

Indeterminate Digital  
*or*  
What to do with Poor Pinocchio?

The experience of reality has always developed one universal side effect, an overwhelming desire to escape from it. Our economy stands on such pillars of human behavior not to mention our social systems, political policies, and technological advance. Art, despite all its manifestos, remains for the most another means of escape. There is nothing wrong with escapism of course, if it weren't genetically engineered into our brains we might still be hiding in caves, and we most certainly wouldn't have bothered drawing on the walls. This is an over simplified proposal of human motivation, but the drive towards escape and the magnitude of outlets for such have never been greater. The majority of these 'vacations from reality' come to us digitally, more and more we replace our 'material' reality for that of a virtual alternative. Presented in a digital format they approach us on the level of pure perception, become interactive, responsive to personal inquiry and interest, engaging the senses in a world far more malleable than our own. It comes as no surprise that the art world has eagerly looked towards the digital medium for the next 'step', the new art which will revive it from its present stupor. There is no doubt that digital art will open up a variety of new practices, but as we are so often prone to do the dream of technology far surpasses its present capacity. Technology is not to blame though; condemning the shortcoming of our own invention is petulant. Rather it is our attitudes toward technology and art which are ineffectual. Pampered by convenience we demand our computers to do all the dirty work.

Making art is hard, it requires practice, commitment, dedication, and most excruciating of all subjectivity and self perception, better to leave all that to the computer. This is why digital art comes out flat and glassy eyed, merrily singing "I've Got No String!" when it most certainly could use a few in terms of fastening itself to artistic credibility. Digital artists and their supports are always ready to point fingers at the very technology which they so revere when their work fails to pass as art. The fact of the matter is that computers do not create the art, that is, and always will be, the

responsibility of the artists. Understanding the philosophy of a medium is necessary before using it to create art. The drive to escape into digital art is coupled by an avoidance of the reality from which it originates and abides by.

In 1666 Gottfried Leibniz, in his book ‘Dissertatio de Arte Combinatoria’, aimed to condense all reasoning and discovery into relationships between basic elements such as numbers, letters, sounds, and colors. This led him to the invention of the binary system, in which 1 stood for God, and 0 for the void<sup>1</sup>. The binary system functions on the state of everything and nothing, this principle is infused within all things which manifest themselves digitally. We tend to look at digital works in an either or context, they share the infinite possibilities of the mind and its ability to perceive and so create the everything of our reality, or they are limited by their immaterial state and seen to have no tangible connection to the ‘real world’. As its binary condition would propose digital art is both material and ephemeral, it exists in both states. Is it then possible to pull the imaginary through the digital divide and into a physical state, thus creating a ‘digital object’ capable of producing change in the material world? Though our technology may seem to create something out of nothing, a Maxwell’s demon of information, we cannot ignore that the digital has always had ‘weight’. Digital work is measurable in bytes, has a specific volume of KB’s, and is able to overload, clog, and weigh down a system<sup>2</sup>. Information can be owned, copyrighted, the digital becomes currency. It takes one pound of coal to produce the energy necessary to create, package, store, and move the two megabytes necessary to download a song off the internet<sup>1</sup>. Digital Art does not exist unto itself, it functions within our existing reality and is governed by its principles. Fostering the illusion of digital art as existing in another world undermines its relevancy and credibility in dealing with the universal issues of art. In turn the overcompensation of much digital art in terms of proving its materiality weakens its intrinsic ability to subvert strict perceptions of reality, that which provides it with strength<sup>3</sup>.

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<sup>1</sup> Michael Saup, “R111 - The Transformation of Digital Information to Analog Matter,” Prixars, ed. Hannes Leopoldseeder and Christine Schopf (Ostfilden-Ruit, Germany: Hatje Cantz Publishers, 2002) 104.

<sup>2</sup> Bruno Latour, “Alternative digitality,” Domus, May 2004: 65.

<sup>3</sup> Christopher Eamon, “Becoming Digital: James Coleman, Ernie Gehr, Gary Hill,” Flash Art (International Addition), March/April 2003: 80-3.

German literary critic Walter Benjamin, in his essay “Art in the Age of Mechanical Reproduction” proposed that art had remained in the realm of the sacred, in terms of an individual religious experience, until the means to reproduce artwork on a grand scale stole that awe<sup>4</sup>. Benjamin was referring to the physical reproduction of work such as the Mona Lisa available on postcards, accessible to anyone, and so nullifying the original experience. The rapid digitization of artwork and its availability over the web presents the serious issue of maintaining a work’s autonomy. In digital format everything is malleable, reproducible, art becomes information, and so the question remains, where is the art? Is art merely information, or is it the process by which that information is created, and if that information is processed further what determines the originality of the new work? The widespread use of digital composition has loosened the bonds of ownership and authenticity, questioning the legitimacy of all things digital. Digital art carries these feelings of illegitimacy, and because it can be reproduced, not like the digital imaging of a painting, but as an exact replica, how can it promise a unique experience? Someone once said ‘Good artists borrow. Great artists steal’, and so it has been throughout the history of art, that it should be considered culprit only in the digital age seems misguided. Artists cannot deny the current situation, in today’s world nothing is holy, and when one presents their artwork into the world they must realize that they are relinquish their authority over it. Paintings crack, sculptures crumble, things change, the power of computers now allows for that change to occur in a conscious manner. The original is no longer valid, yet the idea behind it will always retain that originality. To reproduce art is not art, art lies in the original. The transfer of an original idea into the realm of digital art does not make that art original, and until digital art can conceive of its own originality it will remain merely aesthetic reproduction.

One of the essential differences between tradition and digital art is that the digital can maintain immortality. This is a strange notion when computer hardware and software seems to come and go with the seasons, but since they produce artwork composed of information the work can be maintained without threat of deterioration or decay and replicated an infinite number of time. Digital art achieves a godlike status merely through its composition, the consequences of this both powerful and foreboding. What is

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<sup>4</sup> Paulina Borsook, “Something About Art,” Leonardo, vol. 30, no.2 (1997): 164 -166.

to prevent digital junk from piling up, reproducing itself, how will we be able to find value in a digital ocean awash with self-perpetuated pollution? Internet works such as Ken Feingold's 'JCY-Junkman'<sup>5</sup> and Kenneth Tin-Kin Hung's '60X1.com'<sup>6</sup> both address the difficulty of retaining meaning and clarity within a confused digital environment. It seems as if the digital world is out of control, strange considering it is an entirely man-made system, subject to our demands. The problem with digital is not the digital, it is with those who manipulate it, in the hearts and minds of people who see it as an escape from humanity. The digital world appears inhuman because we have made it as such, we seek to enter into its divinity and in doing so leave behind that which makes us human, the connection between our consciousness and the physical world. To survive in the digital world we must first return to it the attributes of a life system, creation and destruction.

If digital art wishes to become 'real art' it must acquire that spark of life, that bridge which is experienced in all great works. Computer art is involved in a Pinocchio predicament, made to look, act, and talk like art but missing something, the extra-dimensional soul, the human condition, the quantum state of indeterminacy. No matter how hard it tries it always just seems to be mimicking something, trying to convince us it is real. What is the difference between the creative act of the human mind and that of the computer system? Better yet, what determines the creative act? In scientific terms creation, as in the creation of information, is tied up in the indeterminism of quantum theory. In brief, quantum theory proposes that creation is finalized by the act of observation, is the observer who collapses the wave function and by doing so brings the observed into the observable world. Leading physicist Archibald Wheeler describes, "The observer is essential to the creation of the universe as the universe is to the creation of the observer". Roger Penrose believes that creativity is non-computable because of the quantum characteristics of our minds, the very characteristics of which allow us freewill<sup>7</sup>. For humanity to retain its freewill, the will to choose and change, the choice of art,

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<sup>5</sup> Michael Gibbs, "Objects versus Pixels," *Art Monthly*, Feb 1997: 42-43.

<sup>6</sup> Kenneth Tin-Kin Hung, "60X1.com," *Prixars*, ed. Hannes Leopoldseder and Christine Schopf (Ostfildern-Ruit, Germany: Hatje Cantz Publishers, 2002) 62.

<sup>7</sup> Mike King, "Artificial Consciousness – Artificial Art," *Computers & Art*, ed. Stuart Mealing (Wiltshire, Great Britain: Intellect Books 1997) 33-54.

computer autonomy remains an impossibility. The creative act cannot occur within the computer, the choice of art is that of the artist's.

The digital artist cannot relinquish control to a computer and hope that it creates a soul through the act of reproduction. For art to be created the artist must become involved with the work, they must enter the work as they are the only ones capable of providing it creative life. The distance inherent in digital work, the levels of code, the computing hardware, and the procedural mechanics all remove the artist from their work, and more importantly remove the work from the artist. The creative concept of the artist is often lost in the process of production. According to quantum theory things exist in an indeterminable state, what Leibniz might term the void, until we bring them into being simply by contemplating them in such a state, the world manifest by god. Between those two states, between god and the void, one and zero, there is a quantum jump, something the Tibetans call a bardos. That leap between is our lives, it is the act of living, between high and low, birth and death, it is a plane of freewill, of creation and destruction. How then do we infuse this into our newly created universe, how does Pinocchio finally turn into a real boy, how does the artist as Jepeto reinvest life into his work? As of yet we are unable to grant the gift of freewill, we have created the shell of a beast, but it retains no life. The artist remains the wildcard in the deck, the mysterious 'dilithium crystal' which powers the ship; we can marvel at our technology but without us its not going anywhere. We want so much to be modern men, but the reality which we try to escape is the very one which allows us this freedom of escape.

Digital art must look beyond, or more appropriately between, its ones and zeroes, just as modern art must look beyond its definitions and material form. Art should search for its own freedom, the digital artist must find that freedom in the medium. It is the task of an artist to infuse the leap on which we live into an artwork, that is what keeps art alive. Pinocchio's tale was finalized through sacrifice, and so it must be with digital art.

## Part II: Destruction's Guide to Giving Up

'Destruction theater is specifically involved in the problems of dehumanization and survival, our purpose is to finally give to art the essential humanizing role so

necessary today in a civilization more and more dominated by the machine aesthetic.’

Ralph Ortiz, ‘Destruction Theater Manifesto’<sup>8</sup>

To return digital art to the humanity for which it is meant aspects of destruction, indeterminacy, and random response must be reinfused in the artists approach. The first organized attempts at such began in the 1960’s with Gustav Metzger’s organization of the Destruction in Arts Symposium. The destruction artist’s essential aim was to return the destructive act to humanity, so that it could be confronted and reabsorbed into the collective consciousness and exorcized on an individual level<sup>9</sup>. The digital artist should maintain the same commitment, to return to humanity the suppressed and taboo which we keep hidden in the digital void. Digital art must confront itself, question its intentions and the context in which it exists. Just as the displacement of destruction into the realm of the ‘other’ only further perpetuates our alienation of ourselves as a whole, so does the continued dehumanization of art in under the guise of digital manipulation drive us further from a comprehension of our conflicting feelings of isolation.

Ralph Ortiz states, “destruction theater is intent on pushing the Fine Arts beyond its now passive if not irresponsible role in civilization.”<sup>8</sup>. If virtual theater wishes to pick up the torch it too must push past its current social catering and take a position to create change. To create change the work must engage the viewer, and it is here where the tie rope of digital art must be walked. Living in an environment overpopulated with digital imagery the digital artwork must convince the viewer that it is ‘worth their time’. This situation more often than not plunges the work into a realm of entertainment in which the artistic aim becomes secondary. Entertainment is escapism, the digital medium the means by which this escape is most possible. To differentiate itself digital art must make that escape imperfect, it must involve instability. By destroying the self-sustaining chain

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<sup>8</sup> Ralph Ortiz, “Destruction Theatre Manifesto,” *Aspen Magazine*, no. 6A, item 12, Winter 1968-69, 15. Feb. 2005 <http://www.ubu.com/aspen/aspen6A/destruction.html>

<sup>9</sup> Chon A. Noriega, “Sacred Contingencies: The Digital Deconstructions of Raphael Montanez Ortiz,” *Art Journal*, Winter 1995: 36-40.

of a digital system it becomes open to interference, to the uncertainty which allow it be questioned.

One modern artist who has approached digital art with an appropriate conception would be Fabian Marcaccio. Trained as a painter he has integrated digital imaging, rapid prototyping, and digital animation into his artwork. Marcaccio is involved with complexity theory [i.e.: the theory that organisms and systems evolve more effectively through interaction], and focuses on the dynamics created by the association of polarities. “We’re living as much artificially as we are naturally. We’re compounds of contradictory things...the idea was not to reduce our contradictions but to go through them”.<sup>10</sup> By looking beyond separation and finding the merit of “corruption and complexity” within systems of growth the marriage of digital and painting makes perfect sense. It is Marcaccio’s open-minded approach towards expectations which allows digital mediums to slide seamlessly into his art, and more importantly to use them to enhance the the life of his art.

Gustav Metzger proposed the construction of auto-destructive-art, structures containing within them technological devices which would cause the structure to implode and self-destruct within a certain period of time<sup>11</sup>. These works were never built, but this postulation of art as transformative and transitory reflected a society of similar conditions<sup>12</sup>. The tendency for digital art to distances itself from the world of its conception is not a forward march towards self-realization but a denial of such. Nor should digital art strive to mimic the material world by attempting to reproduce its aesthetic. Digital art must address itself as Digital Art, considering the progression of art and taking on the responsibility to continue its expansion and growth in terms of our present society. Specifically in addressing life in a digitized world digital art should attempt to reflect upon its own conditions, its place in our world and the new exchanges its presence produces.

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Other References:

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<sup>10</sup> Gean Moreno, “Fabian Marcaccio: Paintant’s Progress,” *Art in America*, Jan. 2003: 28-33.

<sup>11</sup> “Book for the Unstable Media: Selected comments on Destruction Art,” VX. Publishing, 1992, 15. Feb. 2005 <http://framework.v2.nl/archive/archive/node/text/default.xslt>.

<sup>12</sup> Arnaud Labelle-Rojoux, “Gustav Metzger,” *Art Press*, March 1999: 70-71.

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Brian Reffin-Smith, "Post-modern art, or: Virtual reality as Trojan donkey, or: Horsetail tartan literature groin art," Computers & Art, ed. Stuart Mealing (Wiltshire, Great Britain: Intellect Books 1997) 97-116.

Danial Rozin, "Trash Mirror," Code, ed. Hannes Leopoldseder and Christine Schopf (Ostfilden-Ruit, Germany: Hatje Cantz Publishers, 2003) 222.



The indeterminate forms typically considered in the literature are denoted: For more information please watch the below video : Related Questions. More Answers Below. Will the indeterminate forms in mathematics remain indeterminate forever? Is zero multiplied by infinity indeterminate form? Why? Why is  $1^\infty$  an indeterminate form? Why is 1 to the power of infinity indeterminate? Why is factorial zero in all the discussions mentioned as 1? Why isn't this mentioned as indeterminate? Structure is generally classified into two categories as Determinate and Indeterminate Structures or Redundant Structures for analysis of structures to find forces based on criteria discussed below. Structure is an assemblage of a number of components like slabs, beams, columns, walls. Structure is generally classified into two categories as Determinate and Indeterminate Structures or Redundant Structures for analysis of structures to find forces based on criteria discussed below. @inproceedings{Guerraz2008IndeterminateAD, title={Indeterminate Adaptive Digital Audio for Games on Mobiles}, author={Agnès Guerraz and J. Lemordant}, year={2008} }. Agnès Guerraz, J. Lemordant. Published 2008. Creative Technology Ltd. Founder & CEO, Digital Chocolate), Making Mobile Phones the Ultimate Game Platform. 2007. Hayden Porter, interview, Sonaptic discusses JSR-234 3D Audio, available at: <http://sonify.org/tutorials/interviews>. Change the indeterminate mode for this ProgressDialog. In indeterminate mode, the progress is ignored and the dialog shows an infinite animation instead. Note: A ProgressDialog with style STYLE\_SPINNER is always indeterminate and will ignore this setting. Blockquote. For illustration, the progress animation keep loading from left to right and then repeat automatically without user interaction(which setProgress) when indeterminate set to true. Reference here. share | improve this answer |. Civil Engineering Essentials - Unlock indeterminate structures using the moment distribution structural analysis method. Digital Marketing Search Engine Optimization Social Media Marketing Branding Marketing Fundamentals Analytics & Automation Public Relations Advertising Video & Mobile Marketing Content Marketing Growth Hacking Affiliate Marketing Product Marketing Other. Lifestyle. Arts & Crafts Food & Beverage Beauty & Makeup Travel Gaming Home Improvement Pet Care & Training Other. Photography.