Policy, 'politicking' and organisational culture Barriers to engaging employees in behaviour change initiatives.

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The challenge of energy & behaviour in non-domestic buildings

- **Approx 40%** energy consumption/35% CO₂
- More complex in terms of building type/agency/control/ethics/ organizational culture
- UK and EU Policy context e.g. Energy and Performance Buildings Directive (2008) putting faith in Building Performance Certificates (EPCs & DECs)
- Increasing research and interest in digital economy and ICT based solutions, e.g. visualisation of data (feedback/dashboards) and SMART/ Intelligent Buildings relating behaviour change



Concluding their research into providing individual energy feedback to University employees, Murtagh et al (2013) conclude with a sobering reflection for behaviour change:

'whilst the potential for significant savings are high . . . motivation is low.'



The digital economy is more than just controls, feedback & dashboards . . .



DE MONTFORT

"Our electronic networks are enabling novel forms of collective action, enabling the creation of collaborative groups that are larger and more distributed than any other time" Clay Shirky



... & behaviour change is more than information provision ...

"When citizens become involved in working out a mutually acceptable solution to a project or problem that affects their community and their personal lives, they mature into responsible democratic citizens and reaffirm democracy" Tom Webler et al Owens and Driffill (2008) argue for a *reframing of the relationships* between those responsible for energy management and those using the energy via:

"a more interactive, deliberative communication between decisionmakers, technical experts, other stakeholders and the public" (2208: 4414).



Good<u>dee²ds</u>: Research context and methodology

- **18 months funding** from the UK Engineering and Physical Science Research Council Digital Economy 'Research in the Wild' (The 'wild' was Leicester City Council)
- **Aim of Gooddee²ds:** to explore a participatory approach to the development of a webapplication to help building-users reduce energy consumption in non-domestic buildings.
- Approach:
 - 5 meetings with a user-group of 'lay & expert' building users
 - Issued with iPhones
 - Development of an ICT-based 'reporting tool' based on user-input to encourage participation.
 - Ongoing monthly meetings with users.
- **Findings** from this paper are based on a focus-group with the user-group and semistructured interviews with the user-group and some other actors



	Code (used for interview analysis)	Role	Building
	interview analysis)		
The	F1	Senior Library	Leicester
THC .		Assistant,	Central Library
user-aroup.	M4	Senior	Leicester
deel greap		Community Librarian,	Central Library
	M2	Duty Officer (in	Braunstone
		charge of buildings)	Leisure Centre
	M3	Admin and	1-3 Grey Friars
		Business Support	(Social Services
		leam Leader,	Building)
	Absent from the	Housing Options	Phoenix House
	focus group	Officer,	(Housing
			Administrative
			Building)
	Absent from the	Energy Services	16 New Walk
	focus group	– energy officer	(Property Services Building)
	M5	Energy Services	16 New Walk
		– team leader	(Property Services Building)
Note to call E. o. The formation	P8 left mid-way	Assistant	16 New Walk
Note to self. E.g. The formation	through the project.	Facilities Manager	(Property Services
of this group was not easy!	Replaced by Energy		Building
	Services project officer (M6)		

The Gooddee²ds responsive webapp

Figure 1: Screenshots of the Gooddeeds application



Did you know that up to 30% of energy in buildings is wasted? Gooddeeds can help you use energy in buildings more effectively: take a picture of an issue or problem, share an energy saving idea with colleagues or use your experience or knowledge to suggest better ways to manage energy in Leicester City Council buildings.

See the list of issues Raise an issue

Gooddeeds is a joint project between De Montfort University and Leicester City Council, 100% funded by the Engineering and Physical Research Council.

Contact the Gooddeeds team via Twitter: @gooddee2ds



Barriers to participation (1) perceptions of social media & digital tools

- **Core concerns (and fear)** about the public nature of social media (both from the City Council and the user-group)
 - City Council does use social media for external communications
- Limited experience of smartphones/social media within the usergroup
- People saw the barriers not the opportunities . . .
- **Difference** between engaging stakeholders and internal staff



- People are "always trying to find faults or whatever" said L6 from the leisure centre, and the participant from the library echoed the difficulty of getting constructive customer feedback. "We welcome customer feedback as long as it's coherent customer feedback about things that we can actually do something about" (L3).
- The energy services team leader (L1) observed that "*in an* organisation where there's lots of change taking place, you know, cuts and various things, they may say, 'I've seen this problem here. That could have saved four jobs . . . you don't want the abuse."



- If you went into a leisure center or library and people were on their phones, members of staff, then the public would sort of say, well hold on, **what's going on here**? (L1)
- But up till now there has been 'you are provided with a computer to use at work' you know, 'you will only use it for work, you will not look at anything else or do anything else with it.' And that's, you know, very much how your work environment is controlled. (L8)



Barriers to participation (2) competing workplace priorities

- 1. "They're more thinking about their day job and what we're doing and it's just tunnel, the vision's tunnelled into and the energy impacts are outside of that tunnel for me."
- 2. "I think it's widely known anyway, across the board, because it's a very stressful environment and it's very pressurised, I think some people just sort of see it as, well, screw the system, really. Again it's not really like, hey, you shoot them by leaving your computer on overnight, but I think it's that sort of childish mentality that affects some people."
- 3. "The bottom line of it comes to the fact that they're not paying it. If you were paying it you would be a lot more cautious with regards to how you use various things" (L1)



Conclusions

- 1. (CAVEAT) obvious limitations & small sample, but . . .
- 2. The **technical opportunities are there** to provide innovative social media platforms to enable collaboration around energy management & people did value the user-group experience.
 - People were able to share energy consumption data and to benefit from instant sharing of photos and data across multi-site facilities.
- 3. Attempting to 'climb' Arnstein's ladder of participation, be it a virtual one or not, challenges organisations around **notions of control, power and responsibility**
- 4. But also challenges to conducting research of this kind participation & digital tools were too much change in the timeframe available



Discussion/questions...(& further reading)

- Bull, R., Lemon, M., Everitt, D., & Stuart, G. (2015). Moving beyond feedback: Energy behaviour and local engagement in the United Kingdom. Energy Research & Social Science 8 32-40
- Bull et al (2014) Digitally Engaging and Empowering Employees for Energy Demand Reduction: A New Approach for the Next Generation? ACEEE Summer Study Conference Proceedings. August.
- Bull et al (2013). Are people the problem or the solution? A critical look at the rise of the smart/intelligent building and the role of ICT enabled engagement. ECEEE Summer Study Conference Proceedings 2013, pp. 1135-1145; 5A-079-13
- Bull, R., J. Petts, et al. (2008). "Social Learning from Public Engagement: Dreaming the impossible?" *Journal of Environmental Management and Planning* 51(5): 703-718.



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