FRIENDLY : HELPING DESIGN AND SCIENCE TO HELP EACH OTHER

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ABSTRACT
This paper looks at the progress of a project, which we believe has created a rich narrative between science and design. The paper describes an Industry Based Student Project titled 'Friendly', commissioned by a fast moving consumer goods company. One of the key aims was to explore whether product design, which is generally not associated with the scientific development of materials, could shed a 'new' perspective on how R&D scientific staff could use design tools within their work.
The project, undertaken by 3rd and 4th year Design for Industry (DfI) students from the Design School at Northumbria University, was divided into three discrete phases. The first phase was highly conceptual and context-free, the second had a social context and the third was more focused on product.
The project has raised a number of interesting issues that are to be further investigated. For example, in what way is a design brief closing and/or opening potential spaces for design exploration and ultimately affecting the design outcomes; or, in what ways does knowledge and techniques already developed and used in other disciplines such as cultural studies and social research, inform design in this important area of research.

Keyword: Landscapes, concept space, journey, 4D briefing

1 INTRODUCTION

In 1980 Bruce Archer postulated that 'Design, like science, is a way of looking at the world and imposing structure on it', yet believed that design had little to learn from that of the scientific community [1].
However Black and Sams [2] found Fashion students receptive to science, with input from scientists providing a good introduction to research thinking and the potential of new technology. In return, the student input showed the potential of Fashion and Design to make science and technology accessible and acceptable to people. This paper continues on this track, and describes a journey of engagement between two creative communities.
The first community comprises research technologists at an industrial R&D centre who are charged with innovating for branded fast moving consumer goods. They begin the journey with some ambivalence, prepared to go along but with little time or commitment available to deflect from their existing work-plan.
'Members of the second community, young designers of the UNN Industrial Design programme, begin the journey with enthusiasm but perhaps also some trepidation, knowing that the route and direction they take will be largely up to them.
The landscape for the journey is mature, well mapped, possibly even tired but the hypothesis for traveling is that radical, R&D-sensitive innovations exist and can be

inspired and crystallized by designer thinking.
Thus the motivation for traveling is the belief that design can be used to find new dialog within a science research community. The method is to find a problem space in which to challenge a number of product design students. This space had, in the beginning, little or no boundaries that would limit the scope of the group's creative thinking within the context of the brief.
The journey so far has taken two years and can be split into three distinctive phases. It is an experiment, and is presented as such in the following sections.

2 EXPERIMENTAL METHOD

Many researchers consider that an accepted method of design realisation is to work through the solving of often-ill defined and complex problem spaces, where in many cases the boundaries are complex and unstable[3].
In setting up this project the space has been defined not by solid scientific understanding, but rather the removal of boundaries from accepted scientific knowledge into the territories of 'what if' It is considered from the outset that the nature of the project is not to create a well-rehearsed and defined problem space but rather to consider the work to be undertaken as a process of data collection.
The outcomes are to form a narrative, which on completion should be validated as a whole. The results of the student activity were to be collected into a digital environment so they then have the potential to act as stimuli to the science research community within the company.

2.1 Raw Material:

'Raw material' for the experiment is the 3rd and 4th year student groups within the school of design. At this level the students have developed a number of ideation techniques and problem definition/solving, prototyping methods as well as a range of communication skills. The students will also have by now a broad socio-economic understanding of their role. These skills are accepted in the praxis of the design community, yet how and which of the skills the individual student groups used was co-dependent on the motivations of each project. The student group has 35+ members; the group exceeds the "critical mass" suitable for the experiment.
Although it was important to have as many individual outcomes as possible, it was also essential that the students worked within small teams in which they could bring together as many diverse personal skills to the project.

2.2 Method

To date, 3 briefed (creating the understanding of very broad parameters, 'what is not included rather than what is') but conceptual projects have been used to generate and refine ideas. At the heart of each project is a seemingly simple question "has Design anything new to say about….?" - Project 1 "Fluid" (no application or product context given), Project 2 "Ritual" (within a product context – Laundry), Project 3: "Friendly" (more focused on the product context)
The first project, design anything new to say about fluids, is so abstract in concept that a key to getting any design process to occur required the students to find personal context and direction for their work. What was enabled from the outset was a forum and space for 'story telling', a creative narrative, which approached the problem space as a shared experience for all.
At this stage there was no attempt to analyze or channel the work, no sense of individual focus or direction, rather an attempt was made to enact the broadest concepts in an

experience-based activity.
Key to the “journey” structure is continuity. The projects are loosely linked, with project 2 learning from 1, 3 from 2 and 1. Perhaps more importantly, a key enabler has been the use of a selected team from project 1 to do project 2.
From the outset we needed to establish the broadest framework yet define a structure to support the student body. We established the well-tried method of creating a team-based project. However within this structure we created shared and discreet space so that the students worked from the outset within a shared experience, yet retained their own confidentiality within discreet groups until the focus of the project had been highly defined. The staff role was simply to act as mediator and director, once interesting and fertile territories had been established within each of the groups.
Within complex problem spaces it is easy for the individual or group to try to find consensus and commonality within the framework, and thus a merging of ideation towards the boundaries of each narrative.
The act of removing open dialog between the students at this point in itself can be seen as an experiment based more on professional practice than within an academic framework, but allowed each group to define its own terms of reference.
The second project looked at ways to define in the broadest terms a working space in which we can immerse the viewer within the territory of the third problem space, yet giving only a visual animating

3 RESULTS AND DISCUSSION

The landscape of the journey is populated with ideas and these are the data generated by the experiment. As would be expected, data range from the here and now to offbeat futuristic.
One of the key values throughout this experiment was the ability to tell a complex narrative, the art of the story, not bounded in the dogma of science or the professionalism within design, but by using whatever technique seemed appropriate to the groups.
By making the process a journey we are suggesting a culture for ideas that we are calling "The Slow Ideas Movement" the idea of not ‘problem to solution’ rather problem space to narrative and dialogue within a broader context. The type of dialog one might create on leaving a theatre or film or gallery, discussion on the territory of subject within the seen image. This point of view is inspired by the Slow Food movement that encourages pleasure and diversity of food and lifestyle beyond the homogenisation of fast-food culture. The idea of preparation, quality of workspace and the visual qualities of ingredients and time in maturation is the key, something that generation and acceptance of ideas needs to flourish and embed.
The process has encouraged identification and development of film and animation as a successful communication method for the data. This format allows complex, conceptual ideas to be captured in a concise appealing, high-impact way.
The briefing and pre-amble of one project to another using these time and motion techniques confronts the viewer with rich unavoidable stimuli, which at best will intrigue and tempt the viewer to make connections and question the content This we believe is universal and primal and accessible to our community
This tempts the technologist community to pay attention – slowly at first but with an increasing momentum, as the projects have unfolded over time. As the projects have unfolded the power of the output has started to win through. For project 1, the output was presented to 2 people, for project 2 it was ~ 6, for 3 around 25.

Through the highly conceptual nature of the briefs, the technologists bring the designers into an open, hypothesis-based research mindset; through the living journey of the total output, the design community pull the technologists into a "designer-culture" that deals with people, prototyping and narrative.
Our audience within the scientific and commercial community has grown in size and specialist interest, each taking their own interpretation from the body of work and we can evidence a much broader acceptance of value and worth.
It is our belief that this type of time based project can only work at present within an academic community. Why? Because the very nature of the agency and professional practice may not yet be adjusted to the concept of lack of defined outcome, and would be hard pressed to create such a people rich forum to create the diversity required.
This does not preclude their work or involvement with such projects but it is the management and working of the larger group that generates the data.
Where next? A strong resource backed by the living narrative of the journey has been built that is now ready to be applied with increasing focus to commercial briefs.

REFERENCES

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