

"The Rise of Digital Multimedia Systems"

Ross Gibson

In 1957 Ian Watt published *The Rise of the Novel*. Promptly recognised as a classic of cultural history, the book analysed "the enduring connexions between the distinctive literary qualities of the novel and those of the society in which it began and flourished".¹ This society -- eighteenth-century western Europe -- had become suddenly complicated. With the waning of the Church and the discrediting of the notion of the divine rights of kings, most European states were experiencing the rise of mercantilism and the bourgeoisie. 'Common people' began to imagine that they could take charge of their own destiny, that they could define and develop themselves into evolving characters in new settings that they could establish or explore according to their own free will.

So a story-form was perfected which allowed readers to exercise their personal imaginations, to imagine scenarios for delineating causative actions and their consequent effects. While imbibing a novel, readers could establish a scene -- really felt but not entirely real -- where they could pose some orienting questions. For instance:

¹ Ian Watt, *The Rise of the Novel: studies in Defoe, Richardson, and Fielding*, Harmondsworth: Penguin, 1963 (first published by Chatto & Windus, 1957), p.7.

If I acted willfully in this way, what might flow from the assertion of my new freedoms?

Or ...

How is the old, customary world being renovated?

Or ...

Within these settings, what gaggle of testy characters might I encounter as I grant my malleable personality imaginative latitude?

Seeking to understand why the novel emerged so quickly and with so much influence during the early eighteenth century, Watt started from the premise that artistic forms often mimic the psychological, social and political conditions prevalent in the particular era that gives rise to them. He contended that early novelists such as Daniel Defoe and Henry Fielding developed literary techniques for dramatising the emergence of the bourgeois individual, with its private sensibility and self-reflective interior monologue. Watt showed how novelists quickly innovated a set of textual conventions to sketch settings and evoke the innermost thought-flows and mood-swings of focal characters in imagined narrative worlds which readers could compare to their own world. And he showed how these characters might stand in and speak for the readers themselves as they tried to grasp the intricacies of an ever-altering world of proliferating detail and increased secular opportunity.

You may be wondering, already, what this has to do with interaction and computer-based media. Please bear with me. I'll get to it. But to do so I must finish and extend Watt's story of the novel.

Different from the allegory or the religious parable, which are part of the oral tradition and which reinforce established moral codes, the novel arose to address questions of personal agency and ethical innovation, to help readers scrutinise the intellectual and emotional intricacies of a new moral and political universe. To this end, the novelistic character was invented as a kind of new technology whereby readers could examine a

psychic model of a possible personality and thereby measure options for themselves. Here was a cultural form that empowered readers to reflect on all the *novelty* that defined their changeful times. No wonder it was suddenly popular. It was needed. And it was shaped by and for the contemporary culture.

Watt shows that by examining the structural characteristics of new cultural forms, we can gain insight into periods of psychic, political and philosophical flux. By studying how aesthetic and semantic systems engage with the intellect and the sensorium of the user, we can understand the temper of the times. When a new form of art or popular communication arises and takes hold, it reflects changes that have recently occurred or are presently occurring in psychology and society. Equally important, the rise of a popular new cultural form not only reflects but also adds momentum to the changes that define the turbulent times.

Or to say it bluntly, cultural forms tend to get invented and become popular at exactly the time they are needed. They show us some of the occulted workings of our confusing moment. In this process, there is usually an interplay between intuition and intellection. This interplay creates discourse, which leads to analytical knowledge, enabling increased efficiency and evocative powers in whatever cultural form is being considered.

Through this process, the novel was eventually superseded (which is not to say eliminated) by a new predominant form, cinema, which emerged at a time when individual psychologies were changing yet again, this time to absorb the modern world's *kinetics* (hence the name: cinema). Here was a cultural form able to represent and analyse the tumult of sensory 'attack' that assailed every individual psyche once the speedy, mechanical modes of transport, communication and commodity production became widespread during the industrial revolution.

Moreover, cinema responded not only to psychological factors. Social and political forces were at play too. The start of the twentieth century, when cinema loomed, was a time when new nations and social masses were forming, when throngs were wondering how to fuse several scattered constituencies into new states. Thus in conjunction with other distance-devouring technologies, especially the railroad and the telegraph, cinema helped individuals and communities imagine unified new worlds gathered in a spatio-temporal frame where previously there had been only estranged and disconnected populations clustered in locations unable to synchronise across great administrative time-lags. With the advent of cinema, audiences could envisage associations with far-flung people and places all meshing in 'organic' rhythms as fast as heartbeats and almost as quick as thought. The movies projected lively new casts and scenarios. For example, a new nation -- a social, spatio-temporal amalgam -- could be envisaged where once it had been unimaginable. Editing systems founded on the principle of montage federated new states of possibility. *Seeing* these new states could lead to *believing*. This happened in Japan, France, Britain, USA and Australia, to name just the obvious cases. (It was the official reason for the establishment of John Grierson's legendary documentary unit in Britain during the 1920s: the unit was directed to 'show the nation to the nation'.)

In Australia, cinema enabled people in Gympie, Sydney and Adelaide, let's say, to share a perceptual and a conceptual frame where, before, they had been dissociated. Civic reality and cinematic possibility -- each impelled the other. A nation could be construed as a new federation, and it could be imagined in place of the squabbling states that had previously been misaligned in geographical and ideological alienation.

But cinema has its limits. And this is where we can start contemplating the rise of digital multimedia systems in our own era. A definitive

characteristic of the movies is the way they 'lock off' their several dynamic parts into a final version, the 'release print'. This ultimate inflexibility of cinema mirrors the way most national-scale communities responded to the turbulence of modernity by insisting that their societies first synchronise energetically to the machine world and then stabilise permanently once the new political state has been realised. In its end, cinema is a conservative form, like nationalism. Cinema and nationalism: each serves a popular, paradoxical desire for the acknowledgement and the *cessation* of change. Indeed, this is one of the traits we love about cinema: it shows us the thrill of energetic convergence and world-creation at the same time as it proposes an eventual end to flux and uncertainty. With a film, the final edit is a stable state, a kingdom of kinetic excitement with a reassuring climate of completion.

Now let's compare the cinema/nationalism nexus with the contemporary dyad of digital media and transnationalism (or globalisation). How have digital multimedia systems arisen to reflect and analyse our contemporary psychic and social conditions?

Like cinema, digital multimedia simultaneously reflects and shapes reality. And like cinema, digital multimedia can federate disparate elements (sounds, texts, graphics, perspectives, vistas and audio-visual rhythms) in astonishing configurations. These similarities prompted Lev Manovich in his influential *The Language of New Media* to create a myth about multimedia being first generated literally out of cinematic material, out of old film stock stippled with data-entry integers in Konrad Zuse's 'digital computer' constructed in 1936.²

But *unlike* cinema (and unlike nationalism), digital multimedia produces syntheses that are always *explicitly provisional*. (Yes, in this respect it is

² Lev Manovich, *The Language of New Media*, Cambridge (Mass): MIT Press, 2001.

like transnationalism.) Because of the dynamics of its file structures and the integrating and operating codes applied to those files, any digital multimedia configuration or event is always ready to be dismantled and re-assembled into new alignments as soon as the constituent files have been federated. In other words, because multimedia rarely gets 'locked-off', its component elements can always be pulled apart, sent back to their databases and then instantaneously re-arranged into newly iterated federations. (Yes, in this respect it is like our unstable contemporary lives.) By thus dramatising *divergence* as well as convergence, a digital multimedia project can react to variant stimuli from the environment or from its investigative participants. It can re-form itself restlessly in ways that a cinema print is not designed to do. Thus, a digital multimedia system can be both a reflection and a stimulant of an everyday reality that is constantly altered by contingencies like globalisation, scepticism, migration, multiculturalism and economic devolutions. Digital multimedia is the cultural form that reflects and impels our open-system world, our skittish life 'on the edge of chaos'.

One challenge when writing about these protean new forms is that, on the page, it is so difficult to bring in the concrete evidence. When writing about writing, one can quote an exemplary section of text and *analyse it in text*. By contrast, with a digital multimedia system, the commentator must *evoke* the exemplar textually, in an alien medium, before using words to analyse its non-verbal potency and 'shiftness'. Similar issues confront the cinema critic, of course. But at least cinema now has a canon of well-known 'classics' which can be nominated so readers and writers all know somewhat the thing they have gathered around. Because digital multimedia is such a new cultural form, there are very few canonical references yet; it is still difficult to have confidence that everyone knows the cited examples.

Accordingly, I need to *describe* an example now so that I can focus my assertions. It's a digital multimedia system, that I've been developing with a team of collaborators.³ *Life After Wartime* is a 'story-engine' or speculative 'conjunction-machine' that restlessly combines still images, haiku-like texts and musical sound files all responding to an extraordinary collection of crime scene photographs belonging to the New South Wales Police. The original archive is a jumble of evidence associated with actual people who have been caught in painfully real outbreaks of fate, desire or rage. Most significantly, the documents that you would expect to be attached to the pictures -- the *conclusive* texts such as the prosecution case, the defence case, the judge's summation, the jury verdict -- all these documents are missing.

Each crime scene is represented by a dozen or so different photographic negatives swaddled in a tatty old buff envelope. Scribbled on each envelope: the names of an investigating detective and a police photographer, plus an often incomplete address plus a date and the photographer's guess at the crime being documented. And that's it, that's the extent of the interpretive cues offered by the archive.

Therefore we have to work with a collection of files that are meaningfully but contentiously associated with each other. Because of the 'aftermath quality' of the pictures, we cannot help but proffer stories to account for them, but because of the dearth of accompanying information, we must accept that our accounts will always be speculative, restless, inconclusive.

After several years analysing how to use the images in a provocative and evocative street history of Sydney, we have composed a volatile sound+image device that mimics the dramatic disturbance that plays in

³ Kate Richards, producer; Greg White, programmer and sound design; Aaron Rogers, graphic design; Chris Abrahams, music and sound design.

one's consciousness when one encounters the photographs. This 'speculation engine' combines three reservoirs of files – images, caption-texts and musical sound components -- all governed by relational attractions and repulsions that have been designed into the operating system ... attractions and repulsions of image to image, image to text, text to sound, sound to image, and so on. Depending on what particular images the investigator chooses as the 'speculation engine' throws batches of pictures forward in turbulent patterns, the system gains cohesion depending on the history of each investigator's interaction with the database. Over time, a set of micro-narratives and mood-modulations accrue until eventually a kind of debateable meta-narrative builds up to account for the entire image-world of the archive. Crucially, each investigator will gather up a different set of micro-narratives and moods and each investigator will tend toward a larger story in idiosyncratic and personally stamped ways. Each investigator will encounter qualities of themselves as well as qualities of the archive. In part, it's yourself you find when you delve into this interactive archive. But it's yourself in relation to real patterned evidence shaped by a real patterned world.

Engaging with *Life After Wartime*, you quickly deduce that are not a reader or a receiver of this artwork. You are an *investigator*. You are figuring 'what if' speculations. Sceptically and imaginatively, you are making and interrogating a world of meaning even as you are attuning to the designed yet dynamic systems of sense that you discover in the work.

Life After Wartime offers you germs of stories which you both doubt and appreciate. With this sceptical yet postulative attitude, you *wonder* about the world that is witnessed in the pictures. You speculate about what might have happened. And you test those speculations against the contextually established knowledge, against whatever is felt to be true and likely for that place and time, given what is already agreed to have

happened there and then. Again and again, without rest, you must speculate and test. You are never receiving a single line of interpretation. Rather, you are amidst an ever-developing dramatic hypothesis that is always offering many different foci and perspectives even as you pursue your own line of inquiry.

In this respect *Life After Wartime* is a kind of instrument with which you continuously strum little chords in your mind so that an ever-developing concatenation of minor-key epiphanies can chime for you as you investigate and consider the ways to make sense of the seemingly endless power in the photographs. Colliding the fleeting images with the haiku-short texts plus the changeful music and city noises, you cause all these elements to circulate so you can 'promiscuously' (even libidinally) essay multiple liaisons and then disengage before seeking again another sparking chain of connections that might light up portions of the occulted world represented by these crime scenes.

Life After Wartime is just one example of 'digital system' art. I think of it as a 'dramatic database'. Such artforms are beginning to abound now. (Consider the popularity of the *Sims* dynasty of fictive, faux-ecological environments.) But why do they really matter? How do they warrant serious attention from aestheticians and systems theory specialists? And why analyse them in the cultural history context that I've established here by privileging the approach pioneered in *The Rise of the Novel*?

The operative dynamics and the recombinative readiness of the file systems in digital multimedia databases closely mirror the dynamics and recombinative readiness of contemporary post-industrial societies. This notion first came into focus for me when I read Michael Joyce's cultural history of hypertext, *Of Two Minds*. Early in the book, Joyce observes that hypertext is special because it is a means by which we can prioritise

structural thought over serial thought.⁴ He explains how the cross-referencing and branching allowed by hypertext have arisen to serve a readership which is really a forensic audience, an audience looking to take charge of their own conviction, looking to *construct and test* rather than *receive* their worldview. It's an audience that knows that there are many variabilities and volatilities defining life now, so many that it is implausible to rely on one line of argument or explanation (ie serial thought), because the premises on which any one serial discourse are founded are always debateable and subject to rapid redundancy. Instead, people are always looking to assess a multi-dimensional array of repercussions and possibilities associated with every action in the world. No longer are people merely 'consumers' who prefer to hear the singular delineation of effect following cause. Rather they scan the field of experience for the strengths, weakness, opportunities and threats prevailing in a dynamic complex of tendencies, mutations and options that constitute the life of the somewhat free-willed subject today.

Digital file-systems have arisen partly to address the need for cultural forms that enable us to think and feel in synch with the volatilities of contemporary existence. Borrowing my phrasing from Michael Joyce, I contend that digital multimedia databases have arisen and become popular because they prioritise dynamic-systems thought over structural thought and serial thought. Responding to the quickness of digital and transnational cultures, we need cultural forms that allow us to become sceptical and curious investigators. We need operable, speculative databases surging with ideational and affective elements that can be searched, combined and activated to create combinative complexes that unfold and re-align, that converge and diverge through time. And crucially this operability must be accepted as the right and responsibility not only of the author or designer but also of the *participants*.

⁴ See Michael Joyce, *Of Two Minds: Hypertext Pedagogy and Poetics*, Ann Arbor: Univeristy of Michigan Press, 1995.

As the multimedia artist David Rokeby has observed, with digital aesthetics one aspires to create *relationships* rather than finished artworks and one yearns to participate in systems which 'reflect the consequences of our actions or decisions back to us.'⁵. To the extent that an interactive system is relational, cross-referential and dynamically re-configurable, it is an aesthetic model of our dynamic everyday experience.

More than an informatic or technical tool, every multimedia database -- even the most expedient or functional -- is infused with aesthetics and semantics. Every multimedia database involves human-computer interaction and is therefore 'dramatic' somehow. The interactive multimedia database has a history at the same time as it represents an innovative break with other representational forms such as the novel, the oil painting or the cinema feature. It has arisen to address the psychic and social dynamics of our times. It can be used for dramatic and aesthetic purposes. It can be used like music, painting or cinema: to tingle the intuition, to intertwine our emotions and our ideas, to conjure experiences of complexity and richness which help us reflect upon our everyday experiences as desiring and conspiring citizens.

As a run of spray of parting thoughts, can I conclude by reiterating that database thinking is open-ended and restless rather than conclusive? Can I point out the limited value of linear-narratological theories and cinema history when analysing the cultural worth of digital multimedia systems? Can I suggest that gardening theory, ecological philosophy, and even aquarium-design practices provide more useful kits of wisdom to help us examine contemporary dynamics and complexity?

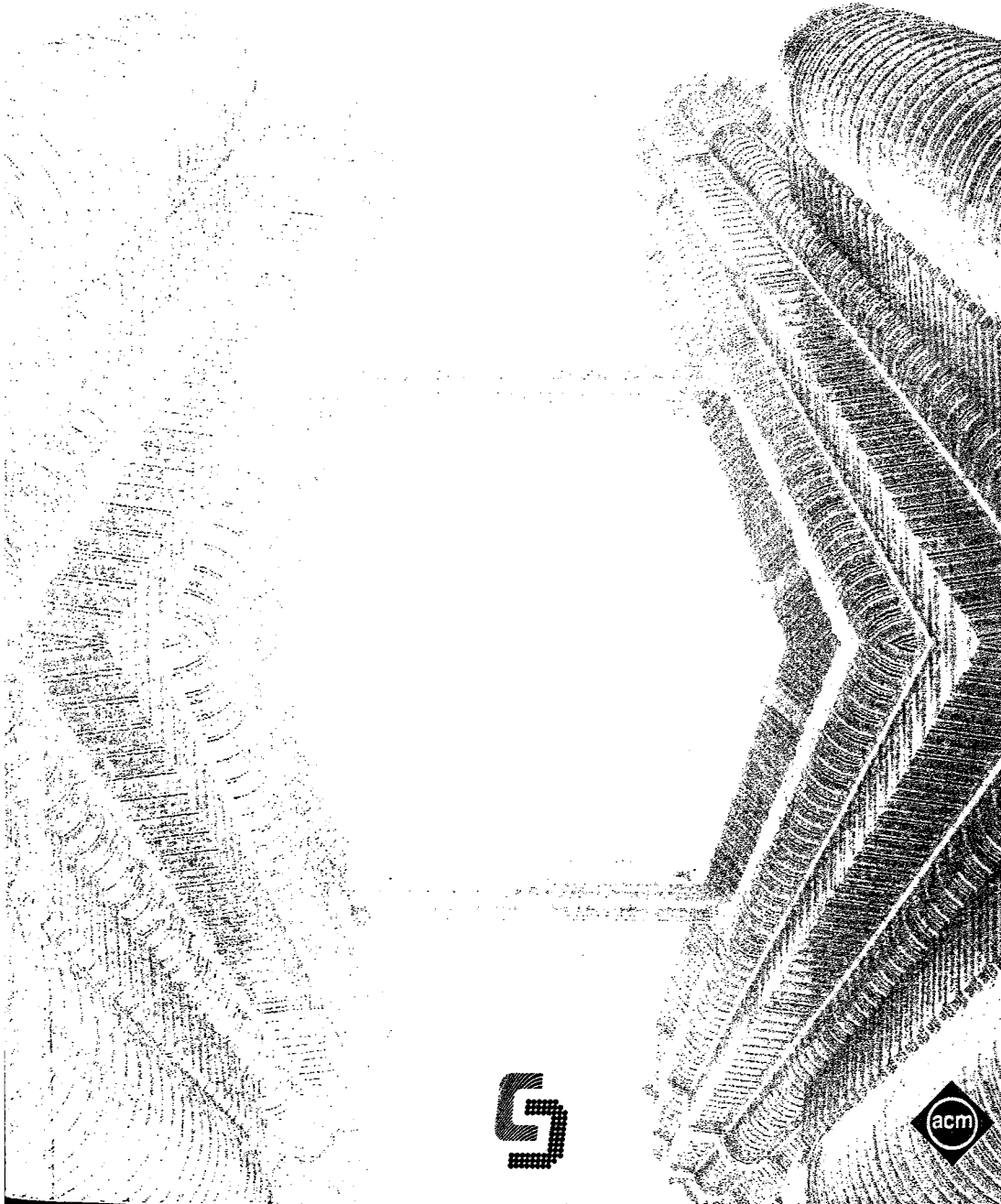
⁵ David Rokeby, "Transforming Mirrors: subjectivity and control in interactive media", in Simon Penny (ed.), *Critical Issues in Electronic Media*, Albany: State University of New York Press, 1995, p. 152

At least it seems appropriate to pose questions like this, to finish an inquest into investigative cultural forms. And it seems right to finish by looking into nature/culture systems such as gardens. For they do indeed 'reflect the consequences of our actions and decisions back to us'.

At least that's what I think I need to investigate now, as I seek to turn these thoughts into something as useful as *The Rise of the Novel*.

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