
THE DEVELOPMENT OF THE MEDIA ARTS

One of the central challenges facing the media arts is to establish a common vocabulary for parsing them. Unlike the performing, visual, and literary arts, where established disciplinary categories are typically used to compare art forms,¹ there is no common standard for distinguishing among the media arts. Sometimes the media arts are described in terms of the technology used to create them, at other times in terms of the functions of the work, and at still others in terms of the specific styles of the work.

Each of these approaches can be found in the literature. Technological approaches, for example, sort the media arts by the media used and emphasize the connections between changes in technology and the artistic practices using those technologies (Renan, 1967; Lunenfeld, 2000b; Antin, 1986; von Uchtrup, 1999). Functional approaches, on the other hand, focus on the purposes of the work and how artistic practices within a functional tradition have changed regardless of the medium that is used (Rosenthal, 1988; Bruzzi, 2000; Rees, 1999). Finally, approaches that sort the media arts by subdisciplines tend to focus more on the aesthetics of the art and the ways in which those styles are represented in the works of specific artists (Rush, 2001; Hanhardt, 2000).²

This situation appears to be a by-product of the youth of the media arts and their early stage of development. Media artists, for example, appear to have devoted more attention to developing their artistic practices than they have to identifying the distinguishing features of the media arts. This is evident in the

¹In the performing arts distinctions are typically drawn along disciplinary grounds, e.g., opera, dance, music, and theater. In the visual arts, distinctions are usually drawn by medium—painting, sculpture, the decorative arts, photography, installation art, or graphic art. In the literary arts, distinctions are typically drawn by genre—fiction, nonfiction, and poetry. Further distinctions within each of these art forms can be drawn—e.g., dance can be subdivided into ballet, modern, and ethnic just as fiction can be divided into novels, novellas, and short stories.

²Subdisciplines refer to the range of art forms within the media arts, such as narrative films, installation art using media, Internet art, and documentary video. A subdiscipline can be thought of as the combination of the medium used to create the art and the purposes for which the art was created. In practice, subdisciplines represent the very different styles of media art.

literature on the media arts, which is much more likely to trace the development of artistic practices than it is to discuss the organizational and structural features of the media arts as a distinctive genre. To highlight the diversity of approaches that has characterized the development of the media arts, this section briefly reviews their history and assesses the current state of the media arts literature.³

HISTORICAL DEVELOPMENT OF THE MEDIA ARTS

Artistic practices within the media arts have continuously evolved as technology has changed. Indeed, one of the distinguishing characteristics of the media arts is the penchant of media artists first to adopt new technologies and later to adapt them for a variety of artistic purposes. For example, even before the invention of the motion picture camera in the last decade of the 19th century, artists like Edward Muybridge in his locomotion studies, were experimenting with photography and demonstrating its implications for perceptions of time, space, and motion. These early photographic studies were a precursor of the avant-garde or experimental tradition that has been present ever since in all forms of the media arts (Lovejoy, 1992).

Indeed, three traditional artistic functions—storytelling (narrative), providing insight into the world as it exists (documentary), and conceptual work that provides a perspective on how we perceive the realities of time, space, and motion or explores the properties of media for artistic purposes (experimental)—are evident in film, video, and computer or digital work. Although the specific styles used within these traditions often change, the underlying functions provide a common metric for organizing a discussion of the media arts, how they differ, and how they have changed.⁴

Early 20th Century: Film

From its genesis at the end of the 19th century, film followed two separate disciplinary lines: narrative, mostly commercial works like D. W. Griffith's "Birth of a Nation," Mack Sennett's comedies, and the short films of Georges Melies in France; and experimental works by European visual artists like Fernand Leger, Salvador Dali, and Man Ray and early filmmakers like Fritz Lang, Luis Buñuel, Dziga Vertov, and Sergei Eisenstein. During these early years, innovations in

³As one of our reviewers noted, we recognize that this historical discussion is selective. While it highlights different approaches within the media arts, it is not designed to provide a comprehensive treatment of these approaches or their historical development.

⁴As noted above, these different functions are not mutually exclusive and are often combined in individual works.

technology (e.g., the invention of sound films) and artistic techniques (e.g., slow motion, montage, close-ups, and editing) were adopted in both narrative and experimental films.⁵ By the 1930s, however, narrative films, at least in the United States, were largely the province of the commercial or studio sector—a category of work that, as we have noted, has not traditionally been included within most definitions of the media arts. Renan (1967) points out that most of the independent film work in the United States during the next 30 years fell predominantly in the experimental or underground tradition. This work often expressed the personal visions of the filmmakers. Not only did it explore more controversial and experimental topics, it also introduced a more conceptual style that Renan (1967) has referred to as “personal art filmmaking”⁶ and Youngblood (1970) cited as the precursor to the end of drama.⁷ Finally, although the documentary tradition flourished later, especially with the introduction of video, documentary works, such as Robert Flaherty’s “Nanook of the North” and “Man of Aran,” had already emerged as a third major tradition within the film genre by the 1930s.

Early 1960s: Video

Video, the second component of the media arts, became available several decades after television was first demonstrated (1920s) and broadcast (1939) (Vogel, 1998). The high costs of early video equipment limited its adoption by artists with some exceptions, such as Nam June Paik and other members of the Fluxus Movement (Rush, 2001; Hanhardt, 2000). It was not until the Sony Portapak was introduced in 1965 that artists starting turning to video in substantial numbers. By that time, commercial television was firmly established and much early video work was explicitly created as an alternative to it.

This work took a number of different forms (Furlong, 1983; D’Agostino, 1985). One was explicitly designed to promote social action and provided a foundation for the growth of the documentary tradition within the media arts.⁸ A second, more experimental component pursued a “new kind of ‘media ecology’ by creating video environments . . . designed to expose and circumvent the one way delivery of commercial television . . . or to use technology to meld ‘man’ and the

⁵Description of these developments can be found in Renan (1967) and Manovich (2001b).

⁶Renan, 1967, p. 102.

⁷Examples of the former can be found in the works of Stan Brakhage and George Markopoulos (Rush, 2001). Andy Warhol’s films provide examples of the latter (Renan, 1967).

⁸Examples include the work of video artists Frank Gillette and video collectives such as Videofreex and Top Value Television (TVTV), which produced “Four More Years,” alternative coverage of the 1972 Democratic and Republican conventions (Rush, 2001).

environment.”⁹ The third, focusing on creating images that were different from standard television, was more conceptual and “had to do with . . . exploring the essential properties of the new medium.”¹⁰ This alternative TV movement and the multiple directions it followed led the way for a much wider group of artists. Some of them pursued the documentary line, while others incorporated video and film and other media into installations in museums and various public spaces. The latter group gave rise to a new set of artistic practices: Some video artists pursued conceptual work exploring the video medium, and others continued the strand known as installation art using media.¹¹

1960s and 1970s: The Launch of the Media Arts Movement

The media arts movement was founded by pioneers in the film medium: avant-garde filmmakers who viewed films as primarily artistic rather than commercial products and documentary filmmakers who felt that standard news sources were not giving an accurate picture of minority and third-world experiences. They believed that the production and distribution of films were dominated by establishment institutions both in the news media and the Hollywood studio system. To produce their art, they needed access to expensive production equipment for image-making. To distribute their work, they needed access to exhibition venues and distribution mechanisms outside the commercial system. To meet these needs, they founded Film Forum in the early 1970s, the Association of Independent Video and Filmmakers (AIVF) in 1973–1974, and the Independent Feature Project (IFP) in the late 1970s.¹² The movement has subsequently spawned a reinvigorated tradition of independent narrative and documentary work.

As the quality of video and film equipment rose and its costs dropped, the number of artists adopting these forms and the variety of their arts expanded. The effects of these changes, however, were felt unevenly. Independent narrative films, which had dropped off with the growth of the studio system, began a resurgence—growing from around 25 titles a year in the 1960s to over 1,000 titles today.¹³ Much of this work focused on topics considered too daring or personal for the established studio system.

⁹The quotations in this paragraph are taken from Furlong (1983), p. 35.

¹⁰For example, the work of Woody and Steina Vasulka (founders of “The Kitchen”—a center of this work in the 1970s), Richard Serra, and Vito Acconci.

¹¹For example, Jud Yalkut with his experiments integrating video with the more traditional medium of film.

¹²See AIVF’s history of the early media arts movement: <http://www.aivf.org/about/history.html>.

¹³The figures cited here are based on information provided by Geoffrey Gilmore of the Sundance Institute.

Documentary film and video production also grew as new techniques like cinema verité emerged, video equipment became cheaper and more accessible, the prospects for public and private funding seemed to improve, and media artists, like others in American society, began in the 1960s to challenge established institutions. As Boyle (1990) points out, this new documentary movement pursued three different approaches. One, guerrilla television, most notably but by no means exclusively TVTV, began to challenge the objectivity of traditional TV journalism and the established view of public issues. A second, community video, focused less on providing an alternative approach to traditional journalistic practices than on using video and documentary as a vehicle for community organizing.¹⁴ Often this entailed giving local community residents access to video equipment to comment on local community issues. A third approach included a new generation of minority and radical filmmakers who sought to inject their perspectives into a system that had heretofore not represented them. As Boyle notes, by the 1980s a more conservative political climate, along with the failure of public and private funding prospects to measure up to artists' expectations, led to the collapse of the first two of these approaches.¹⁵

1980s and 1990s: Digital Technology and the New Media Arts

The computer, the third tool of media artists, has in many ways revolutionized the media arts—to the extent that many observers of this art form refer to the variety of art practices based on computers and the Internet as the “new media” arts. Although the computer is based on Charles Babbage’s “analytical engine”—conceived in the 18th century and operationalized in the 1940s—it was not until the 1980s that the computer began to be adopted on a significant scale for artistic purposes (Manovich, 2001a, 2001b). This development coincided with the switch from batch to interactive processing and the introduction of the Internet. Since the 1980s, not only has the computer been used for the traditional narrative, documentary, and experimental functions that are now an integral part of the media arts tradition, it has also spawned such new disciplines as interactive art and web art. In addition, new media art can include basic research and science-based work. In the words of one new media artist

¹⁴In this sense, community video has more in common with arts organizations whose mission focuses on community development rather than promoting the canons of specific disciplines (McCarthy and Jinnett, 2001). Prime examples of the community video approach were Broadside TV in Tennessee, University Community Video in Minneapolis, and New Orleans Video Access Center (NOVAC) (Boyle, 1990).

¹⁵Bullert (1997) also discusses the public funding issue and how it affected documentary film and video.

and author, “One person’s new media art is another person’s social intervention and a third person’s scientific research” (Jennings, 2000).

RECENT TRENDS

As the media arts continue to evolve, the traditional distinctions among narrative, documentary, and experimental work remain important, even if individual works combine these functions in novel ways. As noted above, the production of independent films has exploded with an increasing number of such films crossing over to the popular commercial sector. Indeed, as we discuss in more detail in the next chapter, this expansion has raised new questions about how to define independence. Documentary works, which tend to focus on less political and more personal issues, are also thriving. Moreover, the growth and acceptance of experimental and conceptual work has increased, especially with the emergence of installation art.

In contrast, the importance of media as a classifying device seems to have declined. Indeed, the ability of digital technologies to facilitate multimedia approaches by incorporating film, video, audio, text, and graphics has blurred traditional media-based distinctions. Both film and video artists, for example, frequently incorporate digital elements in their work. Thus, the traditional media-based distinctions among the media arts are less salient now than they were prior to the advent of the new media. Manovich cites the ability of the computer and the Internet to create “multimedia documents . . . something that combines and mixes the different media of text, photography, video, graphics, sound” as creating a “new communication standard.”¹⁶ In turn, he refers to the need for a new “post-media aesthetic” (Manovich, 2001a, p. 3).

In addition to creating new art forms, such as web art, and altering how artists use the tools of their art, the computer is also allowing artists to experiment with the traditional narrative, documentary, and experimental formats. Not only have narrative media artists, for example, adopted the computer-generated special effects used by major commercial studios, they are also employing computer-aided techniques that enable their audience/users to shape the sequence and the context of the stories. This work functions in much the same fashion as hypertext links that allow readers to alter the traditional front-to-back sequence of the written text. Similarly, documentary artists can add a wide variety of contextual material (maps, documents, background interviews, etc.) to the work they create. These features enable the artist to convey to the viewer material that not only enriches the viewer’s understanding of the artist’s per-

¹⁶These various disciplines do not include the host of related “art” forms such as computer games, architectural design, and a variety of other applications (Lunenfeld, 2000b).

spective but also gives the viewer more control over the experience. Other media artists are combining documentary and narrative in their projects. An example is “Refresh,” in which Elizabeth Diller and Ricardo Scofidio collect images from live office webcams around the world, then fabricate a narrative in text and additional staged filming to explore the effects of live video on everyday life.

Finally, the possibilities for interactivity between artists and users/viewers are even more pronounced in certain experimental media arts works. Here, the interaction between the user and the artwork guides the artistic creation. For example, one piece in the Whitney Museum’s Data Dynamics show involved an Internet user typing words into a computer. The artists’ program then translated those inputs into a blueprint for individual apartments, which appeared on the user’s computer screen and a 3-D image projected in the Whitney gallery. The apartment walls in this 3-D image were pictures linked to the user’s words by a search of the Internet.¹⁷ In another work, the user inputs search terms into the computer and the artist’s program creates a visual display of the search process.¹⁸ A similar piece was a live work that could be partly controlled by anyone who visited its web site.¹⁹ This piece gave people outside the museum a chance not only to view parts of the exhibit, but also to participate in creating the art on display. In all of these examples, without a user to interact with the artist’s program there is no art. In essence, these new forms of media art give substance to Duchamp’s dictum that “the viewer completes the work of art.”²⁰

Given the tremendous diversity in the types of products, styles, artists, and thus audiences and organizations working within each of these media forms, sorting the media arts by the medium used in creating the art is less useful to understanding the organizational structure of the media arts than the purpose or function of the artwork. In fact, Manovich has declared that “in the last third of the twentieth century, various cultural and technological development have rendered meaningless one of the key concepts of modern art—that of the medium” (Manovich, 1999, p. 1). Moreover, the tremendous diversity of styles

¹⁷“The Apartment, 2001,” by Martin Wattenberg and Marek Walczak, part of the “Data Dynamics” show at the Whitney Museum of American Art in 2001 (Kimmelman, 2001).

¹⁸Part of the “Art in Motion” show at the Santa Monica Museum of Art, February 2000.

¹⁹“milkmilklemonade.net,” by Lew Baldwin, part of the “BitStreams” show at the Whitney Museum of American Art in 2001.

²⁰A corollary is the burgeoning area of portable art in which a media artist creates a piece a viewer may download to a PDA or personal computer to experience. For example, David Claerbout offers viewers the choice of three flowers to load into their computers for a week. The flower progresses from bloom to decay, and eventually disappears (from Dia Center web site: <http://www.diacenter.org/rooftop/webproj/index.html>).

and subdisciplines that have arisen in the past decade makes discipline an unwieldy concept for organizing a discussion of the media arts.

Despite this change, most treatments of the media arts, including work employing digital technologies, tend to emphasize the different media within this artistic genre. This approach stands in sharp contrast to the way the media arts are viewed internationally.²¹ Media artists, including U.S.-based artists, are reported to have greater visibility, more opportunities for exhibitions, and more commissions overseas than in the United States (Manovich, 2002). Indeed, symptomatic of the more fragmented approach toward the media arts in the United States is the fact that different branches of the media arts are more likely to be handled by different curators in museums and reviewed by different art critics here than abroad. For example, the web site of ZKM, a major German media arts center, includes institutes and departments on contemporary art, visual media, media and economics, music and acoustics, web development, and basic research.²² Only recently have a few American institutions, such as the Walker Art Center, the Whitney Museum, the San Francisco Museum of Art, and the Guggenheim Museum, begun to take a more comprehensive approach to the media arts.²³ Similarly, training centers for the media arts in the United States often have separate departments for the different branches of the media arts.²⁴ Finally, many of the major festivals for the media arts began in Europe—for instance, Ars Electronica in Austria and ISEA in the Netherlands.²⁵

While the reasons for this difference in approaches are not altogether clear,²⁶ the consequences are quite striking: more visibility for the media arts and media artists, more diversified and greater funding opportunities (both from government and private sources), a clearer recognition of the importance of the

²¹We are indebted to Lev Manovich for pointing this out to us. Our discussion of the international perspective on the media arts benefited greatly from Manovich's suggestions.

²²See <http://on1.zkm.de>.

²³See, for example, the traveling exhibit curated by Steve Dietz of the Walker Arts Center titled "The Telematic Connections: The Virtual Embrace" (<http://telematic.walkerart.org>) and BitStreams at the Whitney Museum of American Art.

²⁴As Manovich has noted, this practice is less common on the West Coast. Indeed, each of the University of California's campuses has a degree program in the new media arts.

²⁵An interesting example of this more integrated approach and how it has changed over time is provided by Druckrey et al. (1999).

²⁶Several potential explanations have been suggested, including the tendency for European governments and business interests to recognize the importance of research on the media arts as of vital economic importance to these countries' ability to compete with the United States in the new information age; the fact that many of these new technologies, although first introduced in the United States, have become so rapidly assimilated into American society that they become almost invisible overnight; and the fact that the new media arts in the United States are "contaminated" by their close relationship to the mass media of cinema, television, the recording industry, and computer games (Manovich, 2002).

media arts as a genre both economically and culturally, and a fuller, more integrated understanding of how their various components are related. Given the changing organizational ecology of the arts in America, the media arts in the United States would do well to move in Europe's direction.

INFORMATION ON THE MEDIA ARTS

As this review indicates, a spirit of experimentation and innovation has produced tremendous dynamism within the media arts that is reflected in the diversity of art forms and artistic practices it has spawned. This focus on artistic practice is clearly apparent in the growing body of literature on the media arts. This literature can generally be sorted into work that was written before the emergence of digital and computer-aided art (around 1990) and work written since. Before the advent of digital art, the media arts were dominated by film, video, and installation art using film or video. Work written since then has focused on computer-aided art.

In both cases, the literature can be divided into two categories. The first category includes discussion of the aesthetics and critical reviews that focuses on profiles of individual artists and exhibitions, histories of the development of the different media and the artistic styles and techniques used by media artists, and their implications for the media arts and the art world more generally (Manovich, 2001a, 2001b; Lunenfeld, 2000a, 2000b). The second category includes a wide variety of volumes that provide practical guidance and manuals for individual media artists.

In short supply in this literature are studies that examine such organizational features of the media arts as the size and characteristics of their audiences, the employment and background characteristics of media artists, and the number and types of organizations that fund, produce, and distribute the media arts. As a consequence, we have little empirical information with which to describe these structural features of the media arts. This situation may well be changing. In its most recent strategic plan, NAMAC, an association of media arts organizations and individuals mostly outside the commercial marketplace, has identified research and planning, including mapping the media arts field through data collection, as a central component of its strategy.

Although the current information situation may be understandable given the relative youth of the media arts, it poses a real challenge when building a comprehensive assessment of their structural features and how they compare with those of the more established performing, visual, and literary arts. Clearly, more attention needs to be devoted to developing common standards for collecting systematic data about the media arts. This effort will also require a common vocabulary for describing and classifying them. Indeed, there appears to be

considerable disagreement among media artists on the terminology they use to describe their work (Rockefeller Foundation, 2001). The current situation makes it almost impossible to develop common standards for collecting and organizing data about the media arts, for communicating a clear message about them to the external world, and even for media artists to identify themselves as media artists rather than simply as artists who work with film, video, or computers.