

This is the author version of an article published as:

Russo, Angelina and Watkins, Jeremy (2004) Creative New Media Design: Achieving Representative Curatorial Practice Using a Cultural Interactive Experience Design Method (Gregory Processing) . In Edmonds, E. and Gibson, R., Eds. *Proceedings Interaction: Systems, Practice and Theory*, pages pp. 573-579, Sydney, Australia.

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Creative new media design: achieving representative curatorial practice using a Cultural Interactive Experience Design method

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Abstract

Technology has driven the development of interaction with an emphasis on creating spaces, objects and information which can draw audiences into innovative and entertaining realms. This development can be seen increasingly within the domain of cultural institutions, as new media artefacts start to permeate libraries, galleries and museums. However, questions remain as to whether the postmodern cultural institution better represents the needs of the community it serves, or whether top-down curatorial practice is simply being bolstered with new media artefacts. Using the museum as an example of curatorial practice in cultural institutions, this paper discusses the role of new media in the transition from the traditional, curator-driven modernist museum to the community-based post-museum. It then applies this theoretical framework to the library environment as a cultural institution evolving with comparable concerns.

The paper introduces Cultural Interactive Experience Design, a work-in-progress structured method which enables the curator of the community-based institution to capture and analyse disparate community needs from the bottom-up, and to translate this analysis into the creation of compelling cultural interactive experiences. The CIED method will be illustrated through two design projects which are currently being designed for major Australian cultural institutions. It is expected that these projects will be displayed at the Symposium.

1.0 Introduction

Technology has driven the development of interaction with an emphasis on creating spaces, objects and information which can draw audiences into innovative and entertaining realms. This development can be seen increasingly within the domain of cultural institutions, as new media artefacts start to permeate libraries, galleries and museums. However, questions remain as to whether the postmodern cultural institution better represents the needs of the community it serves, or whether top-down curatorial practice is simply being bolstered with new media artefacts.

Using the museum as an example of curatorial practice in cultural institutions, this paper discusses the role of new media in the transition from the traditional, curator-driven modernist museum to the community-based post-museum. It then applies this theoretical framework to the library environment as one of the cultural institutions which has evolved with parallel concerns. The paper demonstrates how a structured design methodology can capture accurately the needs of a disparate user group – in this case, the local community – from the bottom-up, and translate this analysis into compelling cultural interactive experiences. The framework discussed in this paper will be illustrated through two new media design projects which are currently being designed for major Australian cultural institutions. It is expected that these projects will be displayed at the Symposium.

2.0 CIED methodology

The decision to apply HCI discipline to the domain knowledge of interactive design within cultural institutions originates within the general design problem (GDP) posed by using a top-down approach to produce community-based cultural interactive experiences.

The specific design problem (SDP) refers to the challenge faced by the curator to accurately capture – and appropriately analyse – audience

requirements from the bottom-up, in order to design an entertaining, stimulating and representative exhibit.

This research uses an abbreviated informal structured analysis and design methodology based on the Method for Usability in Software Engineering (MUSE) approach developed by Long and Dowell (1989) to inform the construction of a potential design solution to both the general and specific design problems under examination in this paper. Elements of this method have been used very successfully by the authors in the creation of interactive artefacts and experiences within the commercial sector - in particular, the method's insistence on the specification of design solutions as the starting point of the design process.

The method presented in this research is termed Cultural Interactive Experience Design. CIED – which features significant variations from the fast MUSE approach proposed by Long (2000) – comprises three phases:

1. Current systems analysis.
2. Conceptual system design.
3. Detailed experience design.

2.1 CIED phase 1: current systems analysis

A detailed examination of theories and knowledge which underpin current cultural curatorial practice is composed of:

- Domain overview: explains and locates the role of the cultural institution within the Australian public sector framework.
- GTM(c): a General Task Model of the current modernist museum paradigm reviews the modernist museum as a location for cultural interactive experiences.
- TD(c): a Task Description of the role of the cultural interactive experience in current community-based museums informs CIED phase 2.

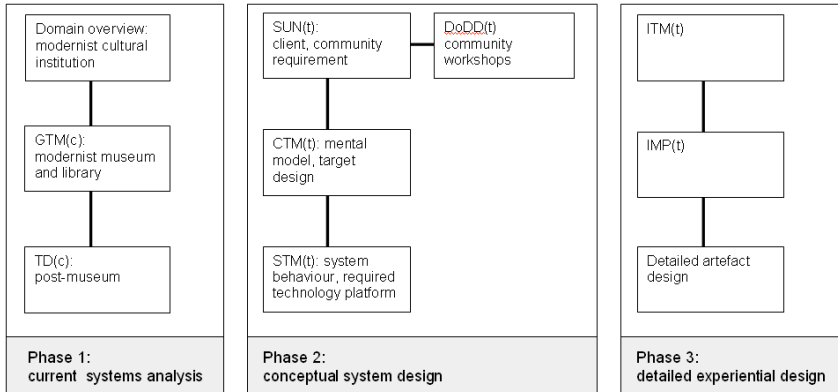


Table 1 – the Cultural Interactive Experience Design method, a derivation of Long and Dowell’s Method for Usability in Software Engineering (1989).

2.2 CIED phase 2: conceptual system design

The CIED method encourages specification of strategic design concepts to address the specific design problem, in order to provide a mental model of the target design. Four tools are deployed:

- SUN(t): the Statement of User Needs for the proposed (target) bottom-up interactive experience design derives positive elements elicited from phase 1’s analysis to act as a specification for CTM(t).
- DoDD(t): a Domain of Design Discourse provides a structure - in this example, a semantic net – within which to capture user needs statements to inform SUN(t).
- CTM(t): a Conceptual Task Model is evolved from a conceptual framework by Levy (1997) in order to provide a mental model of the target design for shared understanding and agreement between curator, community and designer.
- STM(t): an initial System Task Model for the media museum underpins CTM(t) with appropriate extant platforms and applications.

2.3 CIED phase 3: detailed experience design

Phase 2 client sign-off leads to detailed experience design. This phase guides designers in the creation of the artefacts and/or environments to provide a solution of the specific design problem, prior to hand-over to production teams.

- ITM(t): an Interaction Task Model is used in the current research to specify the user behaviour anticipated within the target system, from overall application coherence, location and egomotion through to exact interaction with an interface to trigger events.
- IMP: Interaction Model Prototypes of the target system storyboard the user and system behaviours using technologies identified in STM(t) in order to specify the core events and objects required by the interface to respond to user behaviour as identified in ITM(t).
- DAD: Detailed artefact design is the final stage of the CIED method, after which the project is ready to enter the production stage.

Note that CIED does not include a distinct evaluation phases: rather, evaluation is integrated within the method.

3.0 Domain overview: modernist curatorial practice

Many of the principles and processes which underpin the philosophy of modernist curatorial practice were established in the nineteenth century. For example, the modernist museum constructed environments where knowledge and education were presented as universal truths. In the twentieth century, the histories, stories and policies of the museum were inculcated through the practices of museum professionals, their curators.

Curators used the media of the day to translate and exhibit the myths and meanings which surrounded objects. Over time the curators' role came to co-exist with the power granted to them through their manipulation of media technologies. This manipulation of representation through communication ensured that the curator maintained an expert position in the institutional knowledge exchange. From the 1960s onwards museum

discourse began to acknowledge that communities and visitors brought their own experiences, knowledge and responses to frame the meanings they derived from collections. As museum discourses broadened, structured educational programs became integral to the museum as audience experience of content started to become a two-way process.

In the late twentieth and early twenty first century, the development of a critical mass of new interactive media and their impact on society presented a challenge to the museum. New media have been defined as those forms which combined computing, communications and content through the process of convergence (Flew, 2002: 9-12). This convergence raised questions regarding the types of outcomes that could be expected by the community from its cultural institutions.

The modernist museum was socially and culturally influential well into the twentieth century. In the late twentieth century, multitudinous changes in politics, society and individual freedom prepared the landscape for museums to address interpretations of history from an audience perspective. These factors and their outcomes, including globalisation and broader access to distributed networks, enabled museums to develop a social awareness where tacit and implicit understandings of culture and society could be re-imagined (McDonald, 1998: 1-25). In the late twentieth century, the next museum evolution has been termed by one critic the post-museum. The post-museum could be regarded as the product of changing agendas, broadening boundaries in the relationship between visitors and the museum (Hooper-Greenhill, 2000: 1).

3.1 General Task Model, current system: modernist cultural institutions

GTM(c) organises the characteristics of modernist curatorial practice, broadly defining the media, experiences, spaces, texts and contexts which make up exhibition in the museum. It provides a mechanism for considering how cultural interactive experiences were designed to deliver audience experiences.

GTM(c): modernist museum curatorial practice				
New media description	Textual strategy	Exhibitionary taxonomies	Exhibitionary mechanisms	Experiences
Remediation	Spatialisation of knowledge	Taxonomic	Showcases	Order
		Curious	Wall panels	Containment
	Museum as metaphor	Static	Dioramas	Institutional
		Immersive	Live performance	Archaeological
	Discreet			
	Back-telling		Wonder	
Cabinets of curiosities				

Table 2 - GTM(c), modernist museum curatorial practice

GTM(c) is divided into two parts. The first part defines remediation as the new media descriptor which could be re-interpreted within the post-museum environment to characterise modernist museum practices. The second part illustrates how this descriptor relates to media, experience, space, text and context.

The textual strategies define the types of narratives presented by the modernist museum. They can be considered to broadly define a number of key fields of modernist curatorial practice. The exhibitionary taxonomies rely on existing models of information display. They are drawn from a wide range of exhibition types particularly modelled through the modernist museum with some reference to evolving forms. The exhibitionary mechanisms describe the objects which used to deliver the display. The experiences are the result of drawing together these mechanisms within a modernist museum program.

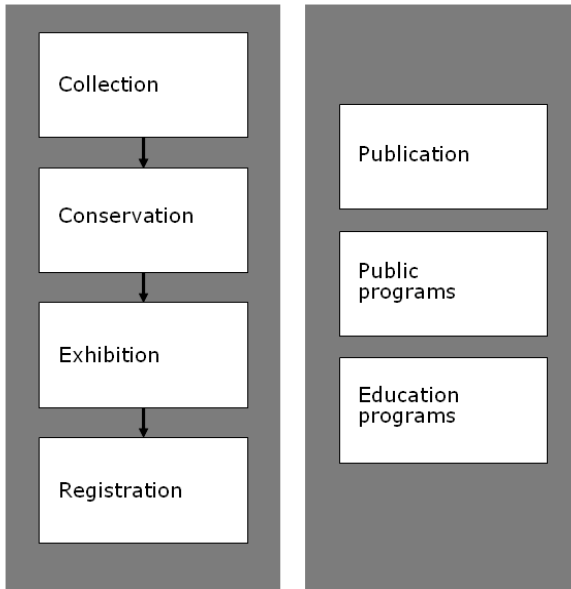


Table 3- GTM(c) Library practices and services

The GTM(c) described above is in keeping with the practices and services which the library undertakes as core business. These practices and services are found across cultural institutions and lend themselves to multiple distribution outcomes. The modernist curatorial practice described in the museum environment is an appropriate model for the library as it too is a socially constructed further learning environment. The formation of the library occurred in tandem with the museum and it too has found itself evolving to consider audience experience as a primary motivator for visitation. Given that literacy is at the core of the library program, the distribution of knowledge in various formats, ie: publication, public and educational programs provides a platform for curatorial practice which represents audiences in both the creation of content and the distribution of outcomes.

Libraries serve as a public interface to the access and distribution of knowledge. Libraries gain their authority through the collection, organisation, categorisation and distribution of materials for the purpose of developing literacy, and have historically mediated access to knowledge through systems and services which provide audiences with a controlled and defined experience. Increasingly libraries - like museums - are considering how best to incorporate technological changes and re-image themselves to the public.

If the post-museum environment allows for a diversity in audience experience and a greater control of the representation of self, then it would appear that libraries - as comparable pillar institutions within the creative and cultural sector - may need to "get used to thinking of themselves and acting as part of a broader coalescence of interests encompassing the content-rich service industries such as education and learning, publishing, design, communications devices, and e-commerce" (Cunningham, 8).

3.2 Task Description, target system: post-museum

The modernist museum relied on media technologies to transform its private collection to entertaining exhibitions and produced exhibitions where the audience participation in content consumption reinforced the conceptualisation of the institution itself. In the post-museum, audiences are able to both consume and produce knowledge as the new media technologies allow greater audience access to information and the development of distributed networks. In turn, the audience experience is redefined and enables greater interaction with content and the institution.

The TD(t) describes the post-museum environment. Here the new media descriptor which underpins the model is the notion of the networked self. While networks relates to media, experience, space, text and context the tools and techniques used in this model are more specifically aligned with the potential of new media technologies.

TD(t) : Post-museum				
New media description	Textual strategy	Exhibitionary taxonomies	Exhibitionary mechanisms	Experiences
Networked self	Cultural interactive experience Virtuality/ temporality/ spatiality: locality Museum vision Distortion Representation & presentation Control and delay Historic projection	Interactive Multi-modal Immersive	Web communities Synchronous & asynchronous chat Telepresence Augmented reality Hypermedia environment	Explorative Connected Communal Dematerialised Deterritorialised Transportation Distraction Convergent

Table 4 - TD(t), post-museum experience design

The textual strategies define the types of narratives presented by the post-museum. At first glance, there is a connectedness related to these strategies which is not present in the modernist museum. These textual strategies can be considered to broadly define the ways in which representative curatorial practice might evolve. The exhibitionary taxonomies rely on new media to deliver new methods of information display. They are drawn from the opportunities present in new media, particularly in relation to interactivity and modality. The exhibitionary mechanisms describe the technologies which can be utilised to deliver a connectedness between content and audience in the post-museum landscape. The experiences represent a myriad of examples of how these technologies affect audiences in the new media environment.

The post-museum presents a site where experience is structured through the narratives of cultural interactive experiences and the methods used to communicate them. It produces a visual learning environment where the diverse social characteristics and curatorial attitudes of audiences demands that the museum develop new forms of relationships with visitors and communities based on interpersonal methods of communication and a broader approach to pedagogy. In the modernist museum, texts were used to elicit particular audience behaviours. These texts centred on the power/knowledge relationships at the heart of the institution. Some of the ways in which knowledge was presented included: as enduring truth (Museums of Natural Science), as metaphor for political/ civic views and as a narrative for progress (Universal Exhibitions). These texts were spatialised through exhibition, ordered according to established taxonomies and exhibited using a variety of media. When these elements came together, they produced structured, consistent and predictable experiences which limited audience participation to that of viewer.

In the post-museum, texts are characterised by a virtual program where information is structured around taxonomies of interaction, multi-modality and immersion. The resulting exhibitions or cultural interactive experiences draw from the vast range of new media processes and artefacts to produce new types of cultural experiences where the audience is both the reader and the producer.

4.0 Phase 2: conceptual system design, target system

Libraries create cultural experiences which connect audiences to both physical environments and provide access to rare collections. So far, current media technology has achieved limited penetration within the regional library environment, where microfiche and photocopiers are often the only information technologies present.

Future services which draw on these rare collections can use distributed technologies to allow broader access and distribution of knowledge while

ensuring that audiences can act as producers and consumers of information. Such technologies could include:

- Hand-held devices: mobile phones, games, chat rooms, digital photography.
- Application-based activities: word processing, image creation and manipulation, desktop publishing, music production.
- Web-based activities: online communities, blogging, internet chat, web authoring.
- Interactive media: 2D and 3D animation, video diaries, audio and video recording and editing.

In framing the development of new services and roles, it will be important to consider the changes which new media brings to modes of production, consumption and levels and methods of interaction. This holds implications for the different types of cultural artefacts for display and preservation as well as the new skills required to enable audience participation. As visual and textual literacies evolve, new skills are required by both producers and consumers of content in the creation of compelling and enduring experiences. Nathan proposes that we "learn existing ways of organising and presenting data and information and develop new ones" (2002).

Hartley (2003: 129-141) describes a model of contemporary life which is framed by the notion of a 'value chain' of meaning and the correlations between author and production, text and commodity and audience and consumer. In this model, he proposes that meaning has been attributed to different sources in history and that these have been associated with successive stages of the value chain in pre-modern, modern and contemporary (globalised) times. Hartley suggests that the creative and cultural activities whose meanings are associated with one link in the chain (for instance between consumer and audience) may be unintelligible to those disciplines whose training centres on different links (for example between author and producer). Culture, cultural artefacts and processes

have thus become valuable commodities and the notion of 'adding value' has created new ways of consuming and producing (29).

Hartley and Rennie (2004) demonstrate the features of a culture where the emphasis is on the consumer as opposed to the author or producer. In this model, we move from producer to consumer; from experience in the public sphere to the private and from representations of the nation state to representations of the self. Using this model, we might ask how representative curatorial practice can shift from focussing on institutional codified ways of knowing and producing, to open-ended co-creative processes which draw audiences into the creation of content. We might consider this as moving from:

CURRENT (c)	TARGET (t)
Realism (institutional representation)	DIY design 'reality' formats (co-creative production)
Read-only media (curatorial processes)	Read-write media (representative curatorial practice)
Criticism	Cultural Interactive Experiences

Table 5 – CTM(t): representative curatorial practice within digital cultural communication (after Hartley and Rennie 2004).

Representative curatorial practice can frame the implementation of audience participation and interaction with cultural content. This model can inform digital cultural communication where narrative and experience in use-led content can be realised. The spectrum ranges from representations of self in narrative institutions to representations of self in experiential institutions. Cultural interactive experiences can be said to cross the spectrum as can the telling of private stories, both enabling co-creation of content and user-led experiences.

Cultural communication using digital technologies can be 'two-way' for large populations, unlike 'read-only' broadcast-era mass communications which restricted 'writing' to professionals. The 'read-write' capabilities of interactive media, and learning based on immersion in site-specific environments, constitute a new phase in media literacy. However, the content that is produced outside of the professional realm is not always effectively structured and presented for wider audience dissemination. Interactive media communication has barely begun this journey into an 'order of literacy' and most ordinary people remain untutored in 'writing' with multimedia tools. Nevertheless, cultural participation is undergoing some transformation as a result of increasing multimedia use.

4.1 Case study: Queensland Stories

In May 2004 QUT Communication Design representatives approached the State Library of Queensland (SLQ) with a proposal for collaborations which might include student projects, consultancy, sponsored research and joint grant applications. Following this meeting, a second presentation outlining specific opportunities within the context of the State Library program was prepared. A number of projects were established:

Queensland Stories

The development of a jointly authored (QUT/ SLQ) positioning paper defining the aims and objectives of the Queensland Stories project in the context of digital cultural heritage and further learning environments.

Strategic brief

The development of a strategic brief which identified how the Queensland Stories project's objectives, and how QUT Communication Design could deliver artefacts and research.

Interactive new media artefacts

Delivery of a Queensland Stories prototype website populated with "stories" derived from a postgraduate student group. These artefacts were

developed using a methodology for exhibition development prepared by the authors.

The CIED method is specifically designed to accommodate both the top-down curatorship demonstrated in the origination of the Queensland Stories project, and the bottom-up community representation: while community representation forms the basis for this initiative, the stakeholder starting point was determined by the client. In other words the curator/ client has determined a community-based project without apparent specific reference to the community, and has chosen to employ designers with a theoretical framework and proven ability to apply tools and methods informed by that framework in order to produce design solutions with which the community can create its own stories, and develop a new literacy.

As designers engaged in this project, we chose to use an extant model and tools in order to define the core design solutions, the scope of the project and tools based on theoretical framework to engineer design solutions which would be informed by community input. The endpoint would be a design outcome: the creation of new media artefacts and environments to illustrate the potential of the project. The client informed us of their desire to have an annual program of events which would be community inspired, led and produced (it remains unclear whether Queensland Stories will be used to garner support for this program of events). Initial research questions included:

- How does the designer take the project from start point (actual performance) to end point (desired performance)?
- How can the designer engineer a solution using tools, methods and frameworks?
- How can the curator and designer enable the community to tell its own stories?
- What usable multi-platform publishing environment will enable capture and distribution of these stories?

Following our review of the products and services available at the State Library Queensland (CIED phase 1), the following project mission statements of desired performance were proposed in order to guide strategic design:

- New textual/ visual literacies will require convergence in existing product and services.
- Libraries should forge partnerships with other organisations to enable the production and consumption of knowledge.
- Libraries should promote end-user empowerment.

4.2 Statement of User Needs, target system

As can be expected from a major cultural institution, SLQ has published a well-considered strategic vision (www.slq.qld.gov.au). As part of the Queensland Government's Millennium Arts Project and in partnership with its stakeholders, SLQ aims to:

- Build smart communities.
- Construct communities around information literacy.
- Demonstrate the potential of media rich social spaces.
- Attract the target audience to create learning environments.

The purpose of the SUN(t) tool is to link SLQ's top-down vision to the community and the individual. Using a Domain of Design Discourse mapping technique (figure 1), CIED identifies a variety of devices to bridge top-down strategy to bottom-up community participation. DoDD(t) was created by the administration of a series of community workshops by the authors. These workshops, supported by questionnaires, are designed to provide a structure for the community to tell its own stories – the heart of the Queensland Stories project. DoDD(t) acknowledges a critical reality of community exhibits curated by cultural institutions: not only is the community the audience for the cultural interactive experience, it also owns the content of the cultural interactive experience.



Figure 1 - DoDD(t), using data collected from community workshops

4.3 Domain of Design Discourse, target system

DoDD(t) worked through the process of identifying the initial vision for the project, and specifying the stories which would populate it. After determining the preferred approach to the project, the CIED method assisted in identifying the desired outcomes, limitations, benefits and impacts of the project. By working through the specifications, communities are able to determine whether a story is rich enough for further examination. Potential stories could in this way be focused to a clear vision and identifiable source to quickly determine which would survive the method. Using DoDD(t), ideas could be tested for validity and robustness, thereby creating a credible SUN(t) with audience buy-in and support.

On completion of the DoDD(t), participants had a well-considered plan of how to approach their content, including what actions they might take in gathering source materials and what limitations they might encounter.

Architecture of	Deterritorialisation	Current curatorial practice
Instruments	Promoting development of social bond through apprenticeship and exchange of knowledge.	Library institution Library building Curatorial practice
Methods	Use of media predisposed to acknowledging, integrating and restoring diversity, rather than reproducing traditional media driven forms of distribution.	Educational programs Research & publication Exhibition
Systems	Promoting emergence of autonomous beings, regardless of nature of the system or beings involved.	Community consultation Evaluation practices Virtual curation
Semiotic engineering	Exploiting and enhancing data, skills and symbolic power accumulated by humanity for benefit of greatest number.	Database access Distributed sites

Table 6- Conceptual task model, target design

At the same time, as the method focuses on conceptual specification, participants are able to blend the consideration of technical issues with conceptual to encourage a balanced approach to story construction. An important factor is the use of a table to provide a visual summary of the outcomes of the workshop. This strategic method was used by audiences to facilitate the development of detailed design artefacts.

4.4 Conceptual Task Model, target system

The conceptual task model for Queensland Stories is a web environment that supports the creation and distribution of community content in the form of digital stories created by a range of communities across

Queensland. Communities will be encouraged to feed into the website in a number of ways:

- The designers produced a design document which demonstrated the capability of the community content and identified ways in which communities could contribute. This document was presented to prospective community groups to gather support for the project.
- The designers have suggested that the State Library run a competition to encourage the usability of the site. This competition should encourage communities to work in teams to develop and produce their stories for the platform.

4.5 System Task Model, target system

STM(t) provides outline technical specification for CTM(t), and details how the target system will respond to user behaviour, in order to underpin CTM(t) with existing technologies. For Queensland Stories, the technologies required are relatively straightforward and well-established: a robust web server is sufficient to enable CTM(t).

5.0 Phase 3: detailed experience design, target system

Client sign-off of CIED phase 2 demonstrates support of the proposed CTM(t). The final phase of CIED focuses participants on final pre-production artefact design. Another important aspect of this stage is that it is structured to allow for multifarious readings and results in community participants establishing a shared language. It also identifies points of convergence and departure in the team and provides a clear framework to scaffold the rest of the design development. Following the workshop, participants are asked to sign off on the direction of the project, the desired outcomes, the roles that each member will play, timelines, budget strategies, sign-off procedures, media outcomes and evaluation strategies. At this point the shared understanding revolves around realising the project as both valuable and achievable to specific timeline and budget.

5.1 Interaction Task Model, target system

Community workshop participants are encouraged to use the language of new media to define how the final artefact will behave. This stage of the CIED method is critical, as community participants may not appreciate the complexities of interaction design at artefact level. In anticipation of the difficulties of this stage, the CIED method encourages the establishment of project communication networks which share knowledge, particularly recognising that sharing knowledge is an important facilitator in creative communication and that “an effective working relationship exists where both parties exchange knowledge resources in order to progress the work and revolve difficulties of both a technical and artistic nature” (Candy and Edmonds, 2002: 63).

5.2 Interaction Model Prototypes, target system

The outcome of this stage is a detailed storyboard, the definition of display of interactive elements, using colour, images, sound, movement and text, the flow of themes and a summary of each aspect of the project. The CIED method has been developed to be delivered by a designer who will guide community members in eliciting an interaction model prototype from their own stories. Importantly and unlike a number of ‘digital storytelling’ methods which guide the development of personal stories for digital media, this structured method enables communities to use storytelling devices and create diverse new media artefacts rather than producing a prescribed formatted artefact each time.

At this point, communities become producers as they work to implement the project within the timeline and to budget. The team comes together regularly to report on progress and discuss concerns. As a shared understanding has been established from the beginning of the project and technological and financial limitations have been addressed, discussions can now revolve around overcoming problems rather than questioning the basis of the activity.

Following the development and distribution of the artefact, evaluation processes are put in place to capture the efficacy of the cultural interactive experience. A future outcome of this method would be multiple publication outcomes as evaluation would demonstrate those elements of the project which could be successfully re-purposed for future publication. While the communication strategy could capture multi-platform publishing opportunities, back-end audience research can be used to generate strategies for re-purposing content in ways which had not been considered at the outset.

6.0 Conclusion: client as producer and reader

Within the commercial sphere of persuasive interactive environments, clients engage designers to facilitate specific communication design outcomes. From brand experience to point of sale, designers use strategy and/or product to create a shared understanding between client and market. Interestingly, the target audience may take a back seat in this process, since the economic necessity for a designer to achieve sign-off on a solution positions the client as the designer's key audience. In this way – and by adapting Peirce's semiotic triad (fig.2 below, adapted from Fiske 1990) – the client becomes both producer and reader:

In terms of client as producer and reader, some interesting parallels may be drawn with the cultural institutions of the public sector. The distributed nature of Australia's urban and rural population has given rise to a prevalence of ostensibly community-based cultural experiences, which are increasingly located within cost-significant, new media-driven immersive environments (examples include the National Museum in Canberra, South Australia's State Library, or the Melbourne-based Australian Centre for the Moving Image).

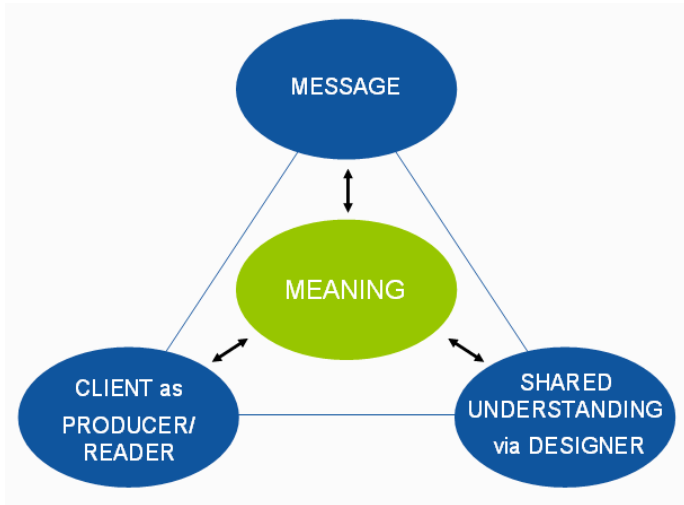


Figure 2- commercially oriented semiotic triad

A community-based cultural experience is characterised by not only the ownership of content by the community, but also the production of representation and display: in this respect, the community also becomes producer and reader, reminiscent of the commercial client.

Unlike the commercial sphere, the curator of the major cultural institution sometimes does not focus sufficiently on the requirements of his/her client (i.e. the community) in the design of the interactive experience, as the community does not provide finance to the curator, and has no authority to sign-off either the curatorial strategy or deliverables.

The unrepresentative, top-down nature of current curatorial practice has some justification. The private sector commercial client is often a single entity, whereas the public sector community "client" is in fact a complex mix of audiences, possessing disparate voice and no concrete understanding of either the interactive experience, or new media's potential shaping influence upon the experience. Without the commercial

designer's shared understanding of context, outcome and expectations, interdisciplinary and institutional collaborations are bound to be fraught with disagreement and misunderstanding. However, the origin of top-down curatorial discipline is explained not by the need to create "order" out of community "chaos", but actually finds its roots in the tradition of the modernist museum (see 7.0 below).

In summary, a great number of publicly funded cultural institutions have developed their interactive and display programs around the technology of the day. Developments in technology have driven the development of interaction which has at times been the result of public policy or commercial/ patrimonial pressure. Curators have historically provided the authorship and representation of collections to audiences in a specialised and highly political environment.

As curators have been charged with delivering institutional messages, their practices have often been top-down with an emphasis on creating spaces, objects and information which meet the needs of the institution. In the post-museum environment, curatorial practice has the potential to transform to meet the needs of both new audiences and paradigm shifts in the museum. This paper posits that in the post-museum, the need for specialised curatorial engagement does not end; rather curatorial practice must be reconsidered in terms of the skills and knowledge which are required of a new media environment.

If the post-museum – and by inference, cultural institutions as a whole - is to avoid becoming the modernist museum with new media gadgets, it would appear that curatorial practice may be situated around three key areas: the curators' ability to facilitate community/ audience engagement in the production and display of interactive experiences, their ability to act as agents of technology transfer in collaboration with new media technologists and most importantly, their ability to employ a structured methodology for enabling the first two to be delivered. By adding

structured methodology to their practice, curators will be able to capture accurately the needs of a disparate user group from the bottom up and translate this analysis into representative, new media solutions to cultural interactive experiences.

Cultural Interactive Experience Design: current vs. target		
	Current (c)	Target (t)
Paradigm	Modernist	Post-museum
Knowledge base	Institutional	Audience-based
Knowledge type	Discipline-specific	Experiential
Rationale	Curatorial expertise	Audience focus
Communication model	Institutional messages	Shared meaning with audience
Access to collection information	Restricted	Open
Evaluation	Audience	Audience
Primary publication medium	Print	Web

Table 7 - CIED methodology: an evolution in representative curatorial practice

This paper has presented a proposition for a design methodology which would enable curators, designers, communities, audiences and investors to be involved in the process of producing cultural interactive experiences. It has situated this method within the historical context of the museum, the domain of design knowledge and the virtual museum program. It has proposed outcomes which are representative, inclusive and meaningful. This paper is supported by a number of new media projects currently being designed for major Australian cultural institutions.

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Web resources

- <http://www.nathan.com/thoughts/unified/index.html>
- <http://www.storycenter.org>
- <http://www.bbc.co.uk/wales/capturewales>
- <http://www.acmi.net.au/digitalstorytelling.jsp>