

Media Communication, Consumption and Use: The Changing Role of the Designer

CRUICKSHANK, Leon and EVANS, Martyn

Available from Sheffield Hallam University Research Archive (SHURA) at:

http://shura.shu.ac.uk/518/

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

CRUICKSHANK, Leon and EVANS, Martyn (2009). Media Communication, Consumption and Use: The Changing Role of the Designer. In: Undisciplined! Design Research Society Conference 2008, Sheffield Hallam University, Sheffield, UK, 16-19 July 2008.

Repository use policy

Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in SHURA to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

Media Communication, Consumption and Use:

The Changing Role of the Designer

Leon Cruickshank, ImaginationATLancaster, Lancaster University, UK **Martyn Evans**, Lancaster Institute of Contemporary Arts, Lancaster University, UK

UK

Abstract

Consumers are changing the way in which they create, experience and consume media. User Generated Content (UGC) marks a shift in the way in which ordinary people are now able to contribute to the creation of media. They have become active citizens in what is now a two way conversation.

The advent of UGC has created new challenges for communication designers who now need to take on the role of a facilitator in this process. The challenge for communication design is not only to identify appropriate methods for communication, but to understand how best to facilitate connections between users such that they create structures that they can inhabit.

This paper explores the changing role of design in UGC rich media communication and presents a Decision Making Framework (DMF) that engages designers in the consideration of the user in the development process. In-depth interviews with leading industry proponents ensure currency of the insights gained.

Keywords

Design Process, User Generated Content, Communication Design, Fraimwork

Introduction

User Generated Content (UGC) is changing the way in which we experience and consumer media. Users are taking the lead and not only consuming media content but creating it. Traditional modes of media consumption, be it print, broadcast, or more recently online, are undergoing a dramatic revolution where the democratisation of media content is underway. Leadbetter (2007) claims that collective or what he terms 'mass creativity' is enabling users to lead, not follow and replacing top-down management as a business model.

Media convergence is blurring the lines between production and consumption, between making media and using media, and between active or passive spectatorship of mediated culture. Jenkins (2004) details convergence as both a top-down corporate-driven process and a bottom-up consumer-driven process. Convergence is forcing design and media organisations to learn how to accelerate the flow of media content across delivery channels to expand revenue opportunities, broaden markets and reinforce viewer commitments.

The challenge for communication designers is to understand the implications for the design profession of this democratisation, and harness the power of the masses. Communication designers need to understand how best to facilitate connections between users such that they create structures that users can inhabit, rather than trying to speak for them.

This paper uses in-depth interviews and analysis of working practices in the communication design industry, informed by a socio-economic evaluation of the position of design in this culture of mass creativity, to provide a roadmap for communication design to navigate these user generated challenges.

Aims and Objectives

This paper aims to (i) identify the challenges user generated content and the democratisation of media communication presents to communication design, (ii) details the role of the citizen in media creation, and (iii) presents a framework that supports the role of communication design in user generated content and media creation in the future.

An awareness of the process by which citizens engage with, and contribute to news media, is essential to understanding the role of citizens in the future knowledge society. Thompson (2008) claims that citizen journalism has now become partly absorbed into the mainstream where news feeds, aggregators and recommendations on social network sites are replacing the front pages of major news providers.

Determining how conventional communication design relates to this emerging environment and how designers can create effective media communication across a range of media is explored within this paper. Communication designers face the substantial challenge of accommodating and exploiting the potential of UGC in a sector. This paper explores how these new perspectives affect the design process and the designer's relationships with the stakeholders in the process.

Analysis of contemporary working practices in communication design, underpinned by a clear understanding of the rise and rise of citizen journalism, contributes to the development of a decision framework for designers. This framework provides designers with a roadmap that guides them to how they might want to question their processes, methods and approach to designing for UGC rich projects.

Method

By its nature, the media communication sector is fast paced and experiencing rapid change. Accessing cutting edge industry activities provides a challenge as literature is prone to being at least one step behind industry practices. In depth structured interviews were undertaken to explore and identify current industry practices within the media industry. The following organisations provide rich data for case studies:

Dare Digital: An award winning interactive marketing agency which was founded on the core belief that strong ideas lead to better business results (www.daredigital.com).

Mediatonic: An interactive advertising agency who specialise in web gaming and rich media advertising that's relevant, entertaining and engaging whilst delivering significant commercial benefits (www.mediatonic.co.uk).

Smart Studios UK: A digital marketing agency that communicate brand strategies through new media and digital technology, employ 7 staff and been trading for 5 years (www.smartebusiness.co.uk).

In-depth interviews and case studies were supported by an examination of key literature and online sources to provide a theoretical underpinning. Analysis of working practices enabled the development of a decision guiding framework that helps designers assess issues in this new area of communication design, and guides them to how they might want to question their processes, methods and approach to designing for UGC rich projects.

Context

While this paper concentrates on media communication, the complex and emerging relationship between consumption and use is significant to a board range of design disciplines. In many areas, this is causing a redefinition of design as a professional activity and providing new challenged that designers have not previously faced.

There is a very rich discourse surrounding the terms 'consumption' and 'use' including The *Authority of the Consumer* (Keat, 1994); *Contradictions of Consumption* (Edwards, 2000); and *How Users Matter* (Pinch, 2003). In this paper we categorise media consumption as the passive reception of media. This is in contrast to the role of the citizen who is defined by active consumption, interaction, and contribution to media. This mode of engagement is increasingly becoming part of a spectrum of user response and activity. The emergence of the citizen is having a profound impact upon media design. In the US 60% of web users create as well as consume content through the use of services such as blogs, in the UK this rises to 70% (Leadbetter, 2008).

Blogs are websites that are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material. Blogging utilises an online conversational style communication and provides readers with the ability to leave comments in an interactive format. Blogging is an important example of the new relationship between mass media and the user. In the blogosphere barriers to entry and very low, it's a free service beyond having a computer and web connection and encourages conversational engagement rather than passive consumption.

Another well known example of user engagement is the free online encyclopaedia Wikipedia (www.wikipedia.org). While the success of this website has resulted in problems with vandalism, a general skewing towards the popular culture, and the danger that zealots through hyperactivity can impose a particular world view. Overall it has to be recognised as a spectacular free information resource that is good enough for most information requests.

The proliferation of internet-based news communication is directly impacting upon traditional forms of media, and the manner in which this is consumed. In

the UK, the availability of internet-based media has led to a reduction of radio, newspapers and TV engagement. More than 25% of 15-24 year olds read fewer newspapers since using the Internet.

A further example of how user engagement is challenging design takes us, through information technology and web communication, to the beaches of Hawaii. In 2000 kite surfing was a limited spinoff of traditional surfing. In 2001 MIT student Saul Griffith set up a website ($\underbrace{www.zeroprestige.org}$) explore and promote the experimentation of new techniques for kites and boards for kite surfing. Soon enthusiasts were designing and freely distributing designs for new boards and kites, this graduated in the distribution of CAD files that allowed the user to rapidly manufacture the kites themselves. This resulted in a dramatically cheaper product with improved performance and in turn these ideas were taken up by surf kite manufactures.

This approach typifies what Chesborough (2003) terms Open Innovation, which acknowledges that companies cannot afford to rely entirely on their own research and need to look elsewhere for new processes or inventions. Chesborough claims that Open Innovation is transforming business approaches to innovation with major initiatives underway in global companies including Procter and Gamble, Lego, Unilever, and IBM. 80% of scientific equipment is now developed in this way, while most web servers use a version of Apache, a piece of software developed collaboratively for free through the internet. Historically this has always happened in geographically constrained areas, such as the design of iron foundries in the Midlands in the 18th century, or Cornish beam engines. It is the connectedness of modern communications that allows these communities to develop across a global scale that is causing this transformation; the implications for design are still emerging.

This new type of user engagement goes beyond participatory design, von Hippel refers to these as 'lead users' in 'innovation communities', Vodaphone calls them 'brand volunteers', Dare Digital calls them 'pioneer fanatics', Leadbetter calls them 'Pro-Ams' and Mediatonic calls them 'Indies'. Here we categorise this activity as the activity of a citizen rather than a user or a consumer. New ways of designing are developing to accommodate and maximise the benefit of the citizen in media design. A more mature, symbiotic relationship is developing with citizens active in a particular sphere of influence.

I remember when I first came to Dare going on forums and almost hosting a member of the general public, now it's about going on a forum and saying "Hi, I'm doing a bit of work for X client and we're doing so PR for them, would you like some content? We like your blog, you guys seem to know a hell of a lot more about this show than we do." You know, we get paid to know about this show and people will happily take it as long as you're up front with people and I think that's a shift, that's changed. You're not trying to deceive them any more, you're trying to work with them.

David McNulty, Dare Digital

Citizens in Communication Media

There has been a long history of citizen participation in media communication. For example fanzines, a publication produced by fans of a particular cultural phenomenon for the pleasure of others who share their interest, using inexpensive production techniques such as photocopying and distributed through local and personal networks. Typically those involved in fanzines, as publishers, editors and contributors, receive no financial compensation, but share a common purpose such as counter culture, science fiction, film genres, music, sport and political issues. Many examples of fanzines exist including Sniffin Glue, the first punk fanzine, produced by Mark Perry in July 1976 a few days after seeing US punk band The Ramones; Squal, a counter culture magazine created by the squatter's collective lowLIFE! (Carey, 1998); Kicker 1995, 'the misery of football considered in all its forms and a few remedies offered' mixing football and politics; or the anti-road protest fanzines examples Claremont Road and Aufheben (Aufheben, 1998). Viz, is one of the few magazines that transferred from fanzine culture into the mainstream with sales passing one million by the end of the 80s (Donald, 2005).

The internet has revolutionised fanzines and user contribution to media. Where the scale of production and distribution was previously tied to access to a photocopier and group of likeminded individuals (in the case of fanzines), we now have a situation where 'the web provides a platform for us to be creative together on a scale previously unimaginable' (Leadbetter, 2008). In many instances the traditional magazine format is simply translated online. Examples include Organic Gardening (www.organicgardening.com); David Report - branding, trends, cool culture (www.davidreport.com), and New Porker – illustrations by Russian students (www.newporker.ru).

The interconnected nature of the information online allows for more radical user-led interventions. Wikipedia, used by almost 6% of internet users and the 11th most popular site on the web, is a full-blown and free encyclopaedia that is written, edited and maintained collaboratively by thousands of users around the world. Controversy over vandalism and accuracy continue but its popularity grows unabated. It's hard not to be impressed by this free resource that is close in quality to vastly more costly alternatives. Wikipedia is the most popular of a multitude of wikis on the web, many are for private groups (this collaborative paper was written on a private wiki) but many are public such as Citizendium, Openwiki and PBwiki.

Social networking is a phenomena defined by linking people to each other in some way. Social networking sites, such as MySpace, Facebook, and Bebo, use the internet to build online social networks for communities of people who share interests and activities or who are interested in exploring the interests and activities of others. Since their introduction social network sites have attracted millions of users, many of whom have integrated these sites into their daily practices. While their key technological features are fairly consistent, the cultures that emerge are varied (Boyd& Ellison, 2007).

Journalism has experienced many instances of citizen involvement: Oh My News – is a popular example of online citizen journalism (http://english.ohmynews.com). Based in South Korea it has 55,000 contributors and promotes a code of ethics that all articles must adhere to.

Oh My Newsnight, an experiment in citizen journalism undertaken in November 2006 involved BBC viewers being invited to make a short (two minutes maximum) film about an issue that merits a place on Newsnight and post this to a video hosting website, such as Google Video or YouTube, and tell them about it. Newsnight took the best examples and broadcast them on terrestrial television (BBC, 2008).

The Design Profession

Although this paper concentrates largely on the role of design in digital media, it does not mean that the impact of citizen users is limited to this area. In addition to the kite surfing example detailed above, there are tangible impacts of citizen users in diverse sectors such as toys (LEGO), pharmaceuticals (Procter and Gamble), and footwear (Nike).

The footwear sector has attempted to embrace the power of citizen users in a number of ways. For example, three executives who previously worked for Adidas developed a web-based service called Customatix. It offered casual footwear in highly customisable form (3 billion trillion options) from 2001-2004. The web site led the user through the customisation process and for around €100 the shoes would be delivered 2 weeks later. The site encouraged people to suggest the best combinations and offered prizes for the best designs, introducing a driver for community participation 4 years before web2.0 was even described (O'Reilly 2005) and 3 years before Flickr was launched by Ludicorp. Customatix failed because the rapid manufacturing technology was not as advanced as the product design and costs could not be covered; now however developments in rapid prototyping and rapid manufacture means the viability of this approach will increase in the future.

There are however good reasons for concentrating on digital media as its is through digital media that these physical products are realised and as convergence of digital processes become increasingly ubiquitous digital media is assuming the vanguard position for citizen development. This is largely because of the communication and distribution possibilities of the web, email, and bit torrent and because the barriers to entry into the digital media profession are very low.

There are very low barriers to entry into the industry which is kind of cool, but kind of worrying at the same time. Effectively you can be going in to see a potential client where we're competing against a huge agency with lots of staff or, with the same token we could be competing against a guy with a computer sitting in his parents' bedroom who's an amazing programmer

Ian Hammersley, Director Smart Studios

The convergence area of digital media is also becoming increasingly important in the design sector with over 56% of design agencies operating in the multimedia/new media sector (BDI, 2008). For example, in three years Dare Digital has gone from 15 employees to almost 200, with a projection to be over 250 by the end of the year.

Analysis of Interviews

The series of interviews undertaken and analysis of working practices have provided a number of key insights into the current challenged being faced by design:

- The role of users in the creative process
- A reassessment of the functionality of digital media marketing
- Fragmentation of design activities
- Education and knowledge designer and client

The role of users in the creative process

The interviewees acknowledged the need for user testing and participation in the creative process. Although the potential value potential users can bring to the creative process was evident, there exists a tension between broad engagement with users and the demands upon project timescales.

It's like we've got this really good technology that's really creative, we'll chuck it in and hope that some user likes it, rather than going what does the user want to do than how can this technology meet their needs?

David McNulty, Dare Digital

User testing is something that is definitely lacking in a lot of projects. Our clients tend to tell us what type of things they want and we kind of say that something is right or not right but at the moment there's no official way to figure out what we're doing is actually right.

Ian Hammersley, Director Smart Studios

In the place of testing with users, informal strategies such as asking a colleague to test and feedback upon a particular project, combined with instinct and experience are employed. This often is sufficient when the application, technology used and market are well understood. As UGC is very much at the cutting edge of where digital media is developing there are challenges to researching and understanding effectively in this area. Indeed we were hindered in our research as some of the latest work on UGC applications, for social networking sites such as Facebook, were protected by non disclosure agreements (NDAs). The short baseline of experience in UGC projects, the contribution of the user to the project by actually generating content, and the fact an application is only validated when it's in use, means that it's easy for UGC projects not to work properly. When this happens the lack of success is highly visible.

These sentiments are echoed by the Director of Smart Studios,

"You get really excited with certain projects thinking `oh yeah, they (the users) are gonna go in and look at this and check it out', but they don't. They just don't give a shit!"

This highlights a tension common to many areas of design - that the designer is trained to value their personal abilities, vision and experience above collective, objective or participative processes. This has been described as a result of traditional art school educational practices (Julier, 2000; Heskett, 2002;

Lawson, 2000; Lawson, 2007). The designer ego and the desire to show (off) the latest technology, capability or creative idea can get in the way of producing a good product.

They (users) should be the most important thing but often they're not because you have your own pride to be the best. Often the user gets left behind... It's like 'we've got this really good technology that's really creative, we'll chuck it in and hope that some user likes it, rather than going what does the user want to do, then how can this technology meet their needs?'

Perry Prince, Director of Innovation, Dare Digital

For example Dare Digital produced for Sony to promote the Walkman. The original inception of this involved a website with a piece of music that users were invited to play along with, video their performance and submit this for inclusion on the Walkman site. It did not work. "We now realise that people want to play their music, do their thing not follow... we did not give them an incentive" Matt, Freelance Designer, Dare Digital. There is a new iteration of this project that allows an open contribution of music and the mixing and sharing of new musical tracks that is much more participative than prescriptive (www.walkmanproject.com).



Fig 1. The redesigned UGC walkman site (www.walkmanproject.com)

A reassessment of the functionality of digital media marketing

Advertising and digital design are rethinking the possibilities for the support of successful creative content. There is a shift away from the creation of novelties that are playful, fun, but shallow to the realisation that something with more depth in terms of utility can have a massive multiplying effect. This follows the predictable path for the application of new technology that Gere (2002) argues started with the artists like George Nees exploiting CAD plotters in the 1960s.

The first of these multiplying effects is about making the media more 'sticky', giving the user a reason to spend longer experiencing the advertising. The casual gaming company Mediatonic who specialise in games that are available free or at very little cost online are creating, in partnership with NBC in the US and Sega, the official online game for the Beijing Olympics. It is estimated that the game will be played 400 million times over the duration of the Olympics for at least 7 minutes per gamer – 2.8 billion minutes of brand exposure!

Further to this, functionality can build special relationships with users that are hard to replicate with something fun but superficial. Matt (Freelance Designer, Dare Digital) states "if you made it to an interview because of having Google maps on your mobile, that's going to stay with you for the rest of your life". This is blurring the relationships between services and products and is likely to continue in the future. This is an area for further investigation as companies are generally not set up to accommodate this integrated approach to service design and promotion.

We're being asked in a lot of our add campaigns to raise awareness or keep people using a product and I tend to focus on the latter. At Dare, we're talking about getting people to continue using the product. Make the product better seems to be one of the best ways of doing it.

Perry Prince, Director of Innovation, Dare Digital

Fragmentation of Design Activities

Fragmentation could apply in lots of different contexts in this area. It was used by the designers at Dare Digital to represent a significant shift in emphasis in both the design process and the way digital media is developing. Interviewees referred to fragmentation in the context of exploiting resources or services that are already in existence and not created by the designers themselves. This is not appropriation although this would hardly be unheard of (Jencks, 1971; Cook, 1996), rather this is recognition that there are services already in the 'wild' and established that should be utilised rather than reinventing the wheel.

A good example was recently doing a project for a very very small client that we have who has very little money and they wanted to do some stuff with video. What's the point of us re-inventing YouTube? We recommended that they go and talk to people who're already doing it. What's the point of re-inventing Flickr if you can have a personalised Flickr page.

David McNulty, Dare Digital

This shift in emphasis is significant as we see the designer adopting the role of a facilitator or guide rather than creator. This is symptomatic of a reassessment of the role of the designer in (media) design where the availability of knowledge is being harnessed within the development process. The value of this open source approach is receiving more recognition in design circles.

'open source gaming and especially collaborative and P2P level design is about to explored in the casual gaming world. We are doing some really exciting projects on this in the next 46 months"

David J Baily, Director Mediatonic

Education and knowledge – designers and client

The need for education and knowledge within media design is clear due to the rapid developments taking place. Both designers and clients are constantly reassessing their position, creating challenges, and reassessing their role in the process.

Dare Digital are consciously developing new production processes in response to new technical possibilities and new media applications. For example, the challenges of the emergence of interactive video (iVideo) and how these have been met has recently been documented (Cruickshank & McNulty, 2008). Bespoke, formally described methods are highly unusual in this sector as processes are generally implicit and ad hoc in nature. Dare Digital have also found it prudent to establish an innovation section (Dare Labs) and a training facility for new employees (Dare School).

Our strategy has been to put people like Dave and me into positions where we can anticipate what the technology can do and then go and tell the third party companies what we... if we don't do it in-house, certainly gives you a better idea what its capable... and the way that technology works as well, you often get that kind of six month look into the future.

Perry Prince, Director of Innovation, Dare Digital

Clients are also now recognising the implications in the development of technologies that they need to be aware of to ensure that they are able to meet the demands of this constantly changing sector.

ITV have been the first guys who've been really interested and we've started to run a seminar with the clients, and they love it, they do want to know. They're all itching to find out. We did a day with them saying this is interactive video advertising and interactive film, its not a linear film and therefore it has for you guys a clients it has time/budget implications when you say we want some interesting interactive filmed advertising or banner ads with lots of bits of video and for them, they were completely like "oh, well we just thought you shot it just like you would shoot any other bit of film".

Perry Prince, Director of Innovation, Dare Digital

Decision Making Framework

The challenge facing designers who operate within UGC rich media communication is clear – how can designers provide the freedom users demand to create and consume content while ensuring an appropriate level of design input and structure is maintained? By providing a prescriptive and overly structured solution, the risk is that users react negatively to this authoritarian approach and vote with their feet and go elsewhere. Conversely, a solution that is able to accommodate all may be too flexible and result in an unfocussed mismatch that doesn't appeal enough to potential users. Poorly designed media will not maintain the flow of traffic client's demand and can actually damage the standing of organisations.

Undisciplined! Proceedings of the Design Research Society Conference 2008. Sheffield, UK. July 2008

The decision making framework (DMF) intends to provide designers with an aide memoir when developing media communication 'products'. It is not intended to provide answers per se but highlight issues that are pertinent. By posing questions, it intends to enable the development team to explore and address key issues in a manner that is appropriate to the specific context of the project being undertaken. In essence it asks the questions, the design development team have control over how best to provide the answers.

The development of the DMF was based upon key challenges identified via analysis of the in-depth interviews and literature. Looking at this analysis, the authors identified that:

- the user should be more integrated into the design development process of UGC rich media communication
- understanding and harvesting user motivation is key to achieving user engagement

These insights underpin the DMF and it acts as a guide through the design development process. Connecting with the user in a meaningful way is key to the successful development of UGC rich communication media and the DMF explores a series of issues directly related to the users. The DMF is thus:

Undisciplined! Proceedings of the Design Research Society Conference 2008. Sheffield, UK. July 2008

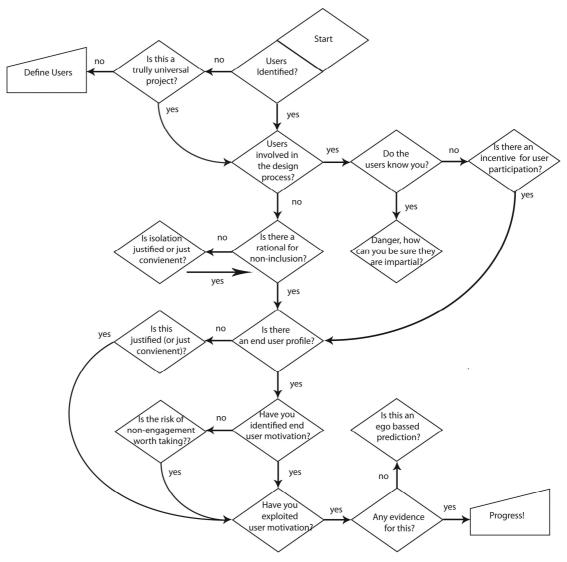


Fig 2. The Decision Making Framework (DMF) for UGC rich media communication activities

The DMF encourages designers to be more reflective in relation to the users when undertaking UGC rich media communication development and act as a provocation rather than route map to navigate to the process. This reflection is intended to encourage the consideration of the ways in which users can be engaged with during the development process. The research has identified that there is a strong recognition that users should be intimately involved in the design development process but, analysis of current working practices shows that this involvement is lacking.

Discussion and Concluding Remarks

The importance of engaging with the user in the design development process has been identified within this paper. Current industry practices vary to such an extent that many organisations do not have a defined approach to user engagement. Although they recognise the value users' can bring to the development process, enriching and enhancing final outcomes, but surprisingly they have not formalised this process. The rate of change within media communication is astonishing and designers need to be able to not

only understand how users will interact with their offerings, but utilise this knowledge within its development.

The DMF provides a provocation to designers, encouraging them to engage with the user in the development process. What is does not do is provide answers but intends to increase the profile of users, make the designer stop and think and reflect upon the appropriateness and relevance of their creative endeavour.

The authors are now entering a validation and refinement of the DMF and will be engaging with its target user group – communication designers.

References

Aufheben (1998) The politics of Anti-Road struggle and the struggles of anti-road politics: the case of the No M11 Link Road Campaign in McKay (Ed.), *Diy Culture, Party and Protest in Nineties Britain*, Verso, London

Boyd, M & Ellison, N, (2007) *Social network sites: Definition, history, and scholarship.* Journal of Computer-Mediated Communication, 13(1)

Carey (1998) Fresh flavour in the media soup: The story of SQUALL' McKay (Ed.), Diy Culture, Party and Protest in Nineties Britain, Verso, London

Chesbrough, H (2003), Open Innovation: The New Imperative for Creating and Profiting from Technology. Harvard Business School Press, Boston.

Cruickshank and McNulty (2007) New Media / New Problems/ New Methods – A case study of interactive video production in industry, IADSR The International Association of Societies of Design Research, Hong Kong 12-15 November 2007

Donald, C (2005) *The Inside Story of "Viz"*: Rude Kids, HarperCollins Entertainment, UK

Edward Ts, (2000), *Contradictions of Consumption*, Open University Press, Buckingham.

Gere C, (2002), Digital Culture, Reaktion Books, London.

Heskett J, (2002) Toothpicks and Logos, Oxford University Press, UK

von Hippel E, (2005) Democratising Innovation, The MIT Press, London

Jenkins, H (2004) The Cultural Logic of Media Convergence. International

Jencks C, 1971 Architecture 2000 predictions and methods, 1st edn. Studio Vista, London.: 96). Journal of Cultural Studies, 7(33): 33-43.

Julier G, 2000, *The Culture of Design*, Sage Publications, London.

Keat R et al (Eds.) (1994), The Authority of the Consumer, Routledge, London.

Lawson B (2007) What Designrs Know, Architectural Press London

Lawson B, 2000, How Designers Think, Architectural Press, London

Leadbetter, C (2008) We Think: Why mass creativity is the next big thing, Profile Books, London

Lindgren, M & Bandhold, H (2003) *Scenario Planning*. Palgrave Macmillian. New York

Undisciplined! Proceedings of the Design Research Society Conference 2008. Sheffield, UK. July 2008

OECD (2007) Participative Web: User-created Content. Working Party on the Information Economy. Directorate for Science, Technology and Industry. Committee for Information, Computer and Communications Policy

Pinch and Oudshoorn (2003) How Users Matter the co-construction of Users and Technologies, The MIT Press, London.

O'Reilly 2005,

(http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html) accessed 10 April 2008.

Dr Leon Cruickshank

Leon Cruickshank is a Senior Lecturer in ImaginationLancaster, Lancaster University. This multidisciplinary design research lab. matches his research activities spanning design methodology, theory, product design and new media with numerous publications and international conference papers. This research is distinguished by an exploration of new and emerging forms of interaction between designers and users that is coming to prominence in the digital economy.

With over 10 years experience in academia including leading courses in Multimedia Technology and Design and Broadcast Design and Technology at Brunel University.

L.Cruickshank@lancaster.ac.uk

Martyn Evans

Martyn Evans is Senior Lecturer in Design in Lancaster Institute of Contemporary Arts at Lancaster University. His research activities centre on design futures, trends, and forecasting, and he has presented papers on this topic at numerous international conferences. As a trained product designer, he has worked with a number of international organisations in this area.

With almost ten years in academia, he has extensive experience of leading undergraduate and postgraduate product design curricula, and is currently Course Director for MA Design: Management and Policy at Lancaster University.

m.evans@lancaster.ac.uk