The Tetrad: a dialectical model of media ecology theory and art, design, and new media

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“All of McLuhan’s work has interesting and somewhat untouched material that may be gold for you.” Gordon Gow.

Abstract: McLuhan designed the tetrad to provide a scientific basis for media observations. The tetrad applies to all media and human artifacts, a phenomenon that is universal and simultaneous. Into the complex of this paper is introduced the proposition that scientific research as applied to media can also be applied to art, design and new media (ADN), with research that goes beyond the science of investigating “reciprocal interplay of observable and generalized data” (Dict.1975) to include the intuitive and methodological processes of the creation of art. Media ecology theories support the idea that the tetrad can be a dialectical model for examining art, design and new media to determine the validity of such theoretical support.

This paper explores media ecology theories to demonstrate that critical thought remains subject to the biases of the artist and the viewer. Many expressions of art, design and new media are created as an explicit or implicit voice of the artist’s reflection of the biases of his or her work. Media ecology studies examine these biases with an aim to understand how communications media, including the forms of art, design and new media, help create the environment in which people and society interact and how the arts in general play a major role is such interaction.

In this paper I will focus primarily on the making of art as the principal subject for applying McLuhan’s Laws of Media to art’s relationship to technology and new media.

Hypothesis: This paper offers the hypothesis that the relationship between art, design and new media, can be examined by creating an effective model for scientific
observation to manage critical thought and the effects of ADN on society. “Artists need to learn how to manage new media and how to manage themselves in them.” (Reddin, 1970). I will explore McLuhan’s Laws of Media in light of media ecology theory, and present a central thematic device for understanding the tetrad as a dialectical model of media ecology theory and art.

**ADN:** I will begin with a clear definition of the terms used in this paper. For the sake of brevity, the terms art, design, and new media have been stated as ADN.

Many times I have heard people refer to art and design interchangeably, as if the two were synonyms, but they are not the same. They appear to be closely related because they use a lot of the same techniques and they appeal to the same aesthetic sense of beauty and order. The differences between art and design lie not so much in how they look as in what they do. “They have different purposes, they are made differently, they are judged by different criteria, and they have different audiences,” (Brady, 1998).

Art is a form and substance of expression that embodies the visual. Despite attempts to deconstruct the meaning of art into a singular passion applicable to anyone who pursues some form of creativity, art retains the cultural distinctions between high art and low art. High art or fine art is the traditional disciplines applied to drawing, painting, and sculpture. High art stands in contrast to the “low” arts including crafts, material arts, the hobbyist and the amateur. Art is an essential component of communications theory to examine the effects of art on culture and society. “Serious artists are the ‘antennae of the race’.” (McLuhan, M, McLuhan, E., 1988).

Design implies the assembly of visual components into a comprehensive and cohesive whole. Design is used most commonly to describe the commercial application of art to function, such as industrial design, architectural design, and graphic design. Design often imposes more rigors than high art because the artist is committed to abide by conditions placed on creative design by clients. These conditions include product limitations, marketing and advertising objectives and strategies.

Michael Brady recalls a 1974 interview with Milton Glaser, the renowned New York graphic designer, who noted that “whereas a design must convey a given body of information, the essential function of art is to intensify one's perception of reality. Sometimes, he said, these functions coincide, but in modern times they have diverged.” (Brady, 1998). Glaser went on to explain that design is utilitarian in a way that high art is not. Art, on the other hand, is its own end. It is not utilitarian or decorative. “Art,” said Glaser, “subordinates ordinary usefulness to its own purposes. It doesn't concern itself with description the way illustration does, nor with the desires of the buyer as does fashion, nor the tastes of the public as does style,” (Brady, 1998).

New media comprises both technology and research. Their application is often categorized as contemporary. Contemporary is a historical designation and not a style. “Contemporary is any art created after WWII,” (Kramarsky, 2009). McLuhan paints the canvas even broader by assigning to new or contemporary media the power of imposing change upon a new world, not just as the power of technology itself, but power as an extension of self.

“All new media are art forms which have the power of imposing their own assumptions. The new media are not ways of relating to the old ‘real’ world; they are the
real world and they reshape what remains of the old world at will. Official culture still strives to force the new media to do the work of the old media,” (McLuhan, 1969).

New media embodies the influence and capabilities of technology as extensions of the artist’s hands and mind, but does not restrict art to mere electronic production or reproduction or digital art.

McLuhan’s painted canvas would come to look like a tetrad, as a means of examining the effects of the law of media on society and technology. “McLuhan designed the tetrad as a pedagogical tool” (Key Concepts, 2010) to provide a scientific basis for media observations. The tetrad applies to all media and human artifacts, a phenomenon that works universally and simultaneously. From this design emerges the question whether the tetrad can be applied to ADN, not as an enforceable or empirical scientific formula, but as a template for understanding psychogrammatical traits of individual responses to the medium of art and design? The tetrad offers a unique environment combined with media ecology to encourage the appreciation and interpretation of art by the individual and the collectives of society as a means to nurture critical thought.

Media ecology studies examine this question in the form of biases with an aim to understand how communications media, including art, design and new media, help create the environment in which people and society interact, and how the arts in general play a major role is such interaction. Media ecology theories including critical thought remain subject to the biases of the artist and the viewer. “Many technologies are designed as a reflection of the biases of their inventors,” (Zimmer, 2005, p.2). Thus, many art forms are designed and created as a reflection of the artist. Media ecology studies uncover these biases with an aim to understand “how the form and inherent biases of communications media (art) help create the environment (of the arts in general),” (Zimmer, 2005, p.1, brackets added).

The tetrad may indeed provide a suitable template to further examine these theories in light of the creation and appreciation of art. Zimmer proposes three theories in his media ecology studies: embodied, exogenous, and interactional.

Embodied theory is integral to media ecology studies and argues that “many technologies are designed as a reflection of the biases of their inventors” (artists), whereas the antithesis of Embodied theory, namely Exogenous theory states “that outside forces significantly shape how technology is designed, deployed, and used,” (Zimmer, 2005, pp.2,3). The artist faces a recurring challenge to determine how much of his or her art is artist-driven (embodied) or market-driven (exogenous). In an effort to remain true to his own creative integrity the artist must examine Embodied and Exogenous theory in light of Interactional theory to determine if indeed his or her biased creative impulses and the biases of a viewing public can form a Lessig style hybrid of art’s “use,” extrapolated from “the goals and biases of people interacting with it (art and artists),” (Zimmer, 2005, p.3, brackets added).

Art is always contemporary in its ability to evoke change, whether it expresses itself as a single line, a gestural form, or an abstract composition, on paper, on canvas or in a digital format.

Bruce Wands positions digital art as a subset of contemporary art and an integral part of research in the evolutionary development of mechanical and electrical processes
of photography, film and video. This correctly places the digital form of new media in the larger historical context of art-making.

"Digital art is intimately linked to science and technology, which are fundamental to its creation and physical substance. Digital art is a process of reproducing an image from a digital file to a visual medium. Digital art is a form of existing typographic art and the computer's ability to recognize the typographic symbols of one and zero," (Wands, 2006). Digital art is a form of new media.

High art, design, graphic arts, and other forms of visual expression have been profoundly affected by the speed and efficiency with which expression can be created by electronic digital technology. Reddin proposes that the new media artist do right things rather than do things right. (Reddin, 1970, 6). The effective artist researches and experiments with creative alternatives and optimizes available resources including technology but not necessarily exclusive of timely traditions. The artist will be the new media if he or she creates art that has a voice in his or her own peculiar impressions and expressions, whether the art is created electronically, digitally or is handcrafted manually. To broaden the reach of McLuhan's "medium is the message," I propose the concept that the artist is new media.

Digital art is essentially reproductive, as it embodies the technological biases of "classifications of art that take on the form of data, that is, a computer file that exists as a collection of ones and zeros on digital storage media, in a variety of poly forms and meta-forms based on the current state of the art technology," (Wands, 2006).

Original art begins with no data, no ones and no zeros. Nevertheless the manipulative process of digital art and in a broader context all technology, underscores the continued call for research and invention to push the boundaries of creative expression. "Digital art is slowly becoming incorporated into the contemporary art landscape, as many of the perceived differences between digital art and contemporary art become blurred," (Wands, 2006). As yet, new media is not a prophetic apocalypse announcing the death of the pencil.

McLuhan saw media as an extension of self, that is, as a technology that extends natural human abilities. These technologies change how humans think, feel and act. Positioned within the parameters of ADN, new technologies have profound psychological, physical and social effects. "We shape our tools and our tools shape us," (McLuhan, M, McLuhan, E., 1988). "Because he was one of the first to sound the alarm, McLuhan has gained the status of a cult hero and 'high priest of pop-culture'. This status is not undeserved, and McLuhan said many things that are still pertinent today," (Kappelman, 2002).

Even though McLuhan's work was preoccupied with the art of writing and literature and their relationship to media, there is sufficient ground on which to build a solid case for incorporating his four Laws of Media into high art and applied art or design as distinctly different disciplines yet inescapably connected to new media.

**The dialectical model:** To understand the actual application of the tetrad I have super-imposed it over the communications process of ADN in light of Zimmer's dialectical model, especially in the way each part of the tetrad can be applied without having to read the tetrad sequentially, clockwise or counter-clockwise (Illustr.1). Zimmer’s three media ecology theories support the idea that the tetrad can be a
dialectical model for examining art, design and the new media (ADN). Each of McLuhan’s four laws: enhance, reverse, obsolesce, and retrieve are prefaced by a pertinent question to help understand the properties of each medium or technology. Applying the questions to art itself will position the tetrad as a suitable dialectical model of media ecology theory and ADN.
Law 1: Enhance.
What does the artifact (the work of art) enhance or intensify or make possible or accelerate? What does ADN enhance?

ADN intensifies and accelerates creativity, innovation, (Winstonian) ideation, prototypical work, exploration, invention, outside the box, expressionist theory, and new art theories such as Pneumaiism. Using old and new technology in new ways, extends the reach and frequency of body and mind through the voice of art. If, as McLuhan states, the car can be seen as an extension of the feet, a microscope as an extension of the eye, an engine an extension of our feet and arms, a library an extension of the language of the mind, then drawing or painting can be seen as an extension of the language of the artist’s mind. Old, new, traditional, contemporary technologies extend in reach and frequency to increase top-of-mind awareness of cultural identity and critical thought.

Law 2: Reverse
What does it (art) produce or become when pressed to an extreme? What does ADN reverse into when pushed to extremes?

Exogenous Theory posits a reversal into the biases of market-driven art, market demands, individual tastes, public, corporate, and private collections, criticism, notoriety, and price. Every innovation in art has within itself the seeds of its reversal. From McLuhan’s over-extended automobile culture that is stressed by traffic jams and smog, longing for a pedestrian lifestyle, to over-extended popularity in the entertainment culture of modern art, there grows a longing for a revival of traditional, classical art, as is evidenced by an increase in the number of realism “academies” begun in the last twenty years.

Law 3: Obsolesce
What is pushed aside, displaced, or rendered obsolete by the new ‘organ’ (of contemporary art-making)? What does ADN make obsolete?

ADN makes obsolete such art staples as art theory, classicism, traditional methods and media, original art, archivalism (the need to preserve), artist-driven styles and isms. The new media subsumes the older forms of media. New technologies keep expanding the limited number of senses and motor skills. The content of the old technology becomes incorporated into a new and further reaching technology. Writing made speech obsolete, just as printing made writing obsolete, and Photoshop has all but made drawing obsolete. The old technology is not eliminated, but loses its initial reputation and effectiveness. Drawing with a mechanical stylus on a tablet, or using a finger to manipulate touch-screen applications, subsumes drawing on paper with a pencil.

Entertainment subsumes critical thought
Quantity subsumes quality
Décor subsumes art
Mark-making subsumes craft and virtuosity
Deconstructivism subsumes classicism
Copies subsume original art
Market-driven subsumes artist-driven
Novelties and fads subsume traditions
Theory subsumes practise

**Law 4: Retrieve**

*What recurrence or retrieval of earlier actions and services is brought into play simultaneously by the new form (in the creation of art)? What does ADN retrieve that has been obsolesced earlier?*

Embodied Theory examines the biases of the artist and his or her longing to go back to artistic roots and basics, scholasticism, the Academy, revivalism, and "the power of art to explode on an unsuspecting world," (Schama, 2007). A successful new medium will "retrieve" and enhance a sense or skill that the current media do not stimulate. Since the number of senses and skills is limited, an older perhaps outdated medium, when retrieved, has the possibility of addressing this sense or skill. This retrieval is perhaps most evident in fine art, but its inherent stimuli are also evident in the digital world of art, evidenced by the retrieval of classical themes (of style and/or content) in high-end digital Japanese anime.

Sensual overload, sense deprivation, sense cauterization, dumbing down, and mass amateurization, all have the potential of creating a new demand for retrieval of traditional art forms to stimulate critical and original thought, and help the viewer discern between reality and perceptions of reality.

**Interactional theory:** At the centre of the tetrad dialectical model is: Art, Design and New Media (ADN) and the third of Zimmer's theories, an Interactional Theory of biases based on use, utility, and interaction, intuition and methodology. It is here, at the crossroads of media laws and media ecology where the artist interacts with embodied and exogenous theories of biases, and the laws of media. It is here in the relationship between art, design, and new media, where the artist finds his or her place in a contemporary worldview of society and culture and the effects of ADN, only to realize, the artist *is the new media.*

**Some pros:** The dialectical model can act as an early warning system to society by characterizing and identifying the new ADN that threatens to subsume the effect of change brought about by traditional values before it has fundamentally changed society. It encourages structured thinking without imposing restrictions and allows for subtle, but important interactions between aspects of the new ADN. By clearly identifying art and design as integral to the mix of technology and new media, the tetrad dialectical model can serve to position art as a valuable resource in understanding society and human relations. "In social terms the artist can be rewarded as a navigator who gives adequate compass bearings," (McLuhan, M., Parker, H. 1968, p.238) and "the artist has the power to discern the current environment created by the latest technology. Ordinary human instinct causes people to recoil from these new environments and rely on the rearview mirror as a kind of repeat of the preceding environment, fast in sharing total disorientation at all times," (McLuhan, M., Parker, H, 1968).
Some cons: In complex situations such as art history and art criticism, McLuhan and Zimmer’s theories and methodology require time-consuming and in-depth discussion by participants. When multiple skills and applications must make sense of the dialectical model, it mandates individuals and organizations to think critically about their participation in art, design and new media. McLuhan saw no escape from new technologies. His focus on technological determinism led him to disregard other forces, such as education (art education), that have the ability to support adoption of a new dialectical model and its effects on ADN to in turn change society.

Conclusion: The relationship between art, design and new media, can be examined by creating an effective model for scientific observation to manage critical thought and the effects of ADN on society and to use the tetrad dialectical model to assess the effectiveness of art as a communications media to benefit human interaction. McLuhan’s Laws of Media, when combined with Zimmer’s media ecology theory, present a central thematic device for understanding the tetrad as a dialectical model of media ecology theory and art, and as a tool for critical thought to assess the need for adoption of successful product or organizational change where human interaction is essential. The tetrad can be applied to ADN, not as an enforceable or empirical scientific formula, but as a template for understanding psychogrammatical traits of individual responses to the medium of art and design. It is here, at the interactional crossroads of media laws and media ecology where the artist interacts with embodied and exogenous theories of biases, and the laws of media, that he finds his place only to realize, the artist is the new media.

Reference:


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