



Queen Mary
University of London




EBU5608 Product Development and Management

Topic 2 – Digital Transformation and Digital Products

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Agenda

- Digital Transformation
- Digital Product
- Digital Project Development
- Digital Project Management

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Digitisation vs. Digitalisation vs. Digital Transformation

- **Digitisation** is the process of converting information from analog to digital.
- **Digitalisation** is the process of using digitised information to make established ways of working simpler and more efficient.
- **Digital transformation** is the process of using digital technologies to create new — or modify existing — business processes, culture, and customer experiences to meet changing business and market requirements

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Digital Transformation

Digital transformation is:

- “ a process of reinvention. It looks at leveraging digital technologies and processes to build new systems, cultivate a digital mindset and exploit new opportunities” [1]
- “ the ability of the organisations to build and deliver products and services through software” [2]
- “ It begins and ends with how you think about, and engage with, customers” [1]

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Types of Digital Transformation [3]


There are four types of digital transformation these include:

- **Process Transformation** – aims to process such as data, analytics, AI, and any process that can work towards lowering costs and driving operational efficiency in the business.
- **Business Model Transformation** – aims to make fundamental changes in how a business or organization runs which can include personnel, processes, and technology.

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Types of Digital Transformation

- **Domain Transformation** - This area offers a great opportunity to move into a new domain or area that a business may not have explored before by acquiring new technologies.
- **Cultural/Organizational Transformation** - This is about redefining mindsets, processes, capabilities and skills for a digital world. It's about driving digital transformation forward through growth initiatives that are grounded in a new culture and way of thinking.


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Digital Transformation Examples




- Many traditional products and services have already been completely disrupted and transformed by digital technologies, such as
 - **Retail** – Amazon and Alibaba have changed the way we shop
 - **Software** – we have moved away from boxed software to cloud-based digital solutions, such as Adobe
 - **Customer service** – many companies are now using data and AI to personalize its product offerings and offer rewards based on consumer preferences

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Digital Transformation – Examples


Digital transformation helps marketers connect with individual customers [4].

Traditional Marketing Channel	Digital Marketing Channel	Transformational Impact
Print materials	Digital materials	Reduce cost of print and distribution; ability to score/grade prospects based on digital interactions
Print mail campaigns	Email campaigns	Reduce cost of print and postage; greater scale and personalisation
Print/billboard advertising	Social media advertising	Personalised targeting; lookalike audience targeting
Brick-and-mortar storefront	Website/e-commerce site	Eliminate rent/utilities; accessibility and scale; opportunity to nurture prospects at scale
Loyalty Club Card	Mobile App	Reduce signup friction; reduce cost of printing cards; ability to personalise promotions and trigger offers in real-time; opportunity to push offers and messaging out to customers.

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Digital transformation across industries [3]

- Digital transformation in governance
- Digital transformation in healthcare
- Digital transformation in financial services and banking
- Digital transformation in manufacturing
- Digital transformation in small business
- Digital transformation in HR

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Guidelines for a successful Digital Transformation

- Understand your technology
- Embrace Cultural Change
- Consider a new digital business model
- Digital upskilling
- Ensure Collaboration
- Top Management Support

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Digital transformation tech trends [3]

- **5G** - will enable advanced services.
- **Zero-trust security** - will help secure apps, identity, data, networks, and infrastructure.
- **Hyperautomation** - business and IT processes through Robotic Process Automation.
- **Predictive analytics** -By analyzing historical data using AI and Machine Learning (ML).
- **Customer Relationship Management** by cross-referencing data across these platforms, it will be easier to get insights.
- **Generative AI** - that can use existing content such as text, images or audio to create new content.

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Digital Product

Digital products:

- **no physical** form, exist only in the digital realm,
- **intangible** items delivered **electronically**,
- anything that can be **downloaded** and **used digitally** can be considered a digital product,
- sold online or through brick-and-mortar retailers,
- can be easily updated or modified to keep up with changing technology and trends because they're intangible,
- often come with a license that allows a customer to use them in unlimited ways.

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Will everything become digital?

In practice, most products and experiences are **hybrid**.

- Replace a physical product with digital copy,
 - e.g. paying with coins becomes paying through an app,
 - a paper entrance ticket becomes a QR code on our phone.

The **added value** of simply a digital equivalent of a previously analogue product is often **rather small**.

A digital reproduction of a physical product is usually not the best way to go.

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Top 10 digital products [5]

- eBooks
- Software
- Web-based Applications (SaaS)
- Graphics and Digital Art
- Cloud Design App Templates
- Music and Audio
- Photography and Video
- Documents and Spreadsheets
- Courses and modules
- Tickets

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Why digital products?

- Customer happiness is how you win in business. Modern customer expectations are being driven by largely digital technology and digital innovations.
- Low investment, (potentially) high returns
- More profitable than physical goods
- No inventory, shipping or rent hassle
- Automated delivery for passive income
- Serve a niche at scale
- Digital products offer unique ways to communicate directly with the customers.

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Digital Project Development

Six phases of digital product development [6]:

- **Phase 1. Discovery**
- **Phase 2. Ideate**
- **Phase 3. Test**
- **Phase 4. Execute**
- **Phase 5. Launch**
- **Phase 6. Grow**

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Phase 1. Discovery


Discovery is the process of identifying the problem to be solved, making sure the problem is worth solving, and envisioning the solution to that problem.

- **Stay Alert in your Everyday Life** - anything that bothers you might be pointing you in the direction of a problem that no one has ever thought to solve.
- **Find a Way to Improve an Existing Product** - a product that already exists to solve the problem is a good indicator that someone thought it was worth solving.
- **Create a Unique Selling Proposition.** Could you create a cheaper version? A luxury version? An automated version?
- **Research Consumer trends** like eco-friendliness, social justice, plant-based diets, fitness, etc.

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Phase 2. Ideate


Ideate. The goal is to brainstorm possible solutions to the problem identified in the discovery phase, creating a strategy for how to build a product that will solve that problem.

- **Brainstorming.** Get together a cross-functional team and leverage group brain power by bouncing ideas off of each other. Keep the group diverse, but not too large.
- **Prototyping.** Physical products are often prototyped, but digital products can be prototyped too in the form of a non-functional model version that allows stakeholders to visualize the final product.

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Phase 2. Ideate - continue

- **Storyboarding** is well-known in the movie industry, but by drawing the user's interaction with the product as a story with a beginning, a middle, and an end, you can tease out game-changing features to add.
- **Five Whys** analysis, popularized by Toyota, involves starting with the statement of the problem and then asking at least five sequential "why" questions in response to the statement, with each why springing from the previous "why." The goal is to get at the root essence of the problem.
- **Method 6-3-5.** Meant to get the creative juices flowing, 6-3-5 involves a team of six people writing down three ideas in five minutes, then passing the results in a circle around the table so the other five team members can add on to each idea.

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Phase 3. Test


Test. The testing phase is all about gathering data, refining and improving your idea, and gathering more data until you have a sharp idea. The testing phase should involve at least four steps, known as the *lean validation process* ...

- **Validate the Problem.** Does the target market agree that the problem is worth solving?
- **Validate the Market.** Is the market for the product robust enough to justify the development project?
- **Validate the Product.** Does your product actually solve the problem?
- **Validate Willingness to Pay.** Is the target market willing to pay a price for a solution to this problem that would justify developing the product?

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Phase 4. Execute


Execute. This stage aims to develop the “*most valuable player*” namely the **Minimum Viable Product (MVP)**.

- **MVP** is the product with the bare minimum of features and functionality needed to solve the problem identified in the discovery phase and validated in the testing phase.
- In some ways, the MVP will be the ultimate testing vehicle, gathering feedback you can use to refine the product in the race to its final form.
- A strong MVP may even capture VC imaginations and attract investment.

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Phase 5. Launch


Once your MVP is ready to go, it’s time to **launch**. A digital product launch usually means putting the MVP on the market and giving customers their first crack at your solution. Several approaches to this launch:

- **Soft Launch**—The MVP is made available to a limited segment of the target market, known as “early adopters.”
- **Hard Launch**—The MVP is made available to the market at large with a full marketing push (not recommended for MVP launches).
- **Dark Launch**—The MVP has already been launched, but new features get a “dark” launch to a select percentage of users to test their behavior in reaction to the new feature.

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Phase 6. Grow


As refine the digital product into its final form, based on the feedback from the MVP launch, it's time to consider the **growth** or **scaling phase**. One of the reasons to do an MVP before a full product launch is so that your product *has* room to grow and scale. The tasks relevant to this phase include:

- **Collecting and Analyzing Feedback.** The customers' interaction with the MVP will provide valuable data to use in improving the digital product.
- **Preparing to Scale.** This is basically preparing for success. If you had 100,000 orders overnight, could you handle that? Shore up automations, SOPs, scalable cloud services, and support staff contingencies in the event that need to go big, fast.

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Phase 6. Grow

- **Zeroing in on the Optimal Price.** The MVP data could suggest that got the price a little too high, or even too low, especially with added features.
- **Scaling Up Marketing.** the MVP leads can serve as valuable customer personas to create lookalike audiences to market to.
- **Testing and More Testing.** Phase 3 really never stops. At every stage of growth, keep validating the old hypotheses and new ones to make the product as viable as possible.

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Digital Project Manager [7]

- A digital product requires a mix of skills in addition to product management.
- A **digital product manager** is the glue that brings together many facets of a successful digital product—customers, design, engineering, operations, sales, marketing, finance, compliance, legal, and more.
- An analytical mindset and a combination of skills like
 - **communication,**
 - **patience,**
 - **decision-making,**
 - **curiosity,**help build the right perspective to being a digital product manager.

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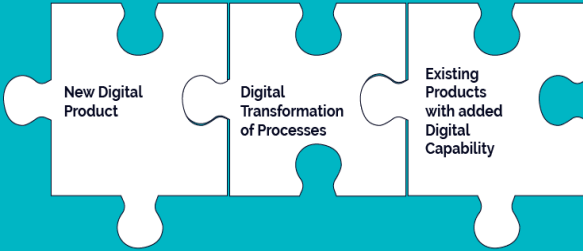
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Digital Project Management [7]

Digital Product Management Scope




- New Digital Product
- Digital Transformation of Processes
- Existing Products with added Digital Capability

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Project Team for Digital Products


- A project team for digital product is made up of
 - **Developers or engineers** – the people who will code, test and deploy the digital application that will be used by customers.
 - **Experts in customer or user experience** who focus on how the product and associated services will be used by the customer, and who create the user interface, services and other interactions with the customers
 - **Sales and marketing experts**, who will actually get customers to use the product.



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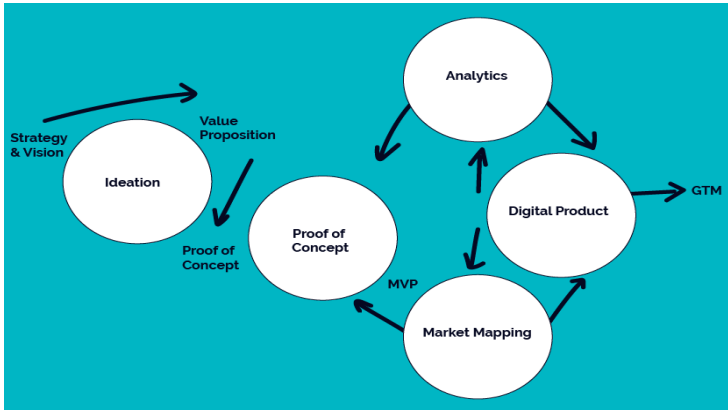
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Digital Project Management Lifecycle [7]


Digital product managers’ responsibilities are spread throughout the product life cycle.



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Evaluate the opportunities for digital

- Are there any opportunities to do things more simply thought digital?
- What is our technology really capable of, and how can we adapt our business and processes to make the most of our technology investments?
- What’s good about the physical experiences that you do not want to lose?
- What services can we provide around the physical and/or digital product to enhance the overall customer experience and value?

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Summary of mistakes to avoid [3]

- Having the wrong data
- Resistance from staff
- Underestimate costs
- A lack of commitment
- A lack of skills

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