

Eschatechnology: Computer Science, Religion, and Y2k

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Presented at the 30th annual meeting of the
Society for Social Studies of Science (4S),
Vancouver, British Columbia, November 2-5, 2006

Abstract

Seven years ago, information specialists around the world were working around the clock to forego the possibility of a collapse of the technical infrastructure of computing as a result of the "millennium bug." Large amounts of money and human resources were redistributed to identify and remediate the problem in computer systems across the globe. Yet, prior to the Y2k date rollover, no computer scientist could assuredly argue that their efforts were not in vain. Additionally, the major odometer click of the year 2000 inspired themes of Christian millennialism which fused with the discussion of the possibility of collapse, bringing to the foreground not only technical questions regarding computer software, but questions focused on the social, political, philosophical, and even spiritual dimensions of the risks of our contemporary reliance on computers in modern society. While scholars debated the viability of revolutionary metaphors related to the emergence of internet technologies, survivalists embraced apocalyptic scenarios related to these same revolutions. This paper represents the dialogue of computer scientists, scholars, survivalists, and religious devotees who shared a common, yet diverse perspective on the risks of computerization at the turn of the twenty-first century and it focuses on the issues of reliance, captivity and survival related to the ever increasing dominance of computer infrastructure in modern culture.

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History of the Coincidence of Religion and Technology

It can be argued, as anthropologist Terrence McKenna (*Food of the Gods*, 1992) has done, that the earliest science of mankind was the science of medicine, which, in the ancient past, must have been intricately tied to pharmacology and the processes of food discovery – finding out which foods were safe and which were toxic. The differentiation between “good” and “bad” sources of sustenance, however, was complicated by the fact that, despite their physical effects, certain toxicities produced mental effects which we now call “consciousness-raising,” allowing early man to develop transcendental thought and ultimately mysticism and religion (McKenna, 1992:39). This fundamental connection between medical science and religion was likely to be one of the first instances beginning

a long and complex history of linkage between science and technology breaking into the human social world of values, beliefs and, eventually, religion. The very anthropological definition of technology, in fact, provides specifically for the emergence of both it and humanity conjointly.

This commingling of technology and elements of mysticism and symbolic meaning has continued through the ages, from the burial 60,000 years ago of the earliest discovered shaman (a Neanderthal) with red flowers and a ring of stones at Shanidar Cave, Iraq, through the current coevolution of religion and computers. The connection between religion and technology is inherent in the human condition. In relation to the development of new technologies of the past, such as ocean-voyaging, telegraphy, and nuclear physics, apocalyptic religious beliefs have played a primary role. The voyage of Columbus to the New World was written about in his journals in the context of his search for the New Jerusalem (which figures prominently in Christian apocalypticism). James Burke (*The Knowledge Web*, 1999) has shown the connection between the telegraph and the eschatological patterns of thought of its creator. The first message sent by Morse's new code was "What hath God wrought?" a thinly veiled expression of his commitment to the apocalyptic possibilities of social reformation inherent in his invention. Not unlike some contemporary commentators on the "information revolution," Morse clearly believed his invention was a clear sign of the coming millennium, a technology that would simultaneously mark the end and the beginning of a new age on this earth. Another reflection of this, although not explicitly a fundamentalist apocalyptic himself, is found in Oppenheimer's statement that physicists "knew sin in creating the [atomic] bomb" (Lifton, *Death in Life: Survivors of Hiroshima*, 1967). This statement has been embraced by untold numbers of secular and religious believers as a clear sign of the "end times".

Some might argue that religion is more than simply a degree of order removed from mysticism, that it is a unique phenomenon. This argument is at the crux of the contemporary debates between the antithetical historical patterns of Enlightenment reason and religious fundamentalism. The initial thinking of Enlightenment philosophers and scientists (those who supported logical positivism) was that religion would wither away in the light of reason (the phrase "disenchantment of the world" sociologist Max Weber uses to nicely summarize that trend). Yet, as the opening of the twenty-first century has revealed, religious fundamentalism has hardly been dealt a blow by enlightened progress, and seemingly has initiated a spate of world conflicts which are enhanced by the violent means of warfare available *gratis* the scientific age. Whether this is due to the strength of religious revival or the failings of science is debatable, but the important point is that human behavior today is driven by a religious fundamentalism that inflects itself upon not only opinions and attitudes, but choices and actions that shape our cultures and our world. As Latour (*We Have Never Been Modern*, 1993) suggests, the "Great Divide" created by modernity masks the connections between nature and culture, the sacred and the technical, where technology becomes simply a tool, disconnected from its systemic effects. Today, with an emerging sense of reconnection being created through the very technologies that emerged as a result of the Divide, "it is not only the Bedouins and the !Kung who mix up transistors and traditional behaviors, plastic buckets and animal-skin vessels. What country could not be called a 'land of contrasts'? We have

all reached the point of mixing up times. We have all become premodern again” (1993:75). Like our premodern ancestors “we too are afraid that the sky is falling” (1993:7). Baudrillard (*The Illusion of the End*, 1999) echoes a similar refrain in suggesting that we have reached the End of History, a secular apocalyptic theme *par excellence*.

In his 1994 book *Apocalypse*, a study of religiously fundamentalist apocalypticism, Charles Strozier identifies the peculiarities of this mindset, particularly within a psychological framework of “premillennial dispensation.” This concept relates to the fundamentalist Christian interpretation of the final chapter of the New Testament, the Book of Revelation, that Christ’s second coming will precede Armageddon, issuing the Rapture of 144,000 true believers to heaven (those that have been “born again,” according to most fundamentalists), while those not saved will suffer the tribulations brought by the Apocalypse, after which a reign of Christ on Earth will realize the Millennium, a new beginning in which a New Heaven and New Earth will be wrought for a thousand years.

Of course, as the saying goes, the devil is in the details. Interpretation of signs of the coming millennium is at the heart of premillennial dispensationism; however, according to the Bible, no man shall know the exact time of this event, as God’s plans are revealed to no man. Thus, every era since the adoption of this millennial myth has succeeded in producing apocalyptics bent on interpreting signs in such a way that they are not a work of fixed prediction, but rather more simply a “foretelling” of the events that are bound to come. The work of academics such as Strozier and Norman Cohn (*Pursuit of the Millennium*, 1957) demonstrate clear links, ranging from the distant past to contemporary life, which point out the pace of cultural change, the specific effect of social class on believers, and the development and maintenance of apocalyptic thought.

Computing the Apocalypse

Computers and computerization have been the latest social-transforming technology to reflect the deep historical patterns of fundamentalist apocalyptic thought. Given that commentators have equated the recent development of the Internet with the printing press, the invention of writing itself, or even the control of fire (which naturally invokes Promethean myths about computing that blend seamlessly with the fears and hopes of apocalyptics), it is no wonder that this technology is seen by fundamentalists as apocalyptic. For example, Strozier (1994:142) points out the connection in an interview with “Cynthia,” a fundamentalist skeptical of the European Common Market, noting that “right now in Brussels, Belgium, the huge computer system there that controls the Common Market and everything is called ‘the Beast’,” using the computer itself as far more than a metaphor for the Beast of the tribulation spoken of in the Book of Revelation. Computers, and particularly computer networks *themselves* are, literally, the Destroyer of Worlds. Of course, as metaphorically beastly as any modern technology, the Internet is not literally “the Beast” any more than it is the Saviour. As Weinberger (*Small Pieces Loosely Joined: A Unified Theory of the Web*, 2002:194) says, “the Web is not the messiah dressed in cables and bits. It does not signal the apocalypse. It does not even

make us all millionaires. But it is also more than merely another new technology.” The world-changing capacity of the Internet is real, and it is distinctly the unknown nature of this change that invokes the hermeneutic of apocalypticism.

One basic world-changing computerization scenario engaged by apocalypics of many varieties posits that the world is so fundamentally interconnected by computers that any disruption effecting a large enough space in the network could throw the world into chaos as a result of the inability to effectively manage or fix our over-computerized social institutions and artifacts. One does not need to be a fundamentalist apocalyptic to contemplate and believe in this scenario. Prior to the year 2000, this was just the scenario painted by those who believed the Y2k Bug, also known as the Millennium Bug, would “strike” on January 1, 2000 (better known to computer analysts as 01/01/00). The Y2k bug was, in fact, a technical reality, spawned from the early practice of computer technicians to save valuable computer memory by jettisoning the first two digits of the year. It was (and still is) rooted in technique. Yet, the attention brought to the Y2k “problem” through various media far exceeded acknowledgment of the problem as a technical glitch, a simple coding error, and often proposed fashioning a TEOTWAWKI (The End Of The World As We Know It) scenario which would unrecoverably damage or destroy our worldwide social fabric. This “hype,” a kind of social or moral panic, was distributed in many ways, but primarily through the media, traditional and new, and it was particularly evident from the beginning of 1998 through January 1, 2000. The focus of my work is the attention that Y2k received in the new media, particularly in that “wild west” region of this new frontier, online discussion forums, particularly the traditional USENET forums, now Google Groups, that emerged to discuss the issue.

Apocalyptic Thinking Online

Among many blogs, web pages, email lists and discussion forums that I investigated, one in particular stood out as a good example of Y2k apocalyptic thinking. It was (and still is) a discussion forum on the USENET, now Google Groups, named *tech.problems.year-2000*, or *tpy2k* for short. However, long before 1996, when the *tpy2k* group was formed, discussion of the Y2k problem had occurred. This forum message from 1985 is an example:

From: Gerald Bocce
Subject: Computer bugs in the year 2000
Newsgroups: net.bugs, net.flame, net.puzzle
Date: 1985-01-18 20:43:17 PST

I have a friend that raised an interesting question that I immediately tried to prove wrong. He is a programmer and has this notion that when we reach the year 2000, computers will not accept the new date. Will the computers assume that it is 1900, or will it even cause a problem? I violently opposed this because it seemed so meaningless. Computers have entered into existence during this century, and has software, specifically accounting software, been prepared for this turnover? If this really comes to pass and my friend is correct, what will happen? Is it anything to be concerned about? I

haven't given it much thought, but this programmer has. I thought he was joking but he has even lost sleep over this. When I say 'friend,' I'm NOT referring to myself, if it seemed that way.

"I've never really written anything like that before"

Gerald P. Bocce

The worried tone of the message is a precursor to the reservations about technology that the symbol “Y2k” came to represent a decade later in *tpy2k*. However, the reservations in the message above are twofold – there is a concern (or at least a curiosity) about the potentially negative consequences of mass computer failure, but there is also an impression left that the author is trying to seem *rational*, particularly in the claim at the end of the message to *not* being concerned with the problem, but merely curious about it.

The background themes of rationality, security, hope, fear, and technological determinism pervade *tpy2k* and are endemic of community issues in general. Many of the thirty-six replies to the message above relate anecdotes depicting first hand experiences of Y2k or other date-related failures in computer systems at banks, universities and other businesses. It is a guess as to whether the original questioner was comforted or disturbed by the replies, for s/he never added to the thread.

Attention to the computer bug brewed for years, and mostly silently because of the non-immediacy of the problem. On February 13, 1984, editor Paul Gillin made the first print reference to the Y2k problem in *Computerworld* magazine. On September 6, 1993, Peter de Jager printed warnings of potential catastrophic dangers of the Y2k bug, also in *Computerworld* magazine (note in the next chapter the frequent references to *Computerworld* magazine made by the members of *tpy2k*). Between 1967 and 1995, no references from magazine or journal headlines, lead paragraphs, or terms are returned by the Lexis-Nexis news search engine regarding the terms “year 2000 bug”, “year 2000 computer”, “year 2000” and “computer”, or “Y2k.” Table 1 shows the references to both “Y2k” generally and the terms “Y2k” and “computer”:

<i>Year</i>	<i>References to “Y2k”</i>	<i>References to “Y2k” and “computer”</i>
<i>1967-1995</i>	0	0
<i>1996</i>	3	2
<i>1997</i>	127	56
<i>1998</i>	970	478
<i>1999</i>	2926	1131
<i>2000</i>	883	307
<i>2001</i>	242	79
<i>2002</i>	99	40

Table 1 - References to the Terms “Y2k” and “computer” in Periodicals, 1967-2002
(Source: Lexis-Nexis)

This data shows that “Y2k,” in both general and computer references in periodicals, did not become a factor in the wider culture until 1997, when attention to the matter started to reach beyond the technical weeklies and was drawn by periodicals such as *New Scientist*, *U.S. News & World Report*, and *Business Today*. A similar trend is found in references to “Y2k” alone and with the term “computer” in major newspapers, shown by Table 2. Nearly a quarter (twenty-two percent) of the “Y2k” references in 1999 occurred in the last half December 1999. References to “Y2k” in 2000 took place primarily in January, which accounted for 58 percent of the total posts in 2000. Clearly, “Y2k culture” was inculcated in the years between 1997-2000 within most industrial societies, particularly the U.S., in part by the media attention that it drew.

For a number of years computer technicians like Bemer and White, and others such as Gillin, de Jager, and Ed Yourdon (1986, 1989, 1998) warned of the dire consequences of a computer meltdown. This metaphor of a “computer time-bomb,” an

<i>Year</i>	<i>References to “Y2k”</i>	<i>References to “Y2k” and “computer”</i>
<i>1967-1995</i>	0	0
<i>1996</i>	9	7
<i>1997</i>	102	79
<i>1998</i>	1479	1433
<i>1999</i>	10985	5357
<i>2000</i>	3622	1327
<i>2001</i>	346	122
<i>2002</i>	116	43

Table 2 – References to the terms “Y2k” and “computer” in Major Newspapers, 1967-2002
(Source: Lexis-Nexis)

imminent, if preventable, threat waiting to “explode,” eventually led to books such as Reeve and McGhee’s (1996) *The Millennium Bomb* and Zetlin’s (1998) *The Computer Time Bomb*. After publishing a number of programming specific books in the 1970s and 1980s, Yourdon turned his attention in 1998 to Y2k, publishing *Time Bomb 2000: What the Year 2000 Computer Crisis Means To You*. Michael S. Hyatt, self-described as a “leading authority on the Y2k problem [who] has testified before Congress on the issue, and has appeared on countless radio and television programs about the Millennium Bug” (1998a) also got in on the action with a series of media he brought out between March 15, 1998 and April 1, 1999, including *The Y2k Personal Survival Guide* (1998a, published March 15), *The Millennium Bug: How to Survive the Coming Chaos* (1998b, published May 12), *Y2k: The Day The World Shut Down* (1998c, a novel published November 13, 1998 with George E. Grant), and *Y2k: What Every Christian Should Know* (1999, audiotape format).

On the Internet, newsgroups emerged to discuss the topic. Online forums other than *tpy2k* were involved in their own discussions of the Y2k problem, but none were as active as *tpy2k*. These forums included web-based groups like those accessible through

www.timebomb2000.com (Ed Yourdon's Y2k web page) and *www.year2000.com* (Peter de Jager's Y2k web page), and other Usenet newsgroups such as *alt.talk.year2000*, *alt.survival.year2000*, *alt.y2k.end-of-the-world*, *uk.tech.y2k*, *alt.future.millennium*, and *microsoft.public.year2000*. Many other small, informal groups also existed, with far less access and participation due to their relative lack of visibility or because they were intended only for a small, geographically local audience. Curiously, the Y2k-oriented Usenet newsgroups mentioned above were cross-posted to less frequently than *tpy2k*'s closest "network neighbor," *misc.survivalism*.

Until 1997, the culture of Y2k was more or less restricted to computer programmers who composed the techno-meritocratic and hacker cultures that Castells (2001) observes, or to the eschatologically-minded. A latent sense of the date change certainly formed a cultural undercurrent (few had not thought of the year 2000 as a marker for our selves and our society). After 1997, Y2k, in all of its manifestations, surfaced in the popular imagination of citizens in the United States and worldwide.

Religion, Survivalism and Y2k

The popularity of Y2k extended from the programmers to the media to religious figures drawing attention to the year 2000. In this light, it is clear that the connection between the year 2000 computer bug and the millennium (even though many did not consider January 1, 2000 to be the introductory date of the third calendrical millennium) is purely numerological, yet powerful nonetheless. There was significant overlap of Y2k and millennial cultures, and a consequent mix of the secular and the religious, science and superstition, led to some unorthodox beliefs. Hyatt's last work mentioned above suggests the connection between Y2k and religion, but it was even more obvious in evangelical circles, both off and online. This religious emphasis seeped into the talk about Y2k taking place in *tpy2k*, and was ever present as a background factor.

Survivalism associated with disaster preparation and response efforts made by an individual or a family when a calamity is perceived to be imminent were also linked to the Y2k bug. Group member Avowed evangelical Gary North preached survivalism and provided numerous scenarios by which society would collapse as a result of the Y2k computer bug.

The issue of survivalism is at the heart of y2k. This issue cannot be avoided; it can only be deferred.

Virtually all people will defer it. The vast majority of those who read my REMNANT REVIEW newsletter, my ICE newsletters, and receive my various monthly audiotapes will defer it. They will define their situation as being somehow different. They will not write down on paper the reasons why they believe this, for their only reason is that it is inconvenient to move. They will refuse to move until they cannot move. Now, if they won't move, after a year and a half of weekly warnings, why would the average person move, who thinks "they're taking care of it"? He won't. He will get trapped. He will be upset that nobody warned him -- as if being warned about y2k would change most people's behavior.

Do I really believe that people would rather risk near-certain disaster or death rather than be inconvenienced? I do. I'd have you ask a million Armenians who died in the Turkish slaughter in 1916, or the Jews who thought Hitler could be dealt with in 1933, or the 100,000 ethnic Chinese who were murdered in Indonesia in 1965, but they're not around to ask.

Ed Yourdon confronted the issue of survivalism; then he moved out of New York City and went to Taos, New Mexico. He wrote his reasons in *TIME BOMB 2000*, which is now on the *NEW YORK TIMES* best-seller list for paperback business books. But he will not be joined by many programmers. Nevertheless, the press will keep writing about him. The press is fascinated with survivalism...

(at http://www.garynorth.com/y2k/detail_.cfm/1977, originally posted 1999, retrieved 2004).

A notable Y2k pundit, Gary North and his web pages figured prominently in the *tpy2k* newsgroup as a source of information. But many were also very skeptical of his doomsaying.

No one opposes Gary North because he is providing y2k "information". It is y2k information that disproves Gary North. Most of the documents he links to undermine the 'comments' that precede them. It is because Gary doesn't let the facts speak for themselves. He comprehensively distorts them. If the facts speak for themselves, then why the 'spin'? Why such clear tactics of dishonesty and chicanery? Why has this all appeared before time-and-time again in the well documented track-record of false alarms, hatred of the U.S. system of government and Western democracy, survivalism, sociopathy? (Thibodeau 1999).

Though Thibodeau correctly notes that the interpretation of "signs" is what North in fact was doing in "distorting" the facts, despite such criticism a central tenet of the Doomer dogma in *tpy2k* was preparedness for survival in the event of immediate, or even long-term, societal collapse. The messages of preparedness and survival combined not only with evangelical outlooks on Y2k, but with the secular as well. As previously mentioned, the *tpy2k* newsgroup was very closely affiliated with the newsgroup *misc.survivalism* (also known by the acronym *ms*); the data shows *ms* to be the closest newsgroup neighbor to *tpy2k* (meaning that the greatest number of shared messages between newsgroups was with *ms*). Clearly, survivalist ideas had a significant role to play in the Y2k phenomenon being discussed online.

Other analyses of the Y2k computer bug hype were going on in academia, such as that made by cultural contagion (memetic) theorist Aaron Lynch. In the subtitle of his August 1998 web article, Lynch asks the question "Is Your *Mental Software Year 2000 Compliant?*", and went on to argue that "Thought contagions are beliefs that program for their own copying in humans much as computer viruses do in computers. Their self-spreading effect explains the techno-apocalypse ideas swirling around the Y2k bug, including secular hell-doomsday ideas, logic-resistant strains of myth, and embedded rumors. Knowing this can help everyone, and prevent the panicked departure of programmers and other key personnel just when we need them most."

Richard Landes, a professor of history and director of Boston University's Center for Millennial Studies, has also examined the connection between millennialism and the

Y2k computer bug. Landes' ideas regarding "owls" and "roosters" surfaced in the *tpy2k* forum on June 22, 1998, when newsgroup member Lucy Ripaghan re-posted an article printed a day before in the *San Jose Mercury News*, which included this information from Landes:

Landes has been tracking the Year 2000 and other millennial predictions for years. "This is what we call secular apocalypse," Landes says. "It has two elements that make it different from religious apocalypse. At least at the rhetorical level it appeals entirely to scientific projections and deals with material phenomena. On the other hand, unlike religious apocalypse, there is no redemption -- there is no heaven and hell."

Landes says it is inevitable that the level of rhetoric and alarm, which has already risen, will continue to escalate. Different people are predisposed to react to the same predictions in different ways, he says. He defines the most alarmist voices as "roosters," and those on the opposite end, who think everything will be taken care of as "owls."

"The position of the owl, its preference, is not to talk about it," Landes says. "The only thing that brings them out is when the rooster starts winning the battle of public discourse."

Discussion about the Year 2000 are becoming more mainstream, and that is a sign that roosters are winning, he says. One thing roosters and owls agree on is that as the clock ticks, there will be plenty of opportunities to get some reality checks.

The positions of rooster and owl that Landes describes are clearly analogous to the Doomer and Pollyanna camps that became the basic framework for belief within *tpy2k*. Online and offline life meet in the following 1999 post as a newsgroup member indicated he was a friend of Landes:

From: Curt Ovachart
Subject: Re: Richard Landes is no Polly!
Newsgroups: tech.problems.year2000
Date: 1999/05/26

...
Landes is my friend and I've had several conversations with him about Y2k. I've attempted to calm him down on this issue but have had little success. He has organized some panel discussions at Boston Univ. and did include people from the "polly" side in effort to give balance.

In the first panel discussion (3/3/98), he included Zvegintzov on my recommendation. Later, Richard told me something like, "all he said was stuff like, 'that's ridiculous.'"

He is also on record specifically stating that he does not agree with me on the Y2k computer issue.

--Curt Ovachart

Roosters and Owls, Doomers and Pollys

The dichotomy between believers and non-believers was clear and tangible by the end of 1997. The conflict that emerged as a result of that polarization was equally

tangible. Jokes were a common way to defuse the growing tension between the Doomers and the Pollyannas. However, the seriousness with which members of the newsgroup took the issue was indisputable.

Casting aspersions became another method by which the conflict escalated. Note how the roles of Doomer and Pollyanna are most often defined and attributed through a negative labeling process. The very definitions of the terms imply deviance: Doomers are explained as deviant by Pollyannas and Pollyannas explained as deviant by Doomers.

Peter Mill was a major contributor to the negative labeling of the Pollyannas. In one message left later in the life of the newsgroup (April 23, 1999), he claims they are “intentionally dishonest” and that “the Pollyannas dissuade people from preparing by stifling their doubts. Not with real evidence, but on the basis of wishful thinking and happy faced pronouncements. The ingenuous [sic], lying, self-deceived pollyannas will have the blood of many many souls on their hands.”

The roles of Doomer and Pollyanna in the newsgroup were created in the early period of its existence. They emerged partly out of the initial conflict of technical versus non-technical information regarding the Y2k problem; identity formation was clearly linked to the boundary violations of the newsgroup. and partly as a result of a fundamental difference of opinion regarding the ultimate outcome of the As the categories of Doomer and Pollyanna were created, the attachment of particular names and opinions was immediate. Soon after the first posts introduced the categories, people immediately categorized themselves and/or others into them. The next chapter, on interpersonal knowledge, will describe more fully the creation of online identity in the non-physical, socially constructed forum of *tpy2k*.

As shown in Table 3 of the number of posts contributed to the newsgroup from November 6, 1996 to December 31, 1998, early access to the newsgroup grew steadily through the first two years of its existence. The first year's access to the *tpy2k* newsgroup and the creation of boundaries during this early growth also led to a serious rift in the online community. The growing culture of the newsgroup changed significantly in its first year as the borders and content of the newsgroup were debated. Rather than see the conflict as fundamentally detrimental to the newsgroup, it should be recognized that the newsgroup grew in membership and messages during its first year. Despite the conflict that emerged, the strength of the newsgroup did not seem to fail. Though a commonality of opinion did not emerge, this was a promising start for a newsgroup desiring to share common resources in an online setting to produce the goal of a tangible public good – remediation of the Y2k computer bug.

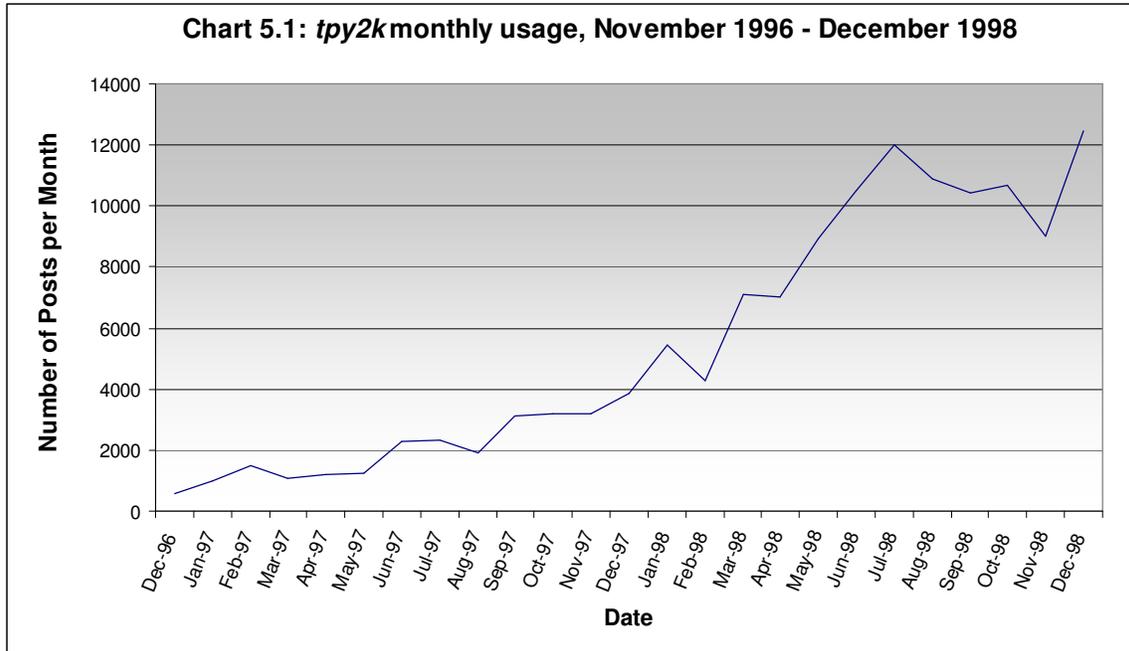


Table 3 – tpy2k posts by month, November 1996-December 1998
 (Source: Deja News collated statistics, 2000)

Conclusions: Eschatechnology and the Future

Every one of these elements of Y2k and Internet culture, from COBOL programming to survivalism, from business, political, and academic perspectives to religious ones, entered into the discussions of members of *tpy2k* at some point. The combined convictions of computer programmers, evangelicals, survivalists, business people, politicians, and academicians, pushed the Y2k phenomenon into mainstream culture in 1998. It was this complex of factors that combined to contribute to the overarching *zeitgeist* of the moment before the year 2000 transition, the period of the late 1990s where the Internet “revolution” drove a massive spike into the stock market and the economy, a period of increasing religiosity in America (Strozier 2002), and a period of continued U.S. political ambiguity. The feelings of the continued capacity of computers to revolutionize society (and feed a “never-ending” upward-spiraling business cycle) contributed to the fear and panic that was expressed at its possible demise. Equally responsible was the millennial myth that was influencing opinions on the effects of the Y2k computer bug. But one thing is certain: there was significant enough attention to the date rollover on January 1, 2000, on many different fronts and for many different reasons, that societies worldwide took notice.

Tpy2k was a clear example of the notice that was taken of the millennium primarily from the perspective of a technical group sharing the culture of the Internet, but with input from others unfamiliar with technical aspects as well. *Tpy2k* can be thought of as a microcosm of the clash of modern rationality, with its Pollyanna “silver-bullet”

approach to technological problems, and the cultures of endism and their various religious and secular versions of doom and gloom prognostication. As a reflection of the society itself, the communication within *tpy2k* is both technological and religious, both technical and moral, and it is this combination of influences which make this social space fertile ground from which the *tpy2k* online community sprouted.

What can such online apocalypticism reveal to us regarding the state of our technology and its coincidence with the social institution of religion, which seems so juxtaposed to the rationalizing forces of science and technology yet clearly meshes deeply with those forces?

First, we can be assured that it is a mistake to dismiss the influence of religion on technology and vice-versa. It is particularly when technologies of violence, war, and oppression are instigated by absolutists who use interpretive frameworks of “signs” to predict, or worse yet, create, the coming end times that this problem becomes real to all involved, not just the true believers. Fortunately, in the situation of the Year 2000, this did not come to pass. Nonetheless, the FBI had prepared for millennial violence on the eve of Y2k with an initiative called “Project Meggido” (a reference from the Book of Revelation to the hill near Israel, Har-Meggido, where the term “Armageddon” gets its name). According to the head of the FBI's National Security Division, Neil Gallagher, “threat posed by extremists as a result of perceived events associated with the Year 2000 (Y2K) is very real. The volatile mix of apocalyptic religious and conspiracy theories may produce violent acts aimed a precipitating the end of the world as prophesied in the Bible.”

Second, we must recognize the polarizing tension that these countering social influences produce. While social polarization is not necessarily a recipe for disaster (the American political system has worked – to some extent – upon a basic polarization for years), it can lead to a rigidity in belief that eliminates a more nuanced and complex understanding of reality. It can also stifle discourse in a way that stunts culture. Polarization limits options for discussion and that can limit our understanding of an issue, whether it be abortion, terrorism, or Y2k (all issues that have been contemporarily polarized). War, cultural or otherwise, necessitates polarization, leading ultimately to a false dualism which feeds further antagonism and misunderstanding of opposing positions. This is ultimately culturally damaging.

Third, despite the dangers outlined above, we must remember that we cannot take apocalypticism too seriously. After all, it is fundamentally mythic, providing a way of encountering change and unpredictability that soothes and pacifies resistance to it. Sometimes, humor takes on the role of such pacification. Strozier notes this in his study when he writes,

Such modern concreteness about... [the Book of] Revelation brings the end times into direct connection with modern technology in an almost humorous way. It is exactly such contextualization that makes end time imagery real and evocative for fundamentalists. Once the metaphor is literalized, it makes psychological and even spiritual sense to ground it in the specifics of the known world; at the same time, the dimension of

absurdity that adheres to literalized end time ideas within a modern world may begin to undermine the whole elaborate structure (1994:150).

A mocking attitude was evident in the *tpy2k* discourse from both camps (chiefly evident in the names of the camps themselves – “Doomers” named by disbelievers and “Pollys” named by believers). This was one way in which this tension was dealt. In retrospect, this acknowledgment has become a running joke within the forum. A recent (June 24, 2006) post points this out:

```
From: Greg Fox
Subject: Re: Y2K coming to a head!
Newsgroups: tech.problems.year2000
Date: 2006/06/24
```

```
In comp.software.year-2000, [name omitted] wrote:
> The accumulated Y2K errors will soon...
> ....ah, forget it.
```

```
It is INEVITABLE :)
```

The elaborate apocalyptic structure of Y2k itself bringing the end times, of course, fell apart as the millennium transitioned as normally as it possibly could have, rendering all of the heady apocalyptic talk fundamentally absurd. For many, the world was “renormalized” after the date rollover. For others, however, even that ultimate disconfirmation was not enough to dissuade them from arguing about “cascading effects” to bring the same apocalyptic conclusion in a few days, a month, a year, etc., adding to the absurdity of the connection between the literal and the rhetorical. This is not unprecedented; in fact, most apocalyptic movements have ways of explaining their failure to truly predict the end, once disconfirming evidence presents itself. Festinger (*When Prophecy Fails*, 1964) used such cases to bolster his theory of cognitive dissonance.

Finally, we must recognize that the coincidence of these forces helps to shape our world in unpredictable ways. Erik Davis, from whom I have liberated the title of this paper, makes the argument that “the end times will keep beckoning long past Y2K. We must do better than simply snicker about the irrationality of apocalyptic thought... The really compelling question is how we grapple with the apocalyptic feelings and figments that already crackle through the world. We should no more ignore these ominous signs and wonders than we should interpret them as literal forebodings of a certain fate” (*Techgnosis: Myth, Magic and Mysticism in the Age of Information*, 1998:256). The attention brought to apocalyptic scenarios and beliefs is a reflection of the great uncertainty that we all experience, an uncertainty that is fundamentally part of the human condition, and that has become acutely hidden in the midst of a modern civilization that believes itself to be impervious to risk. Acknowledging apocalypticism foregoes that belief in an impenetrable position of a cultural “safe zone” and allows us, correspondingly, to be more in touch with our humanity.