THE PERFORMANCE OF NONHUMAN BEHAVIOUR

CLAUDIA DUTSON

ROYAL COLLEGE OF ART

CLAUDIA.DUTSON@
NETWORK.RCA.AC.UK

DELFINA FANTINI VAN DITMAR

ROYAL COLLEGE OF ART

DELFINA.FANTINI@
NETWORK.RCA.AC.UK

DAN LOCKTON

ROYAL COLLEGE OF ART

DAN.LOCKTON@RCA.AC.UK

ABSTRACT

This workshop is situated at the convergence of technology, behaviour and people's understanding of the nonhuman entities with which they interact, questioning the ideas of 'intelligence' and 'smartness'. As the Internet of Things, 'smart cities', Quantified Self, and similar concepts intersect with design for behaviour change and sustainable behaviour, becoming pressing research themes across product, service, interaction and architectural design, we ask how the relationships between humans and nonhumans are characterised and articulated.

WORKSHOP AIMS & INTRODUCTION

Through using performative methods, this workshop aims to explore questions such as:

- What kind of conversations take place between humans and machines, and the surrounding environment?
- How is algorithmic decision-making, as designed into systems, experienced and understood by humans?
- How can designers engage with algorithms, critically but also usefully?
- What does it mean when nonhuman performance becomes a material of design practice?

This full-day workshop is for designers and researchers interested in exploring and challenging anthropocentric assumptions about the way we interact with technology. Through a range of activities, participants will explore, practically, non-human-centric worlds, and be introduced to novel performative methods for exploring or challenging anthropocentrism in design. The workshop is ideally suited to professionals and postgraduate researchers engaging with any of the issues involved, from the politics of artefacts to ubiquitous computing. We are interested in having a diverse group to bring together the varying viewpoint of the different participants. The interactive nature of the planned programme means that 15 people is the maximum in order to involve everybody in the

discussions and performances. We will ask participants beforehand to send a screenshot of their computer desktop and a picture of their workspace environment (context). In this way, we will start the session by inferring (making assumptions) of whose picture belongs to each participant, *demonstrating* the assumptions that could be made algorithmically (or otherwise) from the data provided, and enabling the qualities and implications of those assumptions to be explored and questioned.

PROGRAMME

Following this activity, the day will be divided into three main activities (Table 1), involving everyone, exploring different facets of the interaction between humans and systems through performances, and the sharing of ideas, stories, and theories. Throughout the day, we will document these performances as they happen; encouraging participants to engage in live analogue, blog and Twitter commentary. We want to retain the vibrancy of the discussions involving all the participants—to avoid an all-too-common phenomenon of group workshops where the intensity of discussion in closed smaller groups inevitably loses the immediacy and context of those thoughts when they are reported back to the wider group.

Table 1: Outline of the day.

am	Introducing everyone
	Part 1: Evolution, complexity, context & intelligence
pm	**Part 2: Objects, thinking machines & performance**
	Part 3: Do we understand each other?
	Discussion of the day

Part 1: Evolution, complexity, context & intelligence
As an introduction for the rest of the workshop, we will start with a presentation in which we will explain some aspects of biological evolution (from amoebas to humans) together with a timeline of computing history (Computers, robots…) and the evolution of the Internet. In the case of technology we will show some complexities around the subject of intelligence by demonstrating the relevance of context (environment) in the interaction.

Part 2: Objects, thinking machines & performance

For the second activity, a short warm-up exercise will introduce participants to active performative methods

for investigating objects and thinking machines. By drawing parallels between Constantin Stanislavski's theory of goal-driven action—and heuristic algorithms—participants will be guided in devising small improvisations of the interactions between non-humans and their environment and with other non-humans (without defaulting to anthro-pomorphic projection). We will address (and challenge!) theories of intention, consciousness and vital materialism/ object oriented ontology.

Part 3: Do we understand each other? We will explore etiquette, empathy and superstition, through a fun activity where—in playing the roles of people and 'smart' objects together engaged in responding to social situations—we articulate our own mental models, the heuristics we are following, and our worries about others knowing these too accurately. We explore reciprocal degrees of opacity of black boxes (Ashby, 1956; Glanville, 2007). Drawing on Argyris & Schön's (1974) *Theory in Practice* and Laing's (1970) *Knots* and current work around persuasive design (Crilly, 2011) and public understanding of the IoT (Lockton, 2014), the aim is to arrive at a set of example (mis)under-standings which can form the basis of more detailed analysis, while highlighting issues relevant to designers working on everything from 'behaviour change' to the Internet of Things.

WORKSHOP ORGANISERS
The workshop is facilitated by researchers working on projects around design, interaction and behaviour.

Claudia Dutson is completing a PhD at the Royal College of Art in the department of Architecture, on thermal control in architecture. Using performative practice and artificial intelligence, her project restages the interactions of an artificially intelligent thermostat with occupants as a video performance. The script is formed from a large database of idioms and metaphors for heat, with underlying narratives of productivity, economics, desire, ecological crisis and war. Her work investigates the convergence of computing and architecture, with a feminist critique of techno-solutionism through language games. She holds a BSc and MA in Architecture, and has written a book on artificial light. Before architecture she trained in media production, and worked in new media consultancy during the dotcom bubble (and burst). *http://www.claudiadutson.com*

Delfina Fantini van Ditmar is working in the area of 'The Age of Calm Technology'. In this context, her interest is in exploring the subject of ubiquitous computing, which can be defined as information processing embedded in the objects and surfaces of everyday life (Weiser, 1991). Her research is focused on the IoT and the interconnected physical-digital relations that are influencing the way we dwell. By analyzing the ecology of future housing she explores new techno-logies by addressing the design as a spatial and socio-

cultural system, rather than by focusing on product design or the technology. Delfina is a PhD candidate in Innovation Design Engineering (IDE) at the Royal College of Art. Delfina holds a BA in Biology and completed one year of an MFA at Konstfack University, Stockholm. Her work has been exhibited at the Victoria and Albert Museum and the Natural History Museum. In 2011 she was awarded the Heinz von Foerster Award by the American Society for Cybernetics.

Dan Lockton is interested in relationships between design and people's behaviour, understanding of everyday systems, and consequences for society and sustainability, weaving ideas from ethnography, cybernetics and decision science. He is a research tutor in Innovation Design Engineering at the RCA, supervising PhDs in areas including the IoT, synaesthesia, and design for repair. From 2013-15 he worked at the Helen Hamlyn Centre for Design, on projects from sonification of home energy use to public engagement with driverless cars. For his PhD, at Brunel University, Dan developed *Design with Intent*, a multidisciplinary design pattern toolkit for behaviour change. He also has an MPhil in Technology Policy from the University of Cambridge. *http://danlockton.co.uk*

REFERENCES

Ashby, W.R. (1956). *An introduction to cybernetics*. London: Chapman & Hall.

Argyris, C. & Schön, D.A. (1974). *Theory in Practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.

Crilly, N. (2011). Do users know what designers are up to? Product experience and the inference of persuasive intentions. *Int. J. Design*, 5(3), 1-15.

Donnellan, D. (2005). The Actor and the Target. MIT Press.

Glanville, R. (2007). A (Cybernetic) Musing: Ashby and the Black Box. *Cybernetics and Human Knowing*, 14 (2-3), 189-96.

Goffman E. (1959). *The presentation of self in everyday life.* Anchor

Laing, R.D. (1970). *Knots*. Routledge.

Latour, B., (1992). Where Are the Missing Masses? The Sociology of a Few Mundane Artefacts. In W. E. Bijker & J. Law, eds, *Shaping Technology / Building Society: Studies in Sociotechnical Change*. MIT Press, 225-258.

Lockton, D. (2014). As we may understand: A constructionist approach to 'behaviour change' and the Internet of Things. *http://v.gd/understand*

Suchman, L. A. (2007). *Human-Machine Reconfigurations: Plans and situated actions (2nd edition)*.Cambridge University Press.

Stanislavski, C (2013). *An Actor Prepares,* Bloomsbury Revelations

Weiser, M. (1991). The computer for the 21st century, *Scientific American*, 265(3), 94-1