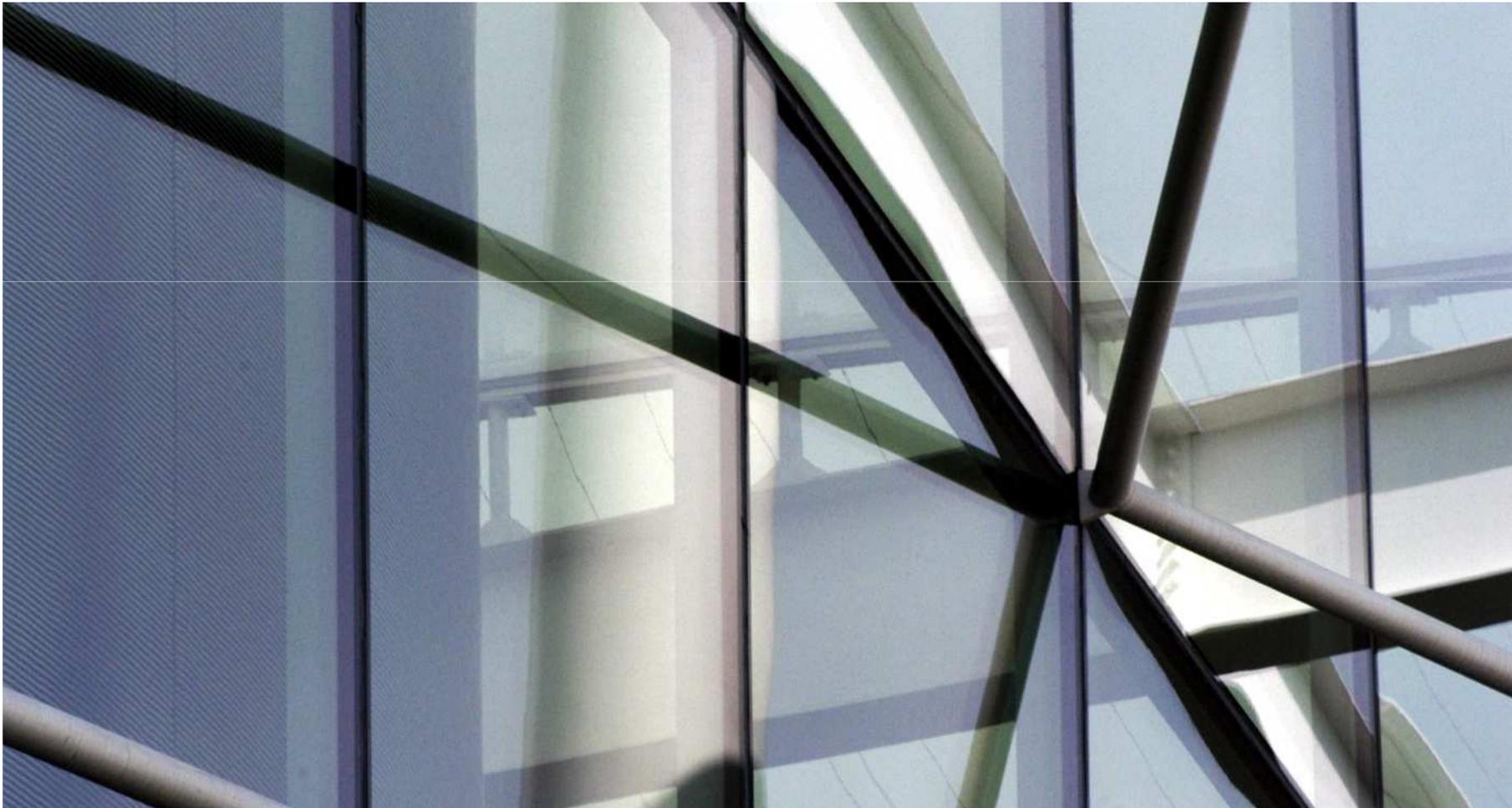


Catalysing Economic Growth – Releasing the Value of Big Data

Dr Llewellyn Thomas

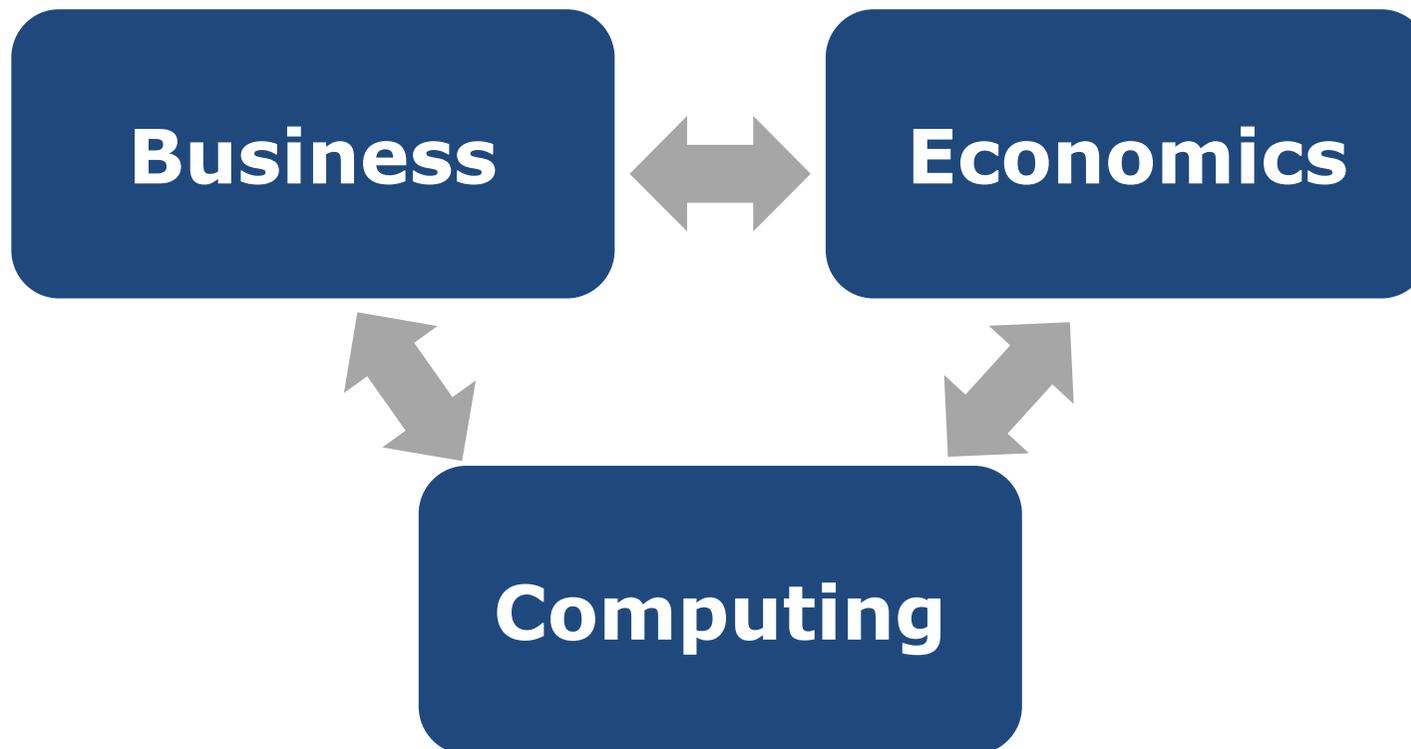


- Aija Leiponen
- Jonathan Haskel
- Emil Lupu
- Pantelis Koutrompis
- Catherine Mulligan
- Peter Goodridge
- Llewellyn Thomas

- Relevant and diverse disciplinary backgrounds
 - Strategic management
 - Microeconomics
 - Macroeconomics
 - Computing

- Imperial College London
 - Digital Economy Lab
 - Institute for Security
 - ICT Labs London node
 - Digital City Exchange

- Rapid accumulation of big data due to sensing, digitization of infrastructure services, digital behavior of users, citizens.
- Potentially extremely valuable data assets – *economic and societal impact comparable to the microscope?*
- Commercialization and utilization only beginning – need new business models and processes to develop them
- Significant legal, policy, societal issues related to ownership and control of data, communication infrastructure and policy



WP1: Data Value Chains

- How is *value created* and business models developed in existing and emerging data value chains?

WP2: Firms and Individuals

- How do firms and individuals attempt to *capture the benefits* of innovation through data access and rights management?

WP3: Macro-economy

- How should national statistical offices *measure the value* and growth impact of data investments?

WP4: firms & individuals within regions

- How do big data and associated regional digital infrastructure impact *firm productivity* and individual *wellbeing*?

WP1: Data Value Chains

- *Company **interviews** about data value chains*
- *Quantitative data on **open APIs***

WP2: Firms and Individuals

- *Data on **sharing agreements**, firms' strategies to control data from three industry contexts*
- ***Experimental data** on sharing of user-generated content*

WP3: Macro-economy

- *Theoretical **model of growth***
- *Data collection with the ONS*
- *Test the **measurement and evaluation framework** with UK, OECD data*

WP4: firms & individuals within regions

- ***Theoretical modeling** of productivity and wellbeing*
- *Existing and novel **survey and register data** from the ONS*

COMMERCIALIZING BIG DATA: EMERGING INSIGHTS AND A
RESEARCH AGENDA

May 15, 2014

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ABSTRACT

As practitioner and scholarly interest surges in big data, there has been little systematic consideration into the commercialization of big data. We first identify and integrate the dispersed and disparate research that discusses big data commercialization, and demonstrate increasing interest within both the computing and management disciplines, as well as by management consultants. We identify the main insights that characterize the discussion of commercialization of big data. These include the identification of data-driven business models, the emergence of data ecosystems, and the challenges of commercialization, such as IP protection, regulatory complexity, pricing, data agreements and privacy concerns. We conclude by sketching out a research agenda for big data commercialization.

Keywords: big data, commercialization, monetization, data marketplaces, data ecosystems

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1

- Multiple search terms from multiple databases:
 - Peer-reviewed papers
 - Conference papers
 - Consultant papers
- 11,812 papers identified
- 51 papers reviewed
- Three characteristics identified:
 - New Business Models
 - Data Ecosystems
 - Interdependent structure
 - Dynamics
 - Commercialisation challenges
 - IP protection
 - Regulatory complexity
 - Pricing
 - Data agreements
 - Privacy
- Outlines a research agenda

Thank you.

