



Workshop 22-23 March



UNIVERSITY OF
CAMBRIDGE



Goldsmiths
UNIVERSITY
OF LONDON



MIST

museum interfaces, spaces, technologies

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PROGRAMME OF

MIST: museum interfaces, spaces, technologies

AHRC-BT SPONSORED WORKSHOP AT THE
UNIVERSITY OF CAMBRIDGE
22-23 MARCH 2010

Department of Architecture
University of Cambridge
1-5 Scroope Terrace
Cambridge CB2 1PX, UK

www.moodle.expressivespace.org
www.mist.doc.gold.ac.uk



MIST

museum interfaces, spaces, technologies

Building on a 2007 AHRC-funded pilot workshop project, 'Discursive Formations' led by the Digital Studio (Department of Architecture) at the Fitzwilliam Museum, Cambridge, and on a 2008 AHRC BT-Goldsmiths workshop in Martlesham Heath, MIST now aims to explore how new technologies, at the intersections of material and digital culture, open the way for new forms of museum spectatorship, making our cultural heritage more interesting and engaging as well as reaching new audiences. MIST is a BT- AHRC sponsored collaboration between Goldsmiths (Computer Science) and the University of Cambridge (Department of Architecture).

For the purpose of this exploration, three events will be organised in the course of 2010. The first workshop will take place on 22 & 23 March at the Department of Architecture, University of Cambridge, while the next two will take place in London (dates to be announced at the Cambridge event).

How can the 21st-century museum reconcile the oppositions between Populist/Elitist; Experiential/Static; Fun/Serious; Entertaining/Educational; Play/Work; Interactive/Contemplative; Sensory/Mental; Immersive/Passive; Participation/Observation; Celebration/Edification; Social/Solitary; High-tech+media/artifacts; Discovery+multiple viewpoints/Authoritative+institutional viewpoint; Boisterous/Quiet, identified by art historian Chris Bruce, Director of the Washington State University Museum of Art and former Director of the Experience Music Project (Seattle) (in *New Museum, Theory & Practice*, ed. Janet Marstine, Blackwells, 2006: pp134/5)? At the Department of Architecture, University of Cambridge over two days, around 25 invited participants - Architects, Artists, Engineers, Computer Scientists, Museologists and Performers - will be addressing and debating these oppositions, together with a range of related issues:

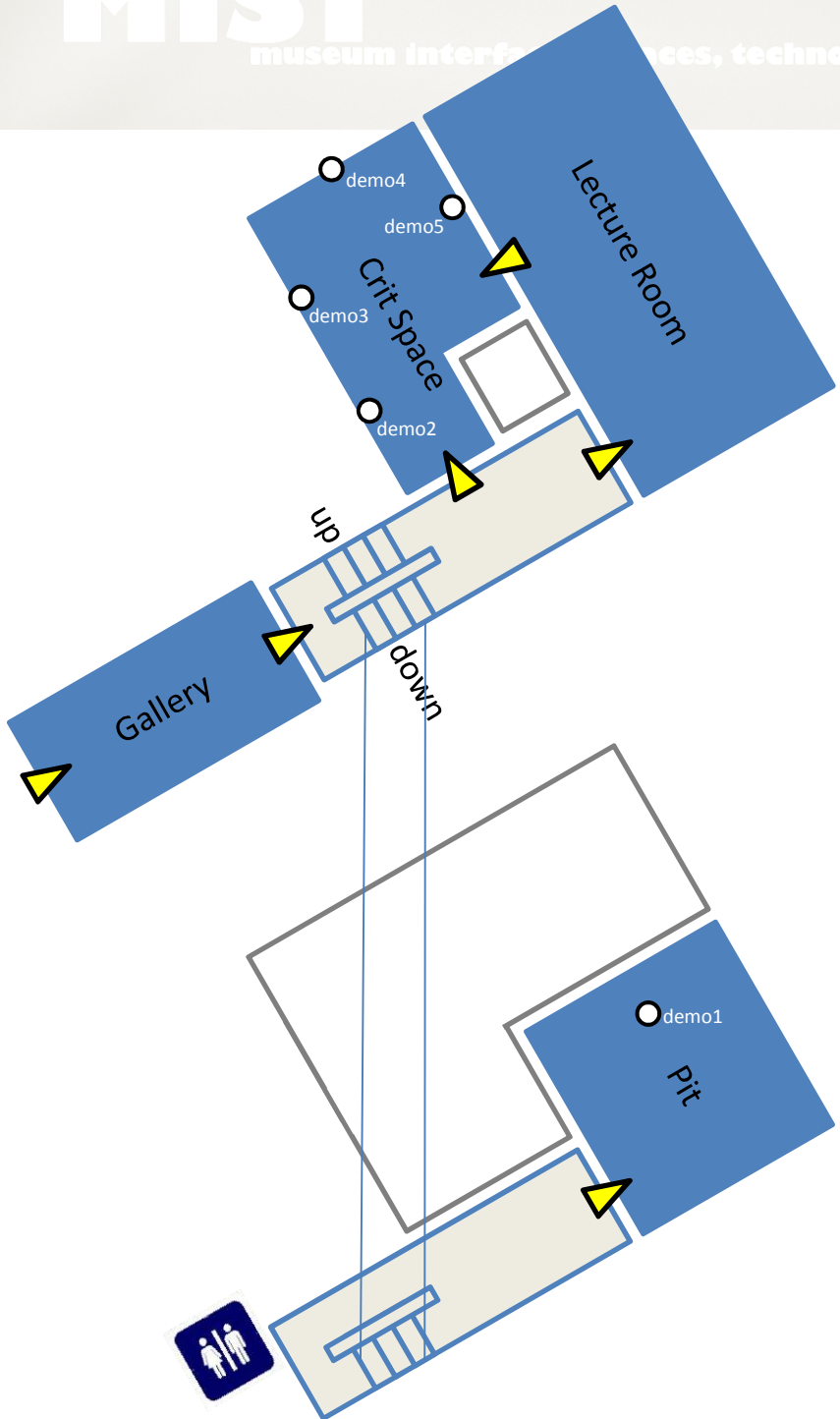
Day 1 (Mon 22 March) Acknowledging the need to associate the display of works of art with the space of the museum, Day 1 will investigate issues of spatiality, narrativity and interactivity in the museum context, demonstrating that museums have moved away from transparent systems of organization towards memory-theatre, site of wonder, or chance encounter—as an assemblage of stories and objects which may be linked in many ways. With contemporary digital research providing new ways of understanding objects and art-works, Day 1 will further touch on issues of memory and hapticity as part of the cultural experience. Demonstrations of the state-of-the art in interactivity and hapticity will be conducted by leading technologists and scientists.

Day 2 (Tue 23 March), working from the inspiration of Day 1, will explore how media and performativity potentially offer the museum visitor a deeper engagement – not through reenactment, but through original transmedia augmentations of the collection. After some presentations and demonstrations - and a 'café concert' - participants will work together in small groups to develop ideas for original integrated media approaches, designed to enhance understanding and enjoyment of cultural heritage, using contemporary techniques. A panel of experts will review the ideas, and experienced technology and exhibition design professionals will advise on feasibility and practical applications.

DEMOS: In parallel with the workshop, demos by participants and visiting digital technologists from the Cultural Industries, University Research Labs and SMEs will be available at set times over the two days.

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DAY 1	Monday 22 March	
10.00 – 10.30	Registration and Coffee	Gallery
10.30 – 11.00	<i>Welcome and Introduction</i> François Penz (University of Cambridge)	Lecture Room
11.00 – 11.30	<i>Keynote: Museum as System of Representation</i> Lily Diaz (Aalto University, Helsinki, Finland)	Lecture Room
11.30 – 11.50	<i>Narrative and Space in Non-Digital Era Museums</i> Andong Lu (University of Cambridge)	Lecture Room
11.50 – 12.10	<i>Museums Moving at the Speed of Light</i> Gavin Hogben (University of Cambridge)	Lecture Room
12.10 – 12.40	<i>Keynote: Integrated and Trans-Media Museum</i> Mark Leslie (Martello Media Narrative Architects, Dublin)	Lecture Room
12.40 – 13.00	Discussion	Lecture Room
13.00 – 14.00	LUNCH + Demos	Gallery & Crit Space
14.00 – 14.30	<i>Museums and Interaction</i> Robert Zimmer, Marco Gillies (Goldsmiths, University of London)	Lecture Room
14.30 – 15.00	<i>Keynote: Instruments of the Amateur in Collaborative Museum Practices</i> Vincent Puig (Institut de Recherche et d'Innovation, Centre Pompidou, Paris)	Lecture Room
15.00 – 15.45	<i>Interaction and Communication</i> Ian Kegel, Craig McCahil (BT)	Lecture Room
15.45 – 16.00	Discussion	Lecture Room
16.00 – 16.30	TEA + Demos	Gallery & Crit Space
16.30 – 16.50	<i>Interfaces and Interactions</i> Alan Blackwell (Computer Laboratory, University of Cambridge)	Lecture Room
16.50 – 17.10	<i>Engaging the Visitor using Multi-Media</i> Ludvig Lohse (Natural History Museum, London)	Lecture Room
17.10 – 17.30	Discussion	Lecture Room
17.30 – 19.00	Drinks + Demos	Gallery & Crit Space
19.30 – 22.30	Conference Dinner	Browns

Day1 Demos: Richard Hoadley and Tom Hall (ARU); Simon Robinson (Swansea); Zoran Radivojevic (Nokia); Ian Wilson (Emotional AI); Bjorn Stenger (Toshiba)

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DAY 2	Tuesday 2 March	
09.00 – 09.30	<i>Welcome & Keynote: The Need to Know (Law)</i> Johnny Golding (University of Greenwich, ICAS)	Lecture Room
09.30 – 10.00	<i>Cybertheatre and Cultural Heritage</i> Nuno Fahrudin Salihbegovic (University of Greenwich)	Lecture Room
10.00 – 10.30	<i>Explorable Artwork & Heritage</i> Marianne Selsjord (3D Artist and Oslo University of Art & Design)	Lecture Room
10.30 – 11.00	COFFEE + Demos	Gallery & Crit Space
11.00 – 11.45	<i>Bringing Immaterial Culture to the Museum</i> Maureen Thomas, <i>Kariina Gretere</i> , <i>Helen McGregor</i> (University of Cambridge)	Lecture Room
11.45 – 12.05	<i>A Case for the Fitzwilliam</i> Phillip Prager (University of Cambridge)	Lecture Room
12.05 – 13.45	<i>Informal Café Cabaret over LUNCH</i> (Stephen Daltry, Edmund Dehn)	Gallery/Lecture Room
13.45 – 14.00	<i>Introduction to Afternoon Session</i> François Penz	Lecture Room
14.00 – 16.15	<i>Group project idea – presentation-development</i>	Lecture Room/ Crit Space/Pit/ Gallery
16.15 – 16.30	TEA + Demos	Gallery & Crit Space
16.30 – 18.30	<i>Group Project Presentations & Discussion</i> (Panel: Johnny Golding, University of Greenwich [Chair]; Lily Diaz, Aalto University; Christopher Hobbs, Exhibition Designer; François Penz, University of Cambridge; Robert Zimmer, Goldsmiths University of London)	Lecture Room
18.30 – 19.00	Drinks & <i>Summary by Panel Chair</i>	Lecture Room
19.00 – 19.45	Drinks	Gallery
20.00	Dinner (optional - not paid for by conference)	Wagamama
Day2 Demos: Richard Hoadley and Tom Hall (ARU); Zoran Radivojevic (Nokia); Craig McCahill (BT)		

ALAN BLACKWELL

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Interfaces and Interactions

[Abstract]

Good engineering is simple and clean, but compelling media experiences are richly textured, often involving layers of perceptual, social and cognitive complexity. How can technology researchers anticipate and accommodate complex media experiences? The history of media innovation offers many lessons, from the Stradivarius violin to the Xerox Star. Contemporary artists and designers continue to push the boundaries of textured experience with new ubiquitous and mobile technologies. This talk will survey the research landscape of richly textured media, and offer a field guide to the disciplines of practice and research from which to design with texture.

[Biography]

Alan Blackwell is Reader in Interdisciplinary Design at the University of Cambridge Computer Laboratory, with qualifications in professional engineering, computer science and experimental psychology. He has over 20 years experience of designing industrial systems, electronic and software products, and more recently as a consultant to design and research organisations. He has taught design courses and supervised postgraduate design research students in Computing, Architecture, Psychology, Languages, Music and Engineering. He holds fellowships, advisory and visiting posts at Anglia Ruskin University, City University, the University of Colorado at Boulder, Victoria University of Wellington and Darwin College Cambridge. He and his students have consulted or carried out contract research for companies including Boeing, Nokia, Intel, Microsoft, Orange, Google, Hitachi and many others.

LILY DÍAZ

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Museums as Systems of Representation

[Abstract]

In my presentation I will characterize the Museum as an entity with boundaries comprising a collection of interactions, or practices, with a way of being that is repeated and preserved. These practices emerge within and are objectified in tangible or explicit forms or Systems of Representations within the institution in such a manner that we can conceive of there being particular configurations to the space of the museum where there are rooms for displaying and rooms for safe-keeping; material and immaterial artifacts in the form of collections and knowledge that are exchanged or not following particular guidelines, and ways of enacting ritualized behavior as in the case of activities grouped together under the rubric of exhibitions. I will propose that these Systems of Representations have historical trajectories and can be understood as created through shared and reciprocal action.

[Biography]

Lily Díaz is a artist-designer, researcher, and educator working in the area of information technology, art, and design. She is currently a professor and the head of research in the Media Department of the School of Design in Aalto University in Helsinki, Finland. As an educator, she has developed and successfully implemented Master of Arts and Doctor of Arts curricula in the area of digital media. She has received awards for her work in concept design and has exhibited in venues such as the Design Museum in Helsinki, the Royal Art Academy in London, the Martin Gropius Bau Museum in Berlin, and most recently Planetario Alfa in Monterrey, Mexico.

JOHNNY GOLDING

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The Need to Know (Law):

Minority Report on Museum Interface, Space, Technologies

[Abstract]

Incisive and concentrated aphoristic journey challenging the listener/curator/artist/curio to 'decide' when and how and where something should be placed -- especially when that 'something' is not necessarily what the person invited to look may particularly wish to see. How does one know what is being communicated by what; and when (if ever) does 'the political' enter the fray? Exposed to the early works of Enlightenment thinking, moving through Nietzsche's seering accusations of 'The Madman', this is a 'philosophical installation', interrupted by the brusque questions of Deleuze & Guattari, and the chorus of the two types of 'is'. A restaging of aesthetics, and with it, the age-old question: what does it mean to be human in an age of geneotopias and robotic intelligence. As Golding states, 'it's a delicate game we are playing, after all'.

[Biography]

Professor Golding is Director of the Institute for the Converging Arts & Sciences (ICAS), a postgraduate/post-doctoral international research centre for cutting-edge work and production. Research clusters within the Institute include: Media Arts Philosophy, Performance and the New Sciences; Linguistics and Communication Technologies; Philosophies of Emotion, LGBTI gender studies, Media Writing and the arts. She holds the Chair in Philosophy as Professor of Philosophy in the Visual Arts and Communication Technologies and, in that capacity is Head of the MA-PHD Postgraduate Research Programme in Media. She has supervised 13 PHD students to completion. Sue's internationally rated research covers the intra/interdisciplinary discourses associated with the contemporary media arts, new sciences and communication technologies. Set out in terms of installation, performance, rolling-documentary, books, articles and aphoristic text, her works address the various aspects of contemporary art practice in terms of their mobile multi-media, contemporary philosophical foundations and meta-mathematical (space-time) dimensionalities. She is Executive Editor of *The Issues* (in contemporary culture and aesthetics), an international peer reviewed journal covering the contaminated landscapes of the arts and sciences, with special emphasis on contemporary philosophy, web-sciences and the sonic arts. She writes and lectures under the name of johnny de philo and/or Professor Johnny Golding.

KARIINA GRETERE

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[Biography]

Kariina Gretere is a Latvian-British Composer, Songwriter, Singer and Music Producer, working with traditional and interactive media projects and performances. Kariina draws inspiration from Latvian and other ethnic music and specialises in electro-acoustic composition: a mixture of contemporary classical, choral, ambient, folk and popular music elements. Through her work, Kariina explores the field of dynamics and emotion, bringing out meaning, narrative and drama. Since graduating in 2000 with an MA in New Media Composition, her work has in particular focused on interactive media and the use of music and performance in interactive and dramatic narrative-driven multi-media environments (for example, at Media Lab, University of Art and Design with the Sibelius Academy, Helsinki, and at the Interactive Institute, K3, Malmö, Sweden). Kariina has worked as a Research Associate at the University of Cambridge on reconfigurable and chance-driven music for practice-based interactive projects.

RICHARD HOADLEY & TOM HALL

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[Demo Brief]

This research, undertaken by Richard Hoadley and Tom Hall of the Digital Performance Laboratory, Anglia Ruskin University, examines the nature of electronic and digital interfaces for musical expression through the specific use of sensors, including multiple sensors (sensor clusters), the data from which is used to control multiple (and changing) musical parameters as developed using a music and audio language, for instance SuperCollider which provides a structured environment essential for developments such as this. With rehearsal, these devices enable levels of expression and diversity not generally available using conventional electronic and digital interfaces, the latter too frequently being limited to the direct control of a limited number of musical parameters.

The combination of specific hardware design and algorithmic manipulation brings particular interest and benefit to the area, especially when combined with the expressive potential of dance and movement. The use of external participants (including, recently, dancers) to interact with prototypical interfaces comprising clusters of sensors generating music algorithmically provides a method of investigating human actions in this environment. This is achieved through collaborative work involving software and hardware design, musical composition, sculpture and choreography. The proposed area of research investigates the interstices of these disciplines aesthetically and practically.

[Biography]

In recent years Richard Hoadley has focused on the investigation of the use of technology in the compositional process itself and the effect of the 'interface' - whether notated 'score', computer programme, image, set of sensors etc. - on the creative process. To these ends he has developed a number of compositional programmes which have given rise to the live automatic pieces 'The Copenhagen Interpretation' and 'One Hundred and Twenty Seven Haikus'. He has recently developed 'Gaggle', a hardware/software ultrasonic sensor system and part of a larger programme of units designed for physical interactions with audio programmes written in SuperCollider.

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GAVIN HOGBEN

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Museums Moving at the Speed of Light: transient impressions and distant memories

[Abstract]

Museums were treasuries and tombs; now they are theatres and markets. Once, they connected the mundane world to the cosmos; now they connect a population to its culture. Once, they epitomized opaque closure; now, they celebrate transparency and access. Or, do they?

This brief talk reflects on the de-centralizing and de-materializing tendencies of museums in the modern and digital ages.

[Biography]

Gavin Hogben is an architect and media designer. He has practised and taught in both the UK and the US. His current projects are focused on media spaces and narrative innovations for museums.

IAN KEGEL

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Interaction and Communication

[Abstract]

Ian will present examples of recent research in the fields of interactive storytelling and social multimedia communications in order to provoke discussion on how memories, both on a personal and a cultural level, can be shared among groups of people who are separated by time or space. Ian's presentation will begin to suggest roles for tomorrow's communication networks within such cultural experiences.

[Biography]

Ian Kegel heads the Future Content Group, a team of 10 researchers whose role it is to supply BT with the product ideas, technology and foresight which it needs to help its customers take full advantage of the world of digital content. Ian co-ordinates a programme of work focused on audiovisual entertainment and multimedia communications, and seeks to develop compelling new applications and services for the digital home. He has collaborated with partners from industry and academia from across Europe in a variety of projects and initiatives including the TSB and EU Framework Programmes.

MARK LESLIE

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Integrated and Trans-Media Museum

[Abstract]

The New York Times described the WB Yeats Gallery in the National Library of Ireland as 'one of the most significant literary exhibitions ever staged'. A touch-screen on every cabinet allows examination of every object, as well as access the back of house collection. All objects are meaningfully linked to a digital timeline layered with essays and images. The Library's website presents the exhibition in 'virtual reality' providing indefinite public access to the collection, and the associated media displays.

The Cosmos visitor centre highlights discoveries of extreme life forms on Earth and their implications for life in space. It invites interactive debate on mankind's ultimate place in the Universe. A gallery of cinema-sized screens allow visitors to interact with the evolution of the Cosmos and life on Earth. The World's first 'Pan-Galactic Email Station' lets visitors send multimedia messages to distant planets. Ireland's first fully interactive cinema challenges audiences to work together on a space mission to track and divert a comet threatening the Earth.

At Glasnevin Cemetery - Ireland's necropolis, a time metre long touch table that allows exploration of the 'Lifelines' and inter connections of the 'great and the good' of Irish history and culture.

[Biography]

Mark Leslie is a 'narrative architect', who works to integrate multi-media technology and buildings, to create immersive experiences. He trained as an architect at Jesus College, Cambridge and the Harvard Graduate School of Design. Mark is a Gold medalist of the British Computer Society, and of the British Interactive Multimedia Association.

Mark founded Martello Media in London in 1986, as the digital presentation arm of his architectural practice. It rapidly developed into a pioneering interactive multimedia production studio. He moved the firm back to his native Ireland in 1990, where it has expanded into heritage consultancy, interpretative master planning and exhibition design. Martello projects have won the AHI (Association for Heritage Interpretation) Interpret Britain and Ireland Award for the past five years in succession. Projects include the WB Yeats Exhibition in the National Library of Ireland; the Cliffs of Moher Visitor Centre; and the Guinness Store House. Martello's Cosmos space exhibition won a THEA Award in Los Angeles in 2008. Currently, Martello is developing the 'Lifelines' museum at Glasnevin Cemetery, Ireland's national necropolis, and master planning the Ireland Pavilion at EXPO 2010 in Shanghai.

LUDVIG LOHSE

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Engaging the Visitor using Multimedia

How can multimedia be used to enhance the visitor experience?

[Biography]

Ludvig Lohse (Production Manager, Interactive Designer, Media and Usability Consultant, Film/Video Editor) is Gallery Multimedia Manager at the Natural History Museum, London (UK), where he is overseeing the design, production, and installation of gallery multimedia. The NHM has for 250 years been known worldwide as a leader in scientific research into natural sciences, and is one of UK's top visitor attractions with around four million visitors a year. With the new Darwin Centre, visitors can gain an insight into the museum, aided by an array of distinct new ambitious state-of-the-art immersive interactive installations (www.nhm.ac.uk/darwin-centre). In 2007/8 Ludvig was the lead Interface Designer and Flash Programmer for the Goldsmiths - University of London project, 'Culture-Mining and the Search for Meaning' with the Tate Gallery, London. From 2004-2007 Ludvig was a Content Researcher and Toolkit Designer with the University of Cambridge Digital Studio, on ECFP6 ICT IP, 'New Millennium - New Media' (www.ist-nm2.org), where he researched and produced 'Gods in the Sky Choice', a prototype interactive TV format, repurposing a 4-part Channel 4 documentary. He also co-produced, as part of the development of the 'NM2'/'Shapeshifting Media' toolkit, the interactive drama prototype 'Gormenghast Explore', repurposing the footage of the BBC Drama series 'Gormenghast'. From 2001-2004 Ludvig developed, with BT Future Content Research, as part of his work at the University of Cambridge's Digital Studio, the patented 'Flexible Media Toolkit', which, as well as being the seed for the 'Shapeshifting Media' toolkit, forms the basis of the commercial adaptive media 'Real Time Content' editing and delivery tools for interactive online video (www.realtimetype.com)

ANDONG LU

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Narrative and Space in Non-digital Era Museums

[Abstract]

Museum has been a spatial challenge to architecture. My presentation will review the development of museum architecture from the space-centric, to collection-centric, and later to visitor-centric spaces, and discuss their narrative implications.

[Biography]

Andong Lu is a research associate at the University of Cambridge. His research interest focuses on narrative organization of space, cinematic-aided design, and making meaning in landscape. He recently guest-edited the *Cinematic Architecture*, special issue of the *Architect* (no. 136, 2008) and is co-editing with François Penz the *Urban Cinematics: Film, City, Narrative* (Intellect Books).

CRAIG MCCAHILL

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Shared Memories – User Generated Content in the Participate Project

[Demo Brief]

The demo will show work from Participate, a collaborative project led by BT Research. The project aimed to develop scalable solutions for managed events and campaigns which engage and motivate participants over sustained periods of time. The project created tools for the public to author, share and discuss content using their own devices, and for professionals and experts to collate and edit contributions for publication over broadcast and interactive channels.

The demo will focus on two trials that were part of the project: "Stories@Kew" and "Bicker Manor" which used mobile, web and IPTV to allow members of the public to create and publish their memories.

[Biography]

Craig McCahill is a graduate from Goldsmiths college (Computing and Design). His skill set span both user interface design and software development. His interests include location based applications, multi-modal interaction and cross-platform experiences.

In his current role as researcher within BT Innovate & Design his projects include personalised recommendation and social TV.

HELEN MCGREGOR

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[Biography]

Helen McGregor trained at the Royal Scottish Academy of Music Drama and made her professional debut with the Citizens Theatre TAG Company in Glasgow, playing Juliet in Romeo and Juliet. Subsequent professional theatre work includes As You Like It, again with TAG; seasons at Perth Rep, Pitlochry Festival Theatre, Lyric Theatre Belfast, and the Royal National Theatre where she worked with Mike Alfreds (founder of Shared Experience) and Sir Richard Eyre. More recent roles include the Norse Goddess Vala in Vala: An Interactive Hypermovie written and directed by Maureen Thomas, the Chorus Leader in Aristophanes The Clouds and the lead role in Margaret Edson's play Wit. Helen is currently in rehearsal for a one woman re-working of Shakespeare's Richard III called Now is the Winter which will be performed at Oxfringe in April and at the 2010 Edinburgh Fringe.

FAHRUDIN NUNO SALIBEGOVIC

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CyberTheatre and Cultural Heritage

[Abstract]

In the middle of nineteenth century, two Serbian peasants from the village of Kremna were able to foresee the events which would subsequently change world history. They described in detail the images of the approaching political revolutions, dictatorships, great wars, death of the old empires and the birth of new states, technological revolutions, interplanetary voyages, destructive weaponry of the future. In their lucid minds, they saw the decay of the human race and all the apocalyptic consequences that would follow the moral decline. Among many other technological inventions, they saw the image of a magical gadget Сокођало:

[...] men will build a box and within the box will be some kind of gadget, Сокођало, with images. With Сокођало men will be able to see what is going on in any corner of the world, but they will not be able to communicate with me already dead, even though this image gadget will be as close to this other world as hairs on the human scalp are close to each other.

In the catacombs of a bomb shelter (part of the National Museum in Uzice) used in the Balkans' many wars, Amsterdam Cyber Theatre recreated both the prophecy, and its controversial meanings in the context of the most recent schismatic wars in Yugoslavia. The performance refreshed the memories of bloody ethnic conflicts, political turbulence, high-tech bombs (courtesy of NATO intervention), and the media war that greatly fuelled the combat on the ground.

[Biography]

Fahrudin Nuno Salihbegovic is a theatre maker, digital artist, and lecturer in media arts and digital performance. He has directed twenty-one stage productions, designed and made scenographies, created digital video/sound installations in the Netherlands, Belgium, Germany, England, Serbia, and Macedonia. While residing in the Netherlands, he founded and led Amsterdam Cyber Theatre (ACT), an interdisciplinary group of artists and scientists dedicated to research, production, and education in the field of digitalised performing and visual arts. He is the artistic leader and programme director of SET (Studio for Electronic Theatre), Belgrade. He has taught digital arts and theatre making practice at workshops and seminars in England, the Netherlands, and Serbia.

FRANÇOIS PENZ

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[Abstract]

In my introduction I recount my recent visit to Le Musée du Quai Branly in Paris. I embarked on this visit using the so-called participant observation method, which is common in ethnographical and anthropological studies. My journey through Le Musée du Quai Branly provides a spatially organized narrative of the key themes of the workshops - Spaces, Interfaces, and Technologies as well as Performances.

[Biography]

François Penz teaches in the Faculty of Architecture and History of Art at the University of Cambridge where he is a Reader in Architecture and the Moving Image. He directs the Digital Studio for Research in Design, Visualisation and was the Principal Investigator of a 2007 AHRC-funded pilot workshop project, 'Discursive Formations - Place, Narrative and Digitality in the Museum of the Future'. He is currently the Principal Investigator of a two-year research grant on Urban Environment as Narrative System in the UK and China. He is a fellow of Darwin College and a founder of Screenspace.

VINCENT PUIG

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Instruments of the Amateur in Collaborative Museum Practices

[Abstract]

In today's context of the Economy of contribution, amateurs/enthusiasts make an extensive use of digital instruments for personal and collective expression sometimes twisting existing technologies. Museums pay a growing attention to social networks but often tend to consider them as yet another marketing issue. Working with amateurs is another story, which as its own history since 17th century up to current context. We will show how amateurs and contributors play roles in the museum context and some digital tools (instruments in reference to musical instruments) such as the one we develop at IRI in order to manage contradiction and debate using mobile, Web and even tactile interfaces.

<http://www.iri.centre>

[Biography]

Since 1993, Vincent Puig has been pioneering new technologies in the cultural domain at Centre Pompidou. Director of Industrial relations at Ircam, he designed new services for music software amateurs (Forum Ircam), online sound processing (Studio On Line) and Music interaction (Semantic HIFI). In 2002, he launched Resonances (International Convention on Technologies for Music) and Ircam Hypermedia Studio dedicated to design of "guided listening" tools (Web radio, Musique Lab). In April 2006, he became Deputy Director of Centre Pompidou Cultural Development Dpt. in charge of the newly founded Institute for Research and Innovation (IRI) dedicated to cultural technologies such as annotation tools, collaborative Web and social networks and multimodal interfaces. He is currently Deputy Director of IRI, which he co-founded with Bernard Stiegler, in its new independent form established by Centre Pompidou, CCCB, Microsoft, Goldsmiths College, Tokyo University, Institut Telecom and ENSCI. He is member of the Advisory Board of DISH (Digital Strategies for Heritage), of the National Gallery of Denmark, Louvre Lens, Cité des Sciences and Ruhr2010 Cultural Capital of Europe. He is President of the Culture & media community at Cap Digital Paris Cluster.

ZORAN RADIVOJEVIC

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[Demo Brief]

The Morph concept device is a bridge between highly advanced technologies and their potential benefits to end-users. This device concept showcases some revolutionary leaps being explored by Nokia Research Center (NRC) in collaboration with the Cambridge Nanoscience Centre (United Kingdom) – nanoscale technologies that will potentially create a world of radically different devices that open up an entirely new spectrum of possibilities.

Morph concept technologies might create fantastic opportunities for mobile devices:

- Newly-enabled flexible and transparent materials blend more seamlessly with the way we live
- Devices become self-cleaning and self-preserving
- Transparent electronics offering an entirely new aesthetic dimension
- Built-in solar absorption might charge a device, whilst batteries become smaller, longer lasting and faster to charge
- Integrated sensors might allow us to learn more about the environment around us, empowering us to make better choices
- Displays with programmable textures and tactile silhouette

In addition to the advances above, the integrated electronics shown in the Morph concept could cost less and include more functionality in a much smaller space, even as interfaces are simplified and usability is enhanced. All of these new capabilities will unleash new applications and services that will allow us to communicate and interact in unprecedented ways.

[Biography]

I have been contributing (conception, developing and testing) advanced user interfaces related to mobile electronics. My interest is in lowering barriers between physical and digital worlds.

SIMON ROBINSON

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[Demo Brief]

Many existing mobile information systems require users to transfer attention from their surroundings to a digital representation of the scene, which can often be overly complex and frustrating. Our prototypes aim to allow people to explore their environment in a more engaging way, using new mobile interaction methods to help.

This demo will show how casual interaction and low-attention feedback can help users find their own way around interesting places. By pointing a mobile device, people can discover and navigate to find digital information using vibrational feedback as a guide. Once found, they might browse in situ, or capture for sharing with friends later using a mini projector, all the time still remaining immersed in the real world around them.

[Biography]

I am currently a Research Assistant in the Future Interaction Technology Lab at Swansea University, working primarily on new interactions for mobile devices. My research focuses on methods for improving mobile interaction with location-based services by removing the barriers between the user, their digital device and the physical world that surrounds them. Publications and further information are available at: <http://cs.swan.ac.uk/~cssimonr/>

MARIANNE SELSJORD

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Explorable Artwork and Heritage

[Abstract]

A presentation of two of my digital Fine Art projects, created using both Real-Time 3-D engines and rendered 3-D stills/animations. 'The Gardens of Dreaming', inspired by Hieronymus Bosch's triptych, 'The Gardens of Earthly Delight' and 'The Temptations of St. Anthony', a Real-Time audiovisual room installation and 'Zurbaran 3D', a 3D interpretation of 17th century Spanish painter Zurbarán's 'Still Life With Oranges and Lemons' (graphic stills and animation). Thoughts and future ideas for further development of this type of explorable artwork.

[Biography]

Marianne Selsjord is a visual artist and lecturer at Oslo National Academy of the Arts, Norway. She has been guest tutor at the University of Cambridge and the University of Art & Design, Finland. In 2000 Marianne instigated the multimedia project Embryonic, shown at 'Ultima', Oslo Contemporary Music Festival. In 2002, as part of the exhibition 'Complexity', Embryonic was exhibited at the Samuel Dorsky Museum, Suny New Paltz (N.Y.) and in 2003 at the Federal Reserve System Fine Art Board in Washington DC. She was lead 3D-texture artist on 'Elias' ('The Little Rescue Boat', Norway 2005; Emmy nominated 2006) and on the feature film, 'Free Jimmy' (Norway/UK 2006: Amanda Award, Best Film 2006, Annecy crystal 2007). In 2006/7 Marianne worked as 3D artist with the University of Cambridge on RuneCast (dir. Maureen Thomas), part of the EC project 'NM2' and with Media Lab, University of Art & Design, Helsinki as 3D supervisor on 'FullHouse' (dir. Mika Tuomola), part of the EC project SALERO. She made a 30 min 3D animation/Machinima for the multimedia outdoor performance 'Mot Himlaleite', Stavanger, European Capital of Culture 08.20 m wide projection on a snowy slope 650 m asl. (www.mothimlaleite.no). In 2009 she showed her audiovisual 3D RealTime room installation at Henie Onstad Art Center; "The Gardens of Dreaming". (www.marianne.selsjord.com), (www.vimeo.com/3815080). Also in 2009 she created 30 min 3D animations/Machinima for the Händel opera 'Acis and Galatea', Jakob kulturkirke, Oslo.

BJÖRN STENGER

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Gesture Interface for Large Panels

[Demo Brief]

Toshiba Research Europe has developed a hand pointing interface that uses a single camera. Sample applications include a photo and video viewer as well as an application to inspect 3D models. The system uses multiple trackers in a cascaded structure. The idea is to apply the most precise method possible while being able to fall back to less precise but more robust trackers.

MAUREEN THOMAS

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Bringing Immaterial Culture to the Museum

[Abstract]

The digital interactive audiovisual work, *RuneCast*, was originally designed for installation-projection in a museum, to supplement artefacts on display, using a structure and aesthetics embodying those of the Viking period it illuminates. Techniques adapted for computational narrativity from oral composition present authentic verses, sung and spoken, interpreted through associative, kaleidoscopically reconfiguring manipulated video and animation – evoking rather than documenting the subject-matter. *RuneCast* suggests how interactive digital media can be used not as a substitute for the museum visit, but to supplement and extend it: augmenting the experience by bringing together ancient and modern forms of information and entertainment, to engage new audiences, and reveal aspects of cultural heritage not readily apparent from material artefacts. For MIST, Maureen Thomas (who wrote and directed *RuneCast*) Kariina Gretere, who composed and performed the music, Helen McGregor, who plays Heithur/Vala, the storyteller, and Marianne Selsjord, who designed the explorable 3D world, present a specially created live performance. We hope to demonstrate experimentally how integrated media can add immediacy to a museum-visit through original artwork which enhances the collection.

[Biography]

Maureen Thomas is a Senior Research Fellow of Churchill College, Cambridge, where her practice-based research focuses on spatially organized dramatic narrativity and new media content forms. Maureen led the workshop *Every Fragment Tells a Story for Museum of the Future* (UCAM/AHRC/Fitzwilliam: 2007). Publications include: 'Digitality and immaterial culture', *International Journal of Digital Cultural Heritage and ElectronicTourism* 1:2, 177 – 199, 2009; 'The power of Narrative: 2D, 3D, 4D', Blackwell, Alan and D. MacKay (ed.), *Power*, Cambridge: Cambridge University Press, 2005: 51-76; 'Playing with Chance and Choice – Orality, Narrativity and Cinematic Media', Bushoff, Brunhild (ed.), *Developing Interactive Narrative Content: sagas/sagasnet*, Munich: High Text, 2005: 371-442. Recent digital interactive productions shown: Southbank Centre & BAFTA, London; Cambridge International Film Festival; Ulster Festival of Art & Design; Bella Centre, Copenhagen; Norwegian Film Institute, Oslo; Electrohype, Malmö & Fylkingen Centre for New Music and Intermedia Arts, Stockholm; City Hall, Reykjavik. Narrative dramatic work: Channel 4 TV; Discovery Channel; Anglia TV; BBC Radio. Opera & music theatre: Oxford & Nottingham Playhouses; Royal Festival Hall; Linbury Studio/Royal Opera House, Covent Garden; Wielki Theatre, Warsaw; Gloria Theatre, Helsinki.

IAN WILSON

ian@emotionai.com

[Demo Brief]

We will be demonstrating technology we are developing to bring more engaging and emotional interaction possibilities between people and computers, in particular between people and avatars or digital characters.

Our technology drives real time, interactive, emotionally responsive digital characters and avatars using events triggered in the real world or in virtual worlds. This could be, for example, a digital character able pay attention to, and make eye contact with a person passing by a digital screen in order to engage them with content in a natural and human like way.

Our technology and research center around 3 main areas:

1. The neuroscience of the brains emotion level systems, including the neuro chemical and transmitters involved.
2. The physiology of emotional response in the face and in body posture and how these responses are driven by changes in neurological systems.
3. The neuroscience and physiology of the attention system, how it is activated, what it focuses on and how our eyes in particular are driven by this system.

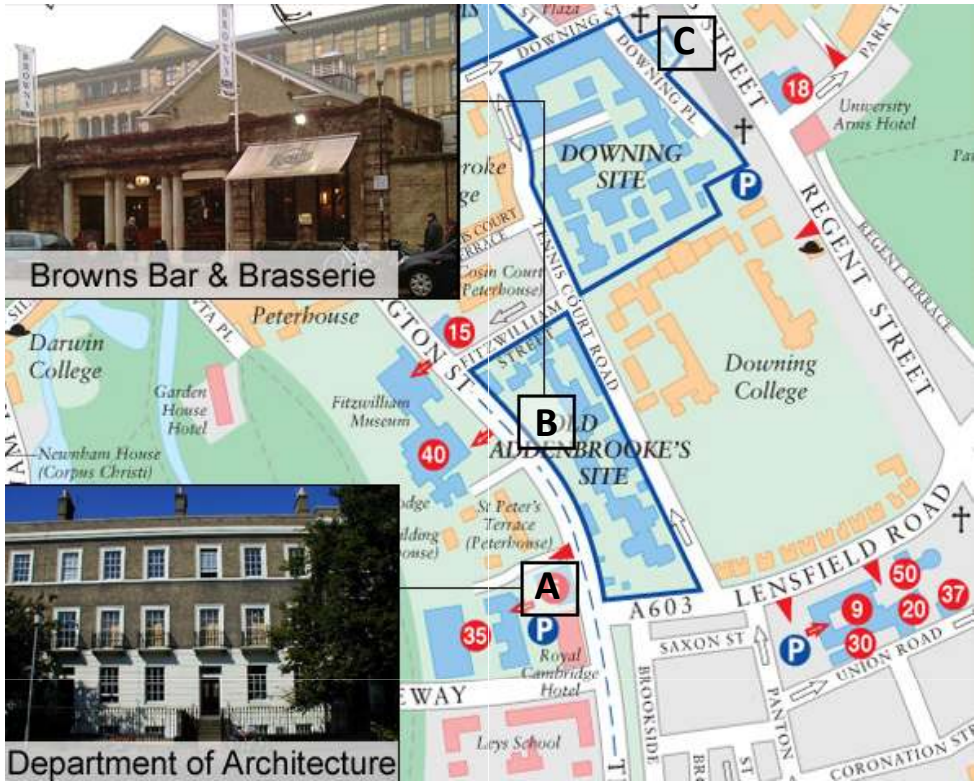
ROBERT ZIMMER & MARCO GILLIES

zimmer@gold.ac.uk, m.gillies@gold.ac.uk

[Biography]

Professor Robert Zimmer (Department of Computing, Goldsmiths University of London) studied Mathematics and Creative Writing at MIT and Churchill College Cambridge; his PhD in *Automata and Category Theory* is from Columbia University, USA. At Goldsmiths his research focuses on computing in art and design: e.g. connecting painting and computing; systems for reasoning about archiving contemporary art (with Tate Modern); large-scale public artworks (e.g. with Andrew Shoben, Greyworld; and Warren Neidich - web-based artwork centred on brain function and development); systems for personalisable digital movies and digital access to art and artefacts (*NM2*), including the invention, development and application of new kinds of haptic (touch simulating and stimulating) interfaces.

Dr Marco Gillies teaches Creative Computing I and Msc in Computer Games and Entertainment. His research interests include computer animation, interactive virtual characters, non-verbal expression, motion capture.



Workshop Venue: [A]

Department of Architecture
1-5 Scroope Terrace
Cambridge CB2 1PX

Conference Dinner Venue: [B]

Browns Bar & Brasserie
23 Trumpington Street
Cambridge CB2 1QA

Optional Dinner on Day 2 Venue: [C]

Wagamama
36a St Andrews Street
Cambridge CB2 3AR