

CB2500 Discussions

Tutorial 2

Why will the jobs of tax preparers and telemarketers disappear in the next 20 years?

Tax preparers involves systematically processing large amounts of predictable data, while telemarketing is highly routine and repetitive. These jobs are more exposed to automation, and more likely to be replaced by programs.

On the other hand, the automation creates new opportunities for jobs in these fields, such as data analysts focused on tax preparation and customer service representatives; but for current tax preparers and telemarketers, their skills are not transferable to these new jobs.

Therefore, the jobs are likely to disappear.

Tutorial 3

How does Internet+ enable fan economy?

Internet+ enables fan economy by adding value to the traditional consumption model in 4 ways:

1. Long-term relationship marketing replaces transaction marketing. Instead of one-time transactions, Internet+ makes fans more loyal to the brand, and more likely to promote and endorse the brand.
2. Diverse customers' needs shape the relationship between products and services. The company focuses more on the relationship and experience management, creating unforgettable customer experience and obtaining value recognition from customers.
3. Providing a sense of participation and belonging. Internet+ enables multidimensional interaction between fans and the brand, such as pre-sale and after-sale services, community activities, and so on. These can eventually promote a faithful fan base.
4. Whole channel marketing. Internet+ enables the company to reach customers through multiple channels. By integrating online and offline channels seamlessly, fan identity, recognition, approval and interaction are prized and incentivized.

Lecture 2

What are the roles of IS in business processes?

IS is used to:

- Automate steps. Business processes are often repetitive and routine, and IS can automate parts of the process.
- Improve process quality. IS can improve the effectiveness and efficiency, because it can reduce errors, costs and time.
- Change the flow of information. IS can be accessed by different parties and thus can be used to share information between them without the need of multiple copies of the same data. Therefore, IS can be used to simplify the process.
- Change the decision making process. IS can provide information to support decision making, which helps in achieving strategies.

Lecture 3

Reading: [Technology hope for African farmers](#)

1. Can you identify the suppliers and buyers? What are the products?
 2. Is Argocenta increasing or decreasing farmers' bargaining power?
 3. What information can farmers obtain from Argocenta?
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1. The suppliers are the farmers. The buyers are the big food buyers, such as supermarkets and restaurants. The products are the crops and vegetables.
 2. Argocenta is increasing farmers' bargaining power. Instead of selling to local middlemen, farmers can now sell to the platform at a fair market price. Since the platform is highly dependent on the farmers, the farmers have more power to negotiate the price.
 3. (1) Farmers can obtain knowledge about scientific farming, including fertilizer application, harvesting, drying, and storage.
(2) Farmers can obtain information about the market, like the market price, the way to sell more crops.

Tutorial 4

1. What are SMACIT?
 2. Why is it difficult to gain competitive advantages from SMACIT?
 3. What is the key to successful adoption of SMACIT?
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1. SMACIT stands for Social, Mobile, Analytics, Cloud, Internet of Things.
 2. Because SMACIT technologies are easily accessible and affordable, it is difficult to gain competitive advantages from them. Instead, SMACIT technologies become the basic requirements for businesses to compete in the market.
 3. (1) Integrates SMACIT into existing business processes, to provide seamless online and offline experiences for customers.
(2) Digitalize the business model to achieve the strategies, such as enhancing customer value via obtaining customer insights from social media, and improving operational efficiency via connecting the data from various sources and simplifying the process.
(3) Innovate the business model to create new value, like creating new products and services tailored to the rising customer needs.

Tutorial 5

Why do we need deep data rather than big data alone?

Deep data has several advantages over big data alone:

- Deep data has a theoretical foundation. Deep data combines big data with theory, providing a deeper understanding of causes and effects, rather than just correlations. While big data can predict future events, deep data can further explain why and how.
- Deep data are more reliable in decision making. Deep data involves scientific domain knowledge, for example, I/O psychology. Deep data can thus provide more reliable and accurate predictions and explanations.
- Deep data has more practical relevance. By focusing on meaningful and generalizable patterns, deep data can provide more practical and actionable insights.

Lecture 5

1. What are the benefits of e-payment?
2. What are the risks of e-payment?

1.

- E-payment cut down the cost of cash handling. It eliminates the need for printing, storing, and transporting cash, which occupies a notable portion of the GDP.
- E-payment is more convenient and efficient. It saves time and effort for both customers and businesses. It is also easier for authorities to track the transactions, thus avoiding tax evasion and fraud.

2.

- E-payment introduces privacy concerns. Some companies may track the behavior of customers to gain insights, such as providing personalized promotions. This may violate the privacy of customers.
- E-payment is vulnerable to cyber attacks. Data breaches and hacking are common in the digital world. Unsecured e-payment systems may lead to the loss of personal information and assets.

Tutorial 6

What are the trends of smart online payment?

In the past, Hong Kong citizens were against the trend of online payment mainly for two reasons: the privacy concerns due to the tracking of personal information, and the lack of digital payment awareness for they were used to cash and credit cards. However, recent years have seen a significant increase in the use of online payment in Hong Kong, owing to the following trends:

- **Digital Wallet Growth.** After the government permitted the use of stored value facilities in 2016, various e-wallets have been introduced to the market, such as Alipay, WeChat Pay, and Tap & Go. Equally worth mentioning is that the widely used Octopus card has also been digitalized, providing a cashless and contactless payment experience.
- **Government and Platform Incentives.** During the COVID-19 pandemic, the government distributed digital consumption vouchers to citizens, which greatly raised the awareness of electronic payment. On the other hand, platforms like Alipay and WeChat Pay also integrate various functions ranging from bill payment to cashback, further incentivizing the use of digital wallets.
- **E-commerce Impact.** Besides facilitating retail transactions, online payment has also been widely used in e-commerce, such as online shopping and food delivery. By 2025, digital wallets are expected to surpass credit cards as the most popular payment method in Hong Kong.
- **Digital Currency Development.** The possibilities brought by the new digital currency, e-HKD, are also expected to further revolutionize the online payment landscape in Hong Kong.

Lecture 6

- (a) Suppose you are a management trainee at a bank, you are now given the following data dimensions. Please construct a cube using any 3 dimensions from the following list: Banking Products, Branch, Promotion Scheme, Sales, Customer Profile, Complaints. (all dimensions have offline version and online version except the Branch dimension)
- (b) Describe 1 potential decision you can make based on the cube you proposed.

(a) The following dimensions are selected: Banking Products (offline), Promotion Scheme (offline), Customer Profile (offline).

(b) One of the potential decisions we can make based on the cube is: personalize the banking experience for every customer, by analyzing their customer profile and inferring their preferences for different promotion schemes and banking products. Below are the steps to achieve this:

- Slicing the cube by fixing the Banking Products dimension, the total sales and complaints of each promotion scheme for each customer profiles are summarized, helping to identify the most popular promotion scheme for different customer segments, and to adjust the promotion strategy accordingly.
- Similarly, slicing the cube by fixing the Promotion Scheme dimension, the total sales and complaints of each banking product for each customer profiles are summarized, helping to identify the most popular banking products for different customer segments, and to adjust the product strategy accordingly.
- Slicing the cube by fixing the Customer Profile dimension, the total sales and complaints of each promotion scheme and banking product are summarized, helping to examine whether the combinations of promotion schemes and banking products are suitable overall, and to focus on the most profitable market segments.

Tutorial 7

Which type of analytics is the most important for businesses in general? Explain.

There are four types of analytics: descriptive, diagnostic, predictive, and prescriptive. Descriptive analysis conclude what has happened, diagnostic analysis explain why it happened, predictive analysis forecast what will happen, and prescriptive analysis suggest what should be done. Among them, predictive analytics is the most important for businesses in general.

Predictive analytics uses big data, statistical algorithms, and machine learning techniques to identify the likelihood of future outcomes based on historical data. It takes the descriptive and diagnostic analytics a step further. By accumulating and analyzing past data, predictive analytics can predict future trends and behaviors, and thus help businesses to make more informed decisions.

Further, predictive analysis can offer valuable insights into the future, such as customer behavior, sales trends, and risk management. With the maturity of cloud computing and big data, the speed, cost and accuracy of predictive analytics have been greatly improved, making it the most important type of analytics for businesses in general.

Lecture 7

Why is Social Capital important for businesses?

In the context of SMIS, social capital is a combination of the number of relationships, the strength of the relationships, and the resources controlled by those related. Social capital is important for businesses for the following reasons:

- For individuals, social capital can provide access to multiple resources:
 - Information: Social capital enables individuals to obtain knowledge regarding the opportunities, alternatives and problems and other factors that are important for personal and professional development.
 - Influence: Social capital enables individuals to influence others, especially decision makers, to achieve their goals.

- Social credentials: Linked to a network of influential people enhances the individual's reputation and status.
- Reinforcement: Social capital reinforces the individual's personal and professional identity in the community.
- For organizations, social capital can help in B2B and B2C relationships:
 - Strengthening the relationship: Continuing and frequent interactions with customers, suppliers, and partners can strengthen the relationship, and thus increase the trust and commitment.
 - Connecting to the resources: Social capital connects the organization to those who control relevant resources, such as investment, technology, and information.

Tutorial 8

List 3 common social commerce features.

Social commerce is the integration of social media and e-commerce. Common social commerce features include:

1. Social media integration. Social media platforms like Facebook, Instagram, and Pinterest provides interactive shopping features, such as shoppable posts, stories, and "Buy Now" buttons, which allow users to discover and purchase products without leaving the platform.
2. Pay-per-click advertising. Social media platforms also provide algorithm-based advertising, which can target specific groups of people based on their interests, behaviors, and demographics, and thus increase the conversion rate. Meanwhile, PPC cuts down the cost compared to traditional marketing, as the retailers only pay when their ads are clicked.
3. Interactive marketing. The retailers can interact with their customers through social media, driving engagement through likes, follows, and comments. This helps to build a loyal customer base and increase brand awareness.

Lecture 8

Based on the video, name at least one benefit of PPC over traditional marketing.

PPC stands for Pay-Per-Click, which is a model of internet marketing in which advertisers pay a fee each time one of their ads is clicked. The benefit of PPC over traditional marketing is that PPC is more cost-effective. Traditional marketing, such as TV commercials and billboards, is expensive and hard to measure the effectiveness. On the other hand, PPC allows advertisers to only pay when their ads are clicked, and the cost can be controlled by setting a budget. Moreover, PPC provides detailed data and analytics, which can help advertisers to measure the effectiveness of their ads and make adjustments accordingly.

Tutorial 9

Do you agree that vanity metric is useful to evaluate the success of SEO? Justify.

Vanity metrics are statistics that makes performance look better or worse than it actually is. For example, the number of followers and clicks are vanity metrics, since they do not directly contribute to the sales or revenue. SEO stands for Search Engine Optimization, which is the process of improving the quality and quantity of website traffic to a website or a web page from search engines.

Vanity metrics are not useful to evaluate the success of SEO for the following reasons:

1. No direct correlation with business goals. Unlike statistics like Sessions, Returns on Ad Spend, Engagement, Clickthrough Rate, and Contact to Customer, vanity metrics do not directly contribute to the business goals, such as increasing sales, improving customer satisfaction, and enhancing brand awareness.
2. Misleading and can be manipulated. Vanity metrics can be misleading or easily manipulated, since they do not reflect the actual performance of the website. One can purchase followers, clicks, and likes to inflate the numbers without improving engagement or conversion rate.
3. Lack of actionable insights. Vanity metrics do not provide actionable insights to improve the website performance. On the other hand, the above-mentioned metrics and keywords strategy can help to identify the strengths and weaknesses of the website, and to optimize the content and design accordingly.

Lecture 9

[Video](#)

1. What are companies' BCPs in face of COVID-19 and the need of social distancing?
2. What are the challenges/downsides?

1.

(1) Companies have adopted split-team operations or work-from-home policies. They encourage the employees to work remotely or in different teams to minimize the risk of infection while effectively maintaining the critical functions and services. Staggered work hours, which divide the employees into different shifts, are also adopted to reduce the number of people in the office at the same time.

(2) Companies have also adopted remote digital collaboration tools. The employees stay connected through the messages and teleconferences.

2.

(1) Remote work may lead to a loss of productivity. Some employees are not used to working from home or become distracted at home, which reduces the productivity.

(2) Technical issues may arise. Remote work tests the reliability of the digital infrastructure, leading to potential technical issues such as network congestion.

(3) Remote work may incur more financial costs. Some companies may have to upgrade their teleconference systems, improve the network security, or even hire IT staff to do more testing and maintenance.

Tutorial 10

Globalization or Protectionism? In your opinion, which one benefits the most to technology start-up firms? Explain.

Globalization and protectionism are two opposite strategies in international trade. Globalization refers to the process of interaction and integration among people, companies, and governments of different nations, driven by international trade and investment. Protectionism, on the other hand, refers to the policy of imposing restrictions on international trade to protect domestic industries from foreign competition.

In my opinion, globalization benefits the most to technology start-up firms for the following reasons:

1. Market expansion. Globalization enables technology start-up firms to sell their products and services to a larger market, which can help them to grow faster and attract more customers.

- In addition, overseas markets may have different needs and preferences, which can inspire the firms to innovate and improve their products or focus on different market segments.
2. Global stability. Globalization can help technology start-up firms to diversify their risks and reduce their dependence on a single market. By expanding to multiple countries, the firms can mitigate the impact of economic downturns or political instability in a particular region.
 3. Market equalization. Globalization can help technology start-up firms to compete on a level playing field with larger companies. By leveraging internet and social media, the firms can reach customers worldwide and utilize analytic tools just like multinational corporations, which is valuable for gaining insights and making informed decisions.

Meanwhile, globalization also brings challenges to start-ups, like market floods, global market chain reactions, and internationalized competition. However, the benefits of globalization outweigh the challenges.

Lecture 10

What is “bullwhip effect” in supply chains? Why this happens?

The bullwhip effect refers to the phenomenon of demand variability amplification as we move up the supply chain. In other words, small fluctuations in demand at the consumer level can lead to large fluctuations in demand at the supplier level. The bullwhip effect happens due to the following reasons:

1. Complex supply chain structure. The dynamic nature of the supply chain, with multiple suppliers, manufacturers, distributors, and retailers, makes it difficult to predict the demand accurately. Each level estimates the demand based on the previous level, which can lead to distortion and amplification of the size and timing of the orders.
2. Batch ordering. Companies often place bulk orders at regular intervals, rather than ordering based on the actual demand. This can lead to overestimation or underestimation of the demand, and thus amplify the fluctuations.
3. Consumer behavior. Promotions, seasonal changes, and other factors can vastly affect the consumer demand over a short period. This is not only difficult to predict but also affect future expectations, making the demand even more volatile.
4. Lack of information sharing. The lack, untimely, or inaccurate information sharing between the different levels of the supply chain can lead to distorted demand forecasts. Should the real-time information be shared effectively, the bullwhip effect can be mitigated.

In what ways is outsourcing IS infrastructure like outsourcing the company cafeteria? In what ways is it different?

Similarities:

- Development process delegation. Outsourcing to a third-party vendor means that the company does not have to care about IS infrastructure development or food preparation, but use the services provided by the vendor like a off-the-shelf product.
- Core business focus. By outsourcing peripheral services like IS infrastructure or cafeteria, the company can focus on its core value adding activities, such as product development or marketing.
- Reliance on external expertise. The company can benefit from the expertise and experience of the vendor, who specializes in IS infrastructure or food service, and thus can provide better quality and efficiency.
- Cost reduction. Given that the vendor are specialized in the service, they can provide the service at a lower cost than the company can do it in-house.

Differences:

- Strategic importance. IS infrastructure is heavily related to the company's core business, while the cafeteria is more of a peripheral service. The reliability and security of IS infrastructure can affect other core business activities such as CRM and SCM.
- Risk management. The failure of IS infrastructure can lead to data loss, security breaches, and system downtime, which can have a significant impact on the company's operation. On the other hand, the failure of the cafeteria service may only lead to a temporary inconvenience.
- Company development. Outsourcing the IS infrastructure prevent current employees from learning in the process, which is vital to the company's development. In contrast, developing and maintaining IS systems by the company itself can help to align the systems with the company's culture and strategy.

Lecture 11

Why did once-giants like Kodak or Blockbuster fail? Is it simply because they did not innovate?

Disruptive technology, which refers to the innovation that creates a new market and value network, and eventually disrupts the existing market and value network, is the main reason why once-giants like Kodak or Blockbuster failed.

Kodak's failure can be attributed to two primary reasons: failure to recognize unmet needs, and being unprepared for disruptive technology.

1. Failure to recognize unmet needs. Kodak was the market leader in the film and camera industry, but it failed to recognize the unmet needs of the customers. On the other hand, startups like Instagram and Snapchat identified the need for instant photo sharing and developed digital cameras and mobile apps to meet the demand. Kodak persisted in the traditional business model, which led to its downfall.
2. Being unprepared for disruptive technology. Since the film and camera industry was so profitable, Kodak was reluctant to invest in digital technology. The company was completely unprepared for changes in the market. In comparison, Fuji Film, Kodak's competitor, identified the opportunities in films beyond traditional photography, such as applying films in smartphones and tablets, and thus survived the digital revolution.

Blockbuster's failure was similar; its existing infrastructure and business model locked it into the traditional video rental business, while Netflix, a startup, grasped the opportunity of online streaming and subscription-based services. Blockbuster failed to innovate and adapt to the changing market, which led to its bankruptcy.

In conclusion, these once-giants failed not simply because they did not innovate, but also because they do not have a plan and preparation for changing from existing products and services to a new market and value network, to survive the disruptive technology.

Lecture 12

You are the IT manager in a bank. Based on the video, will you recommend using cloud to manage banking data? Why?

Cloud storage refers to the storage of data on remote servers, which can be accessed over the internet. As the IT manager in a bank, I would recommend using cloud to manage banking data for the following reasons:

1. Scalability. Cloud storage can scale up or down based on the bank's needs. As banking data grows, the bank can easily expand the storage capacity without investing in additional hardware or software.
2. Cost efficiency. Cloud storage is more cost-effective than traditional storage solutions, and does not incur the cost of maintaining the system or hiring IT staff. Subscription-based pricing allows the bank to pay only for the storage it uses.
3. Security. Cloud storage providers offer advanced security features, such as encryption, access controls, and data backup, to protect the data from unauthorized access, data loss, and cyber attacks. The bank can also implement additional security measures to ensure the data is safe.

However, the video also mentions some challenges of using cloud storage, such as downtime, sensitive data exposure, and high switching costs. Therefore, the bank should carefully evaluate the cloud storage provider, and implement proper security measures to protect the data.