



Selected Papers of Internet Research 16:
The 16th Annual Meeting of the
Association of Internet Researchers
Phoenix, AZ, USA / 21-24 October 2015

BIOSENSORY EXPERIENCES AND MEDIA MATERIALITY

Aristea Fotopoulou
University of Brighton

Kate O'Riordan
University of Sussex

Wearables such as *Fitbit* can be thought to form part of an apparatus of digitised health promotion (Lupton, 2013; 2014). This is an emerging market, reports estimate that 13 million devices were shipped in 2013, with *Fitbit* occupying a 67% share¹. The emerging body of research around wearables has noted the centrality of locative devices, smart phone apps, and data repositories for healthcare, as well with the ethical implications of collecting data (Oudshoorn, 2011; Mort et al., 2013). *Fitbit* wearables form part of a digital health promotion apparatus, which as Deborah Lupton (2014) argues, emphasises individual responsibility to the disregard of social and political dimensions of technology.

We employ an interpretative model to explore aspects of wearable technologies as biopedagogic (Rail and Lafrance (2009)): that is, technologies that incorporate some form of training or knowledge production and create new meanings about the technology as well as expert/lay person identities. We focus on the mode of address of digital health promotion, and the subjectivities and identities that are being produced by the circulating discourses around wearable sensors. Our attention is with the tensions between media representations, user experience, and knowledge-making, against the backdrop of economic cuts and the reshaping of the health sector throughout Europe.

Like other didactic modes such as reality television *Fitbit* sensors constitute a set of interlocking media texts. They mediate the body and they conscript the audience into the production process. *Fitbit* is designed to address users and consumers as learners of technology, instructed to incorporate self-logging in their everyday lives, making everyday practices productive, and engaging discourses about the responsibility of the

¹ Juniper Research www.juniperresearch.com and NDP www.npd.com, both figures were reported widely in 2013 in the press with estimates that the market was worth \$330 million.

Suggested Citation (APA): Fotopoulou, A. & O'Riordan, K. (2015, October 21-24) *Biosensory Experiences And Media Materiality*. Paper presented at Internet Research 16: The 16th Annual Meeting of the Association of Internet Researchers. Phoenix, AZ, USA: AoIR. Retrieved from <http://spir.aoir.org>.

individual to care for and improve her body. It presents bodies as part of a constellation of media texts, apps and electronic objects in which training bodies and brains is part of the material practices of everyday life (Bassett, 2009). They affirm self-logging, and behavioural change, whilst facilitating belonging in both fitness and techno-savvy networked knowledge communities.

Approaches to method

We undertook a textual analysis of news media, analysing articles during a one-year period (April 2012-2013). Of the 140 UK newspaper references to *Fitbit* in that time only 3 significantly challenged the promotion of *Fitbit* as a 'cool' new device. In addition to the print analysis, we examined the interface, and social media (aka communities and forums) and used small scale auto-ethnographic methods (Bassett, 2009, Ellis, 2004), through use of the *Fitbit* for a period of 2 months.

Utopian and dystopian imaginaries

In UK news, coverage consisted of promotional feature and reviews reproducing press releases from consumer electronic shows. *Fitbit* appeared overwhelmingly as a an 'app', evoking an ecology of mobiles, smart phones and wearables and framing *Fitbit* as a dimension of digital culture and a networked social object. In much of this coverage *Fitbit* operated to anchor much grander and utopic visions of innovation and futures. Framings included: 'Wearable revolution' 'revolutionising healthcare' 'electronic health record revolution' 'the future is here'. These stories outlined prospective visions about transformations in medicine, or the consumer electronics market, while referencing *Fitbit* as an example.

The *Fitbit* vision is part of two broader intersecting discourses. In one the self is made up in part through personal engagement with knowledge about biology (biological citizenship). In the other self-health care is increasingly important as public front line resources dwindle. In this paradigm these devices offer not just a new way of knowing the self but offer a pragmatic technological fix to austerity.

Interface

Knowledge acquisition through *Fitbit* is framed as social. The screen displays numerical information to the user about their fitness activity, with the addition of messages (for instance 'love ya Mary'), which aim to create a sense of connection with the user, or to establish the device in its role as a sports-trainer. This display of motivational messages introduces a form of ongoing sociality and enhances the sense of connectedness.

Information about fitness comes through the quantified data input and through game features, in the form of badges and levels. Diagrams display the average score since the beginning of the use, as well as peaks and lows of an activity during the same day. Through these infographics *Fitbit* allows for an accessible and limited mode of knowledge acquisition, which is playful visual and 'fun', offering a strong interpretative framework.

Acquiring self-knowledge can be achieved solely through the interaction with the *Fitbit*. Therefore the design features that enable sociality could be considered as a marketing strategy that renders *Fitbit* 'as if' social: the social networking elements are used instrumentally to render the interface attractive to users, when the actual aim, as with other similar health-related businesses and cloud-based tracking devices, is the collection of personal data from the user (see Atzori et al 2014).

Biopedagogy, governmentality and the knowing self

The pedagogic aspect of governmentality concerns a process of learning the behaviours and dispositions of self-care that are within acceptable modes of conduct in a neoliberal health landscape. 'Taking care of oneself requires knowing...oneself' (Foucault, 2000: 283) and this presupposes an educational process. As Becks and Beck-Gernsheim (2001) have noted in relation to genetics, being and staying healthy is a 'voluntary compulsion' (144), based on the premise that more information will allow individuals to take better decisions for their health. Wearable devices contribute to data generation, and the normalization of self-monitoring and self-improvement, by offering new public sites where these practices are being sanctioned and by establishing a regime of self-monitoring.

Fitbit measures well against a social and political context of self-responsibility. The user of the device is offered a mode of self-reliance coupled with support from the specific and connected community of other *Fitbit* users. Thus, the encouragement of a consumer-knowledge community operates within a larger assumption and normalisation of digital connectivity and social networking. Digital health promotion and biopedagogy work together, by addressing users and consumers as learners of technology for self-care and life-logging: becoming 'expert' in self-care with the use of wearable technologies.

Conclusion

Fitbit can be thought as a form of training, not only in the collection of data, and health awareness, but also in the technology itself. Users are engaged in an experiment with multiple purposes: whilst they contribute to the fine tuning of the technology, they also are engaging with health promotion giving the user a sense of agency about their health. Data collection devices sell by presenting "data collection as an always already good and productive practice" (Gardner and Wray (2013, np). A promise that the future (including improved health and well-being) will materialise if consumers embrace personal responsibility, and training with the device is a key aspect of this process. Our invocation of pedagogic technology refers to the way these applications are designed to instruct consumers in bio-data collection, by engaging them in an everyday practice that legitimises dominant discourses of individual responsibility for one's own body.

Taken as an assemblage, *Fitbit*, can be understood as a consumer experiment about the use of wearables, for health promotion in everyday life. Media coverage reproduces a promotional imaginary in which wearables promote health and signal a revolution in health care. Whilst such a revolution remains a utopian imaginary, the embedding of wearables in the everyday life world is a reality. The interface works to encourage self-management of body and bio-data, as a knowledgeable consumer of health promotion

technologies, enabling a layer of high tech devices to enter the everyday life world, and health care, in the name of producing fitness.

References

Atzori, L., Carboni, D., & Iera, A. (2014). Smart things in the social loop: Paradigms, technologies, and potentials. *AD HOC NETWORKS*. 18, 121-132

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography*. Walnut Creek, CA: AltaMira Press.

Gardner P., and Wray B., (2013) From Lab to Living Room: Transhumanist Imaginaries of Consumer Brain Wave Monitors. *Ada: A Journal of Gender, New Media and Technology*. 3

Lupton, D. (2013) The digitally engaged patient: Self-monitoring and self-care in the digital health era *Social Theory & Health* (2013) 11, 256–270.

Lupton, D (2014) 'Health promotion in the digital era: a critical commentary' *Health Promotion International*, October 15, 2014

Mort, M. Roberts, C. Callen, B. (2013) Ageing with telecare: care or coercion in austerity? *Sociology of Health and Illness*, 35(6), 07.2013, p. 799-812

Oudshoorn, N. (2011) *Telecare Technologies and the Transformation of Healthcare*. Houndmills: Palgrave Macmillan.

Rail, G and LaFrance, M (2009) Confessions of the flesh and biopedagogies: discursive constructions of obesity on Nip/Tuck, *Medical Humanities* 35:76-79

Rose N, Novas C. (2005) Biological citizenship. In: Ong A, Collier S, eds. *Global assemblages: technology, politics and ethics as anthropological problems*. Malden, MA: Blackwell, 439–63.