The Digital User/ee:
Consumer, Actor or Participant?

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http://www.rogerclarke.com/EC/Dup15 {.html, .pdf}

1

Current Disruptions / Transformations

Digital Society

Industry 4.0

Service-Led Economy

Co-Creation

Mass Customisation

Context-Sensitivity

Use of Personal(ised) Devices in all Roles / BYOD

Sensor / Actuator Tech

IoT

The Business Perception of People

- "Ever-increasing demand for customised services exactly providing the desired value in the desired quality at the right time can be observed" (Leimeister et al. December 2014)

- "The goal of [data-oriented] business models is to gather and analyze data generated by the digital user and then offer matching services" (Brenner et al. 2014, citing Mayer & Schaper 2010)

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The Business Perception of People

- "Companies hope to be able to predict the likelihood of purchase and positively influence it through **targeted recommendations**" (Brenner et al. 2014, citing Meckel 2011)

- "It is necessary ... to recognise **the digital user as an actor** ..."

- "User, use and utility research puts **the digital user and their data, usage behaviour, and perceived utility at the centre of study**" (Brenner et al. 2014)

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Alternative Business Perceptions of People

- Individuals are human resources, consumer prey, to be exploited

- Individuals are 'actors'

- Individuals are 'participants'

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One Longstanding Phenomenon
Exercise of Power

- Inflexible Terms of Service

- Presumptive Consents

- Non-Negotiable Privacy 'Policy Statements'

- Choice of Jurisdiction convenient to the organisation (i.e. distant from the individual, with low consumer rights, privacy protections)

6

Another Longstanding Phenomenon
Behaviour
Manipulation

- **Cost Transfer**
  e.g. data capture, at ATMs, using web-forms

- **Switch to Preferred Comms Channels**
  From counters, to telephones, to IVR, to
  organisational FAQs, to community FAQs

Another Longstanding Phenomenon

Behaviour Manipulation

- **Cost Transfer**
  e.g. data capture, at ATMs, using web-forms

- **Switch to Preferred Comms Channels**
  From counters, to telephones, to IVR, to organisational FAQs, to community FAQs

- **'Offers that you (psychologically) can't refuse'**
  Exploit individuals' psych characteristics
  to ensure that the individual wants the offer

https://epic.org/privacy/consumer/
online_tracking_and_behavioral.html

One Current Phenomenon
Datafication

- The 2013 iteration is from Cukier & Mayer-Schoenberger: **'quantifying things that we didn't previously think to quantify'**

- "Correlation is enough ... When you are **stuffed silly with data**, you can tap that instead of experience, expertise and knowledge ..."

- "Knowing why might be pleasant, but it's unimportant ... [L]et the data speak"

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9

Data Categories for Big Data Analytics

- Geo-Physical Data
- Geo-Spatial Data

...

- Personal Data acquired by Govt Agencies

- Social Media Content

- Biochemical Data
- Epidemiological Data

...

- Pharmaceutical and Medical Services Data
- Personal Health Care Data

- Personal 'Wellness Data'

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One Current Phenomenon
Datafication

Personal-Data-Donation

- Highly permissive Terms

- Enveiglement of individuals into
  providing streams of personal data
  incl. chatter, images, locations, vital signs

- Association of identity with the data streams

- Pseudo-anonymisation of the data streams

- The (possibly-emergent) Internet of Things as
  a source of voluminous data for monetisation

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'Privacy' For Sale $20m

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12

'Privacy' For Sale $20m

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Another Current Phenomenon
Servification

- **Personal Appliances Instead of Computers**
  From general-purpose 'PCs', to 'thin clients',
  to constrained and controlled 'appliances'

- **Services Instead of Applications**
  From applications on the individual's own device to
  services on remote hosts operated by service-providers

- **Remote Data Instead of Local Data**
  Mirroring of data on individuals' devices is uncommon,
  and often actually infeasible

- **Enforced 'Loyalty'**
  Artificially high switching costs
  e.g. no inter-operability, non-portability

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http://www.rogerclarke.com/EC/CCC.html
http://www.rogerclarke.com/EC/PBAR-SP.html

Business Process NOT People Process

- The interests of individuals are constraints on design, not design objectives

- People factors are 'barriers' or 'impediments' to adoption, not design features

- People are not participants, nor stakeholders

- Focus groups are for the benefit of the designer

- Representatives and advocates are permitted involvement in analysis, design and implementation only if they have power

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Case Study – Social Media Privacy Concerns

1 Privacy-Abusive **Data Collection**

2 Privacy-Abusive **Service-Provider Rights**

3 Privacy-Abusive **Functionality and User Interfaces**

4 Privacy-Abusive **Data Exploitation**

Source: Reviews of Media Reports 2005-11

http://www.rogerclarke.com/II/COSM-1301.html
http://www.rogerclarke.com/EC/LinkedIn-1012.html

3. Privacy-Abusive Functionality, User Interfaces

Privacy-Related Settings

- Non-conservative default settings

- Inadequate granularity

- Failure to group into Profiles

- Complex and unhelpful user interfaces

- Changes to the effects of settings, without advance notice, without any notice and/or without consent

'Real Names' Policies

- Denial of multiple identities

- Denial of anonymity

- Denial of pseudonymity

- Enforced publication of 'real name', profile data

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Consumer-Oriented Social Media

- **Distributed Architecture**
  Probably P2P, possibly Client-Server with Obfuscation

- **Interoperability**
  Content and messages can be exchanged between services

- **Portability**
  Content and messages can be extracted from one service and loaded into another

- **Consumer-Friendliness**
  In Features, and in Terms of Service

- **Privacy-Protectiveness**
  In Features, and in Terms of Service

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http://www.rogerclarke.com/II/COSM-1402.html   18

Case Study – NFC-Chip Payment

- Presence of chip in card is not human-visible (but Logo / Brand may be visible)
- Pseudo-consent to install and activate
- No choice whether it's activated
- No choice about the threshold
- Operation of chip in card is not human-apparent
- No action required in 5cm range, i.e. auto-payment
- No receipt becomes the norm?
- Unauthenticated auto-lending, if Credit-Card
- PIN-less charge to bank account, if Debit-Card

Case Study – Smart Meters

- Collection of fine-grained data that reveals appliance usage, hence household behaviour

- Pseudo-consensual transmission of that data

- Pseudo-consensual use, disclosure of that data

- Imposed, high Time-of-Use rates that consumers cannot avoid because the use is not discretionary

- Associated threat of service interruptions

- Scope for remote disablement of appliances

- 'Requirements Elicitation' omitted consumers

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http://www.rogerclarke.com/EC/SG-CC.html
http://www.rogerclarke.com/EC/SG-CRA.html

Conventional Empirical Research Elements of Design

- Research Question(s)
- Unit of Study
- Population
- Sampling Frame
- Survey Design
- Data Collection Design
- Data Analysis Design

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A <u>Missing</u> Element of Research Design

'Entity Perspective'

The viewpoint of
a human or organisational entity
that is involved in,
or affected by, a phenomenon

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22

The Dominant Perspective
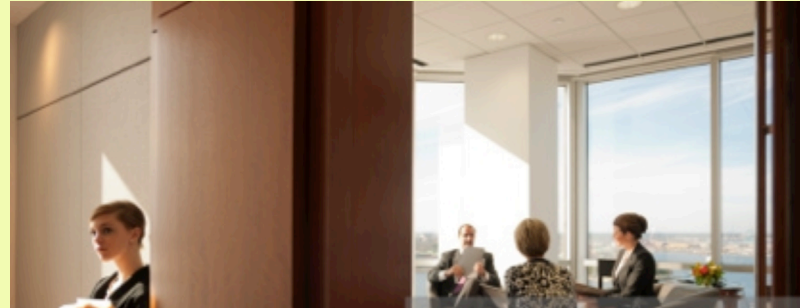
In a consultancy assignment, 'the client'

In MIS / WI research, **'the system sponsor'**

Corollaries:

- The system-sponsor's interests are objectives
- Interests of other entities are, at best, constraints
- Entities with institutional or market power are stakeholders, and their interests are constraints
- Entities without power are ignored
- Their interests surface later as 'impediments' and 'barriers to adoption'

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Alternative Perspectives and Units of Study

- An Org'l Sub-Unit
- **An Organisation**
- An Industry Sector or Value-Chain
- A Regional Economy
- A Nation-State
- A Supra-National Region (EU, NAFTA)

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Alternative Perspectives and Units of Study

- An Org'l Sub-Unit
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- A Person
- A Community
- A Society
- Humanity

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- A Person
- A Community
- A Society
- Humanity

- The Biosphere
- The Troposphere
- The Planet

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A Test of the Perspective Notion

1. Consider the legitimacy for an IS research project of the following research question:

   What are the impacts on an organisation of the withdrawal of the customer option of receiving printed invoices sent through the post?

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A Test of the Perspective Notion

1. Consider the legitimacy for an IS research project of the following research question:

   *What are the impacts on **an organisation** of the withdrawal of the customer option of receiving printed invoices sent through the post?*

2. For "an organisation", substitute in turn each of the other 12 entity definitions

3. **Consider the legitimacy of each of the 12 alternative research questions**

4. Consider the legitimacy of each of the 12 alternative research questions **for an IS research project**

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A Test of the Perspective Notion

1. Consider the legitimacy for an IS research project of the following research questions:

What are the impacts <u>on a value-chain</u> of the withdrawal of the customer option of receiving printed invoices sent through the post?

What are the impacts <u>on a person</u> of the withdrawal of the customer option of receiving printed invoices sent through the post?

What are the impacts <u>on climate change</u> of the withdrawal of the customer option of receiving printed invoices sent through the post?

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The Person Perspective – Users

- **Organisation-Internal Users**
  Since admin computing began

- **Partner-Internal Users**
  Since IOS began

- **External Users**
  Since EOS began (ATMs, EFTPOS, ...)

- **Prosumers**
  A 'proactive producer-consumer'
  with expectations of professionalism,
  since Toffler identified the category in 1970/80

The Person Perspective – Users Practical Approaches to Segmentation

- Age-Based or 'Generation'-Based Groupings

- Education / Income / Wealth-Based Groupings

- The Physically Challenged
  (sight-impaired, hand/arm-impaired, etc.)

- The Socio-Economically Challenged

- The Infrastructurally Challenged

- The Lingually Challenged

- ...

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The Person Perspective – Usees

- A person not directly involved in 'using' an information system, but affected by it

  - Job-Applicants

  - Credit-Applicants

  - Tenants

  - Surveillance Subjects

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The Digital User/ee:
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Agenda

- Longstanding and Current Phenomena
  Exercise of Power, Behaviour Manipulation
  Datafication, Servification

- Business Process not People Process

- The Notion of 'Perspective' in IS Research

- Recognition of Categories of Perspective:
  - Economic, Social, Environmental

- Recognition of Users and Usees in Particular

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What {MIS? WI? IS/IM?} Needs to Do

- Acknowledge the existence of perspectives other than that of the client / system sponsor

- Acknowledge in particular the perspectives of users, prosumers and usees

- Recognise them not merely as 'actors'

- Embrace participative analysis and design ('co-modelling' if you wish to rename it)

- Embody explicit recognition of human diversity, i.e. a rich set of segmentation models

- Include individuals' representatives and advocates within 'business / people processes'

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34

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35