



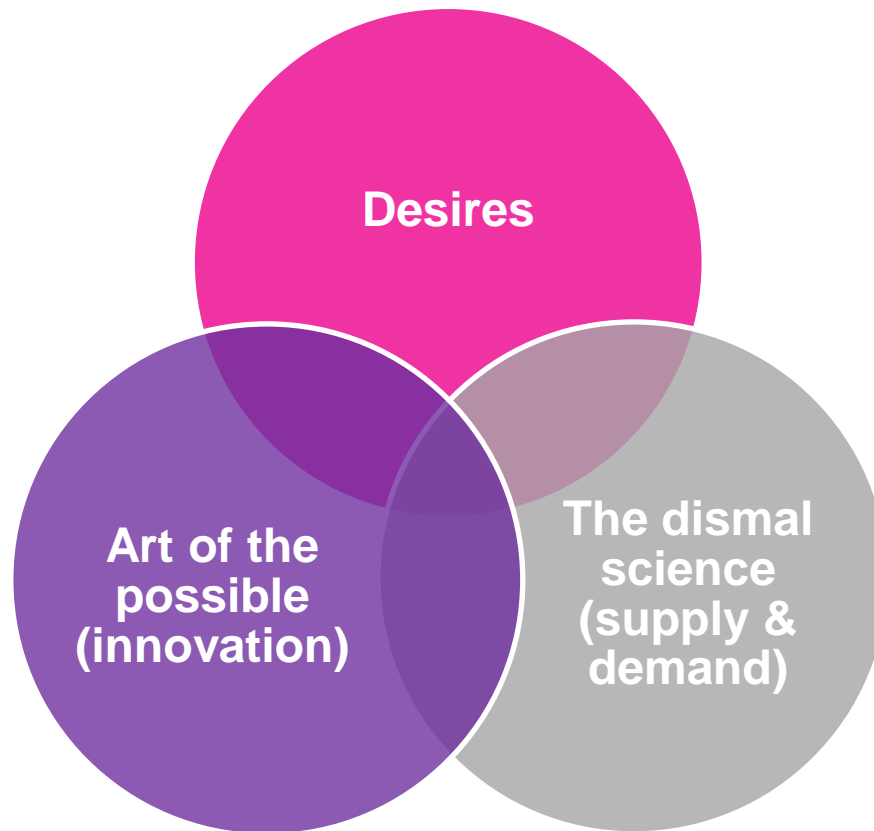
# Technology – into a new era: potential inflexion points

**Brian Williamson**

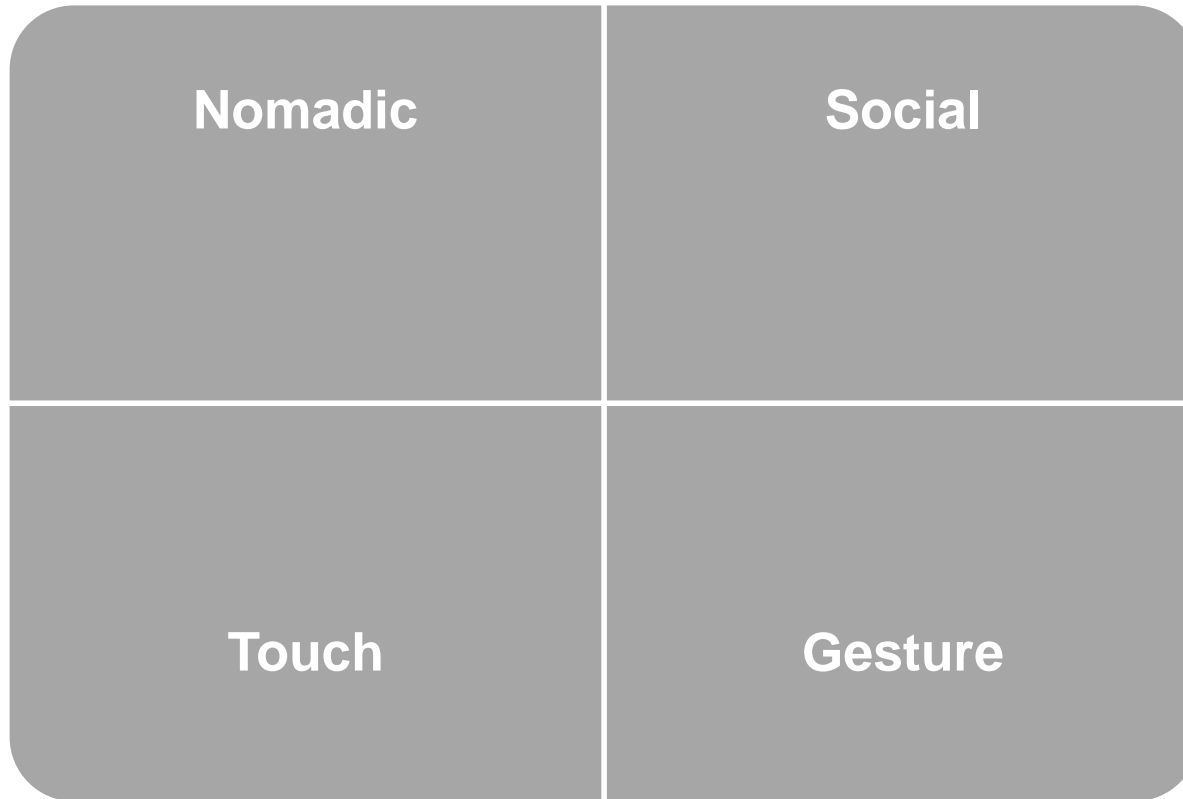
**9 February 2012**

**The Intellect Annual Regent Conference**

# Need more than one perspective



# What are our desires?



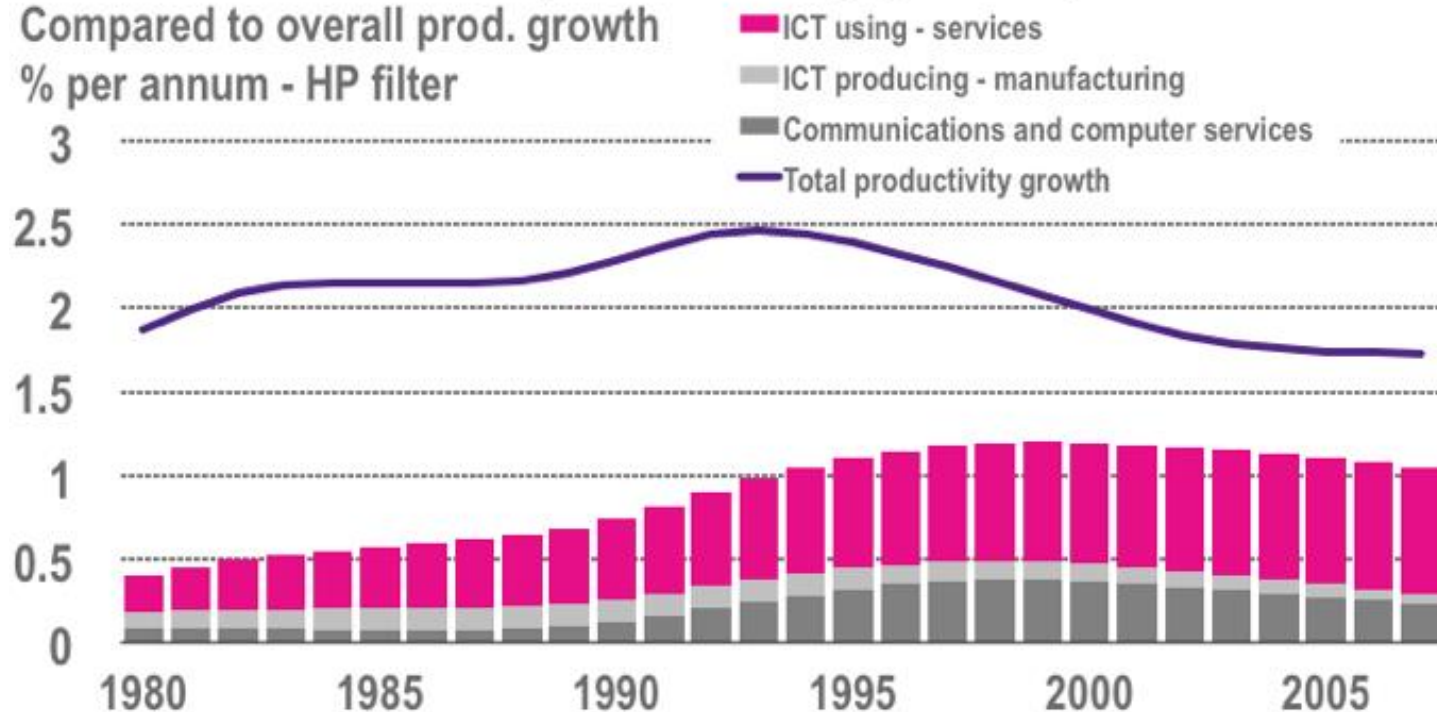
**Wireless will *"bring us back to behaviour patterns that were natural to us and destroy behaviour patterns that were brought about by the limitations of technology."*** Risto Linturi, Wired Magazine, 1999

# The dismal science



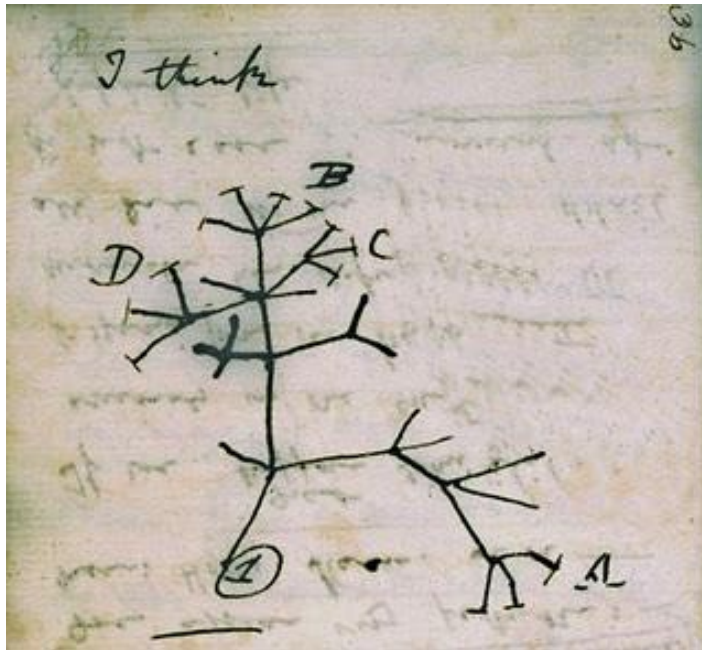
## ICT contribution to productivity growth, UK

Compared to overall prod. growth  
% per annum - HP filter



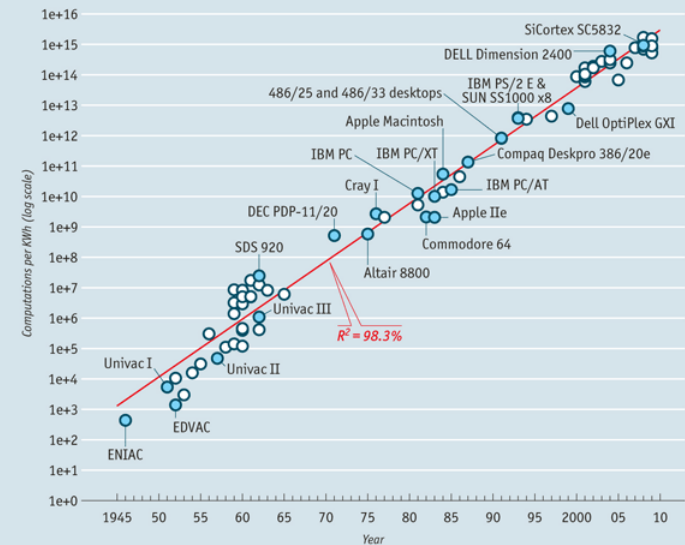
ICT share of GDP may begin decline as GDP impact grows – an inflexion point

# Art of the possible: innovation types **plum**



## Computing efficiency

Computations per kilowatt-hour



Source: Jonathan Koomey

- Human brain: 2 billion megaflops with 20 Watts  $\approx$  million times iPad efficiency
- Science = hypothesis + mathematics + experiment (does “big data” shift equation)?
- Market and/or sufficient computing power allow innovation via evolution/selection

# Computing & inflexion points



Rise of wireless, small screen, compression & noise cancellation (VDSL)

- Is our fibre obsession justified?

Computing & information – complements & substitutes (personal devices, sensors, AI & the cloud)

- Will explosive data growth reignite or will computing help us live within connectivity limits?

Costs of joining things up ourselves helped by web standards, micropayments & wireless connectivity

- Will supplier driven bundling trend reverse?