

Identifying New Myths for Convergence and Creative Collaboration in the Age of Digitalia

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Abstract

To assume that it is possible to predict the future of technology innovation beyond the next week, month, or year is sheer folly. To believe that our participation in endless think tanks, conferences, or seminars will shape a consensual vision, one that we all agree may be worth perpetuating, is merely an elitist group exercise in courage. I propose another scenario: that business, educational, and cultural institutions exist as the sum total of the myths they believe about themselves. In this context, myths are not only about who we are, they are essential to the development of all human understanding and belief systems. This practice is not to be confused with acquired situational narcissism, a self-bestowed sense of ingratiation, but a shared belief that the invention of new myths is an on-going design and discovery process unique to all sensing/feeling human beings. Such an enterprise evolves into creation of enlightened and expressive forms through continuous real-time simulation of living and learning in the stacking of moments. The challenge is to prepare individuals to adapt to rapid changes, ones we can't even imagine, and to prepare to be comfortable living through one's imagination, and to trust and embrace the inevitable transformations that will challenge future participatory energies.

Part I: A Case for Mythmaking

To initiate this discourse, it is important to clarify the use of the term "myth," since it has many connotations, some that you will see I find quite acceptable. Yet for others, the term "myth" triggers a negative context, almost a sense of dread that one is abandoning the tried and the true. To me, inventing new myths does not imply that old myths have lost their value or meaning. What myths have in common is that they exist in a particularized context, sometimes fictitious, but not always. When the context changes, the meaning changes. The key word is "change," a common occurrence that we as human beings often find hard to accept, comprehend, and adjust to. To invent a new myth or to change the context has nothing to do with the presence or absence of technology, old or new. Yet it is the shift from a reliance on tools for extending the limitations of the body, the analog tradition, to the use of meta-tools for the

invention of new procedures that has the potential to redefine all human experiences through digital means of representation. I use the term "myth" to imply the mythical traditions as a celebration of the "fanciful" and the "imaginary." It follows that new myths perpetuate new practices. Practice in this context implies inventing new procedures and processes for creating, archiving, and communicating the outcomes as either real or virtual forms of experience.

I am often asked what criteria I use to decide if I will fund a particular collaborative research initiative. My response, put in the form of a question: "Is the concept/premise based on the received language from accepted traditions, or daring enough to invent a new myth, one that I find worth perpetuating?"

I recently saw a sign in the local mall that stated: "Make your investments in the future based on the facts, not based on your feelings." Recognizing that this was a marketing strategy for some investment firm trying to solicit our business, I understood their motive, not to ignore facts when making important decisions. Yet the implication when taken seriously is simple-minded at best. Human beings do not make decisions based on facts, but on what the facts mean. Meaning is inherent in the visceral nature of one's experience, and foremost it is appropriated from one's ability to feel everything. Thus the first myth worth perpetuating is that feelings are essential to the discovery of meaning and synonymous with our ability to imagine possible, probable, and preferable behaviors, leading to practices that nourish personal growth.

Part II: On the Nature of Imagination and Feeling

In the following excerpt from Arthur Miller's play, *Resurrection Blues*, he presents a dilemma: that for some, feeling everything can be a curse rather than a blessing. The character Henri is a cousin of the repressive general running the country in which *Resurrection Blues* takes place.

Henri: "I am convinced now, apart from getting fed, most human activity – sports, opera, TV, movies, dressing up, dressing down or just going for a walk – has no other purpose than to deliver us into the realm of the imagination. The imagination is a great hall where death, for example, turns into a painting, and a scream of pain becomes a song. The hall of the imagination is really where

we usually live, and this is all right except for one thing – to enter that hall one must leave one's real sorrow at the door and in its stead surround oneself with images and words and music that mimic anguish but is really drained of it – no one has ever lost a leg from reading about a battle, or died of hearing the saddest song ... This is why this man must be hunted down and crucified; because he still really feels everything. Imagine ... if that kind of reverence for life should spread! Governments would collapse, armies disband, and marriages disintegrate! Wherever we turned, our dead unfeeling shallowness would stare us in the face until we shriveled up with shame! No – better to hunt him down and kill him and leave us in peace."¹

Moving from the sensibility of the playwright to the realm of the philosopher/aesthetian, Suzanne Langer, we discover from her essays on "Creative Processes in the Arts" that "art is created for and by the senses through imagination and the forms that are expressed tell us what we know about the nature of human feeling."² Interpreting the playwright's as well as the aesthetian's vision in the context of creative collaborations would suggest that knowing about and celebrating the nature of human feeling is equally, if not more, essential than one's ability to assimilate facts. Our ability to be unique or peerless human beings challenges us to experience, recognize, generalize, and integrate shared meanings into perceptible images: ones that validate, contradict, or challenge our assumptions about everything. For those of us who choose to participate in transdisciplinary collaborations where the convergence of disparate ideas and ideals is celebrated, the positing of the notion of multiple universes as a theory of everything may be a useful new myth to consider.

Part III: How Might a Theory of Everything Nourish Transdisciplinary Conversations That, in Time, Morph Into Creative Collaborations?

From his book, *The Fabric of Reality: The Science of Parallel Universes – And its Implications*, Oxford scholar David Deutsch addresses relationships among quantum mechanics, the theory of evolution, epistemology (a theory of knowledge), and the theory of computation. He suggests that the four theories taken together form a coherent explanatory structure that may be the first theory of everything:

Every new idea will automatically tend to illuminate not just a particular subject, but all subjects ... for what we shall see not only in physics, that is being unified and experienced here, and not only in science, but also potentially the far reaches of philosophy, logic, and mathematics, ethics, politics and aesthetics – perhaps everything we understand, and probably much of what we don't understand.³

At a recent think-tank in which I participated, a distinguished group of scholars was attempting to imagine how technology innovation has transformed and will continue to transform the uncertain future of "higher education." My first thought was: "Who knows, anymore, what sort of education is higher than another?" Just this week, over three million individuals were exposed to a home-produced video on YouTube created by an anonymous individual in his kitchen, bent on creating a myth about a certain politician and one of her opponents. The three million viewers soon morphed into many more millions once the major networks belatedly picked up the story and aired the short video. As scurrilous as this activity might be, the results boggle the imagination when facts are invented, imagery is pirated from a former Apple marketing ad, and our potential for feeling becomes the receptor for one's biased, uncensored imagination. Dare I suggest that this somewhat subversive activity will probably only be discussed, if at all, by less than one percent of the education, media communications, and social science courses in higher education? The myth is that learning in proximity may be more real than learning gained from the world of virtual reality. What is known is that the future of all education must deal with issues of reality and virtual reality as competing spaces for learning and discovery.



The Environment for the Interactive Development of Emergent Art (EIDEA) is an artificial-life community composed of imaginary creatures and plant life, influenced by real-time climate variables that simulate life cycles. Human participants create original virtual creatures, introduce them to the environment, and interact with the virtual world in real time. The virtual and real circulation patterns are mapped as dynamic tracings projected on to a sand box and captured as video snapshots of an emerging archive depicting the growth activity within the environment.

Robb Lovell, a computer scientist/dancer was project director with eight artists and technologists at the Institute for Studies in the Arts, Arizona State University, 1998.

Deutsch states:

Virtual reality is not just a technology in which computers simulate the behavior of physical environments. The fact that virtual reality is possible is an important fact about the fabric of reality. It is the basis not only for computation, but of human imagination and external experience, science, mathematics, art and fiction.⁴

It seems the question we should be asking as we adjust to living in the new millennium is not so much whether we want to experience something "viscerally" or "virtually," but is the experience worth having, and if so, why? While artificial reality may imply something that is "other than life," it is important to recognize that it is not an unnatural form of human experience. If you disagree with this myth, it's time to scrap your cell phone, your iPod, your Blackberry, and all mediated sound, olfactory, and visual experience. The once-credible notion of "high tech, high touch" has morphed into "low tech, less touch," which reflects Buckminster Fuller's prediction that we would continue "to do more and more with less and less."

If one accepts the notion of self-similarity in qualities of "artistic mind" or "scientific mind" or the myriad of other qualities of mind, new myths regarding collaboration may constitute a form of artificial reality that we might find quite natural. The practice of creativity is not a condition of one quality of mind or another detached from the reality of living in one's body. It is a process of personal assimilation and transformation for all human beings: we either grow or we die as individuals, and thus the institutions we create grow or die with us. This, of course, is old news! The challenge for preparing anyone to embrace the future, whatever it happens to offer, is to be less focused on the new and more in tune with what's "next." The transformation from analog to digital has been with us for a long time, yet I would contend that it is this gradual shift from a reliance on tools that give form to reality to the interdependence of symbolic language systems to invent metaphors for tools that has presented us with the greatest opportunities to redefine the secrets of creative collaboration.

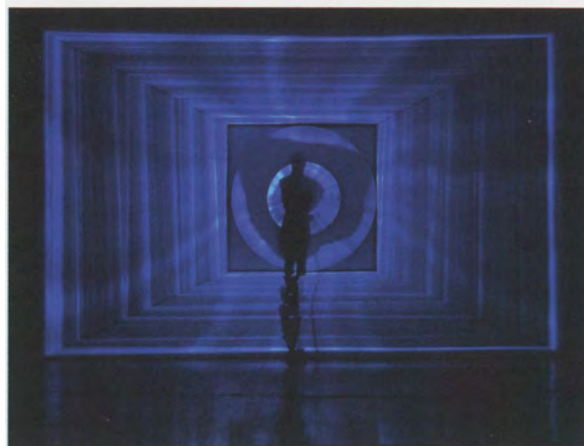
Part IV: Tracings on the Nature of Light, Meta-Tools, and Symbolic Language

The light we experience from outside of ourselves is either natural or artificial: the light from within, or the interior light of the mind, enables the fruits of our imagination.⁵

A camera is a black box. Nothing is visible inside until light enters the aperture. Once the interior of this sealed box is bathed in light, if one could look into that void through the tiny aperture, it would still appear to be totally dark. Only when an object is introduced into that space can we visually experience a virtual form. Whether the destination is a sheet of light-sensitive paper or an array of pixels lit by data temporarily etched on an electronic chip, what we see with our eyes

(rods and cones, etc.) is encoded in the brain: the fruits of our imagination.

When we experience a television monitor or a computer screen, we are exposed to an electron-charged artificial light environment. This is not a neutral space, but a charged, dynamic, shifting set of light variables that you not only see; it prints itself on your skin. With those imprints may come some minimal exposure to radiation, an intervention that can have long-term effects on health and well-being. Yet another factor is at work that may be beneficial: the experience of viewing the text and/or dynamic images on that lighted screen is not frozen in that moment, but forms a composite set of variables: what you saw a few seconds earlier, what you are currently seeing, and what you anticipate seeing next. The real image only exists in the light of your imagination.



In *Blue Light Performance*, artist Seth Riskin utilizes an architectural setting he designed as a giant "optic." A sheet of blue laser light is cast from his body, parallel to his back. As he moves into the structure, the blue light articulates the spaces around his silhouetted body: a crossing point between the light from within and the light from without.

The image is a single frame from a three-minute performance for the Gyorgy Kepes Memorial, Kresge Auditorium, MIT, 2002. Photo by Walter Dent.

So what are the implications regarding the shift from analog to digital? In the analog world of tools, natural light was essential to functioning as a painter, sculptor, or craftsman. When photography was introduced as a new medium, a paradigm change occurred: capturing and containing the light from without and the light from within, a metaphor for what human beings have been doing all along, ushered in a new form of art practice that was not initially accepted by institutions in the business of educating artists. Yet, in time, the nature of

holography introduced another metaphor: their construction was made possible by splitting a beam of light into two parts, a working beam and a reference beam, enabling information about a three-dimensional object to be experienced as a three-dimensional virtual light form; a figure of lateral displacement. At that point in time, collaboration between art and science came together to create lensless photography.

More recently, we have learned how the development of sound-related technologies has become analogous to the



For *Bright Field Observation* reverses the analog tradition of human beings using technology to make things visible. Utilizing infrared reflectography, participants perform movement experiences that create interference patterns within an invisible light field. Robotic-controlled video cameras record visual artifacts as postcard-size images that archive the history of their interactive movement experience.

Collaborators were visual artist Stan Taft and architect John Zissovici at Cornell University; James Mayer, Solid State Scientist at Arizona State University; and Richard Loveless, ISA Director at Arizona State University's Institute for Studies in the Arts. 1994-95

shift from the use of lasers to the use of natural white light to produce holograms. Earlier research in the late 1980s by MIT artist fellow Joe Davis first recorded and transmitted sound in white light. I was fortunate to participate in some aspects of that research. More recently, there has emerged the invention of a sonic spotlight: a device that permits transmission of a particular sound event through the beam of a spotlight when it is focused on a very discrete limited space. Furthermore, it is possible to have many such sonic spotlights in proximity to

each other, each narrowcasting a unique sound experience to multiple spaces without any interference patterns. This is a prime example of how qualities of artistic and scientific mind have, over time, created a new myth about the transmission and experience of sound that has a myriad of applications for new forms of experiential learning.

Some 25 years ago, I was attending a World's Future Society conference in Washington, D.C. During that time, I was communicating routinely with John Ott, a former banker, amateur filmmaker, and eventually a leading proponent regarding the negative effects of artificial light on our health. Since he was neither a scientist nor an artist by training, his theories were considered by many to be sheer folly. Yet in my mind, he had demonstrated very clearly through his use of time-lapse photography that, indeed, what he referred to as "mal-illumination" could certainly be analogous to "malnutrition." That is to say, when people suffer from malnutrition, it is not because of what they eat but due to the absence of certain foods in their diets. Ott further hypothesized that mal-illumination was caused by excessive exposure to artificial light sources where the absence of certain wavelengths of the full spectrum of light were absent. In time, his findings were duplicated, tested, and proven by scientists to be highly regarded as essential to the study of artificial light and its effects on plants, animals, and human beings. Thus a new myth about the importance of natural light and health was imagined.

During that same time, I was engaged in a process referred to as "Creative Dreaming." A medical doctor whose name I can't remember developed the procedure. The procedure was fairly simple. He believed that there were limitations to the interpretation of dreams as a counterpoint to indicators embedded in one's past experience. He believed that we all have the capacity to initiate dreams that have the potential to connect disparate experiences that in turn create new myths about meaning.

But let's go back to the World's Future Society conference. After listening to a major presentation by an expert who was concerned about the quantity of satellites that we were launching (in a sense, polluting outer space), I decided that this would be one of three ideas I would incorporate into a

creative-dreaming process. The practice was to lie quietly in bed close to the time of falling asleep and repeat silently inside my head what connections were possible. The question I repeated was: "How can the clutter of satellites cycling around the universe, the nature of electrons cycling through transistors, and microchips in computers, and Ott's ideas about the effects of artificial light cycling through the body affecting our health, be connected?" I happened to be staying at a friend's house that night, sleeping on a couch several rooms away from his. In the middle of the night I awakened everyone in the house by repeatedly chanting: "Break the binary code with light! Break the binary code with light!"

Some years later, I participated in a small network of futurists who were meeting at yet another conference. In sharing ideas with each other, I described my dream that some day photons rather than electrons would drive computers and other technologies. A new myth perhaps, yet how to achieve that seemed beyond reach to some scientists at Bell Labs, one of whom was in my network. Reflecting on that time, the effort in most earlier research was concentrated on speed: how to accelerate the movement of increasing bits of information into multiple binary pathways. Thus the potential for a new myth, slowing down the light, has recently emerged to break the limitations of the binary code with light. As reported in the Washington Post in January 2007: "Scientists say that they have achieved a long-sought goal of slowing wave lengths of light to a relatively leisurely pace and using those harnessed pulses to store an image." The article goes on to say that the fast-paced field of "slow light" is a field that barely existed a decade ago: "The fastest form of energy in the universe, light has the potential to revolutionize a wide range of technologies. Pulses of light can substitute for the digital 'ones' and 'zeros' that are today conveyed by relatively massive electrons on silicon chips." It seems to me this provides a primary example of the function of mythmaking for discovering convergence and collaboration in the digital reality.

Summary

In this brief essay, I have examined the notion that predicting the future of technology innovation and the ultimate transformations that will occur is for the most part an exercise in futility. The counter intuitive notion is to learn more gracefully how to live through our imaginations, to discover a personal context for accepting and embracing those inevitable changes that will occur in the way we communicate. To get there, wherever *there* is, I suggest that we develop new myths regarding our recognition of the convergence of different qualities of mind, that we engage in new forms of creative collaboration toward the invention of new paradigms for understanding everything. I do not want to imply that such collaborations should be limited to educational institutions; they should include real-world entrepreneurial research and development that drives inno-

vation in the corporate setting, not-for-profit agencies, and government, etc.

I fully admit to a bias of including qualities of artistic mind in such collaborations, since it seems apparent that their processes and procedures are more attuned to mythmaking. Yet we know that the fanciful and imaginary are not the sole province of a particular professional identity but the nexus of the human spirit. If the proof of the pudding is in "the shifting context," I suggest we all have the potential to make our own connections, create our own myths, and discover our own theory of everything. I first learned this when I experienced a film by an eight-year-old girl in Harlem. Her title: "How's Come When It's Thundering You Can't See the Moon."

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