

MODULE 1

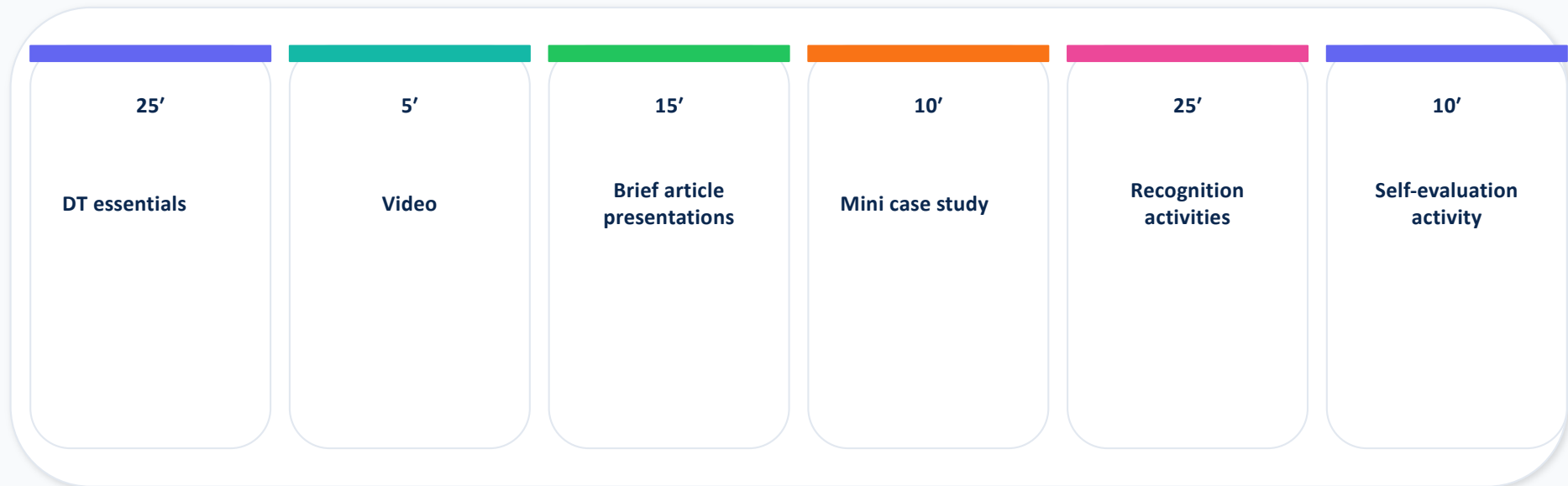
Digital Transformation (DT)
Concepts, examples & case discussion

Concept-first • case study • simple activities • self-evaluation

MODULE 1

This module in ~ 90 minutes

A simple flow: concepts → examples → activities & discussion → self-evaluation



OUTCOMES

What you should be able to discuss after this session

1

Explain DT in plain language

DT is more than tools: it changes value, work, and decisions

2

Identify common DT drivers

Customer expectations • competition • regulation • efficiency

3

Recognize DT layers

Frontstage • Backstage • Data

4

Discuss one case example

Explain what changed and why it creates value

Today we build a shared language for discussing DT

Three definitions

Digitization

Converting analog to digital

Example: paper ticket → digital ticket

Digitalization

Using digital tools to improve a process

Example: phone booking → online booking

Digital Transformation (DT)

Changing capabilities + processes to change value

Value = experience, operations, revenue

Why Digital Transformation happens (drivers)

Most initiatives start from a clear trigger

A

Customer expectations

Ask: "What changed?"

B

Competition

Ask: "What changed?"

C

Regulation

Ask: "What changed?"

D

Efficiency

Ask: "What changed?"

Good DT opportunities are tied to at least one driver. Name it explicitly.

"For a museum or cultural organization, which driver do you think appears more often: customer expectations or efficiency? Why?"

Where DT “lives” (3 layers)

Label your ideas so they stay concrete

FRONTSTAGE

Experience & channels

Website • booking • QR • guidance

BACKSTAGE

Operations & workflows

Staff workflow • scheduling • payments

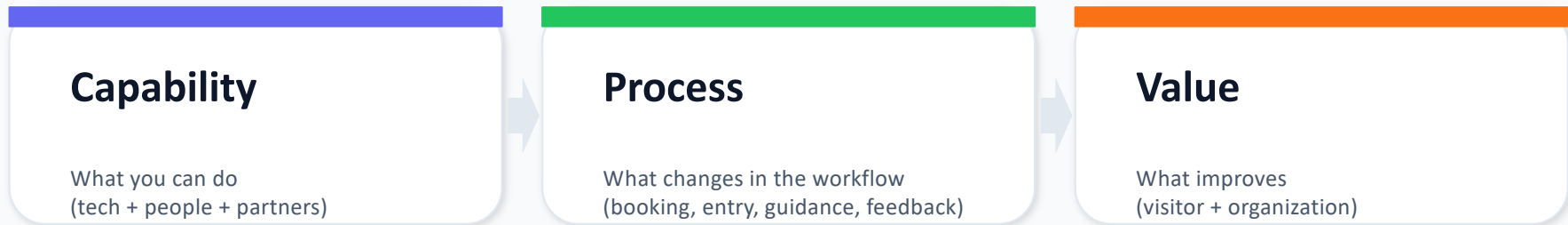
DATA

Collect • store • use

Bookings • flows • feedback • content usage

The key logic

Capability → Process → Value



Whenever you propose a DT idea, you should be able to fill these three boxes in one minute.

Spot the DT layer

Recognition activity (Frontstage / Backstage / Data)



Example A

Online 'Plan your visit' page with hours, access, and language info

Question: Which layer is most visible here?

Example B

Staff use a scheduling sheet to manage group arrivals and avoid bottlenecks

Question: Which layer is most visible here?

Example C

QR route content logs which pages visitors open most often

Question: Which layer is most visible here?

Tip

A good DT change often touches more than one layer. But one layer is usually the first place you 'see' it.

Kahoot: identify the primary layer first, then name a second affected layer.

<https://app.sli.do/event/hpQn2xATbEPu4vE26G7a5i>

OPTIONAL

Short video + optional anchor readings

Use them as examples and talking points — no pre-work submission

VIDEO

George Westerman: “[Digital Transformation](#)” (short)

- DT is not just tech BUT it changes how work gets done
- Leadership + culture + execution matter as much as tools
- Focus on measurable value (experience + operations)



READINGS

Example takeaways (for discussion):

- Verhoef et al. (2021): Digital transformation builds capabilities, organization, and value beyond technology
- Sebastian et al. (2017): Incumbents win via customer engagement, digitized solutions, backbone, platform
- Vial (2019): DT is an ongoing process shaped by context

Understanding Digital Transformation: A Review and a Research Agenda

by G. Vial

What do we know about digital transformation?

Essential properties of DT

Target entity: *What is being transformed?*

Scope: *What is the object of changes? How extensive are the changes?*

Means: *What causes the change?*

Expected outcome: *What is the transformation trying to achieve?*

A conceptual definition of DT

“A process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies.”

The Eight Building Blocks of DT

He proposes a framework that conceptualizes DT as a process driven by interactions among eight elements:

- 1. Digital technologies** (SMACIT: social, mobile, analytics, cloud, IoT)
- 2. Disruptions** (in consumer behavior and expectations, competitive landscapes, data availability).
- 3. Strategic responses** (Digital business strategy/ Digital transformation strategy).
- 4. Changes in value creation paths** (value propositions, value networks, digital channels, agility and ambidexterity)
- 5. Structural changes** (organizational structure, culture, leadership roles, employee skills and roles).
- 6. Organizational barriers** (inertia, resistance).
- 7. Positive impacts** (operational efficiency, organizational performance, industry and societal outcomes).
- 8. Negative impacts** (security, privacy, and ethical concerns).

Digital transformation: A multidisciplinary reflection and research agenda

by Peter C. Verhoef

What do we know about digital transformation across business disciplines, and how should firms respond to it?

External Drivers of DT

- 1. Digital Technology:** enable new services, alter cost structures
- 2. Digital Competition:** information-rich "digital giants"
- 3. Digital Customer Behavior:** Consumers are more connected, empowered, and active than ever. They now play roles as co-creators, reviewers, and even last-mile distributors.

Strategic Imperatives of DT

- 1. Digital Resources.** Digital Assets, Digital Agility, Digital Networking Capability, Big Data Analytics.
- 2. Organizational Structure.** Effective structures include: Separate/Autonomous Business Units, Agile Forms, Digital Functional Areas
- 3. Digital Growth Strategies:** Platform-based Market Penetration, Co-creation Platforms, Platform Diversification
- 4. Metrics and Goals.** Transformation demands new ways to measure success.

Phases of Transformation

Digitization
Digitalization
Digital Transformation

A research Agenda for DT

Optimal DT Paths: digitization → digitalization → digital transformation
Digital Readiness and Resilience
Impact of DT on Performance
Digital Resources: understand the development and impact of specific digital assets and capabilities
Development Mechanisms of Digital Assets and Capabilities
Effective Structures
Metrics for DT success

The Emerging Agentic Enterprise: How Leaders Must Navigate the New Age of AI

MIT SMR-BCG Artificial Intelligence and Business Strategy Global Executive Study and Research Project

The era of AI-as-a-tool is ending, and the era of AI-as-a-coworker has begun

AI should be managed as a hybrid of human resource strategies and asset management techniques

The Agentic Enterprise

An organization that integrates AI systems capable of autonomous planning, action, and learning into its core workflows, governance structures, and decision-making processes, treating these systems simultaneously as scalable tools and adaptive coworkers.

Unlike traditional AI, which automates discrete tasks, agentic AI can execute multistep workflows, adapt to new information, and collaborate with humans.

This creates a new managerial issue: organizations must manage a system that behaves like both asset and employee.

HR for AI

The application of HR principles to software agents (they exhibit behaviors, learn from "peers," and can become "outdated" or "biased")

Governance should look more like talent management:

- Performance Reviews for Agents: Evaluating accuracy and bias over time.
- Retirement/Offboarding

The Flattening of the Organization

Because AI agents can handle much of the "coordination" work usually reserved for middle management, it is expected to reduce middle management layers.

The remaining roles will evolve into "orchestrators" who manage hybrid teams of humans and agents.

STARBUCKS: the Digital Flywheel strategy

In the mid-2010s, Starbucks faced stagnation. They launched a digital transformation strategy focused on:

- **Rewards:** A gamified loyalty system that incentivizes frequency.
- **Ordering & Payments:** Mobile Order & Pay to eliminate friction and wait times.
- **Personalization:** Using an AI engine called “Deep Brew” to offer tailored suggestions.
- **Operational Automation & IoT:** Real-time machine monitoring and predictive maintenance.

Mobile App & Loyalty Program

Key elements:

- Mobile ordering & payments
- Personalized rewards
- Digital loyalty program

- New capability: Mobile ordering, mobile payment, digital loyalty.
- Process transformation: Order flow redesigned around mobile pickup. Barista workflow reorganized.
- Added value: Convenience, speed, personalized rewards.

“Deep Brew” AI Engine - Personalization

Deep Brew learns from millions of transactions to optimize both customer experience and operations.

Starbucks uses AI to personalize: product recommendations promotions timing of offers store staffing and inventory

Operational Automation & IoT

Starbucks uses IoT sensors and predictive analytics to: monitor machine performance, automate maintenance, optimize supply chain, reduce waste.

New capability: Real-time machine monitoring. Predictive maintenance.

Process transformation: Maintenance becomes proactive.

Added value: Consistent drink quality. Lower repair costs.

QUIZ

Can you name some standout companies that actually got digital transformation right?

<https://create.kahoot.it/details/c98f2111-7d3a-4aa6-a00e-143111d8ff47>

Is this DT, digitization, or just a feature?

Recognition activity

How to decide quickly

- Digitization = analog → digital (e.g., paper brochure PDF)
- Digitalization = process improvement with digital tools (e.g., online booking)
- Digital Transformation (DT) = capabilities + processes change so value changes (experience / operations / revenue)

Discuss these examples:

- 1) A museum uploads a PDF map to its website
- 2) A monastery adds a multilingual visit-planning page + clear etiquette guidance + staff flow support
- 3) A venue launches a flashy social media filter with no operational change

Question: Which category fits each example and why?

Aim for the 'why' explanation, not only the label



<https://app.sli.do/event/hpQn2xATbEPu4vE26G7a5i>

What changes: capability, process, or value?

Multiple-choice thinking tool

Example: 'Start Here' sign + QR route map for first-time visitors

- A) Only the touchpoint changes
- B) Capability + process + value all change (to different degrees)
- C) Only value changes
- D) Only technology changes



Discuss first → then vote in Slido

Why this matters

Use the chain:

Capability = content + staff script + QR page maintenance

Process = arrival/orientation flow

Value = faster start, less uncertainty, fewer repeated questions

Rule of thumb: if you cannot explain what changes in the process, it is probably not DT yet.

CHECK-IN

Live check-in question (30 seconds)

Use Kahoot to answer

In one sentence:

“DT is NOT _____. DT IS _____.”

<https://create.kahoot.it/share/bip-what-is-dt-openended/953c47af-4f0f-4575-88b7-9e93bf0d0fa7>

Mini case: Museum (visitor entry & orientation)

An example

Context

A first-time visitor arrives and wants to start quickly, understand what to see, and choose a route that fits available time.

Pain / friction

Arrival uncertainty: visitors are not sure where to start, what is included, or how long the visit will take

What value improved

Visitor value: confidence, faster orientation, better flow
Organization value: fewer repeated questions, smoother staff load, better visitor satisfaction

What changed

Frontstage: clear 'Start Here' point + route options (e.g., 30/60 min) + QR support
Backstage: staff script + content update routine
Data: basic counts/QR usage for improvement

Prompt for discussion

Was this DT? Why?
What changed beyond the visible touchpoint?

What could block this? (non-tech barriers)

Name the blocker before naming the tool

People & skills

Training needs, unclear roles, staff resistance, no owner for the new flow.

Process & governance

Too many steps, unclear decision rights, no agreed update process.

Partners & dependencies

Info owned by another partner, timing depends on third parties.

Time / budget / capacity

No time to maintain content, no staff bandwidth, low priority this season.

Benchmark mini case: Acropolis Museum Digital Guide

Official museum example: personalized digital guide on visitors' smartphones

Context

Museum visitors (including families and international visitors) need flexible on-site interpretation and guidance that fits different interests and time constraints

Pain / friction

Static labels or generic routes may not fit different visitor needs; visitors may need a clearer self-guided path and richer context during the visit

What value improved

Visitor value: more flexible self-guided learning and easier exploration
Organization value: stronger interpretation reach, scalable guidance, and a basis for improving content decisions

What changed

Frontstage: a free digital guide on the visitor's own smartphone gives interactive, personalized access to collections
Backstage: content curation/maintenance and collaboration setup (e.g., with a digital guide provider)
Data: potential usage signals (what visitors access/use) to improve content and routes

Discussion

Was this only content digitization, or does it become DT when processes/capabilities also change?
What backstage work is required for this to remain useful?

Official reference: Acropolis Museum Digital Guide (Smartify collaboration) <https://www.theacropolismuseum.gr/en/digital-guide>

What to notice in a DT case (recognition checklist)

A fast lens for examples, case studies, and real visits

1) Trigger / driver

Why change now?

Customer expectations • efficiency • regulation • competition

2) What changed

Touchpoint only, or also process/capability?

Who must do something differently?

3) Value created

What improved for users and for the organization?

(Experience, time, flow, revenue, satisfaction)

4) Risks / barriers

What could block success (especially non-tech)?

Use this lens in the virtual discussion and later during the on-site visits.

What to notice during the visits (later, in-person)

No task now ! Just a mental checklist for Day 2

Touchpoints

What visitors use or ask for (before / during / after).

Friction

Where confusion, waiting, uncertainty, or coordination problems appear.

Backstage clues

What staff and partners must coordinate for the experience to work.

Value signals

What seems to improve experience, flow, time, or satisfaction.

The detailed templates and fieldwork tools are used during the in-person days.

QUIZ

Kahoot participation

Join live during the virtual session

KAHOOT LINK

<https://create.kahoot.it/share/bip-digital-transformation-essentials/cc6a453e-f1a6-481f-b8cc-f74b9aebea65>

Digital Transformation Foundations

NEXT

Day 2 visits: observe with a DT lens

Bring curiosity!!!

NOTICE

What visitors need to know / do / decide

COMPARE

What is visible (frontstage) vs what must happen backstage

DISCUSS

Examples of value, barriers, and what might improve flow

Module 1

Any Questions?

