

On automation, globalisation and the future of work

Richard Baldwin

REITI BBL, Tokyo

28 May 2018

Dynamic duo of transformation

Automation

Globalisation

Great Transformation: 1720-1973

Steam revolution tech impulse:

Automation from 1720 (Newcomm)

Globalisation from 1820

Services Transformation: 1973-2015

ICT revolution tech impulse:

Automation from 1973 (computer on a chip)

Globalisation from 1990 (2nd unbundling)

Today's Transformation: 2016-???

Digital revolution tech impulse:

Automation from 2016 (machine learning)

Globalisation from 2016 (telemigration)

Digitech is driving
automation &
globalisation at the
same explosive pace
& affecting same jobs

Arbitrage drives globalisation

GOODS

KNOWHOW

LABOUR SERVICES

Old Globalisation

New Globalisation

Future Globalisation

Machines drive automation

Things

Slow thoughts

Fast thoughts

Industrial revolution

Services revolution

Future of work

1. Automation

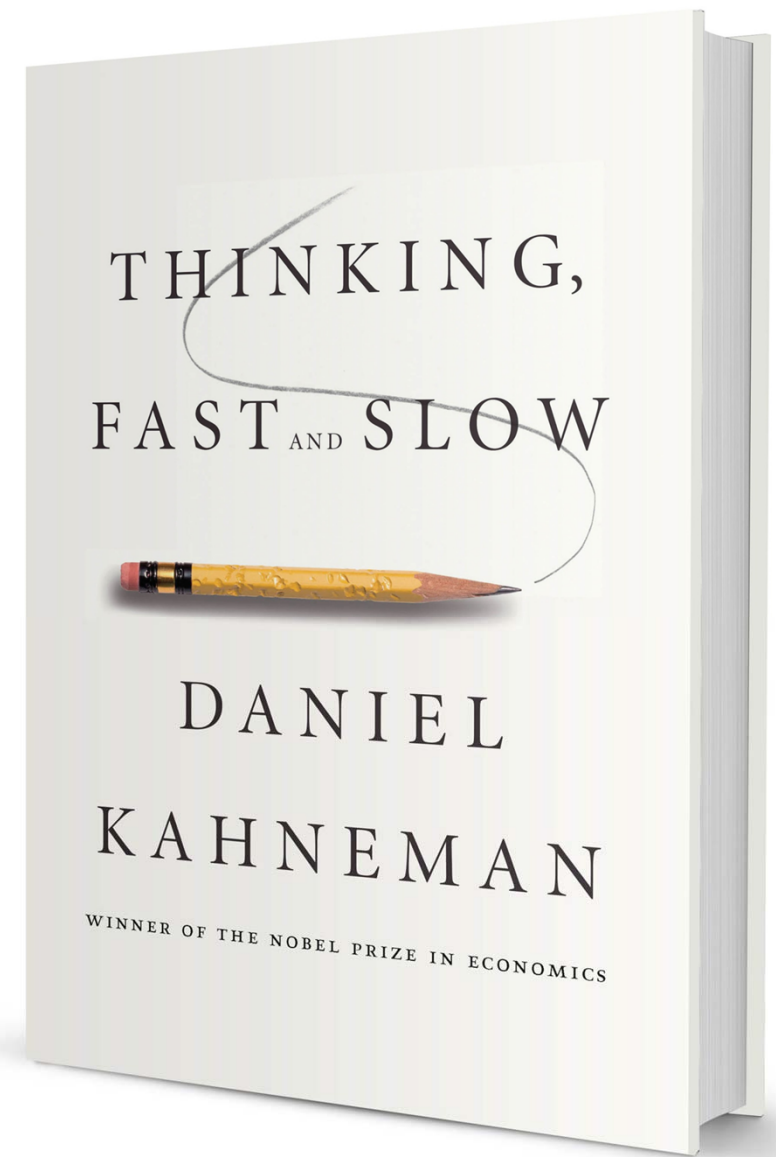
Digital technology

- Different physics
- Different cognition
- Different sector

Different physics

- Electronics act differently

Machine learning: New cognitive capacities for computers

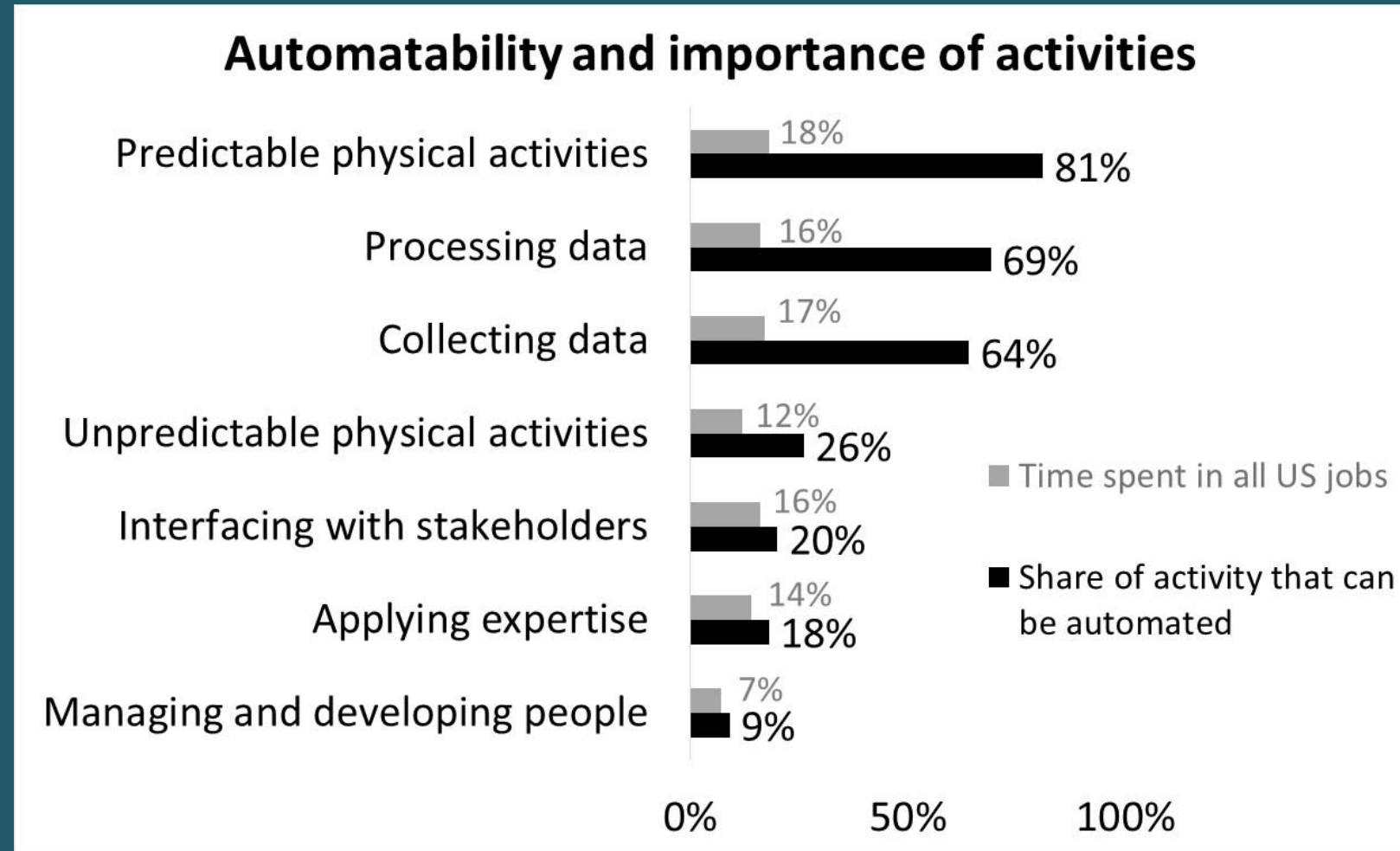


Machine learning is the
jet engine,
big data is the jet fuel.

Service
sectors
are
where
jobs are

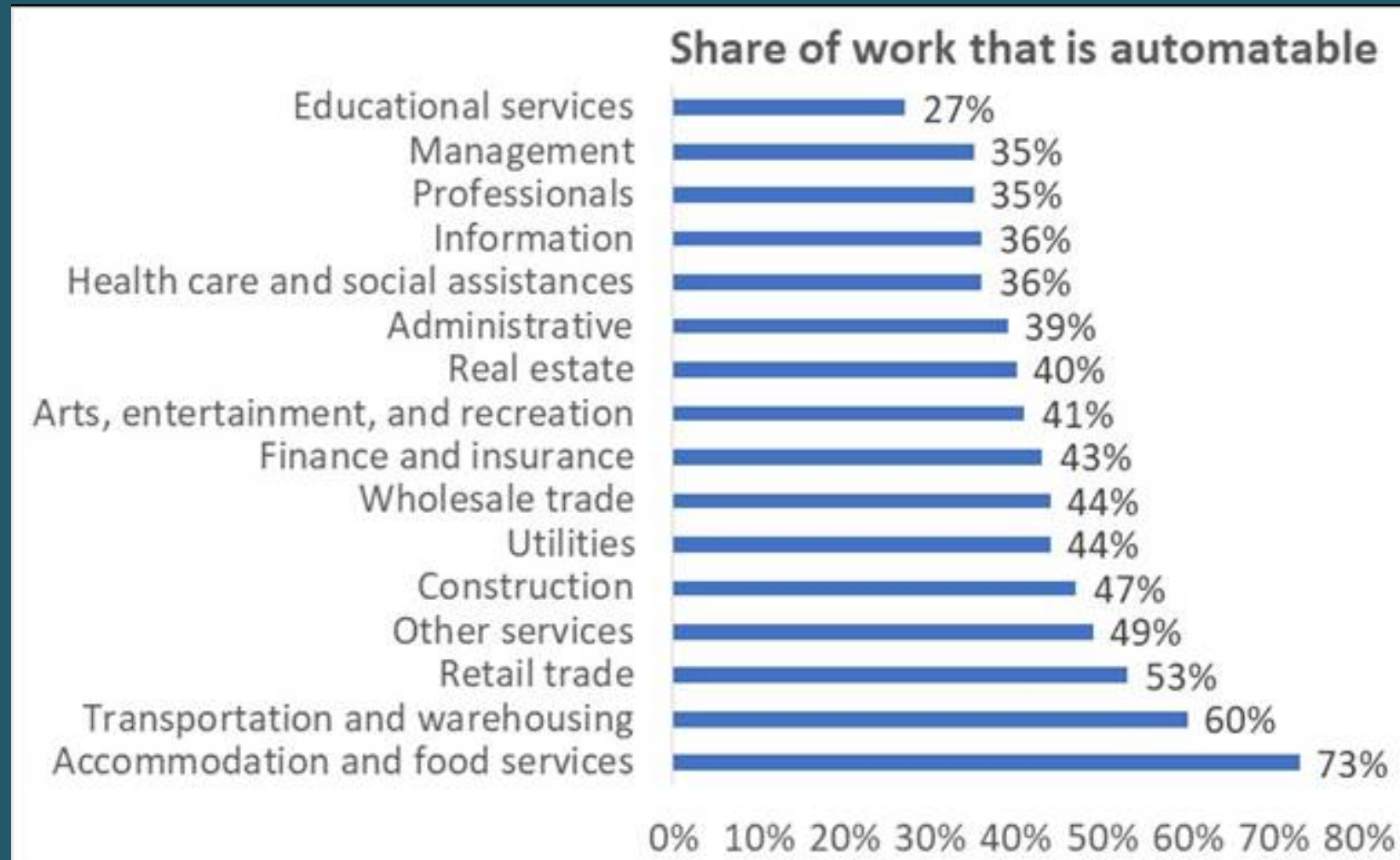


Which activities?



Source: MGI estimates

Which jobs?



Source: MGI estimates

2.

Globalisation

Digitally-enabled
services trade:
“Remote
Intelligence”, or
“tele-migration”

Tele-migration

People sitting in
one nation &
working in offices
in another nation



4 ways digitech is accelerating tele- migration



1

Domestic telecommuting

2

Online “matchmaking” platforms

Like eBay, but
for services
(freelancing)



3

Machine translation

4

Advanced telecommunications



Tele- presence robots



Where is
this going?

What jobs will be left?

We can't know which jobs (they don't exist yet), but we know what sorts of tasks they'll involve.

We'll do what white-collar robots and tele-migrants can't.

A more local, more human,
cleaner, and richer economy



But can we be sure we'll
get there without an
upheaval and
backlash???

Direction of travel is fine,
the relative speed &
unfairness are the
problems

- Job displacement at speed of digitech
- Job replacement at speed of human ingenuity-

Thank you
for listening