The Technological Imperative of Contemporary Art & Design Studies

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1 Form Follows Function

When the leading schools of art and design were built before the turn of the last century, great care was taken to ensure proper light exposure, flexibility of space, and durability of structure in their art studios. As a result, these studio spaces have been remarkably successful in supporting the fundamental, traditional needs of art and design students. But the fundamental needs of art students have radically changed. In addition to traditional media and their associated tools, fundamental art and design studies now include new media and their associated digital technologies.

As the nature of art and design studies has evolved, so have their support requirements. Issues such as light exposure are less important than the need for sophisticated networking, bandwidth, throughput, electrical capabilities, and multifunctional usage. Today, these evolving needs apply to virtually all core creative arts studies, yet most schools are ill-equipped to satisfactorily address them.

Placing computers in a room and plugging them into a wall does not constitute a meaningful approach to modern creative arts education. We need to re-examine, re-define, and re-design the appropriate environments for modern creative arts studies— and we need to find models and sources for funding them.

2 Technology and Art

As great figures such as DaVinci, Rembrandt, and Daguerre have demonstrated, the relationship between the arts and sciences has always been central. Their enormous creative advances were clearly the result of their remarkable geniuses. But none of those advances could have been possible—nor perhaps even imagined—if the necessary technology had not first been available to them. This phenomenon is arguably more relevant today than it was during the lives of these great figures.

"What is crucial to the understanding of the value of technology adoption in creative studies is to recognize that our tools help to shape our perceptions and, thus, our conceptions," says William Fasolino, chair of the Department of Art & Design Foundation at Pratt Institute. "Digital technologies, with their power and flexibility, have the ability to change the very way the artist sees and interprets the world," he adds. "The plasticity of the human mind and nature enables technologies to become natural extensions of the artists themselves. In this sense, digital technologies are becoming a natural evolution of the human (and artistic) experience."

3 Cost Considerations

Schools of art and design appear to be conceptually prepared to embrace the digital arts, and one by one, they are striving to do so. But most of these institutions are en- countering the daunting challenge of paying for it. Ten years ago, the number of academic institutions offering digital arts programs was exceedingly modest, as were the quantity and variety of equipment and support for these programs. Today, it would be difficult to find a college without some form of digital arts program, and many of these include numerous labs containing computers with multiple peripherals, digital audio and video equipment, high-speed networking, Web-based information access, and file serving systems. The cost of this widespread implementation is daunting.

Now apply this to art schools, which tend to be private institutions funded almost entirely by tuition. Where are the necessary funds coming from? The short answer is that, in many cases, adequate financial support isn't there. Art schools can't keep up with technological advances and often can't provide the quality of digital arts studies their students require.

In describing funding trends for independent artists employing technology, Michael Naimark, former director of Xerox PARC, writes: "Tech-based art is largely supported by two different kinds of institutions: art centers with an interest in new technology and research labs with an interest in art. Some are university-based. Some are corporate-based. Some are government-funded." Unfortunately, since private art schools are generally not perceived as research centers or as significant professional resources, they have been largely overlooked as likely recipients for support. In the US, government-supported academic programs tend to be limited to high-profile research institutions. And government-supported art programs tend to be part of state- or city-supported university systems.

But, increasingly, schools of art and design are seeking to change this trend in myriad ways, from fundraising to resource sharing, to corporate and institutional partnering arrangements.

4 What Some Schools Are Doing

At New York's Pratt Institute, a Digital Arts Advisory Committee has recommended the creation of a Center for Digital Arts. The CDA will be a think tank for developing new concepts in the emerging field of digital arts. It will not be limited to supporting existing media and forms, but will be designed to explore new directions. To fund such an ambitious project, Pratt has applied to the Department of Education for a Title III grant. In 2001, a "Partnering with Technology" fund-raising campaign targeted both potential corporate and governmental resources. And more recently, a newly constituted Office of Institutional Advancement has been developing new strategies and identifying new potential sources of support.

The Rhode Island School of Design has undertaken a faculty-based approach to technology implementation. With initial grants from Microsoft and Apple, RISD was able to

establish a Faculty Research Lab where instructors can experiment with digital media independent of the student-oriented facilities. This year, the school began a series of faculty project workshops to facilitate the sharing of ideas and the exploration of the creative potential of software, before introducing it to students.

While there are other examples of private art schools undertaking external support initiatives like these, the majority of academic support is limited to university-related programs. With a few exceptions, private art schools—the backbone of art and design education in the US—receive little or no such external support for technology. This represents a significant problem for the vast majority of these schools. Internationally, the role of government as the primary supporter of art and design studies has long been widespread, and the digital arts are no exception. However, as Naimark suggests, it is "noteworthy that no such counterparts at all exist in the US."

This lack of support, together with the university-oriented structure so prevalent here, may be leading some private US art schools to establish alliances with university systems, and in some cases, to reposition themselves as small universities, in order to benefit from potential funding opportunities. The integration of Parsons School of Design into the New School University system may be an example of such a trend.

5   Where Do We Go from Here?

If there is a "correct" approach to meeting this challenge, it would appear to be via a combination of considerations: First and foremost, the institute's academic objectives must always drive its decisions— from planning to policy-making, to programming, to implementation. In other words, "It's the arts education, stupid." Likewise, acquiring external resources is imperative. There needs to be a significant investment in, and dedication to, institutional development in the form of governmental and private grant writing and receiving, industry partnerships, general fund-raising, and the like.

In addition, faculty training is essential, particularly in an environment where knowledge, skills, and tools quickly become obsolete. Most private art schools have little or no structures to help teachers keep up with the torrent of technological advances in their fields. Schools must establish such programs, perhaps with the support of the industry, which has much to gain by such an arrangement.

There also needs to be a long-term investment in modern infrastructure to ensure the future of digital arts studies. For example, modern academic institutions must establish high-speed digital networks with high-capacity servers. Today's Internet-based portal systems offer exciting potential for digital arts. The ability to access and transmit large amounts of data holds enormous potential for teaching, learning, and creative expression.

Finally, the senior academic leadership should be reconfigured to include those who are knowledgeable not only about digital technologies and support systems, but also about the school's art-related academic requirements. This approach will help ensure that technical policies and procedures support these needs.

Naimark contends that with regard to this technology-based revolution, "we have a very clear idea of what does not work, but not much of a clue for what does." While that may be true, one thing is certain. The technological imperative of contemporary art and design studies is here to stay. And those fortunate enough to be a part of it are embarked on a challenging and fascinating journey.

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