Why I Have to Paint: The Importance of Learning Through One’s Fingers in a Digital World

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Why does someone learn to paint in an electronic age? Why do some people make laborious efforts with intaglio creating painstakingly similar and static images, when one could do it so much faster on the computer? Why does someone go to college and pay $20,000 a year to learn to weld a sculpture?

Why is it that when I am working, really working, time isn’t? We, educators and artists, understand why. We understand through our experience and connection with the arts, with creation itself. Part of creation, part of the human soul is engaged with those personal, haptic aspects of creation, blending book-making with desktop publishing and printmaking with electronic imagery. Part of the true joy of creation comes from the physical engagement with materials. And part of it is the unique connection with how ideas can be expressed with one specific medium.

We are experiencing now a rare pause in the rush for technology, one of the many points where we will recognize some of the values we have built into our practice of art and design education. The insertion of computers into education has triggered an evaluation of curricula in many fields, including art and design. Many currently question the value of the overwhelming use of

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computers, often in lieu of other more traditional means of creation. Others view the electronic media as a natural development in our use of media.

First, a confession: I do not paint. I work primarily with electronic media, and work as an advocate for the same. However, as an educator, I see the value of traditional media, of hand oriented work both in myself and in my students. Here I use painting as a model of involvement with media in the expression of thought, a balance between accessibility and complexity. Painting takes time. It takes practice and involvement to achieve a level of skill. It forces a certain pace on the artist, regardless of the speed of thought. And painting is a unique way in which certain things can be said, certain thoughts expressed. Education in art and design is not solely about teaching various media to endless numbers of students, although at times that is precisely what may be demanded by some students. It is about using the media—the paint, the charcoal, the electrons, and the humans—to instill creativity and the capacity for engaged thought.

We in the fields of art and design have developed a set of strong values from which we have built our curricula. These are the values that I hope to pass on to my students. The use of electronic media, particularly computers, must respect these values. What are these values that I cherish from my own education in art and design?

The first is the acceptance and the use of different, often non-verbal, media. We, as artists and designers, create in a chosen specific medium that is matched to our talents. We use different media to think and express our thoughts, thoughts that may only be possible through a specific medium. For example, painting says things that do not translate to intaglio, much less English. These media are not commonly used by the dominant culture of text and numbers. A large part of the population is primarily engaged on what could be called a textual basis, communicating primarily with words, text and numbers. Our educational system is clearly structured to focus on these symbol systems. The three R's do not include art.

From a cognitive scientist's point of view, there is an understanding that different people have different ways of thinking, and that not all thinking is word based. For example, a “dual coding”
theory has been posited to explain how people mentally encode information (see Clark & Paivio, 1991; Paivio, 1971). In that theory, information is mentally represented either as verbal, yet arbitrary, symbols (i.e., words), or as nonverbal symbols, similar to the object represented (e.g., pictures). Gardner (1993) has described seven different “intelligences”: linguistic, mathematical, spatial, kinesthetic, musical, interpersonal, and intrapersonal. Each intelligence has a different ability to utilize different media for learning and thinking. Salomon (1979) describes a variety of “symbol systems” that may be used as a means to communicate and think. Individuals react differently to each, and each symbol system has its own capabilities:

If the meaning of Goethe’s Faust, of Van Gogh’s landscapes, or Bach’s Art of the Fugue could be transmitted in discursive terms, their authors should and would not have bothered to write poems, paint or compose, but rather would have written scientific treatises. (von Bertalanffy, 1965, p. 41)

While most cognitive research (with few exceptions) focuses on the use of words, many of us are actively engaged in using other “symbol systems” or media to communicate, and, more importantly, to explore and create.

We paint. We compose. We sew.

We believe and hope, as educators, that the development of thinking skills through the visual arts will be extensive, and is not limited to the primary media of writing and numbers. We believe in the value of a design education or an education in the arts. The capacity for thought, our cognitive strategies, are enhanced by our work with specific media, and those strategies can be applied in other situations. Intelligence has been described as “skill in a media” (Olson, 1974, p. 265); beyond the specific media, we look for transference of thinking skills. What we learn from “painting” can be applied to other cognitive processes and other media.

The second is the value we place on active creation and the communication of ideas through our media. Our educational structure in art and design stresses the active exploration of solutions. The active construction of the work informs us through our
senses in ways not anticipated in a virtual, electronic world. Working with the computer, we are, for now, divorced from a three or more dimensional world. We work in a virtual world, interacting less than we realize. While research is currently striving for a more complete computer experience (a holodeck painting studio, for example), part of the virtue of art is the physical action and the construction of the work. Intrinsic to our understanding and interaction with the computer are our understandings based in a real world of media.

The physical actions we take in making our work add to the value and meaning of that work. Sculpting wood, grinding a lithography stone, and the feel of the brush all are part of those media. The physical actions we engage in communicate to us the capabilities of the media and the texture of what we are saying. We learn through our fingers.

The artist knows through sight and through feel. A unified body and mind must be fully engaged with the material at hand to have a basis for making such judgment . . . . Thus the person using watercolors must work directly and often quickly. This means becoming sensitive to a wide array of qualities, including the weight of the tip of the brush, for its weight when charged with color will affect the kind of image that will flow from it. (Eisner, 1997, p. 351)

Physically creating something creates mental connections in ways that are not possible through abstract theory. This is the value of art and design education that has just recently been discovered by mainstream education.

Finally, there is a value in concentration and engagement in a medium over an extended period of time. This allows for reflective and iterative thought, a deeper involvement with the concepts presented and explored. We understand intrinsically the work and consequent thought of a painting; we know its worth in terms of mental effort and concentration. We all recognize this in two ways, first by continuing to revere someone who has paid their dues, through apprenticeship, through hard work, and through consistency in effort and skill over an extended period of
time, and second, through our critical examination of the use of the new digital media.

Painting enforces its own standards of time and activity. Until the advent of the computer, our assignments were often tacitly based on a given technology, with the (lack of) technology assuring that the work would be reflective and appropriately paced. Ideas would be absorbed as the task of completing the work reiterated their content. By the slow pace of writing the term paper, the contents and concepts would remain with the learner. In the age of cut and paste text editing, the mental work of creation, the ordering and structuring of information has been short-circuited. Creation of the same products in an electronic environment is, in some cases, much easier than through traditional hand-based tools. And that ease of production is cognitively and spiritually less demanding and less rewarding, and yields a lesser product. Rewriting, even retyping, a term paper forces a considered and complete review of the material. More cognitive effort is expended: we think harder, retain more, and create our own ideas. Assembling the written material, however, merely gives the appearance of being written and well thought through. Gavriel Salomon (1984), the educator and media theorist, described this succinctly through his article’s title, “Television Is ‘Easy’ and Print is ‘Tough.’” With a computer, images are manipulated; we simply apply the Van Gogh filter to our image.

Far too often, use of the computer allows the digital shortcut, cutting and pasting a solution, without the inherent thought of creation. Therefore, while we integrate computers into our creative programs, we retain foundation coursework as part of the curriculum. We still teach people to draw in our design programs. While one can judge the work by a fast visual inspection, behind a week’s long drawing is a mental examination of the subject that is represented. Students are required, by the act of drawing, to be mentally engaged and to spatially investigate the subject. In addition, our students traditionally go to Europe to sketch and draw. While they could take photographs of various scenes, the knowledge and understanding that comes from a patient, reflective examination of the spaces presented is what transforms their understanding. Needing to represent the scene before them
through drawing, they have a deeper mental involvement with the environment. This “forced” reflection does not often occur through digital media.

In graphic and multimedia design, we often see a loss of content for the slick, the highly-polished presentation. Thought and reflection of ideas do not intrude on an otherwise e-jacked scene. The human values of compassion, reflection, thought and logic are being driven out by the fast, cheap and efficient. Just because it is easier and looks cool, does not mean it is better. On the contrary, if it is easier, it is less well understood, less well developed, less learned, less researched. Our own understanding has proved that learning and progress do not occur without (cognitive) effort.

CONCLUSION
We can see choices: between digital and analog, electronic and corporeal, between bits and bytes, atoms and electrons. Does one need to make an exclusive choice between different media? No, but one needs to make a knowing and reflective choice. One needs to make a choice for balance, for diversity. We all need to make choices, both creative and profane, that utilize various media. We need to make choices to not use the computer, to reflect and to paint.

We need to make knowing decisions about our teaching, about integrating and expanding the ideas of quality and critical thinking while using either the paintbrush or the paint software. We need to ask ourselves how we think differently with the computer. What ideas would we not develop without and with the electronic box? We also need to ask ourselves how we think differently with painters’ canvas and brush. How are those ideas different from the ideas we develop with (mere) words? This reflection, now forced through the introduction of the computer, must be applied to all our teaching.

I have to “paint,” to create in my own medium, for a number of reasons. First, hopefully, there is something I need to say and to think about. The medium I choose responds and reacts uniquely to my thought processes and my spirit. Second, the active creation of my work provides me with a unique record and presentation, interacting with me through the creation process.
And third, the enforced discipline and pacing of “painting” engages me, and helps me in the reflective development of ideas. I know, for the health of my ideas and argument, I should not use the shortcuts, but rather insist on my own mental rigor, often through the requirements and logic of the medium.

We, as educators in the creative fields, have the responsibility to our students and to our profession to diversify our students’ use of media as part of educating them to think and to create. There is a value in the use of the computer, but at present it is like the candy canes that grow on trees and the Sorcerer’s Apprentice. The Wizard, in Disney’s Fantasia (1940), understood the value of building one’s discipline, understanding, and wisdom, before being allowed to use magic to complete one’s necessary tasks. We, as educators, must be like the Wizard in teaching our media, our magic, with a proper and wise understanding of all that goes before them.

BIBLIOGRAPHY