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Business & Stocks

Posted at 11:08 p.m. PDT Wednesday, April 15, 1998

Web offers details on companies' pollution

BY PAUL ROGERS

Mercury News Staff Writer

In one of the most far-reaching marriages of computer technology and environmental activism yet, a Web site unveiled Wednesday allows anyone in the United States with Internet access to locate polluting industries in their neighborhood, research the amount of chemicals being released and learn the risk with a few clicks of a mouse.

The new site was assembled by the Oakland offices of the non-profit Environmental Defense Fund at a cost of more than \$1 million and a year of work. With Oracle Corp. of Redwood Shores donating rights to use its software, the site combines more than 150 government and university databases onto a single location.

"The environmental movement has to get more creative with our approaches," said Fred Krupp, executive director of the Environmental Defense Fund, based in New York City. "We're trying to harness the information revolution and empower citizens."

"Sunshine is a powerful disinfectant."

If the first day of the Web site's operation is any indication, there is great interest in the pollution data. During its first five hours online, the site received 300,000 hits -- causing a temporary overload to the server.

Statistics accessible

The new approach, which could lead to increased corporate accountability, demystifies the national statistics that reveal who's polluting and who's not.

Since 1988, the U.S. Environmental Protection Agency has required all companies that emit pollutants into the air, water and solid waste systems to submit annual reports totaling the

amount and type of emissions. That list, which includes 31,000 manufacturing plants and more than 700 chemicals, has been largely overlooked by the general public.

Fairly complex and esoteric, the list, called the Toxic Release Inventory, has been mostly studied by environmental groups, journalists, business interests and government regulators.

The new Web site delivers the information in a more user-friendly package.

For example, users can enter the name of any company in the United States and see whether it has released significant amounts of pollutants. They can call up maps showing where all major toxic polluters are in their towns, counties and states.

They also can access rankings of the largest polluters by any region, and link to peer-reviewed studies spelling out the health risks of chemicals being released, and what type of government rules affect those chemicals.

For major polluters, the user can click on a form letter that sends a free fax to the company's plant manager, informing the firm that the user is aware of the amount of pollution being put out and requesting that those levels be reduced.

"For years, all this information has been sitting in EPA files," Krupp said. "It's very powerful. We hope this will help communities work with plant managers to further reduce emissions."

Big industry, which at first fought the law that created the Toxic Release Inventory program, has dramatically reduced its pollution levels over the past decade. That's in part because of accountability: The public and government officials have been better able to rank the most serious polluters.

"It's clear that things are getting better. We are doing the right things," said Theresa Larson, director of environmental quality for the National Association of Manufacturers.

Down since '88

Nationwide since 1988, for example, total toxic emissions have fallen 61 percent, from 5.6 billion pounds to 2.2 billion pounds.

The numbers are even better in California, where total toxic emissions have dropped 64 percent.

A quick search of the site shows that California ranks 19th among the states for most toxic emissions. Texas, Louisiana and Ohio top the list for most pollution put out. Vermont and Hawaii are at the bottom.

Locally, Santa Clara County ranks eighth of California's 58

counties for total pollution reported under the law. Los Angeles reported the largest amounts. Alameda County was fifth, Santa Cruz County 29th and San Mateo County 32nd, in 1995, the most recent year for which EPA has data.

The new Web site is almost certain to put more pressure on industry to reduce pollution levels further.

Larson said that although most big companies have not studied the new Web site, they might be concerned -- as they have in the past -- that the public could misinterpret the data. Many types of garbage or air emissions pose little or no health risks, she noted, while others can pose serious threats, depending on the type of chemical.

"We don't want people to be needlessly alarmed," she said. "More doesn't necessarily mean more risk. There are high volumes of things with low toxicity."

The Web site was assembled by a team of 12 Environmental Defense Fund staff members, including physicians, computer programmers and toxicologists, under the direction of toxicologist William Pease, formerly with the University of California-Berkeley School of Public Health.

Officials at Oracle gave the group a license -- worth \$40,000 -- to use the high-octane software that helped create the site.

Government officials were withholding judgment Wednesday.

"In general, we support any project that provides accurate environmental information to the public," said Lois Grunwald, a spokeswoman at the EPA regional office in San Francisco.

"But it is premature," she said, "for EPA to comment about this Web site until we've had time to take a close look at it and get a good sense of its scope and accuracy."

The Environmental Defense Fund has 300,000 members, one-fifth of them in California. The group was founded in 1967 by a group of scientists and lawyers in Long Island, N.Y., working to ban DDT.

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MIT Commencement

6/5

- America in the Information Age
- Gene / MW to write memo to POTUS
 - w/ policy
 - where's what speech should say
- What should be in speech
- New Things - 2nd generation internet

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Congress

THE WHITE HOUSE

WASHINGTON

April 20, 1998

Tom F.

H. Kalil
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MEMORANDUM FOR GENE SPERLING, MICHAEL WALDMAN, JOHN PODESTA, JEFF SMITH, BRUCE REED, JIM KOHLENBERGER

FROM: TOM KALIL TAK
RE: MIT COMMENCEMENT ADDRESS

Summary: This memo describes policy initiatives that the President could announce as part of the MIT Commencement address as part of the first "basket" -- namely, investing to keep the U.S. at the forefront of the Information Revolution. These options, which are not mutually exclusive, include:

1. Supporting the Next Generation Internet for an additional 2 years;
2. Announcing a contest to encourage students to develop NGI applications;
3. Doubling government investment in computing and communications research over 5-10 years; and
4. Taking steps to accelerate private sector investment in high-speed networks to homes and businesses.

These are just preliminary proposals to get people's preliminary reactions. Obviously, we would have to have an inter-agency process before moving forward with them -- particularly on anything that would cost money.

Option 1: Support the Next Generation Internet initiative for an additional two years (FY2001-2002)

Discussion:

The Next Generation Internet initiative was originally proposed as a 5 year initiative, but the Administration has only committed to a three-year period (FY98 - FY2000). The cost of doing this would be \$220 million (\$110 million per year for two years).

Pros:

- Although NGI is just starting (agencies received funding beginning October 1997) - it is

already demonstrating signs of success. On April 14th - the Vice President announced private sector in-kind contributions worth over \$500 million - and many more are expected. NGI is also gathering bipartisan support. Authorizing legislation passed by the Senate Commerce Committee by a unanimous voice vote.

- Research projects generally take 5 years to complete - which is why NGI was originally proposed to be 5 years.
- Lengthening the duration of NGI will increase the likelihood that dramatic new applications will be developed. Applications currently under development include - distance learning, telemedicine (e.g. the ability to see real-time imagery of a beating heart), better prediction of severe weather systems, and "virtual laboratories" that accelerate the pace of scientific discovery by connecting scientists, scientific instruments, supercomputers, and databases across space and time.

Cons

- Requires making budget decision outside of budget cycle.

Option 2: Announce a contest for students to develop exciting new applications for Next Generation Internet

Discussion:

Some of the most exciting applications of the Internet have been developed by undergraduate and graduate students. Mosaic (the first graphical Web browser) was developed by Marc Andreessen - a student at University of Illinois. Yahoo! -- which now has a market capitalization of almost \$6 billion - was started by 2 Stanford graduate students. The private sector could organize a contest which would provide prizes to students who submitted the best ideas for NGI applications. Prizes might include: small grants to support research, workstations, high-speed networks to the dorm room, etc. Although I have not talked to any companies about this -- I believe that there would be strong private sector interest in supporting it.

Pros:

- Good symbolic value in engaging the next-generation of scientists, engineers, entrepreneurs, and creative talent in developing the Next Generation Internet.
- Good venue to make such an announcement.
- Low/zero cost for government.

Cons:

- Might be seen as “gimmicky” by some by itself - but would fit well with Option 1 (2 years additional funding for NGI).

Option 3: Double investment in computing and communications R&D over some period of time (5-10 years).

Discussion:

The federal government only invests ~ \$1 billion in computing and communications research, as opposed to the \$14 billion we invest in NIH. Doubling it over 5 years would cost \$200 million in FY2000 - over 10 years would cost \$100 million in FY2000.

Arguably, we are underinvesting in this area given the returns on past investment. According to the National Academy of Sciences, many of the most important computer and communications technologies that are driving today's economy are the direct result of government investments in academic computer science research in the 1960's and 1970's. The Internet -- which started with government investment in the late 1960's -- is one of only many examples. As Bob Davis and David Wessel note in *Prosperity: The Coming 20-Year Boom* -- many of these research projects were sponsored by an MIT professor named J.C. Licklider who was then at DARPA.

There are many exciting areas where additional research needs to be done:

- What will come after the transistor (e.g. quantum computing, DNA computing)?
- How can we cope with information glut? How do we find the specific piece of information we are looking for in an ocean of data -- or automatically discover patterns in huge “data warehouses” with trillions of bytes of information?
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- How can information technology “amplify” human intelligence in the same way that bulldozers increase our ability to lift and move physical objects?

- How can we develop computers that see, learn from experience, and understand normal human conversation?
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- What new industries could be created by embedding very cheap computing and communications capabilities in more and more everyday things?
- What are the new applications of computing and communications that can contribute to many of our most pressing economic and social challenges?

Pros:

- Huge potential for economic and social benefits. Government investment in the Internet alone has created \$200 billion in new wealth. Because the U.S. has remained the center of innovation, we now dominate many of the fastest growing sectors of the global economy.
- Many important research challenges remain in computer science and engineering.
- Would be very well-received by key high-tech constituencies - particularly if we stress long-term, university-based research.
- We already have a blue-ribbon "Presidential Information Technology Advisory Committee" (PITAC) that is a "who's who" of experts in industry and academia -- and could help us develop the details of the long-term research agenda.
- Some in Congress (Gramm, Lieberman, Domenici) have called for doubling all of civilian research.

Cons

- Requires making budget decision outside of budget cycle.
- "Doubling" computer and communications research could be seen as arbitrary target.

Option Four: Accelerate deployment of higher-speed networks to homes and businesses

Discussion:

Currently, many Americans experience the Internet as the “World Wide Wait” instead of the “World Wide Web.” This is primarily because people are connecting to the Internet over a copper phone line. This is known in the industry as the “bandwidth problem” -- bandwidth is the amount of information that can be transmitted in a given period of time. The Next Generation Internet will not address this problem directly -- since it will connect the top 100-150 research universities and National Labs.

Ultimately, it is the private sector that must invest in deploying high-speed networks to homes and businesses. For example, if it costs \$1,000 - \$2,000 per household to upgrade the network -- and there are 100 million households -- this is a \$100 - \$200 billion investment.

But there may be some steps that the government can take to speed things up:

1. **The government could support pilots to wire an entire community (homes, businesses, hospitals, schools, government offices) at high-speeds.** One of the reason that companies have been slow to deploy higher-speed networks is that they are not sure what customers would do with it. Something like this has been done for regular Internet access called the Blacksburg Electronic Village. We could support 20 pilots at \$1 million each for \$20 million -- by doubling an existing Department of Commerce grants program. We would require:
 - Substantial state, local, and private sector matching funds;
 - A commitment to universal availability;
 - Innovative public sector applications -- in addition to commercial services.
2. **The Administration could review whether existing telecommunications regulations are slowing down private sector deployment of high-speed networks:**

Some companies argue that existing telecommunications regulations are slowing down their deployment of high-speed networks.

Any specific announcement would be controversial -- since these issues usually pit different segments of the industry against each other. It is also not clear that we could complete the necessary policy process by June 5th. But the President could call for a 90-day review led by the NEC and a conference sponsored by the Commerce Department.

Pros

- Bandwidth is a huge issue for both the industry and individual Internet users.

Cons

- We could be criticized for not offering a complete solution to the problem.

THE WHITE HOUSE
WASHINGTON
April 20, 1998

Handwritten notes: "Mi-hill" and "hwl" with a question mark.

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