INTRODUCTION

Recent studies have called attention to emerging shifts in America's arts environment and the challenges they are likely to pose for the arts world (McCarthy et al., 2001; Cherbo and Wyszomirski, 2000; Balfe and Peters, 2000; American Assembly, 1997). Pointing to such developments as changing patterns of consumer demand, increasing diversity of artistic forms and artists' roles, the diffusion of new distribution technologies, increasing collaboration between the commercial and nonprofit arts sectors, and changing funding patterns, these studies argue that the arts in America are entering a new era. The key features of this new era include: a more complex organizational structure in which traditional distinctions between commercial and nonprofit organizations will blur; more emphasis on earned revenues than on public subsidies; and more attention to the role of the arts in society and the public benefits the arts provide. When combined with the financial pressures the arts sector has traditionally faced (Baumol and Bowen, 1966), adjusting to this new environment seems certain to pose a challenge for artists, arts organizations, and arts policymakers.

The key to developing strategies to meet these challenges is to understand the source and nature of the changes engendering them. Our ability to do so, however, is limited by current gaps in our knowledge. We know, for example, how these changes are affecting some art forms, such as the performing arts, much more than others. Similarly, although we recognize that a host of social, economic, political, and, in particular, technological forces have produced these changes, we do not know how those forces operate. Without a better understanding of how these changes are being manifest in different art forms or the dynamics that drive them, arts organizations and policymakers will find it difficult to develop successful strategies to respond to them.

These gaps in our knowledge are particularly glaring with regard to the media arts. Springing from technologies (film, video, and computers) that largely developed during the last century, the media arts are both very new and particularly dynamic. The media arts—defined as art that is produced using some combination of these technologies or incorporating media objects as an essen-

tial component of their work—include a diverse array of artistic work. They encompass narrative, documentary, and experimental films; videos and digital products (or work made using some combination of these tools); and installation art that uses media and computer-generated and displayed art.[1]

The media arts differ from other art forms in several important respects. First, the media arts lack the long history, well-established traditions, and external visibility of other art forms. Indeed, when compared with the other arts, the media arts are still in their infancy.[2] Film, the oldest of the media arts, only emerged as an art form at the beginning of the 20th century. Video was not used extensively as an artistic medium until the 1960s, and computers were not adopted for artistic purposes on a significant scale until the 1980s. In contrast, the performing, visual, and literary arts have been in existence for centuries.

Second, the media arts have traditionally emphasized innovation and experimentation. This feature of the media arts is reflected in the strong avant-garde or experimental tradition that has characterized the media arts since their inception. Much of the early film work, for example, was driven by visual artists experimenting with the new medium of film and by early film pioneers whose innovations in their use of the technology and in artistic technique were central to the later development of the medium (Manovich, 2001a). This experimental tradition continued with video artists like Nam June Paik, and later with a host of artists using the computer to develop interactive art.

Third, since their inception, the media arts have relied on technology for their creation and distribution to a much greater extent than other art forms have. This close relationship between the media arts and technology has spawned new art forms and distribution mechanisms within the media arts and also, as Benjamin (1986) pointed out, "transforms the nature of the art itself." In combination, these distinctive features make the media arts worthy of study not only in themselves but also in comparison with the other arts. Indeed, given the influence technology and the new media are having on the arts more generally, understanding how the media arts respond to the challenges posed by the new

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[1]In its 2001–2002 strategic plan, the National Alliance for Media Arts and Culture (NAMAC) defines the media arts as including film, video, audio, intermedia, and multimedia. Our definition is similar, although it generally excludes audio (largely music) from the media arts. As one of our reviewers noted, whether to include music among the media arts is a complex question. Certainly, specific forms of contemporary music, especially electronic music, might be included. But music is generally considered one of the performing arts. For example, our treatment of the performing arts (McCarthy et al., 2001) included music within that category. While we recognize that excluding music from the media arts may in some cases be problematic, it is in accord with the general treatment of music as one of the performing arts.

[2]In its most recent strategic plan, NAMAC specifically acknowledges the youth and lack of external visibility of the media arts by recognizing the need to increase the public visibility of the field.

arts environment may provide important insights into the future of the arts in America.

Despite a growing literature on the subject, however, our knowledge of the media arts is incomplete at best. Considered as a whole, the literature on the media arts has several distinct features. First, it is much more likely to focus on individual media arts disciplines, such as documentaries or Internet art, than on the media arts as a distinctive genre.[3] Second, this literature emphasizes the artistic and aesthetic aspects of the media arts rather than their organizational characteristics. Third, there are few systematic empirical data on such 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 features of organizations that produce, distribute, and fund the media arts.[4] Finally, the literature on the media arts might generally be described as "fugitive" in the sense that it is scattered across a wide array of sources including newspapers, magazines, academic journals, exhibition catalogues, and on-line sites that are difficult to find using standard bibliographic sources.[5]

As a result, we lack the knowledge base needed to describe the media arts, to compare them with the other arts, and to identify the particular organizational and policy issues they are likely to face in a changing arts environment. This report is designed to address these topics. Specifically, it aims to establish a benchmark for information about the media arts, to place the media arts in the context of the broader arts environment, and to identify the organizational issues the media arts face and thus the strategic options they might consider in attempting to deal with these issues. Consistent with this objective, we do not discuss in more than cursory form the aesthetic and artistic features of the media arts or how they have changed over time.[6] Rather, we focus on their structural characteristics (such as their audiences or how they are funded, marketed, and distributed), how they compare with other art forms, and what those

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[3]As we discuss in a later chapter, this focus on the individual disciplines within the media arts appears to be more characteristic of media arts in the United States than in Europe.

[4]Although fewer empirical data are available for the arts than for other areas, there are several sources—for instance, the Survey of Public Participation in the Arts (SPPA), the Economic and Population Censuses, and IRS Form 99 data—that can be used to describe salient feature of the performing, visual and literary arts. But these sources generally cannot be used to characterize the media arts.

[5]A growing number of journals, magazines, and other sources routinely cover the media arts, e.g., *Millennium Film Journal, Leonardo,* and *Afterimage.* By and large, however, these sources are more likely to focus on aesthetics or critiques than on the organizational or structural issues that are the subject of this report.

[6]Systematic examinations of the relationship among the development of the individual media arts disciplines, changing artistic practices, and the structure of the media arts are still at an early stage in the media arts literature.

features of the media arts as a genre imply for the nature of the organizational challenges the media arts will face in the future.

ANALYTICAL APPROACH

We approached our task from the broadest possible perspective. We wanted to understand how existing information describes the world of the media arts, where the gaps in information are, and how the features of the media arts world might be related to each other.

We employed two sources of information for our analysis: a literature review and interviews and discussions with individuals knowledgeable about the field.[7] First, we reviewed the existing literature. Given the fugitive nature of this literature, we used a complex search strategy that employed a wide variety of sources on the media arts. These sources included literature compiled as part of RAND's Comprehensive Assessment of the Arts, searches of a variety of computer databases on the arts (including books in and out of print, book reviews, items catalogued by the Library of Congress, conference proceedings, and National Endowment for the Arts [NEA] materials), articles in arts and humanities journals, references from other sources, weekly searches of newspapers and periodicals, on-line sources (including on-line exhibits, articles, catalogues, and interviews),[8] and references given to us by individuals we interviewed during the course of our research.

In addition, we interviewed a variety of individuals knowledgeable about the media arts. We identified these individuals in a variety of ways: reviews of the literature, references from other individuals, or meetings involving the media arts. As this description suggests, these interviews were selective and by no means represent a systematic sample of individuals associated with the media arts. Nevertheless, they provided invaluable information for the study.

A central challenge for this analysis was to organize these various sources of information to draw a systematic picture of the media arts. In our previous analysis of the performing arts (McCarthy et al., 2001), we employed an analytical framework that provided us a common structure with which to analyze differences among the organizational features of the performing arts. We employ the same framework here. Unlike most studies of the media arts and

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[7]A list of the individuals interviewed during the project is included in Appendix B.

[8]We found this method particularly important because a great deal of growth is occurring in the digital or computer arts, including Internet-based art. Moreover, many participants, artists, and even distributors operate on shoestring budgets and take advantage of the web for low-cost communication. Many communicate primarily by means of the Internet. Finally, some aspects of the media arts emphasize the ephemeral as well as the interactive nature of the art. In this context, the web becomes an especially important part of understanding the field.

their individual disciplines, which emphasize the aesthetic features of the media arts, this framework emphasizes their structural or organizational components.

There are three components to this framework. First, it distinguishes among the different types of media arts. In our performing arts analysis, for example, we distinguished among opera, dance, classical music, jazz, and theater because the audiences, artists, organizational features, and funding profiles of each differ. The media arts, correspondingly, can be distinguished along at least three dimensions:

- disciplines

- the media tools they use

- the functions (narrative, documentary, and experimental) they perform.

For reasons we discuss below, we chose to sort the types of media arts along functional lines, that is, we sort the media arts into narrative, documentary, and experimental works.[9]

Second, our framework identifies the market sector (commercial, nonprofit, and volunteer) in which the art is produced and distributed. When discussing the media arts (as opposed to the performing and visual arts), it is important to note that at least until the 1990s, most treatments of the media arts have excluded work produced in and for the commercial sector. This approach reflected several historical features of the media arts:

- The sharp differences in the production and distribution of film and video work between the nonprofit or independent sector and the commercial or for-profit sector

- The clear and often critical distinction media artists drew between the type and artistic quality of the work produced in the independent and commercial sectors

- The fact that many media artists, unlike their performing and literary counterparts, were unlikely to cross between sectors and were highly critical of those who did. Since the emergence of digital art in the 1990s, however, this distinction has declined in importance—although a distinction continues to be drawn between independent narrative films and those produced by the commercial film studios.

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[9]We recognize, of course, that any classification of the media arts we might choose is likely to present analytical problems. Sorting the media arts by function, for example, implicitly assumes that different media arts works fall into only one of these functional categories. Yet the history of the media arts provides abundant examples of work that combines more than one of these functions.

This distinction between the commercial and nonprofit media arts is in some ways ironic. Indeed, when compared with the visual arts, for example, media arts work often begins its life in the nonprofit artistic environment and then crosses over into the commercial sector and vice versa. Consider, for example, the evolution of artistic styles and products within film. Many of the experiments in techniques began as independent artistic innovations but were subsequently adopted by the commercial sector. Similarly, many independent films that were originally thought to have limited audiences were later picked up by commercial distributors and marketed in that sector. Finally, much of the equipment that was originally developed in the nonprofit sector was later transferred to the commercial sector, just as many of the developers of this equipment later marketed it in that sector (Furlong, 1983).[10]

The third component of our analytical framework distinguishes among the various structural components of the media arts system. By *functional components* we mean the various classes of individuals and organizations that serve key functions in the complex process of creating and presenting the media arts:

- audiences
- artists
- arts organizations
- funders.

The process starts with the artist's creation of the work and ends with the audience or user's experience of the work. Between the artists and their audiences lies an array of organizations that present, record, collect, preserve, and transmit works of art. Supporting these organizations are the individuals, foundations, businesses, and government agencies that offer support to nonprofit organizations. Taken together, all these entities make up the media arts system. In combination, this analytical framework allows us to explore the differences and similarities among the media arts and between them and other art forms in a systematic way.

As our description of the literature and the sources we used in this analysis indicates, a major problem confronting our analysis, as well as other studies of the structure and organization of the media arts, is the absence of systematic empirical data. Indeed, one of the principal findings of this study is that more attention should be devoted to the compilation of such data in the future.[11]

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[10]We are indebted to Lev Manovich for pointing this out.

[11]The absence of systematic empirical data on the media arts is particularly noteworthy when compared with the data that exist for the performing arts (McCarthy et al., 2001). This point is

Nevertheless, we believe our findings offer some useful insights into the media arts and how their situation differs from those of other genres.

HIGHLIGHTS OF FINDINGS

Media artists and arts organization face the same challenges that confront the arts world more generally in the emerging environment: adapting to changing patterns of demand, making an adequate living in an increasingly competitive employment environment, adjusting to changes in the system of distribution of the arts, and securing support in an era of more challenging funding. However, the media arts share several assets that could make them better able to adjust to these changes than the more established performing, visual, and literary arts. The media arts, for example, are less tradition-bound and have cultivated innovation and experimentation both in arts creation and distribution. They are typically at the cutting edge of new information technologies—perhaps the major force in contemporary culture in what many have referred to as the "new information age."

At the same time, the media arts face a number of liabilities that they must overcome if they are to take full advantage of these assets. In particular, the media arts have tended to focus their energy and attention on the development of artistic practice, the internal challenges they face, and how the external world affects them. As a result, the media arts often lack a clear identity and external visibility.

In many respects, these characteristics are an understandable reflection of the media arts' youth and relatively early stage of development. However, we believe that for the media arts to continue to flourish—as they certainly have artistically—they need to address a series of organizational and policy issues. These issues include establishing a clearer identity as a distinctive art genre, increasing their visibility in the external world, and clarifying both their contributions to the public at large and their role in contemporary culture.

The media arts should recognize and leverage their special assets. All of the arts, for example, face the challenge of adjusting to consumers who increasingly favor art experiences and other leisure activities that allow them to choose what they want to do, when and where they want to do it. This has translated into stable attendance rates at live performances, an increasing propensity to participate in the arts through the media, and the increasing financial viability of

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implicitly made in NAMAC's most recent strategic plan, which acknowledges that one of the principal challenges to increasing the external visibility of the media arts is the need to "map the field through data collection." We return to this issue in our recommendations in the concluding chapter.

specialized markets. The media arts have several assets that should position them well to adjust to these changes: a close connection with technologies that enable consumers to tailor participation to individual tastes; a tradition of experimentation and innovation, which has given rise to a diversity of artistic styles and perspectives that appeal to a correspondingly wide array of consumer, public, and research interests; and the specialized nature of the audiences for many of the media arts (both commercial and noncommercial).

For the media arts to leverage these assets, however, they will need better information on their audiences and potential sponsors, how they gain access to the media arts, and whether they understand what the media arts have to offer.

Media artists need to acknowledge and take advantage of new employment opportunities. Similarly, artists—both in the media arts and elsewhere—have traditionally faced problems making a living from their art. These problems seem to have increased as the number of artists continues to grow faster than their employment opportunities. Indeed, as the prices of the technical tools media artists use to create and distribute their work have declined, the barriers to entry have also declined and given rise to what, by all accounts, has been a rapid rise in the number and diversity of media artists. Moreover, increasing demand for media arts content, increasing collaboration between media artists and a variety of commercial and research organizations, and a growing acceptance of the media arts as reflected in the dramatic expansion in the number of media arts training programs, research centers, media arts festivals, and exhibitions offer evidence that the opportunities available for media artists are also expanding. To take full advantage of these opportunities, however, media artists will have to be willing to work in a variety of employment settings, to recognize the diverse range of employment roles available to them, and to reconsider working in the commercial sector.

Media artists need to develop and use their new distribution resources. A central issue for all artists is how to get their work produced, displayed, and distributed. Although they are at the core of the creative process, artists typically do not have a direct relationship with the audience for their work. Instead, they rely on many intermediaries to fund, produce, screen, distribute, collect, preserve, and market their work. The challenges this process poses have often been particularly pronounced for the media arts for two reasons. First, media artists often work as individuals or come together for specific projects and thus lack the institutional resources available, for example, to performing artists. As a result, media artists have often relied on media arts centers, university arts schools, and research centers as intermediaries. But such intermediary organizations face increasing financial pressures because securing institutional support for media arts organizations has been a continuing struggle. However, a promising development within the media arts field has been the emergence of

"broker" organizations, such as Creative Capital and Creative Disturbance, that have helped supply a bridge between the media arts and potential funders and distributors.

A second problem for media artists has been getting their work reviewed and distributed. Ironically, these problems may in fact have intensified as the volume of media arts works has proliferated, because it has become more difficult for any particular artist's work to be recognized. Moreover, the innovative and experimental nature of much of the media arts can compound this problem because both critics and funders may be slow to accept new work and/or lack the expertise to evaluate and present it. These problems may have increased as the distribution system itself has changed. For example, new distribution technologies, such as broadband, the Internet, and e-commerce, have expanded opportunities for direct artist-to-audience interaction and have increased collaboration between the commercial and nonprofit sector. Because the media arts may be better positioned than the other arts to employ these new technologies, they could provide media artists expanded distribution opportunities and access to specialized or niche markets.

Media artists need to address an increasing range of policy issues. For these opportunities to be translated from potential to reality, however, media artists will have to take advantage of them as well as help resolve such policy issues as copyright protections, who will control the Internet (a major new distribution channel), appropriate business models, and the distribution of revenues. For the media arts to play an active role in deciding how these issues are to be resolved, they will need to develop positions on these issues and to be recognized as deserving a voice in the policy discussions about the outcomes. For the media arts to have a central role in these discussions, both the public and policymakers will need to recognize the public benefits the media arts provide and the central role they play in shaping contemporary culture.

Arts organizations should explore new financing strategies. Finally, a critical issue for the arts today is securing financing in a more challenging funding environment. As Baumol and Bowen (1966) pointed out, organizations in the nonprofit arts sector in America have traditionally been forced to supplement their earned revenues with grants and contributions to survive. For several decades starting in the late 1950s, the arts enjoyed substantially increased funding and dramatic expansion. This period of expansion, however, appears to have ended. As a result, art organizations have attempted to increase their earned revenues and to compete for increasingly targeted and limited government, foundation, and corporate funding.

These changes have been particularly difficult for the media arts that have benefited very directly from government and foundation programs. Indeed,

although such funding was only one of many sources, it often proved of vital importance to media artists and organizations. Moreover, the media arts' ability to increase their earnings appears to be more limited than is true of the performing arts, for example. One option is to increase the range of individuals and potential funders who participate in and support their activities. To do this, however, the media arts will need better information on current and potential audiences and funders and how to reach them. They will also need to consider explicitly the strategies they use for involving a wider range of participants in their organizations. Increasingly, the key to succeeding in the new funding environment appears to be tied to the ability of arts organizations to identify how their work benefits the public and supports the development of contemporary culture. Although many of these issues have long been a central concern to the media arts, the media arts community needs to explain and document how it supports such public benefits to advocate for itself in this new environment.

ORGANIZATION OF THE REPORT

The next chapter describes the changing nature of the arts environment in America and the central, if sometimes overlooked, role that technology has played in the arts. Chapter Three discusses the development of the media arts and the concepts used to describe them. Chapter Four applies our framework to an analysis of the media arts to describe the most salient features of their audiences, artists, organizations, and funding. The final chapter summarizes our results, discusses their implications, and offers some recommendations.