

Is Technology Making the Value Chain

More Human or Less Human?

The transition from Industry 4.0 → Industry 5.0

LECTURE DASHBOARD

Tap a card to jump to that section



01

Opening Question

More or less human?



02

The Less-Human Case

Automation replaces tasks



03

The More-Human Case

Tech removes low-value work



04

Industry 4.0 vs 5.0

Across the value chain



05

The Industry 5.0 View

Human-centric future



06

Debate & Questions

Discuss & conclude



OPENING QUESTION FOR STUDENTS



“When AI, robots, automation, and digital platforms become deeply integrated into value chains — are organizations becoming more human-centric, or less?”

Most students answer: **“Less human”** — fewer jobs, more automation, less interaction. *But the real answer is more nuanced.*



The Value Chain is Becoming Less Human



Tesla — Manufacturing

- Robotic welding
- Automated assembly
- AI quality control



Amazon — Logistics

- Automated warehouses
- AI inventory
- Autonomous picking



Banking — Service

- Mobile apps
- Chatbots
- Self-service kiosks

Result: fewer manual jobs and reduced human involvement in repetitive work.



Risks of a Less-Human Value Chain



Job displacement

Roles automated faster than they are replaced.



Skills obsolescence

Existing capabilities lose their value.



Reduced interaction

Less human-to-human contact in service.



Employee alienation

Workers feel disconnected from the work.

From this perspective alone, value chains appear less human.



The Value Chain is Becoming More Human



Humans contribute

- Creativity
- Innovation
- Relationship building
- Ethical judgment
- Strategic thinking



BMW — Cobots

Robots lift heavy parts and assist precision tasks. Employees focus on quality, customization and problem-solving — the worker becomes more valuable, not less.



Emirates Engineering (UAE)

AI flags maintenance anomalies, but engineers interpret results, approve actions and ensure safety. Technology supports expertise rather than replacing it.



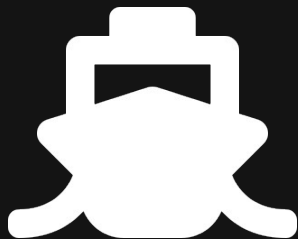
Industry 4.0 vs Industry 5.0

Value Chain Stage	Technology Does	Humans Contribute
Inbound Logistics	Predictive inventory · smart warehouses	Supplier relationships · risk management
Operations	Robotics · AI scheduling	Innovation · process improvement
Marketing & Sales	AI analytics · personalization	Brand storytelling · emotional engagement
Service	Chatbots · self-service portals	Empathy · complex problem resolution

Takeaway: *the value chain becomes more digital — but not necessarily less human.*



DP World — Smart Ports, Human Judgment



DP World

TECHNOLOGY PROVIDES

- Smart sensors
- Automated cranes
- AI route optimization

HUMANS STILL PROVIDE

- Strategic oversight
- Risk decisions
- Customer relationships



The Industry 5.0 View



Human-Centric

Well-being • skills • safety



Sustainable

Less waste • lower emissions •
circular



Resilient

Better decisions • adaptive supply
chains

Technology becomes a tool to serve people — rather than people serving technology.



Two Teams, One Question



TEAM A

Technology is making value chains LESS human

- Job losses
- AI replacing decision-making
- Automation of service roles



TEAM B

Technology is making value chains MORE human

- Removal of repetitive work
- Enhanced creativity
- Better safety & customization



CONCLUSION

**The real question is not
“more human or less human?”**

**It is: “Are organizations using technology to replace people, or
to empower them?”**

Industry 4.0 mindset → may become less human. Industry 5.0 mindset → **more productive,
sustainable, resilient and human-centered.**



KEY TAKEAWAY

Future competitive advantage will not come from having the most technology.

It will come from designing value chains where humans and intelligent machines create value together.



Questions to Ask the Class

1

Where in YOUR industry's value chain is technology replacing people — and where is it empowering them?

2

Which Porter value-chain activities should stay human even when full automation is possible?

3

Is your organization operating with an Industry 4.0 or an Industry 5.0 mindset? What's the evidence?

4

What new skills must employees build to stay valuable alongside intelligent machines?