Chapter 7
Can Duchampian and Darwinian Virtual Objects Ever Behave Themselves?

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ABSTRACT

The chapter presents the trajectory of a collaborative art practice towards intuitive interaction for visitors accessing virtual spaces to achieve a shared holistic understanding of a complex system. From initial explorations into the efficacy of associative media for constructing conceptual-based artworks, in that hypermedia developed from the intent of augmenting human intellect, behaviours were applied to hypermedia data items. The rationale for this is explained through developments in the ongoing ‘Deconstructing Duchamp’ project, where ‘flocking’ behaviours have been applied to Duchampian digitised items to observe the familial relations within, and key to his work, at play. Following this project, a second work ‘Shift-Life’ has proceeded to further develop the idea of allotting animal-like behaviours to electronic data items giving them the appearance of possessing a basic intelligence. By then, observing their response to our physical interactions, we can glean a clearer understanding from their inter-relationships of a complex conceptual framework.

INTRODUCTION

While Marcel Duchamp offered the art world one of the most complex and formative pieces of art ever, initiating the shift of values from aesthetics to idea, Charles Darwin developed the theory of evolution, the ‘big’ idea of survivability through adaptation. Shift-Life was created as part of the national Darwin 200 project for the international bicentenary in 2009. It is a complex system of virtual life forms struggling to survive in an environment made volatile through human interaction. Central to this installation work is the artificial life ecosystem as a self-sustaining, self-reproducing
equilibrium of creatures and plants living in it. The general behaviour of each organism was more sophisticated than those allotted to the ‘creatures’ taken from Duchamp’s work, mainly his ‘Large Glass,’ in that they were equipped for survival strategies and the reproduction of progenies, while the Duchampian items merely adapted to familial relations. An exposition of the Shift-Life program is therefore presented followed by reflection on both projects and future directions for this collaborative research where potential emergent behaviours are concerned.

As an artist, the principal author continue to explore the extent to which hypermedia is privileged in the creation and interpretation of concept-based art. Dew Harrison’s work is based on the understanding that a way forward for contemporary art practice is through this partnership of conceptual art and hypermedia technology. A view which may be seconded by current Internet artists such as Jodi, Heath Bunting, and Vuk Ćosić in that hypermedia is the structuring mechanism underlying the World Wide Web. In keeping with hypermedial concerns, the principal author creates multimedia non-linear art systems in various forms as computer technologies advance. Hypermedia art enables the viewer to connect short strands of information in ways, which make sense and give meaning to the whole work. These works have no beginning, middle, or end in the formal linear narrative sense instead they have an interface, means of navigating the system itself and offer the option to ‘quit’ whenever.

Neo-conceptualist art practise and hypermedia technology are both concerned with the linkage of multimedia items by their semantic associations. Hypermedia is an evolving conception of the possible applications of the computer leading to the smooth synthesis of Human-Computer Interaction (HCI). Many people have contributed to the idea but the original vision is attributed to Vannevar Bush, President Roosevelt’s Science Advisor, who first approaches a description of hypertext in his article “As We May Think” published in *Atlantic Monthly* (Bush, 1945), describing a hypothetical ‘Memex’ analogue machine, a memory extension system which was to mimic human memory by letting the user ‘browse’ and make associative links between any two points in a library of scientific literature, sketches, photographs and personal notes. Bush termed this procedure “selection by association” based on an understanding of human thinking where

> The human mind...operates by association. With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain. It has other characteristics, of course; trails that are not frequently followed are prone to fade, items are not fully permanent, memory is transitory. Yet the speed of action, the intricacy of trails, the detail of mental pictures, is awe-inspiring beyond all else in nature. Man cannot hope to fully duplicate this mental process artificially, but he certainly ought to be able to learn from it...Selection by association, rather than indexing, may yet be mechanised (Bush, 1945).

This was before computer technology was sophisticated enough to fulfill the vision, he did not anticipate the power of the digital computer and so his Memex used microfilm and photocells to do its magic.

Almost 20 years later, Bush’s work influenced Douglas Engelbart at the Stanford Research Institute (the inventor of the ‘mouse’) who then published “Augmenting Human Intellect: A Conceptual Framework” (Engelbart, 1962). Engelbart envisioned that computers would usher in a new stage of human evolution, characterised by “automated external symbol manipulation” and his proposed system included the human user as an essential element. The system considered the user and the computer to be dynamically changing components in a symbiosis, which had the effect of ‘amplifying’ the native intelligence of the user (an ‘interactive’ system).