Karen Cham, The Open University, UK

Aesthetics and Interactive Art

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Introduction

Any discussion of aesthetics and interactivity must first transgress the divide in modern western art history between art and technology. Despite the fact that technical principles have always underpinned fine art production (rules of perspective, proportion and the golden section for example) photography, film, television and video are still marginalised in art-historical dialogues. The mechanically-reproduced artefact is easily dismissed in a discourse where value is still equated with dubious concepts of authenticity and originality anchored in production techniques.

For example, whilst video art has been part of the art world since the1960s when artists such as Nam June Paik brought the TV set into the gallery, the aesthetics of video is still neglected in art theory. Not only can video artefacts be mechanically reproduced, but the potential for mass access or worse still, mass appeal, is assumed to negate the exclusivity essential to establishing an aesthetic value.

Digital artefacts manifest these two problems of reproduction and access to an even greater extent. A digital artefact, by conventional standards, is even less authentic and original than a mechanically-reproduced one; a true simulation, a mathematical model of the real. Furthermore, not only is the digital artefact accessible by the masses, it is very often interactive, i.e. shaped by audience input; a product of 'the mass' itself.

These material factors should not inhibit an academic discussion of the aesthetics of interactivity. An aesthetic value is always established by the consensus of an elite. In media studies for example, textual analysis of televisual artefacts clearly demonstrates that whilst television might appear generally accessible and understood by everyone there is quite clearly a relative, yet elaborate, aesthetic code operating within a wider, still elite, cultural context.

Art and Technology

The inherited divide between art and technology is mapped out comprehensively in Mick Wilson's paper, How Shall We Speak of Art and Technology where he describes their radical separation as a recent phenomenon, enmeshed within the complex historical process of modernisation. He cites Kristella's demonstration that the [fine] arts per se were constituted as a separate arena of human endeavour only as late as the seventeenth or eighteenth centuries. It is even later, when the term art becomes 'Art', associated with creativity, expression, the affective and subjective, that the practice becomes diametrically opposed to the technology. The evolution of technology, whilst encompassing the craft of making, has come to include the tools as well, which have become increasingly scientific. [1]

Walter Benjamin's seminal treatise on the convergence of art and technology, The Work of Art in the Age of Mechanical Reproduction was published in 1937. [2] After tracing the history of reproduction from founding and stamping, through woodcuts, engraving and etching to lithography and photography, he argues that by 1900, technical reproduction had become an artistic medium in its own right. However, he also argues that the presence of an original is a prerequisite to the concept of authenticity, and therefore the whole sphere of authenticity is outside the realm of technical reproduction.

Whilst it is easy to anticipate such a conclusion in the early part of the twentieth century, this paradigm has left a tangible inheritance. Video art, for example, has consistently strived to be as different as possible from television in terms of aesthetics, very often to the detriment of the work itself and the absolute alienation of the televisually-eloquent audience. Often this difference has been an unspoken prerequisite of being understood as art at all, the maintenance of the distinction between art and mass culture becoming the key means of ensuring that the work was understood as having value. This type of authenticity and value were then further maintained by ensuring a limited distribution and access giving rise to such conceptual contradictions as tape 3 – edition of 6 [3] screened within a gallery for a limited time. To allow conditions of production and distribution to take precedence is to allow the capitalist economics of supply and demand to supplant aesthetics.

The term aesthetics actually comes from the Greek 'aisthetike' and was coined by the philosopher Alexander Gottlieb Baumgarten in 1735 to mean the science of how things are known via the senses. [4] How then are aesthetics determined? An aesthetic can be driven by the senses, emotions, intellect, will, desires, culture, preferences, subconscious behavior, conscious decision, training, instinct, sociological institutions, or some complex combination of these, depending on exactly which theory one employs. [5] As we can see from the previous example, an aesthetic value can be driven by a complex and convoluted cultural code, and it is probably true to say that all aesthetic judgments are to some extent culturally-conditioned, i.e. linked to judgments of economic, political, or moral value. In this way they are also almost always established or upheld by some form of consensus. Aesthetic judgments might then be best understood as based on a consensus about desirable or preferred qualities. For example, whilst the Victorian audience saw African Art as ugly, the Edwardians found it beautiful.

Digitally-interactive media is a recent development and is defined here as a machine system which reacts in the moment by virtue of automated reasoning based on data from its sensory apparatus. [6] Interactivity is most commonly an attribute of server-based multimedia on the Internet and is a specific attribute of digital media, although interactive systems are not necessarily screen-based. This type of interactivity is new, and the core critical debates centre on how existing paradigms play out in the light of interactivity.

How might the paradigms of the past embrace an aesthetics of mechanically-reproduced artefacts, of the media and the new interactivity? What methodologies can accommodate a trans-disciplinary aesthetic that includes the Lascaux cave paintings and the Sistine Chapel ceiling, African Art and Japanese woodcuts but also Fritz Lang's Metropolis (1927) and the avatars of Linden Lab's Secondlife.com (2003); Ihnatowicz's Senster (1970) and Verhoeven's RoboCop (1987); Pac Man (Namco, 1979) and Toshio Iwai's Resonance of Four (1994); Paul Sermon's Telematic Dreaming (1992) and Big Brother (Endemol 2005)? Mechanical reproduction has indeed seen Benjamin's feared art of the proletariat [7] come to fruition.

In order to overcome this divide and see old and new cultures as a continuum, Lev Manovich proposes in Post Media Aesthetics (2001) [8] that we should use categories that describe how a cultural object organises and structures users' experience of data. [9] For example, Giotto is not just an early Renaissance painter but an information designer demonstrating new ways to organise data within a static 2D surface.

This approach to visual artifacts is in fact pre-dated by the New Art History of the 1970s and 80s as represented by BLOCK magazine. [10] This school of thought aimed to promote a new perspective of understanding art as a social practice, conditioned by social, economic and ideological factors. It was to be studied within a broader anthropological notion of culture, where all forms of representation are understood as a structure and process of ideology. [11] Visual culture, as this field of study came to be known, is now conventionally where art, design and media artifacts are seen as part of a larger cultural history and the whole of cultural production and consumption is subsumed into particular instances of the dialogic sign systems of society. For example, a television show, painting or traditional costume could all be addressed from a common methodological basis. The common use of structural analysis to deconstruct and analyse the social/communicative function of cultural artefacts gives particular focus to the reader's experience of the structure of a text (Manovich's

'user', 'organisation' and 'data' respectively)

Media Negation

It is clear how both of these approaches, focusing on generic attributes of artefacts, could offer a methodological approach to underpin a coherent assessment of the socio-cultural/communicative aspects of the aesthetics of interactive art. However, one major difficulty stands in the way; both share a common ground in rejecting the tradition of an aesthetic anchored in material qualities. Manovich argues that the traditional aesthetic divide of art production on the basis of medium, i.e. painting, sculpture, drawing, is based on differences in materials, and that as digital technology has erased the differences between photography, painting, film and animation etc. and established the multimedia document as a new integrated standard, the key concept of an artistic medium is rendered useless. He concludes that as all HCI are interactive, 'interactivity' itself is a meaningless category, stating a basic fact about computers.

This presents a huge problem, right at the heart of the matter. If an aesthetic is something 'apprehended by the senses' then it necessarily has a material base, even when that base is 'virtual' (digital). How can one legitimately address an aesthetic without to some extent addressing the medium? Corbett states that it may mean that it is impossible to assess the work as a visual artefact. [12]

The common rejection of media-based taxonomies appears to stem from a misapprehension of structural analysis as a type of formalism where an intrinsic, fixed and universal relationship between the artistic sign and its referent [13] is insisted upon. We know from structuralism, and not least our own experience, that this is patently not true; the meaning of an artifact is in constant flux, synchronically and diachronically, across different groups of people and across time. An image of an aircraft, for example, prior to 9/11, has a dramatically different body of referents to the same image since that date. In Post Media Aesthetics, Manovich himself adopts a formalist perspective when he describes the medium (paint) as the sign and its representational capacities (paintings of things) as the referent. [14] In semiotics, the sign is what the medium (paint) is used to physically represent (aircraft) and the referent is the attendant concept (from holiday to terrorism) of that sign.

Furthermore, whilst it is not difficult to appreciate Giotto's contribution to information design, what cannot be addressed by Manovich's proposal is the specific fact that Giotto organised aesthetic data using the medium of paint; that Giotto was a painter. This by rote means that we cannot address the specifics of the medium of interactivity at all as it is not here recognised as a medium. Indeed, by only recognising [machinic] medation [15] from lithography onwards, even Benjamin fails to account for the already-mediated nature of art. [16]

The void between aesthetics and interactivity is where the medium should sit. The void is there first because photography, cinema, television, video and interactive media have been excluded from originality, authenticity and aesthetic value by nature of their material. Second, it is reinforced by a will to break from the traditions of the old art history and its concern with material, and finally it is compounded by the very nature of digital media that according to Manovich has no material quality? How is it possible that theoretically there can be no aesthetics of interactive art when in practice there quite clearly is!?

Rebooting Media Aesthetics

The underlying issue here is that when technological innovation such as has been witnessed during the last century reaches the velocity of the last ten years then theory must be willing to learn from practice. The paradigms of the past are no longer driving artistic production, technological innovations are. Examples of soft and hard technological determinism are multitudinous from across the spectrum of society, industry and the arts.

How can we legitimately explore aesthetics and interactive art without making any reference whatsoever to the innovation of new aesthetics for interaction in the field for applications such as computer games, web sites, mobile phones etc.? It is work that lives out the aesthetic paradigms of Dada and Surrealism, Futurism, Jazz, Fluxus, Punk, Situationism and Pop Art amongst others. How better to bankrupt our own discipline at this crucial time? These innovations are most definitely within the field; the 'old' field of fine and applied visual arts.

Contemporary cultural producers are 'within the sign' (Derrida) in that we create new artifacts from 'secondary' (mediated) sources rather than primary ones; this is the post-modern condition and is inextricably linked to technologies of reproduction, distribution and interaction. As Benjamin pointed out, the work of art reproduced becomes the work of art designed for reproducibility. [17] Does this absence of the original hinder the apprehension of the aesthetics of a photograph, a television advertisement, a computer game? Hardly.

Techniques such as collage, montage, assemblage, sampling, and remixing have driven new aesthetic concepts such as simulacra, immersion, networks and embodiment. It is an aesthetic that traverses and includes the aesthetics of the commercial media and the new media (Bolter's Remediation). Benjamin's insistence on an artwork's aesthetic value stemming from its 'presence in time and space' has been extended to encompass a virtual presence; the aesthetic qualities of Michelangelo's Sistine Chapel ceiling are part of my aesthetic canon from the many reproductions I have seen. I have never been to Italy.

The visual culture approach is indeed pragmatic enough to meet the challenge of the diversity of aesthetic practices in the digital age. It is also insightful and useful to understand the function of an aesthetic in its social, political and economic context. The only flaw of the new art history as an appropriate theoretical methodology for this purpose is in its rejection of the object. The old art history's idea of an aesthetic anchored in the object is invariably tied to practice, to process, to materials. However in a post-modern culture the medium is no longer a quality of the object. There is no object, no original, no presence in space or time, only mediation. Whilst post-modern notions of simulacra account for such a position philosophically, ironically it is the oldest sense of art as making or doing (technology) that can perhaps facilitate the best attempt to accommodate such radical notions aesthetically.

Conclusion

Visual culture still provides useful theoretical models for addressing the socio-cultural context and function of such artifacts, irrespective of the material base and/or presence in time and space. Manovich's work is important in that it acknowledges that something is definitely new about interactivity and that it is important for art history, curation and practice to develop some form of theoretical continuum from painting to interactivity. Benjamin's work is important too in recognising some fundamental aspects of the mechanically-reproduced artefact.

However, there are now abundant autonomous theories of the aesthetics of interactivity across an entire spectrum; ranging from the stubborn conviction that all media have always been interactive (Mihai Nadin) which does nothing to assist serious analysis and understanding of the specifics of digital interactivity; to reasonable ideas of remediation (Jay David Bolter and Richard Grusin) that, by reducing mediation to technique alone, fail to account for the socio-cultural dynamic of human interaction per se; to full blown radical ideas of cyberculture (Roy Ascott) and post-humanism (N. Katherine Hayles) which, whilst intellectually important, can be difficult to apply tangibly to the more basic questions of aesthetics.

What can also be asserted is that the past does not need to be reappraised using metaphors from the digital age. To propose we redress the whole of art history through the myopic optic of computer terminology is perverse semantics. Equally, to attempt to apply the digital experience of interactivity to books and paintings serves no useful purpose.

A viable post-media aesthetics needs to be entirely focused upon the material of mediation in order to anchor art, design and media practice in creative processes and provide the continuum that transcends time, from red ochre to silver halides to hypertext, especially when the medium is not always a quality of the object but sometimes a reality in its own right. That is, a media-based approach to the aesthetics of interactive art, marrying the visual culture to a history of the medium, to apprehend divergent manifestations from the same material base in specific social contexts. Only in this way can I, for example, comprehensively understand my own work, the particular nature of the materials I work with and the context within which that work is conceived, created and apprehended.

Thus Ihnatowicz's Senster, constructed from steel tubes and controlled by a Philips P9201 computer using input from two microphones and two radar sensors on its head, [18] is an early prototype for the key aesthetics of interactivity in the field; the transparency and anthropomorphism of the interface. It also incorporates aesthetic references to the contemporary cultural aesthetics of electricity pylons and science-fiction characters. These are generated respectively by the increasing industrialisation of the urban landscape and the prolific representation of scientific developments derived from the 'space race' in popular culture narratives since the 1950s.

Simple isn't it. **19**

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Notes

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19. See Boden, M. (2005), 'Aesthetics and Interactive Art', proceedings of the fifth conference on Creativity and Cognition, New York: ACM (Association for Computing Machinery).

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