Introduction

Catalysing Agency proposes a novel process for engaging with users and groups to inform co-design practices in software development for collaboration tools and services. It is the culmination of a research project exploring groups and group behaviours within the context of the University of Cambridge and its institutional IT systems. The project has been a collaboration between Proboscis, the Centre for Applied Research in Education Technologies (CARET) and Crucible.

Catalysing Agency explores the opportunity and requires for a new kind of resource that software development groups such as CARET could make use of to precipitate change in their working practices. This resource, described as a Catalyst, arises out of our observations and insights into interactions between people and systems garnered on this research project.

During the final Reflection phase of the research, it became apparent that the key issue at the heart of the question of understanding groups, group behaviours, IT systems, collaboration and software development was the tension between the fluid processes that people use to carry out activities in their everyday lives and the infrastructures and systems needed to coordinate the activities of groups of people. How can this tension be kept taut and productive without slacking and becoming unproductive? It seemed to us that too often in “user centred design” practices that the abstraction of people and situations into personas and stereotypes bleed out the depth and complexity of their needs and requirements. This is what we would characterise as slackness in the tension between fluid process and infrastructural system. The role of the Catalyst is therefore to initiate bi-directional agency in engagement between designers and the people who use, or could be using, their tools, stimulating the kind of rich dialogue for collaboration and co-creative co-design. To keep the tension taut.

This book is part discussion of the concept of the Catalyst and part recipe for making this concept actionable.

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Catalyst Principles

• The Catalyst should be a person, not a process.
• The Catalyst should be a collaborator not a staff member.
• The Catalyst should be someone whose practice seems unconventional in relation to the role rather than someone who purely seeks to practice unconventionality.
• The Catalyst should be comfortable initiating explorations with CARET and their collaborators into unfamiliar or uncomfortable aspects of their work.
• The Catalyst should be willing and able to guide the process past the initial shock of interdisciplinary exchange between different stakeholders and on towards productive forms of dialogue.
• The Catalyst should be able to communicate her/his own insights rather than trying to deliver work that is catered towards CARET.

What Kind of Catalyst?

One of the underpinning assumptions informing our approach to this research is that using "personas" or "categories of users" to classify different potential collaborators for CARET can undermine the richness of possible engagements between the people who live or work at the University of Cambridge and the members of CARET. Such an approach can often lead to formulaic assumptions that constrain the experimental process and minimises the significance of the process of discovery that is the very essence of collaborative exchanges.

The following pages critically examine two different conceptualisations of personas that might provide preliminary descriptions of a Catalyst and conclude with a discussion of how the problems identified with these roles are addressed in Proboscis' conceptualisation of the Catalyst.

The Maverick

The term maverick is often used in everyday speech to refer to people who do not follow conventional wisdom. The origin of the term is often attributed to an American rancher by the family name of Maverick who refused to brand his cattle. Other ranchers who would encounter these unbranded cattle would refer to them as mavericks. A more sociologically informed definition of maverick comes to us from Howard S. Becker's *Art Worlds* (1982). For Becker, all social worlds that involve the production, distribution and appreciation of symbolic goods can be defined as art worlds. Many different people work in these social worlds and in most cases, few have direct contact with each other. What makes coordination of activities between all of these disparate people are sets of conventions – "a system [...] embodied in equipment, materials, training, available facilities and the like [...]" (Becker 1982: 32). As part of his research, Becker also identifies a number of different roles that people play within these worlds in relation to conventions. The first is the expert, someone who knows and uses conventions very well in a prestigious art world. The second is the craftsmen, someone who knows and uses conventions in an art world that is not recognised as being prestigious by others. The third role is that of the maverick. For Becker, the maverick is someone who works within one of these art worlds, be it prestigious or not, but who does not follow one or more of its established conventions.

Based on the above definition, a maverick may well fit the description of the Catalyst: someone who does not work with familiar conventions, seeks out alternative uses or...
Personal Qualities

The person would be a keen learner, willing to try out and explore methods, tools and services, interested in new things and experiences and, as such, be able to be a barometer for CARET indicating fruitful opportunities on the horizon.

The Catalyst

We have grouped the kind of personal qualities that would be desirable in an engagement catalyst. These indicate the kind of qualities that a person would need to be an effective motivator and networker of people. The ability to make new connections and associations with people in different areas of the university is key to brokering new relationships that can also be an excellent way to encourage others to open up and share. Good communicators are good at listening to others, as well as a sense of humility and empathy. Being self-effacing can also be an excellent way to encourage others to open up and share. Engaging others is a delicate balancing act between different groups, that they reach out and find different people to produce the most fruitful outcomes. We have grouped the kind of personal qualities that would be desirable in an engagement catalyst. But while there may be benefits to this hybrid epistemology, Haraway warns us that the trickster of myth is often ambivalent to the resulting arrangement. In our context, this suggests that by combining different people and objects, the trickster works to blur lines of what is possible and impossible. The trickster role is deployed as an ironic or playful figure to explore how people who are interested in new experiences and, as such, be able to be a barometer for CARET indicating fruitful opportunities on the horizon.

The symbol of the trickster or coyote has been used in technoculture literature to discuss alternative epistemologies that could challenge established technological and scientific practices. Inspired by the work of Donna Haraway (The Cyborg Manifesto, 1991), the trickster role is deployed as an ironic or playful figure to explore how people who are traditionally overlooked or oppressed by scientific disciplines can abandon the quest for mastery “but keep searching for fidelity, knowing all the while [they] will be hoodwinked” (Ibid: 199). The approach emphasises subverting the established order through hybridity or mutation. Its ties to mythology also emphasise a symbolic and aesthetic dimension: the trickster approach is about exploring the pleasures of free play. It has been used in a number of contexts from feminist interpretations of information technologies to alternative environmentalist movements.

As a potentially desirable personality trait in the context of the Catalyst, the trickster is someone who has the confidence and daring to question underlying assumptions and who playfully subverts the status quo by confusing the boundaries between different social, cultural and technological arrangements. If the maverick is defined by how she/he does things differently from the rest of one social world, the trickster is defined by how she/he is able to blend the properties of different social worlds in unexpected ways. This is a significant distinction because this hybridity requires that the trickster works between different groups, that they reach out and find different people to produce the desired change. Stimulating such a hybrid exchange between CARET and other groups in and around Cambridge is a key aspect of the Catalyst role. While there may be benefits to this hybrid epistemology, Haraway warns us that the trickster of myth is often
Experience

The following are a list of key areas that a potential Catalyst should be able to demonstrate evidence of achievement in from their previous experience.

Networking
Being able to demonstrate a wide network of contacts across different disciplines and sectors.

Communications
Being able to demonstrate an ability to communicate effectively across disciplines and sectors.

Brokering relationships
Being able to demonstrate a prior example of initiating collaborations involving people from different disciplines and sectors.

Boundary crossing
Being able to show prior work that demonstrates a bringing together of influences from different disciplines and sectors.

Bring people together
Being able to show evidence of an ability to organise and facilitate collaborative workshops, meetings, charrettes and exercises.

Objective observation
Being able to show that they can report on activities from an objective perspective, for instance, using methods drawn from anthropology and ethnography.

Ability to cope with risk and uncertainty
Being able to demonstrate prior examples of projects involving risk and uncertainty, explaining how they coped with them.

Active research interest
Being able to show an informed enthusiasm for discovering new opportunities, methods and practices.

person is not afraid to risk crossing different disciplinary boundaries (even those that are unfamiliar) and to explore how different playful combinations of interests and ideas can produce unanticipated results. Just as suggested in the figurative definition of the term Catalyst written above, both are persons who could precipitate change. The common trait between the two that is significant for the Catalyst role is their ability to propel CARET and those they collaborate with to explore unfamiliar or uncomfortable aspects of their work.

But the above discussion also points to potential difficulties that these types of personas face as part of their practice. Their very strengths are the source of their limitations: working on the boundaries often means staying on those boundaries, blurring boundaries can produce fortuitous connections but also complex conflicts.

The challenge for CARET is therefore to design a process that creates the right conditions to nurture these kinds of personas while also ensuring that CARET is able to produce unanticipated results. Just as suggested in the figurative definition of the term Catalyst written above, both are persons who could precipitate change. The common trait between the two that is significant for the Catalyst role is their ability to propel CARET and those they collaborate with to explore unfamiliar or uncomfortable aspects of their work.

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