

# Better by design

Design used to be associated purely with aesthetics. Today it has been embraced by business leaders and is advocated for social policy development. **Nico Macdonald** investigates these claims



June this year marked a turning point in the UK's approach to design, when the Design Museum awarded the title of Designer of the Year 2005 to Hilary Cottam. Unlike previous, more conventional winners, Cottam applied design as a thought process through which to improve various areas of the public sector.

As director of RED at the UK's government-funded Design Council, Cottam wanted to "challenge accepted thinking on economic and social issues through design innovation". Specifically she championed higher standards of design and the development of new design thinking in schools, prisons and the health service.

The aspect of Cottam's work that has received most media attention is her School Works project with Kingsdale School in the London Borough of Southwark. And, while the publicity it received was less than helpful, the controversy surrounding the project reflects a wider issue.

School Works aimed to use existing resources differently to create beautiful places, designed to raise educational achievement and support lifelong learning. Between 1999 and 2002 the percentage of students at the school achieving five A to C grades rose from 15% to 41%. The Design Council puts this down to the 'design effect'.

*Observer* architecture critic Deyan Sudjic did not agree. "[The Kingsdale School project is] the centrepiece of the Design Museum's display of Cottam's work – but the trouble is that she did not design it. Neither does she say that she did; and it is that which makes giving her the Designer of the Year title so controversial."

Leaving aside the fact that the project in question was not the 'centrepiece' but only a minor section of the work for which Cottam was awarded, Sudjic's comments are very telling. While his objection was based on lack of credit given to other participants, it was clear from his article that he believes the Kingsdale School architects, Alex de Rijke and his team at dRMM, were the only real designers involved in the project. Sudjic did not offer any serious critique of Cottam's definition of design.

In a letter to the *Observer* by way of response to Sudjic's attack, former School Works director Sarah Vaughan-Roberts presents a moderate riposte. "The award celebrates Cottam's skills in designing an innovative process rather than a product. Her talent lies in drawing together an inspiring team [and] her ability to challenge orthodoxies and persuade policy-makers to take risks."

The Design Museum award scenario represents one side of a push to make design more central to society. The other side applies to the world of business. "I think we're at the start of a design revolution in which a lot of companies learn to think like designers throughout their organisations as they produce complete consumer experiences with products and services," said Roger Martin, dean of the Rotman School of Management at the University of Toronto, at the recent 'Institute of Design Strategy Conference' in Chicago. And he is not alone in his enthusiasm for design-led thinking.

The business media's enthusiasm for design is evidenced in widespread coverage, from articles in American business magazines *Fast Company* and *Business Week* (which features an Annual Design Award) to *Newsweek* magazine's 'Design: Best of 2005' cover story.

The design world is also keen to build on this growing image as a tool for business, as well as for broader social challenges, and is building it into design training. The AIGA, (the leading professional body for graphic designers in the US), has developed a teaching forum with the Harvard Business School and organised conferences on design and social responsibility. The Interaction Design Institute Ivrea in northern Italy put the design of services and service models at the core of its curriculum and in California, the programme of the recently founded Stanford Institute of Design promises to "use design thinking to tackle hard social problems".

The RSA, too, has taken this line with its student awards programme, Design Directions. Head of design, Susan Hewer, undertook a major review of the Society's long-running design competition several years ago. "For a long time the then Student Design Awards had been building links between education and industry and our



Extensive coverage in international publications such as *Newsweek* reflects a renewed enthusiasm for giving design a broader remit

Photo: xxxxx

From left: Hilary Cottam accepts Designer of the Year 2005 award from Dieter Rams at the Design Museum; prototyped diabetes agenda cards (see box below); Cottam's design for a model prison



Photo: © Chris Davis



Photo: Design: the RED team

Photo: © Buschow Henley Ltd.



“Everyone designs who devises courses of action aimed at changing existing situations into preferred ones”

briefs to students had been largely market-led and ‘product’ focused. My review showed that the time was right to refocus the scheme and use it as a vehicle by which we could encourage young designers to explore the role for design in a broader societal context and, importantly, contribute to the goals of the RSA’s manifesto challenges.”

This year, the competition, now Design Directions, challenged young designers to “question the role of the designer in the modern world” by responding to projects with a strong social context. Participants sought design solutions for challenges as diverse as obesity, urban waste, smart technology and accessibility for all.

Design is increasingly considered to be a quality, and a way of thinking and doing, that has enormous untapped potential for business, and for society as a whole. To understand this, it is worth considering how design is generally perceived, examining what a design-led approach can lend and looking at examples of design being used to beneficial effect.

#### Design for health

In a keynote speech at the RSA Design Directions award ceremony, the Design Council’s chief executive, David Kester, noted that treating people with diabetes costs the NHS £10m per day. The Design Council’s RED unit worked with the local NHS in Bolton to improve their diabetes service, using patient-centred thinking. In a rapid project they developed ‘Agenda cards’ (see centre image above) intended to “reframe the interaction between patients and professionals”, and prototyped a ‘life coach’-like service for people with diabetes.

#### Design for justice systems

In the area of citizenship and democracy, the RED unit developed a number of projects based on a programme entitled ‘Touching the State’. Controlled groups were followed through various systems, for example jurors within the criminal justice system, and the difficulties they encountered were documented. The projects looked for potential areas where design could intervene to make the process smoother and more pleasant.

Until recently, in the UK at least, design was understood as being about decoration and styling. Partly as a result of the consumer revolution, this understanding has evolved to include basic problem-solving, form-giving, choice of materials and – particularly with respect to the web – usability.

“Design is the creative process by which economic, social and aesthetic value is first imagined, then shaped, and finally embodied in a meaningful, desired outcome,” claims Richard Eisermann, design and innovation director at the Design Council. And product designer Bill Stumpf, best known for his work with manufacturer Herman Miller, explains that “by design I mean the process both physical and mental by which people give an order to objects, community, environments and behavior”.

In his classic book *Sciences of the Artificial*, Carnegie Mellon University professor Herbert A Simon argued that “everyone designs who devises courses of action aimed at changing existing situations into preferred ones. The intellectual activity that produces material artifacts is no different fundamentally from the one that prescribes remedies for a sick patient or the one that devises a new sales plan for a company or a social welfare policy for a state.”

So, if we accept that there is unexploited potential in design, what exactly are the elements of design thinking, approaches, processes and methods that might be applied more broadly?

First and foremost, design is human-centred and humanistic. The RSA has, since the mid-1980s, promoted inclusive design principles and user-focused research methods in design education, through its student awards scheme. It continues to do so today within the Design Directions scheme, through a project called Inclusive Worlds and through the RSA Inclusive Design Resource, a toolkit to support professionals, industry and design education. “Inclusive design is a strategy which needs to be considered across all design and engineering solutions and the Resource was about providing the means to do that,” says Andrew Summers, deputy president of the RSA and chair of the steering group that brought the Resource to fruition.

“The business of design is to make things that people really want: useful, usable and desirable” says Shelley Evenson, associate professor of interaction design at Carnegie Mellon University’s School of Design. “Thinking about who it’s for, and ‘how it’s for’, really changes your perspective.”

Designers also have a different approach to user research. “Designers listen differently,” says Gill Wildman, co-founder of London-based innovation consultancy Plot. “They have the ability to make people feel comfortable and listened to, while picking up the vital clues.”

RSA Trustee Sean Blair, of Spirit of Creation in London, emphasises the value of designers as facilitators, and of participatory design, which collaboratively builds on ideas from potential users. “Absolutely brilliant ideas come up from ordinary people,” he says.

At the research and presentation stages, design communication skills can be very valuable. “Designers translate difficult abstract ideas into understandable, graspable realities,” says Eisermann. It can also help achieve clarity. Wildman observes that “in a group of people with different perspectives and agendas, design can present things in a visual form where people can say ‘That is not how I see it’ or ‘That is how I see it’ and arrive at a shared viewpoint.”

One of this year’s Design Directions projects, Design for Debate (see page 30) is a case in point. It grew out of a recent government Foresight project that aimed to provide a vision for the future development of cognitive systems through an exploration of recent advances in neuroscience and computer science. Design for Debate proved an excellent medium for articulating the conclusions of this study in a more accessible way and opening the issues it raised up for debate.

The next key, and related, elements design brings are prototyping, evaluation and iteration. Prototypes are mockups of a possible design solution, and can be basic or complex, and address one or all aspects of the solution.

“One of the brilliant things about design is that it allows you to rehearse,” says Wildman, adding that “getting it wrong is perfectly safe”. Evenson advocates doing research over a short period, creating rough prototypes – taking

into account environment and delivery – testing them, and then refining the design.

Design also works at more strategic and practical levels. Evenson notes that “you can ‘back-cast’ from those prototypes to now,” envisioning a new trajectory for the product or service based on an ideal design solution.

None of these revelations are new, however, so why is the focus on design so emphatic now? One answer lies with the New Labour government, which brought a greater emphasis on the role of the creative industries, including design, in the British economy. Design has also become an aspirational career choice for young Brits, with one in every 16 students now in art and design courses, up from one in every 61 a decade ago.

At the level of business and consumers, Evenson argues that people “have become more sophisticated in Maslow’s Hierarchy of Needs” (in which, as societies develop, needs ascend from the physiological through safety to love and belonging, esteem and self-actualisation).

A further role that design could play, according to Sean Blair, is in improving the productivity of the UK’s service sector. He notes that, while 72% of GDP in UK is generated in the service sector, this is unproductive in comparison to manufacturing, implicitly endorsing a role for design in transforming this situation. Blair also sees business concept models as a key area for the competitiveness of companies, citing Apple vs Dell, and ownership vs use models. “We can design business models. That is as much a legitimate design project as any other”, he says.

The commodification of design has led some designers interested in making change to investigate new roles for design. And in a related development, Chris Downs, a founder of London-based service innovation and design practice livework, points to “the mess the world is in, ecologically, socially, culturally” and to designers who are “waking up to the fact that they have massively contributed to the mess. They are asking ‘How can we use education and our unique thinking to positively contribute to change?’” he says.

What other areas could design possibly address? Downs doesn’t see any limits, particularly now that design is no longer discipline- or media-based. While this may be the

### Design for debate

Chris Downs is among those who believe design can play an important role in communication surrounding any social or public policy initiative. Drawing comparisons with the dense policy documents currently employed in public consultation, he sees a role for design in “making ideas consumable for citizens, who can then think about what kind of future they want to engage with”. He cites the works of London-based designers and researchers Dunne & Raby and Douglas Maitland’s ‘Praystation’ project, which was conceived in response to the RSA Design Directions ‘Design for Debate’ brief, and awarded overall winner.

Praystation (pictured right) responded to decreasing church attendance by adapting religious activities to contemporary mores and new technological possibilities.

Among its features is an iPod-inspired iCross, that changes from ‘pure white’ to ‘sinful black’ according to the state of your soul. Data from the iCross and can be uploaded to an ‘e-priest’ (left). “Forecasters work in this area but they don’t really make anything,” says Downs. “Douglas Maitland just made the change.”



### Design for tax

After the 1999 Australian Review of Business Taxation, an initiative was launched with the aim of creating an integrated design capability for tax policy, legislation and administrative processes. Research revealed that most Australians actually want to pay their tax, but that the system was designed for politicians not taxpayers. A team from the Integrated Administrative Design at the Australian Taxation Office led by John Body and advised by designers including Tony Golsby-Smith, Dick Buchanan, Jim Faris and Darrel Rhea redesigned the system. As a result, designers came to be seen within the Australian Taxation Office as facilitators, prototypers and people who could manage and deliver projects.

### Design for democracy

After revelations were made in the US about the problems with the voting system, the American Institute of Graphic Artists (AIGA), the Usability Professionals’ Association (UPA) and other professional organisations came together to form Design for Democracy. This initiative, more recently extended to the UK, aims to “increase civic participation by making the experience clearer, more understandable, easier to accomplish and more trustworthy”. It has redesigned the entire voting experience, from voter education to poll-worker training. As part of its remit, it raises awareness of the value of design, and helps government agencies find professional designers and researchers.



Douglas Maitland’s Praystation (see left)

Photo: © Douglas Maitland

case, there are a number of specific areas to which design thinking has been addressed.

One application is organisational and process design. In the mid-1990s Wildman worked with a production team at the BBC redesigning the way they approached their work, particularly identifying what changes teams could make to deal with ongoing problems such as bottle-necks in editing work.

John Zapolski believes there is “increasing importance in using design as a framework for organising decisions that people make”, citing, alongside the work of his own company, that of innovation consulting group IDEO. He is keen to differentiate designers from design, implying that the people who use these methods may not be called designers.

Former CapGemini consultant Garrick Jones, now a partner at the Ludic Group, agrees. “We learn a great deal from design, and in particular from user-centred design, which employs sophisticated methods for moving through time and engaging a wide body of knowledge and people in the development of outcomes”. He describes this as “a design-led approach to creating and implementing business strategy”.

Eisermann sees a future for designers as teachers. “Design will evolve to be an outcome enabler, rather than deliverer, creating tools to allow people to design for themselves,” he says, recalling similar developments in desktop publishing, which he believes will be replicated with desktop manufacturing and rapid prototyping tools. The Design Council has recently convened discussions with leading UK academic institutions around incorporating design thinking as a core element in business education and training.

What, then, are the obstacles to design taking a broader role in business and society? One challenge is the design industry itself. It is a “staid old industry that doesn’t embrace change” says Downs, citing the Dyson-Rawsthorn-Conran debate sparked by James Dyson’s resignation from the Design Museum.

The media perception of design may be another obstacle, as evinced by the reaction of media commentators to Cottam’s work. And there are those,



Designer, Nick Durant sketches scenarios to facilitate discussion

Photo: Gill Wildman

among them designers, who question whether these developments are positive, and suggest there are limits to how far this broader notion of design can be taken.

James Woudhuysen, professor of forecasting and innovation at De Montfort University, Leicester, believes that much of today’s official discussion about design reflects a “new instrumentalism”, in which the focus is on design “in the sense of the micro-engineering of social behaviour, not the engineering of great artefacts and services”.

Woudhuysen believes that the promotion of design and the creative industries all too often reflects government attempts to look modern. “Design frequently emerges as a cut-price way to solve problems that require much more substantial investment,” he adds. Discussing the effects of design, he notes that “as with IT, it is difficult enough to quantify the effect of design on productivity. Evidence about its effect on morale is even less reliable.”

“Design as a political movement has come to substitute for many of the genuinely political movements of the past. It is a relatively cheap way of appearing right-on, and of achieving the unquestioned goal of social responsibility,” he adds. “To exaggerate what design can do for the world doesn’t just inflate the egos of sanctimonious designers. It raises the wrong expectations of them – expectations which they are in no position to fulfil.”

Instead, he believes designers “should stick to creating great solutions to design problems, not ill-fitting and dogmatic Band-Aids that attempt to cover over gaping social wounds”.

Kevin McCullagh, co-founder of the strategic design consultancy Plan, and formerly director at Seymour Powell Foresight, expresses concern about the focus of designers being moved to social policy. “New Labour views creatives as the new role models for the knowledge economy, and an emotionally intelligent touch-point between the state and sections of society that trust and respect designers more than politicians,” he argues. “While it flatters designers’ egos to be taken more seriously, I question whether their talents are best used in this context, when many other specialists may have far more relevant knowledge and experience.”

“Design will evolve to be an outcome enabler, rather than deliverer, creating tools to allow people to design for themselves”

University of Kent Professor of Sociology Frank Furedi, who studies the effect of social policies, believes that some design initiatives are too prescriptive. Reflecting on initiatives to design buildings to encourage exercise, he says “it is not the job of designers to manipulate people’s lifestyles and promote physical exercise. In any case, getting people to walk upstairs is unlikely to solve the problem of obesity.” He suggests that instead we should be asking what is appropriate to that building and what will inspire people. “Designing things that encourage people to interact and move around may lead to people losing calories,” he observes. “But you can’t create that outcome just by building a lot of stairs – such a result is the consequence of good design. Design can do something good by being good at what it does,” he adds.

Whatever role design eventually comes to play, it appears that its humanistic and empathetic, inquisitive and imaginative, experimental and communicative roles can contribute still more to society. But to the extent that design is forced into roles by other dynamics it risks undermining the increasing seriousness with which it is being taken in business, government and society.

*Nico Macdonald is a London-based writer and author specialising in design, technology and society.*

### Project information

**RSA Design Directions projects for the 2005/2006 competition will include the following topics: Horizon Scanning; Design for Debate - Intelligent Infrastructure Systems; Redesigning States of Mind: Ban it. Deal with it; Designing out Waste; Sustainable Packaging; Campaigning by Design; Designing for Emergencies; Optimising relief supply materials in Disaster Relief Areas; Design for Patient Safety; Inclusive Worlds.**

**To see this year’s winning projects visit the RSA Design Directions 2004/2005 online exhibition at [www.rsadesigndirections.org](http://www.rsadesigndirections.org)**

### Further reading

**Available to borrow from the RSA Fellows’ Library**

- *In the Bubble: Designing in a Complex World* (John Thackara)
- *Designing for Humans* (Jan Noyes)
- *Design for Society* (Nigel Whiteley)