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Digital Business Models

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Introduction

- The discipline "Digital Business Models" was developed within the ERASMUS + project "Digitalization of economic as an element of sustainable development of Ukraine and Tajikistan" / DigEco 618270-EPP-1-2020-1-LT-EPPKA2-CBHE-JP for mentoring and partnership of colleagues at the University of Maribor (Slovenia).
- Special thanks go to Dr. Gregor Polancic and all colleagues from Lithuania, Germany, Slovenia, Ukraine, Tajikistan, who made it possible to effectively implement the project.
- **The purpose of the discipline is** to form in students majoring in "Economics" specific skills and abilities to build, select, implement digital business models, which are necessary for the development of Industry 4.0.

The objectives of the discipline are:

- identify and analyze existing business models;
- understand the methods, ways, tools for developing their own business cases based on existing digital business models;
- understand modern concepts of determining the target audience, customers, consumer behavior
- understand the methods of identifying customer touch points with IT systems and business processes;
- analyze the internal business processes of enterprises in the direction of touch points.

Structure of the course

Content module 1. Digital business models and innovation management: conceptual provisions **Topic 1.** Business models: understanding, transformation, use Topic 2. Digital transformation and diffusion of innovations: digital business models and focus on customers **Topic 3. Innovation management: DOI** Content module 2. Strategic and operational management and digital business models: applied aspect **Topic 4. Business strategies in the digital economy** Topic 5. Designing business models: resource-open, free, subscriptionbased, free, on-demand, sharing, advertising-supporting, e-commerce, with hidden benefits, monetization of your users **Topic 6. Implementation of business models as part of business** operations: the outline of the client Topic 7. Basic level of modeling: a map of the client's journey **Topic 8. Business process modeling: BPMN**

Content module 1. Digital business models and innovation management: conceptual provisions.

Topic 1. Business models: understanding, transformation, use

- The concept of "business model" and mindset.
- The phenomenon of digital transformation and "Industry 4.0".
- The relationship between digital transformation and business model innovation.

What is a business model?

- The business model describes the rationale for how the organization will create, provide, and preserve value in an economic, social, cultural, or other context.
- The process of building a business model and modification is also called business model innovation and is part of the business strategy.
- Business models are important for both new and established businesses.
- In theory and practice, the term business model is used for a wide range of informal and formal descriptions representing key aspects of a business, including purpose, business process, target customers, proposals, strategies, infrastructure, organizational structures, sourcing, trading practices and operating processes and policies, including culture.

Thus, a business model is something that allows us to **full verify the business we** establish or develop, thanks to a properly selected / built model.

A business model is a high-level outline to ensure a profitable business in a particular market. The main component of the business model is the value proposition. This is a description of the goods or services offered by the company and why they are desired by customers or users, ideally set out in a way that distinguishes the product or service from competitors.

Business models are changing along with digital transformations

Digital transformation is the introduction of digital technologies to transform services or businesses by replacing non-digital or manual processes with digital processes or replacing old digital technologies with newer ones.



Digital business model

A digital business model can be defined as a model that uses digital technology to improve several aspects of an organization.

• From how the company attracts customers to which product / service it provides.

• The digital business model is present when digital technologies help increase its value and supply.



Interactive game

What do you see in the picture?





A business unit, i.e. a company



What is the focal objective of a company?

Profit





How does a company achieves profit?

Value creation – Goods/Services - Generate returns

What does a company need to create value?

Resources



What is money?

This means we can buy resources



Can we buy Everything?

"There are some things money can't buy /.../"



A company can't buy ...

Capabilities

Capabilities need to be established and evolved



Topic 2. Digital transformation and diffusion of innovations: digital business models and focus on customers

•Key analysis questions for a full understanding of digital transformation and business models.

- The concept of digital transformation, its aspects, models and customer orientation. Digitization of management.
- Characteristics of digital business models.

Key questions to ask about the analysis of "WHO? - WHAT? - HOW? - WHY? ":

- WHO is our client? The customer is at the heart of every business model. His needs and problems underlie why and how the company works?
- WHAT do we deliver to our customers? What is actually offered to the client to meet his needs and how it solves his problems.
- HOW is the proposal created? To offer a value proposition, companies must perform certain processes and activities using their resources and capabilities, as well as coordinate with partners.
- WHY is it financially profitable? When describing the cost structure and revenue streams, it is important to explain how to make money using a business model. Time is the most important factor in the period of digital transformation, and therefore business models must change quickly, adaptive to customer needs and market dynamics.

Aspects of digital transformation

The general process of digital transformation:

1. identification of business needs;

2. adoption of processes and technologies (tools) to meet these needs;

3. promoting the development of organizational culture, which can adapt quickly to technological failures.

 $\circ~$ Aspects of digital transformation:

1. consider all aspects of the information system:

o- People.

o- Processes.

o- Information Technology.



Principles of transition to 4.0

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Ukrainian Institute

FOR THE FUTURE



ПРИНЦИПИ ПЕРЕХОДУ НА 4.0



Dissemination of innovations

• Dissemination of innovation (DOI) is a process in which innovation spreads the channels of communication at a certain time between members of the social system.

• Communication is a process in which participants create and share information with each other to achieve a common understanding.

• In the process of spreading innovations there is a special form of communication in which messages express new ideas

• Communication is mostly bilateral.

• Innovative users: persuading potential users to use innovation, feedback on innovation, responding to studying users' wishes.

• A communication channel is a means by which messages about individual innovations are transmitted between them.

• The rate of spread of innovation can be estimated as the number of people who have embraced innovation over a period of time.

• A social system is a set of interconnected units whose goal is to achieve a common goal.

• Units of the social system are, for example. individuals, informal groups, organizations, etc.

Customer orientation:

• What they actually offer the client to meet their needs and how it solves their needs.

• Next comes an innovative product or service, specific laws about how it is distributed and communicated in the social system.

The overall process of digital transformation includes:

- Identifying business needs.
- Adoption of processes and technologies (tools) to meet these needs.
- Promoting the development of organizational / corporate culture that can adapt quickly to technological failures.
- Aspects of digital transformation consider all aspects of the information system: People.
- Processes.
- Information Technology.

Digital business model:

It is a model that uses digital technology to improve several aspects of the organization. Depends on how the company attracts customers to whom it provides a product / service. It is present when digital technologies help to strengthen the value proposition. Digital business models have 4 characteristics that help distinguish them from digital offerings:

1. Value is created through digital technology. When the value proposition of the offered service is based (exclusively) on digital technologies, then we have one big indicator for the digital business model. Amazon, Alibaba, Facebook, Google, etc. would be impossible without the use of the Internet.

2. Digital business models are new to the market. One of the best examples is the difference between digital offerings and digital business models. When, for example, we read electricity consumption using a program, it is a digital offer from the electricity supplier. If we order transport through an application that meets the request with the driver, it is a digital business model.

3. Attracting and distributing digital customers. To become a customer and use the service, you need to use digital channels. Digital business models are sometimes based solely on digital channels. This is especially important for business models that rely on early implementation (the Freemium model) or markets (for example, Amazon advertises when searching the Internet).

4. USP is created digitally. When a customer is willing to pay for services and offers created on the Internet, then there is a significant indicator of the digital business model, because the "value" / "value" of the customer can be created digitally and monetized.

Topic 3. Innovation management: DOI

•Innovation: product or process. Types, kinds, "wheel of innovation".

• DOI: spreading the theory of innovation and limitations.

•The concept of diffusion, the factors influencing it, the activation of interest and demand.

Dissemination of innovation is a theory that seeks to explain how, why, and at what rate new ideas and technologies are spreading.

Innovation is a continuous learning process with several inputs.





Types of innovations:

- -Organizational innovations.
- Process innovation.
- Product innovations.
- Marketing innovations.
- Eco-innovation.
- Business innovations.

Examples of well-known innovators:

Steve Jobs, who began to develop the world of smartphones with the iPad

*Marie Curie has conducted extensive research on radioactivity

Elon Musk has made significant progress in luxury electric cars

Anne Kissling drew many conclusions in the field of biology
Nikola Tesla worked on the production, transmission and use of electricity

*Amanda Jones was the inventor of the vacuum canning method

Thomas Edison invented the incandescent light bulb

Grace Hopper invented the first compiler for the computer programming language

*Leonardo da Vinci, among many others, invented the parachute

*Josephine Cochrane invented the first mechanical dishwasher

*Alexander Graham Bell invented the first telephone

Different types of **innovation** with examples.



1. Disruptive innovation Revolutionary nature and changing whole industries.



2. Incremental innovation Improvements to existing products and processes.



MEMORY FOAM

4. Architectural innovation Changing the purpose of products. Applying existing technology elsewhere.



3. Modular innovation

product by changing

modules.

Improving performance of

5. Product innovation Changes and improvements of products.



7. Open innovation Collaborative effort to improve products and processes.



6. Process innovation Changes and improvements of processes.



8. Closed Innovation In-house effort to improve products and processes. An interesting video on the spread of innovation.



Modern types of innovations:

- 1. Incremental innovations.
- 2. Destructive innovations.
- 3. Architectural innovations.
- 4. Radical innovations.

Separately, we also note that there are:

- Open innovations.
- Closed innovations.

UNDERSTANDING THE **10 Types of Innovation**

New products are invented from scratch all the time, but this is merely one way to innovate.

According to innovation firm **Doblin**, most big breakthroughs in history comprise some combination of the following 10 types of innovation.



types nnovations

By tactically examining these 10 different types of innovation, you may uncover exciting new product opportunities – or you may change the business world forever.



| Type of innovation | Description |
|------------------------|---|
| Profit model | How do you make money |
| Chain | Relationships with others to create value |
| Structure | Align your talents and assets |
| Process | Sign the best methods of doing your job |
| Product performance | Distinctive features and functionality |
| Product system | Additional products and services |
| Service | Support and improvements that surround your offerings |
| Channel | How your offers are delivered to customers and users |
| Brand | Presentation of your proposals and business |
| Attracting customers | Great interactions that you support |

Types of innovations №1-4 "Configuration"



PROFIT MODEL

The **New York Times** pivoted from its traditional ad-driven media model to digital user subscriptions.





STRUCTURE

Google's "20% rule", which allowed employees to work on side projects, led to the creation of Gmail and Google News.

Google



NETWORK

Henry Ford was one of the first industrialists to control his entire supply chain, a strategy later called vertical integration.





PROCESS

McDonald's franchisees were encouraged to develop and launch their own new food items, leading to wins such as the Egg McMuffin.



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Types of innovations № 5-6 "Offering"

OFFERING



PRODUCT PERFORMANCE

Spotify created a seamless music streaming product that lapped competitors in terms of speed, responsiveness, and user experience.





PRODUCT SYSTEM

Apple has built an extensive ecosystem of products that work together, creating additional value for users.





Types of innovations № 7-10 "Experience"



SERVICE

Amazon Prime comes with free expedited shipping, which can have products come as fast as within 2 hours in some metro areas.





BRAND

Patagonia's brand activism and links to environmental causes gives it a unique position in the outdoor apparel market.



CHANNEL

Nespresso locks in customers with its Nespresso Club, as well as through ongoing sales of single-use coffee pods.





CUSTOMER ENGAGEMENT

Mercedes has launched an augmented reality owner's manual that replaces its bulky predecessor while also highlighting driver and car data.



Mercedes-Benz



The theory of the spread of innovation (DOI), developed by Rogers in 1962, is one of the oldest theories to emerge in communication to explain how, over time, an idea or product gains momentum and spreads through a particular population or social system. The end result of this spread is that people, as part of a social system, accept a new idea, behavior, or product. "Adoption" means that a person is doing something different than what he or she had before.



Source: Everett Rogers Diffusion of Innovations model

| Definition | | |
|--------------------|--|--|
| Innovators | Innovators are willing to take risks, have the highest social status, have financial liquidity, are social and have the closest contact with scientific sources and interaction with other innovators. Their risk tolerance allows them to implement technologies that may eventually fail. Financial resources help to overcome these failures. | |
| The first users | These individuals have the highest degree of leadership in opinion among the categories of adoptive parents. The first adopters have a higher social status, financial liquidity, higher education and are more socially advanced than later adopters. They are more careful in choosing adoption than innovators. They use smart adoption choices to help them maintain a central place of communication. | |
| Early majority | They innovate at different times, which is much longer than innovators and first users. Early majority above average social status, contact with the early and rarely held the position of public opinion leader in the system (Rogers +1962, p. 283) | |
| Late majority | They adopt innovations after the average participant. These individuals approach innovation with a high degree of skepticism even after the majority of society has embraced this innovation. The late majority is generally skeptical of innovation, has below-average social status, low financial liquidity, contacts with others in the late majority and early majority, and has little opinion guidance. | |
| Lagging behind | They were the last to adopt the innovation. Unlike some previous categories, individuals in this category show almost no leadership in thought. These individuals usually have an aversion to change agents. The lagging behind are usually focused on "traditions", the lowest social status, the lowest financial liquidity, the oldest among adopters and have contact only with family and close friends. | |

| Five stages of the adoption process | | |
|-------------------------------------|---|--|
| Stage | Definition | |
| Knowledge / Awareness | The person initially experiences innovation, but has no information about the innovation. At this stage, the person has not yet been inspired to learn more about innovation. | |
| Belief | The person is interested in innovation and is actively looking for relevant information / details. | |
| Decision | The person takes the concept of change and weighs the advantages / disadvantages of using the innovation and decides whether to accept or reject the innovation. Because of the individualistic nature of this stage, Rogers notes that this is the most difficult stage at which empirical evidence can be obtained. | |
| Realization | The individual applies innovations to varying degrees depending on the situation. At this stage, the person also determines the usefulness of the innovation and may seek additional information about it. | |
| Confirmation / Continuation | The individual finally decides to continue to use innovation. This stage is both intrapersonal (can cause cognitive dissonance) and interpersonal, which confirms that the group has made the right decision. | |
Content module 2. Strategic and operational management and digital business models: applied aspect

Topic 4. Business strategies in the digital economy

- Strategic management: digital strategy.
- Formation of digital strategy. The main elements.
- Using the "wheel of innovation" to select / build a model in a business strategy.

Digital strategy is both a concept and a thing - that is, a digital strategy must ultimately lead to the creation of a specific plan or roadmap. While you may continue to change the specific tactics you choose to use, there must also be a clear commitment to your understanding of what digital means to your company.



How to form a digital strategy? Instead of asking, "What is our digital strategy?", The Harvard Business Review proposes to use five questions to justify your understanding of digital technology:

- 1. Do digital technologies change the business you have to do?
- 2. How can digital technology improve the way you add value to your business?
- 3. Can digital technology change your target customer?
- 4. Does digital technology affect the value proposition for your target customer?5. How can digital technology improve the capabilities of an enterprise that sets you apart from the competition?



Common elements of digital strategy:

Choose a leader
Attack against defense
Take a measurable approach
Proof of the future

Profit model: how we earn / take money

- Fortnite - pay per set: this free video game from Epic Game Studios is currently one of the most popular and profitable games in the world. Unlike other freemium games, which encourage people to spend money to speed up progression, Fortnite is completely free to progress, and people only need to pay if they want to unlock "cosmetic" things that do not affect the gameplay, but act for personalize your characters.



Deloitte - Value Sharing: Deloitte is the world's largest management consulting company, which continues to grow. They noticed their clients' desire to assure them that the advice they were given and the transformation projects managed by the company would actually succeed. As a result, Deloitte has begun testing projects where instead of rewarding them, it is based solely on time and materials; they also participated in value delivery, where additional bonus payments are activated only if the pre-agreed performance indicators are successfully met.





Supreme - supply constraint: Although most companies want to pass on their products to as many people as possible, Supreme has created a "cult of imitation" by deliberately demanding a shortage of its products. Their red box logo is now so collectible and desirable that the company can sell almost anything by placing the logo on it only for a limited time. Example: You can find official Supreme Bricks (like the ones used to build houses) that still sell on eBay for \$ 500.

Ford and Volkswagen are developing cars as the world's two largest carmakers are competitors. However, in 2019, they announced a partnership to work together to develop technology for cars and electric vehicles to be used in the parks of both companies of the future. While Ford offers more advanced automated driving technologies, Volkswagen is a leader in electric vehicles. Through a joint venture called ARGO, both companies can spread their R&D costs over more cars while developing competing products.







Microsoft - launch on competitors' platforms: since the new CEO Satya Nadella took office, the company's innovative spirit has changed. If Microsoft used to be the first company to try to eliminate competitive products, and customers should stay in the company's ecosystem, Nadella changed her mind to a service company, where their products should be available to customers who have access to products in any case, as they prefer. As a result, products such as Office 365 are now available in any web browser, as well as in Google's Android mobile market and Apple's iOS, which were previously considered competitors.

Huawei - the use of "approval" of celebrities: Until recently, the "high-quality smartphone" made people think of companies such as Apple (USA), Samsung and LG (South Korea). Brands from China were often seen as competitors in price, but suffered from lower build quality and a lack of innovation. So to boost its popularity in Western markets, Huawei has invested heavily (millions) in celebrities to support their flagship phones, such as Lionel Messi, Scarlett Johanssen, Henry Cavill and Gal Gadot. This initial investment has increased brand awareness to a level that now focuses marketing more on functionality.



Netflix - Unlimited Vacation: To drive wild growth, Netflix has revised its official HR policy to see which processes are preventing people from doing their job best. They found that most of the bureaucratic processes that slow down the activities of highly efficient people exist only to address situations where a low-performing person will do something wrong. As a result, they have repealed most formal personnel management policies to create the conditions for people to work in their own way, to benefit the company, as summarized in the Freedom and Responsibility Cultural Document, including allowing employees to take as many days off as they consider it necessary.



WeWork - attracting hard assets from other companies: WeWork's business model is interesting in that it provides affordable office rentals for entrepreneurs and companies, placing many tenants in one space, offering areas to work together. In order to quickly deploy new workspaces and attract customers, WeWork began using a system called "rental arbitration," where they rented commercial space, created ready-to-use coworking settings, and then rented the space to customers. the buildings themselves, they were able to expand rapidly with less overhead.



Tesla is a vertically integrated supply chain: Tesla electric vehicles need huge batches of electric vehicles made from thousands of lithium-ion cells. Until recently, the lack of demand for electric vehicles meant that companies did not invest in the development of battery technology, as a result of which prices remained high and the cost of cars was significantly more expensive than that of their gasoline counterparts. Tesla has invested in a huge gigafactory to produce the latest batteries on its own, and it is estimated that economies of scale and non-payment of surcharges will save manufacturers 30% of the cost of batteries. Today, the Tesla Gigafactory is the largest building in the world.





Amazon Web Services - Discovering Internal Technology for Third Parties: When Amazon Web Services was first launched in 2006, it actually launched a cloud computing marketplace, allowing outside companies to not just host web pages, but run code and share calculations (own network of servers). Since then, Amazon has continued to develop new technologies that it will use for its own services, such as artificial intelligence, image recognition, machine learning and natural language processing, and will later make the technology available to its customers. **AliExpress** - turning everyone into a store owner: AliExpress - one of the world's lars e-commerce sites, which is a commercial showcase for thousands of Chinese companies, allowing you to buy everything you need. However, AliExpress also allows the platform to process the purchases listed on the "external showcases" using a system called "express delivery", where anyone can create their own store, sell someone else's products (but for customers it looks as if they come from seller) and then asks these manufacturers to send the product directly to customers.



Gorilla Glass - a change in chemistry to improve the strength of smartphones: Gorilla Glass from Corning has been included in the list of the top ten types, becoming scratch-resistant. He changed the properties of his glass every year based on customer feedback. In 2016, version 5 of the glass was designed to withstand a crash when falling from 5+ feet, which was called "selfie height". However, after discussing what kind of real estate their customers want, until 2018, version 6 no longer tried to withstand destruction when falling from a height once, but changed the chemistry and production process, making it resistant to cracking after 15 falls from a lower height (1 meter or "Touch from the pocket"). Productivity is not just trying to be "better" by resisting a single drop from a greater height than last year, but by figuring out what really matters to customers and providing it.



The Raspberry Pi is a full-fledged PC for \$ 35: The original Rasperbby Pi was developed by a UK charity to create a simple yet extensible computer that was accessible to everyone. Their credit card-sized PC may look like a "skeleton" (it comes without a case and is actually an open board), but it has everything you need to run the Linux operating system, learn programming and even connect it to external and peripherals to make a variety of machines. The latest version 4 is now powerful enough to serve as a specialized PC, and all for such a low price that you can let your child tinker without fear that it will break. Mission: to provide children with a cheap PC, such as the Raspberry Pi, for learning and experimentation.



Lush Cosmetics - removing what people no longer want: As people become more aware of their impact on the environment, customers demand more to reduce the amount of plastic packaging used by their products that could end up in landfills or the ocean. Lush Cosmetics was the first company to launch large-scale cosmetics without packaging in specialty stores.





Ryobi is one battery that controls everything: hand tools have had rechargeable batteries for decades, but as a innovation, Ryobi has developed the One + modular battery, which can be used with more than 80 different tools. This was not only convenient for customers who generally needed fewer reusable batteries, but also encouraged them to purchase the Ryobi tool ecosystem after they had previously purchased one tool and a set of batteries. The Ryobi One + battery powers several different tools. **Zapier** - simplified API: Today, many web applications have an application programming interface (API) that allows them to share data with other services. However, this often requires developers to perform complex coding and retry integration with several different APIs. Zapier acts as an intermediary in data transmission, providing ready-made actions and API integration between popular web services, allowing customers to automate certain actions every time a specific event occurs.



Airbnb - Expanding the Experience: Airbnb has built its business on allowing ordinary people to rent out homes to strangers. Now the company has started offering additional services to people who visit new places with the help of experience. This experience is also sold by local guides, and they allow guests to try something they would not otherwise know.



Kroger - product scanning with a smartphone: the American retail giant Kroger is testing a new application for smartphones, which allows customers to scan products at the time of purchase, and then skip the test altogether. With the Scan, Bag, Go program, the customer will scan each item when he picks it up and puts it in any bag he wants, and when he finishes, he can just pay with the program and leave. This prevents waiting in queues, issuing statements and gives an overview of the total amount "on the go", as well as allows supermarkets to "seduce" customers by sending coupons and offers directly to them.



PurpleBricks - Attracting Real Estate Online: Real estate agents charge a large fee to buyers and sellers for the services they provide. PurpleBricks was one of the first real estate agents to work only online, where they could charge a much lower fee if the seller decided to perform some service processes on their own, such as showing the house to potential buyers. For an additional fee, the company can provide additional services.





Meituan Dianping is one app for all the services you need: as the most innovative company Fast Company in 2019, Meituan Dianping provides a platform for Chinese consumers to buy a variety of services. It is a super transactional application that can be used to book and pay for food, travel, movie tickets and more at more than 5 million Chinese small and large retailers. **Dollar Shave Club** is right at your door: Razor blades have always been high-income products, and Gillette was one of the first innovators to give away the razor handle to make money on subsequent blade sales. Dollar Shave Club has taken a different approach, reducing the cost of each set of blades, but allowing people to join a subscription service where the blades are delivered to them automatically. Although the surcharge for each set of blades is lower than the retail one, the subscription model provided a steady, predictable income for the company, so much so that subscriptions can now be found for virtually any consumer product.



Zipline - blood delivery to remote areas: in the hospital receiving fresh blood can be a matter of life and death. Unfortunately, many African countries south of Carp do not have road infrastructure suitable for the rapid delivery of blood between hospitals or storage facilities. That's why Zipline has developed a simple, reliable network of drones where hospitals in Rwanda and Ghana can order fresh blood from the central treatment area and receive it for an average of 15 minutes, rather than the hours or days required by conventional transport (drone innovation). zipline).



3D Printers - Make everything you need at home: Instead of one company, the 3D printer industry is gradually changing the way users use simple tools and parts. By downloading diagrams from the Internet (or developing your own), people who own a 3D printer no longer go to the store or order the parts they need. In a commercial environment, it also accelerates the speed at which companies can prototype new ideas and designs in hours, not days or weeks.



Gillette / Nike - a willingness to lose customers who do not meet the goals: both companies have recently led their brands to a certain goal (social and political), which was approved by some people, but caused hatred by other groups. Nike began by making former NFL defender Colin Copernicus the face and voice of one of their advertising campaigns. Copernicus became famous when he refused to stand during the anthem before the games, this is his way of protesting against the cruelty and inequality of the police towards his African-American community. As a result, some people have argued that he does not respect the American flag, and therefore what the flag means.



Burberry is a modernization of a classic brand: Burberry built its luxurious fashion reputation by joining the British aristocracy, and its famous checkerboard pattern was iconic. However, trying to modernize and make the brand "sexy" in the early 2000s, there was a mistake when the luxury house began to license checkered fabric, making it a symbol of status and a desirable motive for another social group: the British "Chavs" (rough, lower class and sometimes aggressive). This poisoned the once iconic brand in the eyes of their luxury clientele.





REI - closes its stores on the toughest shopping day: REI's outdoor equipment retailer began closing its doors on Black Friday, traditionally one of the busiest shopping days of the year. on the street and used their equipment, and did not stand in line for material benefits at a discount.



Peloton - bringing the gym home: many people benefit from attending joint classes in the gym, because the feeling that the group is working to achieve goals with the coach is more powerful than trying to perform on their own. Peloton manufactures simulators with built-in screens, which are provided by subscription to courses in real time and on demand.



NBA - Involvement of fans in action: The NBA has invested heavily in innovation to make their sport more exciting. Based on real-time analytics and player statistics, new ways to watch virtual reality videos and official video game players for each team, they find new ways to bring basketball to the next generation, making it even more exciting for existing fans. Topic 5. Designing business models: resource-open, free, subscriptionbased, free, on-demand, sharing, advertising-supporting, e-commerce, with hidden benefits, monetization of user data

> Resource-open model. Free model. The model is based on a subscription. Freemium model. Model "on demand". Schering model. Advertising and support model. E-commerce model. Model with hidden benefits. User data monetization model

Resource-open model:

- The open source model provides free access to the software and generally enables the developer / programmer community to contribute.

- Free makes it spread very fast.
- And the community's contribution is what ultimately determines its success.
- Open source is not a model by which companies can have leverage to build a sustainable business model.
- Companies like Red Hat make money by charging a premium for subscriptions and training and services related to the launch of its source software.





Free model:

- The free model has become quite common on the Internet.
- Google and Facebook started with it.
- Mainly based on providing free services to a large user base.
- The model works quite well for products that are spreading quickly, attract investment to maintain their infrastructure in the short term, and then determine the strategy for its monetization:
- a) basic version of the product and more advanced paid version (freemium model)
- b) one party receives the service free of charge and the other finances it (asymmetric model)
- c) training materials or information products related to the main topic of the product (training model).
- d) free basic service and more refined and high-quality paid service (use model).
- e) a vacancy board that connects talented people with employees (work board model).

Freemium model:



- Became popular in the last decade.

- Provides high growth of "virality".

- At the heart of the Freemian model - a free version of the product or service is available to anyone, without any problems.

- Offers within these free services to switch to paid subscriptions to get more volume, without advertising, or to get more data.

- Dropbox, MailChimp, Spotify and many others have provided "viral growth" thanks to these models.

Prerequisites for the free model:

- strong customer base of the enterprise;

- optimized conversion sequence for the transition of free users to paid ones;

- a reliable technological infrastructure that can work with a wide base of free users.



The model is based on a subscription (based on subscription).

- We live in a subscription-based service economy.
- The subscription model has been introduced by newspapers and magazines and is now used by many different products and services that the customer can access by paying a recurring fee.
- The most exciting and customer-focused services we know today, from Netflix to Spotify and Amazon Prime, follow a subscription model.

Advantages of the subscription model:

- base of loyal users;
- a constant flow of estimated income;
- a more predictable sales pipeline.




• The Internet, which distributes artifacts based on information, allows people to consume content at their own pace and schedule.

• On-demand consumption allows people to access content at different times.

• The on-demand model can be monetized in several ways, such as subscription to fee for each transaction on the platform.



Shering model (common economy):

- The sharing market (ie the common economy) is a platform where two parties are usually involved in transactions that may involve products (Etsy) or services (Uber, Airbnb, LinkedIn).
- Private customers share products or services with other private customers the intermediary platform.
- Continuous generation is required to be in demand in an "equal" platform market. At the same time, to have supply, you need to create demand.
- Uber uses several strategies to improve the supply of drivers on its platform through dynamic pricing strategies. Dynamic pricing is the practice of having several price points based on factors such as customer segment and peak times.

E-commerce (e-commerce) model:

- Is one of the most used digital business models.
- One of the first companies to establish itself on the Internet was Amazon. The company began as a bookstore and soon expanded to sell music and related products.





Advertising and support model:

- The main product can be bought and used for a good price and meet basic needs. The various additional features available to improve the product cost extra money.
- The most striking example of a model with advertising support is Google and social media platforms: Instagram, Facebook, Messenger.
- Google has created all its services and applications completely free of charge. On the other hand, he monetized the data captured through his search engine page through an ad network called AdWords (now Google Ads).

Model with hidden benefits (hidden income generation):

• Hidden income is making money while most people who use your service are barely aware of it.

- The most common hidden income business model is in the media, services and information technology industries.
- These companies usually provide customers with services that they can use. However, these companies do not charge customers for using their services. Instead, companies deal with third parties who show their customers their advertising or other ways to monetize them.
- Facebook (also Google) is a great example again.





Monetization of customer data:

- The idea of the Data Monetization template is to generate revenue from available data or real-time streaming data.
- Examples of data sources are social media, portable devices, products or services that the user accesses and uses in financial transactions.
- This data can be combined with external sources such as geodata, weather and data from objects (Internet of Things).

User data monetization model (bait and hook):

- The basic product (hook) is offered cheaply or free of charge; sold additional product or refueling (bait) expensive.
- The main product cannot be used without an additional product.
- Especially suitable for tangible products.



Topic 6. Implementation of business models as part of business operations: the client's outline

Business models - operational level.
 Customer outline.

Business models - operational level

• The process of implementing a business model is part of business operations.

• Organizations implement their business model at the operational stage at the level of their business operations.

• This applies to their activities at the level of process, capabilities, functions and infrastructure (eg their business processes and business process modeling), their organizational structures (eg organization charts, workflows, human resources) and systems (eg information technology architecture, production lines).



The client's outline is a mandatory element of the model and consists of:

Last name, role / profession: giving a person a real name and role helps to consolidate them in reality. It is even better to "use" a real person.

Essays: the canvas is designed to simplify the drawing of what you like, how the client looks. Is this a man? Woman? Is he or she happy? Do they wear special clothes? Create a rich picture.

Need: After all, we want to try to identify needs for the individual. What do they do? What decisions will they make? The rest of the canvas helps to increase the scale.

Positive trends: what positive trends does the client feel in his life?

Opportunities: what positive opportunities does a person have in his activity, life? It can be both work and personal life.

Hopes: What are the client's hopes for the future?

Negative tendencies: what negative tendencies does the client feel in his life? "Headaches": what negative "headaches" does the client feel in his life? It can be both work and personal life.

Fears: what fears will the client have in the future?



Canvas



| PROFILE DATA <i>©</i> | | PRODUCTS/SERVICES | TRENDS 🖾 |
|-------------------------|--------------|-------------------|------------------|
| JOBS(S) | PAINS | | GAINS |
| POSITIONING STATEMENT 🖽 | PAIN RELIEVE | RS | GAIN CREATORS |
| BRAND ♡ | CHANNELS 🖟 | | COMMUNICATIONS 🗩 |

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Persona Canvas

Persona Name:

Product / Service / Business Line:

| Demographics Getting to know our persona Persona Name Title Functional Area Age Location Bio | Personality Image: Conservative How do you rank the persona on each of the following personality variables? Image: Conservative EXTROVERT INTROVERT THINKING FEELING CONTROL ENTREPRENEURIAL PRACTICAL VISIONARY CONSERVATIVE INNOVATIVE | Motivations What motivates the persona to get involved? INCENTIVE FEAR ACHIEVEMENT GROWTH POWER SOCIAL | Preferred Channels Preferred Channels How can we reach & engage with the persona? Preferred Channels TRADITIONAL MEDIA ONLINE, SOCIAL & MOBILE MEDIA ONLINE, SOCIAL & MOBILE MEDIA ONLINE, SOCIAL & MOBILE MEDIA EMAIL & PHONE ONLINE, SOCIAL & MOBILE MEDIA FREFERRALS ONLINE, SOCIAL EVENTS |
|---|--|--|---|
| Interests What are the personal interests of the persona? e.g. sports, hobbies, books, brands, affiliations | Goals What are the professional goals and needs of the persona? | Pains What are the professional pains and pains | ears of the persono? |
| Quote What quote would best describe the persona? | Key Reason to Buy What is the persona's key reason to buy & use your product(s)/service(s)? | Deal-Maker What would most likely contribute to making a successful deal with the persona? | Deal-Breaker What would most likely kill a deal right on the spot for the persona? |

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Example

Clark Andrews





"I feel like there's a smarter way for me to transition into a healthier lifestyle."

Motivations

| Incentive | | |
|-------------|--|--|
| Fear | | |
| Achievement | | |
| Growth | | |
| Power | | |
| Social | | |

Personality



Goals

- · To cut down on unhealthy eating and drinking habits
- · To measure multiple aspects of life more scientifically
- To set goals and see and make positive impacts on his life

Frustrations

- Unfamiliar with wearable technology
- Saturated tracking market
- Manual tracking is too time consuming

Bio

Aaron is a systems software developer, a "data junkie" and for the past couple years, has been very interested in tracking aspects of his health and performance. Aaron wants to track his mood, happiness, sleep quality and how his eating and exercise habits affects his well being. Although he only drinks occasionally with friends on the weekend, he would like to cut down on alcohol intake.

Technology



Brands



Topic 7. Basic level of modeling: the client's travel map

1. Basic level of modeling, the concept of the client's travel map, concepts.

2. Customer orientation: basic elements.

3. Integration of client's travel maps.

- Customer Travel Maps (CJMs) provide customer-oriented entry points to the landscape of your business process.
- Intuitive customer travel maps readable charts that focus on customer experience instead of internal processes.
- They allow organizations to better understand customer needs, expectations and concerns.
- A customer travel map shows how real people communicate through your business processes.
- The image of the client's journey visualizes all elements of the client experience.
- Customer travel is more of a copy.

Customer travel mapping (also called user travel map) is the process of creating a customer travel map, a visual history of your customers' interactions with your brand. This exercise helps businesses take the place of their customer and see their business from the customer's perspective.

Customer travel map concepts:

- An important concept in customer travel maps is the Person.
- Individuals represent typical customers. A person's "attributes" and associated "banners" (notes) determine their motivation, goals, and pain points, as well as typical characteristics such as desired media channels and IT knowledge.
- Individuals can be women or men.



| Sarah | Scenario Sarah is going to the movies. S excited to go out for the night ar meet her friend at the theater. | ne is • Grea | ectations at movie ndly staff d seat |
|--|--|---------------------------------------|---|
| Decide | Travel | Experience | Return |
| 1. Looks up movies on phone | 4. Drives to movie theater | 7. Watches movie | 8. Exits theater |
| 2. Decides which movie to see and which theater to go to | 5. Stands in line and buys popcorn | | 9. Drives home |
| 3. Buys ticket online from phone | | "Finally I can relax." 7 "Where | 8 "It's so late now. I have to get up early." is my car?" 3 |



JOB

Accountant at Mendix

STATUS

Maried with 2 children

ABOUT

George is a very positive and busy person. Always looking for ways to improve both his professional as well as his personal life. He enjoys helping out his collegues and spending quality time with his kids.

QUOTE

"No more cutting down trees just for reporting's sake"

OVERAL GOALS

George needs to keep all the financial flows of the company well documented and almost instantly available for analyses and reporting. He would love to do this in the most efficient and modern way possible.

TASKS & RESPONSIBILITIES

- Collect all internal and external fin.documents
- Transfer all financial data into the central system
- Generate reports for management
- Notify collegues when incoming docs are overdue

PAIN POINTS & FRUSTRATIONS

- Easy to make mistakes manual typing
- Lot of documents too late for reports
- Too many locations to get my input from
- Why are we still using paper?
- Have to work late every month for monthly report creation

AFFLUENCES & SKILLS



FEELINGS & ATTITUDES

- Likes to work with people
- Loves number crunching and making reports
- A bit sceptical about current systems
- Wishes to innovate the department
- Wish collegues would be notified if their documents are due

Mendix - Provisional Persona Template

ENVIRONMENT

George works in his office with 3 collegues most of the time using his laptop. Sometimes he'll work next to other collegues if they need assistence or are behind on their work.

Due to his children, it's impossible for George to do any work outside of the office.

INFLUENCES

- Talks a lot with fellow accountants at conferences
- Subscribed to a lot of financial magazines
- Always has the latest apps on his phone
- Wants fast and digital tooling

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Main components:

Steps and ways:

- The steps (connected by paths) show the sequence of events at a high level and form the basis of the client's travel map, around which the elements are located.

- The paths connect different stages to determine the flow of the client's journey. Points of contact are steps that your customer has direct contact with. Each point of contact relates to at least one of your business processes and the role or IT system. Points of contact can be physical or virtual.

The moment of truth is the key moments of decision-making that can affect or break your business chance of success with the client. They are either barriers (requiring customer empowerment) or pointers (requiring customer decision).

Triggers begin the client's journey. They can be both ideas (inspiration-oriented) and requirements (driven when needed).

Text labels describe specific elements of a customer's travel map or group of elements.

Banners are posts-style notes that contain important textual information about a customer's travel map element or the customer's travel in general. The default banner icon and color depends on the elementstype attribute, which can be an idea (light bulb), demand (call), or goal (flag).

Decorative elements provide additional visual information to support specific stages of the process.

| Customer Journey Map Shopper Sally | 🗳 🛍 | | | |
|---|--|---|--|---|
| Who Are They? | Awareness Phase Pre-purchase brand building | Search Phase Information search and evaluation | Purchase and Consumption Phase Buying and Using the Product | Post-Purchase Phase C/Sat & Loyalty Impact |
| In their 20s Small city Relaxed Usually brand loyal Mainly Social Media | TV ads A blogger post Comparison site | Radio ads Social media ad | Visited store | Satisified Loyalty is |
| What's Important to Them? Rated 6 or 7 importance Product look/style Quality product A familiar brand | Top of SEO Recommended | Online ads Read their blog Comparison site | Asked questions | Posted a review |
| Good service Good-value prices What's NOT Important? | Email | Spoke to family/friends | Paid upfront | Posted on social media |
| Rated 1 or 2 importance Innovative product Country of origin of product | Catalogue See people with the product | In-store display | delivered | Tells |
| Trustworthy brand Convenience Good online reviews | Seminar, speech | Packaging | Bought in-store Visited website | friends/family Template by www.marketingstudyguide.com |

Customer Journey Map Workshop





Topic 8. Business process modeling: BPMN

1. Business processes: types, main characteristics.

- 2. BPMN: purpose, scope.
- 3. BPMN 2.0: simulation elements, activities,

gateways, events.

A business process is a set of activities that are performed in an organization under the coordination of the technical environment in order to jointly achieve a business goal.

Processes are an asset.

Business processes are organizational assets that are central to creating customer value.

An asset is any item of economic value that belongs to an individual or a corporation, especially what can be converted into money.

Types of business processes:

- operational processes;
- processes that constitute the main business and create the main flow of value (purchasing, production, marketing, sales;);
- management processes;
- processes that regulate the system (corporate governance, strategic management,...);
- process support;
- processes that support the main processes (accounting, recruitment, technical support ().

The main characteristics of business processes:

- goals of the process;
- process manager;
- beginning and end of the process (taking into account the time);
- input and output data of the process;
- stages of the process;
- monitoring of process productivity;
- stakeholders in the process;
- constant improvement.



How can we work with processes? With simulation.

- Can we "touch" the process? No, it really only exists in our consciousness.
- So, we have to work indirectly with the process.
- The best way to work with a process is to model it.



A business process is a set of related, structured tasks that produce a specific service or product for a specific customer business.

Model - formal (meta-model), which determines the relationship between language structures and allows you to serialize models.

Notation is a visual language used to represent a business process in a process diagram.

Why BPMN? BPMN is the best modeling designation for business processes. It provides greater clarity and understanding than simple flowcharts. This is more understandable (for non-technologists) than UML activity diagrams, and is better suited for process analysis and design:

- standardized;
- open;
- simple and complete;
- is improving;
- interchangeable;
- there is a possibility of automation.

The main purpose of BPMN is to provide a label that is clear to all business users.

Scope of BPMN: business process modeling:

- diagrams (for example, process diagrams, cooperation diagrams);

- syntax, semantics and visuals - the appearance of elements of the process (eg, events, activities, etc.);

- attributes and properties, meaningful elements, presented graphic elements of the process;

- chart exchange formats.

Execution of business processes:

- semantics of execution;
- exchange formats, executable models;
- BPMN and BPEL support.



BPMN 2.0 process models:

- most common in BPMN;
- Supported by most BPMN tools;
- used for modeling;
- private or internal processes;
- social processes;
- joint processes

- the general set of elements of BPMN is used three levels of "accuracy": the basic or descriptive, analytical, executed.

BPMN process modeling elements:

BPMN diagrams are "graphs" of BPMN elements. BPMN elements defined:

syntax - rules for using BPMN elements in BPMN diagrams;

semantics - the meaning of BPMN elements.

BPMN elements can have:

visual representation.

visual and non-visual attributes.

BPMN activity is a general type of work performed by an individual or a company. The activity can be as follows:

"Nuclear" (task);

connecting (process, subprocess) - uses the sign "+".

BPMNs are used to split or merge multiple process threads. The determine the branching, bifurcation, merger and connection of business processes.

BPMN events are what "happen" during the process. Basic (descriptive) events can also start the process.

Other main elements of BPMN:

- "floating" (for example, a pool) are used to identify and organize processes;

- artifacts (such as a data object or document) are used to provide additional information about processes;

- connecting objects (different types of arrows) connect elements in a logical order.

Therefore, BPMN will contribute to the achievement of the company's strategic goals due to its efficient operation at the operational level.

| Element | Graphical representation | Element | Graphical representation | Element | Graphical representation |
|---------------------------------|---------------------------------------|---------------------------------|-----------------------------|-------------------|-----------------------------|
| participant (pool) | | serviceTask | 1 Tan | startEvent (None) | |
| laneSet | New York | subProcess (expanded) | Sub Proave (equation) | endEvent (None) | 0 |
| sequenceFlow (unconditional) | \rightarrow | subProcess (collapsed) | Sub Prozent | messageStartEvent | O |
| messageFlow | 0Þ | CallActivity | Call Activity | messageEndEvent | ۲ |
| exclusiveGateway | $\langle \mathbf{x} \rangle \diamond$ | DataObject | | timerStartEvent | O |
| parallelGateway | $\langle \mathbf{D} \rangle$ | TextAnnotation | [Text | terminateEndEvent | ۲ |
| task (None) | Tat | association/dataAsso ciation | ·····> | Documentation | Non-visual element |
| userTask | Canal Tank | dataStoreReference | | Group | 1 |

Thank you for listening!

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