The NHS and innovation diffusion - from Deleuze & Guattari to Digital Movements

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1. introduction

The question posed is

“What characterises a healthcare system – and the relationship between healthcare and other sectors, and between patients and professionals – which stimulates rapid and effective diffusion of proven innovations?”

I'll start by looking at the characteristics of NHS that inhibit the diffusion of innovation, in contrast to an open system. I'll look at some of the remedies that have been proposed for the NHS and why these won't stimulate systemic innovation, while highlighting some green shoots of participation that hint at possible futures. Critically, I will focus on this moment in social history and look at why the embedding of an NHS crisis inside a wider social crisis can be an opportunity to open the NHS to the positive benefits of social movements and networks. In particular I will describe the opportunity offered by digital technologies which can open up paradigms of networked cooperation and sharing and at the same time be concrete tools for delivering change.

The fields of experience that I'm going to draw on to make these arguments include my social activism, my current practice as a digital campaigner and as a social innovator, and my background in experimental particle physics. I also have experience of working in the NHS.

Although I'm critical of the current system, let me state clearly that I believe strongly in the principle of the NHS and I see myself as part of efforts to defend it as well as to change it.

2. striation

There is innovation inside the NHS. But innovations tend to stay local, failing to be adopted by other healthcare organisations or diffusing very slowly. This challenge is well recognised. But what's the problem? Given the assembled talents and good intentions of NHS staff, how can the systemic sum of innovation be so much less than its parts?

The NHS is sometimes described in terms of it's hierarchical structure. For my purposes it's useful

to describe the current NHS using the language of philosopher-activists Deleuze & Guattari. In their terms, the NHS is a striated space marked by linear boundaries, restricted to a particular plane of activity in the space of all possible potentials[i]. For Deleuze & Guattari, like Foucault before them, power does not simply operate as a pyramid but in myriad multifaceted directions and relationships. Foucault said "One doesn't have a power which is only in the hands of one person who exercises it alone... it is a machine in which everyone is caught, those who exercise power as much as those over whom it is exercised.. it becomes a machinery that no-one owns"[ii]. The overall effect is an institutional environment that acts to tame energies - it is a social machine that produces conformity. As Deleuze & Guattari would say, the NHS is highly codified, where a code is a pattern of repeated acts. Of course, there are many situations where this is desirable – an ICU emergency needs a practiced response. But it doesn't make for a system that diffuses innovation.

Anyone who's returned from an innovation workshop and tried to applied new ideas in their NHS workplace has experienced this striation. It's the overlap in particular experience of all the dynamics that limit change: lack of autonomy in a hierarchical structure, the expectations of colleagues, the time it takes to deliver your daily targets, the lack of incentive, the lack of peer support, lack of sense of entitlement to change the way things are done - all of which can combine to deliver an experiential straitjacket which is an impersonal affect, a pattern across the system and one that stifles diffusion as effectively as individual innovation.

The alternative is is a system marked by flows, connections and zones of intensity. In the abstract terminology of Deleuze & Guattari, an innovative system would include smooth as well as striated spaces. Smooth space is occupied by intensities and events, by the continuous variation of free action. The characteristic experience of smooth space is short term, up close, with no fixed points of reference. I will try to show how the combination of social movements and digital technologies could blend smooth space with the more rigid boundaries and caste structures of the NHS in a way that aids the spread of innovation.

3. markets

The internal market has introduced splits and boundaries in the NHS without adding the passion that can push innovation through the inertia of the status quo. From the point of view of innovation it is important to take more than an econometric view. The NHS is fundamentally a structure that makes meaning, that inscribes for citizens a fundamental equity in their rights to healthcare and a commonwealth of support at important moments in their lives, and provides a consequent purposefulness for the people who work in it.

Anyone who doubts the complex passions that people feel about the NHS only has to spend some time, as I have, watching the stream of tweets tagged NHS flowing past.

The latest reforms seek to set private sector against third sector against the NHS in market-led competition while turning citizens into consumers armed to the teeth with 'information' and 'choice'. But consumerism itself is running out of steam. People are realising that a choice of product A or B is not an adequate way to deal with climate change or social justice, let alone health and well-being. Atomised consumerism as a driver of authentic innovation is an outdated idea.

4. porosity

The boundaries of traditional organizations are being blurred by new patterns of communication and association. [iii] The tools of this change are digital but the implications are social and systemic. In the world of non-profits, the wake up call has been that people support causes rather than nonprofit organizations and their loyalty to an organization is fluid. The charities that still think they 'own' their issue are struggling to navigate this new turbulence. Issues are being taken up by networks and

the passion that is driving these networks is the passion that the charities were formerly counting on.

After hurricane Katrina hit New Orleans, the Red Cross made the mistake of trying to reunite families using only information it gathered and using only it's own systems, especially it's fairly clunky web database. In contrast, nonprofit geeks and others crowdsourced both a tech system and a massive only effort to comb and aggregate info from across the Facebook, discussion boards and the rest of the social web. The Katrina People Finder project left the Red Cross in the dust, ineffective and seen as an obstacle. These same challenges are now washing up against the public sector.

This is actually opportunity for spreading innovation across the NHS. A traditional organisation can't really diffuse anything, least of all innovation. Diffusion occurs through open networks not hierarchies or professional castes.

Tapping in to these new opportunities means inverting the usual focus of the NHS and looking outside instead of inside. Whereas large organisations have a tendency to pull people into a vortex of internal focus, a 'social organisation' can attract support and resources from outside itself, as well as motivation from within, on the basis of its ideas and the way it works to realise them.

This is what the social innovation scene calls relational capital[iv]- the knowledge and trust built up between an organisation and its users, staff and volunteers. It is used to capture the quality of relationships within which the business of the organisation take place. Whereas in the market economy relationships take place across a territory demarcated by boundaries of contract, for a social organisation the boundaries are more porous, and internal and external interests mesh. These networks are the potentials vectors and drivers of innovation.

After the earthquake in Haiti, people from outside the humanitarian agencies mobilised through Crisis Camps[v] using crowdsourcing and self-organised geekery to tackle system gaps and glue together the traditional organisations[vi].

5. participation

Creating networks and flows across NHS boundaries means participation from the community. There are already some growing areas of user involvement through the co-design of services [vii]and in particular through co-production,[viii] which recognises that doctors need patients as much as patients need doctors. Co-production sees people as assets, develops the capacity of communities, uses peer support and offers incentives for reciprocity and mutuality. Whereas market mechanisms are fundamentally about empowering individuals, co-production is mutual and co-design collective.

Growing these initiatives into an innovation ecosystem will take more than consumer -based reforms. Information and choice are not equal to empowerment. Catalysing community participation needs active intervention, and parts of the international development movement have developed useful techniques for commmunity empowerment in the context of gross power disparities.[ix] The way to embed this here could be through digital technology. Pioneer projects for patient empowerment include Patient Opinion, a site is a place where patients can post their experiences, suggestions and criticism of their NHS experience. After early hostility, some parts of the NHS have recognised the importance of Patient Opinion and help to fund it.

An NHS innovation ecosystem will include the wholesale mashup of easy-to-adapt tech platforms with participatory techniques such as PRA (Participatory Rural/Rapid Appraisal) and participatory mapping. PRA emphasizes empowering local people to assume an active role in analyzing their own living conditions, problems, and potentials in order to seek a change in their situation, and is a prototypical participatory methodology in an ecosystem of similar approaches. The easy toadapt tech platforms range from something like Ushahidi (used in contexts from Kenyan post-election violence to the London tube strike) and Open Street Map.

Kibera in Nairobi, Kenya, widely known as Africa's largest slum, remains a blank spot on the map. Without basic knowledge of the geography and resources of Kibera it is impossible to have an informed discussion on how to improve the lives of residents. In 2009 young Kiberans created Map Kibera[x], the first public digital map of their own community with the help of active empowerment from some open street map activists (open street map is the wikipedia of mapping).

6. cuts

The rhetoric of the Big Society poses an interesting challenge to a pro-participation NHS because it borrows so much of the relevant language about devolving power, citizen empowerment and community action. the NHS and public services are now working in an environment where Whitehall leaders are saying they don't want to do central dictat any more, while actually not knowing how else to proceed. As an example, councils have a general power of competence in the new Localism Bill, which means they can do anything they want - except collect the bins fortnightly, because the Government has pledged to "save weekly waste collections". Devolution is not just about devolving the problem any more than empowering people consists of kicking away their existing support. You can't expect an outburst of innovatory volunteerism except where people already have a surplus of time, capacity and self-belief.

Factors like an ageing population already put critical pressure on the NHS to improve performance by scaling innovation. But we are also experiencing a crisis of the wider financial and political systems. The reality of the cuts will be incompatible with the social narrative of the NHS and could lead to the developments of social movements around healthcare.

7. social movements

The media stereotypes social movements as protestors. But actually a movement "is a form of collective organization with no formal boundaries, which allows participants to feel part of broad collective efforts while retaining their distinctive identities as individuals". People get involved because they care, so there's a lot of passion involved. The characteristics of a movement, as opposed to a formal organisation, is loosely coupled agility, openness and a tendency for new ideas to be rapidly spread and adopted. These days, of course, that's often combined with being highly digital. So social movements have a lot of the characteristics of the smooth spaces that can diffuse innovation. An example would be the early days of AIDS activism.

Finding ways to engage with social movements could support internal networks made up of people working on the same issue, in the form of 'meshworks' "based on decentralized decision making...self-organization, and heterogeneity and diversity"[xi]. Clearly a meshwork can't be mandated and the main role of formal structures will be to avoid obstructing self-organisation. A pervasive digital presence across NHS actors is likely to be a key component, as there are strong correlations between the real-time serendipity of social media and some of the principles of self organisation. Johnson's third principle of self-organization, for example, suggests that random encounters between individual actors should be encouraged as they "eventually allow the individuals to gauge and alter the macrostate of the system itself."[xii] and his fourth principle entails that communication within the system should be frequent and uninhibited.

Combining social movements and internal networks / meshworks creates what Deleuze & Guattari would call 'rhizomatic structures'

As the frustrations and concerns expressed in these social movements are unlikely to respect boundaries between health and social care, the energies of social movements are also a potential driver for overcoming this divide.

8. digital

The open source movement is the primary tech example of a system open to the diffusion of information. Interestingly it is largely a gift-economy blended with a strong sense of common goods, rather than driven by market incentives. Open source is the prototype of the digital culture that has now spread to data and to social innovation.

I co-founded Social Innovation Camp[xiii] as an experiment in participatory digital innovation. It brings together software developers and designers with social innovators to hack web-based solutions to social problems in 48 hours. The practice of Social Innovation Camp is one of radical interdisciplinarity: the self-organised teams meet for the first time at the beginning of the camp and have two days to create a working prototype for competitive Dragons Den-style pitch to invited judges. The ethos of the teamwork is peer-to-peer, and I believe that a key it's success is the fact that the programmers and coders have equal input to the creative and social sides of the project. Successful projects that began at Social Innovation Camp include MyPolice, The Good Gym and Enabled by Design, all of which are now established as early-stage social businesses.

The digital innovation of Social Innovation Camp is practical but it's also a way to change people's paradigms about what's possible. The sicamp team has field-tested the methodology with Department of Health's Dignity in Care network. We brought together a bunch of people who are passionate about care and set them the challenge of coming up with some simple ways to make care better using the web – right through from understanding the problem to thinking about the technology they'd use and how they'd sustain their idea[xiv]. Introducing a mashup ethic to networks like this is part of developing a meshwork structure across NHS boundaries. Where there was previously hegemony, the digital tech opens opportunities for people to think differently.

Another innovation dynamic relevant to the NHS is what I call digital reverse development[xv] which describes the way way digitally-enabled social innovations from Brazil, Africa and elsewhere will start to tackle problems in the formerly-rich West. The visible part are tools like Ushahidi[xvi] FrontlineSMS[xvii] but behind the tech are the social operating systems, the cultural behaviours that drive these innovations from the ground. Digital reverse development is the mutant offspring of reverse innovation and liberation learning exemplified by Paulo Freire[xviii] and is exemplified by the Android apps from CDI's Apps for Good[xix].

The introduction of mobile health or mHealth initiatives will support more agile and innovative systems. The NHS should be experimenting with different options, ranging from the robust simplicity of FrontlineSMS:Medic[xx] to mobile apps based on open health data[xxi]. Although a lot of the thinking around mobile at the moment is how to do the same, but more cheaply, the element of 'nomadism' that inevitably comes with mobile will add a Deleuzian dynamic to systems where mHealth is being introduced.

9. summary

How can we add smooth spaces to the striated ones?

- We need digital empowerment across the system. ("Where do we start?" "Everywhere!")
- A health-needs version of Map Kibera alongside every GP consortium.
- Find ways to engage with positive social movements, especially digitally.
- Use digital innovation to support initiatives like the Dignity in Care network
- Run healthcare & social care crisis camps.

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