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Exploring Big Data to Examine Employee Health and Wellbeing: An ESRC Seminar Series

Summary of Findings

Digital
Society.

World class research, making a difference.

Also supported by the Digital Society Network (UoS)

The Team

- Data and Employee Wellbeing (DEW)
- PI – Carolyn Axtell (IWP/Management)
- CI's
 - Christine Sprigg (IWP/Management)
 - Bridgette Wessels (Sociology)
 - Stephen Pinfield (Information Science)
 - Mark Taylor (Law)



The Seminar Series



- Aim - to critically explore the possibilities of using Digitally captured/Big Data for assessing:
 - health and wellbeing risks within organisations
 - advancing knowledge on health and wellbeing prediction.
- ‘Temperature check’ of organisation’s health
- Early warning signs/prevention - identify patterns in work practices that might lead to poor health and wellbeing

Seminar 1



Relationship between IT working practices & ill-health

- Identified 'unhealthy' IT related working practices
 - logged in for extended hours, working remotely from others for long periods, sitting/not moving
 - possible wellbeing indicators (from 'log in' data, absence data, sensor data, location data)
- But need qualitative 'meaning' of data (bottom up) not just high level data (top down)
 - Recognition of contextual/individual differences

Seminar 2



Indicators of wellbeing & measurement/analysis

- Complexity of indicators (objective and subjective, quantitative and qualitative)
 - Qualitative data important for interpretation
- Linear relationships or tipping point?
- Need new research philosophy and methodologies for Big Data analytics
- Issues of access to data - via individuals or organisations?

Seminar 3



What data and How?

- People analytics only recently on HR agenda
- Monitoring can be intrusive – cause people to alter behaviour?
 - Sentiment analysis of emails
 - Fitbits/activity trackers (direct benefit to employees – but too individualised?)
- Skills for analysing data in HR + challenges of processing data

Seminar 4



Employee Perspectives

- Participation, trust and informed consent
- Co-design of data collection & solutions
 - Feedback/explanation important
 - Outputs of use to individuals as well as organisation
- Organisation needs to be clear about underlying ethos/objectives of wellness programmes
- Need new framework for understanding health and wellbeing via digital indicator data

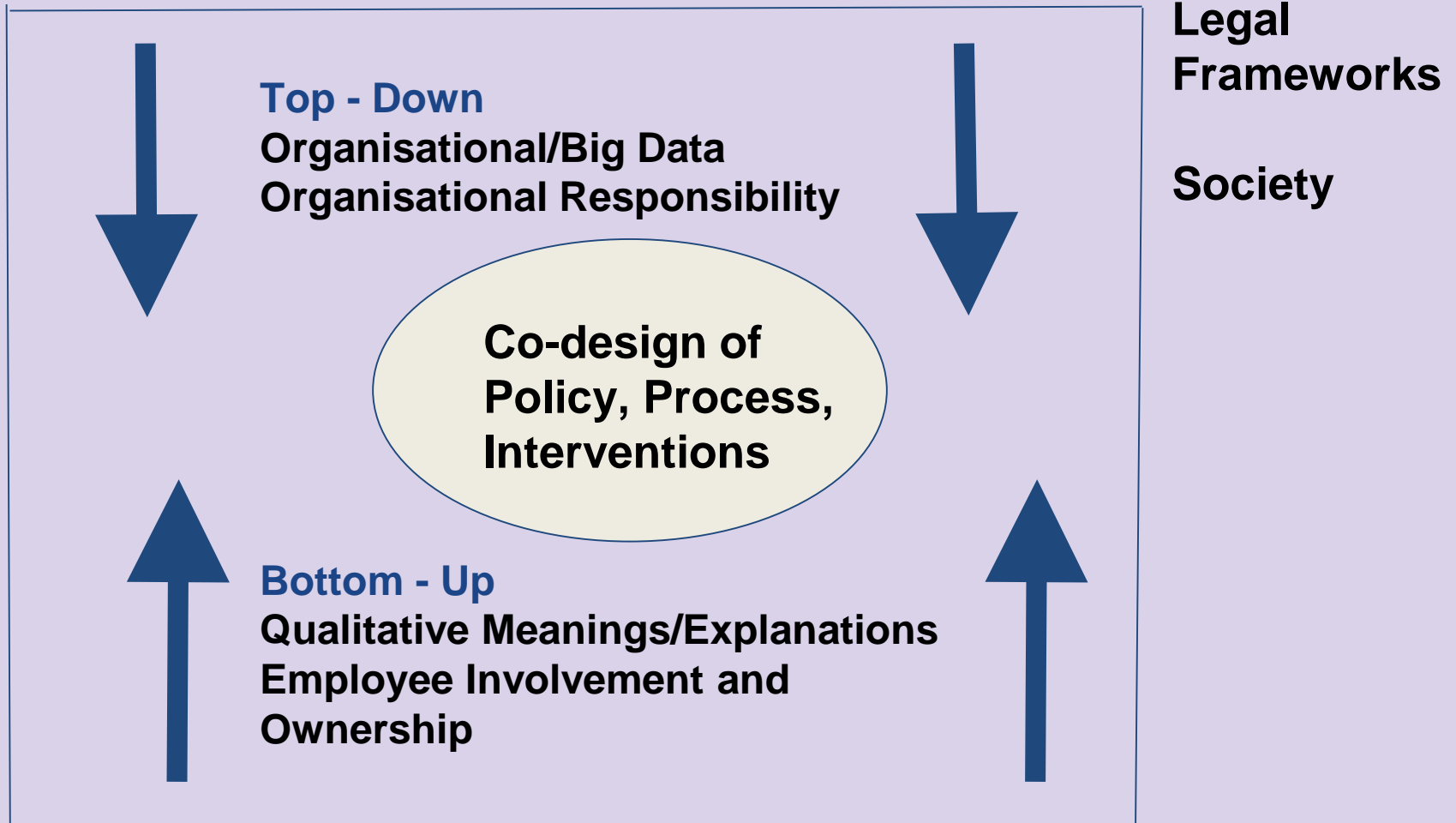
Seminar 5



Legal Perspectives - Benefits and Disbenefits

- Some existing law can help (e.g., Data Protection Law, Employment Law)
 - may be improved with GDP - but still not adequate
- Potential disincentive to identify risks > responsibility
- Different regulatory approach required where there is machine learning cf. ‘offline’ algorithms?
- Need codes of conduct and principles based approaches
- Co-design of principles with employees – ‘bottom up’ as well as ‘top down’

Emerging Themes



Concerns



- Ethics and Informed Consent
- Difficulties of access to data (via individuals and organisation)
- Challenges of analysing/processing data
- Power and Trust – who has the power? Can we trust that data is used for good? Who owns the data?

Utopia vs Dystopia



- Utopian Vision
 - Employee ownership – Co-design of data collection effort & interventions
 - Data sharing and openness/trust – Employee access to own data - useful to employees
 - Organisation takes responsibility to improve damaging processes/demands
 - Culture of care and support of wellbeing

Utopia vs Dystopia



- Dystopian Vision

- Big Brother - Organisational ownership – driven by organisational agenda
- Passive employees – no informed consent – no access to data - not useful to employees
- Secrecy – lack of trust
- Organisation pushes responsibility onto employees to cope better and become healthier – doesn't take any responsibility to improve damaging processes/demands
- Culture of fear - lack of support for wellbeing – data collection adds pressure.

Utopia vs Dystopia

- How can we ensure that Big Data is used for 'good'
- How do we move towards the Utopian vision for using data for enhancing wellbeing?
- What do we need to do next?

