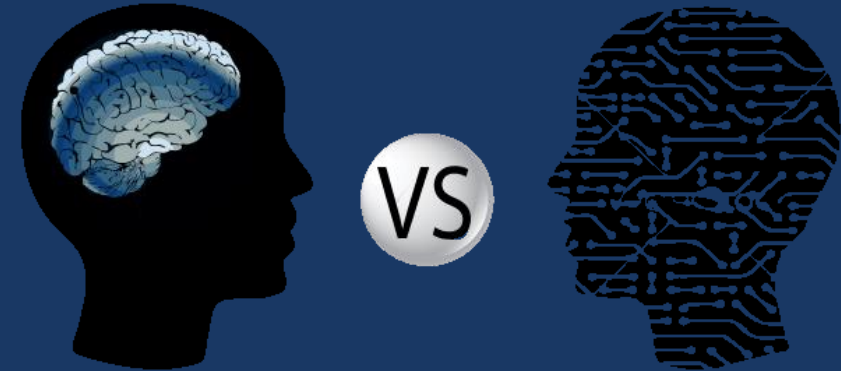


Can Machines *Really* Think



IPSOFT



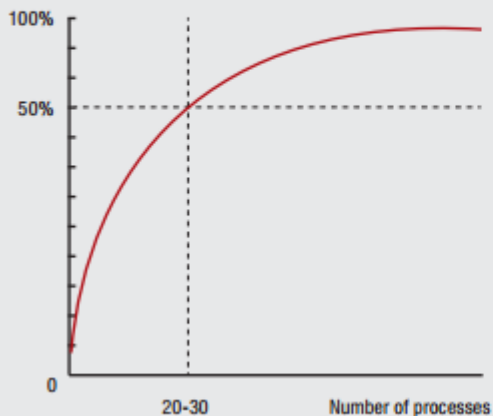
Marist College, June 2016

Why Do We Care?

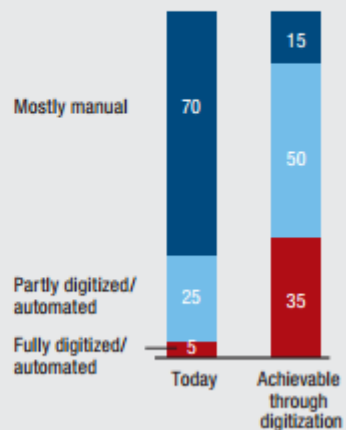
Is Digital Disrupting Everything?

Digital Insurance Company

Top 20-30 end-to-end processes can account for up to 40% of costs and 80-90% of customer activity
Percentage FTE



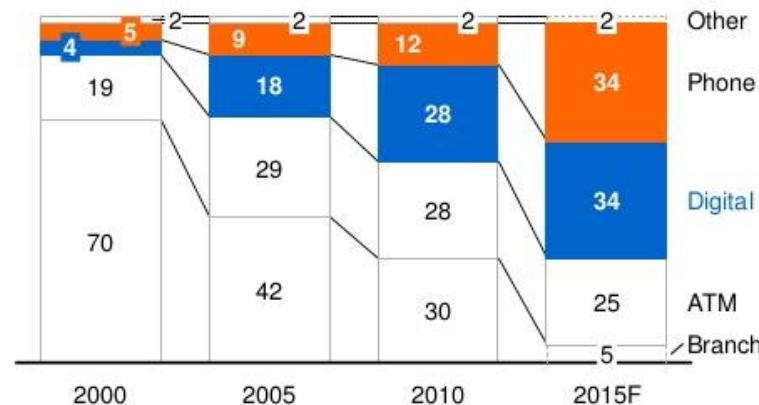
Significant potential to increase automation/digitization
Percent of processes by digitization level



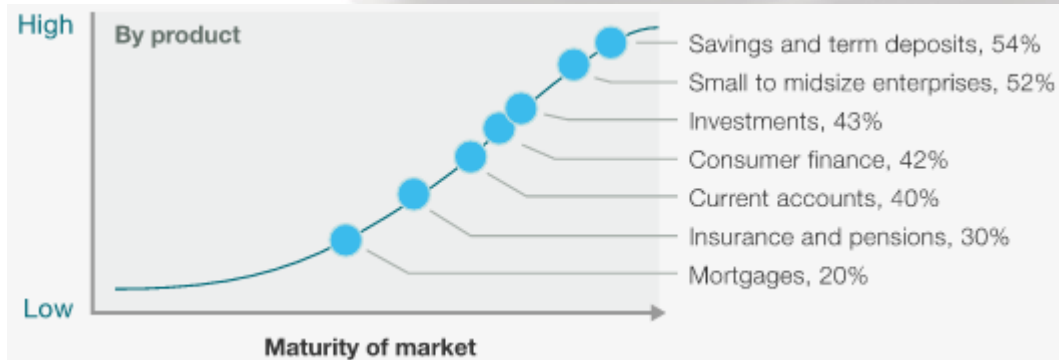
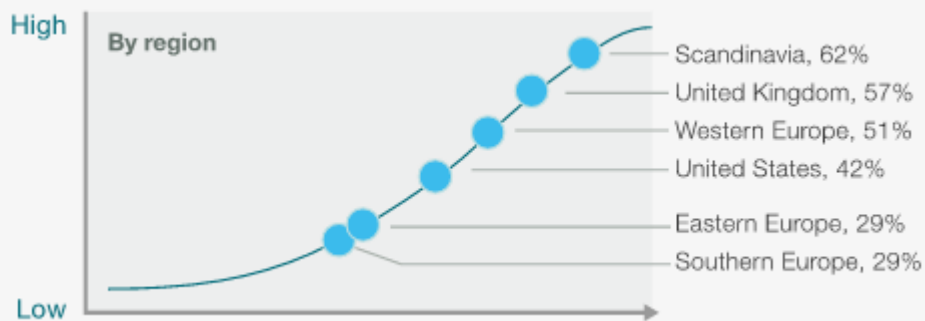
Digital Bank

Explosion in digital interactions – By 2015, only 5% of interactions via the branch Network

Digital interactions are exploding...
2010: 100%, Europe



By 2018, digital disruption in banking is expected to reach its inflection point.



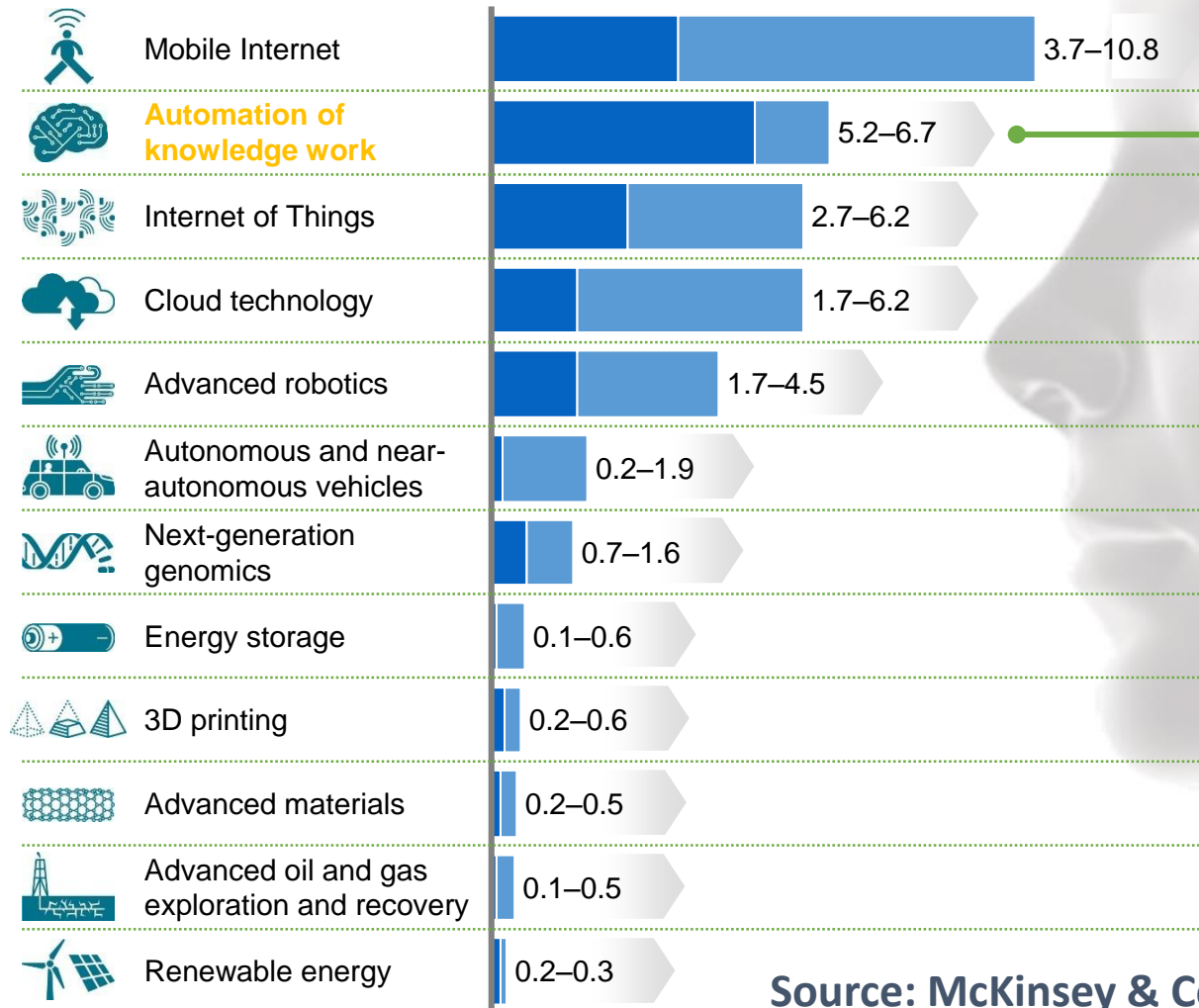
Share of new inflow revenue from digital sales in 2018

What Do Numbers Tell Us?

How Big Will Be the Impact?

Estimated potential economic impact of technologies from sized applications in 2025, including consumer surplus

\$ trillion, annual



Automation of knowledge work

- Intelligent software systems that perform knowledge work involving unstructured commands and judgments
- 400+ million increase in number of users of intelligent digital assistants in last 5 years
- 230+ million knowledge workers, 9% of global workforce
- 1.1 billion smartphone users, with potential to use automated digital assistance
- \$9+ trillion knowledge worker employment costs, 27% of global employment costs

Biggest Change the Planet has Ever Seen?

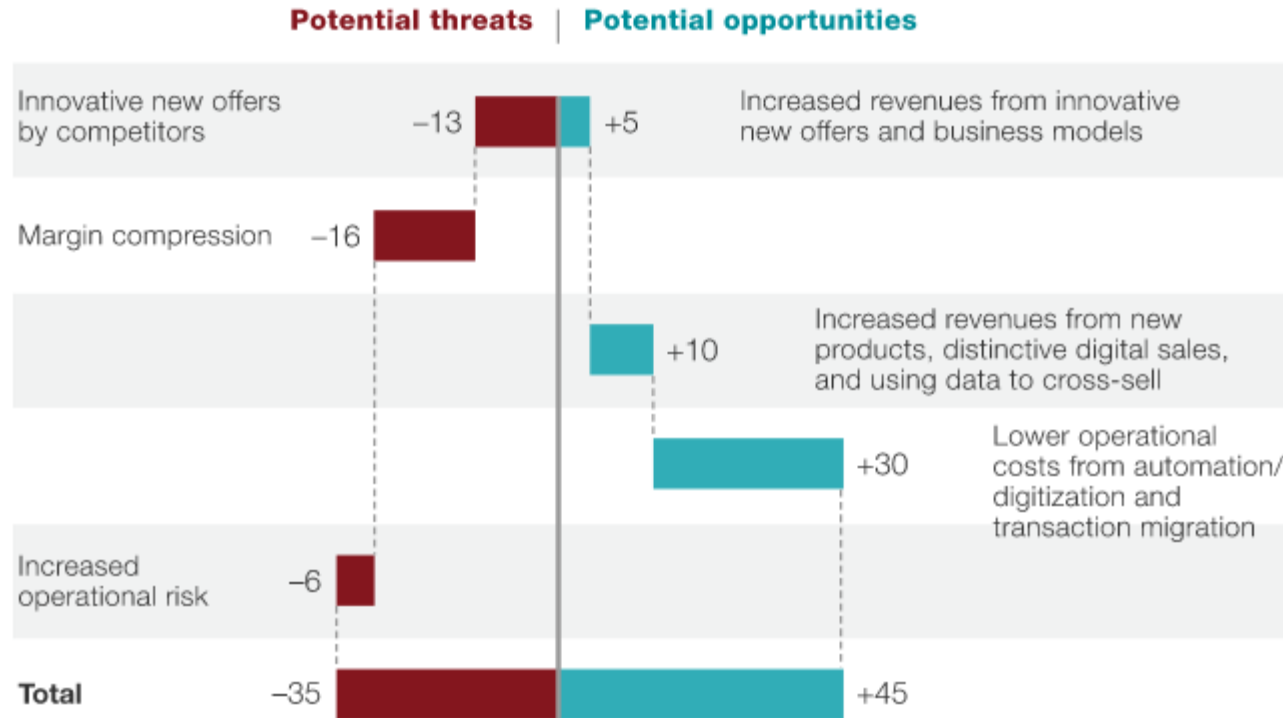
Source: McKinsey & Co.



Machine Intelligence: Threat Or Opportunity?

Gravity of Threat (McKinsey)	Magnitude of Opportunity
Digital laggards: 35% net profit erosion	Digital winners: 45% net profit upside

Which Side Do You Wish To Be?



Source: McKinsey analysis

Each One of You Will Be Affected

“If the rate of change on the outside exceeds the rate of change on the inside...the end is near”

Business Rules Are Being Redefined

- Gartner: By 2017, companies leveraging autonomies and cognitive platforms will drive a 60% reduction in cost of services.
- Risk of non-adoption versus risk of early adoption

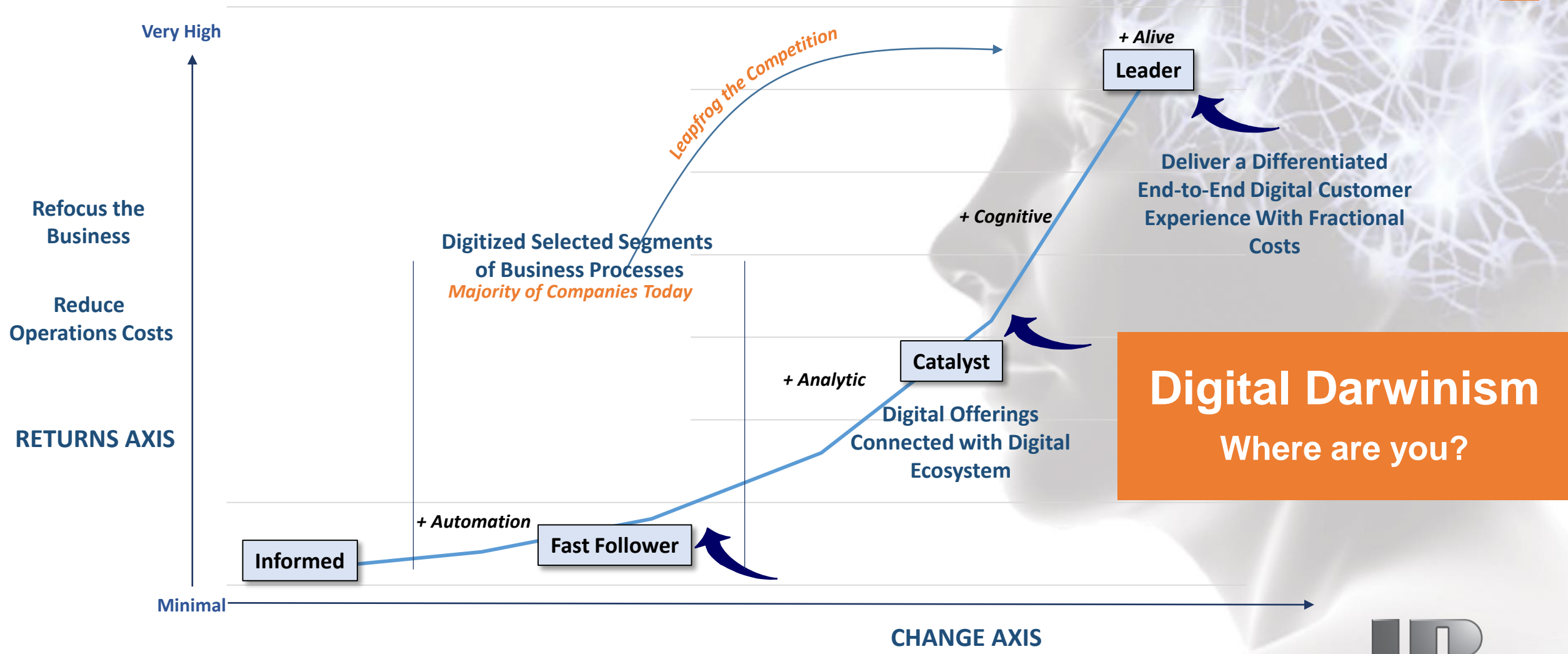
Alibaba

100b in assets in wealth management in 2 years



But I Use AI Already

- Prioritize which segment: most value
- Address people dynamics
- Build 2-speed IT operating model
- Digitize processes
- Connect to ecosystem



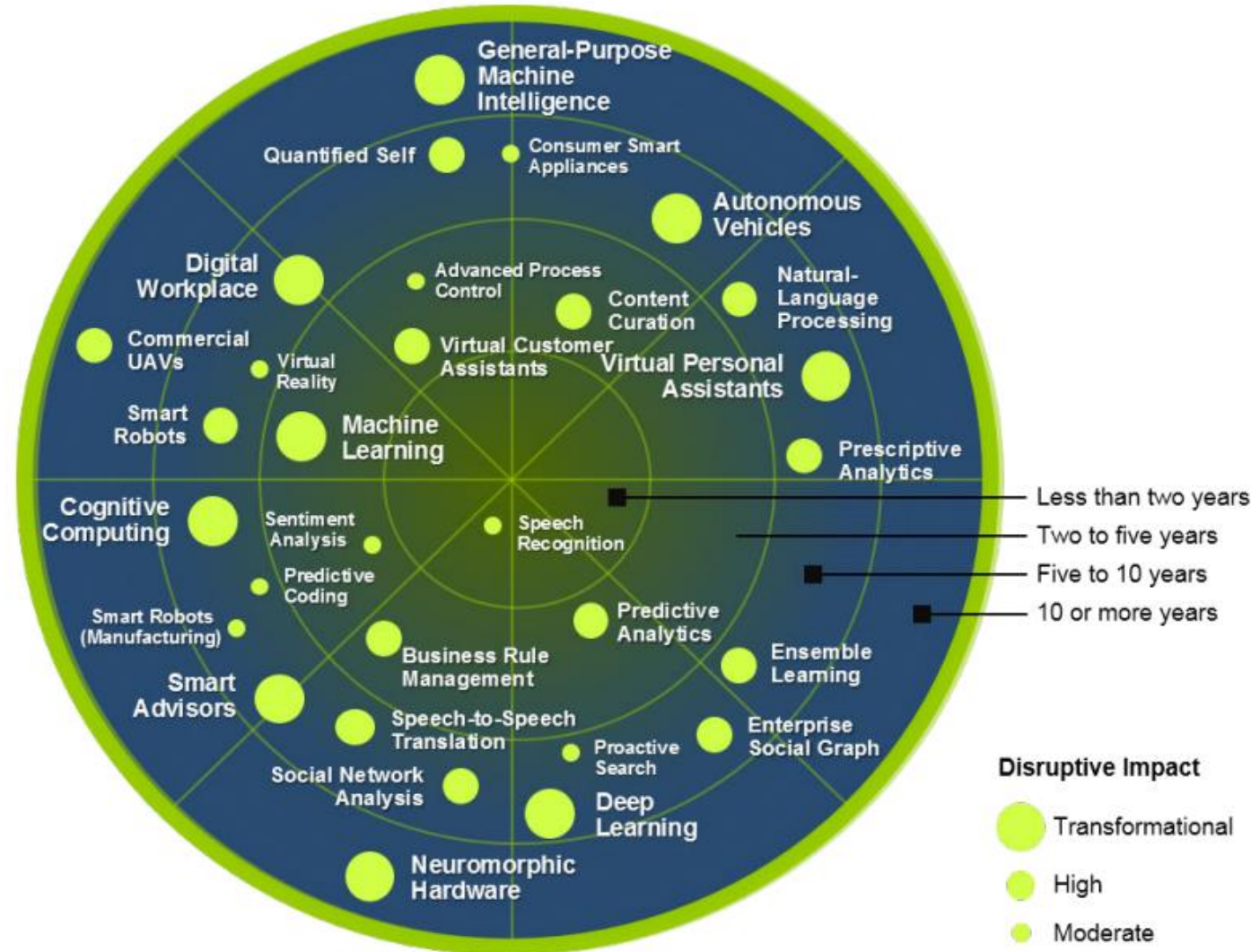
Digital Darwinism
Where are you?



How Do I Go Digital: Where's the Value?



Digital, Digital, Everywhere,
Not a drop to Drink



Confused Sailor
Rime of Ancient Mariner
Coleridge



But Can Machines Really Think?

Need for Digital Labor



Semantic Memory

+



Process Memory

+



Episodic Memory

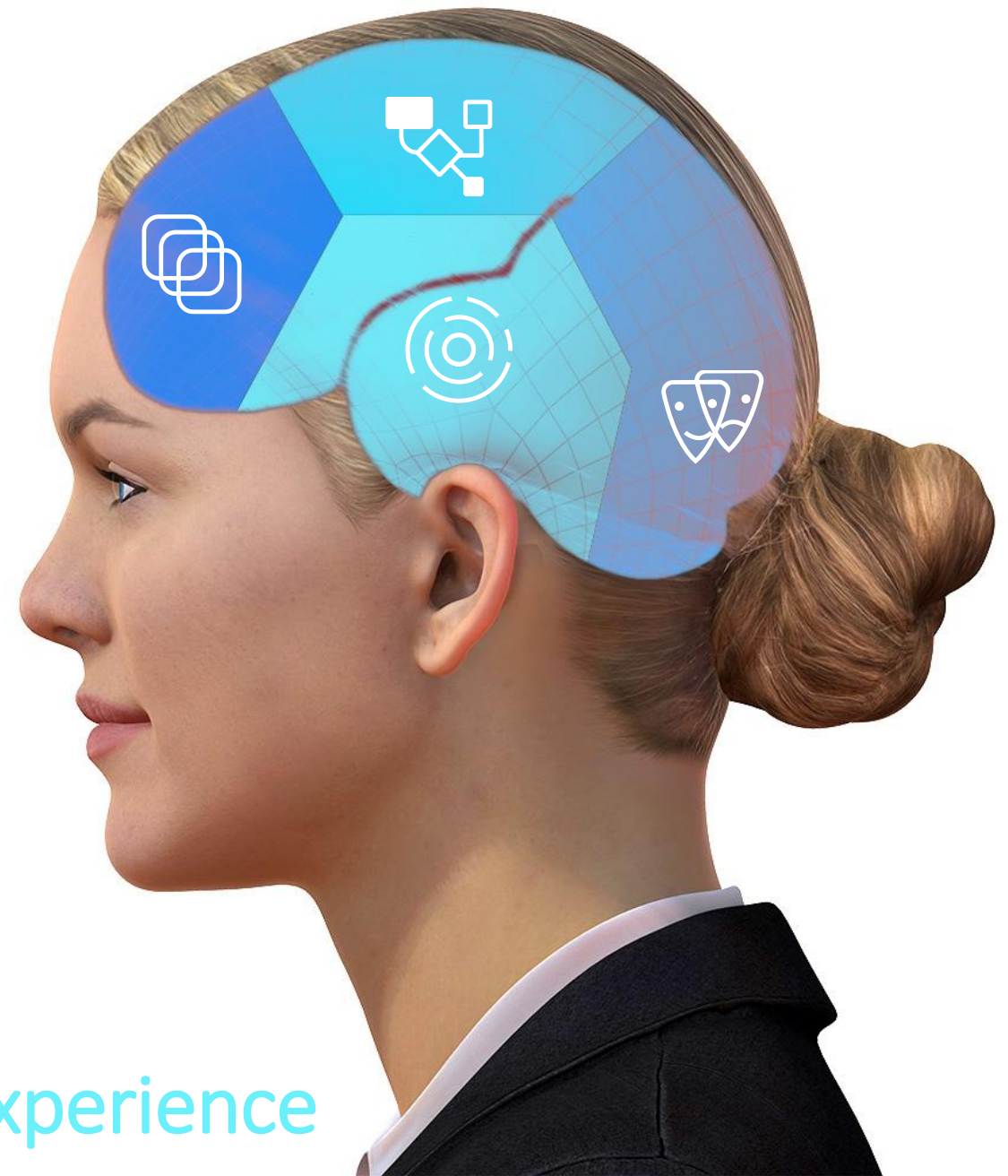
+



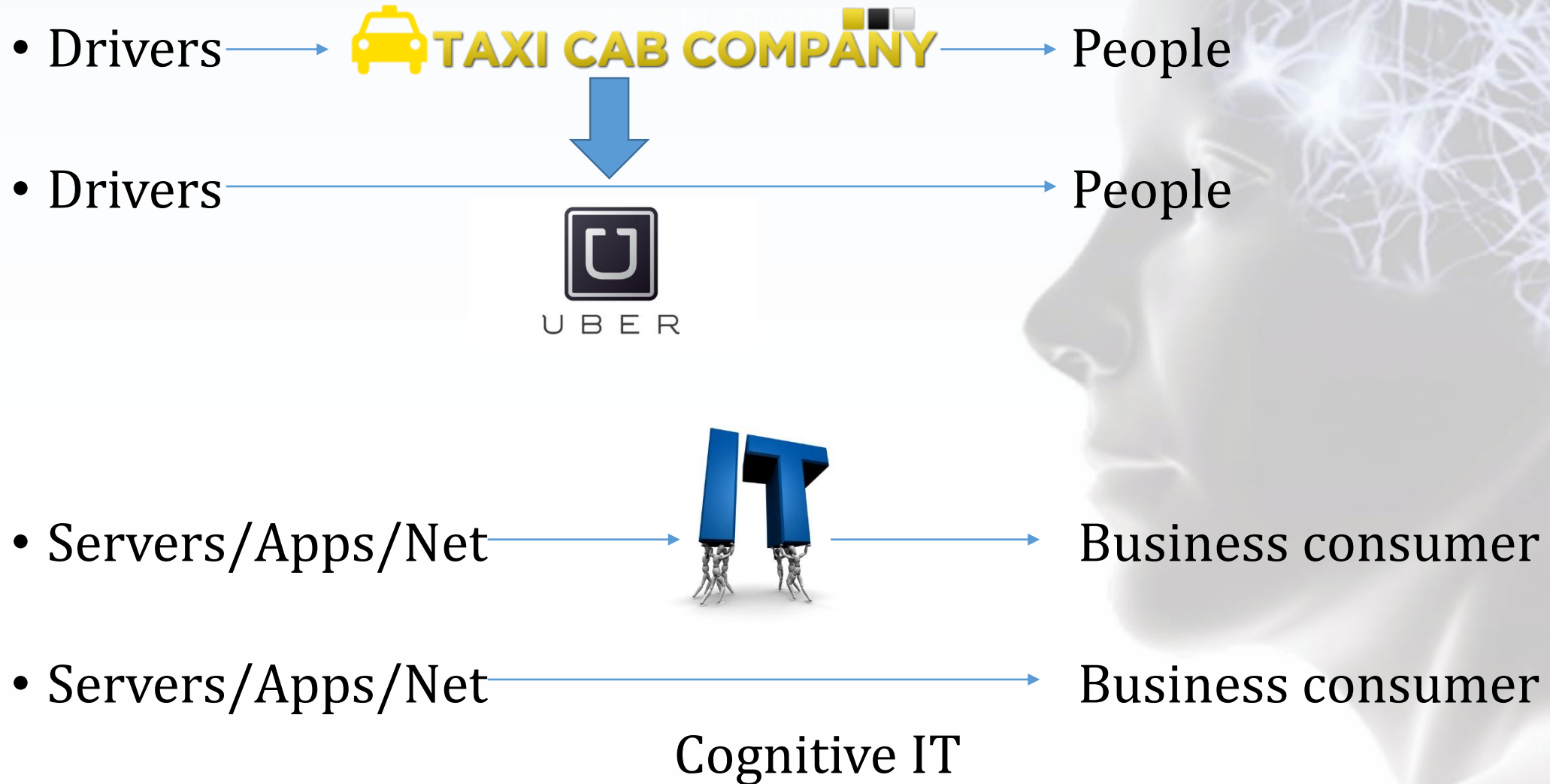
Affective Memory

=

Human Equiv or Superior Experience



What about IT? Disintermediate IT?



Uberization of IT

So, Who Will Win?...

The Team

- Man: Creative, Brain: Ultimate Darwinian Engine
- Machine: All Mundane
- Man will be freed from shackles of routine
- Average 10% of our brain: What a waste
- Together Man and Machine:
 - Will bring life to another planet
 - Doctors will not practice medicine, but concentrate on systemic cures
 - Mine asteroids for precious metals: 5,400B
 - Create more per capita: Eradication of disease and poverty become fathomable

SuperIntelligence: Nice For Hollywood Movies, NOT REAL TODAY

- Man In Control
- Hofstadter, UIUC:

“I don't want to be involved in passing off some fancy program's behavior for intelligence when I know that it has nothing to do with intelligence.”





IT Learns

