

# Driving disruptive change through Automation

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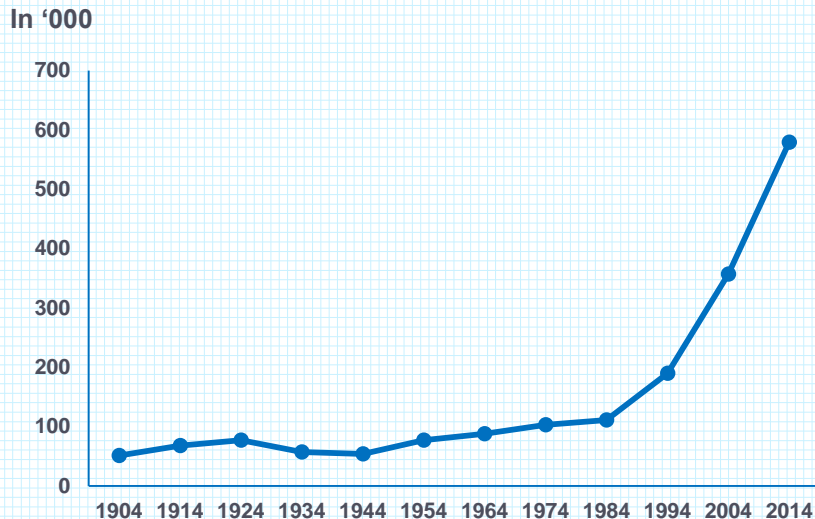
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# Technology innovations are driving productivity across sectors

The pace of innovation is now accelerating, leading to exponential disruption

Utility patent applications received by US Patent office



## Close interlink between Technology spend & Innovation

- Studies indicate strong correlation between patent filing and GDP growth in G7 economies (with a lag)
- 40% of capex spends were on Technology in 2014
- Spread of patents granted in 2013 shows distinct pattern
  - Computer industry dominates – accounts for 16 of the top 20 companies ranked by patents granted
  - 70% companies based in US; Japanese & Korean companies follow with minor share

Will this be the Age of AI?

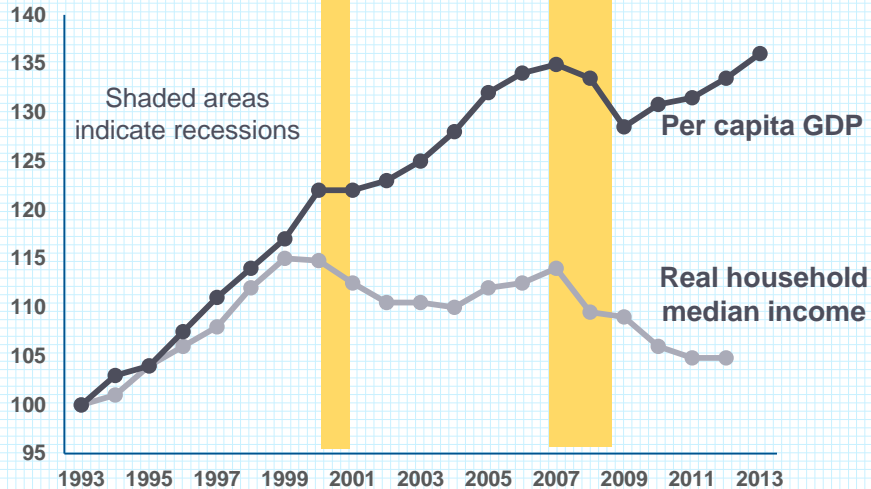
- Age of Oil caused wealth transfer of \$72 trn in 40 years
- AI patents granted rose 20X in 2005-14 vs.1995-04

The exponential growth of innovation especially in AI has implications for labor and industry

# Impact of disruptive innovation on labor

Household income growth has begun to diverge from productivity growth

Comparing median income growth with per capita GDP growth



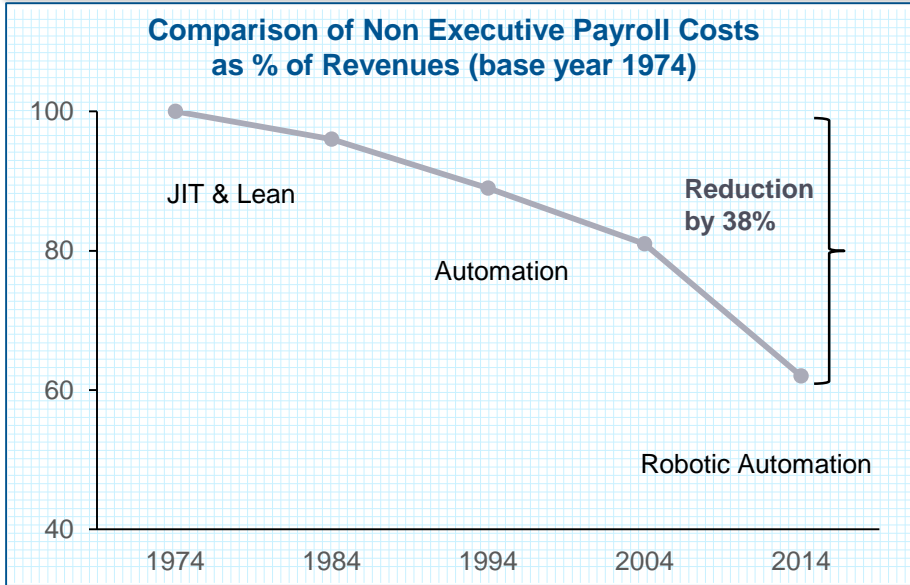
Gap between highly skilled and the larger pool of workers continues to widen

- Median Upper Income in 2013 was 7X median Middle Income (up from 3.5X in 1983)
- Technology has eroded bargaining power- private union membership down from 20% (1983) to 6.6% (2013)
- Skill upgrade remains the biggest driver for income growth
  - Lifetime income for graduate 2X of school diploma holder
  - Graduation in STEM areas increases average annual pay by \$6500, relative to other areas

Technology innovation shifts the power balance creating both challenges and new sets of opportunities

# Impact of technology disruption across industry sectors

The automobile manufacturing industry was among the earliest sectors impacted



Dramatic performance improvements over the period

- Cycle time reduction by over 30X
- Inventory reduction by over 80%
- 5X increase in labor productivity
- Brand buildup driven by product quality
  - Big 3 lost share from 78% to 43% (1980 to 2010)
  - Convergence in quality over time
- Unequal distribution of rewards
  - Weakening of unions led to decline in wages
  - Increased demand and wage jump for specialized skills like design, robotics

Increased commoditization across industries creates a few big winners - and leaves a larger set of losers in their wake

Source: Bureau of Economic Analysis, Bureau of Labor Statistics, NY Fed, Pew Research, Wipro research



# Implications for the Technology Industry

# Our industry will also undergo disruption... but at a more drastic rate

Companies respond to commoditization with the following strategies

Extreme Cost reduction



Collapsed Cycle Times



Brand building

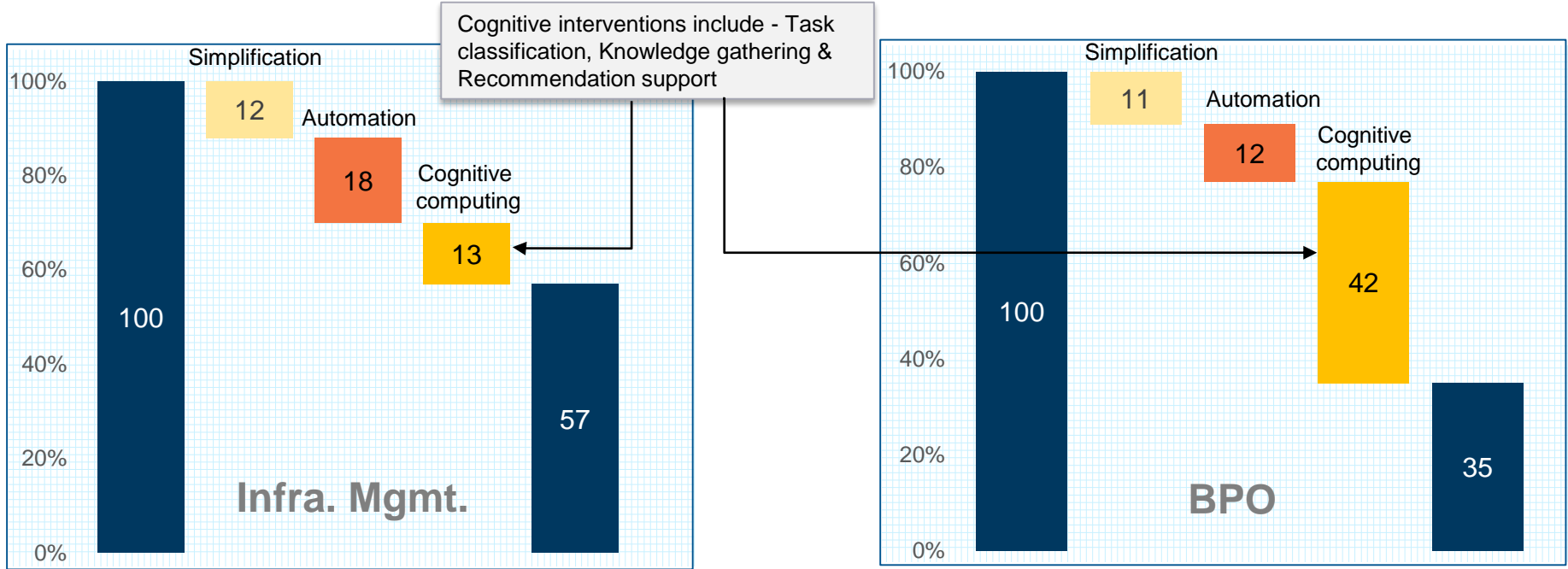


## Outlook over the next 10 years

- Payroll cost as share of revenue drops 47%
- Task allocation accuracy increases from 70% to 95%
- Issue resolution accuracy increases from 65% to 99%
- Cycle time reduction for Dev Ops reduces from an average of 3-4 weeks to under 1 hour
- Turnaround for ticket resolution reduces from an average of 18 hours to under 1 hour
- Around 40% headcount are in roles that will become redundant

We need to make a break from traditional techniques and adopt a very different approach

# Technology organizations need to make drastic changes – An illustrative view





# Implications for Wipro

Labor Reskilling



- Building a 'Lean to Learn' mindset and willingness to embrace ambiguity
- New training paradigms for technical skills and execution models

Simplification & Change Management



- Manage changes in organizational structure & resource pyramid
- Drive process velocity – eliminate non-value add and process variability

Cognitive Layer



- Leverage Holmes along with a partnership ecosystem

# Overview of Holmes

Naturally Interactive	Knowledge Representation	Algorithmic Intelligence	Learning	Reasoning
<ul style="list-style-type: none"><li>▪ Natural language based</li><li>▪ Context aware</li><li>▪ Conversational interface</li></ul>	<ul style="list-style-type: none"><li>▪ Semantic knowledge models</li><li>▪ Dynamic knowledge enhancement</li></ul>	<ul style="list-style-type: none"><li>▪ Hypothesis generation &amp; Testing</li><li>▪ Pattern recognition, classification</li><li>▪ Predictive</li></ul>	<ul style="list-style-type: none"><li>▪ Continuous learning</li><li>▪ Supervised &amp; unsupervised learning</li></ul>	<ul style="list-style-type: none"><li>▪ Ontology based</li><li>▪ Knowledge based inference</li><li>▪ Probabilistic cognition models</li></ul>

- Inject cognition into targeted Business & IT process- and work seamlessly with other aspects of automation
- Force multiply our existing offerings- will not be sold as a stand alone

# Case Study: Enterprise storage support for Global leader in software defined storage

## Context

For a client that provides software defined storage solutions to enterprise customers, customer issue resolution was particularly challenging and handled by experts with 12+ years of Data Center experience. Key challenges include the variety and complexity of the underlying environment. The resolution requires manual analysis of large amount of logs and configuration data.

### Customer Support Metrics

- Ticket volume – 17,000 monthly with 70% complex (L2 & above)
- Cycle time for complex tickets ranges from 5 hours to 2 weeks

## Solution

Our intent is to deskill the process

- Automate gathering & analysis of data for faster resolutions increasing support productivity
- Increase L1 resolution tickets to over 57% reducing the need for high skilled support personnel
- Collapse cycle time for complex queries to the extent of 10X
- Working on auto-resolution - in the next one year, 55% of transactions will be auto-managed

“Wipro HOLMES AI platform will transform, automate and enable high levels of productivity”

Chairman and CEO of the client organization

# Delivering value across business scenarios



## Helpdesk Virtualization:

- Around 300,000 tickets per month across domains – IT, Finance, HR
- 47% reduction in L1 staff
- Reduction in reassignment by 53% - improper transfers down 71%
- Over 2500 person days savings



## Knowledge Virtualization:

- Supporting around 100,000 employees across 45 geographies
- Over 16,500 queries handled systemically every month, instead of manual discussions with a HR personnel
- Instant answers to policy related questions across variety of areas



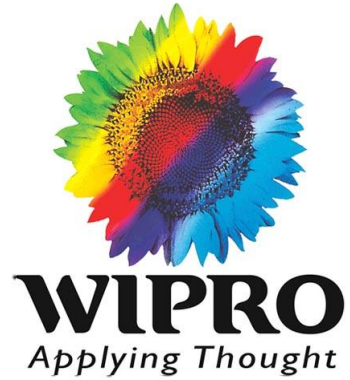
## eKYC

- 53% effort reduction on average, based on pilots with 3 banks
- 60-80% improvement in turnaround time
- Improved compliance with clear audit trail

## In summary...

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- Traditional Business Models will change
- Pricing models used in the past will now include a future technology roadmap
- Change Management and transaction journeys will be longer



# Thank you

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