

The Global Economy and Digital Technology

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Globalization in transition

WE ANALYZED 23 VALUE CHAINS SPANNING 43 COUNTRIES AND ACCOUNTING FOR 96% OF GLOBAL TRADE. THEY REVEAL 5 STRUCTURAL SHIFTS:

1 Declining trade intensity in goods

2 Growing (and often unmeasured) trade in services

3 Less labor-cost arbitrage

4 More knowledge intensity

5 More intra-regional trade

Consumption in emerging markets up by 50% since 2007

Growing supply chains in China and other emerging markets

Next-gen technologies changing logistics, production, and products

KEY FORCES AFFECTING TRADE

-5.6 p.p.

decline in trade intensity in goods since 2007

60%

faster growth in services trade than in goods trade since 2007

18%

goods trade based on labor-cost arbitrage

New priorities for global companies

- Follow shifts in value creation within your industry
- Consider service offerings
- Assess the full costs and risks of location decisions
- Build flexibility and resilience into operations
- Prioritize speed to market and proximity to customers
- Build closer and more digital supplier relationships

The challenge for countries

- Build strong service sectors
- Prepare for automation—especially in labor-intensive value chains
- Deepen regional trade ties
- Invest in R&D and skills
- Modernize customs operations and trade agreements
- Look for new opportunities as value chains evolve

DIGITAL TECHNOLOGY – EARLY HISTORY

- Internet and World Wide Web
- Mobile Internet
- Open and largely unregulated

All that Has Changed

- Internet regulated at national level
- Questions about benefits
- Large and growing list of problems/challenges
- Loss of sense of balance

Benefits

- Multidimensional assessment of welfare
- Persistence of GDP, GDP per capita, growth, productivity
- Conundrum: digital revolution coming and all these measures are going the other way

Measurement Issues

- National income accounts
- Services that are free
- Cost characteristics of digital technology
 - High fixed and low/zero variable costs
- Internet/web services are properly priced
- GPS - location specific services
- Adjustments for quality
 - 1980's super computer in your pocket or if you are bored in your hand

Technology as Intermediate Input

- Automatically in the world of productivity and material well-being
- Robert Gordon view
- Best guess - lags
- GDP is flawed and needs to be replaced
- I disagree strongly with this view
- Alternative is the multi-dimensional framework for assessing benefits

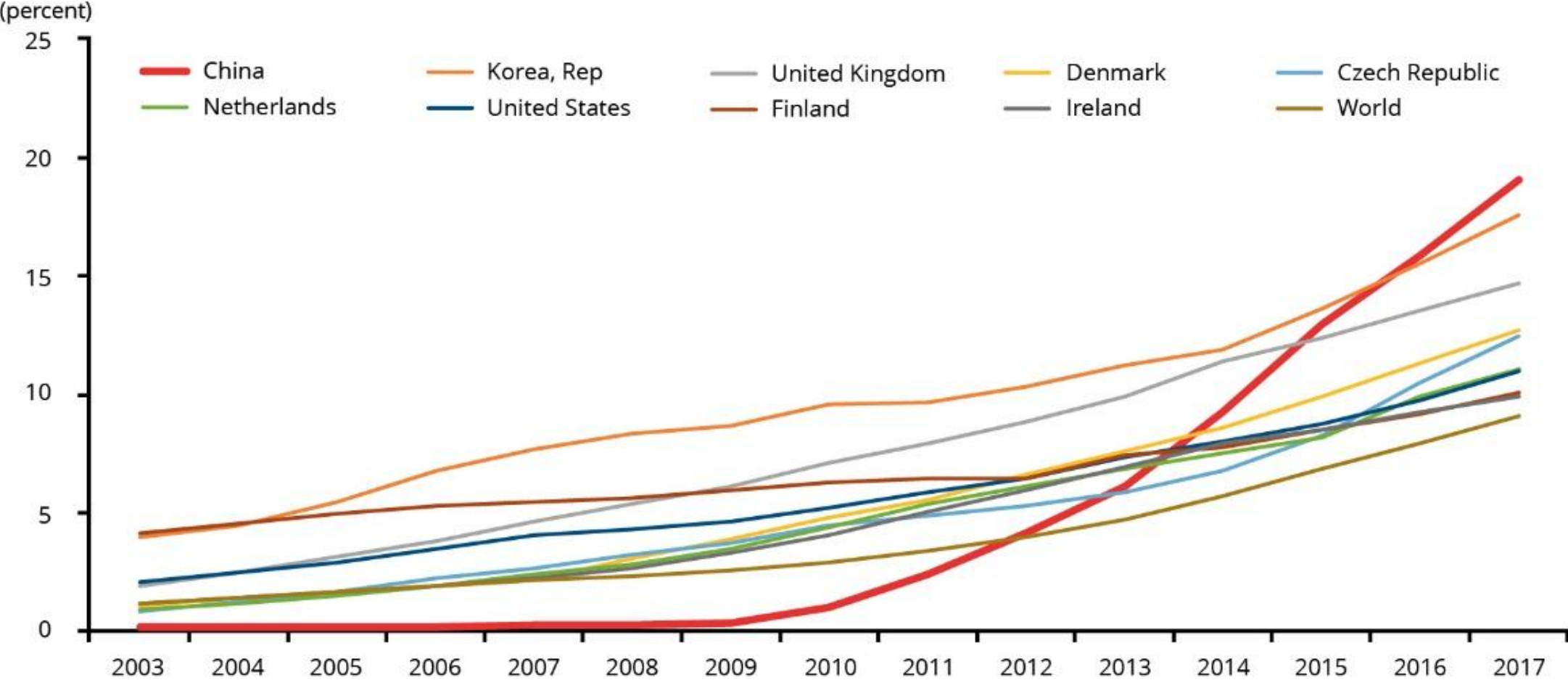
Medicine

- Doctors and digital assistants
- Image recognition as a super general use technology
- Examples
 - Skin cancer
 - diabetic retinopathy
 - The AI in the India case is [particularly impactful](#), because an estimated seventy million Indian citizens are diabetic and there are 11 eye doctors per one million Indians
- Dimensions of impact: health and inclusiveness

Luohan Academy

- Digital Technology and Inclusive Growth
- Ecommerce and mobile payments
- Growth patterns startlingly Inclusive
- Digitally architected ecosystems
- Market access
- Low entry barriers
- Complementary resources
- Furniture town -Shaji

ECOMMERC SHARES OF RETAIL TRAIL



Challenges

- Work and skills
- Data security and privacy
- Monopoly power
- Fake/false news – impact on political and social processes
- Cyber security
- Digital technology as a key element in defense and national security

Future of the Internet

- Regulated
- National level
- Partly fragmented
- WWW a misnomer