# DMT, the NeXT and the Soul of the Human/Machine
- Andrew C. Stone, stone.com @twittelator

Today I'm going to talk about the intersection between software and psychedelics, most specifically about the long strange trip from the NeXT computer to iOS.

The Grateful Dead and all things psychedelic were central to my worldview coming of age in 1969 - just like Steve Jobs and so many others of my generation. Daring to risk damage to my chromosomes as State propaganda insisted it would, I first dropped acid in 9th grade, and learned that what starts as recreation can quickly become an ass-kicking as well as a beatific state of mind. I understand why the status quo feared these god-inducing substances, because once the Djinn, the Genie, had left the bottle of social control, there is no putting it back in. Your perception of reality emerges from your conditioned set of responses and inculcated beliefs, and here was something that could dissolve that conditioning and reveal a higher order.
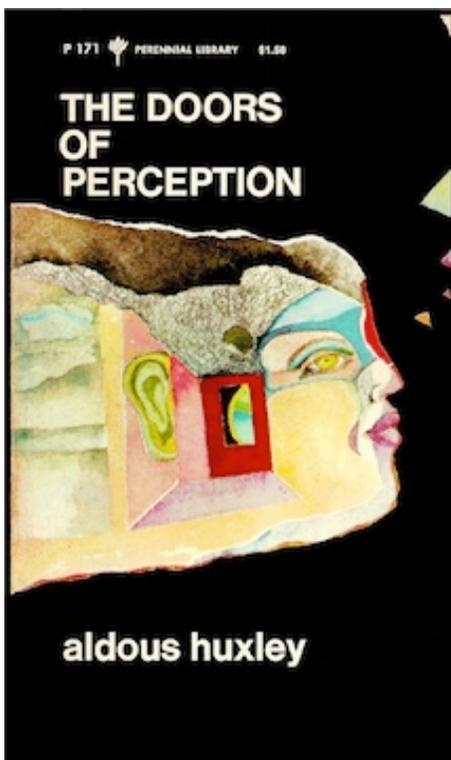
When I was 16, I dropped out of high school and left the US to travel on a wanderlust in South America for 15 months, inspired by On The Road by Jack Kerouac and the Doors of Perception by Aldous Huxley. It was 1972 and I was a young seeker in search of truth and adventure. My North American mind was fully blown and I'm still recovering from the culture shock I received, not on my trip, but on returning to the US and witnessing the entitlement and ignorance of a populace glued to the TV set.

I got my GED and then a degree in Architecture and Planning from UNM in Albuquerque with an emphasis on solar design and sustainable architecture in 1977. I moved to a small farm in rural Northern New Mexico to try my hand at 'going back to nature' and I learned a lot about farming and subsistence living. Back in Albuquerque, I worked with a startup building parabolic concentrating solar collectors, but the

Reagan era cast a shadow of darkness over alternative energy, a price we are still paying today.

I first got my hands on a Macintosh 512 in 1985, and though it was tiny and cute, as a designer / builder, I fell in love. It let me produce stunningly perfect working drawings - something my poor handwriting skills wouldn't allow. So thus began my journey of the machine/man synergy.

Within two years I wanted to transition from building passive solar adobe structures to writing software - all because of a new user-focused authoring environment called HyperCard. One of my first 'stacks' was "The Mayan Icons" - the idea of bringing alive ancient knowledge with the latest technology was now made possible.
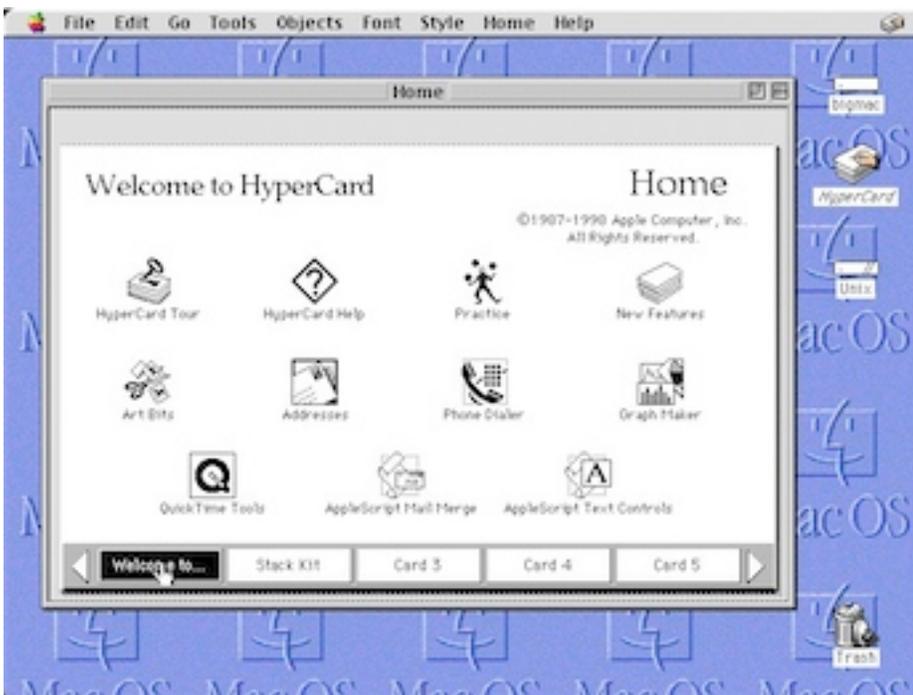

Bulletin Boards, the predecessor of the internet, were just becoming popular - and I found my answer to "Where had all the Hippies gone?" - ONLINE! I was totally revitalized by this emergent cyber reality, and began taking computer science courses to move from hobbyist to pro. Having my university account meant being able to spend hours on UUNET's comp.sys.mac and comp.sys.mac.hypercard, where I began hearing talk of the NeXT Computer.

Steve Jobs had been ousted from Apple in 1986 and with a small cadre of loyal engineers began to build the next great thing, which began to build hype in late 1988 - it was the coming together of three of my favorite things: the Mac's UI, the industrial strength UNIX OS and the display model of PostScript. The NeXT community was born, and it was on comp.sys.next.

One lament that Bill Parkhurst, one of the 4 original AppKit developers for the NeXT Computer, had was that the Mac was easy to use but terrifying difficult to program. But it was the NeXT with it's Interface Builder that would allow regular people to make cool software.
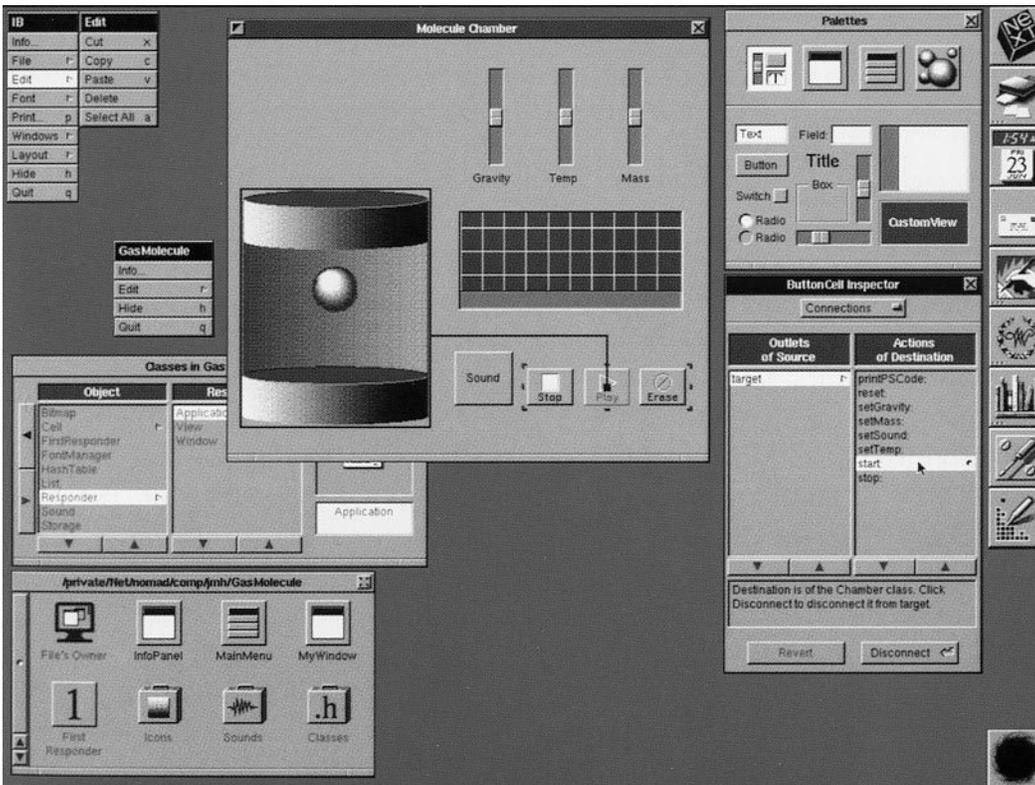
In March 1989, two guys from NeXT - dressed like Mormon missionaries in white shirts and black ties - gave a demo at UNM, and I was hooked. The president of Applequerque, Kris Jensen, and I got them to demo to our mac users group that evening. They took us out to a fancy dinner and they convinced us to become developers for the Black CUBE.

Here was a chance to be on the ground floor of something new, and something profound, and I wanted in. The black magnesium cube was a ghastly 10K and the

printer was 2K and you had to go to NeXT camp for a week at HQ, another 2K. But that investment changed my life. I began working with Objective C and began having Object Satori - I totally got it, how liberating and powerful 'black box' engineering was. As a developer, I could assemble amazing software using the heavy lifting provided by the AppKit - the predecessor of Cocoa.

And, here's the non-obvious take home of living on the cusp of the Now: We are always, always at the brink of being on the ground floor for the next big thing. You'll have a deep feeling, just as I did in '89. Go with it!

I immediately wrote a fun text styling app named TextArt - and in October 1989, I was the first indie developer to ship a title for the 0.9 release of NeXTStep. Steve loved it, and then he asked Kris & I to write a Filemaker like database for the NeXT. We agreed, but only if it could be a full media database to take advantage of the sound and image files now possible on the cube. Thus was born DataPhile.

Simultaneously I evolved TextArt into

Text Art ™ from STONE D·E·S·I·G·N

Unlimited text effects just a few mouse clicks away

Tittles   Logos Logos Logos   Combined Effects   Special Effects

Headlines

Unleash your creative abilities with **TextArt** for the NeXT Computer. Create exciting logos. Embellish your newsletters and brochures with flashy text designs. Explore the artistic freedom of combining TextArt images with PostScript and TIFF graphics.
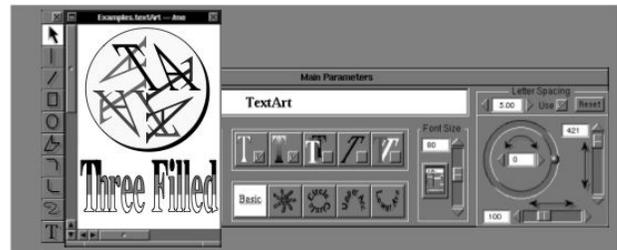
TextArt's intuitive interface makes it easy to combine PostScript transformations to create innovative text effects. Place your text around a circle or an upper or lower arc. Outline and fill your text (of course, **TextArt** gives you control over all aspects of the fill so you can achieve various fountain effects). Skew your text, add shadows, make multiple copies ... all by clicking buttons and moving sliders. But don't be fooled by **TextArt's**

simple interface: **TextArt** provides the power and fine control that a professional graphic designer needs.

As you create your image, you'll see onscreen exactly what you'll get from your PostScript printer. You can zoom in to get a more precise look at your image.
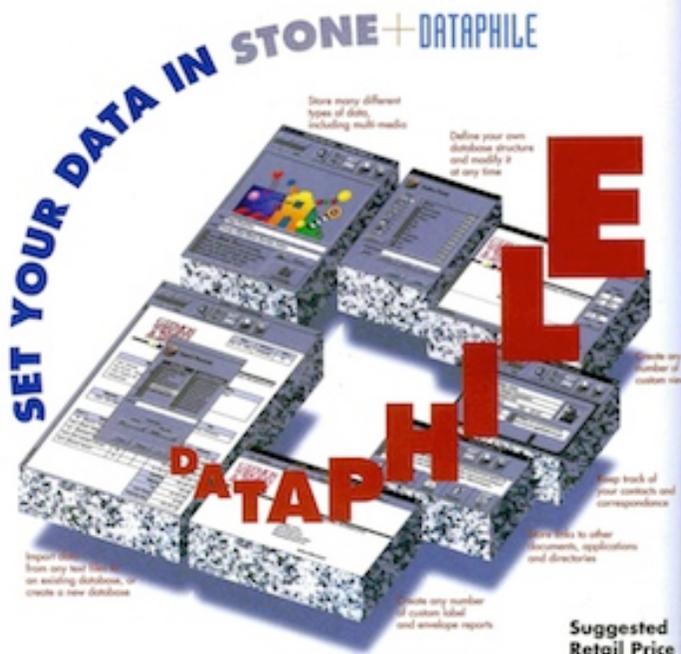
Use **TextArt's** basic drawing functions to combine your image with geometric shapes and imported EPS and TIFF graphics. You can export your finished images to any application that uses PostScript or TIFF formats.

Run, don't walk, to your favorite express mail service and order **TextArt** today.

This page created by *TextArt* from Stone Design

Create - a full multipage design and layout program - it was featured in the first edition of NeXTWORLD - the magazine devoted to all things NeXT and the fledging NeXT community. Create is now in version 14.4 available for Mac OS X, having been ported from NeXTSTep to OpenStep to Rhapsody and to Cocoa.

DataPhile and Create began making us some serious money and bringing serious

SET YOUR DATA IN STONE + DATAPHILE

Store many different types of data, including multi media

Define your own database structure and modify it at any time

DATAPHILE

Suggested Retail Price $695

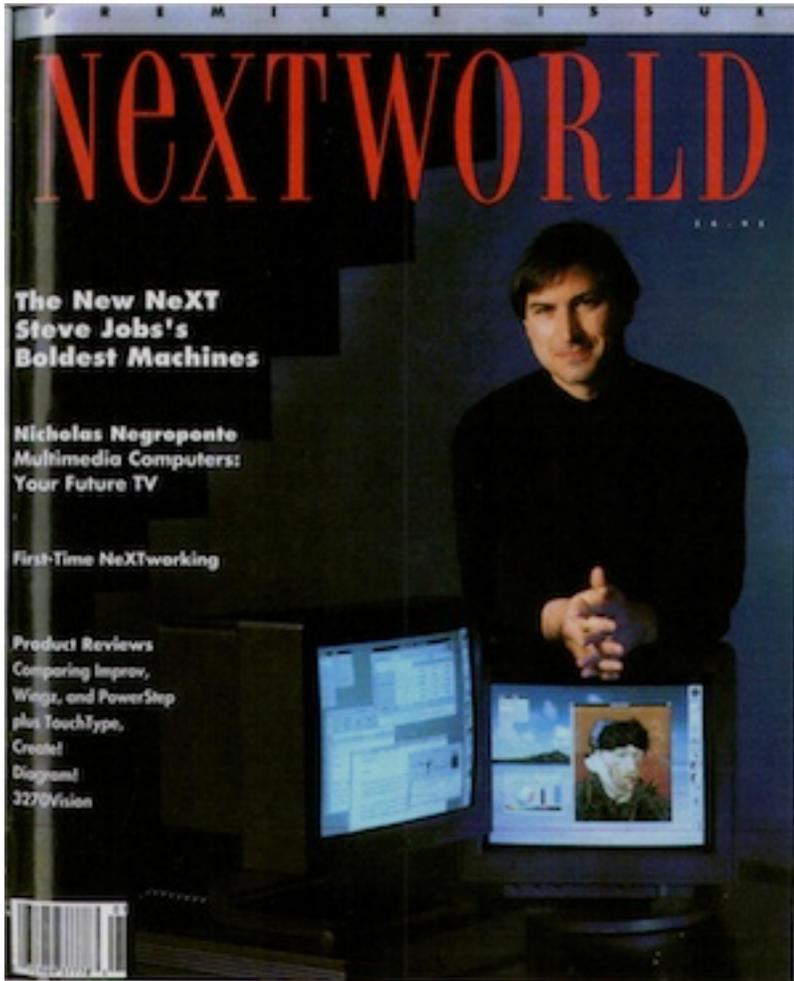**The Premier Flatfile Database for the NeXTSTEP computers**

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DataPhile is designed for users who need a flexible, everyday database without the complexities of a rigid, relational system. Using DataPhile's intuitive front end, anyone can build and manage a personal flat-file database, modifying it and generating reports easily and at any time. DataPhile also comes with a number of useful template databases so you can begin using it right out of the box. DataPhile requires no additional servers: it stands alone and uses state of the art brose technology, so that the system works quickly and seamlessly.

NEXTWORLD — PREMIERE ISSUE

The New NeXT
Steve Jobs's
Boldest Machines

Nicholas Negroponte
Multimedia Computers:
Your Future TV

First-Time NeXTworking

Product Reviews
Comparing Improv,
Wingz, and PowerStep
plus TouchType,
Create!
Diagram!
3270Vision

attention to our efforts. And here is where the psychedelic connection starts beaming through. I get a call from Grateful Dead lyricist turned cyber journalist John Perry Barlow - who is delighted I already know who he is from seeing him at SIGGRAPH in 1990 on a virtual reality panel with Timothy Leary.

Unlike the other VR boosters on stage, Barlow pipes up and says "the heck with half million dollar VR machines, I can get more VR bang to the buck for a $5 hit of acid." He taught me something very important that day: it was time to speak openly and honestly about psychedelics and their role in our lives and our cyberculture.

Thus began our long collaboration in keeping the mystical spark alive in the NeXT community. As you can tell from Steve's dark suit in that earlier photo, Steve had distanced himself from his acid roots, and was regrooving himself to be all corporate and straight-laced. That was definitely not what I had signed on for!

Understand that the NeXT was just not taking off the way Steve had envisioned. First, it was pitched as the academic's workstation. Builtin was Mathematica, Webster's Dictionary and the entire works of William Shakespeare. But academics didn't have $12 K handy, so that sales model failed. Then, it was on to publishing. The DisplayPostscript imaging model meant that you could zoom infinitely, and what you saw really was what would print, solving a major problem for prepress.

But something dark from America's psyche was revealed: We truly hate success. Sure, we're happy for our heroes for awhile, but we are not truly happy until they fall. US publishing houses did not buy in, sales faltered. And this is where Steve wandered from his path - he began courting the Fortune 500 and the dark agencies - NSA and CIA - because these people could afford his expensive machines.

No, for me success was not tons of cash, but coveted back-stage passes to Grateful Dead shows, where 20,000 psychonauts would take sacrament together and emergent group consciousness would flower. The power of community is immeasurable in the way it feeds our souls, and community was where I wanted my profits to be spent on.

In October 1992, when Bill Bumgarner (Apple TV), Adam Swift (CoreData) and I shipped 3DReality - a Renderman based, drag-and-drop 3D modeler for the NeXT, we decided it was time for a major happening, a be-in, a Rave before anyone outside of the San Francisco scene knew what it was. Barlow & I tapped into EFF co-founder John Gilmore's cypherpunk party list to add lots of color to the button-down NeXT community.

We rented the Palace of Fine Arts, where the Exploratorium used to be, and visual artists erected 20 slide projectors on 10' columns that would create subtly changing environments. A magic man named 'Bob' wandered through the crowd handing out doses of LSD and MMDA to anyone who wished to imbibe, and thus began the Stone Raves. The NeXT Community began to transcend the borders of it's own limitations in ways that played out for years.

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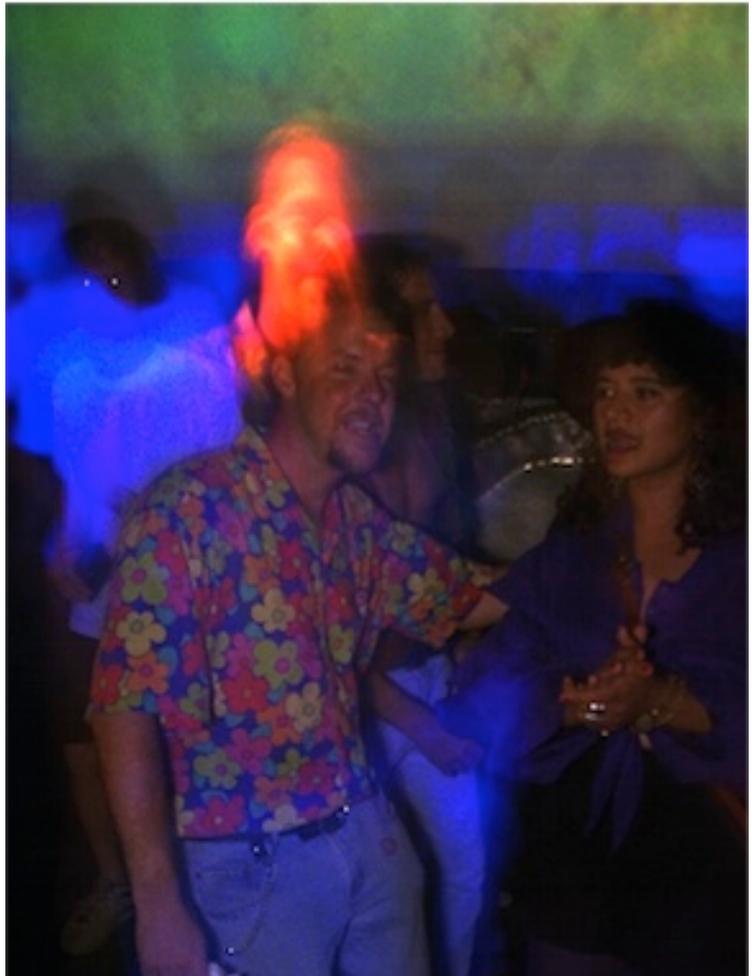
The second Stone Rave was memorable for the naked dancers, sheathed only slightly in saran wrap, climbing along giant ropes hanging overhead. And it's been immortalized by *This American Life's* episode #74 **Conventions** with John Perry Barlow. It was the night of the day he fell in love at first sight with Dr. Cynthia Horner - I think this photo pretty much reveals it all.

It was not without personal consequence however - a friend of my sister's who was a high-level DEA agent told her I was under investigation - and indeed, no phone call could be made without that reassuring click that we were being listened to. Of course, I've never dealt drugs so they were wasting your taxpayer money. But that's not the point of the panopticon, is it? The point is simply, if you know you are being watched, you'll self-censor. Right?

You can buy advertising all you want, but can you create legend? That takes more ingenuity and edginess. People met their future spouses at these raves, people experienced new dimensions and created new connections. And all the participants, to this day, will tell their own tale of their experiences at the Stone Raves!

The Stone Tower is more of that mythos generating substance. NEXTWORLD did a piece about my indie style in '91 - Brick By Brick. I took to heart what Guy Kawasaki said about spending 30 minutes a day courting the media in his still-valuable and now-online "The Macintosh Way". Let the media create your legend for you! The finished tower is a neighborhood icon, and the first person to really get it was Richard Stallman when Barlow and John Gilmore brought him buy one day. He looks up at it, and then at me, and says:

"Oh, I get it. Tower, Wizard"
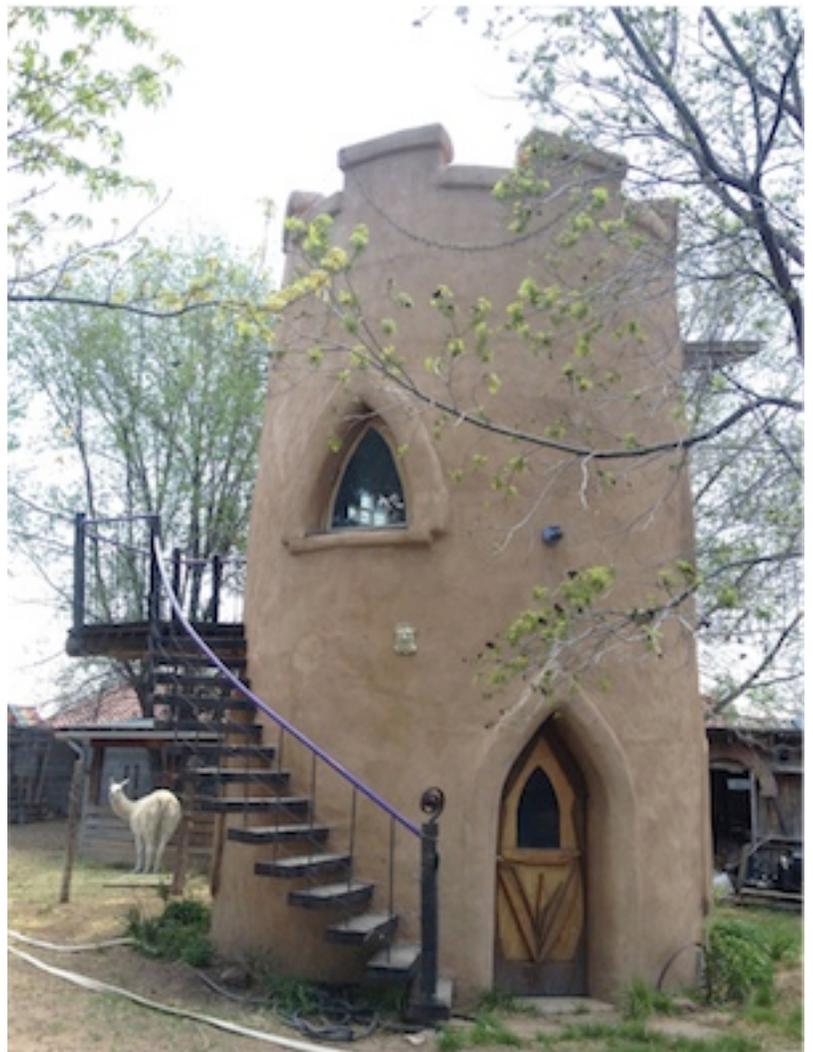
Your non-tech interests can be the hook to build both personal diversity and personal salvation in times of transition and tribulation. For me, it's making physical things, gardening and yoga. Some of the best debugging happens on a walk or in dreams at night, and learning not to force the process that is critical for software success.

It was at the second rave that I had my first encounter with DMT. It was not a full threshold dose, just enough to peak my interest. I started reading everything I could on this substance.

For those of you unfamiliar with Dimethyl Triptamine (DMT), the first thing you need to know is that it produced in our own bodies -

Dimethyltryptamine

endogenously - and many cultures believe it's related to the third eye - the pineal gland.
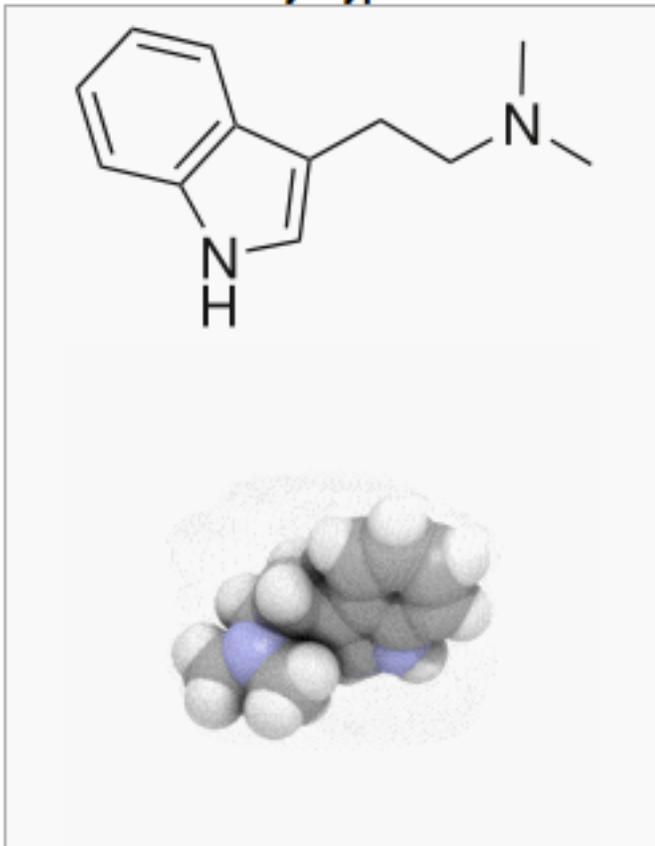
DMT is one of the active ingredients in Ayahuasca, the Vine of the Soul, the South American visionary brew which can be made from 100's of different plants.
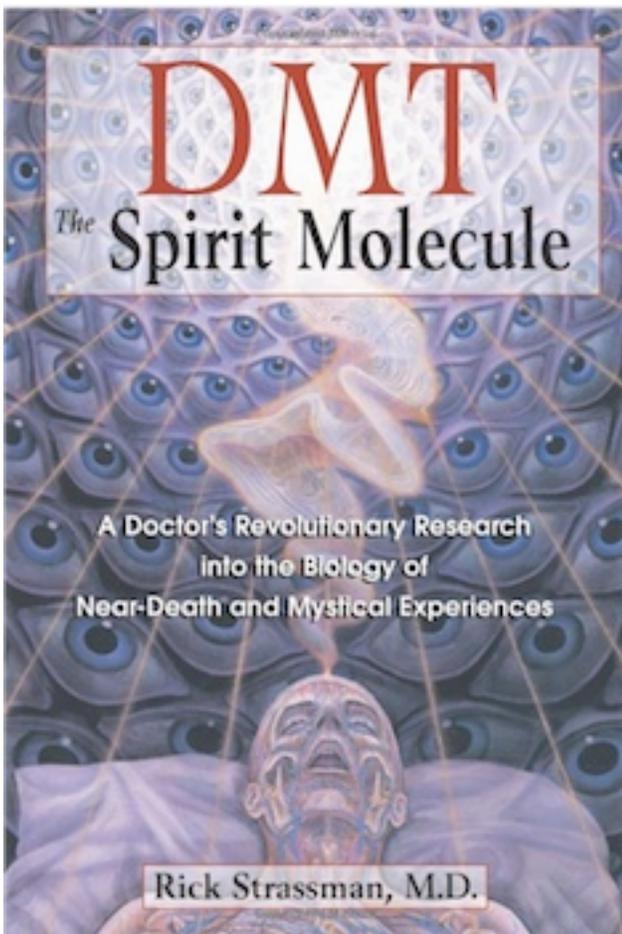
And my involvement with the local pagan community introduced me to Dr. Rick Strassman, who was the first scientist in 20 years to be able to legally administer a psychedelic to volunteers at UNM in the early 'Nineties. I can talk openly and honestly about this transformative psychedelic because it was the government who gave it to me!

So, while Steve is struggling to sell NeXT slabs, I'm expanding my knowledge of the universe in an historic study. I was able to watch the faltering of first the hardware, and then the software - NeXTSTep became OpenStep and was ported to various platforms including Solaris for SUN Microsystems's Sparc Station, but that was cancelled quietly in 1996.

However, and partially because I had made money and successes early on, I was still down with The Journey, and as each new platform that was going to save NeXT was imagined, I'd port our software to ship on it. It was truly a dark time as developer after developer abandoned Steve, like rats on a sinking vessel.

The deep lessons I was getting from the DMT kept my faith strong, and with zero overhead - I've always worked from home - I could stay true to the vision. Work the garden, work the code, cultivate contentment.

As the study finished, it had morphed into a dose-response study of Psilocybin - the active ingredient in magic mushrooms and a close chemical relative to DMT. I can definitively tell you that 0.7 milligrams/Kilogram of Sandoz Psilocybin is ecstatic and informative, whereas the 1.1 milligrams/kilogram high dose is traumatic even for seasoned travelers.

One of the most powerful aspects of the DMT study were the occasional meetings where participants shared their experiences with each other. The zippies would see Terence's machine elves, the theologians would see white light, the software geeks would see the Logos and semantic symbols.

I realized our society had much to gain from our experiences if Dr. Strassman wrote up the research as a layperson accessible book. I asked Barlow to see if the Grateful Dead's Rex Foundation would be willing to help me kickstart it, and thus arose the book "DMT: The Spirit Molecule". This book became an instant underground classic on this naturally occurring psychedelic compound.

But it took an Austin filmmaker to bring it to the masses. In 2006, filming of the subjects and Dr. Stassman, as well as other psychedelic luminaries began. And in 2010, DMT: The Spirit Molecule movie was released, gaining real traction as the number 1 documentary on NetFlix for a period of time in 2012. Terence McKenna would have been delighted.

Speaking of Terence, in 1995, we were discussing how cool it would be if we had software that allowed visuallizing the DMT experience. It would take 11 more years for this to become a reality in the form of my VJ application VIDEATOR. I couldn't have done it without my other exNeXT pals like Ralph Brunner, author of CoreImage and CoreVideo

[Demo of Videator]
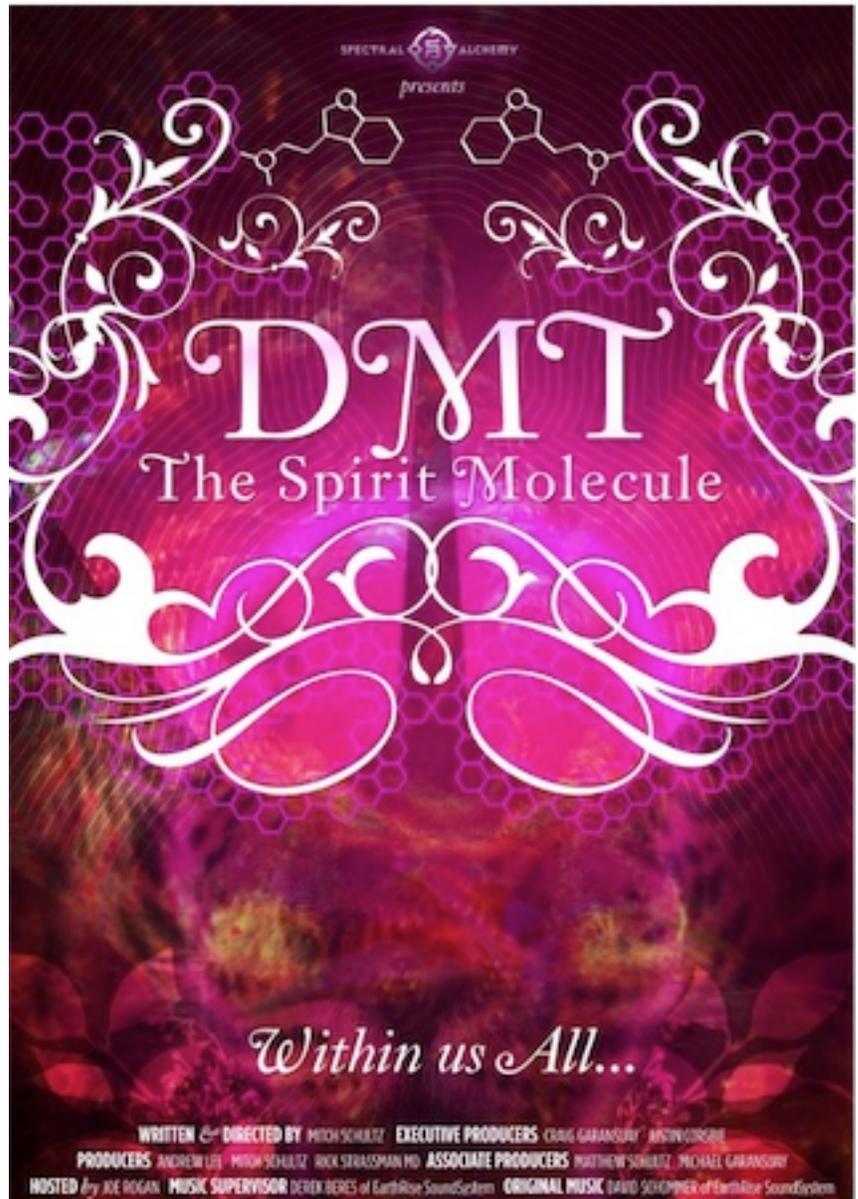
And none of this would have manifested without the NeXT and the community we formed around our higher ideals and higher states of consciousness. We are emerging from the shells of the individual to the unlimited power of the collective. If we can move from "me" to "us", there is nothing we cannot accomplish. Dissolve the boundaries that bind, and spread out into a new paradigm.

If DMT is too fast for you, consider yoga and meditation, mantra and prayer, trance music and drumming, fasting and sleep deprivation - as these have become the tools of the trade for highly efficient software engineers that can use both sides of their brain. All the ancient tools to change consciousness on anyone with scientifically reproducible results. Techniques to open the third eye, the heart, the Holy Spirit, the eschaton so you patch your wetware and hook in deeper.

For example - here's a technique you can employ in a minute: inhale deeply through your nose with power, exhale, repeat until you can't stand it. Hold your breath. When you feel the rush, stop, let go, and let it unfold. You'll experience the onset of the DMT experience. With practice, you'll learn to go through the portal, without drugs except the ones produced right in your very own body.

Let's try it!   [do this now as a group]

And the seed planted 20 years ago has manifested as OpenSource and github, the social networks, BurningMan, and in our sphere, #altWWDC, groups like Cocoa Heads and the collaborative group I founded in Albuquerque 5 years ago, Cocoa Conspiracy. We openly share ideas and contracting work, provide code whispering and freely teach iOS.

We are co-creating reality - where you put your energy and love will determine what becomes real for you and for others. If you are a cog in a giant corporate machine, you are upholding that vision of reality and perhaps creating the Borg outcome for humanity. If you are an indie following your heart, your passion and your dreams, then a world of individual sovereignty, collaboration and interdependence becomes possible.

So what will the future bring? Will we let technology empower the oligarchy and crush our cognitive freedom or will we use the technology to set ourselves free?

Can humankind evolve from war as the answer? I'm pretty sure the answer relies on the plus one of you and me each making the decision to live in the quantum world together with the awareness that we are all part and parcel of a huge, infinitely exquisite Machine - a universe of possibilities when we each come from a place of We instead of I.

 I'll end with a short story:

> An elder was teaching his grandchildren about life. He said to them, "A fight is going on inside me.. it is a terrible fight and it is between two wolves. One wolf represents fear, anger, envy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, superiority, and ego.
>
> The other stands for joy, peace, love, hope, sharing, serenity, humility, kindness, benevolence, friendship, empathy, generosity, truth, compassion, and faith."
>
> "This same fight is going on inside you, and inside every other person, too", he added.
>
> The Grandchildren thought about it for a minute and then one child asked his grandfather, "But Grandfather, Which wolf will win?"
>
> The old wise man simply replied... "The one you feed."

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