

Body and mind

experiments in medical interactions

Background

High quality care should be as safe and effective as possible, with patients treated with compassion, dignity and respect. As well as clinical quality and safety, quality means care that is personal to each individual.

Lord Darzi's recent final report to government on the NHS Next Stage Review, 'High Quality Care For All', identifies the needs of patients as individuals as a driver for the future. Yet there are daily interfaces with medical technologies, interventions and procedures that can have an alienating and dehumanising effect and seemingly deprive people of the compassion and dignity they need at times of heightened vulnerability and exposure.

If you were to design a medical interface, how could this interaction be more humane?

Brief

Identify one such interface with a medical intervention or procedure (dialysis for instance), and examine how design can provide solutions that humanise the difficulties associated with procedures that whilst everyday occurrences for professionals, represent an unsettling experience (on a scale from uncomfortable and alienating to embarrassing and frightening) for the patient.

The 'medical intervention' you select could be anything from a blood test (quick and easy, usually) to insulin delivery devices (regular and invasive in one's everyday life) to particular treatments in hospital (drips, feeding, transfusion) or constant life preserving therapy (oxygen tanks, iron lung) and could be wide ranging in terms of severity and invasiveness.

Examine the core problems in the experience of medical treatment: the interface between the anatomy and a medical device creates a charged experience where a person gives autonomous control over to technology and experts, and is transformed from an individual into a patient, defined by bodily functions.

Using the insights uncovered through your research, design a scenario, an object, an interaction, service, space or process that proposes a new interface between the body and medical technology. Use

design as a tool to provoke thoughtful critique or to challenge conceptions and practices in medicine.

Research and process

Approaching an area as difficult and technical as medicine can, initially, seem daunting. Keep in mind that you are not expected to treat ailments or create new interventions or treatments. The challenge in this brief is to rethink and redesign existing medical interfaces in an imaginative and experimental way.

Initial research stage: define and investigate

Begin by selecting an intervention that interests you. Detach it from the medical setting and start breaking it down into components: for instance blood, needles, electricity, sound...

Work your way into identifying the emotional or psychological elements derived from the therapy: you may use your personal experience, interview someone who has undergone the treatment, look into published research or hypothesise by imagining going through the process yourself. The most successful research process is one that combines all (or most) of the above methods.

In the first instance, do not attempt to search for a solution; take time to explore the details you have isolated. Focus on an interaction, a behaviour or emotion and explore it in depth as an entity removed from the medical context. When you take these explorations back into the space of medical therapy you should be able to bring external considerations and observations that will enrich your concept.

This project will benefit greatly from a cross-disciplinary approach: you will gain invaluable insight from consulting professionals from fields of research or practice concerned with the body, the mind or relevant life sciences as well as from reading literature which is not design related.

Make sure to visualise any part of your research using quick sketches, mock ups, photographs, collage or video – these will help you turn theoretical ideas into design details.

Practical research stage: experiment is key

The combination of received information and self-initiated exploration is what makes this project come alive. Draw from data you know (or can find out by reading or asking) in order to develop a question you can answer only by hands-on experimentation (for instance, how does sound affect the experience of pain or fear? How does it feel to be connected to digital hardware? How does life feel when the day or the week is interrupted by treatment intervals?)

Design and carry out an experiment in any way you choose: you may build specialised devices to wear or put on others; you may set up a performance; a public intervention; make a video or images and test the reaction of an audience to an idea; you may use the internet, the kitchen, your body. Design the experiment most suitable to answer your research question.

You may experiment on yourself or on (consenting) others, but always remember to document your experience (or that of your audience/tester) and use these findings in order to inspire, support or enhance your design proposal.

Design and development: bringing it all together

Collect the information you gathered during the initial research and the experimental stages of your project and start crossing the data: In which ways did your experiment findings refine, validate or contradict your hypothesis? Which elements can you develop into a design proposal? Can you enrich them with some points of reference you discovered during the research stage? Find the connections and contradictions that emerge between the information and the experience to envision a scenario.

Begin developing your concept and an initial design, adding layers and details as you progress. At this stage you must start being selective and demonstrate your ability to make the right design decisions. Do not be afraid to find creative ways to put together seemingly unrelated elements, as long as you can justify how this juxtaposition supports or enhances your design. At the same time, know when to dispose of ideas that might be fascinating in their own right but may overcomplicate or obstruct your concept.

The focus of this project is identifying and responding to complicated human needs. Medical design is utilitarian and function-led and the function in question is body repair. However the body is connected to a mind, a psyche, a range of emotions which are often being overlooked in the design of medical equipment and how it interfaces with the patient. Focusing on those psychological and emotional needs can lead to a design solution that humanises the complex experience of medical treatment, making it less traumatic and threatening.

You should strive towards a design response which is daring and unconventional yet rooted in reality.

In the final design stages do not neglect the aesthetics. Keeping with the rule that form follows function, which form should be given to such complex functions?

Aims of the project

The aim and challenge of the project is to provide an original, imaginative solution that offers new perspectives and perceptions of medical interfaces. It is important to remember that whilst you might not have the knowledge or experience of a medical engineer, you should see this as a positive attribute and not be deterred from tackling this design challenge. Your perspective as a designer, coupled with your lack of medical expertise, gives you a unique insight from which creative ideas can emerge. Keep in mind that design is first and foremost concerned with people, not with technology, commerce or faceless generic users – this is a most valuable perspective when examining medicine.

Therefore your design solution should not result in a purely utilitarian practical new implement; your aim is to apply your design thinking in order to speculate, imagine and excite a viewer about the potential of human-centric medical interfaces. The value of your design proposal does not lie in its ability to be implemented in hospitals, but in its ability to open the thinking space around body-object interfaces within the context of healing.

Some hints, pointers and things to think about

A complex, intelligent solution can emerge from a juxtaposition of medical and non-medical points of reference:

- the medical arena encompasses a vast area for exploration: space, furniture, uniform, services, human interactions (hierarchy, waiting room) digital interactions (signs, message boards) communication (leaflets, posters) and a range of emotions and behaviours. Examine the materials which come together in these spaces; for instance digital technology, bodily fluids and chemical substances
- the hospital as we know it presents a familiar multi-sensory experience that most of us instantly recognise from the smells, the sounds, the colours, materials...
- analyse the emotional experience: do problems lie in the discomfort of sharing intimate details with a stranger? Is it the difficulty in translating one's bodily functions into words? How can you relate to the combination of fear, anticipation, embarrassment, paranoia, relief?
- look for inspiration outside the hospital and search for design details and behaviours in other locations where the body goes through an intervention: a tattoo parlour, a beauty spa, religious practices (circumcision, exorcism, firewalking), pagan rituals, science fiction, body hacking, drug abuse
- look at different cultures and the way the body, health and death are perceived and treated; philosophically, technically, politically
- look into practices of treatment and repair in humans, other living organisms or mechanical objects: practices in alternative medicine, veterinary

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- surgery, gardening, a garage, clock repair
- look into science, science fiction, biotechnology, human enhancement. Emerging technologies put great emphasis on the body and experiment with new ways to alter and enhance our inherent anatomy. Consider taking inspiration from scientific experiments that are yet to be resolved, a futuristic approach often ends up becoming more rooted in reality than you would expect, and speculating about the future is a strong catalyst for reflection on the present
- at the design stages, liberate yourself from current medical aesthetics – just because things look a certain way now, it does not mean they must look this way always
- beware of envisioning the final result from the start
 - this will block your creativity and lead you to a predictable solution. Allow the process to lead you into unexpected territories - do not rush into a solution, let it emerge out of experimentation

Submission details

- your submission should consist of a resolved outcome, designed and presented in any medium you think is most appropriate: prototype, mock-up, photography, illustration, film, animation, presented in the first instance on A3 boards. The design proposal should be accompanied with detailed breakdown of the design components – you should demonstrate that you can justify any details or design decisions and link them to your research
- the thinking process should be documented coherently either through a written report (no longer than two A4 pages) and/or a detailed diagram, an animation or process map. It is important that you show your idea is based on research and defend its merits
- you should submit the documentation of any experiments performed in the development of this project, as well as a selection of working sketches, prototype stages etc
- if your project has any technical details (electronics, engineering, speculated biotechnological or scientific application) you are required to submit a short detailed technical explanation, written in non-specialist language or visually presented through an illustrated diagram
- all submitted work should carry an RSA label on the back; this is to ensure the safety of your work whilst in storage, and that it can be displayed for judging. Do not submit work in plastic sleeves or on foam board, metal, wood or Perspex, or in boxes

Schedule

Dates for submission of entry forms, fees and work

Thursday 19 November 2009

Deadline for Entry Form(s)/Fee(s) for all projects

(including *Directions Plus*)

Entry Forms/Fees should be sent under separate cover

– **not** with your entry – to:

RSA Design Directions Registrations
8 John Adam Street
London WC2N 6EZ
UK

Monday 16 November
– Friday 11 December 2009

Submission period for all project entries

(except *Design Directions Plus**)

Entries will be accepted at Brooks Transport Services Ltd on any weekday within the dates stated between 08:00-18:00, excluding weekends and bank holidays. Entries arriving after 18:00 on Friday 11 December 2009 may not be accepted

Please remember that all entries should be sent or delivered to:

Brooks Transport Services Ltd
Unit 2/15
Second Avenue
Bluebridge Industrial Estate
Halstead
Essex CO9 2SU
UK

All Entry Forms/Fees should be sent or delivered to:

RSA Design Directions Registrations
8 John Adam Street
London WC2N 6EZ
UK

**Design Directions Plus* – Submission date for entries for these projects is:
Friday 8 January 2010