

## A MEMOIR OF TOK2ME

### My Tangential Involvement with Greatness

By Eric Rosenquist

It was the summer of 2001. I was a moody, restless, a bit lonely—in short, a college student. I immersed myself in Houston's alternative rock station (which I thought declined abruptly after that summer). I knew all the songs: Breathe, Nickelback; Your Disease, Saliva; Bent, Matchbox Twenty. Those were the days. But the greatest of my summer projects was to fill up the Windows system tray with as many icons as possible. I bought extra RAM for the job. And I talked online endlessly.

The computer clock stood proud with 30 icons crammed beside it, and I was content to stay home as the others embarrassed themselves at volleyball. They met frequently, and they enjoyed each other to no end. Whoever had organized those was a genius, with a finger on the pulse of that quirky, rather bookish, mostly Chinese segment of the community.

During the day, most of my friends had internships at big companies. The work was easy—these were only college sophomores. I don't know if I envied them. I certainly didn't understand how they got the jobs. An ounce of charm at the career fair or a well-placed contact meant a high salary, big boots, the whole nine yards.

## BEGINNINGS

Jeff Cobb was an upstanding student who attended Texas A&M, as he had always had an agrarian streak. His sense of humor was both indispensable and irreplaceable, and it was because of this that everyone gathered at his house. He had also inherited from his father a sense for management and business, which proved crucial in the great endeavor of that summer.

Alan Leung was a top student at our high school. He was chosen to represent our school at a national physics competition, and I thought this proved the teacher had no real faith in me. He was right. For brains with a work ethic to back him up, he turned to Alan. And Robert Tau. But Alan's greatest feature was not his mind, but his impeccable smooth face and straight white teeth.

Alan and Jeff were both working in the IT department of the sinister Halliburton Corporation. The department was disorganized and they didn't have much to do all day, but they did enjoy all the perks of the job. The cafeteria had a variety of dishes, there was an occasional colorful character in their department, and occasionally they would be called upon to do something. And if they were lucky, it wouldn't be cancelled later with the brush of a proverbial backspace key.

One such project, the fateful project, was a web-based ASP database program. It was scrapped by their bosses, but only after they had learned the technology. They had gone to great lengths to learn it, even contacting someone in the Halliburton résumé database

who listed ASP under his computer languages. He sent them extensive samples, and they eventually realized they should make it clear that they had no power to hire him.

ASP stood for Active Server Pages, and it was Microsoft's answer to the complexities of the Web. It allowed you to create an HTML document that was like a form letter, with the important parts filled in by the Windows web server program just before it sent it to the user.

It occurred to Alan and Jeff that they could spend their time at Halliburton producing something, albeit not for the company. The ease of entering the field of web programming was ample encouragement; gone was the arcane mystery of the ones and zeroes, a bygone age in computing.

Jeff tells it best:

Zooplibob: one time the boss CAUGHT us  
Zooplibob: makign it  
Zooplibob: initially they asked us to make some kind of database  
Zooplibob: to keep track of where all the ehernet cords were connected  
Zooplibob: so we decided to learn how to make an onlien database  
Zooplibob: and to practice  
Zooplibob: we made tok2me  
Zooplibob: also we never made the ethernet database  
Zooplibob: tok2me grew out of hand  
Zooplibob: but when the boss saw us we COOLLY showed it to him  
Zooplibob: look what u can do!  
Zooplibob: We'll do this for the ethernet!  
Zooplibob: "oh actually bob's arleyad got something fixed up, we wont need that anymroe"  
Zooplibob: and thsutok2me was borne

## THE UNVEILING

I was TOK2ME User #3. I was in on the excitement from the start, for the brief beta testing phase. I instantly saw its charm in the same way its authors did, but I was skeptical that anyone else would be so thoroughly bewitched. I expected most others would be a hard sell since the first step was not to see the directory, but to fill out a form and create yet another online account. I would be proved wrong, in spades.

I supposed the excitement was because it was rare for someone to actually build something, at least in our circles. Most of us were just consumers, players of the same old prefabricated board games.

The promotion of TOK2ME was relentless and utterly enthusiastic. Jeff and Alan told all their friends they could think of, and Jeff in particular badgered them into giving it a try. Jeff had the keen ability to make people believe they were part of something important.

Everyone and his dog had made a database-driven website in those days, and we usually took websites with a grain of salt, but there was something universal about this one. The charm of the Internet (with a capital I) had not yet worn off, and TOK2ME appealed to our sense of community. The gut-level appeal of this purely amateur site was evident in the words they used to describe what they had done: “We made a site.” There was no putting on airs as I.T. Professionals, no lofty verb like *implemented*, no buzzwords like *database-driven*. The brief work was simply done, the site *made*; and the satisfaction of its completion was not unlike the satisfaction over a ship in a bottle or a piece of hand-made furniture toiled over by a stoic Bostonian.

The diversity of the members was stunning. Curtis Luciani, writer and commentator extraordinaire and casual user of computers; Gautam Ganeshan, who was capable of infinite enthusiasm in much the same way as myself and the self-styled TOK2ME team; Erin Miller, Gautam’s rather loopy and enigmatic ex-girlfriend; Cindy & Eddie, the wonder couple; Alex Chang (better known as ChanGayHouston), who signed up despite not knowing many of the people; Charles Wang, unexpectedly serious about unpredictable things, including volleyball and “MACRO!!!!” economics; and a dozen others.

Unfortunately there were exceptions. Our friend Karen Ho saw the login page and immediately lost interest. “I’ll sign up later,” she said. I knew immediately that she was lying. There were some others on whom the concept of TOK2ME was lost, most of them because they didn’t know the other people in the directory, but none was as memorable as Karen. She knew all of us, but she was quintessentially bored by the endless account creations of the Internet age.

## STEVE

We all knew that someone who had to be shown TOK2ME was Steve, without question. We all had different reasons for thinking so. It might have been because he was so deeply involved with computers, and now his friends had aspired to the same high art.

His initial reaction was betrayed to us by Sriram:



**ekn pekn: GAY**

**ekn pekn: that is the stupidest piece of crap I've ever seen**

**ekn pekn: I'm tempted to spend about 60 minutes duplicating it**

Steve was a complex man, a self-effacing man who shied from responsibility when I tried to get him a job at our company (“I’d probably screw it up”), yet boldly re-implemented TOK2ME when it didn’t count. For responsibility and obligation are not technological problems, but the sort of personal problems he grew up detesting.

In high school he had worked tirelessly on elaborate calculator animation programs, invariably of a morbid nature. His sense of humor paralleled that of the TOK2ME team,

though it is anyone's guess whether anyone noticed. But Steve's passion for computing had a decidedly different flavor. His insistence on detail, his self-conscious petulance, his preoccupied analysis and exploitation of everyday things like vending machines, and his wry taste are the epitome of America's engineer culture. Steve was no ordinary nerd, with futile comments made to incredulous women. He was a nerd *par excellence*, with a single-minded devotion to the material. I had been the same thing, and in many ways still am.

Steve would eventually write a PHP Unix-based "TOK2ME Beta" that he proposed as a replacement for the hastily assembled Microsoft-based solution. There was absolutely no reason for this, of course, and his main motivation was a disguised version of TOK2ME's: the joy of building something. Steve's effort was fueled as well by outrage over the marketing of TOK2ME which he took as a claim of technical achievement. No one was ever explicit about his motivations, and perhaps they were never fully understood. My best guess is that, without fully understanding what he was doing, he was making a veiled insult of the poor technical aspects of TOK2ME, and as much as it was overlooked, asserting his technical superiority. Ultimately it will remain a mystery, because Steve holds his cards close.

I changed my feeling about the role of Steve many times. On the one hand, his furious rage ran counter to the jubilant spirit of that bubbling, azure list of names. But I understood where he was coming from—a background of purely technical exploration, and utter rigor in all things. And I had to admit in my weaker moments, the site *was* a piece of crap he could rewrite in five minutes, when you woke up and smelled the coffee. At some point in their feud, by virtue of my enthusiasm, my technical knowledge, and above all my loose lips, I became intimately involved with the inner sanctum of the TOK2ME team. I felt, along with them, that it was our baby. It wasn't heavy, it was our brother.

Nevertheless, I tried to negotiate Steve's participation in the development of the site. It eventually became clear that no one but Steve was interested in further tedious programming, and they steadfastly refused to give him access to the source in order to make minor modifications, if he would accept that.

The icing on the cake was Steve's purchase and renewal of the tok2me.net, tok2me.com, and tok2me.org domain names, which continues to this day. It was completely unsolicited, and for a time the TOK2ME team was furious. I was excited by the emotional complexity of the situation as I tried to comprehend both Steve's actions and Jeff and Alan's reactions. It caused me a great deal of personal stress, and I tried many times to get them to buy the domain from him. Not least among the reasons was that modifications to the domain name servers always necessitated an opening of old wounds, with Steve's eventual, perhaps reluctant, cooperation, and it made the DNS modifications bittersweet.

I think I mainly thrived on the sensational conflict, and my status as something of an outsider let me puff myself up into someone who knew best. And in fact, I was playing

both sides. I saw some outrageous things said online, and I could not begin to count the number of times someone was peeved at someone. I can only wonder how many times they were peeved at *me*.

I stopped short of disclosing the TOK2ME source code to Steve, of course, but that much was easy. And Steve wouldn't have wanted the code anyway. It was a matter of not giving him the code to laugh at, and find security holes in. (In fact, the gauge of security was whether anyone could break in, if Steve wasn't told the site existed.) But I could not resist answering questions from both sides about the maneuvers of the other. I could neither firmly establish my loyalty against Steve nor against Jeff and Alan. I could get more information (which was really techno-gossip) than either of the interested parties. And I was probably more interested by it than any of them.

Or was I:

Alan,

Contact me as soon as possible. TOK2ME.net is under Red Alert, the highest stage of alert.

Steve has been busy the past few months creating the TOK2ME code based off of the asp output, and he is in the final stages of production. He does not use asp, but PHP instead, so it will run on all servers. He has also added Netscape compatibility, a calendar which shows everyone's birthdays, and a message forum. While these improvements are nice, implementing Steve's "TOK3ME", if you will, would mean a total conversion from OUR asp code to a code written 100% by Steve that we do not even understand nor could we modify.

Not only would he have written all the code, but he owns all possible domain names as well. The only thing of ours that would be left are the graphics.

We cannot let our brainchild be taken over by Steve. We joked the day he bought the domains that he would eventually take over, but every small step has added up, and now Hitler is threatening to take over the world.

We must protect TOK2ME at all costs. We shall not give into the temptation of Steve's improvements, because the cost will mean our ownership of TOK2ME.

Warm Regards,  
Jeff

-----Original Message-----

From: Alan Leung [mailto:atl26@cornell.edu]

Sent: Friday, February 15, 2002 8:43 AM

To: Jeff Cobb

Subject: Re: TOK2ME RED ALERT

Jeff:

Bring it to DEFCON 5.

The time has come for drastic action. Obviously, we have no method of actually preventing Steve's sadistic plan from playing through. However, we do have three options available:

- 1) Create our remodeled version of TOK3ME, new and improved, with features that would remind loyal customers of TOK2ME's continuing desire to improve their lives.
- 2) Do nothing and assume that people will not so willingly transfer all their data from our TOK2ME server to Steve's cheap imitation. Take note of Steve's Clements 1999-2000 online directory that failed despite its outstanding design.

3) Plant seeds of deceit among our loyal customers, telling them about the potential hacking capability that Steve has, and remind them that Steve, a much more gifted computer science mind, would do much much more than simply look at their AIM lists.

We always knew this day would come, ever since that fateful day when we created the inflammatory Steve banner ad. However, we've been too quiet in our disgust that Steve owns the domain rights. Now that TOK2ME has gained fame among our circle of friends (in fact TOK2ME has become a common household name), Steve believes that his rights to the domain names translate into rights over our own intellectual property. I myself prefer to implement a mixture of options 1 and 3, as it does seem time to add a few changes we have always wanted, but never had the patience to see through (i.e. birthday reminder service.)

REQUESTING IMMEDIATE REPLY,

Alan Leung  
Co-Founder TOK2ME Email Database

RE: TOK2ME RED ALERT  
From: Jeff Cobb  
To: Alan Leung  
Date: Feb 15, 2002 - 12:10pm

I have forgotten to mention one critical aspect. After downloading the html for the "details.asp" page, he made a program that took all the contact information and put it into his own database. The only thing he did not know were the usernames and passwords. To fix that, everyone's log on is "lastnamefirstname." Luckily we have cleverly put "Copyright TOK2ME" at the bottom of the pages, so I think we can argue that that contact information is owned by us, and cant use it. But as long as he keeps the site private, we won't have to exercise that.

Jeff

## EXPLOSION

For weeks we all looked at the TOK2ME directory just to bask in the glory of it all, I suppose, but after a while I looked at it less. Eventually its membership ballooned to 90 members, all of them real, and most of them not close friends or even acquaintances of Jeff, who was by and large the most persuasive promoter. The power of the word of mouth was stunning, as throngs of mysterious strangers came bearing Chinese names. At one point I did a demographic survey and found the vast majority of members were Chinese. Perhaps TOK2ME's explosive grassroots popularity mirrors the incipient Christianity of Mainland China.

## KLUGE

Alan was an unusual character. He was not a "geek" or "nerd" in the usual sense. He had a girlfriend, also with impeccable skin. (I used to consider them literally the cutest couple by virtue of this youthful purity.) Alan had that urge that some of us have, not least Steve and myself, to master technologies for their own sake, no matter how futile, at

great length, with no end—a meditation of sorts. Alan, and not Jeff, frequently expressed his dismay at the shoddy construction of TOK2ME. Alan often felt an urge to rewrite it from scratch, something Steve obviously felt as the first one to rewrite TOK2ME. I felt it too, and along with my camaraderie with the TOK2ME team came my own desire to rewrite TOK2ME. No matter how arduous or futile it was, we all bore a sort of writer's desire to rewrite, rewrite, rewrite.

It was Jeff's skepticism of these totally unnecessary projects that managed to keep us grounded. (My own real-world project managers have not been so fortunate, as I rewrote our major project from scratch under the guise of "cleaning up the code.") All the discussion about rewrites, over a period of three years, provided stimulating, perhaps politicized, conversation between myself and Alan. Which technologies are crap, and which are beautiful, is always fascinating to discuss, and it also leads to research, much as a round-table discussion is an illuminating exercise. But like so many round tables, nothing came of them for a long time.

There was something about being a part of an institution, TOK2ME, that was appreciated by the public and that had some sort of meaning or importance. Jeff knew this as much as the rest of us, but his motivation was so firmly rooted in necessity that his impulses took another form. His drive to learn new technologies was not exactly suppressed, but it was warped by the practicality, something the rest of us lacked. Ultimately we were demoralized by all our efforts, reading manuals, producing elaborate prototypes that went nowhere. The drive almost always proved slightly too weak to produce complete results. But it was not the end, as Jeff's warped drive was awakened by Cindy and Eddie, the former power couple.

## TOK2ME AIM

Alan's grand technological ambitions, inspired by the prestigious entity the team had created from basic technical exploration, could not be kept at bay forever. In Ithaca, isolated from most of the TOK2ME community, he toiled in secret for hours on end—or so we can only imagine. He emerged one day with an interactive AOL Instant Messenger "buddy" Bot which would automatically reply to queries with TOK2ME directory information. It was written in Perl, which he learned specifically to enhance TOK2ME. It was neither the first nor the last time TOK2ME had driven the learning of new technology.

## LINUX PORT

I didn't believe I was on the TOK2ME team. I thought of myself more as a friend. Steve meanwhile was the nemesis. And as a mere friend, I thought it would be overstepping my bounds to make enhancements to the already stable code, which was the "baby" of Jeff and Alan. So my urge to meddle and tinker, which would have led me to rewrite TOK2ME à la Steve, was forced to find another outlet. I found I could tinker to my heart's content with the support structure—the operating system and web server software.

I can't remember why I did it now, but I got it in my head to port TOK2ME to Linux. Interestingly, this met with more resistance from Alan than from Jeff, even though Jeff's maxim was to let sleeping dogs lie. I might have reached the edge of unacceptable rewrites, and Alan was clearly chafing. I had to switch the database from Microsoft Access to the ancient Borland dBase format, replace all the drivers, and rename many field names to be 10 characters or less and lowercase, if I remember correctly. Alan and Jeff both thought this was a terrible risk, but I was very persuasive in my pent-up resolve. And I had the source code.

## TOK2ME DOWN

I had such a position of trust with the team that I was always considered as a potential web server host. The responsibilities of a web server host, or sysop, might seem small—making sure the computer is on—but they are fundamental, as I quickly learned. I was the host of TOK2ME for most of its lifetime. Unfortunately I sometimes had an unreliable internet connection, to say the least.

The site was almost completely free from software glitches, but this went largely unappreciated. In fact this was no small triumph given its kluge origins and massive machine-generated, but hand-edited, HTML source code.

What did get the attention was the server downtime. If the server failed while I was out, or even out of town, there was nothing anyone could do. After all, it was not a business. The downtime became more of a running joke, but the sort of joke that vile girls engage in: “Whoa, don't GO there, I want you out of here. Seriously, Becky, I want you to leave now.” I felt the heat. I still found it remarkable that so many users would ask “Where's TOK2ME?” This became a refrain, but not nearly to the extent as our mock-serious crisis call: “TOK2ME DOWN!”

I would return from school to find that the DSL had been disconnected for hours and would not reconnect without user intervention. The Bot raised the stakes: a temporary failure of the connection would knock the Bot offline until user intervention

My first code contribution to TOK2ME came in the form of DOG2ME, a watchdog timer that would monitor the Bot's connection, kill perl.exe if it went away, and re-run TOK2ME AIM. It proved invaluable on at least three occasions. But on top of that, I had finally made a true contribution. It felt good. It felt really good.

| OS             | Server               | Last changed         | IP address  | Netblock       | Owner |
|----------------|----------------------|----------------------|-------------|----------------|-------|
| Windows XP     | Microsoft-IIS/5.1    | 10-Jun-2002          | 24.58.39.95 | ROADRUNNER-NYS |       |
| NT4/Windows 98 | Microsoft-IIS/4.0    | 14-Nov-2002          | 66.167.95.7 | Covad          |       |
| Communications |                      |                      |             |                |       |
| Linux          | Apache/1.3.19 (Unix) | Chili!Soft-ASP/3.6.2 | 28-Nov-2002 | 66.167.95.243  | Covad |
| Communications |                      |                      |             |                |       |
| Linux          | Apache/1.3.19 (Unix) | Chili!Soft-ASP/3.6.2 | 3-Dec-2002  | 66.167.142.191 |       |
| Linux          | Apache/1.3.19 (Unix) | Chili!Soft-ASP/3.6.2 | 4-Dec-2002  | 66.167.142.156 |       |
| Linux          | Apache/1.3.19 (Unix) | Chili!Soft-ASP/3.6.2 | 6-Dec-2002  | 66.167.95.123  | Covad |
| Communications |                      |                      |             |                |       |



|              |                            |             |                |                      |
|--------------|----------------------------|-------------|----------------|----------------------|
| Windows XP   | Microsoft-IIS/5.1          | 22-Apr-2003 | 128.194.20.35  | Texas A&M University |
| Windows 2000 | Microsoft-IIS/5.0          | 6-Jun-2003  | 216.39.201.111 | My Linux ISP         |
| Windows 2000 | Apache/2.0.46 (Win32)      | 30-Jun-2003 | 216.39.201.111 | My Linux ISP         |
| Solaris 9    | Apache/2.0.52 (Unix) DAV/2 | 5-Jan-2005  | 70.112.178.197 | Road Runner          |

HACKED BY TOK2ME

TOK2AIM

AOL Instant Messenger has been a fixture of our lives for years. It is not at all unusual to feel desperately disconnected without access to the online “buddies,” whose presence at a computer, even if they weren’t talking to you, was somehow reassuring. AIM, as it was affectionately known, also provided its share of entertaining conversation. No one would seriously claim that it was not absolutely essential to our lives, unless he was taking some sort of temporary self-deceiving high posture. It was better than the telephone, because there was less pressure and less hassle. You had a choice whether to respond to interruptions—not responding right away was almost the norm.

By the summer of 2002, Jeff had an internship at Dell in Austin, and he actually had work to do—but not enough. The Dell network was locked down tight, and they blocked AOL Instant Messenger more thoroughly than most places. No one at Dell was “online” at work, and many people were annoyed. All they could do was surf the web. AIM was the tie that bound them all together, even if they didn’t talk to each other.

One day Jeff and I were discussing ways to circumvent the firewall. We came up with the daunting notion of giving someone access to an AIM session by relaying information through a website. The problem was, the AIM protocol was not trivial, and I had tried several times to implement it and found it too much trouble. A website is also no small matter. However, with Jeff’s encouragement, and the relentless TOK2ME spirit (one might say), I decided to write the program. I used the AIM library Alan had used for TOK2ME AIM, the creation of one Aryeh Goldsmith which Alan had come to scorn. I pored over the code for TOK2ME AIM and quickly realized the library was trivial to use. I wrote a CGI program in C to communicate with a Bot that would log in from the web server, relaying messages through the site to someone at Dell. He would then type messages into a web form and the Bot would receive them from the web server, and in turn would send them to the AIM service.

After countless difficulties involving incomplete file locking, binary versus text mode on Windows, and inexplicable sign-on failures, the program was complete, and stunned many at Dell with its ingenious simplicity. It worked like a charm. It had been a relatively short project but it had a tremendous payoff: popularity. I basked in the Dell employees’ satisfaction for many an hour. And I had learned CGI in the process.

XYPHORIA

Alan's sense of public relations is markedly different from Jeff's. Xyphoria, the future, was his brain child, and it came only after years of dissatisfaction with the ASP/Access kluge, years of brainstorming, and the all-important urge to rewrite. Xyphoria, like .NET, was shrouded in mystery, almost comically so, but in the end consisted of a complete reimplementaion of TOK2ME in PHP with a MySQL backend. At least, that is what it was in the past. It is heralded as the future of TOK2ME, and the future of all things as a matter of fact.

What is xyphoria?

Xyphoria is the next-generation incarnation of TOK2ME. Simply put, it is a directory of user contact information like phone numbers, email addresses, and instant messaging screen names. The directory is completely maintained by individual users like you -- it is up to you how much information you supply. Why should I use xyphoria?

Xyphoria does the dirtywork so you don't have to. You'll never again have to worry about remembering birthdays, phone numbers, email addresses, and all that other lovely baggage. Who should use xyphoria?

Anyone! If you have any friends, especially friends who tend to move around a lot, then this is the service for you.

Does xyphoria cost money?

Absolutely not. This is a free service.

Disclaimer

Because this is a beta test, TOK2ME cannot guarantee that all parts of this website will function correctly. TOK2ME makes no claim as to the validity of any information provided by its users.

TOK2ME will not supply your personal information to any third party unless mandated by law. Please note, however, that any personal information you supply is plainly available to other members. Do not supply information you do not want others to have -- TOK2ME is not responsible for the manner in which its members use your personal information.

Understand that transmission of information across the Internet is inherently insecure, and TOK2ME is in no way responsible for the possible interception of personal information in transit.

TOK2ME makes the best effort to keep your personal information secure on its dedicated servers.

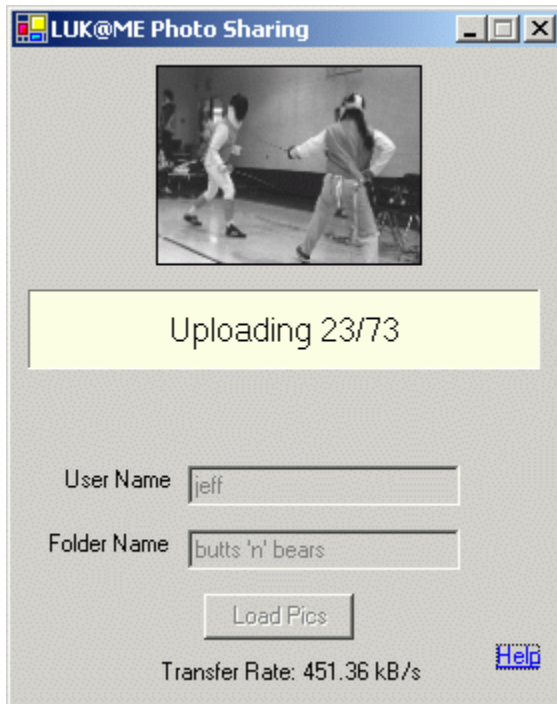
However, as no server is immune to vulnerabilities that have not yet been discovered, TOK2ME cannot guarantee or provide warranty that information is 100% safe from intrusion. If you have an issue with this, then do not subscribe to this service.

TOK2ME reserves the right to terminate user membership at any time.

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## REBIRTH

Development had stagnated for years. Eventually I would be responsible for the downfall of TOK2ME, a downfall not heralded in the slightest. All I did was turn off the server after most interest had waned. The calls did come—“Where’s TOK2ME?” But then, emerging like a phoenix from the ruins, it was Jeff that restored TOK2ME as an institution. How he did it was nothing short of remarkable.



## EPILOGUE

After his extensive efforts at developing the TOK2ME Beta (which he was forbidden from populating with information from the official TOK2ME) and his purchase of the domain names, Steve turned his efforts to a competing service, clementsdir.org. He scanned the entire Clements phone directories from two different years and converted the data to text using optical character recognition, with numerous manual corrections. His simple, elegant site was totally reliable and was always up. Without taking on the marketing glitz of TOK2ME, he at last succeeded on his own terms. His site was useful purely because of his attention to detail, his long attention span, and his technical rigor. The sheer volume of data would have stopped TOK2ME dead in its tracks.