



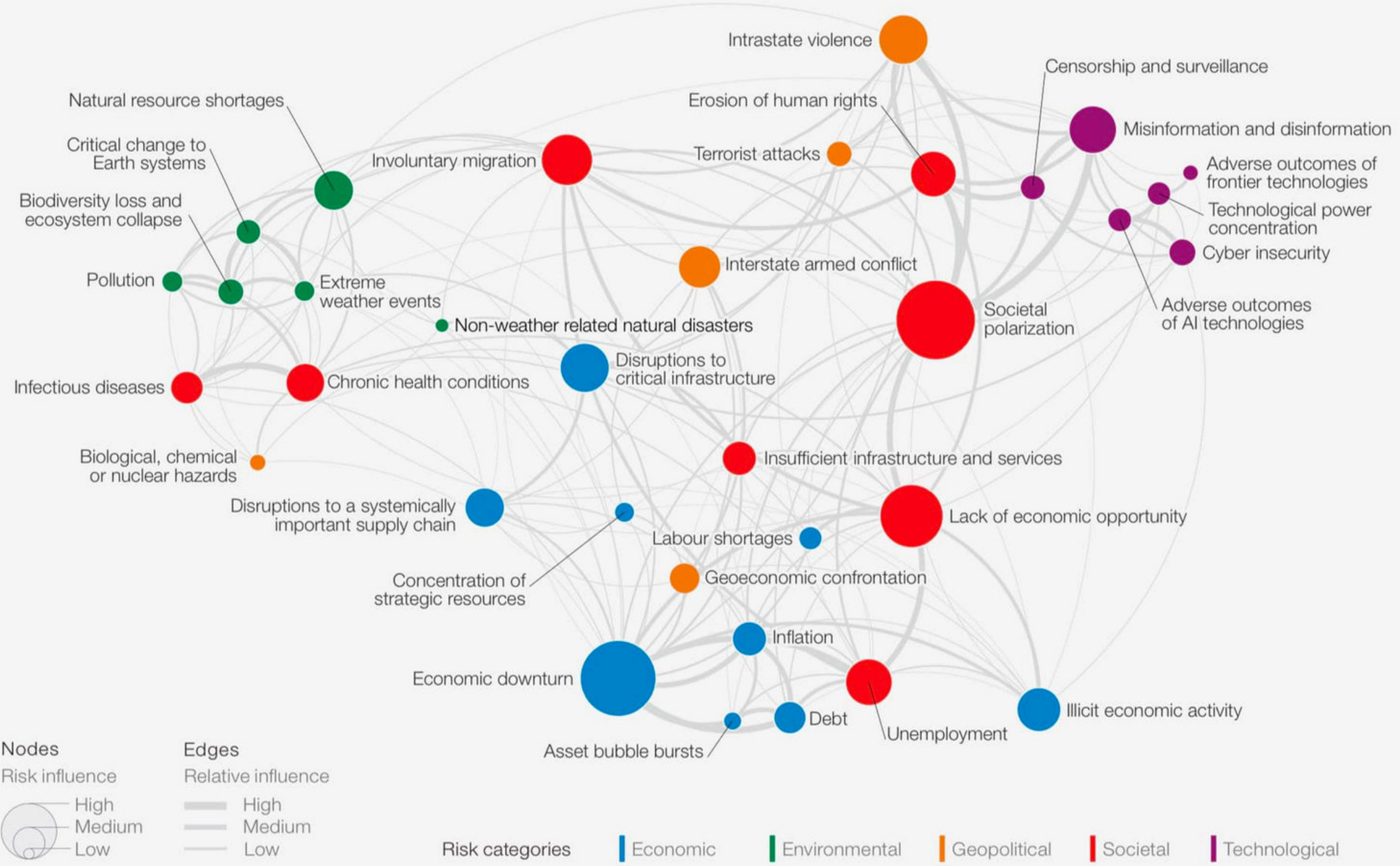
Stay Ahead of Future Food Trends with Cloud and Digital Systems

Dr.Thanachart Numnonda
22 August 2024

DISRUPTION



GLOBAL RISKS LANDSCAPE



Source
World Economic Forum Global Risks
Perception Survey 2023-2024.

GLOBAL RISKS LANDSCAPE

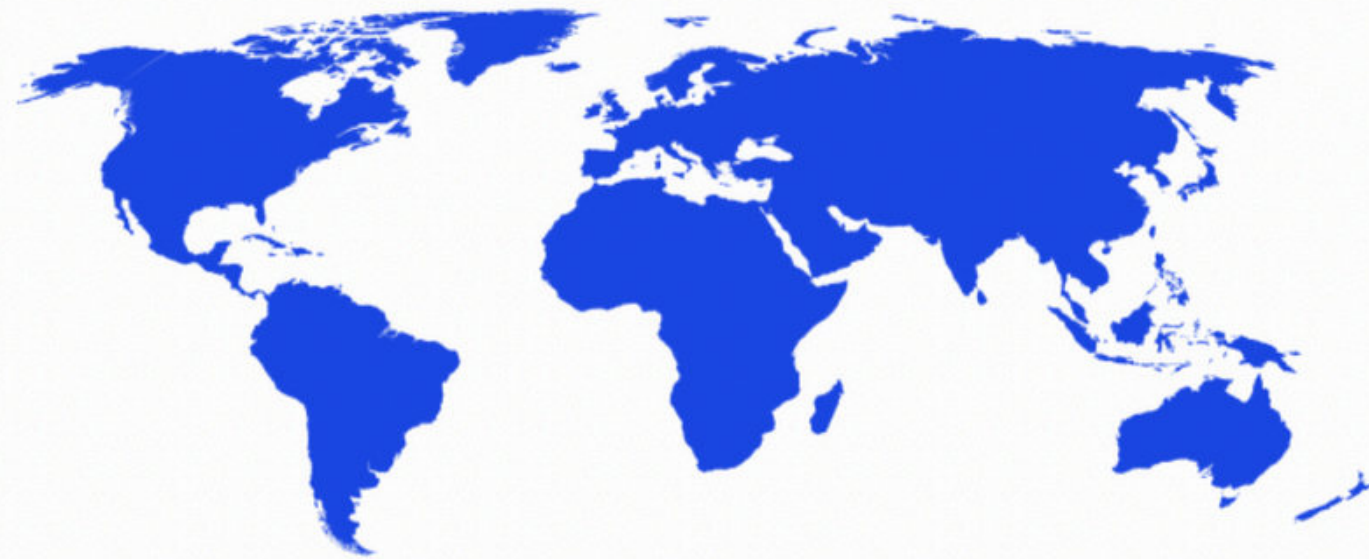
Short term (2 years)

1 st	Misinformation and disinformation
2 nd	Extreme weather events
3 rd	Societal polarization
4 th	Cyber insecurity
5 th	Interstate armed conflict
6 th	Lack of economic opportunity
7 th	Inflation
8 th	Involuntary migration
9 th	Economic downturn
10 th	Pollution
11 th	Critical change to Earth systems
12 th	Technological power concentration
13 th	Natural resource shortages
14 th	Geoeconomic confrontation
15 th	Erosion of human rights
16 th	Debt
17 th	Intrastate violence
18 th	Insufficient public infrastructure and services
19 th	Disruptions to a systemically important supply chain
20 th	Biodiversity loss and ecosystem collapse

Long term (10 years)

1 st	Extreme weather events
2 nd	Critical change to Earth systems
3 rd	Biodiversity loss and ecosystem collapse
4 th	Natural resource shortages
5 th	Misinformation and disinformation
6 th	Adverse outcomes of AI technologies
7 th	Involuntary migration
8 th	Cyber insecurity
9 th	Societal polarization
10 th	Pollution
11 th	Lack of economic opportunity
12 th	Technological power concentration
13 th	Concentration of strategic resources
14 th	Censorship and surveillance
15 th	Interstate armed conflict
16 th	Geoeconomic confrontation
17 th	Debt
18 th	Erosion of human rights
19 th	Infectious diseases
20 th	Chronic health conditions

Risk Trends in 2024



Social

- Workforce Composition – Arrival of Gen Z, Departure of Gen X
- Workplace – Hybrid theme continues
- People Development – Digital Literacy
- Aging Society
- Social Media – Crisis Management



Technology

- Cyber Security
- Data Privacy
- AI – Business Risks & Opportunities



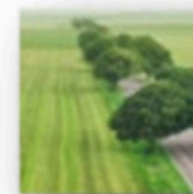
Political

- US Election in Nov 2024 - Biden vs Trump
- Geopolitics - Ukraine and the Middle East, Trade War (US vs China)
- Thailand - Budget approval will boost economy, Mid-year Senate Election, Government Policies



Economic

- GDP – 2.3 - 3.3% (MOF)
- Interest Rate - Expected to decline in 2nd half of 2024
- Inflation Rate – 2%
- Public Debt – Concerns from digital wallet, impacting the country's credit rating (currently BBB+)
- Tourism - 35 Mn visitors



Environmental

- Thailand – Continued trend towards net-zero GHGs by 2065
- Sustainability – Operating, Financing, Investing with ESG linked
- Disclosure – Coming IFRS S1 & S2



Legal

- SEC Regulations – Investors Warning Criteria, IPO Criteria, Digital Assets Investment Criteria



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Disruptive environment

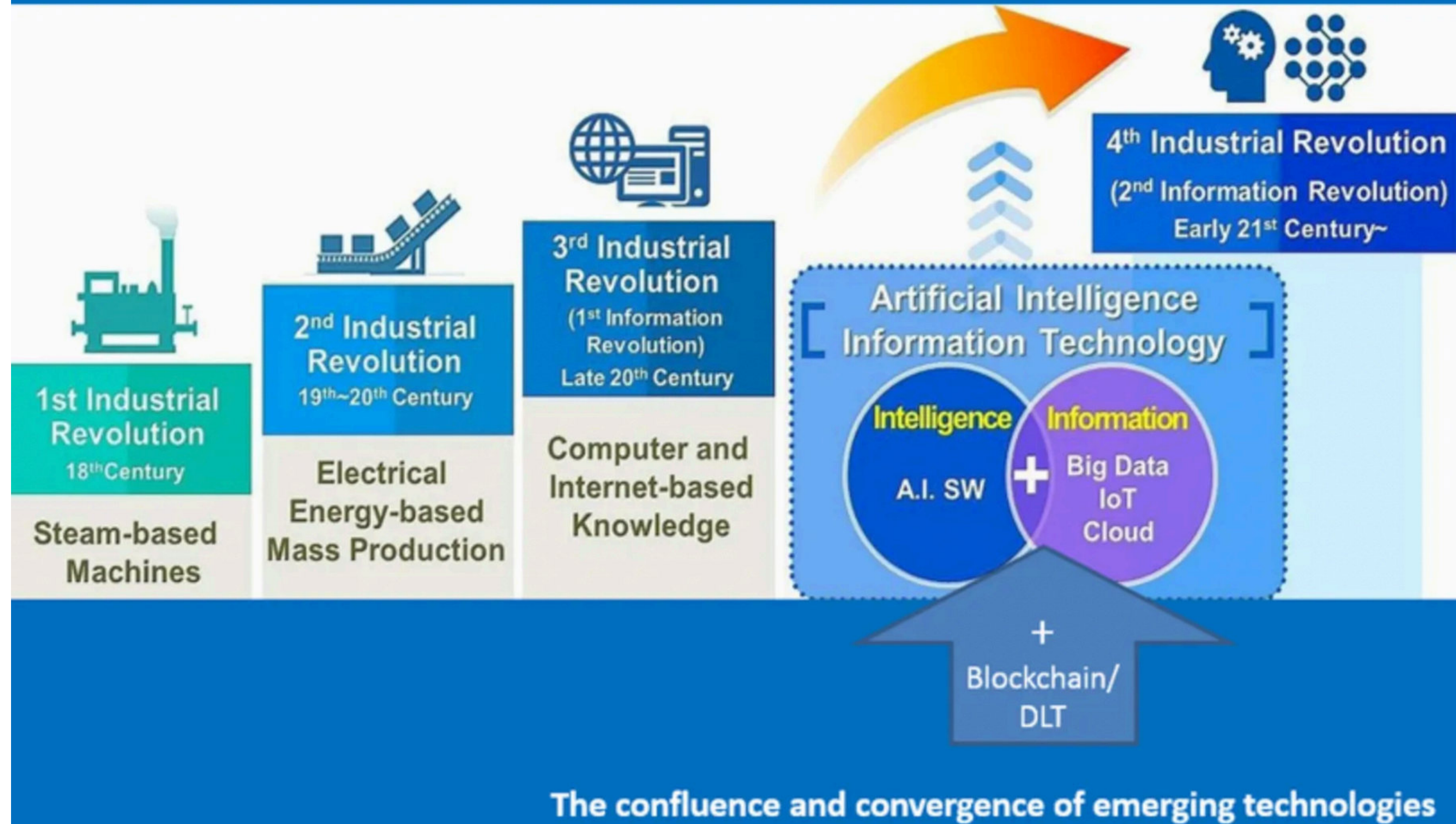
- Geopolitical Tensions
- Digital Disruption & Cybersecurity
- Climate changes
- Global Pandemics
- Aging Populations
- Budgeting Constraint

DISRUPT

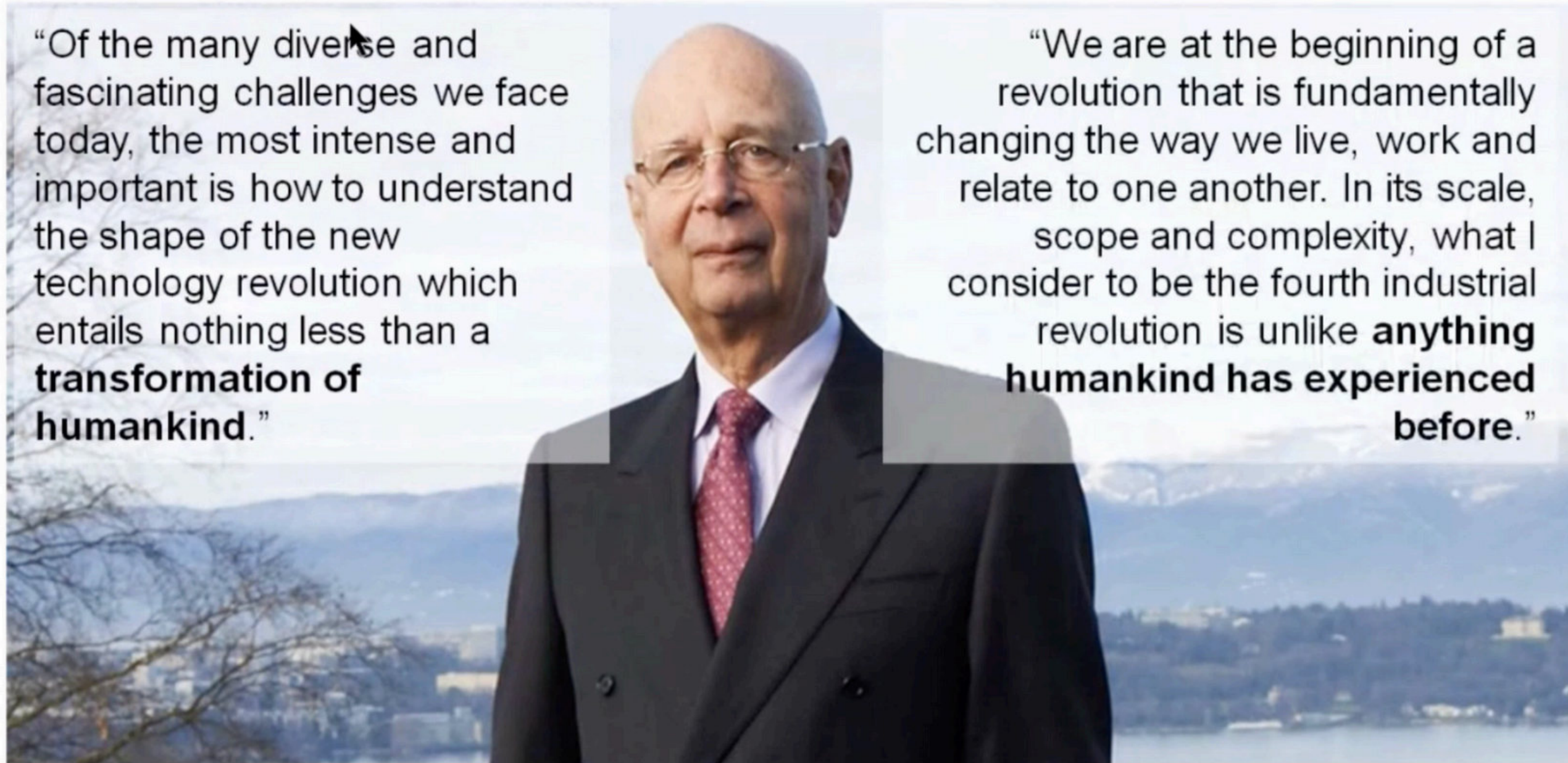
SHAKE UP

CHALLENGE

The Fourth Industrial Revolution



“Of the many diverse and fascinating challenges we face today, the most intense and important is how to understand the shape of the new technology revolution which entails nothing less than a **transformation of humankind.**”



“We are at the beginning of a revolution that is fundamentally changing the way we live, work and relate to one another. In its scale, scope and complexity, what I consider to be the fourth industrial revolution is unlike **anything humankind has experienced before.**”

Klaus Schwab, A German engineer and economist, best known as the founder and executive chairman of the World Economic Forum.

Schwab, K. 2016, p1. *The fourth industrial revolution*, Crown Business Publishing, New York.

Key Trends in the Food and Beverage Industry

1

AI & Automation

AI enhances precision agriculture and quality control in food production. Robotics enhances processing efficiency.

2

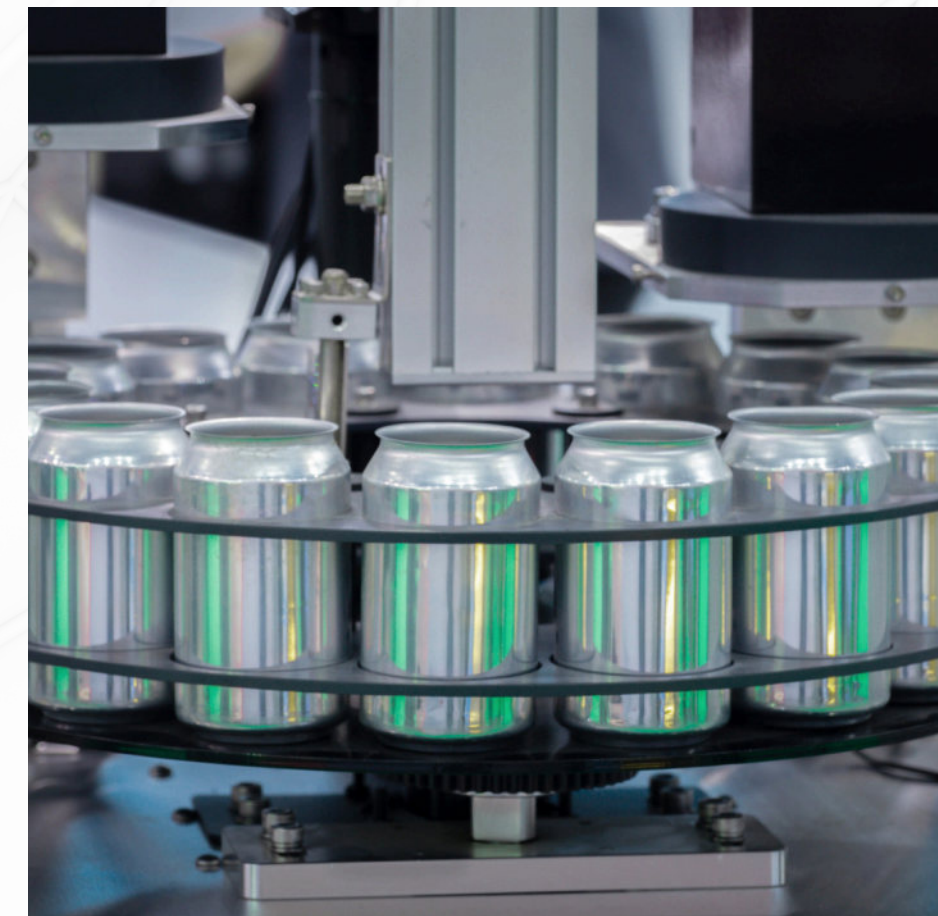
Generative AI:

Personalized, real-time consumer interactions with AI-driven experiences.

3

Omni channel Experiences

Seamless integration of digital and physical shopping experiences enhances consumer understanding and tailors brand offerings.



Key Trends in the Food and Beverage Industry

4

Sustainability & Circular Economy

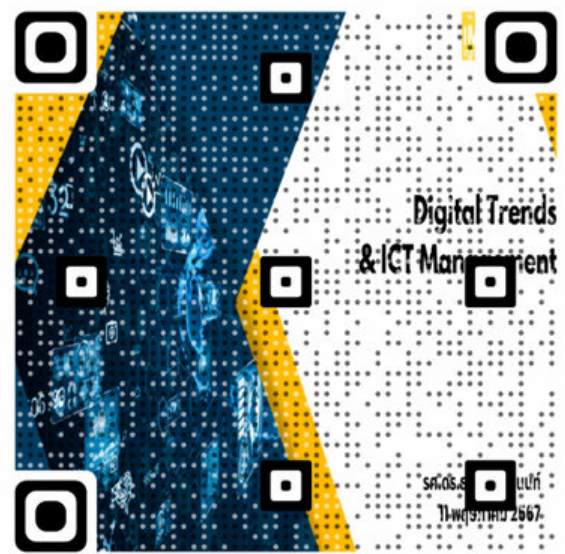
Companies are adopting eco-friendly practices and circular economy models, aligning with consumer demands for sustainability.

5

Rise of Plant-Based Proteins

Innovations in plant-based products are making alternatives more appealing, driven by health and environmental concerns.





Digital Transformation



WHAT IS DIGITAL TRANSFORMATION?

The term “digital transformation” had been overused so much that it seemed to lose its true value.



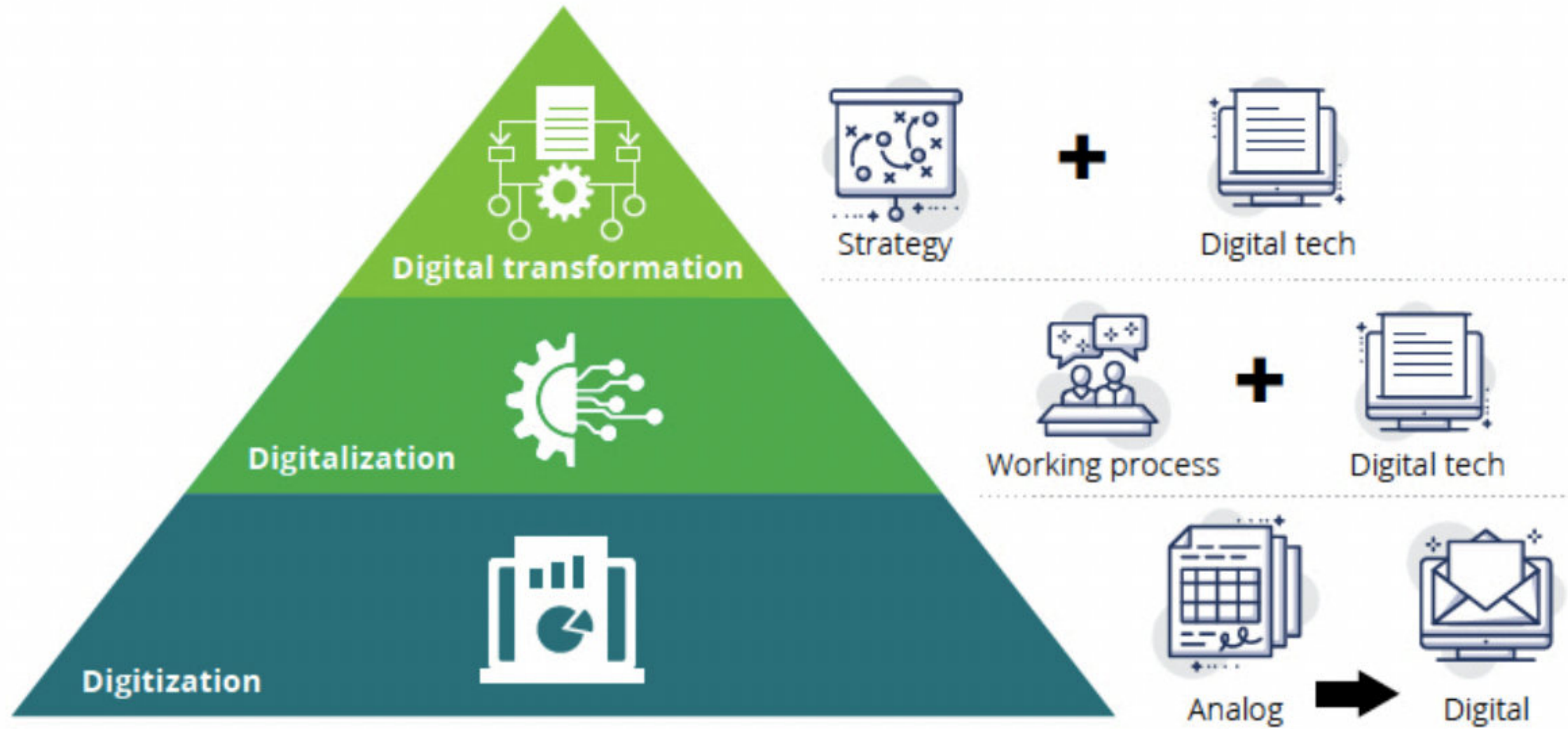
DIGITAL TRANSFORMATION

Digital transformation is about strategy (**not technology**)

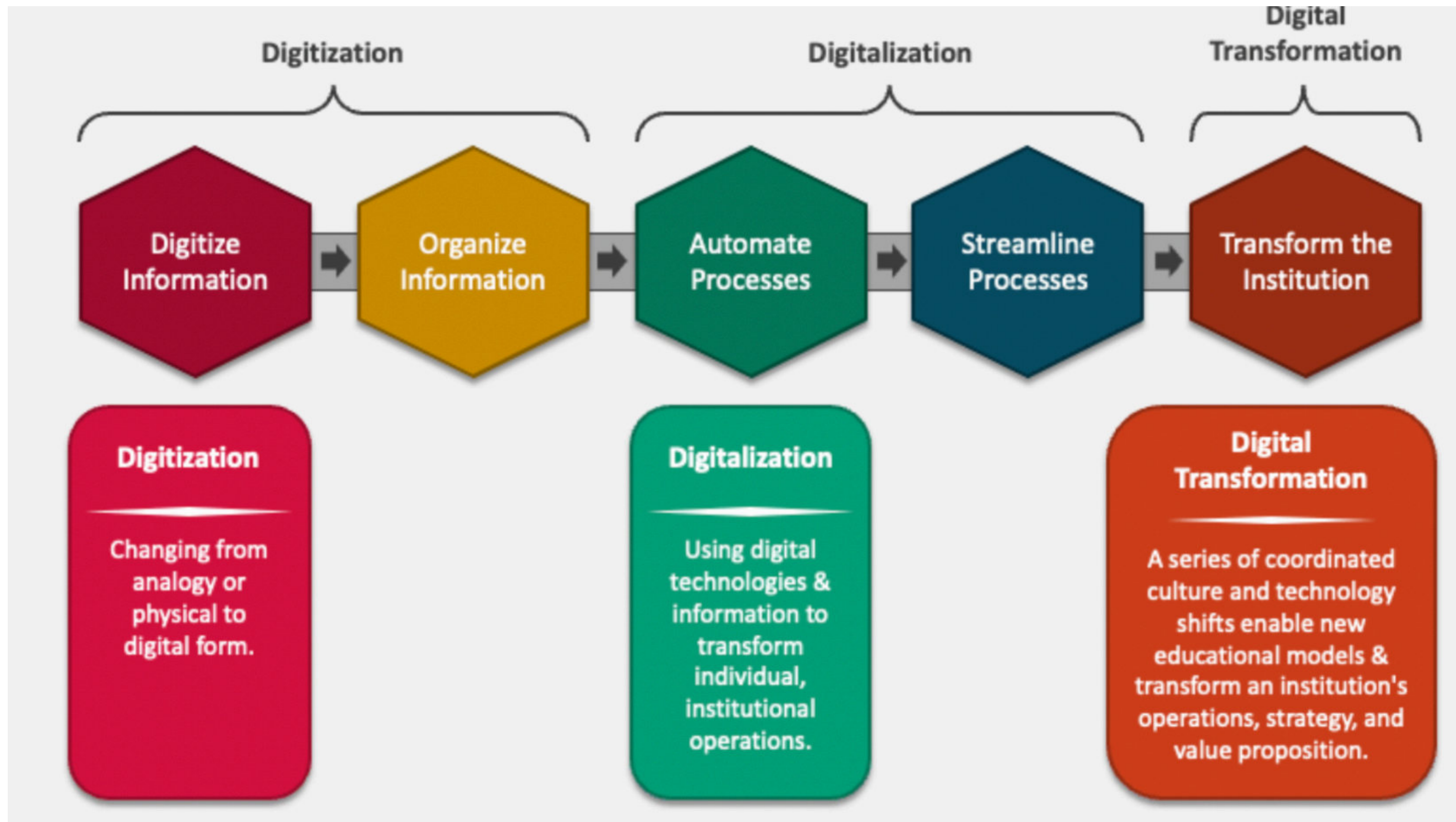


How digital transformation differs from digitization and digitalization

Digital transformation



Source: North Carolina State University and Ionology



DIGITAL TRANSFORMATION

Digital transformation is the process of integrating digital technologies into all aspects of a business to meet the market and changing business requirements.

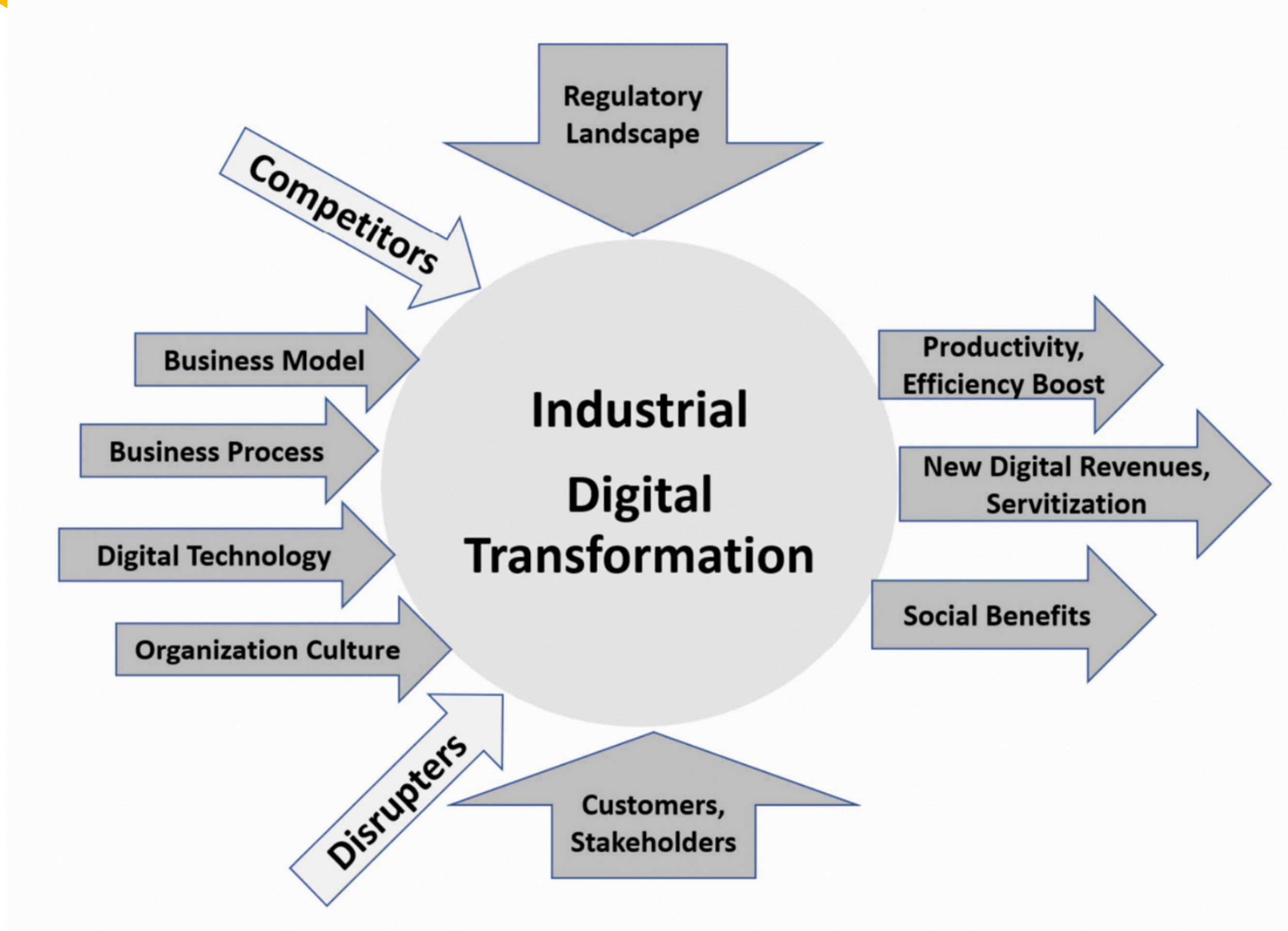


CHANGE IS THE KEY

Digital transformation **is less about digital** and more about transformation.

It is about the overall improvement of ways of working and efficiency of an organization.





Primary Goals of Digital Transformation

1

Enhance accessibility and inclusivity

Making services and products more accessible and inclusive across sectors through technology

2

Drive data-driven decisions

Leveraging data to optimize resources and improve operational efficiency in various industries.

3

Globalize Services and Operations

Removing geographical barriers to expand global business operations and market reach.

4

Manage Costs

Streamlining expenses and increasing profitability through digital solutions like automation and cloud computing.

Three Domains for DX

- **People:** Leadership and Culture, Human Resources and Data Literacy
- **Process:** Engagement, Organizational structure and internal collaboration, Partnerships and Service Delivery, Data Protection and Responsibility, Resource Mobilization
- **Technology:** AI, Data, Cloud, Digital

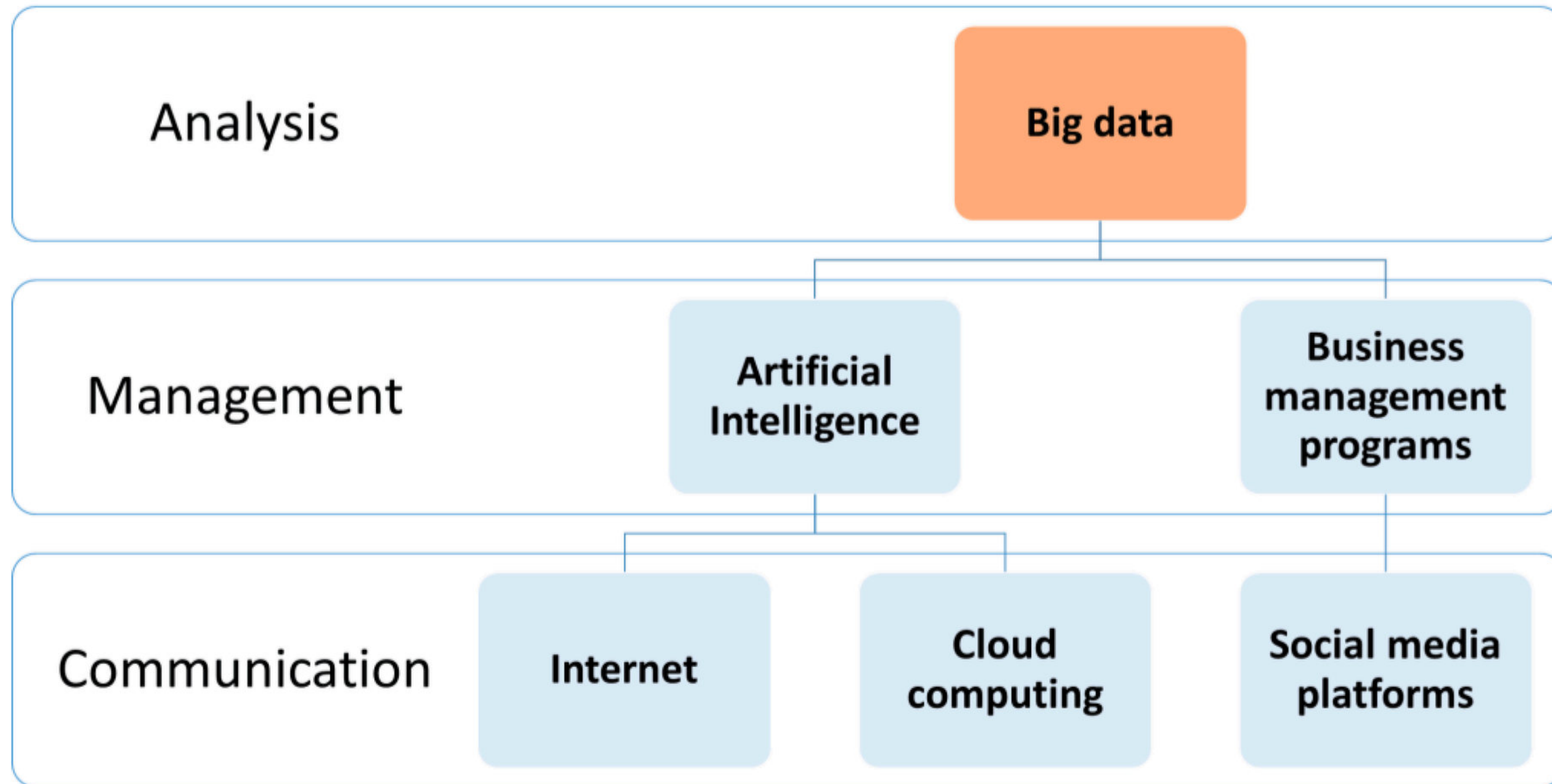


Digital Disruption

- AI and Generative AI
- Big Data & Data Analysis
- Cloud computing
- Automation & Robotics
- Cybersecurity
- IoT
- AR/VR
- Blockchain
- Quantum Computing



Leading Technologies that Impact Digital Transformation

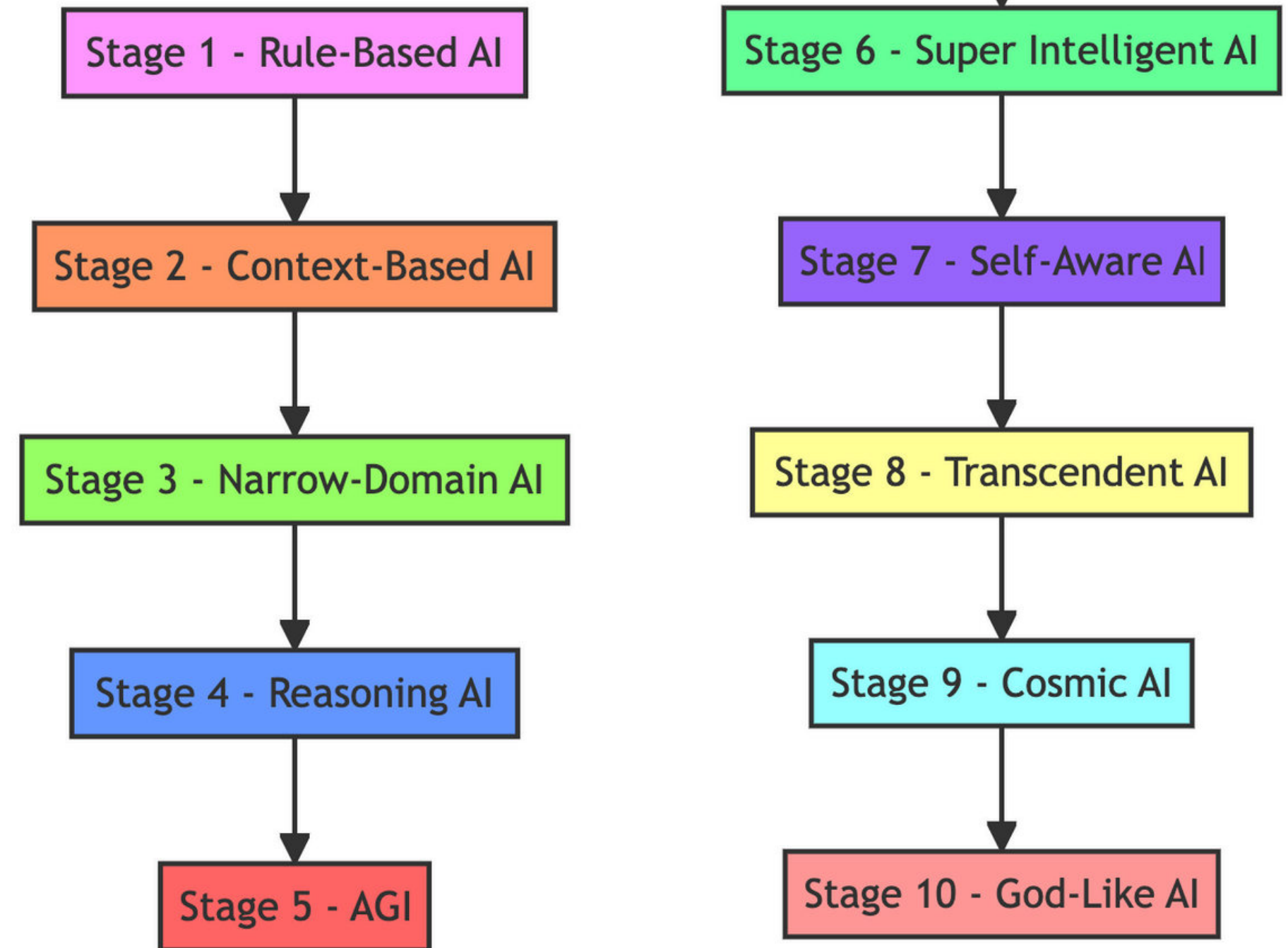


AI is the next "space race"



The 10 Stages of AI

A conceptual framework that categorizes **the progression of AI technology** into ten distinct levels, each representing a significant leap in capabilities and complexity. This framework helps in understanding how AI evolves from simple, rule-based operations to highly advanced forms that could potentially mimic or even surpass human intelligence.



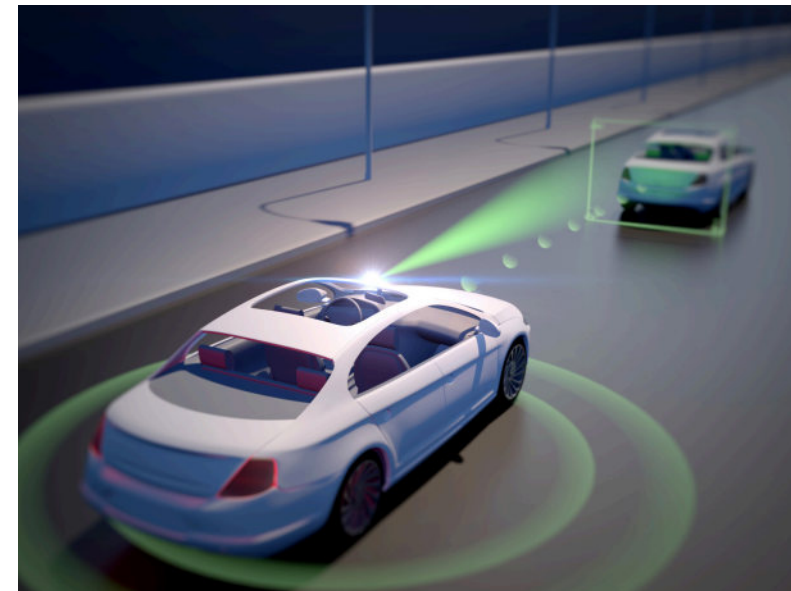
What is modern AI, really?



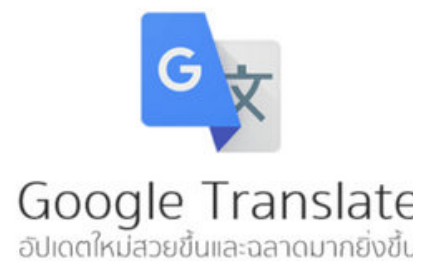
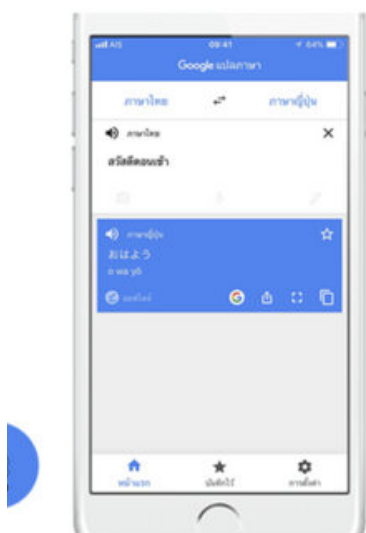
Voice Recognition



Facial Recognition



Autonomous car



Machine Translation

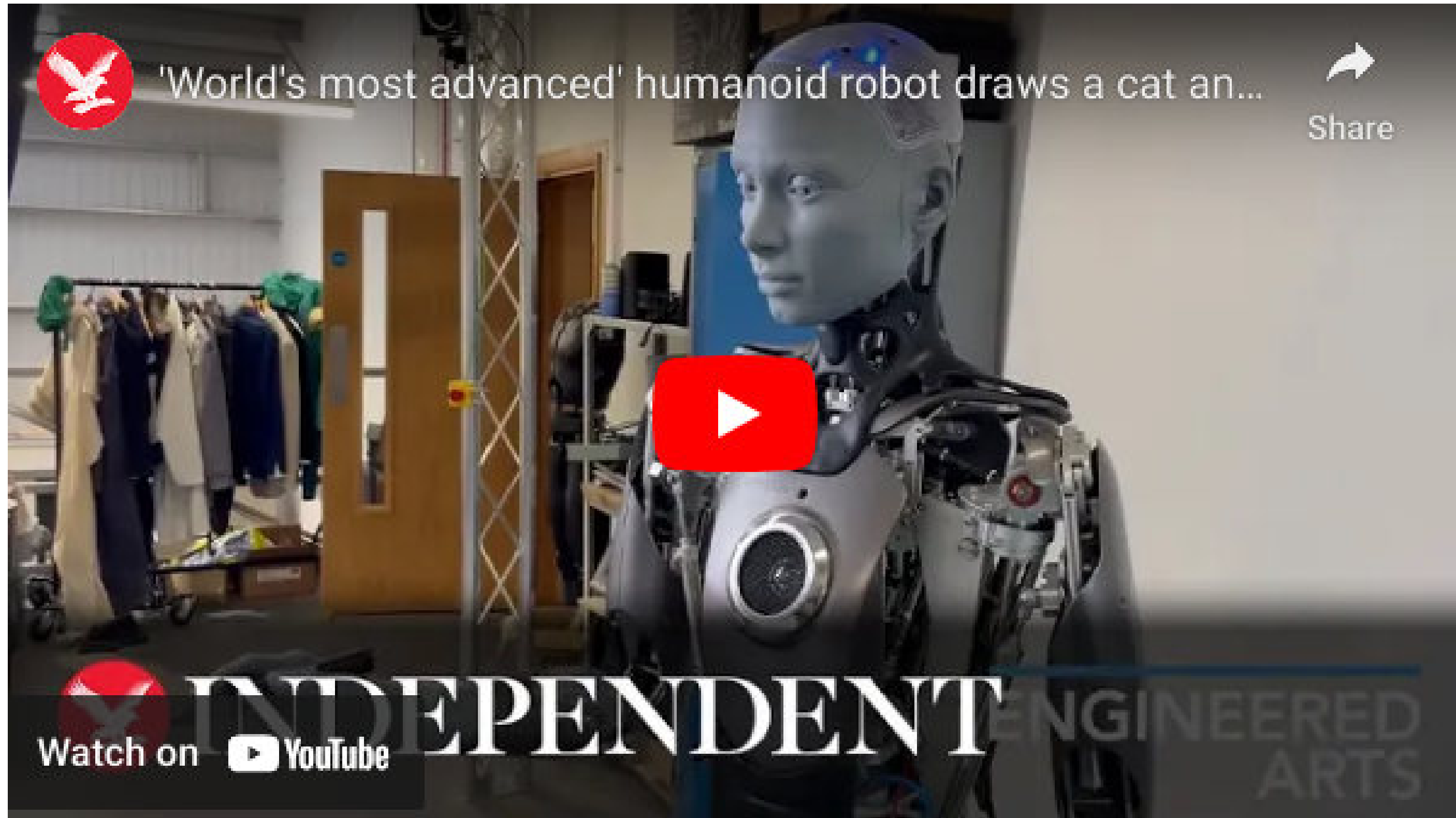


Recommendation



ChatBot

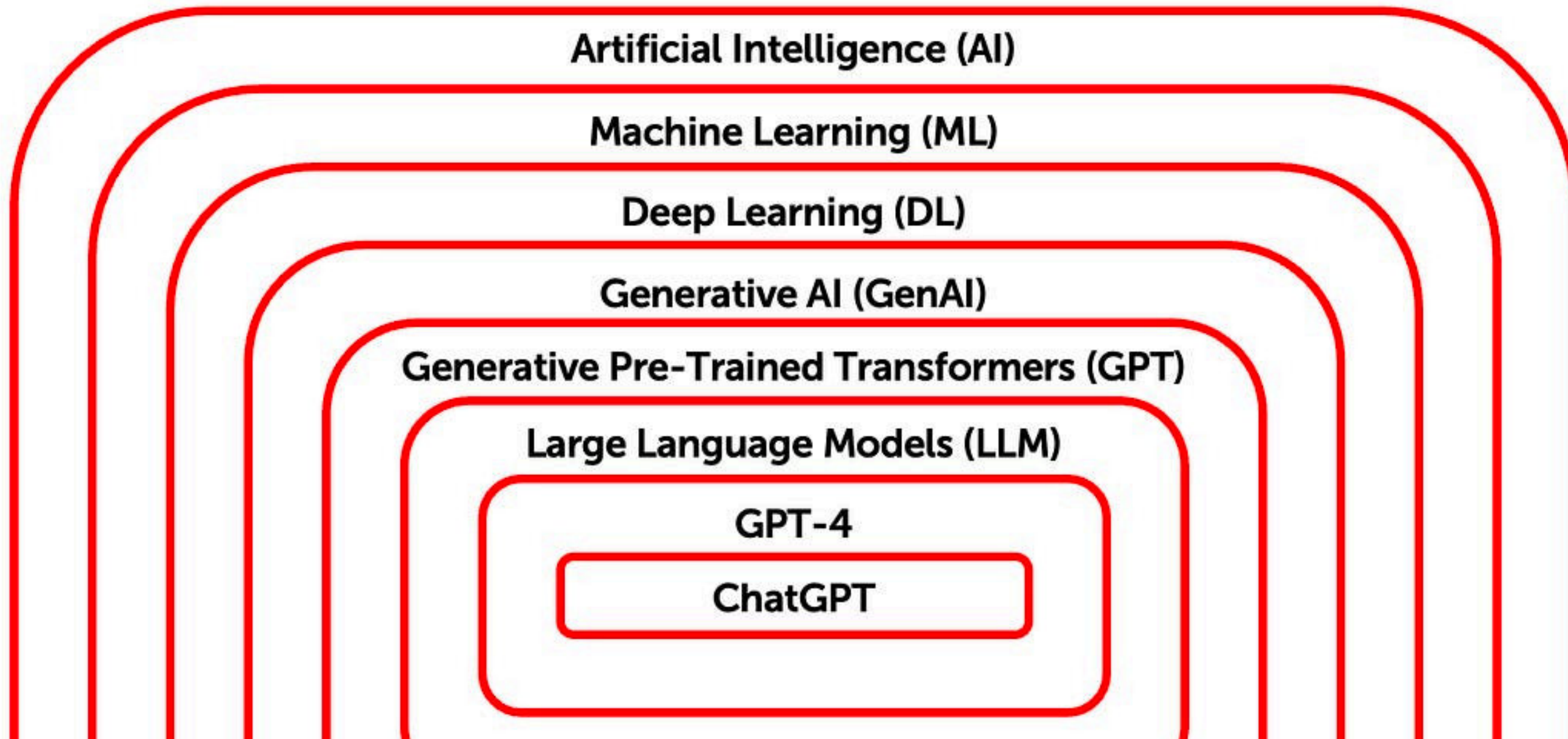
Ameca using GPT



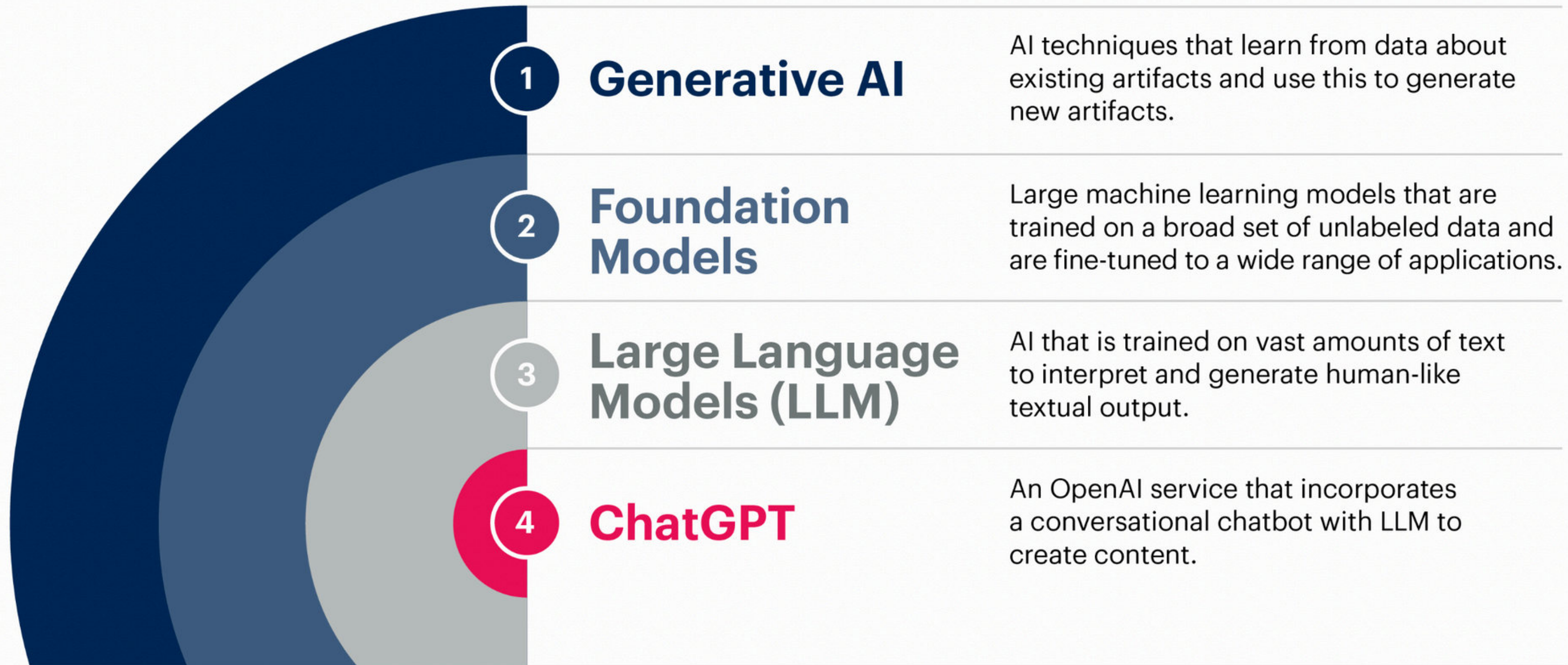


AI Terminology

 @AndreRetterath
datadrivenvc.io



What is Generative AI?



Generative AI Models



Image
creation



New
Recipes



Visual Media



Coding & Debugs



Creating
Music



Healthcare

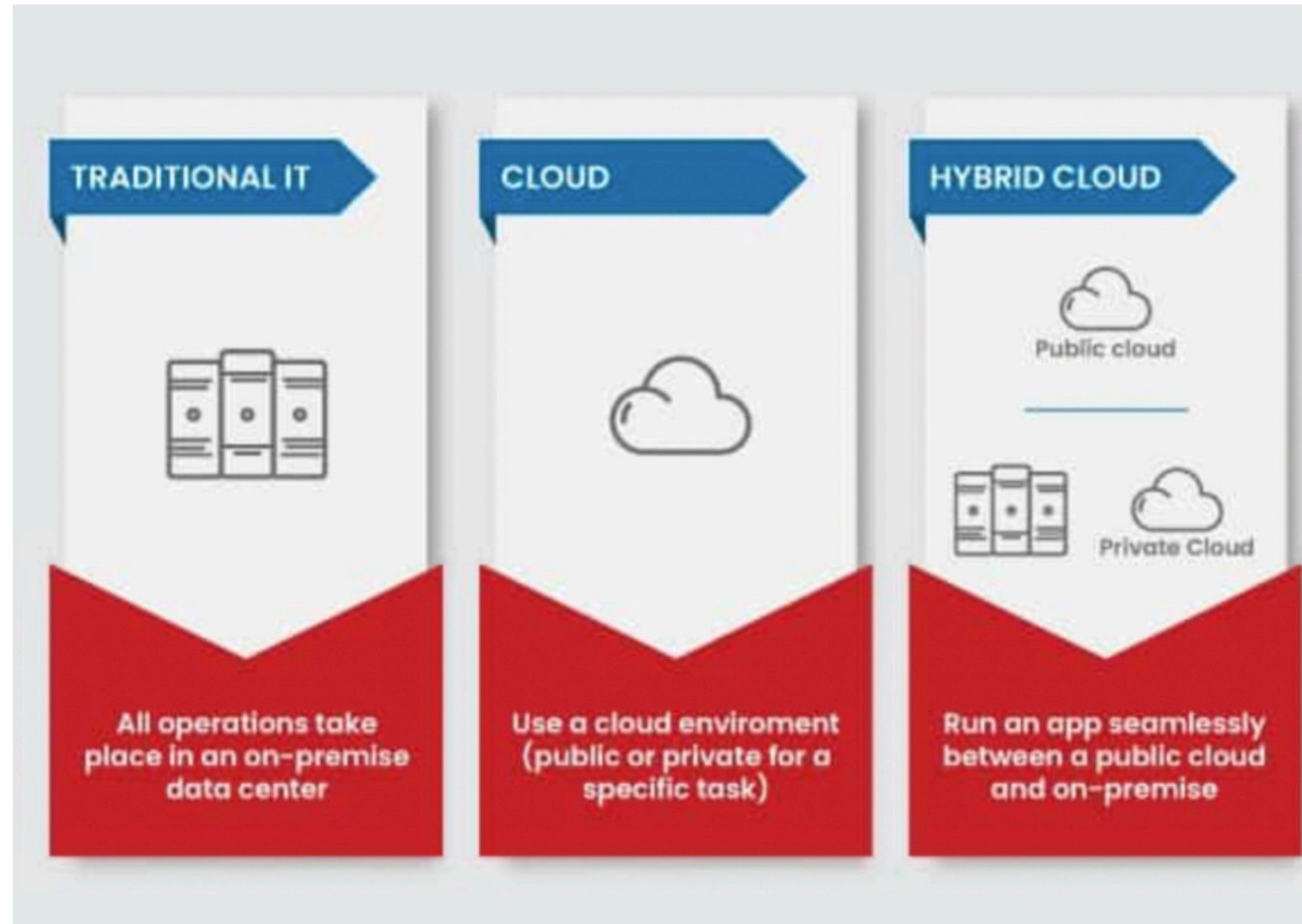
Impact of Robotics

- **Automation and Precision:** Robotics improve precision in food processing, from sorting and grading to packaging, ensuring consistency and reducing waste.
- **Scalability:** Robots enable scalable production capabilities, crucial for meeting increasing consumer demand without compromising on quality.
- **Workforce Transformation:** Robotics can handle repetitive tasks, freeing human resources for more strategic roles, thus enhancing overall productivity.

Role of Cloud Computing

- **Operational Efficiency:** Cloud platforms like SaaS, PaaS, and IaaS enable real-time data processing and scalability, crucial for managing supply chains and production lines efficiently.
- **Data Integration:** Cloud solutions facilitate the integration of various data sources, enhancing decision-making and operational flexibility
- **Scalability:** Cloud computing allows businesses to scale operations quickly in response to market demands, optimizing resource use without significant upfront investment.

Cloud Computing Trends



Benefits of Cloud Solutions for the Food and Beverage Industry

1

Tailored for Industry Needs

Cloud-based ERP solutions offer industry-specific features like recipe management and quality control, ensuring compliance and maintaining high operational standards.

2

Real-Time Operational Visibility

Provide instant access to crucial data, enabling faster decision-making and enhanced efficiency throughout the production and distribution processes.

3

Optimized Supply Chain Management:

Cloud platforms improve supply chain transparency, reduce lead times, and optimize logistics, ensuring timely delivery and effective inventory management.



Benefits of Cloud Solutions for the Food and Beverage Industry

4

AI-Driven Predictive Analytics

Integration of AI capabilities allows for accurate demand forecasting, process automation, and data-driven decision-making, improving overall productivity.

5

Enhanced Collaboration & Innovation

Cloud platforms facilitate seamless collaboration across teams, fostering innovation and a more agile, responsive business environment.



Top 5 CIO Priorities for 2024

- Gain stronger control over **data** :
Data management, Data governance & Data Culture
- Transform Employee Experiences with **Modern Apps**
- Develop Your Enterprise **AI** Strategy
- Modernize to Tighten **Security** and Reduce Risk
- Boost Operational Efficiency with **Automation** through **Generative AI**





**Transformation is not a choice,
it is a mandate**



Thank you

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