DESIGNING FOR THE PEOPLE, WITH THE PEOPLE AND BY THE PEOPLE

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ABSTRACT
Design practice has evolved over the past 60 years within the defining contexts of a production-led economy, consumerism and, more recently, globalisation. Designers have viewed people from an expert mindset as consumers rather than as collaborators or creators in their own right. Designing for people has been the dominant doctrine. However there is currently a paradigm shift underway towards designing with people – and in some cases, designing by people, as designers seek to combine creativity with social activism in new ways. This paper describes the design methods that underpin this shift in approach and gives short examples of their application in practice. It concludes with discussion of an open access website (www.designingwithpeople.org) that seeks to give practical guidance to design practitioners and educators.

PARADIGM SHIFT IN PRACTICE
Industrial design practice in Europe and North America (broadly encompassing the disciplines of product, graphic, environmental and transportation design) has evolved over the past 60 years within the defining contexts of a production-led economy, consumerism and, more recently, globalisation. The relationship between professional designers and the people who use their designs has largely been a producer-consumer relationship – and increasingly on a global scale as design skills have been applied to create economies of scale in manufacturing and worldwide brands and identities in marketing.

The landmark publication of Designing for People by the US industrial design pioneer Henry Dreyfuss in 1955 signalled mainstream design interest in human psychology and user need as a way to create products and services that sell. It introduced ‘Joe’ and ‘Josephine’ anthropometric charts for average men and women and set a blueprint for industrial design practice to treat people as passive test subjects in the design process, designing for their needs and wants from the vantage point of an expert mindset. This blueprint was reinforced by a second Dreyfuss publication, The Measure of Man (1960), which significantly expanded the use of anthropometric data - the dimensions of ‘human scale’, including arm and leg reach - as an essential tool for designers and led to the phrase ‘average Joe’ to describe the typical consumer.

The Henry Dreyfuss doctrine embedded itself in design practice and in the educational curriculum, and although many new and exemplary methods, technologies and techniques would later emerge over time to aid designing for people, the core belief system was largely unchallenged in the
field. Even the immediate backlash against ‘average Joes’ conformed to the mainstream picture of designer as expert: when the British architect Selwyn Goldsmith, a wheelchair user, published the first comprehensive set of building guidelines on the subject of designing for disability in 1963, he titled his book Designing for the Disabled. (The subtitle was A New Paradigm, but that would not truly arrive for nearly 40 years).

Since 2000, however, global citizen concerns such as climate change, ageing populations, social exclusion and economic inequality have begun to move the tectonic plates under long-established principles and norms of design practice. Jane Fulton-Suri (2007), the leading human factors specialist at global design firm IDEO, was one of the first to articulate a paradigm shift from designing for people to designing with people and, in some cases, designing by people.

In these new forms of practice, as she describes it, the people in question are no longer passive consumers being studied by experts, but active participants in the design process. Human need is not being inferred by designers through impartial examination of behaviour, but translated directly into new products and services via an empathic co-design process or, in the most extreme manifestations, self-recognised by those who will benefit from the resulting design. The mindset is no longer an expert one but a participatory one.

**FACING GLOBAL CHALLENGES**

This changing context challenges design professionals and educators to update practice and curriculum. Our point is not to say that those methods to design for people are obsolete – far from it, many will remain relevant and important long into the 21st century. It is simply that more empathic, democratic and bottom-up social models of design are required to supplement them, focusing on poor, vulnerable and excluded people as opposed to wealth consumers. In particular the success of designers in using their skills to ‘scale up’ to meet the challenge of globalisation will need to be matched by an ability to ‘scale down’ to address a range of local and community needs.

This shift in approach has particular resonance with regard to developing nations, which have seized on the central position of industrial design education and practice within the economic powerhouses of Europe and North America since 1945 and begun gearing up their own design infrastructures in the global economy as a result. China graduated 100,000 industrial designers from 248 design colleges and universities in 2010. India, Brazil and former Soviet states are expanding too.

However the emulation of outdated western models of industrial design practice would hardly constitute smart globalisation. It would be wrong for emerging nations to train designers and support professional networks to repeat the mistakes of the first-world industrial era that created a wave of unsustainable consumerism and excluded many sections of society, especially older and disabled people, from the benefits of design. That is why there is an urgent need to map, analysis and disseminate emerging models and methods in design practice so that there can be appropriate adoption around the world.

**NEW DESIGN METHODOLOGIES**

Consider the methods that industrial designers have adopted to meet people’s needs over the past 60 years. We have divided them into three categories.

In the designing for people category, well-established techniques such as consumer focus groups, observations, interviews and prototype building/testing have been supplemented by new practices. These include compressing standard ethnographic practice to meet commercial deadlines (‘rapid design ethnography’), creating ‘personas’ to explore user needs within the design process, or working with ‘extreme users’ to give insights into how a new product might be received.

Additionally, the use of ‘empathy tools’ that enable designers to ‘experience’ disabilities through the wearing of movement constricting age-suits or spectacles that simulate various eye conditions has also caught on. This has been inspired in part by the pioneering immersive role-playing of American industrial designer Patrician Moore, who dressed as an old woman and lived on the streets of North American for three years between 1979 and 1982 and wrote about her experiences in a book called Disguised (1985).
The focus of methods in the \textit{designing for people} category is on being generally inspired by people, either directly via interviews and shadowing or indirectly through personas, role play and empathy tools. In the \textit{designing with people} category, however, the focus is more specifically on learning from people through active engagement. Emerging methods here include: the staging of user forums and workshops that bring designers and people together for short, intense durations to address specific issues through a co-creation process; the making of ‘pseudo-documentaries’ in which lead users play a role in short films that designers make about design problems; and the placing of ‘cultural probes’ in an environment as deliberate provocations to develop a deeper dialogue with design users.

In the \textit{designing by people} category, the focus of design methods switches from being inspired by or learning from people to empowering them and tapping into their own creativity. This approach has a lineage stretching back to the participatory architecture movement of the 1970s, yet more new methods are taking shape. There is newfound interest among designers in self-build design kits as pioneered by architect Walter Segal (1907-1985, see www.segalselfbuild.co.uk) and in experimental learning experiences using new media to encourage civic participation, termed ‘cultural jamming’ by Kalle Lasn, creator of Canadian magazine \textit{Adbusters}. These methods focus in particular on citizens’ participation as opposed to consumers’ consumption behaviour. Indeed the paradigm shift we describe entails seeing people not just as consumers but as collaborators and even creators in their own right.

\textbf{DESIGN IN THE REAL WORLD}

Three short case studies follow from the Helen Hamlyn Centre for Design at the RCA, which encapsulate this dynamic of change in design methods.

In the first case study, a European bathroom manufacturer commissions industrial designer Tomek Rygalik to research and develop a new mirror-and-sink unit that is easier to use for older people. A group of performers and dancers, who spend long hours applying makeup and preening themselves in front of a dressing room mirror, are observed and interviewed as ‘extreme users’ to help the designer capture usual and compelling performance requirements for the new design. The project results in a full-size prototype that is inclusive of older people rather than exclusively for them. The final concept incorporates a sculptural basin, three mirrors, appropriate lighting, seating and storage.

The main mirror incorporates a soft, glowing band of light that ‘washes’ an equal amount of light across the face. A handheld mirror detaches from this, allowing the back and side of the head to be seen. An adjustable tap allows users to wash their hair. This is good practice in \textit{designing for people}. 
In the second case study, the interior of the emergency ambulance is redesigned by a multidisciplinary team of frontline paramedics, clinicians, patients, academic researchers, engineers and designers, all working together under the leadership of industrial designer Ed Matthews and vehicle designer Dale Harrow. Key insights from user groups are translated into sketch designs; a full-scale test rig is mocked up in cardboard and foam. The team work together in a co-design process to develop and evaluate proposals, resulting in a full-size mobile demonstrator of the new interior that reconfigures the layout of the patient treatment space. There is 360° access to the patient, which not only improves the clinical efficiency but it also enhances patient safety.

The new interior is designed to be easy to clean. Equipment packs containing specific treatment consumables aid clinical performance, infection control and stock control. A new digital diagnostics and communications system is also presented. This is emerging practice in designing with people.

In the third case study, Housing Authority, Hong Kong is refurbishing several outdated 1960s public high-rise housing blocks. A social activist team works with local residents’ groups on an estate called the Lower Ngau Tau Kok (Lee et al. 2004). Three participatory design workshops are created for residents and social workers to understand the complicated architectural design process in relation to their everyday life experiences.

Different scales of urban living are addressed through different games. In one participatory design game, for example, mini-pieces on a board comprising human figures, pieces of furniture and partitions enable tenants can design their own apartment layout in a workshop facilitated by designers. This project exemplifies outlier practice in designing by people and it is already happening around the world, especially as the limitations of the old top-down industrial models of interaction with people become more apparent.
A WEBSITE TO SUPPORT THE SHIFT

To help designers manage the shift towards designing with rather than for people, the Helen Hamlyn Centre for Design at the RCA has developed an open-access website (www.designingwithpeople.org) as part of the collaborative i*design research programme with colleagues at the Universities of Cambridge and Loughborough. A key objective was to bring scientific capability data alive for the design profession in an empathic and meaningful way and offer a wealth of practical information on inclusive design practice. The website has four main sections. A People section presents 10 individuals drawn from the Helen Hamlyn Centre for Design’s user network – their vision, hearing, dexterity, mobility and cognition capabilities correspond to different scales on Cambridge University’s population capability data and their life experiences can act as an inspiration for designers.

An Activities section presents precedents and case studies related to the activities of daily living. Insights on user behaviour are grouped under four themes – Personal Care, Household, Work & Money and Communication – and communicated via images, video and first-person testimonial. A Methods section maps and evaluates common design methods in practice and classifies them within a special framework. Designers can browse exemplar projects related to each method and identify the most appropriate method for their current project. Finally, an Ethics section offers designers guidance on good practice in working with people. Designers can work through the stages of contact, consent, confidentiality and
conduct step-by-step in order to understand the principles of user involvement.

The aim of this and other design tools currently being developed around the world is to free designers from the shackles of consumerism and mass production that has limited their thinking in the past – and support new practice which treats people as more equal partners in the design process.

REFERENCES


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