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Object and Identity in a Digital Age

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- ABSTRACTS -

Interfaces of Performance

Maria Chatzichristodoulou (aka Maria X), Janis Jefferies and Rachel Zerihan

An interface is the boundary or shared space between two areas or systems. It allows for interaction between two entities that would otherwise be unable to communicate with each other. In that sense, an interface offers another perspective of seeing, experiencing and considering one's given state, through interaction with an 'other'. For the next edition of CHArt, we propose to present our forthcoming collection of essays *Interfaces of Performance* (Forthcoming: Ashgate, 2009 as part of the *Digital Research in the Arts and Humanities* series).

In calling this collection *Interfaces of Performance* we are gesturing towards the myriad aesthetic, experiential and interdisciplinary opportunities offered by contemporary performances that 'dare' interact with an 'other' system of disciplines by integrating technologies into their practice. Marking a shared space of exchange and dialogue as well as a site of contestation and tension, the interfaces proposed herein are positions inhabited by critical cultural theory and innovative interdisciplinary works. In profiling and examining current manifestations of such works, we demonstrate models and strategies practitioners are developing - or frequently appropriating - as a means to their artistic ends, which disturb boundaries of traditional performance and create new paradigms of emergent practice and discourse. The interfaces in this volume reflect social as well as cultural and technological attempts to enhance, question and strengthen the scope of the relationship between one and other in the sphere of performance-making and as such point towards wider relational matters of embodiment, alterity and mechanisms of connectivity.

As technologies become increasingly integrated into theatre and performance practice, this volume aims to investigate emergent paradigms while at the same time consciously avoids offering or imposing taxonomies upon such varied practices. Taxonomies require the classification of things into groups based on their formal characteristics and often entail hierarchies. *Interfaces of Performance* has been designed to extend current discourse in a field that is, on occasions, led by formalist analysis focusing on technology per se. Such analysis runs the risk of approaching practices as static outcomes rather than (a)live cultural phenomena that are always in the process of becoming. The proposed approach intends to unpack conceptual, aesthetic and societal elements of performance practice that are investigating the strategic use of a diverse spectrum of technologies as a means to artistic ends. The focus of this analysis is neither on the formal characteristics of these practices, nor on the types of technology employed; instead, we embark on an investigation of the practitioners' ideas, objectives and concerns, we ask how these artists employ technologies in order to research new dramaturgies and methodologies for the creation of more e/affective experiences for, and encounters with, their audiences.

Maria Chatzichristodoulou [aka Maria X] is a cultural practitioner (curator, producer, performer) and Lecturer in Theatre and Performance at the School of Arts and New Media, University of Hull (Scarborough campus). Maria was co-director of Fournos (Athens, Greece 1997-2002), co-founder/co-director of Medi@terra Festival (Athens, Greece, 1998-2002) and initiator/co-director (with Rachel Zerihan) of Intimacy: Across Digital and Visceral Performance (London, 2008).

Janis Jefferies is an artist, writer and curator, Professor of Visual Arts at the Department of Computing, Goldsmiths University of London, Director of the Constance Howard Resource and Research Centre in Textiles and Artistic Director of Goldsmiths Digital Studios (UK). She is associate researcher with Hexagram (Institute of Media, Arts and Technologies, Montreal, Canada).

*Dr. Rachel Zerihan has recently completed her PhD exploring Catharsis in Contemporary Female Performance (Roehampton). Zerihan is drawn to performances that play in hybrid spaces that emerge from explicit experiments in theatre and body art. She has published writing in *Body, Space, Technology Journal, Dance Theatre Journal* and *Esse: Arts and Opinions* and is a sessional lecturer at Queen Mary University of London.*

Art and Software Entropy.

Wayne Clements, Chelsea College of Art and Design.

At a recent conference there was discussion of the preservation of new media art. One of the panellists, an esteemed curator of new media at an important national museum in Scandinavia, spoke about conservation and the need to preserve old computers and programs and the difficulties of achieving this. Nevertheless, he believed the fundamental project was viable. Someone proposed that an obstacle to preservation was the artist's carelessness, and this view was shared by several of the panellists. I replied that much Internet artwork uses events and content from remote websites over which the artist and the artwork have no control. This artwork is inherently unstable and temporary. It is intended to be so, and this is part of its unique quality. It cannot be preserved. (This is true, whatever hope might be placed in the success of documentation.)

The museum curator replied I had decided, 'to choose to break cultural laws'. It seemed that I had little reason to complain – which I was not: I intended merely to point out that not everything is bound for the museum.

There is the imbrication of curatorship and surveillance: the former with its documentation, display, and preservation; the latter, with its observation, monitoring, and evidential processes. These have something shared, and this is a programme of the creation and maintenance of forms of order.

This order, in the case of curatorship, is not merely the continuance of the integrity of physical structures. It is also the creation and imposition of cultural order. The point perhaps that the museum curator had implied.

However, the gun that is pointed at your own head may occasionally be turned on those that point it at you. In so doing, it is credible that curatorship should embrace the fugitive and the unstable. A counter-order, if you like.

For software to engage with what is happening now, it needs to be maintained, more urgently perhaps than it needs to be preserved. Databases require updating, page searches need to be checked: when you make a machine, you create a machine minder.

(This paper will explore the preservation of software based art, in contrast, particularly, to that of older computers or machinery dating from the days of mainframe computing).

This paper is based on: Clements, W. (2008) Surveillance and The Art of Software Maintenance: Remarks on logo_wiki, in 'Observatori 2008. After the Future'. Valencia, Observatori.com.

Wayne Clements is a visual artist and a writer. His artworks have been shown in many festivals and exhibitions of electronic art. un_wiki received the Award of Distinction, Net Vision, Prix Ars Electronica (2006), and appeared in Connecting Worlds, ICC Gallery Tokyo (2006), in a specially commissioned Japanese language version. His artworks have been exhibited recently in Madrid, Barcelona, and Athens; notably also in Valencia where logo_wiki was part of the curated presentation antisocial networking.

He completed a practice-based Ph.D. in Fine Art at Chelsea College of Art and Design (2005) which investigated the relationship between art and computers. Wayne now works at Chelsea as a Research Fellow. His website is www.in-vacua.com.

Databasing the arts. The enactment of art objects in networked infrastructures.

Sarah de Rijcke, Royal Netherlands Academy of Arts and Sciences.

Digital representations of art objects increasingly circulate in distributed, networked contexts. As part of a larger project on visual knowing around databases of images on the web, the current paper discusses preliminary results from fieldwork at the Rijksakademie for the visual arts (Amsterdam, the Netherlands). It addresses the production, handling, and dissemination of visual images of art objects in a setting where new, networked technologies blend with existing documentation practices. Conceptually, the paper draws on media theory and visual anthropology (Bolter & Grusin, 2000; Edwards & Hart, 2004; Elkins, 2008; Thurtle & Mitchell, 2003; Pink, 2007), and science and technology studies (Beaulieu, 2001; de Rijcke, 2008; Mol, 2002; van Dijk, 2005). Taken together, these approaches enable an analysis of mediation processes, and of the performative dynamics involved in manipulating and circulating images.

The Rijksakademie for the visual arts describes itself as a platform for art production, as a research centre, and as an international meeting place for artists. It houses a residency for 50 artists from all over the world. During their stay, resident artists document their work (process). After they have left, they continue to update their documentation with information about exhibitions, projects, and publications. In the current paper, we analyze how artists and employees invest themselves in these practices of representation and documentation. We are especially interested in the entanglement of images and art works with the institute's networked image database. Using recent STS literature on relational ontology (Marres, 2008; Mol, 2002; Stirling, 2008), we argue that these entities are best understood as temporary outcomes of inter-related modes of engagement. In addition, we focus on how the visual documentation relates to the complex experience of making/seeing art objects. When and how are art works recognized as such, do they get documented, databased? What purposes does the database have for different users/producers (i.e. resident artists, employees, visitors, curators, researchers)? How does the networked context in which the images function as

digital representations, shape the status of art objects themselves? Is this status fixed or fluid? And how do these documentation practices relate to other electronic settings and networks in which the images might circulate (artist's website, Flickr, sites galleries, etc.)? Our ethnographic study of interactions with the Rijksakademie database provides insight into the ways in which the images are produced, treated, and valued as things that can be acted upon in mediated, distributed contexts.

Together with Anne Beaulieu, Sarah de Rijcke is currently working on a project called Network Realism. Making Knowledge from Images in Digital Infrastructures. Previous research focused on practices of observation and visualization in neuroscience (University of Groningen, the Netherlands). She was a pre-doctoral research fellow at the Max Planck Institute for the History of Science in Berlin in 2007.

ArtLog: an electronic archive of artistic process

Yvonne Desmond, Dublin Institute of Technology, Eire.

'Men of genius really are doing most when they work least, as they are thinking out ideas and perfecting the conceptions which they will subsequently carry out with their hands.'
(Leonardo da Vinci)

There is a romantic notion that regards all forms of Art as emanating from the gods and artists as the mere conduits for this divine inspiration. This research project disavows such notions and instead is predicated on the basis that all artists are skilled practitioners of their craft. Research into the areas of tacit knowledge and visual intelligence indicate that the making of art is an experiential process of conceptual enquiry involving ongoing negotiation between the artist and the form. In short, the creation of art involves a convoluted, complicated artistic process, which operates in confusion and the end result, even when successful, may not be what the artist intended.

Artistic process has generally been inferred from historical and circumstantial evidence found in manuscripts, letters, diaries, ledgers, economic records and everyday paraphernalia. These have been living handshakes across historical divides facilitating the cross generational transfer of information. However, hard copy evidence of this nature is becoming more difficult to find as people become increasingly reliant on digital means of communication. Hard copy manuscripts are disappearing to be replaced by fragile digital files that are easily destroyed or rapidly become obsolete.

ArtLog is a software programme that attempts to ameliorate this danger. The software facilitates practising artists to reflect on their process and document it, offering the artist an opportunity to tell their own story of their work. In this way, the story of the work is told, provenance established and the contextual framework of the work will be preserved. The software can be used by all artists working in all media. Growing the content of the archive will involve the education of artists as to the importance of maintaining and preserving their personal archives.

The project is based in the Tyrone Guthrie Centre at Annaghmakerring, Co. Monaghan which is Ireland's premier residential centre for practising artists. Funding for the development of the software was provided by the Arts Council of Ireland. As part of the archival strategy for the Centre, ArtLog will also record the biographical details and the artistic histories of those who stay at the Centre. Over time, these 'Profiles' will form a database of modern Irish artists.

Yvonne Desmond is the manager of the Library Central Services Unit of the Dublin Institute of Technology (DIT). The CSU carries out a number of digitisation projects one of which is the Institutional Repository Arrow@ DIT. ArtLog is a joint project between the Tyrone Guthrie Centre, DIT Library and the Digital Media Centre of the DIT.

The Software in Art

Ernest Edmonds, University of Technology Sydney.

In Generative Art the artist specifies their intentions and a computer program builds the artwork from that specification. Many new possibilities arise from this development and a number of challenges also present themselves.

In visual art, for example painting, the artist works directly with the materials that form the final work. In traditional western music, on the other hand, the composer will normally work with a score, which is an abstract representation of their intentions. The adequacy of such representations largely depends upon the composer's ability to mentally map the notation to sound. The one-to-one nature of the notation used makes it relatively easy to move between abstract and concrete representations of the music. However, this exact mapping between representations does not apply to generative art.

The art theorist, Goodman, drew an important distinction between what he called notional and non-notional works of art. In a novel, for example, he argued that any sequence of letters that corresponds with the original text is a genuine instance of the work. From this point of view, we can see art that involves significant programming is more conceptual than, for example, traditional painting.

'In conceptual art the idea of concepts is the most important aspect of the work ... (t)he idea becomes a machine that make the art' (Sol Lewitt).

The idea, the system, the concept or the computer program can be thought of as invisible. The boundaries of art are changed by the advent of software. In practice, the software itself becomes a key component of the art (if not its core) and the art object becomes the implementation of the work in Goodman's meaning. In this sense, art becomes more conceptual than before.

The computer enhances the artist's ability to shape the underlying structures of art works and art systems. This is because the computer enables us to define the structure and organization of data in a new way. We are able to define the dynamics of that data: how it changes and develops in time and as a result of interactions with the world. As a result, an artist can define the underlying structures that they are concerned with and let the computer system put them into practice. The computer enables the artist to work at the level of structure and organization, leaving the realisation to automatic processes.

Where and what is the material that is fashioned into the art object?

Ernest Edmonds was born in London and now lives and works in Sydney, Australia. His art is in the constructivist tradition and he first used computers in his art practice in 1968. He first showed an interactive work with Stroud Cornock in 1970 at the CG70 exhibition in the UK. Ernest Edmonds first exhibited a generative time-based computer work in London in 1985. He has exhibited throughout the world, from Moscow to LA. His current work is developing from a concern with interaction to an exploration of generative art systems that evolve over long periods of time as they are influenced by the world around them. Ernest Edmonds has been an invited presenter in, for example, the UK, France, the USA, Australia, Japan, Taiwan and Malaysia. He has many publications in the fields of art, creativity and interaction. In 2005 Artists Bookworks (UK) published his book 'On New Constructs in Art'. Since the 1970s he has pioneered the development of practice-based research in art, systems and digital technology. He is currently Professor of Computation and Creative Media at the University of Technology Sydney and Editor-in-Chief of Leonardo Journal's Transactions.

Re-Materialisation of the Art Object.

Dew Harrison, University of Wolverhampton.

The idea of the art object had replaced the actual artifact by 1972 when text and language became the tools of a post-Duchampian conceptual practice. The term 'postmodern' appeared in 1973, became current in the second half of the 1970s and posited the end of history as a linear narrative. Our considerations of art ideas were then contextualized without the need of anchorage to the history of object making. The second postmodern period, beginning at the end of the Cold War, was multiculturalist and global. Art became a form of social engagement concerned with social production, it allowed for multitemporality and syncretic identity. This era of the worldwide web and global hypermobility gave rise to new ways of perceiving human space and according to Nicholas Bourriaud 'The term 'postmodern' can be applied to art that is refractory to these two types of perspective: spatial and temporal.' The virtual worlds of the new century are the playgrounds for artists to explore space, time and identity, the digital objects created here are experienced by avatar, without the full range of sensory perceptions we use when confronting the real world. We cannot become truly digital so is it now time for those virtual art objects to materialize into solid form?

The second life platform is relatively new and still under development, but there are a number of artists beginning to explore the possibilities of this virtual world outside its commercial premise. The Kritical Works in SL curation project has set out to harness creative activity inWorld and is now in its second phase with ten major SL artists on board creating work for the ISEA2009 exhibition in August. For phase one of this project exhibited last year at ISEA, the work largely concerned place and identity. Artists and curator only conversed inWorld and some were known only by avatar. For phase two the artists are better known in the real world e.g. Lynn Hershmann and Paul Sermon. They have been invited to the island to develop their practice with regard to their bridging of the virtual with the real world, and are in the process of creating physical objects which respond directly to their virtual counterparts. These materialized objects will be exhibited in the Golden Thread Gallery in Belfast. The phenomena of the re-materialization of the art object will then be explored using the Kriti Island exhibition as case study.

Dew Harrison is a researcher and practitioner in digital and computer mediated art currently working as Reader in Digital Media Art at the University of Wolverhampton. Within her practice she undertakes a critical exploration of Conceptual Art, non-linear narrativity and multimedia mind-mapping where she often work's collaboratively and considers 'curation' a form of digital media art practice. She continues to show internationally and has presented papers at a diverse range of conferences spanning digital art, consciousness studies, art history and museology. She also works as a co-director of PVA MediaLab's, LabCulture Ltd, a supportive agency working across UK and international media centres to enable and facilitate artists engaging with new media.

The Case of Liberation Aesthetics Versus Digital Identit(ies)

Timothy Allen Jackson, Savannah College of Art and Design

'Machines for seeing modify perception'. Paul Virilio.

Liberation aesthetics is a theory I have developed for the evaluative analysis and interpretation of phenomena in relation to meaning and identity formation. The term 'liberation' is used in this theoretical construct given all of its semantic resonance. The term 'aesthetics' is used broadly in its classical Greek definition as: the philosophy of the

senses. This meaning therefore positions liberation aesthetics in a much wider frame of analysis, which has significant impact upon our conceptions of art criticism, media theory, aesthetics, and other branches of philosophy (such as Metaphysics and Epistemology).

Simply stated, liberation aesthetics invites one to consider how our sensory experiences shape our consciousness, and by extension, our experience of existence. The term liberation clearly points towards the emancipation of human agency as a primary project. The theory of liberation aesthetics asserts that the human sensorium can be incarcerated. This control of basic phenomenological input through the effects of language, institutions, belief systems, and other ideological practices which seek to control or influence human agency can lead to the incarceration of the mind, body, and spirit. These social and cultural structures must therefore be carefully examined on an ongoing basis to comprehend whether an experience is more liberating, incarcerating, or some variation of these two extremes. Then we may better assess the value and meaning of such phenomena in a more informed and personal manner linked to meaning and the constitutive subject of our personal and collective identities.

Liberation aesthetics is an extension of critical theory in the shared assertion that a primary goal of philosophy is to understand and to help overcome the social structures through which people are dominated and oppressed (in this case through sensorial/cognitive incarceration). Artists and designers assist in the process of identity formation by producing liberating aesthetic systems.

In this presentation and paper, I will ground liberation aesthetics in praxis through employing the theory in an analysis of examples drawn from digital art and culture that seek to illustrate the powerful and insidious forces at work in identity formation.

Timothy Allen Jackson is Professor of New Media in the Art History Department at the Savannah College of Art and Design. His research interests include: Theory and Criticism of New Media, Telematic Networked Art Systems Research and Development, Interactive Art Installations, Art as Research/Research as Art, New Media Design and Consulting, New Media Poetics and Aesthetics, the History of Ideas, and Critical Pedagogy. He has received numerous academic awards, grants, and honors; and has developed more than twenty courses in the field of new media in several institutions of higher education over the past twenty years in North America. He has published articles in a wide range of disciplines related to new media in scholarly journals, book chapters, catalogue essays, art criticism, and online media and cultural journals. Originally trained as a painter and poet, Professor Jackson remains an active new media artist. His work has been exhibited internationally and he has lectured widely in many conferences and symposia in a wide range of subjects relating to cultural theory and production.

Performing Information

Christoph Klütsch, Savannah College of Art and Design.

Not just since Leibniz have things been considered to be in mutual reaction. What Kant called Wechselwirkung describes a rather complex phenomenon of concurrence between forces. The ontological grid that constitutes our world is more complex than the subject - object relationship. Aesthetic objects have what Max Bense called co-reality. They are not only man-made, but have properties, which exceed utilitarian functions. The defining quality of art works may not be the Heideggerian revelation of the thingness of things, but rather the Whiteheadian pointer toward the process of its creation and interpretation. The questions about the ontological status of 'new media' art works thus need to be rephrased. Which process lead to its existence? What constitutional role does perception play in the presence of art works?

The question I would like to investigate is how we can apply process philosophy to aesthetics, more precisely to digital performative art. Steven Shaviro and Erin Manning recently published two studies in the 'Technologies of Lived Abstraction' MIT book series, addressing Whitehead's role in the field of media art. The question becomes even more eminent if applied to what Frieder Nake called the performative signs i.e. computer code.

The medium is not the message and the communication channel doesn't contain information in an atomic sense. What Roy Ascott calls the telematic embrace and Lucia Santalla the semiosphere, is not the extension of a subject-object hybrid man, but a growing manifestation of partially aesthetic self-differentiating processes of creativity. Which processes do we consider to be aesthetic? And how can their creation be described in processual terms? We face a rapidly growing area of interactivity with performative signs. The aesthetic experience of processes relates directly to 'Knowing how' rather than 'Knowing that'. The transformative power of 'new media' based art might even be tied back to the traditional triangle of Truth, Good, and Beauty. DeMarini's 'The Messenger' will serve as starting point for a metaphysical investigation.

Christoph Klütsch received his MA in philosophy from the University in Heidelberg and his PhD in Art Science from the University in Bremen. In 2007 he published a book about the early beginnings of computer art the 60s with Springer. He worked as a scientific coordinator for the Jacobs University, Bremen, before he had been appointed as Professor for Art History at the Savannah College of Art and Design, USA in 2008. He teaches courses in contemporary art and theory.

The Artist as Designer, the Artist as User: Developing a collaborative framework for artistic engagement in ICT design

Frederik Lesage

Recent initiatives in the United Kingdom and elsewhere have provided support for artists to participate in 'collaborative experiments' with engineers and scientists in computing departments in the hopes of developing online platforms that are better suited to artists' interests. For artists, such experimental work represents an opportunity to research the artistic potential for emerging information and communication technologies. For engineers, it represents a chance to understand a different set of 'user requirements' relating to software and hardware design. When viewed in such a light, these temporary exchanges can benefit both disciplines through a mutual knowledge exchange.

Although experimental work with information and communication technologies (ICTs) has been extensively researched by social scientists from the point of view of engineers, it remains unclear how (or to what extent) this kind of collaboration is valuable to the artist over time. Studies of innovation in new media have developed a nuanced understanding of the role of users in the design and implementation of ICTs. Such studies provide us with frameworks for analysing how user groups can collaboratively work with designers to shape the ICT's meaningful development at a social and technological level. But the user/designer opposition, when applied to such collaborative work, arguably overlooks the complex historical dimension of social groups with well-established discourses for engaging with the design and use of technologies. In the case of the arts, there exist longstanding discourses that define the relationship between artists and their tools of production. Some artists attribute considerable value to maintaining creative freedom and to the ability to innovate through the contention of established conventions or standards. Such values may represent a problematic set of 'user requirements' for ICT design. It is therefore arguably only through methods that enable a historical analysis of the design and use of technologies that one could begin to better understand how artists and engineers can successfully collaborate in a research environment. The paper will address this problem in detail through an examination of a recent case study of an artists' group and its work with the multicast platform known as Access Grid.

Frederik Lesage is a PhD student at the London School of Economics and Political Sciences (LSE) whose research interests include new media art and organizational structures in the creative industries. After completing an MA in Cultural and Creative Industries at the King's College London in 2005, he was awarded the EDS MARCEL Studentship to study at the LSE in the department of Media and Communications. In the past two years, he has presented in conferences at Westminster University and Cambridge's CRASSH as well as presented papers to international conferences in Bruges, Vancouver and Cologne with a recent invitation to present at the annual International Association for Media and Communications Research Conference in Mexico City. He has also published work online as part of the EDS Innovation Research Programme and as an independent researcher with Proboscis.

Patterns of Movement in Live Languages.

Alex McLean, Geraint Wiggins, Goldsmiths, University of London.

Programmers do their work by writing and modifying software in text form. That is, a piece of software is a structure made from words. These structures are generally too big to comprehend in their entirety, so programmers instead focus on small detail and overall plans; looking up for parts to combine and simplify and looking down for places to build. But this is not architecture, these structures are more like machines than static buildings. A programmer's work is set in motion by a program interpreter, with information flowing in and around processing units before being directed outward in response.

Usually a programmer will build their work off-line, stepping back to start it up, watch it work and decide upon the next edit. Live coding programmers however work on their software while it runs, much like modifying a running machine. Because the software is built from words, this is done by editing it as text, adding new routines or changing the character of an existing one. Such a change affects the output immediately, allowing fast creative feedback.

Where a written novel exists to describe human activity, written software exists to simulate it. Therefore the live coder can take the role of an artist, constructing simulators in order to generate patterns of movement, either as music, video animation or both. This can be done in front of a live audience, so that the process of building software becomes the process of improvising music or video in performance art.

Programmers are finally taking to the stage. Introspecting and encoding their musical thoughts before an audience. A tradition of live coding has quickly formed where computer screens are projected, making the programmer's reactions to their work visible. Questions of authorship disappear; the performance is live, the programmer improvising through the medium of written language.

Live coders allow us to look upon the interplay between language and performance art with renewed interest. In this paper the current activity of live coders will be reviewed, to try to understand where this relatively new practice is taking us.

Alex McLean is a PhD student in Arts and Computational Technology at Goldsmiths Digital Studios, researching text based music including vocable synthesis and live coding. He is a programmer/musician performing as a member of the live coding band Slub, making electronic music through dynamic use of handmade software and programming languages. Slub have performed widely including at Sonar Barcelona, Secret Garden Party Cambridgeshire, Sonic Acts Amsterdam, Ars Electronica Linz, STRP Eindhoven, Club Transmediale Berlin and Tate Modern London. Alex

is a founder member of dorkbotlondon, co-organising over 60 events showcasing electronic art in London since the year 2001. He is co-founder of the TOPLAP live coding organisation, recently awarded a grant by the PRS Foundation to promote live coding in the UK. He is also engaged with the world of Software Art, winner of the Transmediale software art award for 'forkbomb.pl' in 2002 and co-developer of the runme.org software art repository which was awarded Ars Electronica honorary mention in 2004.

(<http://yaxu.org/>; <http://slub.org/>; <http://dorkbotlondon.org/>)

Geraint A. Wiggins has an MA degree from the University of Cambridge, in Mathematics and Computer Sciences, and PhDs from the University of Edinburgh, in Artificial Intelligence and in Musical Composition. He works in the Department of Computing and the Centre for Cognition, Computation and Culture at Goldsmiths, University of London, where he holds the Chair of Computational Creativity and leads the Intelligent Sound and Music Systems (ISMS) research group. His research interests cover a wide range, centred around computational cognitive modeling of creative behaviour, particularly in the context of music, the aims of the work being to understand better how human creativity arises, both in evolutionary and mechanistic terms, and to begin to understand how it works, on an individual basis. He is an Associate Editor of *Musicae Scientiae*, the journal of the European Society for the Cognitive Sciences of Music, and a Consulting Editor of *Music Perception*, its North American counterpart. From 2000-2004, he was chair of AISB, the UK learned society for Artificial Intelligence and Cognitive Science.

Exhibition Design as High-Level Programming

Gabriel Menotti Goring, Goldsmiths, University of London.

New media enlarge the potential field for symbolic production, changing its boundaries. Many new media artworks, for instance, are but a form of exhibition – an elect solution for displaying data. They gather discrete values and functions in a byte collection that surpass Louvre's paintings in number. This act of organizing and displaying selected objects to achieve a desired meaning or effect – isn't that curation? In fact, the processes Lev Manovich appoints as key operations of new media – selection and composing – are fundamental activities of a curator's métier. We may say that creating software art is more like organizing a gallery than painting a portrait. Albeit the result may look like an abstract canvas, programming conveys meaning in the very same manner curation does.

This analogy can lead us to several inquiries on the nature of art creation, evaluation and consumption within a new media environment. In the first place, since the basic operations of curatorial work became familiar as such, it's not a surprise that the curator's role and authority are being questioned. This research, however, will be developed around a more positive hypothesis: assuming that software development can be art, we must assert that curating an exhibition can be not only a mere systemic expedient, but an equivalent form of aesthetic creation in another level. Hence, we are obliged to review our concept of curation and the scope of curatorial process, in order to create a common epistemology where software, artworks and exhibitions can be related and compared according to their specificities.

In order to do that, we will employ the same levelling that is already used to classify different programming languages according to the degree of abstraction and the structuring of their code. Lower-level languages are closer to the pure ordination of the electronic flux that runs inside a computer. They are so material that, in extreme cases, can be confounded with the platform in which they are inscribed. On the other hand, the higher its level, the farther a language is from the essential informatics mechanism. The most developed ones operate with very well-defined objects and functions, which don't resemble at all the binary glossolaly of the machine. As culture itself is permeated by digital technologies and becomes an informatic system, the programming levels are reunited to those of symbolic production in a common epistemological chain.

Gabriel Menotti is a PhD Candidate on the Media and Communications department of Goldsmiths University of London. He works as an independent media curator and producer, and has already done remix film festivals, cinematographic videogame championships, porn screenplay workshops, installations with super8 film projectors and generative art exhibitions. His MA thesis, 'Through the Dark Room – Spatial Dynamics for Audiovisual Consumption', received the Itaú Cultural Cybernetic Arts 2006 award, and is going to be published this year in Brazil. He is also a fellow of the 'Spaces, Connections, Control' media research programme at Goldsmiths

Keynote: Only Artist. Only Engineer. Only Critic. Transcending Disciplines in Early Digital Art

Frieder Nake, University of Bremen

In accounts of early history of computer art, we often read that those pioneers were only mathematicians or engineers. Such statements are taken as indications of „no wonder that the results look so boringly geometric and straight'. The typical critic would in all likelihood continue to say that, unfortunately, real artists did not get access to the expensive computer equipment, and if they got they wouldn't know how to deal with it because those same professionals had not organized the technology such that it would be easy for the artist to use it. If, however, artists could freely use the machinery, their creativity would soon lead to great works: the master pieces.

I want to take a look at some of the facts first by giving an empirical survey of the professional background, the kind of early involvement in digital art, the level of computer expertise, and the possible team work of some of the important figures in computer art between 1965 and 1970. Among them will be Georg Nees, A. Michael Noll, Leslie Mezei,

Charles Csuri, Herbert W. Franke, John Lansdown, Michael Thompson, Lloyd Sumner, Ken Knowlton, Manfred Mohr, Vera Molnar.

Second, I want to characterize different creative paths some of them took, and discuss these from the point of view of the two cultures thesis. How may identities of individuals have been affected: by leaving their field of expertise (artist to engineering, mathematician to art), or by being forced to work in teams (collaboration with programmers).

Finally, I will engage in a bit of speculation and offer a hypothesis. The speculation will be about the third culture aspect that was hidden and unnoticed in the kind of critical statements mentioned above. The critics at times were offending the creative potentials of activists by characterizing them as only mathematicians (they didn't usually write of only artists). They were, perhaps, inadvertently talking about a third culture which was to emerge only later.

The closing hypothesis will not be new but will be offered here as a revolutionary transformation of the individual work into an infinite set of works. Our finite senses and practical skills can perceive or generate only finite works. Therefore, we are usually stuck with finiteness. Digital art and media however, in particular in the interactive realm, transcend the individual piece and require a cognitive mode of perception that opens up to potential infinity.

Frieder Nake is a professor in computer graphics at the University of Bremen, and in digital media at the University of the Arts Bremen. He did his doctoral degree in mathematics, and is often considered a pioneer of computer art. He has exhibited his works since 1965. He is currently prime researcher of the project compArt | Center of Excellence Digital Art. He has published widely on digital art, media, semiotics, theory of computing science, and computer graphics.

The Screaming Head: Making the Most of the Random Attributes of Sensors in the Construction of a Virtual Performer.

Mary Oliver, University of Salford.

Writing on the development of an interactive 'Screaming Head' created during the Liminal Screen residency at the Banff Centre New Media Institute (2009), this paper will explore how a co-production between Performance Artist and Computer Programmer introduced Max MSP programming and the use of the Wii controller into the development of a Virtual Performer. This inter-disciplinary experiment was the latest advancement in a decade of creating works which have explored the (mostly) comedic relationship of the actual performer to their on-screen counter-part. The introduction of random programming devices into the development and mechanisms of display of an interactive performer was intended to expand the narrative form and to introduce more spontaneity at the point of presentation.

The interactive 'screaming televised head' (hanging upside down) responded to different qualities of movement; the live performer replaced on this occasion by the interactive performing spectator who was encouraged to push, kick and punch the television to trigger a wide range of vocal responses. Although the technology was visible the object was intriguing as the spectator did not know how the affect was achieved. There were also interesting responses from the inter-actor with the television, because they were afforded permission to do something both subversive and potentially dangerous, although there was no real danger present.

The reactions of the virtual performer were also intended to surprise. When static it would cycle through a range of pitiful cries for help to complaints of discomfort. When pushed more violently it would retort with equal aggression and abuse. Some inter-actors waited until they were alone with the television before releasing the full force of their aggression and numerous mentioned how therapeutic this was.

I will explore the making of this work with reference to:-

- The interdisciplinary working methods of artist versus computer programmer: the need to always draw what we mean (with illustrations).
- The combined necessity of good script writing and acting skills of the virtual performer.
- Constructing interactive narratives and the importance of empathy between inter-actor and virtual performer.
- The impact of 'trigger' mechanisms on the construction of interactive narratives.

Mary Oliver is Reader in Digital Performance and Associate Head of Research at the University Salford School of Media, Music and Performance. A member of Creative Technology Research Group and Digital Cluster she leads the New Performance Paradigms International Network which focuses on the future of performance through the development of new performance modes. She is leading the research programme for a new performance laboratory due to open at Media City in 2011. A performance artist for twenty five years, she has performed internationally, moving from ensemble performance to her solo digital performance practice in 1998. Over the last decade she has written, directed and performed in seven new digital performance works and has introduced numerous new performative modes to the stage. These include Mother Tongue (2000-2002) in which she performed as her whole family simultaneously in this full length show run by computer. In Almost (2007) she introduced the world's smallest performer in a three dimensional composite hi-definition post-modern fairytale. Most recently in 2009 she was artist in residence at the Banff New Media Institute, Canada where she worked with computer programmers to introduce sensors into the devising, production and subsequent display of two new interactive performance works.

Big Bird is Watching You! Art, Activism and Technology in the Public Arena.

Denitsa Petrova, Edinburgh College of Art.

'Think of yourself as the Permanent Resistance.
Things don't change without activism. Ars longa, but so is activism.'
Guerrilla Girls (2008) Letters to a Young Artist, New York, Dart Publishing LLC

Many contemporary artists working in the public arena have recognised the potential that the rapid development of digital media technologies presents. As a result new categories of artists have emerged – artists-developers, artists-engineers and artists-scientists. Analysing a number of activist artworks, this paper discusses the potential of art and technology collaborations stimulated by the continuous transformation of our cities. It explores the intersection between art, activism and technology as a new art practice used as a tool for creating situations prompting cultural change.

In the past decade art activists have been actively using various digital tools to realize their projects. Breakthroughs in technology have had a vast impact on the way activist art projects are initiated and developed. Furthermore, the internet, as a virtual public space, has presented the artists with an opportunity to organize and promote their practices.

Presenting a variety of case studies, this paper examines the works of contemporary artists and art collectives who use the power of technology to publically engage with political, social and community issues. From Google Map 'mash-ups', to guerrilla interventions and site-specific installations, this essay investigates interventionist art projects which compel audiences to think about their environment in new ways, and aims to highlight the existence of a critical special practice where public artworks can be seen as a critique of the increasing marginalization of public space.

Denitsa Petrova's research interests lie in the field of public art and more specifically relate to guerrilla art, streetart activism, urban interventions, graffiti and culture jamming. She is currently undertaking a PhD at the Centre of Visual and Cultural Studies at Edinburgh College of Art. She also works as a Teaching Assistant at the department contributing to courses relating to her research. She has presented at a number of international conferences and as an artist has exhibited her work at various group and solo shows in Bulgaria, Portugal and the United Kingdom.

Are You Clean? Parasitic Art and Privacy.

Jeremy Pilcher, Lancaster University.

In my paper I will examine the way in which the engagement by online art with traditional conceptions of authorship may have implications beyond being understood as a challenge to the affirmation of intangible property rights (such as copyright) at the expense of freedom of speech. Rachel Baker's TM Clubcard (1997) employed direct lifts of the logos of two supermarkets to undercut the characterisation of participation in loyalty card schemes in terms of the membership of clubs.

Approaches to the work tend to focus on its challenge to the control of corporate identity through branding (Stallabrass). The supermarkets did assert infringements of their intangible property rights. However, one supermarket alleged that TM Clubcard resulted in personal confidential information being obtained by deception (<http://www.irational.org/tm/archived/tesco/>). The other company demanded that the data collected from visitors to the site should be surrendered (<http://www.irational.org/tm/archived/sainsbury/>). These aspects tend to be overlooked.

I will suggest that TM Clubcard provides the opportunity to explore the implications for identity of the law's approach to the relationship of privacy to property. It seems to me that at present this relationship has particular relevance in the context of the impact of social networking sites. However, the discussion of the law's attitude toward identity in such terms has looked back as far as legal action taken by Queen Victoria and Prince Albert to prevent private etchings from being printed publicly (Warren and Brandeis; Post).

The relationship TM Clubcard had with pre-existing supermarket schemes was described by Baker as parasitical. I will discuss the work through this metaphor, which has been variously conceptualised (Broeckmann, Derrida, Serres), in the process engaging with non-relational aesthetics (Gere). My argument will be that TM Clubcard allowed an encounter with the role of the violence of law in the construction of both human and corporate identity.

Jeremy Pilcher is a PhD candidate at the Institute of Cultural Research, Lancaster University. Previously he worked as a barrister and solicitor in New Zealand before moving to England, where he qualified as a solicitor. His thesis on the intersection of new media art and law builds on his legal background and qualifications in art history and art law. He also has an interest in indigenous culture in online museums, on which he has jointly published with Saskia Vermeylen.

The Role of Art in Computer Game Design.

Colin B. Price, June S. Moore, University of Worcester.

Computer games are significant since they embody our youngsters' engagement with contemporary culture, including both play and education. These games rely heavily on visuals, systems of sign and expression based on concepts and principles of Art and Architecture. We are researching a new genre of computer games, 'Educational Immersive Environments' (EIEs) to provide educational materials suitable for the school classroom. Close collaboration with subject teachers is necessary, but we feel a specific need to engage with the practicing artist, the art theoretician and historian. Our EIEs are loaded with multimedia (but especially visual) signs which act to direct the learner and provide the 'game-play' experience forming semiotic systems. We suggest the hypothesis that computer games are a space of

deconstruction and reconstruction (DeRe): When players enter the game their physical world and their culture is torn apart; they move in a semiotic system which serves to reconstruct an alternate reality where disbelief is suspended. The semiotic system draws heavily on visuals which direct the players' interactions and produce motivating gameplay. These can establish a reconstructed culture and emerging game narrative. We have recently tested our hypothesis and have used this in developing design principles for computer game designers. Yet there are outstanding issues concerning the nature of the visuals used in computer games, and so questions for contemporary artists.

Currently, the computer game industry employs artists in a 'classical' role in production of concept sketches, storyboards and 3D content. But this is based on a specification from the client which restricts the artist in intellectual freedom. Our DeRe hypothesis places the artist at the generative centre, to inform the game designer how art may inform our DeRe semiotic spaces. This must of course begin with the artists' understanding of DeRe in this time when our 'identities are becoming increasingly fractured, networked, virtualized and distributed'

We hope to persuade artists to engage with the medium of computer game technology to explore these issues. In particular, we pose several questions to the artist: (i) How can particular 'periods' in art history be used to inform the design of computer games? (ii) How can specific artistic elements or devices be used to design 'signs' to guide the player through the game? (iii) How can visual material be integrated with other semiotic strata such as text and audio?

Colin B. Price is Principal Lecturer and Subject Chair in Computing at the University of Worcester, UK. His first degree is in Natural Sciences at the University of Cambridge, and his Ph D. was obtained at the Catholic University of Leuven Belgium, in Electronic Engineering. He has researched and published in many areas including the use of art in teaching computer programming, the formation of patterns in natural systems, the use of computer games to provide virtual installation galleries, and more recently on the use of computer games in education and training.

June S. Moore is a graduating student at the University of Worcester. Her prime interest is in the construction of EIEs for primary and secondary education and has proposed a novel development methodology closely integrating the classroom practitioner. She has produced trialled and tested EIEs to support primary school literacy and mathematics education with acknowledged success. June's expertise is in education and instructional design theory.

Try to Get that Kindle Signed: The Comic Book as Cultural Interface

Ernesto Priego, University College London.

Digital technology has transformed cultural conceptions of authority, originality, value and the essence of the work art. It has also modified the organizational strategies of texts and the relationships between media and their forms of physical presentation and storage. Like other types of information, comic books can now be digitised and potentially be presented in different platforms. Historically hardwired to the printed format of the magazine and the book, the language of comics has seen a radical metamorphosis in the digital age, which has both unsettled and reinstated comic books' ontology as textual objects.

The case of digitized comic books and webcomics offers a unique field to interrogate the relationships between physicality and textuality: comics have a well-established love affair between media (language; information; text) and medium (materiality). An analysis of the textual strategies of Alan Moore and Kevin O'Neill in their Black Dossier (2007) and different examples from the printed work of American cartoonist Chris Ware will juxtapose the semiotic importance of materiality in these comic works with examples of webcomics from zudacomics.com and Marvel Digital Comics.

The case of printed comic books the relationship between information and materiality has very precise characteristics indeed -there is not one without the other-, but digital texts do not exist in a physical or material vacuum. The interfaces required to interact with the texts (computers, PDAs, mobile phones, et cetera) are and in turn create certain types of materiality, and the interaction with the devices themselves is in itself a physical reality.

Taking this into account, I will discuss the term 'cultural interface' (Manovich 2001) to explore the specific functions of the printed comic book as an artefact in relation to the computer as an integrated device for the creation, publishing, storage and reading of digital comics and the consequences this has for the digital/physical debate.

Ernesto Priego is a PhD candidate at the Department of Information Studies, University College London.

He has a BA in English Literature and MA studies in Comparative Literature from UNAM, Mexico, and an MA in Communication and Culture from UEA Norwich. Before coming to London he taught 19th and 20th century European, English and American literature, literary criticism and critical theory to undergraduate students at UNAM and UIA, Mexico, as well as in other private and public institutions.

As an essayist, translator and poet he has published in English, French and Spanish, receiving literary grants from Fundación para las Letras Mexicanas and Fondo Nacional Para la Cultura y las Artes, Mexico.

His main interests revolve around book history and print technologies, electronic publishing, psychoanalysis, forms of inscription and identity formation, cities and maps, comic books, collecting, memory and narrative, technology and the body, film, photography, pop music.

He is the author of Not Even Dogs (Meritage Press, San Francisco, USA, 2006) and ...And the Wind Did Blow... (Meritage Press, 2008). His most recent published poetry book is The Amazing Adventures of Gravity & Grace (Otoliths, Australia, 2009).

Cut and Paste Art History: Image Manipulation as Spurious Art Historical Proof of the Face of Shakespeare.
Marcus Risdell, Garrick Club.

In 2006 Professor Hildegard Hammerschmidt-Hummel authenticated a series of portraits of Shakespeare as life portraits. The methods presented in her book *The True Face of Shakespeare* included such techniques as computer tomography, laser scanning and photogrammetry to compare the various portraits. The results were presented in a series of photomontages and virtual 3D models produced using software including Photoshop and Rapid Form. Comparisons were made with the two authoritative portraits of Shakespeare, the Memorial in Holy Trinity Church Stratford-upon-Avon and the frontispiece engraving to the First Folio edition of his Works, by Martin Droeshout. The Professor declared a match between these and the so-called 'Davenant Bust' in the Garrick Club, the 'Flower' portrait in the collection of the Royal Shakespeare Company, and the discredited Darmstadt Death Mask.

The publication of Hammerschmidt-Hummel's book coincided with the National Portrait Gallery exhibition *Searching for Shakespeare* which included the 'Flower' portrait. Prior to exhibition it had been subjected to various investigations in the conservation studio, one of which uncovered the presence of chrome-yellow, a manufactured pigment first extracted from the mineral crocoite by the French chemist Louis Vauquelin in only 1809. The 'Flower' is a definite fake. The Professor's theory is further undermined as the Garrick Club bust is in fact the work of Louis François Roubiliac and dates from the mid-eighteenth century. The use of computer imaging tools in this case gave credence to a theory that was intrinsically flawed from the outset.

This paper will examine the evidence, and ask whether such image manipulation can have a role in the practice of art history in an era where the software is increasingly available. The example provided by the face of Shakespeare is particularly timely as summer 2009 saw the exhibition of a newly uncovered 'Life' portrait at the Shakespeare Birthplace Trust in Stratford-upon-Avon. The evidence for the so-called 'Cobbe' portrait is again controversial, and on the cover of the accompanying book can be found a digital montage of the portrait superimposed over the Droeshout engraving from the First Folio.

*Marcus Risdell is an art and theatre historian. After graduating from St Andrews and the Courtauld Institute of Art he became a freelance cataloguer and researcher. As Curator and Librarian at the Garrick Club he has launched on-line catalogues for both the Club's art collections and library. He is author of *The Young Davy Garrick; Rise of a Superstar for a book to accompany the Dr Johnson's House exhibition Behind the Scenes: The Hidden Life of Georgian Theatre, 1737-1784, and his introduction can be found in the British Library / Society for Theatre Research 2008 facsimile of James Winston's Theatrical Tourist, originally published in 1805. In 2009 he co-curated The Face & Figure of Shakespeare, an exhibition of 18th century sculptures of Shakespeare at Orleans House Gallery, Richmond, London, which included a modern facsimile of the Garrick Club bust by Roubiliac, commissioned from Conservation Technologies at the National Conservation Centre in Liverpool and fabricated using laser-scanning techniques. He sits on the Committee of the Society for Theatre Research and is the Chairman of the Association of Pall Mall Libraries.**

Emergent questions: Digitisation, Cultural Heritage and the Social Agency of Images.
Devorah Romanek, The British Museum.

The theme and analysis of the impact of the forming of museum ethnographic collections through the collecting activities of various official and unofficial colonial and European agents is by now well established, as is the impact of the resultant dispersal and fragmentation of the material culture of various peoples and cultures through actions such as collecting for and depositing in museums and archives. More recently, however, through political changes wrought by activism and subsequent changes in law (i.e. repatriation) and through changes in technology (i.e. digitisation and the internet), questions related to the impact and implications of the bringing back together of these fragmented collections of material culture to reform whole corpuses, either literally through acts of repatriation, or virtually through digitisation of collections, have begun to emerge.

This paper will investigate the emergent questions brought about by these political, cultural and technological changes in relationship to material culture, and as mediated through a cultural heritage institution, to consider what specific roles they might play in changing visual canons of representation, and specifically, how that might impact ideas of community and identity. This paper will observe the workings of the specific knowledge transfer network that museum digitisation projects brings together in an attempt to identify where the current or new nodal points of knowledge resource might be located in the digital age, what new relationships might be facilitated or prohibited through and by the political and technological developments related to digital technology and what the bringing back together of long-fragmented collections might unleash. Museums, particularly those that hold historically fraught ethnographic collections, are at once sites of cultural transmission and identity work and places of forgetting through acts of institutionalised remembrance; however, their role as places of nascent re-remembering through digitisation have just begun to be theorised.

For the last 18 years Devorah Romanek has been working in various museums in the United States, Germany and the UK. Currently she is working on a PhD in anthropology at University College London, with a focus on visual and

material culture. She also currently has a position at the British Museum, in the Department of Africa, Oceania and the Americas on a Getty funded project documenting and researching the museum's photographic collections from the Pacific and Americas.

The Work of Art in the Age of Virtual Production.

Andrew Sempere, IBM Watson Research.

Shared online content creation is nothing new – Massively Multiplayer Online Role Playing Games (MMORGs) which support user created content have been around at least since the founding of LambdaMOO in the 1970s. However, the ability to create and share artefacts which are primarily visual is both a recent phenomena and one of particular and obvious interest to visual artists.

In the case of at least one of the most popular shared content systems, Second Life, a curious problem arises when the needs of the artist intersect with the design of the system.

Second Life has distinguished itself in part because it has a 'vibrant marketplace for virtual goods and services' which by Linden Labs own estimate, worth about \$35US million/month. In order to achieve this, the creators of the system have implemented a permissions model which the content creator is obliged to participate in. As a result, Second Life strongly encourages a commodity style-market, where artificial scarcity must be enforced by restrictive permissions, but attribution is only lightly acknowledged.

Reality is quite a bit more complicated. Although it is true that in terms of data, any given virtual object is indistinguishable from its copy, there are human beings behind the avatars, and humans care quite a bit about provenance. To make things more complicated, in the particular case of Second Life there are elements of presentation which are inherently scarce (for example, individual objects can be copied, but juxtaposition of a collection of objects cannot be easily copied and in fact often comprises the whole of a work).

This paper will explore a limited set of the issues which arise through the enforcement of a commodity system onto an art community, and also will propose an alternate system which could be implemented in order to encourage something closer to the way artists actually work.

Andrew Sempere holds a Bachelors of Fine Arts from the School of the Art Institute of Chicago and a Masters of Science in Media Arts and Science from the Massachusetts Institute of Technology Media Lab. Andrew is currently a Research Designer for the IBM Watson Research Collaborative User Experience Group / Center for Social Software.

In addition, Andrew is a practicing artists and has exhibited interactive artworks across the United States and Canada, most recently at the 2009 Boston Cyberarts Festival and the 7th Champ Libre Manifestation Internationale Video et Art Electronique.

As an artist Andrew is interested in rendering familiar environments unfamiliar, and is particularly interested in the problematic dichotomy of 'natural' and 'technological'. As a designer and researcher, Andrew is interested in the ways in which humans navigate new technologies, in particular the ways in which they relate to sense of self and identity.

For more information on Andrew and his work, visit andrewsempere.org.

Puppeteers, Performers or Avatars: A Perceptual Difference in Telematic Space.

Paul Sermon, University of Salford.

My work in the field of telematic arts explores the emergence of a user-determined narrative by bringing remote participants together in a shared telepresent environment. Through the use of live chroma-keying and videoconferencing technology, two public rooms or installations and their audiences are joined in a virtual duplicate that turns into a mutual, visual space of activity. Linked via an H.323 Internet videoconference connection, this form of immersive interactive exchange can be established between almost any two locations in the world.

The audiences form an integral part within these telematic experiments, which simply wouldn't function without their presence and participation. Initially the viewers seem to enter a passive space, but they are instantly thrown into the performer role by discovering their own body-double in communication with another physically remote user on video monitors in front of them. They usually adapt to the situation quickly and start controlling and choreographing their human avatar. Nevertheless, the installation set up in the form of an open accessible platform offers a second choice of engagement: the passive mode of just observing the public action, which often appears to be a well-rehearsed piece of drama confidently played out by actors. Compelling to watch, it can be a complex issue to discover that the performers are also part of the audience and are merely engaging in a role. The entire installation space then represents two dynamic dramatic functions: the players, controllers, or puppeteers of their own avatar, absorbed by the performing role; and the off-camera members of the audience, who are themselves awaiting the next available slot on the telematic stage, soon to be sharing this split dynamic. However, the episodes that unfold are not only determined by the participants, but by the given dramatic context. As an artist I am both designer of the environment and therefore

'director' of the narrative, which I determine through the social and political milieu that I choose to play out in these telepresent encounters. (<http://www.paulsermon.org>)

The Creative Use of Online Social Networking Sites to Increase Public Engagement and Participation in the Professional Arts Through Collaborative Involvement in Creative Practice.

Sophy Smith, De Montfort University, Leicester.

The success of online social media has been unprecedented, allowing millions of members to upload photos, share links and videos as well as personal information about themselves and their lifestyle preferences. Since the beginning of the 21st century, online social networking sites such as Facebook, YouTube and Flickr have become integral to our daily lives. These new technologies have resulted in new social behaviours, which are being reflected in artistic practice. The important question is no longer whether the use of these tools will spread and reshape arts practice, but how they will do so.

To date, the creative uses of online social media have been split mostly down amateur/professional lines. Whilst informal amateur groups form online groups to share and develop work or to meet other collaborators, professional artists and organisations use online social media in a more formal manner, to share information about their work online. However, online social tools offer more than merely providing alternative ways for artists and arts organisations to promote their work with a larger audience. The collaborative tools provided by online social networking sites offer new ways for artists to build creative relationships with their audience, by enabling the public to access, engage with and participate in professional arts practice, by becoming actively involved in the creative process.

Online social technologies enable artists to make work differently, and in doing so offer exciting possibilities around the development of artistic practice. This paper aims to explore questions about how the use of social online tools may impact on artistic practice both in terms of the artist, and their audience, focusing on the following questions;

How can online social media be used to create and develop collaborative artistic content?

How can online social media be used to increase public engagement and participation in professional arts projects and events through a collaborative involvement in creative practice?

The paper will be of interest to anyone interested in collaborative creation and also in new means of public access to professional arts practice through participation as consumers and producers.

Sophy Smith is Principal Lecturer in Creative Technologies at the Institute of Creative Technologies at De Montfort University, Leicester. Sophy's PhD was awarded for her research into the collaborative compositional processes of hip-hop turntable musicians and her current research focuses on inter/multi/transdisciplinary collaboration, primarily, but not restricted to professional arts practice. Sophy also works extensively as a composer and performer on professional collaborative arts projects and is Co-Director of the collaborative live art company Assault Events. Sophy is Programme Leader for the IOCT's innovative transdisciplinary Masters in Creative Technologies (MA/MSc), working with students at the convergence of the e-sciences and digital arts and humanities.

www.ioct.dmu.ac.uk

www.assaultevents.co.uk

Making Connections: Children, Objects, Meanings and Museums.

Helena Tomlin and Irit Narkiss, The Manchester Museum.

Using the Manchester Museum's recent project 'The Museum of Me' as a case study, we will explore the process of engaging children with museum objects, collecting and the real life work of museum professionals.

Our research project aimed to find out how 10-year-old children from a Manchester primary school could develop their understanding of archaeology. The exhibition 'Lindow Man - A Bog Body Mystery' was used as a starting point for activities, extending the multi-vocal ethos developed for the exhibition itself. What made this exhibition of Lindow Man so unique was the presentation of the discovery, research and significance of Lindow Man through various view points, and encouraging visitors to add theirs.

The children worked with two artists to explore in depth the notions of time and identity. The artists brought their specialist practice of sculpture and illustration to the project and developed activities that focussed on process, debate and experimentation. Museum staff also worked with the children to explore how they might interpret, display and care for objects in their own classroom. During visits to The Manchester Museum they critiqued an exhibition, explored the collections, created potions, handled objects and discussed preservation. Back in the classroom, the children created 'The Museum of Me'; which included the children's own prized objects and artefacts made with the artists. The children's discussions and preparations were clearly informed by their interactions at the Museum, and these were recorded at every stage by a photographer working alongside the group as well as the children themselves through drawing and note taking in their own personal journals. It was clear that direct contact with objects, enabled them to make cultural connections of their own; validating their own culture and personal memories. The physicality of the object proved a powerful route to the intellectual and conceptual.

Helena Tomlin joined The Manchester Museum as Curator of Learning in 2006. She has a degree in history of art from The Courtauld Institute of Art and an MA in Fine Art. As a practising artist and experienced lecturer and teacher her work crosses different fields of enquiry. After 20 years of leading teams of educators in museums and galleries across the North West, she is now developing research into the ways children learn within the museum environment. Helena has also worked with organizations such as Creative Partnerships, and MLA to evaluate projects involving partnerships with schools, museums, galleries and creative practitioners. She is currently working with The Manchester School Art, Manchester Education Partnership and The University of Salford to develop research into the use of sketchbooks.

Irit Narkiss (ACR) initially trained and worked as an archaeologist. She graduated with a BSc in archaeological conservation from the Institute of Archaeology, UCL in 1994 and developed a portfolio career in conservation in Britain and abroad. In 2003 she attained an MA in Museum Management at Nottingham Trent University. Irit has recently served as Editor of Icon's The Conservator journal. She has worked at the Manchester Museum since 2004. In her capacity as Conservator of Objects and Access, in addition to 'usual' conservation duties, she spends much of her working time at the interface between the collection and collection users.

Art and Orphan Works: Ownership and Discovery.

Annette Ward, University of Dundee; Annsley Merelle Ward, Gallant Macmillan LLP; James Stevenson, Victoria and Albert Museum; Stephen McKenna, Ian Ricketts, University of Dundee.

The shift from a material world to one that is becoming increasingly digital brings a new set of rules for the consumption and display of objects. As objects are digitized for mass consumption, their identity is examined as well as their relationship to other objects in a collection. Processing material objects into digital ones raises questions of ownership, especially for orphan works (i.e., works where the artist, author, or owner of copyright works is unknown).

Digitization requires photographing an object in a collection, usually a copyright work such as a painting, sculpture, and/or drawing. This act of photography and inclusion of a work on the Internet infringes an artist's or author's exclusive economic and moral rights (i.e., namely the right of being attributed as the creator of the work) if their consent has not been legally granted. Consequently, tracing these authors and owners is vital. Where authors and owners are not found and without overcoming the issue of orphan works problems, these works are often relegated to a database with limited access; one that the public never sees. As a result, important cultural and curatorial information is denied to the public, subsequent creators, and thus fades into obscurity.

Innovative content-based image browsing (CBIB) developed through FABRIC (a Technology Strategy Board project with funding sponsored by the Department for Innovation, Universities and Skills) provides an efficient solution to sift through thousands of images to find visually-similar images and provide clues to the parentage of orphan works. CBIB displays images according to the physical attributes of an image such as colour and texture.

This paper will discuss the implications of orphan works in a digital collection and demonstrate a novel browsing system for visually linking images when metadata is limited or non-existent. Application of technology to help in identifying ownership and relationships is discussed.

Annette Ward, Scottish Power Research Fellow and Development Manager, has evaluated retrieval software at London Guildhall Library and Art Gallery, The British Library, and BBC. She has over 25 years as an academic in textiles, clothing, and design in US and India.

Annsley Merelle Ward is a lawyer at the London intellectual property and media litigation firm, Gallant Macmillan LLP, specializing in intellectual property with specialized emphasis in multi-jurisdictional intellectual property issues in the cultural heritage and fashion sectors.

James Stevenson, Manager of the Photographic Studio, Victoria and Albert Museum, leads a team of 15 photographers that produce images for its collection management, publication, and promotion programmes, including 2-D images and a range of multimedia formats for virtual access.

Stephen McKenna, School of Computing, University of Dundee, has research interests in computer vision and pattern recognition within domains such as intelligent human-computer interaction, content-based image browsing, medicine, and biology.

Ian Ricketts, School of Computing, University of Dundee, holds a personal chair in Assistive Systems and Healthcare Computing, has worked at Reuters and NCR, and was a founding member of School of Computing.