the first time a wearable has been credited with saving a life.

In 2017, a 73 year old Connecticut woman says her Fitbit's heart rate detector saved her life and a year later a man in Washington state says his Fitbit saved his life too. Meanwhile, Nolan is grateful that he is alive and is grateful to the team who came up with this new life changing tech. So I emailed Tim Cook and Tim Cook emailed me and he, it was a short

and sweet email. He's a busy man. Tim said that he was so sorry that this happened to me and that's exactly why they developed the crash detection feature.

Aside from some vision problems that will be corrected with prescription lenses, Nolan is expected to make a full recovery. He's obviously grateful to the team at the Indianapolis hospital that helped him and that trusty Apple watch that enabled him to get help so quickly. This is the future of technology, right? Making our lives a little bit better. Apple does say though that it's crash detection technology is still a little bit too sensitive, but in this case it may have saved a life.

Yeah. They say, take it off if you're going to ride a roller coaster or something like that or put it on airplane mode so that it doesn't call 911 thinking you've been in a crash. I just worry the way I drive it will think I'm always involved. Remind me not to ride with you. Warnings next, stay with us. Apart from these applications of technology across healthcare, airlines and so on, let's move on to the next example with related to streaming services platforms.

Streaming services platforms usually employs recurring revenue models. So what are these recurring revenue models are? Substitution based service operate on a recurring revenue model where customers pay a regular predetermined fee in exchange for continuous access to product services or content. This model provides businesses with a predictable and steady income stream allowing for better financial planning and stability. Let's have few platforms as an example under this domain.

The first among here is Netflix. So what is the model of recurring revenue model at Netflix? Netflix operates on a monthly subscription model offering various plans with different pricing tiers based on factors like video quality and the number of screens as shown in this particular image. So how this recurring revenue model helps Netflix to achieve customer loyalty? Netflix invest heavily in creating original content providing a constant stream of new and exclusive shows and movies. This strategy keeps subscribers engaged and less likely to cancel their subscriptions. Additionally, personalized recommendations based on viewing history enhance the user experience contributing to loyalty.

Next platform here is Spotify. Spotify offers a subscription based music streaming service with monthly plans. Premium subscriptions eliminate ads, provide offline listening and offer enhanced audio quality which can be seen in this particular image. So how Spotify drives customer loyalty? Spotify's Discover Weekly and Personalized Playlist engage users by offering a curated music experience. The ease of creating and sharing playlists along with features like collaborative playlists enhances user involvement and loyalty.

Next platform here is Apple Music. Apple Music follows a subscription based model for music streaming with monthly plans that provide access to a vast catalog of songs.

Integration with Apple ecosystem, personalized playlists and exclusive releases contribute to customer loyalty in case of Apple Music. Apple's focus on seamless user experience and cross-device compatibility enhances the value proposition for subscribers. Technology also helps services firm in terms of collecting and analyzing customer reviews and feedback. We can have few names here, for example Yelp, TripAdvisor, Trustpilot and Google Reviews.

For Yelp, Yelp employs algorithms for sentiment analysis and trained identification in customer reviews. Businesses on Yelp can understand customer sentiments, address specific concerns and use insights to enhance their offerings. With respect to TripAdvisor, TripAdvisor employs technology to aggregate and analyze millions of reviews providing travelers with insight into hotels, restaurants and attractions. Service providers can use this platform to understand customer expectations, respond to feedback and even improve their offerings. Coming to Trustpilot, Trustpilot utilizes technology to collect and analyze customer reviews providing service provider with a trust score based on customer feedback.

The trust score helps consumers to make informed decisions while service providers gain insight into their online reputation and areas for improvement. And Google Reviews. Google uses automated algorithms for spam detection and sentiment analysis in reviews. Service providers can respond to reviews, engage with customers and use insights to optimize their online presence on Google. Technology streamlines the collection and analysis of customer reviews and feedback, offering service providers actionable insights for continuous improvement and enhancing overall customer satisfaction.

Online review platforms exemplify the effective integration of technology in this particular process. Towards the end, let's try to understand the driving success factors for technology integration for services firms. In the rapidly evolving landscape of services industries, leveraging technology is not just a choice but a necessity for achieving success and staying competitive. The integration of technology into various aspects of service delivery, marketing and customer experience has become a driving force behind organizational growth and customer satisfaction. Here is a comprehensive conclusion on how services firms can drive success through technology.

First factor is with respect to enhanced efficiency and productivity. Technology streamlines operational processes, automates routine tasks and enhances overall efficiency. Service firms can optimize resource utilization, reduce manual errors and improve productivity leading to better outcomes and cost effectiveness. Secondly, with respect to personalization and customer experience. Advanced data analytics and AI technologies enable service firms to personalize offerings based on individual customer preferences.

This level of customization enhances the overall customer experience, fosters brand loyalty and differentiate the firm in a competitive market. Next, with respect to real-time decision making. Technology provides real-time access to critical data and insights. Services firm can make informed and agile decisions, responding promptly to market trends, customer feedback and even dynamic business conditions.

Next, innovation and new revenue streams. Continuous technological innovation opens avenues for services firm to explore new business models and revenue streams. Adopting emerging technologies allows firms to stay ahead of the curve and meet evolving customer expectations. Coming to security and compliance. Technology plays a crucial role in ensuring the security of sensitive data and compliance with industry regulations. Robust cybersecurity measures safeguard customer information, build trust and protect the firm's reputation.

Coming to marketing and branding. Digital marketing strategies, social media engagement and online presence are integral to services firm. Technology enables targeted marketing campaigns, brand building and the creation of a strong online identity, reaching a wider audience and attracting potential customers. Coming to data-driven insights. The analysis of large datasets provides services firm with actionable insight into customer behavior.

Also, with respect to market trends and operational performances. Data driven decision making enhances strategic planning and helps firm align their services with customer needs. Technology also helps organizations to provide agile customer support. Technology including chat boards, AI-driven support and automated systems, enables services firm to provide agile and responsive customer support. This fosters positive customer experiences, resolves issues promptly and contributes to overall customer satisfaction.

Then about global reach and scalability. Digital technologies facilitate global reach and scalability for services firm. Cloud computing, online platforms and virtual communication tools enable firms to expand their reach, serve diverse markets and scale their operations efficiently. In a digitally driven environment, services firms that embrace and harness technology gain a competitive advantage. The ability to adapt to technological advancement positions services firms as industry leaders, attracting customers who value innovation and modern approaches. In conclusion, we can say that services firms that strategically embrace and leverage technology are better positioned to navigate the complexities of the modern business landscape.

The successful integration of technology is not just about adopting the latest tools, but fostering a culture of innovation, adaptability and relentless commitment to enhancing the value delivered to your customers. As technology continues to evolve, services firm must

stay agile, continuously assess opportunities and invest in the right technological solutions to drive sustained success. So, in this session, we try to explore the role of technology enable customer experiences. Thank you.