Inclusive Design: Royal College of Art research creates significant, far-reaching impact in design, industry and education

1. Summary of the impact

A sustained programme of research at the Royal College of Art (RCA) since 1994, led by Coleman, Myerson and Bichard, has played a leading role in the emergence of Inclusive Design within design, industry and education, defining its theoretical principles and developing relevant real-world practice tools and business case studies. This research had made an impact in four key areas: it has influenced the public discourse and the ethics and methods of the design profession; contributed to national policymaking for older and disabled people; enabled economic prosperity through development of new products and services; and supported advances in design education.

2. Underpinning research

The RCA's focus on Inclusive Design began in August 1994 with an academic paper delivered by Professor Roger Coleman, co-founder of the RCA's Helen Hamlyn Centre for Design (HHCD), at the 12th Triennial Congress of the International Ergonomics Association in Toronto, Canada [s3.1]. This set out the case for Inclusive Design as the most appropriate response to population ageing and, in effect, defined the term. At the time Coleman was directing the DesignAge research programme at the RCA, which focused on the design implications of an ageing society.

Coleman argued that by treating the life-course as a whole, in which ageing and disability can be recognised as normal rather than as exceptional experiences, Inclusive Design could have value in improving quality of life for all people, especially older citizens. Coleman's work with DesignAge culminated in the EU-funded project Presence, which developed a set of research tools (The Methods Lab 1999, s3.2). That year DesignAge became part of the RCA's new Helen Hamlyn Centre for Design, which Coleman co-founded with Jeremy Myerson. In 2000, the Centre embarked on a ten-year research collaboration with the Engineering Design Centre at Cambridge University to develop a practice base for Inclusive Design: the i~design programme funded by the EPSRC.

The first phase of the i~design programme (2000–4) concentrated on research that provided the data required to enable Inclusive Design. Undertaken with Design for Ability at Central St Martins College of Art and Design and the Design Council, this phase resulted in a number of outputs, including a peer-reviewed conference series and authoritative texts (e.g. John Clarkson, Roger Coleman, Simeon Keates and Cherie Lebbon (2003 [s3.3]).

The second phase of i~design (2004–7) set out to engage the business community in Inclusive Design, in collaboration with the Centre for Usable Home Technology at the University of York and Applied Computing at the University of Dundee. It produced a new British Standard BS7000-6 2005 – a guide to managing Inclusive Design [s3.4], a series of workshops with UK companies and a substantial body of case studies of Inclusive Design in action in business. A Web resource for industry in the form of an Inclusive Design toolkit went live in summer 2007, supported by BT.

The third phase of the programme (2007–10) was led by Myerson (RCA) in collaboration with Cambridge University's Well-being Institute and the Loughborough Design School at Loughborough University. Building on previous work, the aim was to give designers more accurate, relevant and up-to-date tools on capability in the population.

The i~design research laid down the theoretical framework and further UK Research Council awards extended the reach of Inclusive Design research into workplace environments for an

ageing workforce (Myerson and Bichard, Welcoming Workplace EPSRC-AHRC, Designing for the 21st Century, 2006–8) [s3.5] and public environments such as public toilets for older people (Bichard, TACT3, New Dynamics of Ageing 2008–11) [s3.6]. The output has had international recognition, particularly in Japan, the USA and South America.

In 2013, the Centre is configured around three research labs: Age & Ability, Work & City and Health & Patient Safety. Each lab takes an approach that is inclusive and interdisciplinary, developing innovative and empathic research methods.

3. References to the research

The rigour of the research and its originality are evidenced in the significant use of inclusive design approaches in both the published academic literature and in shaping professional design theory and practice in the field. This in turn has resulted in models, tools, standards and guidance all designed to influence practice and aid efficient and effective delivery of Inclusive Design. Research in HHCD receives funding from RCUK, EU, charitable trusts and other funders who undertake peer review and award on the strength of research excellence commensurate with 3* and 4* levels.

3.1) Coleman, R., 'The case for Inclusive Design – an overview', Proceedings of the 12th Triennial Congress, International Ergonomics Association and the Human Factors Association of Canada, 1994.

3.2) Aldersey-Williams, H., Bound, J. and Coleman, R. (eds.), 'The Methods Lab: user research for design', in Hofmeester, K. & de Charon de Saint Germain, E. (eds.), PRESENCE: New Media for Older People (Amsterdam: Netherlands Design Institute, 1999).

3.3) Clarkson, J., Coleman, R., Keates, S. and Lebbon, C. (eds.), Inclusive Design: Design for the Whole Population (London: Springer Verlag, 2003).

3.4) Coleman, R. (panel member), BS 7000-6 Design Management Systems, Part 6: Managing Inclusive Design – Guide (London; British Standards Institution, 2005).

3.5) Myerson, J., Bichard, J. and Erlich, A. (2010), Myerson, J. and Bichard, J. (2009), 'Welcoming Workplace: rapid design intervention to determine the office environment needs of older knowledge workers' in T. Inns (ed.), Design for the 21st Century, Volume 2: Interdisciplinary Methods and Findings (UK: Gower).

3.6) Bichard et al., 'Tackling ageing continence through theory, tools & technology', Ageing & Society: An Interdisciplinary Journal (2012).

4. Details of the impact

The RCA's research, development and delivery of Inclusive Design has achieved significant and far-reaching impact, as follows:

Public discourse

Research on Inclusive Design as cited in Section 2 has had a major impact on the public discourse on design – influencing the methods and ethics of the design profession (e.g. Design Business Association and Royal Designers for Industry Inclusive Design Champion), and including previously marginalised groups, such as older and disabled people, in the design process. The building of a global network of academics and practitioners in support of the 'Include' conference series (one of the results of the i~design research) has had a marked impact on the field. In 2011, for example, the 'Include' conference at the RCA, London,

published the work of 120 academics from 29 countries, and attracted sponsorship from BT and Audi; and in 2013, the conference extended its global reach with 'Include Asia', in partnership with the Hong Kong Design Centre [s5.1]. The DBA Inclusive Design Challenges of 2008, 2009 and 2010 (the RCA's knowledge-exchange platform for professional designers) attracted 15 leading design firms to develop new concepts related to dementia, ageing and sedentary lives [s5.2]. In February 2010, Inclusive Design was the specialist topic on the BBC Radio 4 You and Yours programme, recorded at the Design Museum [s5.3]. The programme followed an Inclusive Design Roundtable held in the BT Tower to brief the media on the business benefits of Inclusive Design. In April 2010, a major exhibition, 'Trading Places', was held in the V&A Sackler Centre to mark 10 years of the DBA Inclusive Design Challenge, prior to a tour of venues in Japan. This large-scale interaction with the design profession has used many of the tools developed by the RCA's Inclusive Design research [see Section 2].

Policymaking

RCA research has also fed into policymaking at a number of levels. From the starting point of defining the term for the UK government and writing a British Standard in Managing Inclusive Design, the RCA Helen Hamlyn Centre for Design has issued design guidance on housing design for autistic adults (based on Inclusive Design principles as cited in Section 2), which has been formally adopted as policy by the Welsh Government [s5.4]. Findings on design for an ageing workforce from the Welcoming Workplace study have been written into the BCO (British Council for Offices) Guide to Specification [s5.5], defining the standard for the industry, and into a guidance note from the Parliamentary Office of Science and Technology (2011) [s5.6]. Research into how visually impaired people navigate the streetscape has been incorporated into guidance by CABE, the Commission for Architecture and the Built Environment (Sightline 2010) [s5.7].

Economic prosperity

Section 2 showed how our research has focused strongly on business and industry, leveraging economic value from Inclusive Design principles. In 2010 a new version of the www.inclusivedesigntoolkit.com website, sponsored by BT, was introduced as part of i~design research. Since 2008, the HHCD has generated economic impact by project engagement with more than 40 business organisations through its Helen Hamlyn Research Associates programme for new RCA graduates [s5.8]. Several innovations have reached the market, including new designs for Osaka Gas in Japan and Nordan in Norway. Inclusive Design research has also led to an extensive programme of executive education for business and government, including the Kinnarps, Procter and Gamble, Samsung (South Korea), Stannah, UK and Hong Kong Civil Service, Blackberry and Vodafone. The Nordic region has been a particular focus for the RCA's work on the business value of Inclusive Design: a collaboration with the Norwegian Design Council led to a joint conference, 'Innovation for All', in 2010 and the 'European Business Workshops in Inclusive Design' (for 130 people) in 2012. Alongside these events, which were both staged in Oslo, a major book of tools for business was published, co-written by Rama Gheerawo, Deputy Director of the HHCD [s5.9].

Education

Finally, the RCA's work in Inclusive Design has had an impact on the direction of curriculum development in UK design education generally outside the institution. Building on the RCA's New Design for Old brief in the RSA Student Design Awards, which first flagged the importance of Inclusive Design to the sector, the HHCD has made its methods and case studies widely available to students and tutors, most notably the Designing with People website created as part of i~design3, which gives practical guidance on the activities, ethics and methods of co-design

[s5.10]. Setting and sponsoring Inclusive Design briefs in national student design awards (for example D&AD 2012) and giving guest lectures in design schools around the UK have contributed further to the impact in education. More recently, workshops and expert design courses have been held in a number of global locations, e.g. Norwegian Design Council, Oslo (2012) and Hong Kong Design Centre (2013).

5. Sources to corroborate the impact

Copies of all sources to corroborate the impact are available from the HEI upon request. All URLs last accessed: 22/11/13.

5.1) For Include international conferences on Inclusive Design 2009, 2011 and 2013, see <http://www.hhc.rca.ac.uk/1345/all/1/include-2009-.aspx>.

<http://www.hhc.rca.ac.uk/2968/all/1/include-2011.aspx>.

<http://www.hhc.rca.ac.uk/4989/all/1/include-2013.aspx>.

5.2) For info on DBA Inclusive Design Challenge 2008, 2009, 2010, see: <http://www.hhc.rca.ac.uk/2626/all/1/2010.aspx>.

<http://www.hhc.rca.ac.uk/2389/all/1/2009.aspx>.

<http://www.hhc.rca.ac.uk/408/all/1/2008.aspx>.

5.3) BBC Radio 4, You and Yours special programme, 'We are all different' (2010), featuring Professor Jeremy Myerson (RCA HHCD) and Liz Williams (Head of Consumer Affairs, BT): <http://www.bbc.co.uk/radio4/youandyours/items/01/2010_07_fri.shtml>.

5.4) Brand, A., Living in the Community: Housing Design for Adults with Autism (Kingwood Trust/HHCD, 2011); Hugh Morgan/Welsh Assembly Government, 'The ASD Strategic Action Plan for Wales (2008): Evaluating the Foundation Phase (Welsh Assembly Government, 2011).

5.5) BCO Guide to Specification (British Council for Offices, 2009).

5.6) Houses of Parliament: Parliamentary Office of Science and Technology PostNote – An Ageing Workforce (October, 2011).

5.7) For Sightline CABE guidance, see: <http://webarchive.nationalarchives.gov.uk/20110118095356/http:/www.cabe.org.uk/publications/sight-line>.

5.8) Myerson, J., and Lee, Y., 'Inclusive Design Research Initiatives at the Royal College of Art' Chapter in Universal Design Handbook (2nd Edition) (New York: McGraw-Hill Professional, 2010).

5.9) Eikhaug, O. and Gheerawo, R., Innovating with People: The Business of Inclusive Design (Norwegian Design Council, 2010).

5.10) See <www.designingwithpeople.org> for educational resource for students and tutors.