THE JOURNEY OF A CREATIVE THOUGHT LEADER

Dr Su Maddock
Specialist Advisor to National School of Government
Manchester Business School
smaddock@dom01.mbs.ac.uk
su.maddock@nationalschool.gov.uk

The Journey of a Creative Thought Leader
Dr Su Maddock

Synopsis

This article tracks the emergence of Helen Storey's latest social and conceptual public project, *Eye and I*, which stimulates public responses to a variety of emotional expressions. Visualizing emotional and cognitive processes allows Helen to develop public art as a form that stimulates others to explore their own attitudes and emotions. Helen in interest in reconnecting experience, science and art and her practical demonstration of the connections between these fields makes her a significant thought leader as well as innovative in art she transcends the boundaries between conceptual art, science and contemporary cultural narrative.

The purpose of the work is to demonstrate how the creative process is a collaborative and conceptual process and a matter of social epistemology and social construction in the making. The focus of the article is to demonstrate how creative work is part of knowledge building (as well as knowledge reflection) and an interactive activity not one of just individual endeavour. The research shows how important context and agency are to creativity, a fact oft forgotten by government, policy-makers and business.

Helen's journey shows how emotion and affect are also important to learning and creativity and as important as cognitive development and articulate thought. Her work and that of others noted by the author also shows how 'gender' is a factor not only in the type of creative expression but also in the way her conducts and defines her work, and the resistance she meets.

A significant factor within Helen's work is in her challenge to scientists and artists alike. In seeking greater exploration rather than analysis of removed data from within a purely rationalist framework, Helen forces as a creative but compelling force Helen asks questions that are pertinent and yet ignored within establishment thinking. Professor Jim Coen, her neuroscientist collaborator acknowledges his debt to Helen for advancing his own research. The author also ha explores creativity with the same intent of showing the significance of context, agency, interaction and redefinition to creativity, which can only throw light on how to develop more conducive environments for innovation and creativity.

Key Words: Collaborative Creativity; The Creative Journey; synergy between affect, cognition and social interaction; Social Construction of innovation; Barriers to innovation; Innovative paradigm for innovation research

Introduction

The artist and author met in April 2003 in Manchester when Helen Storey, the artist was going through a critical and reflective period. The Author wanted to explore how a creative person moved through personal reflection and anxieties and the significance of context, timing and collaborators. Both could see the value of talking to each other about Helen's journey--the author,[1] because she was interested in the creative process and Helen, because she wanted to share her thinking about a range of subjects about herself, her interest in depression and neuroscience and her commitment to a form of 'social art'.

Helen was clearly someone who acknowledged both her own emotions well being a very reflective and cognitive person. She appeared to integrate both cognitive and affective approaches to her work, and to be able to reflect on how people and events were influencing her and her thoughts. This made her an interesting person to work with – because she was able to articulate what many other artists appeared to find difficult to express, notably how she needed the interaction and stimulation of others. Creativity tends to be viewed as the domain of the gifted, exceptional or deranged and innovative work as something that emerges 'out of the blue', detached from context and collaborators. It is therefore unsurprising that the public think that only exceptional' individuals can be creative. Helen's journey suggests that early exploration and later collaboration with others, is critical because reinforcement from others provides a receptivity to her creative ideas and encouraged her to take risks in challenging conventional boundaries. This account, which follows in an *ethno-methodological* tradition, highlights the significance of creative interaction and the synergy between affect and cognitive work, whilst also highlighting the role of partnership, translators and early adopters as important factors in the adoption of social innovation.

THE JOURNEY

The journey as a quest

Throughout her life Helen had observed the powerful connection between creativity, emotions and mental health. She recently had found that her ideas chimed with that of some scientists working in neurobiology. She wanted to make sense of her emotions and to find out more about how neuro-activity influenced moods, emotions and her creative work. She had a profound interest in an individual's capacity to control their own moods and states of minds, something Buddhists have believed possible for many years,

---

[1] I was interested in the role of creative leaders in determining the direction of new thinking and the experience of the creative process from the artist or thought leader perspective. Given the huge gap in understanding about the connections between the creative experience, its context and collaborators, the study of a creative leader's journey was envisaged as invaluable into thinking about how organisations could better support innovators and innovations.

Motivation and Identity

Helen's creativity is driven by what she values and how she sees herself as an artist. However, her experience is as she moves closer to the public realm the further she moves away from the established view of the artist.

> *"I'm probably hard-wired like my father for my work to be*
> *rooted in social meaning – it's a working class thing.*
> *I am happy for others to call themselves artists but I need my work to have social meaning and that makes me reluctant to call myself an artist"*
> *I often feel art has no tangible purpose and I want to have a (social) purpose. I don't feel I fit anywhere. Not being from one discipline is culturally alienating because artists are assumed to do certain things and act in certain ways."*

Helen's journey was motivated by her intense curiosity about the relationship between brain activity and emotional experience. She wanted to know

> *"What makes one person depressed and another not."*
> *"What is well-being or happiness?"*
> *"How can a person control their own emotions?"*

Helen is a passionate inquirer, her creativity is expressed not just through visual installations but in the way she thinks and engages others in the public realm. She is stimulated by conversations, by books, films and life and importantly also has a confidence in her own reflections.

> *"When I was absolutely stuck and about to give back the design fee, I decided to stop thinking and read the book as if it were a meditation, without trying to fathom, understand or shape what I was reading, and then it came to me sideways, a question from no where connected" [Helen].*

The notion of play and escape are central to Helen's drive.

> *"My main drive is to put a stop to my constant self reflection for a time to find a sort of peace ……This project and my survival depends on my removing my conscious reflections of self, I have to become unimportant in the scheme of things, that's when the best stuff happens, when you get out of your own way …..On reflection the following theme shave been critical for me: my own motivation, stimulation from others, recognition by others, taking risks and overcoming my fears and building trusting relationships that result in the shared ownership of projects." [Helen]*

Exploration

Helen's reputation with scientists had grown after her installations Primitive Streak and Amygdala provided visual images for medical education. While she was exploring new

terrain, scientists were also becoming interested in how the Arts could play a part in the public understanding of science. Helen has worked with the Head of Medical Education at the Peninsula Medical School in Plymouth, UK previously; originally a microbiologist, he moved from Scotland to develop a new medical curricula in PMS that involved the Arts in learning. She also developed relationships in several other universities and those working in innovation in industry.

Taking Risks

As she ventured into new territory of 'emotion' and brain activity Helen began to get doubts about the validity of her thinking, moving in a domain she knew little about.

> *"When I talked to scientists I often felt stupid – they were interested but as I had no immediate project they weren't sure what I was exploring. What they didn't realise was that artists have periods of not knowing what they are doing. I was losing my confidence and began to see myself as I felt others were seeing me as: a single mother with no secure income or purpose." [Helen]*

Feeling anxious Helen went to the USA to meet scientists at the University of Wisconsin where Professor Richard Davidson was Director of the Laboratory for Affective Neuroscience. Helen met with researchers working on autism, emotional relationships and the facial expression of emotion. She gave a presentation where many in the audience were sceptical about her work because it didn't fit with their idea of scientific exploration. This increased her anxiety. However, others were excited and began to see how her work could be of value to them. In particular it gave them the confidence to challenge their own thinking. They wanted to explore

- visual ways of presenting their findings
- new research questions
- how research questions are generated or imagined.
- how to reach the public

She noticed that that the laboratory team had no common space for discussion and thought this strange given that they were a team of scientists exploring possibilities.

> *My visit had created an informal space for debate that was unusual for them. This seemed strange to me that there was no forum for casual collision amongst themselves [Helen].*

Towards the end of her USA trip Helen met Jim Coan who was studying interpersonal relationships between couples, looking in particular at the emotions of anger and rage, and exploring how emotion manifests itself physically through facial expression. It has been known for some time that primates rely on facial movements to express their emotions to one another and that particular parts of the brain connect to particular

emotions.[2] His particular interest was in the role of facial expression in communicating emotions, and in identifying those emotions 'hard-wired' in all of us, something he defined as "facial leaks". Coan had carried out a study of 350 women's smiles. He interviewed couples at different times in their lives and showed how the type and intensity of their smiles could predict their later life direction. He remembers being skeptical that an artist could teach him anything. In spite of this Jim began to see the value of conversations with Helen. Helen was also fired by their discussions and became excited about the possibility of a collaborative project between them.

> *"We walked New York, talking non stop, finding eureka moments down the subway. As I was leaving I realised I was transfixed by the science but was alienated from any sense of art or how I might transmute what I was beginning to understand into something for others to interact with. On a deeply unsettling flight back to the UK it came to me that where we meet was on a mutual fascination for what is going on in the mind when we have a sense that we exist. How a questionable presence of both negative and positive emotion is around in these times." [Helen]*

By the end of the week they agreed to work together. Jim would participate in Helen's emerging project that was to be based on emotional expression. By taking the risk of talking openly to people from other worlds even though this caused Helen doubt and anxiety, when she met the person, most interested in the same ideas they generated a synergy of ideas.   Helen decided that the focus of her new project would be on the role of eye contact in emotional communication and Jim would be the scientific resource for this project.

Testing the Idea

The process moved to the next phase from two years of conversations into design and production. Helen talked about their idea of a project based on 'the eyes and emotions' with Caroline, her partner, who immediately came up with the title of *Eye and I.*

> *After the USA visit it immediately stuck me that the 'eyes' had become the focus. I had become frustrated by the length of Helen's reflective period, and so was relieved that we had something I could develop and put into practice – two years is a long time for gestation. [Caroline]*

That the project had moved from conceptual confusion to a live project was a relief to both of them.

> *"After two years of struggling to articulate a direction it was a weight off my shoulders" [Helen]*

---

[2] The role of the Amygdala in the perceptions of emotions was shown by Ralph Adolphs, where a patient with a damaged amygdale could not distinguish facial expressions. J of Neuroscience 15: 5879-5891

An idea needs application to take root, which means it has to be made visible and concrete; while the connections were understood by Helen and Caroline the next challenge was to find a way of making these visible to the public. Caroline is usually the first person to hear Helen's new ideas and if she is able to grasp and interpret them others, usually the idea has potential. Thereafter begins the process of adoption which typically involves new collaborators, finding funding, marketing and dealing with logistical considerations.

Into the Public Domain

Caroline took over all the planning and logistics of the project. A planning meeting was held in a school with teachers, parents and local communities who asked some difficult questions. Some were concerned that children might be frightened and there was a long discussion about possible risks about involving children. Helen assured everyone that this was an exploration not an experiment**.** *Eye and I* opened for one week in Charles Edward Brook School, in London in May 2005. The 16 actors performed over 30 emotion sessions.   A mixture of children and teachers from 6 schools as well as local community and members of the public attended. The experience was designed to stimulate a sense of curiosity rather than fear and to create a positive authentic experience. Over 250 people attended over the week.

Helen had designed a welcoming space where visitors were to be invited to interact with a multitude of eyes, each expressing different emotions. The eyes alternate between expressions of anger, fear, joy and sadness. Importantly, the eyes visible through rectangular openings in the walls and ceiling—were those of live actors, not photographs or film. *Eye and I* was to be a room within a room measuring 8 x 8 metres, customised to fit the media room in the school. An anteroom was also created to ensure that visitors were physically separate from the main school. The Ceiling and walls of the room were filled with randomly placed slots through which the eyes of actors peer, expressing various emotions of joy, fear and anger, the visits when they enter the darkened room can see nothing but these eyes peering at them. Coan coached the actors in eye expression, which he had found to be important indicators of emotional authenticity. The actors never spoke and were in place before the visitors arrived. Each session lasted between 5 and 10 minutes depending on the comfort zone of the public group.

Responses

Eye and I generated very different responses. Some were animated others fearful and/or hostile. Adults who had anticipated fear among children, soon realised that children were more comfortable with eye contact than were the adults. Women appeared less anxious than men and were more interactive with the eyes. Women wanted to disarm hostile and fearful eyes and to reverse their expression towards a more positive mood. By contrast a few, older, white men were extremely uncomfortable with any eye contact and wanted to leave the room immediately, while others took responsibility for the group and cracked jokes to ease their discomfort. The actors became much more very engaged with the

project than had been anticipated and found it difficult keeping up one expression for long, especially when the participants became interactive.

Helen experienced the *Eye and I* events with great emotional intensity, adjusting to other people and their emotions, she felt responsible for all those involved in it. Being an artist requires not only talent but also the bravery to put something in the public domain.

Creativity as a collaborative process

Essentially, for Helen the creative process is a collaborative process. She needs partners who are able to give frank responses. Sole practitioners have the freedom to do what they like, but without the support of someone who is able to translate their work it can remain undiscovered. Helen and Caroline's partnership is firmly based on a trust for one another and in each other's capabilities. Their ability to connect creative thinking to practical realities was borne in the fashion industry, where translating ideas to the 'Cat-Walk' was the stuff of their original partnership in the fashion industry. Somehow, between the two of them, doors are unlocked; work is conceived, made and disseminated.
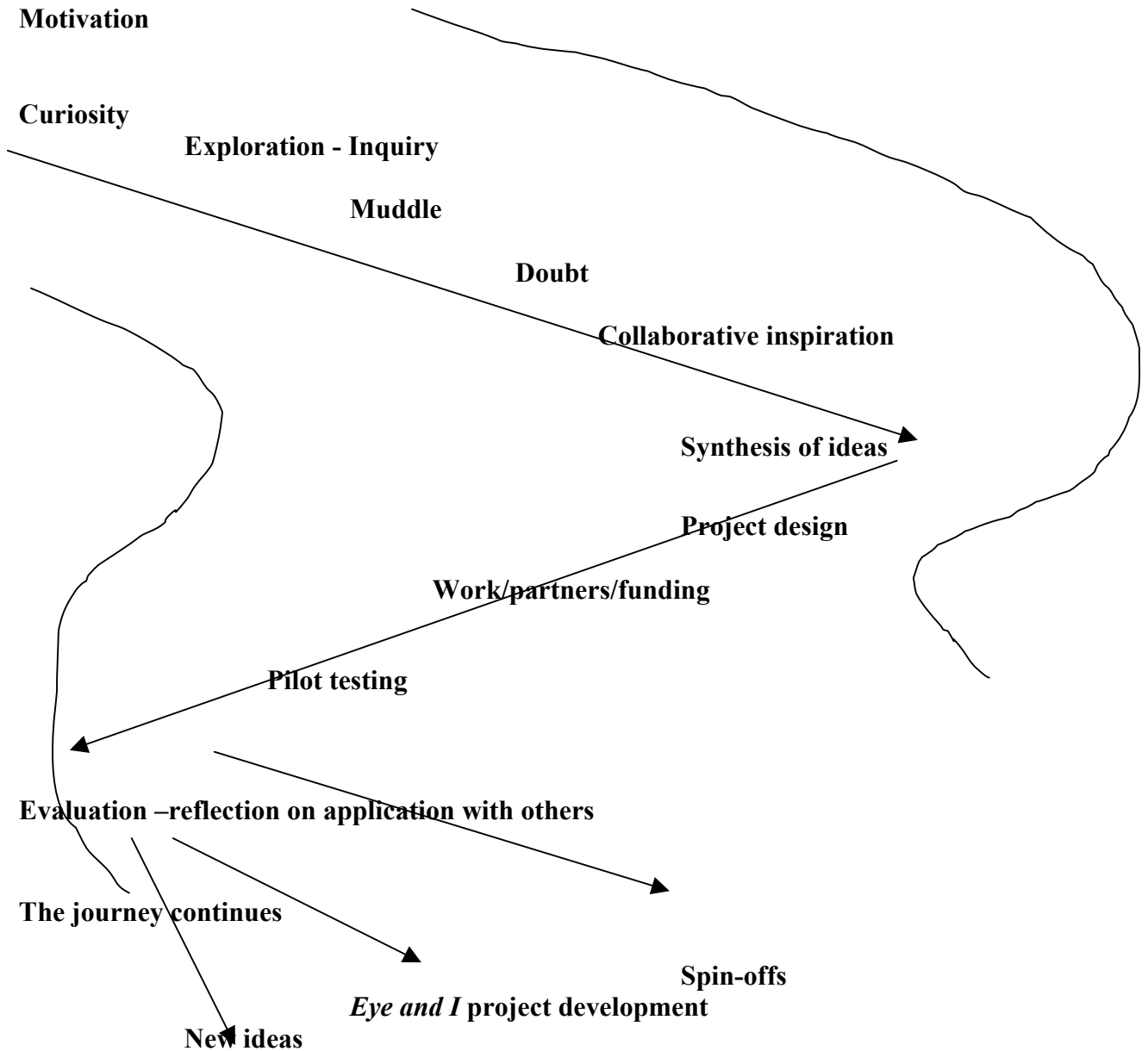
> *Caroline runs the Helen Storey Foundation as a business – aware of the fact that it is important to have a grip on cash-flow, profit and loss etc. like everyone else. Caroline's attention to detail is very important. This ability to complement Helen's artistic work with a practical application is rare. Not many creative practitioners have a partner who is able to be both broad in view, supportive of complex and very personal work, but at the same time able to focus on the actuality of making a unique object work in front of the public.* [Former business partner]

Helen is able to delve into new schemes because she has the safety net of Caroline's grasp of realities and Helen's dreams. The partnership enables them to discuss what to do when and to push the right buttons at the right time. They work in different ways, Caroline preferring the phone and Helen email

> *"Collaborative creativity has had a significant impact on my own Identity…. I think collaboration makes you braver I feel that through my collaborative work over the past seven years I am becoming invisible. I feel a strangely pleasing dissembling of my identity rather `than a reinforcing or clarification of what I used to be. I like that. One day I hope to be totally invisible.* [Helen Storey 2004]

Many people were involved in *Eye and I* which runs counter to the popular notion of the isolated artist concerned only with themselves. Helen is also a woman whose ideas and art are deeply rooted in social purpose. While the focus of *Eye and I* was a collaboration between artists and scientists; social scientists also have a part to play particularly in the sense-making around creative processes and the relationships and dynamics involved.

Helen's journey appeared to follow a route rather than a linear path of

Motivation

Curiosity

  Exploration - Inquiry

    Muddle

      Doubt

        Collaborative inspiration

          Synthesis of ideas

            Project design

          Work/partners/funding

      Pilot testing

Evaluation –reflection on application with others

The journey continues

              Spin-offs
    ***Eye and I* project development**
  New ideas

It is widely accepted that creative activities tend to follow a well worn track and that innovators usually go through stages of exploration and confusion before arriving at a sense of fusion [Rickards 2005]. At each stage the thinking and activities are taken into a new domain. The creative experience commences with the will and desires of the artist or scientist, who takes a risk and explores 'wacky' ideas with other people. The creative journey has recently been shown to be beset by the calm doldrums and practical difficulties and as well as by personal doubt [Shalley, Gibson & Blum 2000]. The process has a recognizable chronology and knowledge that the source of energy for creative work

is driven by those persistent in their curiosity and explicit exploration, this requires confidence. Helen's persistence was fuelled by her quest and by personal qualities common to many creative people, of being

- driven by curiosity, attracted to complexity [Feist 1998]
- sense of autonomy [Kahn 1990]
- brave & risk taking [Amabile 1988]
- persistent [Barron & Harrington 1981]
- focused and intrinsically motivated [Deci 1975]

Dewett [2006] suggests that more recently research on 'creativity' has a adopted a more contextual approach [Shalley, Gibson & Blum 2000], Amabile [1996] showed how environmental factors that's encouraged autonomy, were free from stress tended also to stimulate creativity. Kahn [1990] had earlier suggested that work autonomy tended to generate a confidence in risk-taking and creativity. Dewett [2006] goes further and suggests that creativity is bound up with the willingness to take risks in all environments. However, Helen also appears to be

- motivated and confident of
- eager to seek out other innovative people to collaborate with
- very reflective
- able to synthesize ideas and experience

These qualities appear to suggest that, for her, at least, and others like her, that contextual variation and intrinsic motivation are not the only factors relevant to her work. She seeks partners and acknowledges their role in her creativity and in the outcomes of her work. She is a collaborative artist and as such is a thought leader within the world of art.

Translators, Adopters and Out-layers

It is unsurprising that *Innovators* such as Helen usually have less interest in application because they are focused on the conceptual and on vision, not on the business. Application and adoption requires translators, people who understand original ideas and their relevance. Caroline is Helen's access to the public, she is her first translator whole the others working in partnership are the early adopters and adapters of her work. It is the mental readjustment that each new adopter makes that underpins the application of creative work.

This adoption process is like a tidal wave on which translators ride and where they remould original thinking and adapt it to their contacts and networks. Through this process original work is constantly readopted by each new surge of interest. The application process is an active social process that radiates from the original version of the concept. The speed of adoption depends on the success of not only the creator but also on the effectiveness of their translators and their contact with those receptive and waiting to use or adopt their idea, product or process.

Tuomi [2002] describes how a network of users adopted and used new technologies and played with them until they produced the software for the world wide web. He called the people who were in effect the innovators of the web 'combiners', who he said worked outside of the mainstream in a peripheral and unstructured '*in-between world*. The 'combiner' in part of a creative process and is someone who brings together practices, processes or technologies and reassembles them in new knowledge frames. The Worldwide Web Linux system evolved precisely because innovators worked outside the formal structures and because of the creative space that a network community of interested parties provided [Tuomi 2002].

People are more likely to explore their creative insights when given the space and encouragement to do so. Kahn [1990] suggests that managers who allow for mistakes are more likely to stimulate others to take risks and be less risk averse. Dewett [2006] has also explored the connected between creativity, the willingness to take risks and encouraging work environments. Within the public sector those who operate in networks also carry new ideas from one domain to another are often mobile staff or consultants, who are translators who travel in what is becoming known as the *white* space between organisations.

> *I have noticed in my life and work that this creative process has been happening increasingly in collaborative settings. My collaborative projects aim to visualize what is in effect intangible/ invisible, e.g. what happens in the brain whilst being creative. The process is always more important to me than the product. [Helen]*

Receptive to new ideas or lost on the margins?

Eye and I illustrated, like many other projects, how collaboration between artists and scientists can be productive. Especially given that, scientists need to find ways of communicating with the public and with children. The question for educators, business and scientists is how people can be encouraged to be more creative and how to generate the conditions conducive to the adoption of new practices and ideas. The view of creativity that emerges from Helens' creative route is that the energy a talented individual is given breadth and new meaning through collaborative activities between people of very different talents.

The problem is that too often those in institutions are deaf and blind to innovation and are unwilling to give space for new perspectives when they do not emanate from the corporate team. Helen and Caroline reported not being understood; a common experience for creative people who are usually on the margins and viewed as 'mavericks' [Maddock 1999].

> *This is the reason that it is those in the margins, who are the carriers of new meaning - who cross boundaries and add value on the way. Helen is one of these people. [Dr Gill Samuels]*

In the Pharma industry the innovators and translators are called are called *outlayers* because their marginal status is recognised. Gill Samuels is someone who is interested in promoting innovation and wants to learn more about how to recognise *outlayers* within her company.

> *You recognise them when you meet them. They have to work out how to seduce those in the mainstream. Some in the mainstream might find interacting with Helen a challenge – but others would find it exciting because it takes them to new places -You need to be able to listen constructively and move to a different place. [Gill Samuels- Pfizer 2005]*

Emotional transaction costs of innovation

Creative collaboration involves mutual adjustment on the part of all partners, but usually one person takes responsibility for building the relationship and is the innovator of change. Helen recognised that she was the instigator of bridge-building because it was her 'day-job' as a thought leader and change agent, which this was not the case for the scientists she is talking too. This role requires risk-taking and she reported feeling vulnerable when taking the initiative.

> *Yes, there is always a transaction cost when people take risks. Scientists can also be creative, but the academic establishment is very conservative and breaking out as a scientist is risky in the longer term. [Gill Samuels]*

There is an emotional cost to being the innovator, and in being the person who breaks with conventions and comes out first with ideas. Even though Helen is a confident person she found presenting to skeptical audiences anxiety provoking. Innovation requires risk-taking and personal drive without which creative people would not survive.

Gender and Innovation

An interesting finding of Dewett's [2006] was that risk taking and creativity was highly linked to gender; he found that women were more risk-averse than were men. The author's experience is that in general this is probably true, but that this obscures the fact that innovative women face more challenge than do innovative men, which leads the majority of women learning not take risks [Maddock 1999]. However, not all women are deterred by negative male cultures, although this is not to say that they do not experience gendered-barriers. Helen confirms the view that it is harder for women to be heard when they challenge established paradigms or make new connections. She feels that her work is less acknowledged because she is a woman. She also noticed how women scientists were more afraid to take risks than were their male colleagues. Helen reported defensive tactics among women scientists. When at Cambridge University she met a neuroscientist, who was very reticent at first, but after a while she became more open and talked about herself, she remarked on Helen's courage, which she said you needed in the academic scientific community if you were a woman. Women scientists find challenging established paradigms difficult because their status as women scientists continues to be questioned. Male cultures continue to be powerful in academia, medicine and in

government; they also operate in an insidious manner. Women are now accepted as competent researchers, administrators and managers but they are rarely acknowledged as thought leaders or innovators [Maddock 1999]. Merely differentiating men and women without recourse to their own tactics and thinking can be misleading. Some women remain invisible out of choice, because they want to fit into the prevalent male culture, others are actively excluded by those fearful of diversity, but often the voice of women is just not understood.

While many women are silenced by male cultures, others such as Helen, who want to make connections and redefine dominant paradigms at the cutting edge of innovation are given too little recognition. It is precisely because innovative women want to define realities in a manner that is not easily expressed within the dominant paradigm that they are also radical social innovators, much needed in all spheres of life [Maddock 1999].

Barriers to collaboration

There is a need to question why those in institutions find it so hard to collaborate and to innovate. Also why given that collaborative and innovative work is a priority why it so difficult to fund and why institutional academic barriers to collaboration between arts, science and humanities have never been greater.

> *My guess is my colleagues would love to be involved in this type of work but do not have the opportunity –funding is tight and based on predictable results. Funders are risk averse and American funders are very risk averse indeed. [Coan 2005]*

Helen Storey has credibility within the medical and scientific world and yet is frequently refused funding because she falls between funding streams. Creative work never falls neatly into existing categories and creative exchange is more likely to be stimulated by informal conversations and new connections as it is through established criteria and procedures. [Maddock & Morgan 1998].   Risk averse cultures among funders results is a reliance on quantitative research methods that count, check and categorise rather than explore possibilities. Funders too often view exploratory research as risky, less predictable and more difficult to assess. Exploratory research also demands new methodologies capable of capturing dynamic relationships, when too many policy makers appear value research that provides 'yes'/'no' answers about what they already know, rather than be interested in new options, choices and possibilities. This results in poor science and poor recognition of innovators and innovation. Energetic innovators such as Helen may be applauded but they are also poorly funded and the necessary infrastructure that would support their work receives little investment.

Professionals are protective of their established domains and fearful of those who cross boundaries. This specialisation results in a lack of whole system thinking and appreciation of the complex nature of life. UK university performance management also undermines confidence in exploration and creative work. Few in universities are rewarded for effective knowledge transfer, their career advancement being based on their

visibility in named journals and involvement on established bodies; innovation is low down 'the esteem indicators' for academics, consequently, those in universities who are bridge-builders find their work difficult to fund.

Within science, scientists are expected to provide answers with 100% certainty when the evidence does not support certainty but statistical probabilities. It's as if the public understanding of science is stuck in nineteenth century determinism that focuses solely on total certainty, linear reductionism and perfect solutions; when the pure sciences have moved on.

> *Eye and I also threw up many questions about 'science' and how the public understood it, there are hugely unrealistic expectations of science and very traditional ideas of what science is about. People are afraid of science and they cannot keep up with it. Science presents risks, as is the case for GM in food. Yet, we scientists think we are providing solutions when the public think we are giving them more problems. We need to look through other people's eyes to understand how to speak to them. [Dr Gill Samuels]*

Implications for the public realm

Within science there is much bridge-building to be done, particularly around questions that relate to the public value of science. Helen's work helps us imagine new ways of thinking and probably more important indicates new ways of organizing public engagement in policy and science. Helen's journey has implications for anyone concerned to support creativity. Those organisations that want to encourage creativity need to encourage diversity and to create conducive conditions for free and open exchange, for the wacky ideas to emerge and be tested. Some private companies acknowledge that their knowledge workers need social space to be innovative which in essence exploring ideas with others not working in isolation. The important thing for policy-makers is how to make working environments not just conducive to creativity, but to support creative leaders which means focusing less on such things as report writing and more on collaborative activity. There is need an urgent need for leaders to look to their role in the creation of work environments that encourage not only dialogue but also play and humour. Executive and policy-makers should concern themselves more with identifying creative innovators and thought leaders such as Helen; who at present remain unvalued and invisible. We need to infuse the culture and practice of out institutions, including government, with a new set of social possibilities- which will emerge not through performance management but through the creative exchange between curious people with a desire to make connections and uncover new ways of organizing and understanding realities.

> *Education is the ability to perceive the hidden connections between phenomena*
> [Vaclav Havel 1990]

References

Amabile, T [1996] Creativity in Context. Boulder, CO: Westview Press

Amabile,T [1998] A model of creativity in organisations. In Straw,B & Cummings,LL (eds) Research in Organisational Behaviour,10: 123-167. Greenwich, CT: JAI Press

Barron, F & Harrington,D.M. [1981] Creativity, Intelligence, Personality
Annual Review of Psychology, 32:439-476

Dewett, T [2006] Exploring the role of risk in employee creativity J of Creative Behaviour 40.

Deci, E.L. [1975] Intrinsic Motivation. New York: Plenum.

Feist,G.J [1998] A meta-analysis of personality1n scientific and artistic creativity. Personality & Social Psychology Review. 2 (4): 290-309

Kahn, W A [1990] Psychological Conditions of personal engagement and disengagement at work. Academy of Management Journal,33: 692-724

Maddock, Su [2002] Diversity, the Business Imperative. MBS, Change Centre Paper

Maddock, Su [1999] Challenging Women; Gender, Culture and Innovation; Sage: London

Maddock, Su & Morgan Glenn [1998] The Conditions for Partnership and Collaboration ESRC research available from Maddock, Manchester Business School.

Miell, Dorothy & Littleton, Karen [2004] Collaborative Creativity: contemporary perspectives (Eds). Free Association Books; London

Rickards,Tudor [2005] The Creative Process: MBS

Toumi, Ilkka [2002] Networks of Innovation; Change & Meaning in the Age of the Internet, Oxford University Press.

Havel, Vaclav [1990] ??