The original WWW Wizards at SLAC visit **Paul Kunz**. Left to right: Louise Addis, George Crane, Tony Johnson, Joan Winters, **Paul Kunz**, and a NeXt computer (missing: Bebo White and Mark Barnett). Photograph courtesy of the Stanford Linear Accelerator Center, Archives & History Office, Stanford, Calif.

Again, I have to mention that in the beginning this was not part of our regular jobs. Luckily, the SLAC Computing Center was quite supportive. Les Cottrell, the assistant director of computing, could certainly have discouraged the computing staff from participating. Instead, they were able to work on the WWWizards team and to support this unsupported software. And, they helped run the server on their computer!

FM: Did you have any idea then of what the **Web** would become?

LA: No! I was just hoping it would survive at SLAC. For a long time, the **Web** suffered from the stigma of being unsupported software.

My goal was simply to provide better community access to the particle physics literature via SPIRES-HEP.

FM: Was SLAC a good environment for developing new tools, such as SPIRES-HEP or the **Web**?

LA: Yes! We always had the ability to respond quickly and be flexible. This was particularly instrumental in the development of the **Web**. When **Paul Kunz** came back from Europe and said, "Let's do this," the Library could move ahead.

And as soon as we were on the **Web**, we were able to start linking the records in our database to the TeX source at Los Alamos National Laboratory (LANL) where, in August 1991, **Paul** Ginsparg had started the first e-print server. **Paul**, by the way, almost single-handedly made another kind of revolution in the way scientific literature is handled ... but that's a whole other story.

As soon as we were on the Web, we were able to start linking the records in our database to the TeX source at Los Alamos National Laboratory.

FM: How were you able to just jump right into this new technology?

LA: First of all, our faculty were used to using unsupported software. We didn't have manuals or training classes, but we did have all kinds of skills and knowledge available for something interesting. The **Web** was done entirely with volunteer labor at first.

Generally speaking, the Lab encourages experimentation, sometimes officially and sometimes not. The **Web** server project was something that the SLAC Library could jump right into because of our track record with SPIRES-HEP and our environment. All that had gone before made it easier to get management approval. Plus, the chief librarian, Bob Gex, was terribly supportive. I was lucky in that regard.

MH: Do you feel that development of resources such as SPIRES-HEP has gone faster with the implementation of **Web** technology?

LA: Oh yes. In fact, this was one of the things that really sold me on the **web** - it was easy! The underlying **Web** server and **Web** browser programming is more technically complex, but creating the resources is much easier. For example, the x-windows project relied on programmers who could manipulate a more complex system. On the other hand, the **Web** allows for easy development of resources; you can make the page look exactly the way you want without deep programming.

FM: The particle physics world seems tailor-made for the World Wide **Web** - or should I say that the **Web** was tailor-made for the physics world?

LA: Absolutely! There is the issue of the need for rapid communication in a field that has a slow publication schedule. Additionally, the particle physics community is made up of very large groups of scientists all working on the same project, but from remote, diverse sites.

Also, these folks are used to trying something new. When we notified our registered users

about how to get a free browser from Tim at CERN, many did right away. They wanted to get to our database, so they were really motivated to get that browser and get on the **Web**. This helped spread use of the **Web** in the particle physics community and it also helped people learn about the archives at LANL.

FM: What about the democratizing of the publishing process?

LA: Gray literature is a very important part of the particle physics world. One of the great things about the **Web** is that it democratized access to these resources. Before electronic communication people who were further away from population centers or technology centers were really behind. They had no way to find out quickly about research.

Gray literature is a very important part of the particle physics world. One of the great things about the Web is that it democratized access to these resources.

Before machine-readable, full-text e-prints were available, paper preprints were mailed by the author or the institution only to major institutions. And researchers at smaller institutions didn't receive the preprints. The only way to find out about these articles was through a preprint list such as the one SLAC published weekly. The researcher then had to request the actual article through the mail. This was too slow.

FM: And the interactive nature of the **Web**?

LA: In large particle physics collaborations, the experiment may take years from conception through publication. And there may be hundreds of physicists around the world working on these projects. They are all producing materials that need input from others.

Many papers are almost dialogues. Papers go through revisions. Discussion is a big part of the process. Physicists really needed that ability to interact quickly.

The **Web** was a revolution!

FM: Back to your career development, did you feel more affiliated with the library community or the particle physics community?

LA: Much more affiliated with the particle physics community. Our issues were so different from what others in most libraries were experiencing. In a special library, you have to know your community and listen to them. They're the people that need the library.

FM: Doesn't this apply to all libraries?

LA: More so to special libraries, which are vulnerable and can be more easily closed.

FM: What do you think is the response to this vulnerability?

LA: We need to apply other skills and expertise in order to allow the library to succeed. You almost never have all the skills you need. You have to find them elsewhere. For example, at the SLAC Library we wanted to make PostScript files and graphics available via the **Web**, rather than just linking to the TeX sources. So, when Tony Johnson developed Midas, the first GUI browser that was bug-free enough for us to use, he added capability for reading and displaying postscript. This was the kind of development done on someone's personal initiative. This is skill and interest that you cannot buy. Also, Tony had the breadth of knowledge of a particle physicist's needs and a willingness to tinker.

FM: So, we're back to an environment of experimentation ...

LA: Yes, a lot of environments don't make it easy to go outside or take risks and that's what is required to be visionary. You can't pay attention to things like job descriptions.

FM: Is there anything that concerns you about the development of the **Web**?

LA: I'm concerned about commercialization. The **Web** has been a democratizing place. Now, we're moving toward large entities controlling most content - or the content that most people see. You can get to other sites, but these services shape your experience. AOL tells you the story of the day and offers you its preferred links.

On the one hand, anyone with a little curiosity can find things they'd never dream of having access to. But portals do control what a lot of us see - or have time to see! But this has always been true of the media; the **Web** is just another instance of this.

FM: What about the issue of the digital divide? Or does this problem not exist in the academic community?

LA: Actually, this has been a continuing problem for some of the remote or less prosperous regions of the world. In the U.S., a small physics department in a small school may have a slow line or slow equipment.

When I was at SLAC, we always created pages in formats that were much simpler than what was technically possible. Harv (Hrovje) Galic, the HEP database manager at that time, originated much of our early **Web** interface. Harv was adamant about trying to have pages that could be easily read in some of the less prosperous parts of the particle physics community. Harv was from Zagreb and had a real awareness of the constraints faced by many of his colleagues.

In fact, we were occasionally ridiculed because our pages didn't have graphics; but this was done purposely. The main reason was because many of our users didn't have the capability to see graphics - or graphics were an impediment on a slow system.

The digital divide is real. It's less of a problem in academic communities where the issue is fast or slow connection. Or good network support and stability. In society as a whole, the issue is having any access at all.

FM: Finally, do you think many folks will be surprised to learn that the first **Web** server in

the U.S. was installed to help support a library project?

LA: Not at all! To me, it's really significant that our own early success story on the **Web** was driven by the need to bring a large body of carefully organized bibliographic records, SPIRES-HEP, to its worldwide audience!

The **Web** has certainly proven to be a shiny but challenging new tool for librarians to use in their crucial role as collectors, organizers, preservers, and presenters of information. Librarians will continue to play a critical role in helping to organize and provide access to information. Perhaps an even larger and more important role now that we're in the "wild, wild west" era of **Web** content development.

Notes

1. Tim Berners-Lee, 1999. *Weaving the **Web**: The Original Design and Ultimate Destiny of the World Wide **Web** by its Inventor.* New York: Harper SanFranciso, p. 45.

2. Berners-Lee, p. 46.

Editorial history

Paper received 13 April 2000; accepted for publication 17 April 2000.

Contents Index

FM Interviews: Louise Addis by Melissa Henderson
First Monday, volume 5, number 5 (May 2000),
URL: http://firstmonday.org/issues/issue5_5/addis/index.html

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Jeff's Weblog

Everything from A to Z

Tuesday

Tuesday, December 11, 2001

Chronicle: **Web** sites reborn as marketing arms for big companies

Gazette: A Moose in the City

Amongst UserLand-hosted Manila sites, this site was the **20th** most read site yesterday and the **43rd** most read site since 5/12/00.
Thanks to my readers and UserLand!

Monday, December 10, 2001

News.com: It was at the Stanford Linear Accelerator Center (SLAC) that particle physicist **Paul Kunz** wrote and posted the first American **Web** page 10 years ago today.

Congratulations to UserLand on four years of being cross-platform!

Dave got to ride a Segway! That's so cool. I'm totally jealous.

Chronicle: UC scientists suggest way to harness electrons for processors

Posted: 12/11/2001; 12:04:39 AM
Updated: 12/11/2001; 1:38:30 AM

December 2001

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FBI Most Wanted Terrorists

Editorial Integrity

Search Jeff's Weblog

Jeff

Google Search Best Match

Email address or **name** of member:

Jeff Cheney

UserLand Profile

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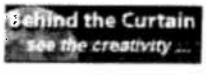
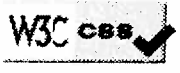




TISCALI NEWS

CONQUISTATA ANCHE TORA BORA

Ma di Bin Laden nessuna traccia

Dopo giorni di bombardamenti, i mercenari di Al Qaeda hanno sedici ore per arrendersi. Per il presidente afghano Rabbani il terrorista non si trova nelle montagne ad est del paese. Domani Bush diffonderà il video che inchioderebbe Osama alle sue responsabilità. Vai ai grafici.

Vale

il giornale

INFERNO I
In molte pa
le donne viv
di schiavitù.
deve interve

ECONOMIA
FIAT È CRISI: LICENZIAMENTI E CHIUSURE

In due anni addio a 18 stabilimenti. Cambia anche l'A.d. Boselli al posto di Testore. Il titolo precipita.

TECNOLOGIA
DIECI ANNI FA LA PRIMA PAGINA WEB
Il **web**-pioniere, che diede il via a una rivoluzione, fu il fisico nucleare **Paul Kunz**. I grafici animati.

CRONACA
Genova, due proiettili contro Carlo Giuliani.

PSICOLOGIA
Mobbing, come affrontarlo.

CALCIO
Udinese: Ventura è il nuovo allenatore.

VIRUS
Smascherati gli autori di Goner.

MUSICA
Il 19 dicembre chat con Sting.

ATTUALITÀ
Premi Nobel riuniti in nome della Pace.

SCIENZA
FINANZIARIA, LA SCIENZA TRADITA

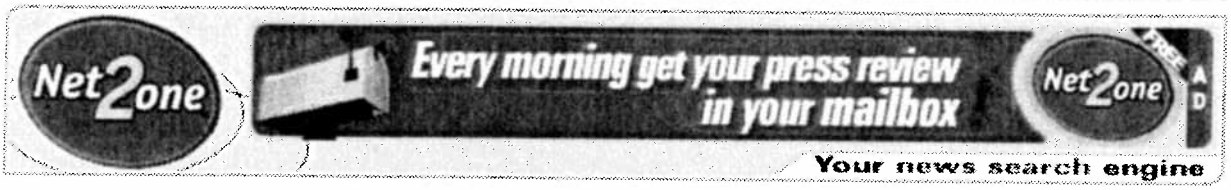
In 4.500 scrivono a Berlusconi.

SOCIETÀ
IL GIAPPON IMPERATOR

SPETTACOLI
GF2: SCHERZI ANTI-NOIA NELLA "CAS

Dopo aver tentato di giocare Flavio, Ale organizza uno sch giardino, ma fallisce miseram e foto.

SPAZIO: Dal Sud Africa il 2° turista
CINEMA: Harry Potter, è già mania
SCIENZA: Alla scoperta di Supercro



Resource directory

Tree

Ars Technica

The PC enthusiast's ressource

All categories of the editor

Ars Technica - latest news

Add to my profile

Save

> Ars Technica : latest news

Dueling Duallies: Ace's workstation smackdown
While AMD's Athlon has been making inroads in the desktop scene, it is lagging in workstation (...)
(le 11/12/2001 à 07h51)
More ...

Game.Ars presents its holiday reviews round-up
Not sure what game to buy yourself for the holiday season? Would you actually consider spending (...)
(le 11/12/2001 à 07h51)
More ...

Goner kiddies forget to cover their tracks
A recent e-mail worm scare fizzled but the creators of the worm have landed themselves in jail. (...)
(le 11/12/2001 à 07h51)
More ...

Quantum dots and Camelot
I've had this great link lying around on my desktop for quite some time now, and I'm just now (...)
(le 11/12/2001 à 07h51)
More ...

Web talk with Paul Kunz
I was surfing News.com and happened to spot another good interview, this time with the man who (...)
(le 10/12/2001 à 23h31)
More ...

Mars talk with Robert Zubrin
Space Daily is running a rockin' interview with Robert Zubrin, the president of the Mars Society. (...)
(le 10/12/2001 à 06h25)
More ...

Just can't get enough of IT
In case you were wondering about some of the technical details behind the recently announced (...)
(le 10/12/2001 à 04h58)
More ...

Ripping off content
With the current state of internet advertising many hardware sites are finding it more and more (...)
(le 09/12/2001 à 06h26)
More ...

MD/DC/VA Ars meet coming up!
Digital Ruse wrote in with news of an upcoming Ars reader meet in the MD/DC/VA area, and we wanted (...)
(le 08/12/2001 à 03h57)
More ...

Tech Report takes on the Radeon 8500
With impressive specs the ATI Radeon 8500 was expected to have a close battle the GeForce3 for the (...)
(le 08/12/2001 à 01h41)
More ...

The Librarian Stereotype and the Movies

Story Posted by Blake on Tuesday December 11, @ 08:20AM
-- Read 0 Times.
from the Bun dept.

Stephen Walker and V. Lonnie Lawson wrote The Librarian Stereotype and the Movies.

"Hollywood movies influence the public's thinking about the image of librarians, but how much is hard to say. However, by looking at Hollywood's treatment of librarians we discover indications of how the public is viewing us. To the general public the word "librarian" is a readily recognizable label. The label need not include those aspects of librarianship that librarians want to claim. Several years ago on the "Family Feud" game show a group of 100 people were surveyed and asked what they believed to be typical "librarian" characteristics.The top 5 characteristics disclosed showed that librarians were..."

[* Post Your Comments *]

Of Tolkien manuscripts And British Libraries

Story Posted by Blake on Tuesday December 11, @ 08:18AM -
- Read 0 Times.
from the Snoopers dept.

Charles Davis writes *"Story from Ananova, A rare first edition of the Lord Of The Rings trilogy has gone on display at the British Library. The display also includes a first edition*

Site Links

- Most Popular Stories.
- One Week View.
- Suggest Story.
- Join Us!
- Mailing List

LISNews.com Poll

My home library is...

- MARC-cataloged and shelved by call number
- Shelved in some sort of order (ABC, call, size, color)
- Loosely sorted into genres, but not in any order
- jumbled up -- good luck finding a particular book
- a stack of porno magazines under the bed
- Um... literacy is overrated, don't you think?

Vote

[Poll Results | Other Polls]
Comments: **6** | Votes: **133**

- Older Stories -

Saturday

of The Hobbit and letters from JRR Tolkien to his grandson. In one of the letters Tolkien talks of losing his privacy, having become an unwilling celebrity."

In other news from England, Project to refurbish Bodleian Old Library complete, A four-year project to refurbish all the reader areas of the Bodleian Old Library has been completed, ahead of the Library's 400th anniversary next year.
A New Bodley Library Exhibit "A Nation of Shopkeepers - Trade Ephemera from 1654 to the 1860s in the John Johnson Collection" has gone online.

[* Post Your Comments *]

Public / Academic Library Collaboration in Florida

Story Posted by Ryan on Monday December 10, @ 07:14PM -- Read 9 Times.

from the Public-/-Academic-Libraries dept.

From the Chronicle of Higher Education;

Over the weekend, Nova Southeastern University celebrated the opening of a five-story, 325,000-square-foot library with an unusual genesis: Half of the building's $45-million construction cost was covered by Broward County, Fla., the county in which the university is located. The building will operate both as an academic facility and as a public library.

"To our knowledge, it is the only such facility where there's been a collaboration between an independent, not-for-profit university and a public body," said Ray Ferrero Jr., president of the university. In 1999, San Jose State University agreed with the City of San Jose to build a $177-million library serving both the campus and the city. That project, now under way, will be finished in 2003.

More. The library's homepage is here.

[*1 comment*]

Shedding writer's block

Story Posted by Blake on Monday December 10, @ 04:39PM -- Read 3 Times.

from the Bat-Cave dept.

04 PM Chronicles of Narnia to become a live-action movie (0)

Friday

04 PM Internet Use Second Nature for Canadian Kids (0)

04 PM The Virtual Library, Past, Present, and Future (0)

02 PM Michael Moore's New Book Censored by HarperCollins (2)

09 AM The Internet as Classroom (0)

09 AM Library Drafts Weapons Policy After Saying No to Request for Gun Safety Class (2)

09 AM Safety Ed International (0)

09 AM National Library of Australia 100 years (0)

09 AM Time-Warner shuttering e-book division I-Publish (0)

Thursday

08 PM 'Harry Potter' to Be Released in Latin. (0)

08 PM The Fierce Librarian (0)

05 PM ALA's Search Engine Stoned on Oak Leaf/Marijuana Hybrid (8)

04 PM Are graphic novels next? (1)

03 PM Don't Let Microsoft Claim the Classroom (1)

02 PM Comics in the Library Class (0)

Older Stories...
Yesterday's Edition...

Sections

Academic Library News

Archivist News

Ask LISNews

Author News

Book News

Book Reviews

Censorship News

Cool Sites

E-Publication News

Filtering News

Harry Potter News

Wednesday, December 12, 2001

TRIED&TRUE

Encouraging signs for online ad market
News.com | The online advertising market may have seen its worst, according to analysts and media executives, who say they are increasingly optimistic of a recovery by mid-2002. more ...

Debunking the CRM myth
Much like sightings of Big Foot, there are myths circulating the business world that CRM is simply the act of gauging customer satisfaction and selling more products to existing customers. Not true. more ...

CUT&PASTE

Turning on the World Wide Web
News.com | It was at the Stanford Linear Accelerator Center that particle physicist **Paul Kunz** wrote and posted the first American **Web** page 10 years ago this week. more ...

Six in Starwood talks
CNN | UK-based Six Continents is reportedly in talks to buy Starwood Hotels & Resorts of the U.S. for $7.6 billion. The deal would create one of the world's biggest hotel operators. more ...

Revisiting online travel
eMarketer | Due to the tragedy of 11 September and the state of the US economy in general, estimates for the US online travel market have decreased for the next two years. more ...

NET&NEW

Major hotel groups join Andbook
10.12.01 | Andbook, the joint Internet venture between Accor, Le Méridien und Hilton International, adds Starwood, Radisson, Raffles, Omni and Thistle Hotels to its partnership portfolio. more ...

E-tools for hotels in China
07.12.01 | chinadotcom corporation's affiliate travel group has rolled out PowerHotel, an online application aimed at the hotel market in Greater China. more ...

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List your company in HOTELMARKETING.COM's Ma to target 12'000+ Internet savvy hoteliers. Learn

Dave's Handsome Radio Blog!

USERLAND

This is Dave's experiential Radio Blog.

Monday, December 10, 2001

Turning on the World Wide **Web**. Ten years ago, **Paul Kunz** wrote and posted the first American **Web** page at the Stanford Linear Accelerator Center. The subsequent chain of events turned the **Web** into a staple of everyday life. 3:30:41 PM #

1. Earlier in the day yesterday I fixed a simple problem, at 7:43:57 AM. Checked it in.
2. Went to work on RSS and the cloud.
3. Took a break.
4. In the evening I rolled up my sleeves to do the long-postponed work of stream-izing the upstreamer, so that it could upload five files in one shot instead of doing five separate upstreams. To begin the work I used WebEdit to check it out, thinking I was protected. I was not.
5. I finished the work around 10PM or so, went offline.
6. At 12:15AM, my copy of Radio updated. It got the version of radio.upstream.uploadChangedFiles that I had checked in earlier in the day on Sunday.

1:20:38 PM #

It's *much* worse than it appears! 1. 2. 3. 4. 5. 9:31:46 AM #

December 2001

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Nov Jan

Home
Scripting News

Last update: 12/10/2001; 3:33:43 PM.

Die Wiege des Web - historische Websites

Wir haben Quellenangaben nach Kapiteln gegliedert. Quellenangaben, die in mehreren Kapiteln auftauchen, erscheinen jeweils nur unter dem Kapitel, in dem sie erstmals erwähnt wurden. Allgemeine, durchgängig in diesem Buch immer wieder vorkommende Quellen sind in folgendem Abschnitt aufgeführt.

Auf der **Web**-Site der Internet Society ist eine Fülle von Informationen über die Geschichte des Internets vorhanden. "Hobbes' Internet Timeline" von Robert Zakon befindet sich unter **http://info.isoc.org/guest/zakon/Internet/History/HIT.html**. Die Autoren halten dies für die sorgfältigste Abhandlung ihrer Art im Internet und haben sie als wertvolle Quelle durchgehend in diesem Buch herangezogen.

Die **Web**-Seiten des W3C enthalten eine Menge historischer Informationen auf **http://www.w3.org**.

Kevin Hughes unterhält eine Site über die Geschichte des **Web** auf **http://www.webhistory.org**.

Die historische Dinosaurier-Ausstellung am Honululu Community College ist noch zu besichtigen unter: **http://www.hcc.hawaii.edu/dinos/dinos.1.html**

Die www-talk-Archive, die sich auf der W3C-Site und den Seiten von Kevin Hughes befinden, bieten eine interessante Aufzeichnung darüber, wer was wann getan hat.

Kapitel 1

Vint Cerf hat viele interessante Informationen auf seiner **Web**-Site auf **http://www.worldcom.com/generation_d/cerfs_up/index.phtml**

Über Multics siehe **http://www.multicians.org/history.html**

Über Internet-Jargon siehe **http://www.science.uva.nl/~mes/jargon/**

Larry Roberts hat einige Sammlungen auf seiner **Web**-Site auf

http://www.ziplink.net/~lroberts

Kapitel 2

Über die Geschichte des Royal Radar Establishment siehe **http://www.dra.hmg.gb**

Über die Einführung von Internetprotokollen am CERN siehe Ben Segals Erzählung auf

http://wwwinfo.cern.ch/pdp/ns/ben/MyHome.html

Über NORSAR siehe **http://www.norsar.no**

Über RIPE siehe **http://www.ripe.net**

Kapitel 3

Über Vannevar Bush und frühen Hypertext sowie "Memex and Beyond" von der Brown-Universität siehe **http://www.cs.brown.edu/memex**

Über Steve Wozniaks Rolle in der Apple-Geschichte, einschließlich eines Interviews von ihm mit Manish Srivastava, siehe Wozniaks **Web**-Site auf **http://www.woz.org**

Über die Geschichte des Computers siehe "History of Microcomputers" von Ken Polsson auf

http://www.islandnet.com/~kpolsson/comphist.html

Über die Geschichte von Apricot-Computer siehe folgende Page eines Apricot-Benutzers:

http://www.geocities.com/SiliconValley/4462/apricot_history.html

Die **Web**-Site von ARM finden Sie auf **http://www.arm.com**

Über LINC siehe **http://www.newmedianews.com/tech_hist/linc.html**

Über Videotex, die "History of Electronic Publishing" von W. Johnstone und D. Carlson siehe

http://iml.jou.ufl.edu/carlson/NewMedia/ehist/ehistory.htm

Über Minitel, E. Sutherland, "Minitel, the Resistable Rise of French Videotex", siehe **http://www.sutherla.dircon.co.uk/minitel** (basiert auf einem Artikel, der ursprünglich im International Journal for Information Resource Management, 1, Nr. 4, S. 4-14, veröffentlicht wurde).

Über Doug Engelbart siehe seine **Web**-Seiten auf **http://www.bootstrap.org**

Ted Nelsons Seiten befinden sich auf **http://www.sfc.keio.ac.jp/~ted**

Über Hypertext-Entwicklungen der Brown-Universität siehe

http://landow.stg.brown.edu/HTatBrown/BrownHT.html

Kapitel 4

Die Emanuel School hat eine **Web**-Site auf **http://www.emanuel.org.uk**

Die Manchester-University führt nützliche Informationen über das "Baby" sowie die Computer Manchester und Ferranti Mark I auf **http://www.computer50.org**

Die International SGML Users' Group hat **Web**-Seiten auf **http://www.isgmlug.org**

Biographische Informationen über John von Neumann finden Sie auf **http://www-history.mcs.st-and.ac.uk/history/Mathematicians/Von_Neumann.html**

Kapitel 5

Über Alan Kay und Smalltalk siehe **http://www.smalltalk.org**

Kapitel 6

Über GNU und die Free Software Foundation siehe **http://www.gnu.org**

Über den Cello-Browser siehe **http://www.law.cornell.edu/cello/cellotop.html**

Pei Wei bietet Informationen über Viola auf **http://www.viola.org**

Louise Addis pflegt die "Brief and Biased History of Preprint and Database Activities at the SLAC Library" auf **http://www.slac.stanford.edu/~addis/history.html**

Auszüge aus einem Gespräch mit **Paul Kunz** zum Thema "Bringing the World Wide **Web** to America" finden Sie auf **http://www.slac.stanford.edu/~mcdunn/earlyweb/EarlyWeb.html**

Die Academic Computing Services der University of Kansas bieten historische Informationen über Lynx auf **http://www.cc.ukans.edu/~grobe/early-lynx.html**

Kapitel 8

Die INRIA-**Web**-Seiten befinden sich auf **http://www.inria.fr**

MIT/LCS hat eine **Web**-Site auf **http://www.lcs.mit.edu**

Die **Web**-Site des CERN befindet sich auf **http://www.cern.ch**

Archives & History Office

The Early World Wide Web at SLAC:

Documentation of the Early Web at SLAC (1991-1994)

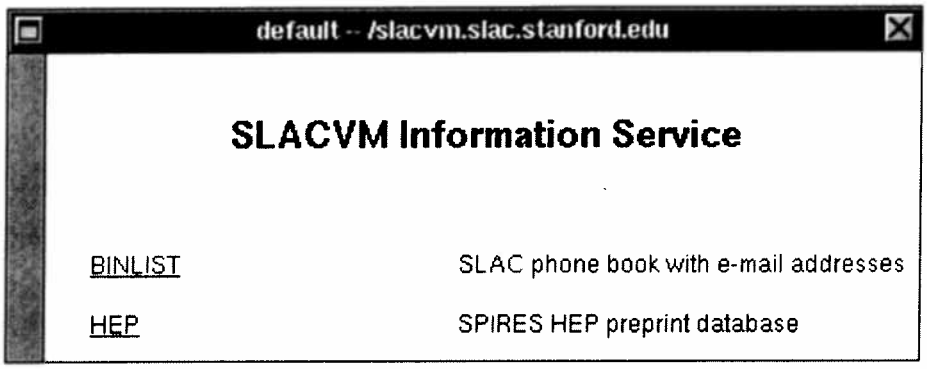
SLAC's First Web Pages

Mouse over any of the page images below to see the original underlying html code.

DEFAULT.HTML page

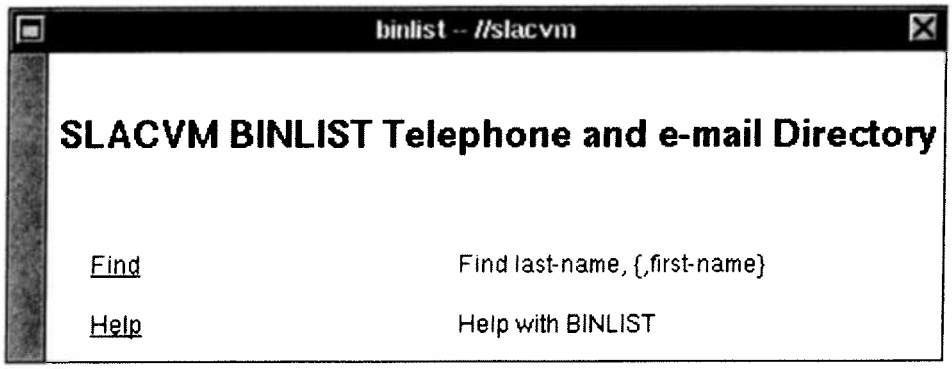
SLAC VM was the mainframe computing system at SLAC in 1991.

BINLIST was the online directory of staff, faculty, and high-energy physics correspondents' names and contact information.



BINLIST.HTML page

Clicking on the "BINLIST" link on the DEFAULT.HTML page (above) opened this page.

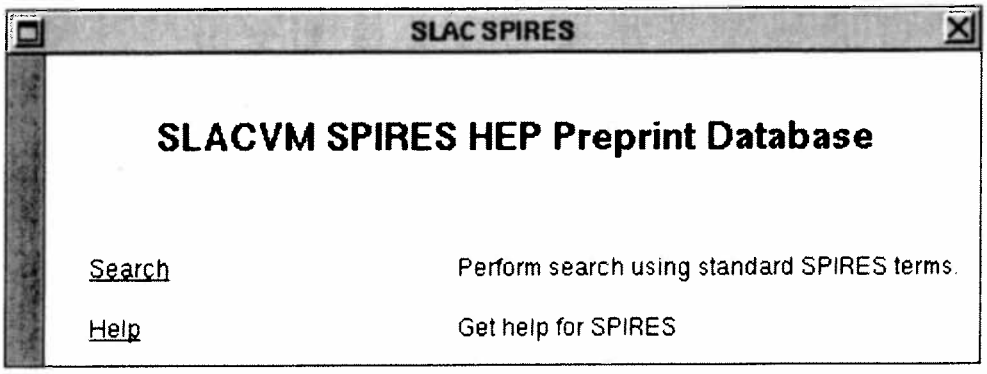


SPIRES.HTML page

Tim Berners-Lee, who invented the World-Wide Web, has called the SLAC web interface to SPIRES-HEP the "killer app" that showed the world what the web could do.

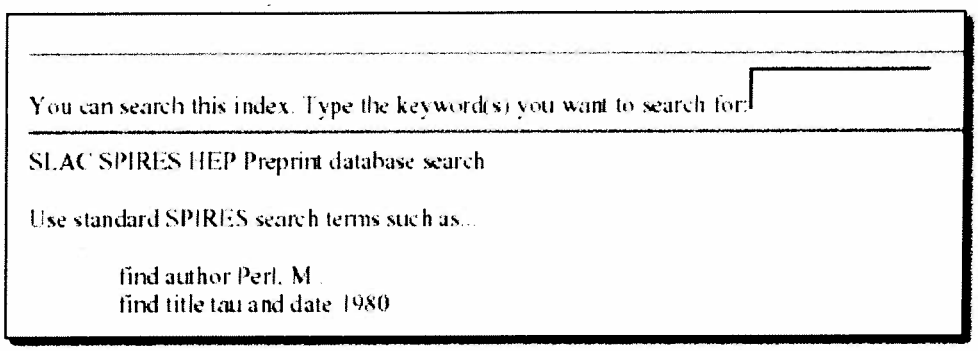
In December 1991, SPIRES-HEP was already a very popular database among high energy physicists. They were thrilled with the improved and instantaneous access to SPIRES-HEP provided by SLAC's new web interface. Clicking "Search" on this page linked a user to SPIRES.INDEX, and clicking "Help" took them to a page named SPIHELP.INDEX.

(Visit the current SPIRES-HEP web interface.)



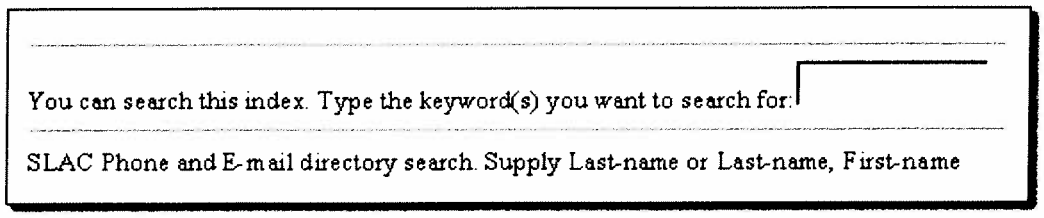
SPIRES.INDEX page

Clicking on the "Search" link on the SPIRES.HTML page (shown above) activated this search interface page.



BINLIST.INDEX page

Clicking on the "Find" link on the BINLIST.HTML page opened this search interface page.



Questions? slacarc@slac.stanford.edu

Page Owner: Jean Marie Deken

Last Modified: Wednesday, December 12, 2001

WWW: breve cronologia (1945-95)

W3Consortium, 1999

1945

Vannevar Bush escreve um artigo na Atlantic Monthly sobre um dispositivo eléctrico fotomecânico de seu nome Memex que podia fazer e seguir links sobre documentos em microficheiros.

Anos 60

- Doug Engelbart cria um protótipo do "oNLine System" (NLS) que permite a navegação e a edição de hipertexto, email, etc. Cria o mouse com este propósito. (ver Bootstrap Institut Library)
- Ted Nelson cria a palavra hipertexto em 1965 com a publicação de Literary Machines.
- Andy van Dam e a sua equipa constrói o Hypertext Editing System e FRESS em 1967.

1980

Quando trabalhava no CERN como consultor (Junho a Dezembro de 1980) Tim Berners-Lee desenha um programa ("Enquire-Within-Upon-Everything") que permite estabelecer links arbitrariamente entre nós. Cada nó tem um título, uma caracterização e uma lista de links bidireccionais. O "Enquire" corria em computadores Norsk Data com sistema operativo SINTRAN-II.

1989

Março
"Information Management: A Proposal" escrito por Tim Berners-Lee circula com o objectivo de ser comentado pelo CERN. "HyperText and CERN" produced as background (formato texto ou WriteNow).

1990

Maio
"Information Management: A Proposal" é posto novamente em circulação.
Setembro
Mike Sendall, o patrão de Tim Berners-Lee, dá luz verde à compra de um computador

NeXT e permite que TBL prossiga o seu estudo e escreva um sistema global de hipertexto.
Outubro
- Tim Berners-Lee começa a trabalhar num interface gráfico de utilizador (GUI) de hipertexto que une o browser e o editor em ambiente NeXTStep. Ao programa que desenvolve, apelida de "World Wide **Web**" (dê uma vista de olhos ao primeiro browser). O nome "World Wide **Web**" prevaleceu sobre outros que também tinha imaginado TBL: Information Mesh (emaranhado de informação), Mine of Information e Information Mine.
- Com Robert Cailliau (ECP) realiza uma nova versão da proposta, que apresenta ao CERN.
Novembro
- O desenvolvimento do programa WorldWideWeb continua a ser feito em NeXT. Trata-se dum browser+editor WYSIWYG (what you see is what you get).
- O então estudante Nicola Pellow (CN) junta-se ao projecto e começa a desenvolver um browser em modo de texto. Bernd Pollermann (CN) ajuda a criar um interface para que o índice CERNVM "FIND" (a agenda comum do CERN) funcione como hipertexto. TBL dá um colóquio sobre o hipertexto aos investigadores do CERN.
Natal
Primeira demo do browser em modo de texto (ainda chamado WorldWideWeb). Apenas permite o acesso a ficheiros de hipertexto, CERNVM "FIND" e artigos de newsgroups obtidos através da rede.

1991

Fevereiro
Proposta de trabalho com o objectivo de dividir o ECP.
26.fevereiro
Apresentação do projecto ao grupo ECP/IP (encarregado da homologação de todos os protocolos para a Internet).
Março
É lançado um browser em modo de texto (www) para um público limitado: utilizadores de "priam" vax, rs6000 e sun4.
Maio
Proposta de trabalho para o CN/AS.
17.maio
Apresentação ao comité "C5" e lançamento da WWW nos servidores centrais do CERN.
12.junho
O CERN organiza o "Computer Seminar" sobre a WWW.
Agosto
São disponibilizados ficheiros em hipertexto via FTP e nos newsgroups alt.hypertext (6, 16 e 19 de agosto), comp.sys.next (20 de agosto), comp.text.sgml e comp.mail.multi-media (22 de agosto). Jean-François Groff junta-se ao projecto.
Outubro
Aparecem mailing lists sobre www: www-interest (actualmente denominada www-announce) e www-talk@info.cern.ch (veja o arquivo). Aparece também o serviço de Telnet anónimo.
Dezembro
A WWW é apresentada publicamente no encontro Hypertext'91 em San Antonio (Texas). Instala-se um browser WWW sobre VM/CMS. No CERN, a "computer newsletter" publicita a WWW ao mundo HEP.
12.dezembro
Paul Kunz instala o primeiro servidor **Web** fora da Europa, no SLAC.

1992

15.janeiro
A versão 1.1 do browser em modo de texto está acessível via FTP (ver news).
Apresentação na AIHEP'92 em La Londe (França).
12.fevereiro
O browser v1.2 é lançado a público em newsgroups (alt.hypertext, comp.infosystems, comp.mail.multi-media, cern.sting, comp.archives.admin) e mailing lists.

Newsmakers

News.context: Special Reports | Newsmakers | Perspectives

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Paul Kunz Web pioneer, SLAC
Turning on the World Wide Web
Ten years ago today, **Paul Kunz** wrote and posted the first American **Web** page at the Stanford Linear Accelerator Center. The subsequent chain of events turned the **Web** into a staple of everyday life. (December 10, 2001)

Jack Palmer CEO, ICaughtYou
Big Brother's watching
ICaughtYou CEO Jack Palmer runs a company that allows your boss to monitor what you do online. Worried? If you're goofing off, you should be. (December 7, 2001)

Webb McKinney President, HP's Business Customer Organization
HP-Compaq's future on his shoulders
Hewlett-Packard's Webb McKinney is leading the companies' integration planning. His charge: Figure out how to create a new corporate culture--and keep customers happy in the meantime. (December 5, 2001)

Mark Jarvis Chief Marketing Officer, Oracle
Larry Ellison's right-hand man
Behind the scenes, Oracle Chief Marketing Officer **Mark Jarvis** plays a key role in setting the company's software strategy. Not bad for a former lightbulb maker. (December 3, 2001)

Jim McCann CEO, 1-800-Flowers.com
Surviving the dot-com deluge
The Net was the best thing that ever happened to 1-800-Flowers, and CEO **Jim McCann** figured that out early on--that's one reason why his company flourished before, during and after the cybermeltdown of 2001. (November 30, 2001)

Mike Leavitt Utah governor
Leading the charge on Internet taxation
An influential voice in the Internet tax debate, Utah Gov. Mike Leavitt says the issue boils down to a matter of fairness--and, he says, the states deserve their fair share. (November 29, 2001)

Gary McGraw Security analyst and author
The root of the problem: Bad software
Security analyst and author **Gary McGraw** offers a blistering critique of the porous design that underlies most software. Also: How software developers can finally get it right. (November 28, 2001)

Lawrence Lessig Professor, Stanford Law School
Why tech innovation is under threat
Stanford law professor **Lawrence Lessig** warns in a new book that structural changes to the Internet are clouding the outlook for the kind of bold advances the network originally gave rise to. Is he an alarmist or an oracle? (November 19, 2001)

Newsmakers archive

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Newsmakers

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Turning on the World Wide Web

By Paul Festa
Staff Writer, CNET News.com
December 10, 2001, 4:00 a.m. PT

newsmakers The commonly held image of the American Web pioneer is that of a twenty-something, bespectacled computer geek hunched over his Unix box in the wee hours of the morning, surrounded by the detritus of heavily caffeinated drinks and junk food while deep in pursuit of worldwide information domination and IPO riches.

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It was at the Stanford Linear Accelerator Center (SLAC) that particle physicist Paul Kunz wrote and posted the first American Web page 10 years ago today. As an aside to his work smashing and studying subatomic particles, Kunz set up the first Web server outside Western Europe as a way of providing easier access to a database of scientific paper abstracts.

Researchers, long frustrated by more cumbersome protocols and interfaces for accessing distant computers over the Internet and other computer networks, took to the new World Wide Web with alacrity. Ambitious computer geeks, followed by venture capitalists, curious Web surfers and IPO speculators, were not far behind.

Kunz didn't invent the Web--that credit goes to Tim Berners-Lee, an English researcher then working at the CERN laboratory in Geneva, Switzerland, and now heading the World Wide Web Consortium (W3C), a pre-eminent standards body. But with his powerful, practical demonstration of the Web's potential, Kunz arguably set off a chain of events that turned the Web into a staple: first of academic research, and ultimately of everyday life.

Kunz spoke to CNET News.com from his office at SLAC (where he and colleagues refer to themselves as SLACers) about the dawn of the Web in America.

The way of the Web

1969
ARPAnet, the precursor to today's Internet, is commissioned by the Defense Department.

1985
Symbolics.com is cleared as the first registered domain name.

1990
The World becomes the first commercial provider of dial-up Net

Q: How is it that an atom smasher like yourself created the first U.S. Web page?
A: I was visiting the laboratory called CERN, in Geneva, Switzerland--a big international lab funded by European countries--and a guy by the name of Tim Berners-Lee asked me to come see him demonstrate the application he'd just written called the World Wide Web. It was written on a NeXT computer. There were only a few of us out there using them so we had to stick together. On Friday, Sept. 13, 1991, he showed me his Web browser that he had written on NeXT, with hypertext. I was terribly interested in that.

What interested you?
The first Web browser was more than just a browser: It had the ability to do a search on a remote machine. That's the key to the Web--the ability to do searches. He did a search on the mainframe IBM computer, and the help system gave back pointers as to where to find documents you might be searching for. That gave me the idea: If he could do searches, then I could do that too. I had a database online at SLAC that needed an interface to the Internet. That database is called SPIRES.

When I saw what Tim Berners-Lee had done, I said, "This is all well and good, but will it work over the Internet?" And Tim said, "Of course--it's designed for that." I said, "Show me." But he said the only problem is that all the Web servers in the world were in that same building. So what we did was we uploaded this browser software to my computer at SLAC, six thousand miles away, and then we ran the browser and pushed all the windows back to his machine at CERN.

The NeXT computers had that capability, to run an application on a computer and push the windows to another computer. It was a way for us to test how well the Web would work over the Internet. Would it be slow, would it be fast? We had no way of doing that without operating a Web browser by remote control.

This was the first demonstration of the World Wide Web in action?
Anything we did had to go from SLAC to CERN and back again. I believe that was the first time Tim Berners-Lee saw the (Web) work on the Internet. So I told him I would start a Web server at SLAC as soon as I got back, and the idea I had in mind was that we had a database at SLAC that contained at the time 200,000 references to papers that were written in the field of high-energy physics (HEP). Each entry contained authors, titles, keywords--this database was heavily used by the HEP community, thousands of users in 40 different countries.

So it was already accessible over computer networks.
Yes, but it was rather difficult to use because you were

access.

1991
The World Wide Web, developed by Tim Berners-Lee, is launched by the CERN research center.

Paul Kunz of Stanford Linear Accelerator Center sets up the first U.S.-based Web server.

1992
The term "surfing the Internet" is coined by public librarian Jean Armour Polly.

1993
The U.S. White House comes online.

The Mosaic Web browser takes the Internet by storm.

1994
The first banner ads--for the Zima beverage and AT&T--appear on Hotwired.com.

1995
Sun launches the Java programming language.

Dial-up systems from CompuServe, America Online and Prodigy begin providing Net access.

Netscape Communications sets the third-largest IPO share value ever on the Nasdaq Stock Market.

1996
The Web browser war, fought primarily between Netscape and Microsoft, rushes in a new age in software development in which new releases are made quarterly.

1997
Domain name Business.com is sold for $150,000.

1998
Network Solutions registers its 2 millionth domain name.

1999
Napster's file-swapping service launches.

2000
A massive denial-of-service attack is launched against major Web sites, including Yahoo, Amazon.com and eBay.

Infineon, Toshiba preliminary pact
NextWave deal g
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This week's hea

News Too
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Listen live to Radio

always logging onto a foreign machine, and the database commands were not very user-friendly. And the database was not accessible to the Internet. So what I planned to do was use the Web as a more friendly interface so that people throughout the world could do searches, just like I saw with that help system at CERN.

2001
Napster is forced to suspend service; it expects to return as a subscription service.

New top-level domains .biz and .info are added to the root server.

Source: Hobbes' Internet Timeline

When I got back to the U.S., I gave the job to someone else and nothing happened for two months. I had something more important to do--I was working on another NeXT application, something that at the time seemed more important than putting the Web server up. Two months later, Tim reminded me that I was supposed to launch the demo, and said he was going to a hypertext conference. And that's why it wasn't until Dec. 12 that I finally finished the job and got the page up.

What was the substance of that first Web page?
What you could do with that home page was two things. The BINLIST link would allow you to do a search onto the SLAC online phone book and get phone numbers and e-mail addresses. The second link, called HEP, was an interface to a pre-print database. People would send a copy of their paper to various institutes before it got published, and that was called a pre-print.

"The grand finale of this demo was that (Tim Berners-Lee) connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped."

What did you use by way of a browser in those early days?
The only browsers available were on the NeXT machine. The only other thing you could use was the line-mode browser, like your DOS shell. Microsoft called it a command prompt. All people who did not have a NeXT machine would see was text. Wherever there was a link you'd find a number, and you'd have to type in the link.

But even that was an improvement over the way people used to interface with SPIRES. So I sent an e-mail to Tim Berners-Lee, saying, "Our server's up and running, give it a try." This would be Dec. 13. Tim wrote back and said, "Great, congratulations. But your pages don't look very pretty."

What happened next?
The next most important event happened a month later, Jan. 15, 1992. There was a workshop in La Londe, France, on advanced computing techniques for high-energy and nuclear physics. At that workshop, Tim Berners-Lee gave the first demo of the Web outside of the CERN laboratory. The attendance of the workshop was about 200 physicists from around the world, and he gave a demonstration that started off with his technology, showing what you could do, like a sales pitch. But the grand finale of this demo was that he connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped. They knew the database, and they saw how easy it was to access it from this town in southern France.

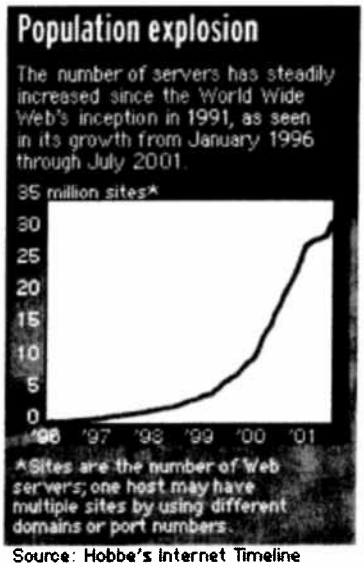
You had these 200 people, who were coming from maybe 100 or more different institutes from around the world, and imagine how anxious they were to get back home and show their colleagues! That was a giant push in advancing the Web. It not only existed, but it had something useful on it.

What was your traffic like in those early days?
It immediately started picking up once that conference was over. It took people awhile to figure out where to get a browser, but once they did, traffic started picking up. CERN had their own pre-print database, but it didn't take long before more CERN physicists were using

the SLAC database 6,000 miles away than the CERN database, because (the Web interface) was more friendly.

So this idea of friendliness is the key to the Web's success?
I think so. The early information on the Web may have been available by other means, but could mere mortals actually handle it? You usually found yourself on some foreign computer, you didn't know the commands, there was always some syntax you couldn't quite remember. There are two things about the Web: It makes things easier with visual clues, and what you see and do doesn't depend on what computer is hosting the service.

What happened with browser development after your Web page went up? There's some confusion over who invented the first browser, or the first browser with a graphical interface.
The only graphical browser available was for the NeXT machines, which were not that popular. I think there were fewer than 100,000 sold. Everybody else had a line-mode browser. And Tim Berners-Lee and Robert Cailliau were too busy promoting the Web to write a graphical browser for Unix. They hoped that the idea of the Web would spread and somebody else would do that work.



Source: Hobbe's Internet Timeline

Did you go on to become an ace Web designer?
No. I was too busy with my other projects. I handed it over to the chief librarian and told her she'd have to find some help to keep it going. I told her frankly that I didn't want to spend my time doing a lot of that but that she could find help from other people in the lab.

That group of people who helped her were called the Web Wizards. Tony Johnson was one of the people at that workshop. He started working much more closely with the Web and created the first dynamic Web pages, or pages that were dynamically created in response to the query, as opposed to static pages that are written up. That was an innovation--nobody had done that before he did it.

He was also interested in the graphics. He wanted a browser that would work under X-Windows (the Unix windowing system). Tony was interested in having not only a browser, but a browser that could do graphics.

What was (Netscape Communications co-founder) Marc Andreessen's contribution?
Marc picked it up and tried it out. Tony the other day showed us the e-mail he got from Marc, saying, "Congratulations, this is super," and then giving him a list of about 10 bugs. Over the next few days, he got an additional 10 messages from Marc with bug reports and additional features Marc wanted. At this point Tony felt he didn't want to work on the browser full time, and got out of the business. Marc took over. Once Mosaic came out from the NCSA, it really started moving.

But it all started among a bunch of physicists.
It really had to start somewhere, and it all started here in high-energy physics.

High-energy physics means atom smashing?
We don't do atoms anymore; they're too big. We smash particles. At SLAC we work on electrons. At Fermilab they do protons.

How did the first graphical browsers get started?
In parallel with all of our Web development there was an effort going on at Los Alamos. We had a pre-print server, so you'd get the pre-prints. That's OK, but if you were going to put the

"It really had to start somewhere

whole paper on the Web the figures in the papers needed graphics to be displayed. So the motivation to have a browser that would do graphics was pretty strong.

What's the worst thing about how the Web has developed, from a structural/architectural perspective?
I don't want to answer that question, because it's been so remarkably successful with hardly any glitches. The whole Internet itself was designed by a group of people sitting on the network with less than 256 computers. The original ARPAnet protocol, the predecessor of TCP/IP, could only support 256 computers. When they realized it was going to run out, they made the plans and did the testing, and since then things haven't really changed.

We've gone from tens of thousands of computers to millions of computers today without a major glitch. When you design systems, it's hard to design them to be scalable. That's a very hard thing to do, and they did a very, very good job. The same holds (true) for the Web itself. I don't think Tim Berners-Lee imagined that every high school, news station and airline would have a Web server. And yet it scaled that far without any fundamental change in how it works.

It's hard to think about the last 10 years and say there weren't any glitches.
Of course, along the way there are tricks that hackers like to do for fun that put some glitches in things. But this has always been relatively minor compared to the ways that it scaled from the original imaginings of its authors.

When did the Web become a central or daily part of the average scientist's life and work? When did it become ubiquitous in science?
Of course (the academic community) took to it immediately. It was obvious to everybody that this was the better way. It was an easy sell. This is an example of the science community solving problems for themselves with a residual benefit to the rest of the world. My bottom line is that you must have a healthy, adequately funded scientific community, because we're solving problems you don't even know you have yet. And the Web is one of the most outstanding examples of that. ■

Turning on the World Wide Web

By Paul Festa
Staff Writer, CNET News.com
December 10, 2001, 4:00 a.m. PT
http://news.cnet.com/news/0-1014-201-8104108-0.html?tag=prntfr

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When I saw what Tim Berners-Lee had done, I said, "This is all well and good, but will it work over the Internet?" And Tim said, "Of course--it's designed for that." I said, "Show me." But he said the only problem is that all the Web servers in the world were in that same building. So what we did was we uploaded this browser software to my computer at SLAC, six thousand miles away, and then we ran the browser and pushed all the windows back to his machine at CERN.

1997
Domain name Business.com is sold for $150,000.

1998
Network Solutions registers its 2 millionth domain name.

1999
Napster's file-swapping service launches.

2000
A massive denial-of-service attack is launched against major Web sites, including Yahoo, Amazon.com and eBay.

2001
Napster is forced to suspend service; it expects to return as a subscription service.

New top-level domains .biz and .info are added to the root server.

Source: Hobbes' Internet Timeline

The NeXT computers had that capability, to run an application on a computer and push the windows to another computer. It was a way for us to test how well the Web would work over the Internet. Would it be slow, would it be fast? We had no way of doing that without operating a Web browser by remote control.

This was the first demonstration of the World Wide Web in action?
Anything we did had to go from SLAC to CERN and back again. I believe that was the first time Tim Berners-Lee saw the (Web) work on the Internet. So I told him I would start a Web server at SLAC as soon as I got back, and the idea I had in mind was that we had a database at SLAC that contained at the time 200,000 references to papers that were written in the field of high-energy physics (HEP). Each entry contained authors, titles, keywords--this database was heavily used by the HEP community, thousands of users in 40 different countries.

So it was already accessible over computer networks.

Yes, but it was rather difficult to use because you were always logging onto a foreign machine, and the database commands were not very user-friendly. And the database was not accessible to the Internet. So what I planned to do was use the Web as a more friendly interface so that people throughout the world could do searches, just like I saw with that help system at CERN.

When I got back to the U.S., I gave the job to someone else and nothing happened for two months. I had something more important to do--I was working on another NeXT application, something that at the time seemed more important than putting the Web server up. Two months later, Tim reminded me that I was supposed to launch the demo, and said he was going to a hypertext conference. And that's why it wasn't until Dec. 12 that I finally finished the job and got the page up.

What was the substance of that first Web page?
What you could do with that home page was two things. The BINLIST link would allow you to do a search onto the SLAC online phone book and get phone numbers and e-mail addresses. The second link, called HEP, was an interface to a pre-print database. People would send a copy of their paper to various institutes before it got published, and that was called a pre-print.

"The grand finale of this demo was that (Tim Berners-Lee) connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped."

What did you use by way of a browser in those early days?
The only browsers available were on the NeXT machine. The only other thing you could use was the line-mode browser, like your DOS shell. Microsoft called it a command prompt. All people who did not have a NeXT machine would see was text. Wherever there was a link you'd find a number, and you'd have to type in the link.

But even that was an improvement over the way people used to interface with SPIRES. So I sent an e-mail to Tim Berners-Lee, saying, "Our server's up and running, give it a try." This would be Dec. 13. Tim wrote back and said, "Great, congratulations. But your pages don't look very pretty."

What happened next?
The next most important event happened a month later, Jan. 15, 1992. There was a workshop in La Londe, France, on advanced computing techniques for high-energy and nuclear physics. At that workshop, Tim Berners-Lee gave the first demo of the Web outside of the CERN laboratory. The attendance of the workshop was about 200 physicists from around the world, and he gave a demonstration that started off with his technology, showing what you could do, like a sales pitch. But the grand finale of this demo was that he connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped. They knew the database, and they saw how easy it was to access it from this town in southern France.

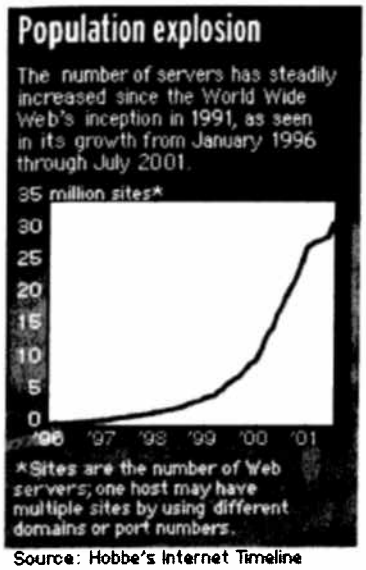
You had these 200 people, who were coming from maybe 100 or more different institutes from around the world, and imagine how anxious they were to get back home and show their colleagues! That was a giant push in advancing the Web. It not only existed, but it had something useful on it.

What was your traffic like in those early days?
It immediately started picking up once that conference was over. It took people awhile to figure out where to get a browser, but once they did, traffic started picking up. CERN had their own pre-print database, but it didn't take long before more CERN physicists were using the SLAC database 6,000 miles away than the CERN database, because (the Web interface) was more friendly.

So this idea of friendliness is the key to the Web's success?
I think so. The early information on the Web may have been available by other means, but could mere mortals actually handle it? You usually found yourself on some foreign computer, you didn't know the commands, there was always some syntax you couldn't quite remember. There are two things about the Web: It makes things easier with visual clues, and what you see and do doesn't depend on what computer is hosting the service.

What happened with browser development after your Web page went up? There's some confusion over who invented the first browser, or the first browser with a graphical interface.
The only graphical browser available was for the NeXT machines, which were not that popular. I think there were

fewer than 100,000 sold. Everybody else had a line-mode browser. And Tim Berners-Lee and Robert Cailliau were too busy promoting the Web to write a graphical browser for Unix. They hoped that the idea of the Web would spread and somebody else would do that work.



Source: Hobbe's Internet Timeline

Did you go on to become an ace Web designer?
No. I was too busy with my other projects. I handed it over to the chief librarian and told her she'd have to find some help to keep it going. I told her frankly that I didn't want to spend my time doing a lot of that but that she could find help from other people in the lab.

That group of people who helped her were called the Web Wizards. Tony Johnson was one of the people at that workshop. He started working much more closely with the Web and created the first dynamic Web pages, or pages that were dynamically created in response to the query, as opposed to static pages that are written up. That was an innovation--nobody had done that before he did it.

He was also interested in the graphics. He wanted a browser that would work under X-Windows (the Unix windowing system). Tony was interested in having not only a browser, but a browser that could do graphics.

What was (Netscape Communications co-founder) Marc Andreessen's contribution?
Marc picked it up and tried it out. Tony the other day showed us the e-mail he got from Marc, saying, "Congratulations, this is super," and then giving him a list of about 10 bugs. Over the next few days, he got an additional 10 messages from Marc with bug reports and additional features Marc wanted. At this point Tony felt he didn't want to work on the browser full time, and got out of the business. Marc took over. Once Mosaic came out from the NCSA, it really started moving.

But it all started among a bunch of physicists.
It really had to start somewhere, and it all started here in high-energy physics.

High-energy physics means atom smashing?
We don't do atoms anymore; they're too big. We smash particles. At SLAC we work on electrons. At Fermilab they do protons.

How did the first graphical browsers get started?
In parallel with all of our Web development there was an effort going on at Los Alamos. We had a pre-print server, so you'd get the pre-prints. That's OK, but if you were going to put the whole paper on the Web the figures in the papers needed graphics to be displayed. So the motivation to have a browser that would do graphics was pretty strong.

> **"It really had to start somewhere, and it all started here in high-energy physics."**

What's the worst thing about how the Web has developed, from a structural/architectural perspective?
I don't want to answer that question, because it's been so remarkably successful with hardly any glitches. The whole Internet itself was designed by a group of people sitting on the network with less than 256 computers. The original ARPAnet protocol, the predecessor of TCP/IP, could only support 256 computers. When they realized it was going to run out, they made the plans and did the testing, and since then things haven't really changed.

We've gone from tens of thousands of computers to millions of computers today without a major glitch. When you design systems, it's hard to design them to be scalable. That's a very hard thing to do, and they did a very, very good job. The same holds (true) for the Web itself. I don't think Tim Berners-Lee imagined that every high school, news station and airline would have a Web server. And yet it scaled that far without any fundamental change in how it works.

It's hard to think about the last 10 years and say there weren't any glitches.
Of course, along the way there are tricks that hackers like to do for fun that put some glitches in things. But this

has always been relatively minor compared to the ways that it scaled from the original imaginings of its authors.

When did the Web become a central or daily part of the average scientist's life and work? When did it become ubiquitous in science?
Of course (the academic community) took to it immediately. It was obvious to everybody that this was the better way. It was an easy sell. This is an example of the science community solving problems for themselves with a residual benefit to the rest of the world. My bottom line is that you must have a healthy, adequately funded scientific community, because we're solving problems you don't even know you have yet. And the Web is one of the most outstanding examples of that. ■

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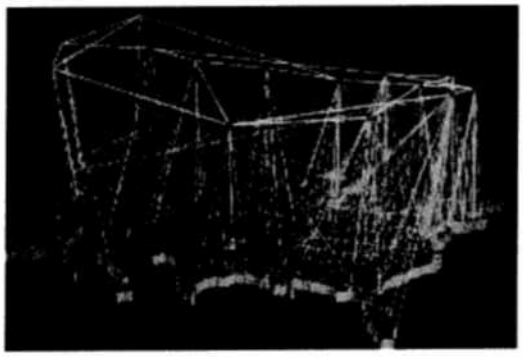
Dieci anni fa nasceva la prima pagina web

A metterla on line fu il fisico **Paul Kunz**: il suo scopo era rendere accessibile i documenti scientifici ai ricercatori



NEW YORK, 11 DICEMBRE 2001 - **Dieci anni fa** negli Usa nasceva la prima **web**-page. La rivoluzione Internet era appena iniziata, e a mettere in rete la prima pagina ipertestuale in America, fu il fisico **Paul Kunz**.

Il web-pioniere era allora un ricercatore nucleare al Centro di Stanford per l'Accelerazione Lineare (Stanford Linear Accelerator Center). La sua attenzione era concentrata sugli elettroni, non sulla creazione di quella che sarebbe poi diventata un format abituale per centinaia di milioni di persone. **Kunz** era infatti impegnato nella scomposizione e studio delle particelle subatomiche.

La costruzione della **web**-page fu effettuata unicamente in quanto funzionale alla sua attivita' al Centro di ricerca, come mezzo per fornire un accesso piu' semplice e veloce ai documenti scientifici utilizzati dai ricercatori, e per far viaggiare meglio le informazioni tra i vari scienziati. Con la mente rivolta agli elettroni, **Kunz** fini' per realizzare il primo **web** server mai creato in un paese esterno all'Europa Occidentale. Fondamentale per **Kunz** e' stato l'incontro con l'inglese Tim Berners-Lee, l'inventore della **web** page. Lee lavorava al Cern, il celebre laboratorio di Ginevra, in cui **Kunz** si reco' in visita. Il fisico inglese mostro' a **Kunz**, il 13 settembre del 1991, il suo **web** browser, che era stato scritto in NeXT, un linguaggio informatico ipertestuale.

Tornato negli Usa, al centro di Stanford, **Kunz** applico' quanto visto, costruendo cosi' la prima **web**-page in America. "Conteneva due link - racconta lo scienziato - Uno in cui era possibile ricercare numeri di telefoni e indirizzi e-mail relativi al Centro. L'altro, era un interfaccia per consentire di spedire documenti ai vari istituti del Centro prima che venissero pubblicati".

Il 13 dicembre Kunz invio' un'e-mail a Lee, con cui si era tenuto in contatto per sviluppare il progetto, in cui annunciava la realizzazione e il funzionamento del server. A gennaio, nel corso di un convegno tra fisici nucleari in Francia, Lee mostro' il demo del **web** del laboratorio Cern di Ginevra e si collego' alla pagina creata da **Kunz**.

CERN — European Laboratory for Particle Physics

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Example Archive

Summer Student Lectures

LHC Software Training

Getting Started

Project Description

Project Team

Feedback Form

Web Lecture Archive Project

LHC Software Training

Bringing the Web to America - *P. Kunz (SLAC)*

On 12 December 1991, Dr. **Kunz** installed the first **Web** server outside of Europe at the Stanford Linear Accelerator Center. Today, if you do not have access to the **Web** you are considered disadvantaged.

Before it made sense for Tim Berners-Lee to invent the **Web** at CERN, there had to a number of ingredients in place. Dr. **Kunz** will present a history of how these ingredients developped and the role the academic research community had in forming them. In particular, the role that big science, such as high energy physics, played in giving us the **Web** we have today.

Presentation	Date	Duration	Video Plug-In	Video Detached
CERN Colloquium	17-sep-1999	71 minutes		

Paul Kunz

Dr **Kunz** received his PhD from Princeton University in 1968 and first came to CERN that year to do an experiment at the PS as a member of the Saclay group. He then went on to Michigan State in 1971 and worked on one of the first experiments at Fermilab. He joined SLAC in 1974 where he has been ever since.

In late '70s, Dr **Kunz** invented the 168/E emulators and the concept of event processing via processor farms. In collaboration with CERN engineers, his processors were used as part of the "express lane" for the UA1 experiment. Dr. **Kunz** has been a frequent visitor to CERN lately because of the popularity of his "C++ for Particle Physicists" course which he is now giving at CERN for the 13th

Dec 12, 3901

time since March of 1996. Overall, he has given the course 50 times through out the world to over 1700 students.

- **Home Page:** http://www.slac.stanford.edu/grp/ek/people/**kunz**.htm
- **E-Mail:** Paul_Kunz@slac.stanford.edu

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http://webcast.cern.ch/Projects/WebLectureArchive/**kunz**/

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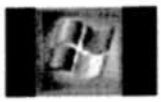

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From the News Desk

Quantum dots and Camelot

Posted 12/11/2001 - 12:50AM, by Hannibal

I've had this great link lying around on my desktop for quite some time now, and I'm just now getting around to posting it. It's an article on ScFi.com that deals with programmable matter in two forms: in the nanotech form of a "utility fog" and in the even more spectacular form of something the author (who looks like Kevin Spacey) calls "wellstone," made from quantum dots. Here's the basic concept of utility fog:

> With such difficulties in mind, Dr. J. Storrs Hall of Rutgers University built on Drexler's concepts in the early 1990s by proposing a "utility fog" of 12-armed, dust-sized silicon micromachines ("foglets," as seen at right in an image courtesy of J. Storrs Hall) capable of joining hands in a variety of configurations to create a programmable substance which could assume any shape, and vary its density from that of vapor or cobwebs to something as solid as wood, plastic or even porous cement. This is not only the ultimate modeling clay and 3-D entertainment system (holodeck, anyone?), but potentially an important structural component, safety system and furnishing for homes, factories and vehicles.

Sounds cool, right? Wait till you get to the part about the quantum dot based materials. Here's a peak:

> In short, these controllable quantum dots--what Yale University's Mark Reed calls "designer atoms"--can not only mimic every atom on the periodic table, but can quite easily produce atom-like structures with properties that don't occur in nature. For example, with many more electrons to share than even the faithful carbon atom, such designer atoms may be capable of forming superstrong chemical bonds, to produce materials much tougher than diamond, the hardest natural substance. Other possibilities include dramatic changes in the reflection and absorption of light, and the conduction of electricity. (Just for starters, think of an indestructible, 100%-efficient solar energy cell.)

And it gets even more spectacular shortly thereafter. Reading this article makes the think about the "five years away" news category that I'm always putting things in; perhaps I should add a "probably not in my lifetime" category. Anyway, it's still cool fantasy material.

[Discussion]

Goner kiddies forget to cover their tracks

Posted 12/11/2001 - 12:19AM, by zAmboni
A recent e-mail worm scare fizzled but the creators of the worm have landed themselves in jail. Four Israeli teens were arrested and admitted that they wrote the Goner worm that made its rounds recently. While many of the internet virus and worm creators are never caught these teens were arrested rather quickly. The Register has news on how these teens were tracked down so quickly.

The Goner worm included scripts that were meant to launch denial of service attacks from the infected "zombie" machines. Once a machine is infected, the machines would "call home" by logging onto an Internet Relay Chat (IRC) channel to await instructions from the virus creators. When the machines logged on it left the virus writers calling card, a message with the writers nicknames and greets to other friends. The script kiddies vanity (and stupidity) lead to their demise. Members of DALnet's exploits prevention team (website) were monitoring for these type of exploits and were able to link these nicknames to IP addresses through their channel logs.

This info was given to the FBI who then forwarded it to the Israeli police. Reminds me of a bank robber who

shed his clothes while trying to evade the police. He left his wallet with ID in the jogging pants he threw away. It is nice to see some co-operation in putting these cyber thugs behind bars.

[Discussion]

Game.Ars presents its holiday reviews round-up

Posted 12/11/2001 - 12:04AM, by Caesar

Not sure what game to buy yourself for the holiday season? Would you actually consider spending money on some punk member of your family? In either case, this week's Game.Ars brings you not only the standard iron-fortified newsfare you're used to, but Carl has also published a round-up of some of the hottest titles out this holiday season, with a brief overview of how the title has been received by certain review houses. If you've got some off-time coming and are thinkin' about gettin' into a little gaming action, this week's edition is for you.

[Discussion]

Dueling Duallies: Ace's workstation smackdown

Posted 12/10/2001 - 11:40PM, by zAmboni

While AMD's Athlon has been making inroads in the desktop scene, it is lagging in workstation shipments. The Athlon cannot seem to shake the stability issue in an segment dominated by Intel. Ace's Hardware showed that the Athlon can be a serious competitor from a previous article which benchmarked various dual 1.7GHz Xeon workstations against a dual Athlon MP 1200 system. In that previous article, the Athlon left the Xeon workstations in the dust.

In the mean time, Intel has been working on optimizing its compilers and many applications have been adding SSE-2 support and optimizations for Pentium III and Pentium 4 processors. Ace's counters with Part 1 of its Workstation Guide. This time they put a Dual Athlon MP 1800+ against the Dual 1.7GHz Xeon system using a 3D/2D/multimedia benchmark suite that would bring many workstations to their knees. As for Athlon MP stability, they had this to say:

> As we have been able to test both boards for months now, we can safely say that Tyan's dual Athlon boards are the most

> stable Athlon platforms on the earth. We have tested the samples that both AMD and Tyan have sent us, and several retail boards (Tyan Tiger MP) for more than three months now, and we have never seen one workstation benchmark fail or crash.

How does the dual Athlon hold up? Does the new optimizations give the Xeon an edge or will AMD pull off a clean sweep? Well, I recommend you keep a broom handy.

[Discussion]

Web talk with Paul Kunz

Posted 12/10/2001 - 4:29PM, by Hannibal
I was surfing News.com and happened to spot another good interview, this time with the man who posted the first **Web** page on American soil, Stanford particle physicist **Paul Kunz**. The interview is filled with fascinating tidbits; for instance, who knew that Kunz's particle physics database (called SLAC) was the Web's first "killer app" that really helped get the ball rolling globally? (Ok, I'm sure some of you knew, but I didn't. I didn't get on the **Web** until '94, some three years after SLAC's launch).

> **What happened next?**
> The next most important event happened a month later, Jan. 15, 1992. There was a workshop in La Londe, France, on advanced computing techniques for high-energy and nuclear physics. At that workshop, Tim Berners-Lee gave the first demo of the **Web** outside of the CERN laboratory. The attendance of the workshop was about 200 physicists from around the world, and he gave a demonstration that started off with his technology, showing what you could do, like a sales pitch. But the grand finale of this demo was that he connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped. They knew the database, and they saw how easy it was to access it from this town in southern France.
>
> You had these 200 people, who were coming from maybe 100 or more different institutes from around the world, and imagine how anxious they were to get back home and show their colleagues! That was a giant push in advancing the **Web**. It not only existed, but it had something useful on it.

I got my start on the **Web** with Lynx, until I moved up to Mosaic later. Then a friend of mine turned me onto Netscape, which he described as "Mosaic on acid." And

in the same library computing lab session where I was introduced to Netscape, I was also introduced to another site, also from Stanford and also destined to go down in history: http://akebono.stanford.edu/yahoo. Ok, enough with my **web** reminiscences. Anybody else care to share their first Internet experiences in the Discussion link?

[Discussion]

Mars talk with Robert Zubrin

Posted 12/9/2001 - 11:39PM, by Hannibal
Space Daily is running a rockin' interview with Robert Zubrin, the president of the Mars Society. If you're wondering what it'll take for us to get to Mars and why we haven't gotten there, yet, then this lengthy interview is a great read. Zubrin doesn't come off sounding like some crazed Mars zealot; in fact, his views seem to be fairly even-handed and nuanced, especially in his discussion of the privatization of the space sector. His repeated message throughout the interview is that you have to have focus in order to accomplish anything, and Zubrin's focus is evident in the extremely pragmatic stance he takes towards any issue the interview brings up. Definitely worth checking out if one of your lifelong fantasies is seeing us set up a colony on Mars.

[Discussion]

Just can't get enough of IT

Posted 12/9/2001 - 10:53PM, by Hannibal
In case you were wondering about some of the technical details behind the recently announced Segway HT, the EET comes to the rescue with some dirt on how it's done.

> The transporter's "brain" uses a TI digital signal processor and gyroscopes to sense the angular position of its upright control shaft, so the unit reacts quickly to changes in balance. Drivers move the device forward and backward with subtle shifts in balance. When the user leans forward, for example, the control shaft tilts, the gyro senses a change in angular position, the DSP sends a command to motors that drive the wheels and the unit inches forward. By leaning backward, the user can similarly command the system to reverse.
>
> The unit's inertial sensor assembly, designed in conjunction with British Aerospace Enterprises, includes five gyroscopes and two tilt sensors.

> Together, the sensors and DSP determine the orientation of the machine relative to the direction of gravity. Any angular motion is sensed by at least two of the gyroscopes

There are even some part numbers in there in case you hobbyists want to build one yourselves out of Lego Mindstorms or something. I'm tempted to try, because I want one in order to get around Cambridge. Maybe I'll just hike over the bridge to Boston, beat up a cop and take his.

[Discussion]

Ripping off content

Posted 12/9/2001 - 12:28AM, by zAmboni
With the current state of internet advertising many hardware sites are finding it more and more difficult to keep things going. The staff of many of these sites have main jobs to pay the bills and the content on their sites usually mean hard work pushing reviews out the door late at night. Unfortunately, there are sites out there that believe they don't have to do anything and let other sites do the work for them. The Tech Report has been hit several times with other sites stealing their content and reprinting reviews verbatim and even including inline images being hosted on the TR servers.

Well it has happened again. It appears that 8080.net has stolen TR's Radeon 8500 translated and posted it on their site (Site not linked up since they do not deserve added traffic for stealing content). As of the time of this writing, Damage is in the process of replacing the inline images with appropriate messages to the content stealers.

Litigation against content stealing sites may not be a viable option for many sites. This can be expensive, and in situations like this where the site may be in a different country things could get complicated. I'm sure that emails to the site, their internet providers and their advertising company would be in order. Maybe they would think twice about dealing with sites that steal content.

[Discussion]

MD/DC/VA Ars meet coming up!

Posted 12/7/2001 - 9:23PM, by Caesar
Digital Ruse wrote in with news of an upcoming Ars

reader meet in the MD/DC/VA area, and we wanted to let you know about it. The last meet was a success, but we knew there were more Arsians out there that we could pimp to this time around. So, Digital Ruse et alia have again begun to organize another of such meets for the Arsians in this locale. You can use the new discussion thread to coordinate and communicate, so pop in. The meet's date will be December 23, as debated and polled here. What the group that's organizing this wants to do now is to decide on a time and a place to meet. Skim around the above thread so that you can get a feel for what has happened.

Also to better keep in touch they have setup a Yahoo! Mailing List. Digital Ruse is collecting names for a list of attendees so that the appropriate reservations can be made. If you don't post in the thread you can email him at: neogamer2k[spam]@[sucks]excite.com, removing the obvious tags to send the email. He also requests that in whatever way you contact him, include the following info: 1.) names of who is coming, 2.) your suggestion for a place to meet (please try and make it Metro accessible), and 3.) time. Many people can't make it until after 7:00 P.M., so take that into consideration. It looks like the makings of a good time - I wish I could go!

[Discussion]

Tech Report takes on the Radeon 8500

Posted 12/7/2001 - 7:22PM, by zAmboni
With impressive specs the ATI Radeon 8500 was expected to have a close battle the GeForce3 for the king of the video card heap. NVIDIA one upped ATI by releasing a higher clocked version of the GeForce3 in the Titanium 500. On official release of the 8500, it could not knock off the king of the hill and was accused of having quacked up drivers that improve benchmark scores sacrificing image quality. A new set of drivers have gotten rid of the benchmark issue, some incompatibilities and improved performance. Damage at the Tech Report now pits the 8500 up against the GeForce3 Ti 500 for a rematch.

> "...once you get under that crusty old ATI veneer of lousy drivers and purposely vague public statements, the Radeon 8500 looks like a darned good graphics processor.
>
> Good enough to take on NVIDIA's vaunted GeForce3 Titanium series? Just maybe..."

The competitors are put through a rigorous benchmarking gauntlet in typical Tech Report style. Is the 8500 ? Well, I'm not going to spoil the review...check it out yourself. While reading the review, keep in mind there are rumors that ATI will be releasing a "Ultra" version of the 8500 clocked at 300MHz core and 600MHz memory.

[Discussion]

Sonic Flashlight gets under the skin

Posted 12/7/2001 - 5:53PM, by zAmboni
In a recent Dockers commercial, a woman dons on a pair of x-ray specs and is able to view beneath the surface in her three-dimensional world. While x-ray glasses haven't hit the market yet, research has brought that vision one step closer to reality. An engineer at the University of Pittsburgh has developed what he calls a "sonic flashlight" which allows the human body to be seen as translucent.

> The prototype device merges the visual outer surface of a patient's skin with a live ultrasound scan of what lies beneath. It creates the effect of a translucent ultrasound image floating in its actual 3-D location within the patient, showing blood vessels, muscle tissue, and other internal anatomy.

Surgeons when viewing an x-ray or ultrasound image usually need to look at a film or monitor, switching views between the image and patient. This new device appears to project the image directly on the patient giving the surgeon with a 3-D overlay. The image is not actually projected on the person's skin, the prototype uses simple geometry to give the illusion of an image projected on the patient. The apparatus uses flat-panel monitor positioned at an angle above a half silvered mirror while the patient and ultrasonic flashlight is positioned below. With the setup "The reflected image is optically indistinguishable from the corresponding space within the patient" and that relationship is maintained even if the viewing angle is changed.

Both static and portable prototypes have been built for use in both the surgery theater and doctor's office. With the rate of technology advances it is only a matter of time before glasses are developed with ultrasonic images displayed on semi-transparent LCD lenses.

[Discussion]

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To the News Archives

ars technica openforum

Author | Topic: Web talk with Paul Kunz

Hannibal
Senior CPU Editor

posted December 10, 2001 16:26

Tribus: Olympus Mons
Registered: February 18, 1999
Posts: 761

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How about lycos.cs.cmu.edu? Or espnet.sportszone.com? I forgot ESPN's out starwave address, though. (Oh goodness - does anyone remember starwave?) I remember archie, veronica, and gopher! W00t!

E-SOCIEDAD

ANIVERSARIO

Las páginas 'web' celebran su décimo cumpleaños

En 1991, el físico Paul F. Kunz creó un rudimentario formulario para intercambiar información a través d hoy ya existen 1.600 millones de estos archivos en HTML y 513 millones de internautas

OLALLA CERNUDA

MADRID.- Hay cumpleaños que asombran. Hace 10 años, un físico de EEUU alucinó en Suiza con la oportunidad de i información entre ordenadores. De aquella inspiración nació el primer sitio **web** de la Historia. Hoy son 513 millones internautas los que consultan la Red a diario.

«El 12 de diciembre de 1991, creé el primer sitio **web** en los laboratorios del Slac (Centro del Acelerador Lineal) en Stanford».Quien ostenta el honor de poder decir esto es el científico estadounidense **Paul** F. **Kunz**. Pero desde entor cambiado.

En realidad, **Kunz** no fue la primera persona que probó a conectar dos ordenadores situados en extremos remotos. E paso lo habían dado los científicos del CERN (European Organization for Nuclear Research), en Suiza.

En agosto de 1991, **Paul** F. **Kunz** leyó un anuncio en el que se difundía la invención de la World Wide **Web**. «Pensé, haciendo esos locos del CERN?», recuerda el físico. Antes de poder conectar el software gratuito que daba entrada a un vuelo hacia Ginebra.

En territorio helvético, **Kunz** entró en contacto con Tim Berners Lee, un becario británico del CERN. Berners-Lee est a desarrollar un método eficiente y rápido para intercambiar datos científicos. Y damos fe de que lo consiguió.

Conectar con Stanford

Para ello, combinó dos tecnologías ya existentes (el hipertexto y el protocolo de comunicaciones de Internet), creanc modelo de acceso a la información intuitivo e igualitario. De hecho, fue quien propuso a **Kunz** que colgara toda la inf Stanford en un servidor para que otros científicos pudieran consultarla desde fuera. Berners-Lee fue el primero en pr

Cuando regresó a Stanford, decidió ponerse manos a la obra. Le ayudaron su bibliotecaria, Louise Addis, y el propio Lee.¡Voilà! En forma de rudimentario formulario, había llegado la primera página **web**, el resto es historia.

Pero para que el uso de Internet se generalizara hacía falta algo más. Ya había un lenguaje estándar, que podían ent los ordenadores. Una máquina en la que se hospedaba toda la información y a la que se podía acceder desde cualqu pero ¿cómo enseñar a los ordenadores a interpretar ese lenguaje y conectarse a la Red?

Para ello hizo falta que apareciera en escena un joven de 23 años, Marc Andreessen, que desarrolló poco después M programa que permitía a las computadoras interpretar toda esa amalgama de símbolos y etiquetas que formaban las mostrarla de una forma legible.

A partir de ahí, el desarrollo de Internet ha sido imparable.En noviembre de 2001, hay activos 36.458.394 de servid existen unas 1.600 millones de páginas **web**. Si hablamos del número de usuarios de Internet, se cifra en 513 millo personas, de los que 7,5 están en España.

Esta semana concluyó en Stanford (EEUU) un congreso para celebrar los diez años de la creación de la primera págir constató que los americanos casi han copado su uso.

Tal y como se aprecia en las tres ilustraciones, las webs han evolucionado a marchas forzadas. En un principio, el ler permitía a los ordenadores entenderse entre sí, el HTML, estaba todavía muy poco desarrollado. No había más que d letra, tres o cuatro tamaños y las posibilidades de diseño que se ofrecían eran más bien escasas.

Por aquel entonces, hablar de imágenes era una utopía, por no decir de archivos de vídeo o de audio. Ahora, como l transparente se puede copiar la estructura de cualquier **web** , y existen sencillos programas que permiten crear pág necesidad de saber HTML, la evolución está asegurada. Veremos a ver dónde estamos dentro de otros 10 años.

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webtechniques

DAILY

Welcome to WebTechniques.com Daily, where select editors and industry experts keep you posted on the latest developments in Internet technology, design, and strategy. Click on an author's name to read his or her bio.

Monday, December 10

8:31 PM | Al Williams ▼

I'm From Microsoft, and I'm Here to Help You...

If you are using Office XP, you may have noticed that it still crashes like older versions do. However, now a helpful dialog offers to report the crash to Microsoft.

At first glance this seems like a nice feature. If they see hundreds of crashes with the same signature, they might fix it. Also, if they have a fix for the crash, the little window will direct you to a **Web** site that explains what you should do to prevent the crash again (download a software update, for example).

However, a recent security advisory warns that some of your document might get sent to Microsoft along with other information. I'm not very anti-Microsoft, and I doubt this was intentional. Still, I don't want some programmer in Redmond reading my letter to the IRS, my business plan, or even my last book

proposal.

Fire is a useful tool, but it also burns down houses. I don't want to go back to the days that my computer was an island unto itself. However, as our computers connect more readily to other computers, you have to be careful that your privacy isn't invaded – even in a well-meaning attempt to solve your problems.

[discuss]

12:23 PM | Amit Asaravala ▼

A Slogan for the DMCA?

The Electronic Frontier Foundation is sponsoring a DMCA Slogan Contest. Here's the official statement:

> The DMCA affects every American, indeed, every human on the planet. The problem is that the average person doesn't realize this. EFF wants the input of our supporters in order to come up with slogans that will raise the mainstream consciousness to the destructive effects of the DMCA and inspire us all to continue the fight for free expression.
>
> Put on your thinking caps, summon the creative muse and submit ideas for slogans and "soundbytes" to help us fight the DMCA. If your idea is chosen, you will win your choice of vintage EFF T-shirts. Send your entry to slogan@eff.org. Thanks for your help.

[discuss]

Sunday, December 9

10:58 PM | Bryan Mason ▼

We've Got a New Encryption Standard

The Commerce Department just approved the Advanced Encryption Standard (AES), an encryption technique the Feds will use from now on. It will very likely be adopted by the private sector, so if you're

doing business with the government, get to know this 128-bit block cipher algorithm and Rijndael.

[discuss]

Tuesday, December 4

4:51 PM | Bryan Mason ▼

Happy Birthday!

Ten years ago, Stanford physicist **Paul Kunz** pulled together three lines of text and two links, creating the first American site on the World Wide **Web**.

A portal to a scientific database, folks were crazy for the immediate access and slick interface.
Have a look.

[discuss]

Sunday, December 2

11:55 PM | Amit Asaravala ▼

"Ginger" Revealed

Time.com has the scoop on Dean Kamen's mystery machine. And the New York Times' version of the article comes with a good picture of "it."

[discuss]

Friday, November 30

2:02 PM | Al Williams ▼

Brick and Mortar Retreats

USA Today's Weekend edition reports that Federated Department Stores (the people who own Macy's and Bloomingdales's) will stop selling merchandise at the Bloomingdale's site and reduce what it sells at the Macy's site as well. Bloomie's isn't the only online retailer to beat a retreat right at the height of the Christmas shopping season. Wal-Mart.com's CEO resigned last week after turning in a disappointing year. While Wal-Mart is the nation's number one retailer, its **Web** site (according to the

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MIERCOLES 12 OF DECEMBER OF 2001/EDITION no. 22580/UPDATED 02:00 a.m.

Choose servant closest:
Nicaragua
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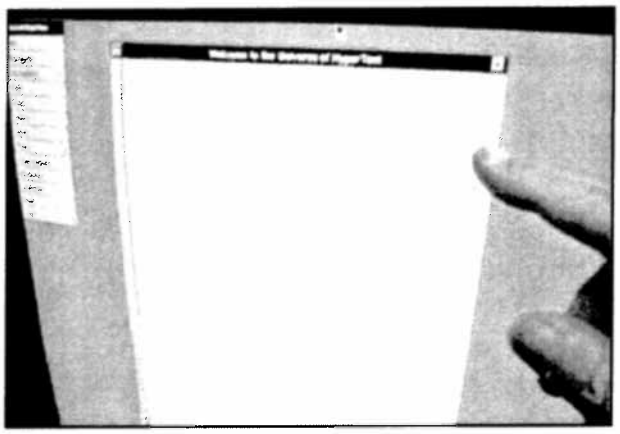
The pages ' web' celebrate ten years


Front page Web created in 1991.

- **There are birthdays that astonish. 10 years ago, a physicist of the U.S.A. hallucinated in Switzerland with the opportunity to interchange information between computers. Of that inspiration the first Web site of history was born**

Olalla Cernuda
The world

The 12 of December of 1991, Paul F. Kunz created the first Web site in the laboratories of the Slac (Center of the Linear Accelerator) in Stanford, the United States. In fact, Kunz was not the first person who proved to connect two computers located in remote ends. The first step had given the scientists it of the CERN (European for Organization Nuclear Research), in Switzerland.

In August of 1991, Paul F. Kunz read an announcement in which the invention of the World Wide Web. "Pensé spread, what those crazy people are doing of the CERN", the physicist remembers. Before being able to connect the shareware that gave entrance to the Network, he took a flight towards Geneva.

Helvetic territory, Kunz made contact with enemy with Tim Berners-Lee, a British scholarship holder of the CERN. Berners-Lee was determined to develop an efficient and fast method to interchange scientific datas. And we give faith of which it obtained it.

TO CONNECT WITH STANFORD

For it, it combined two existing technologies already (the hypertext and the communication protocol of Internet), creating a new model of access to egalitarian the intuitive information and. In fact, it went the one who proposed to Kunz that hung all the information of Stanford in a servant so

that other scientists could consult it from outside. Berners-Lee was first in proving it.

When it returned to Stanford, it decided to put hands to the work. They helped its librarian him, Louise Addis, and the own Tim Berners-Lee. In form of rudimentary form, had arrived front page Web, the rest is history.

But so that the use of Internet became general lack ago something more. Already there was a standard language, that could understand all the computers. A machine in which all the information was stayed and to which it was possible to be acceded from any part, but how to teach to the computers to interpret that language and to connect themselves to the Network?

For it it was necessary that appeared in scene a young person of 23 years, Marc Andreessen, who shortly after developed Mosaic, a program that allowed the computers to interpret all that amalgam of symbols and labels that formed webs and to show it of a legible form.

UNSTOPPABLE

In November of 2001, there are assets 36,458,394 of servants

1,600 million pages Web

There are 513 million people like users of pages Web

At first, the language that allowed the computers to be understood to each other, the HTML, still was very little developed.

There were more two fonts, no three or four sizes and the design possibilities that were offered were rather little.

To speak of images was an utopia, not to say of archives of video or audio. ■

Paul Kunz: Turning on the World Wide Web

*By **Paul** Festa, Special to ZDNet*
11 December 2001

The commonly held image of the American Web pioneer is that of a twenty-something, bespectacled computer computer geek hunched over his Unix box in the wee hours of the morning, surrounded by the detritus of heavily caffeinated drinks and junk food while deep in pursuit of worldwide information domination and IPO riches.

This country's actual **Web** pioneer, by contrast, had smaller things on his mind when he launched the first **Web** server and **Web** page on US soil. Much smaller, in fact: electrons.

It was at the Stanford Linear Accelerator Center (SLAC) that particle physicist **Paul Kunz** wrote and posted the first American **Web** page 10 years ago today. As an aside to his work smashing and studying subatomic particles, **Kunz** set up the first **Web** server outside Western Europe as a way of providing easier access to a database of scientific paper abstracts.

Researchers, long frustrated by more cumbersome protocols and interfaces for accessing distant computers over the Internet and other computer networks, took to the new World Wide **Web** with alacrity. Ambitious computer geeks, followed by venture capitalists, curious **Web** surfers and IPO speculators, were not far behind.

Kunz didn't invent the **Web**--that credit goes to Tim Berners-Lee, an English researcher then working at the CERN laboratory in Geneva, Switzerland, and now heading the World Wide **Web** Consortium (W3C), a pre-eminent standards body. But with his powerful, practical demonstration of the Web's potential, **Kunz** arguably set off a chain of events that turned the **Web** into a staple first of academic research, and ultimately of everyday life.

Kunz spoke to CNET News.com from his office at SLAC (where he and colleagues refer to themselves as SLACers) about the dawn of the **Web** in America.

Q: How is it that an atom smasher like yourself created the first U.S. Web page?

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- **Paul Kunz**: Turning Wide **Web**
- CMS strategy: Don't before the horse
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A: I was visiting the laboratory called CERN, in Geneva, Switzerland--a big international lab funded by European countries--and a guy by the name of Tim Berners-Lee asked me to come see him demonstrate the application he'd just written called the World Wide **Web**. It was written on a NeXT computer. There were only a few of us out there using them so we had to stick together. On Friday, Sept. 13, 1991, he showed me his **Web** browser that he had written on NeXT, with hypertext. I was terribly interested in that.

What interested you?

The first **Web** browser was more than just a browser: It had the ability to do a search on a remote machine. That's the key to the **Web**--the ability to do searches. He did a search on the mainframe IBM computer, and the help system gave back pointers as to where to find documents you might be searching for. That gave me the idea: If he could do searches, then I could do that too. I had a database online at SLAC that needed an interface to the Internet. That database is called SPIRES.

When I saw what Tim Berners-Lee had done, I said, "This is all well and good, but will it work over the Internet?" And Tim said, "Of course--it's designed for that." I said, "Show me." But he said the only problem is that all the **Web** servers in the world were in that same building. So what we did was we uploaded this browser software to my computer at SLAC, six thousand miles away, and then we ran the browser and pushed all the windows back to his machine at CERN.

The NeXT computers had that capability, to run an application on a computer and push the windows to another computer. It was a way for us to test how well the **Web** would work over the Internet. Would it be slow, would it be fast? We had no way of doing that without operating a **Web** browser by remote control.

This was the first demonstration of the World Wide Web in action?

Anything we did had to go from SLAC to CERN and back again. I believe that was the first time Tim Berners-Lee saw the (**Web**) work on the Internet. So I told him I would start a **Web** server at SLAC as soon as I got back, and the idea I had in mind was that we had a database at SLAC that contained at the time 200,000 references to papers that were written in the field of high-energy physics (HEP). Each entry contained authors, titles, keywords--this database was heavily used by the HEP community, thousands of users in 40 different countries.

So it was already accessible over computer networks.

Yes, but it was rather difficult to use because you were always logging onto a foreign machine, and the database commands were not very user-friendly. And the database was not accessible to the Internet. So what I planned to do was use the **Web** as a more friendly interface so that people throughout the world could do searches, just like I saw with that help system at CERN.

When I got back to the U.S., I gave the job to someone else and nothing happened for two months. I had something more important to do--I was working on another NeXT application, something that at the time seemed more important than putting the **Web** server up. Two months later, Tim reminded me that I was supposed to launch the demo, and said he was going to a hypertext conference. And that's why it wasn't until Dec. 12 that I finally finished the job and got the page up.

What was the substance of that first Web page?

What you could do with that home page was two things. The BINLIST link would allow you to do a search onto the SLAC online phone book and get phone numbers and e-mail addresses. The second link, called HEP, was an interface to a pre-print database. People would send a copy of their paper to various institutes before it got published, and that was called a pre-print.

What did you use by way of a browser in those early days?

The only browsers available were on the NeXT machine. The only other thing you could use was the line-mode browser, like your DOS shell. Microsoft called it a command prompt. All people who did not have a NeXT machine would see was text. Wherever there was a link you'd find a number, and you'd have to type in the link.

But even that was an improvement over the way people used to interface with SPIRES. So I sent an e-mail to Tim Berners-Lee, saying, "Our server's up and running, give it a try." This would be Dec. 13. Tim wrote back and said, "Great, congratulations. But your pages don't look very pretty."

What happened next?

The next most important event happened a month later, Jan. 15, 1992. There was a workshop in La Londe, France, on advanced computing techniques for high-energy and nuclear physics. At that workshop, Tim Berners-Lee gave the first demo of the **Web** outside of the CERN laboratory. The attendance of the workshop was about 200 physicists from around the world, and he gave a demonstration that started off with his technology, showing what you could do, like a sales pitch. But the grand finale of this demo was that he connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped. They knew the database, and they saw how easy it was to access it from this town in southern France.

You had these 200 people, who were coming from maybe 100 or more different institutes from around the world, and imagine how anxious they were to get back home and show their colleagues! That was a giant push in advancing the **Web**. It not only existed, but it had something useful on it.

What was your traffic like in those early days?

It immediately started picking up once that conference was over. It took people awhile to figure out where to get a browser, but once they did, traffic started picking up. CERN had their own pre-print database, but it didn't take long before more CERN physicists were using the SLAC database 6,000 miles away than the CERN database, because (the **Web** interface) was more friendly.

So this idea of friendliness is the key to the Web's success?

I think so. The early information on the **Web** may have been available by other means, but could mere mortals actually handle it? You usually found yourself on some foreign computer, you didn't know the commands, there was always some syntax you couldn't quite remember. There are two things about the **Web**: It makes things easier with visual clues, and what you see and do doesn't depend on what computer is hosting the service.

What happened with browser development after your Web page went up?

There's some confusion over who invented the first browser, or the first browser with a graphical interface.

The only graphical browser available was for the NeXT machines, which were not that popular. I think there were fewer than 100,000 sold. Everybody else had a line-mode browser. And Tim Berners-Lee and Robert Cailliau were too busy promoting the **Web** to write a graphical browser for Unix. They hoped that the idea of the **Web** would spread and somebody else would do that work.

Did you go on to become an ace Web designer?

No. I was too busy with my other projects. I handed it over to the chief librarian and told her she'd have to find some help to keep it going. I told her frankly that I didn't want to spend my time doing a lot of that but that she could find help from other people in the lab.

That group of people who helped her were called the **Web** Wizards. Tony Johnson was one of the people at that workshop. He started working much more closely with the **Web** and created the first dynamic **Web** pages, or pages that were dynamically created in response to the query, as opposed to static pages that are written up. That was an innovation--nobody had done that before he did it.

He was also interested in the graphics. He wanted a browser that would work under X-Windows (the Unix windowing system). Tony was interested in having not only a browser, but a browser that could do graphics.

What was (Netscape Communications co-founder) Marc Andreessen's contribution?

Marc picked it up and tried it out. Tony the other day showed us the e-mail he got from Marc, saying, "Congratulations, this is super," and then giving him a list of about 10 bugs. Over the next few days, he got an additional 10 messages from Marc with bug reports and additional features Marc wanted. At this point Tony felt he didn't want to work on the browser full time, and got out of the business. Marc took over. Once Mosaic came out from the NCSA, it really started moving.

But it all started among a bunch of physicists.

It really had to start somewhere, and it all started here in high-energy physics.

High-energy physics means atom smashing?

We don't do atoms anymore; they're too big. We smash particles. At SLAC we work on electrons. At Fermilab they do protons.

How did the first graphical browsers get started?

In parallel with all of our **Web** development there was an effort going on at Los Alamos. We had a pre-print server, so you'd get the pre-prints. That's OK, but if you were going to put the whole paper on the **Web** the figures in the papers needed graphics to be displayed. So the motivation to have a browser that would do graphics was pretty strong.

What's the worst thing about how the Web has developed, from a structural/architectural perspective?

I don't want to answer that question, because it's been so remarkably successful with hardly any glitches. The whole Internet itself was designed by a group of people sitting on the network with less than 256 computers. The original ARPAnet protocol, the predecessor of TCP/IP, could only support 256 computers. When they realized it was going to run out, they made the plans and did the testing, and since then things haven't really changed.

We've gone from tens of thousands of computers to millions of computers today without a major glitch. When you design systems, it's hard to design them to be scalable. That's a very hard thing to do, and they did a very, very good job. The same holds (true) for the **Web** itself. I don't think Tim Berners-Lee imagined that every high school, news station and airline would have a **Web** server. And yet it scaled that far without any fundamental change in how it works.

It's hard to think about the last 10 years and say there weren't any glitches.

Of course, along the way there are tricks that hackers like to do for fun that put some glitches in things. But this has always been relatively minor compared to the ways that it scaled from the original imaginings of its authors.

When did the Web become a central or daily part of the average scientist's life and work? When did it become ubiquitous in science?

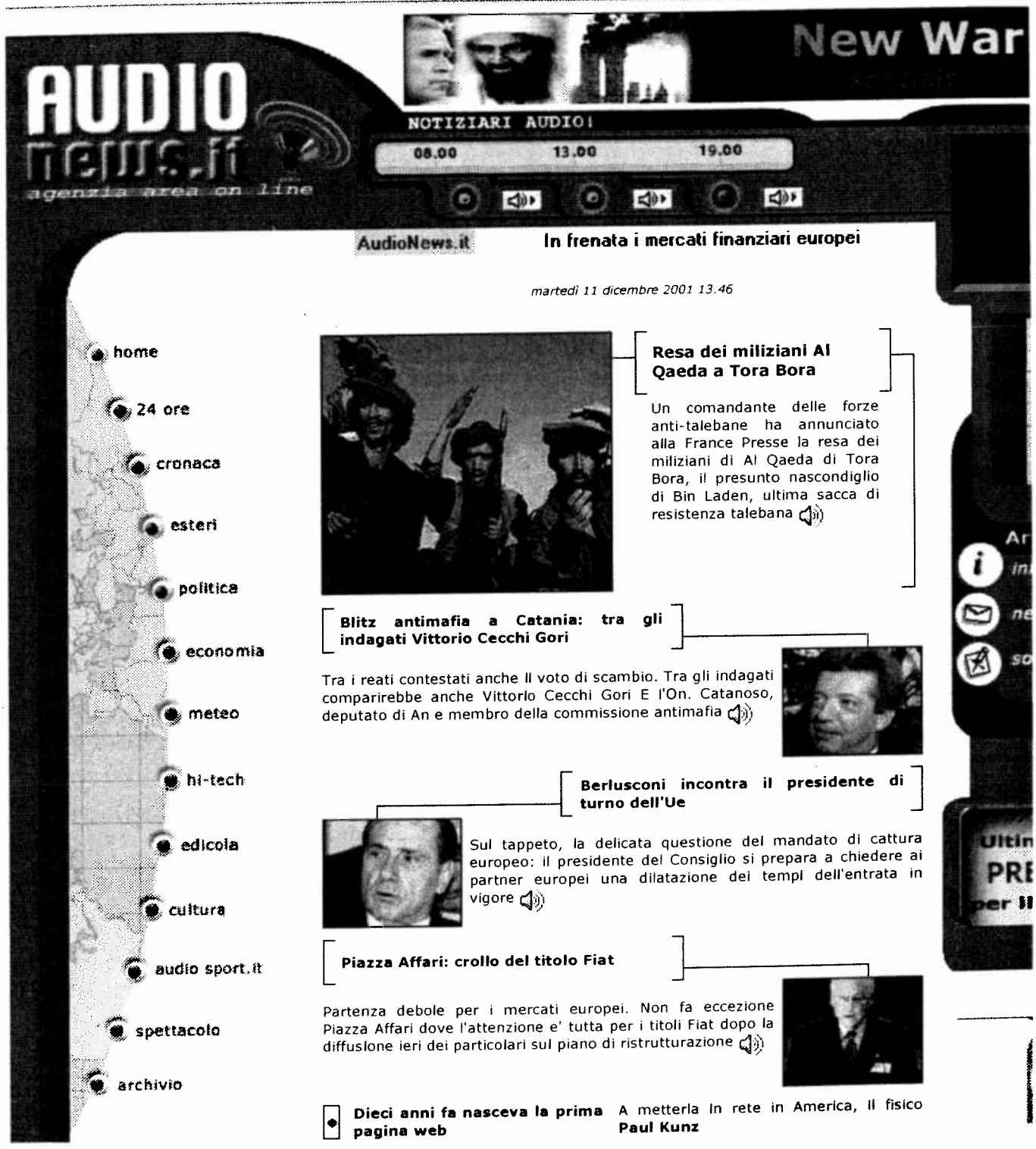
Of course (the academic community) took to it immediately. It was obvious to everybody that this was the better way. It was an easy sell. This is an example of the science community solving problems for themselves with a residual benefit to the rest of the world. My bottom line is that you must have a healthy, adequately funded scientific community, because we're solving problems you don't even know you have yet. And the **Web** is one of the most outstanding examples of that.

The way of the Web

- **1969:** ARPAnet, the precursor to today's Internet, is commissioned by the Defense Department.
- **1985:** Symbolics.com is cleared as the first registered domain name.
- **1990:** The World becomes the first commercial provider of dial-up Net access.
- **1991:** The World Wide **Web**, developed by Tim Berners-Lee, is launched by the CERN research center. **Paul Kunz** of Stanford Linear Accelerator Center sets up the first U.S.-based **Web** server.
- **1992:** The term "surfing the Internet" is coined by public librarian Jean Armour Polly.
- **1993:** The U.S. White House comes online. The Mosaic **Web** browser takes the Internet by storm.
- **1994:** The first banner ads--for the Zima beverage and AT&T--appear on Hotwired.com.
- **1995:** Sun launches the Java programming language. Dial-up systems from CompuServe, America Online and Prodigy begin providing Net access. Netscape Communications sets the third-largest IPO share value ever on the Nasdaq Stock Market.
- **1996:** The **Web** browser war, fought primarily between Netscape and Microsoft, rushes in a new age in software development in which new releases are made quarterly.
- **1997:** Domain name Business.com is sold for $150,000.
- **1998:** Network Solutions registers its 2 millionth domain name.
- **1999:** Napster's file-swapping service launches.
- **2000:** A massive denial-of-service attack is launched against major **Web** sites, including Yahoo, Amazon.com and eBay.
- **2001:** Napster is forced to suspend service; it expects to return as a subscription service. New top-level domains .biz and .info are added to the root server.

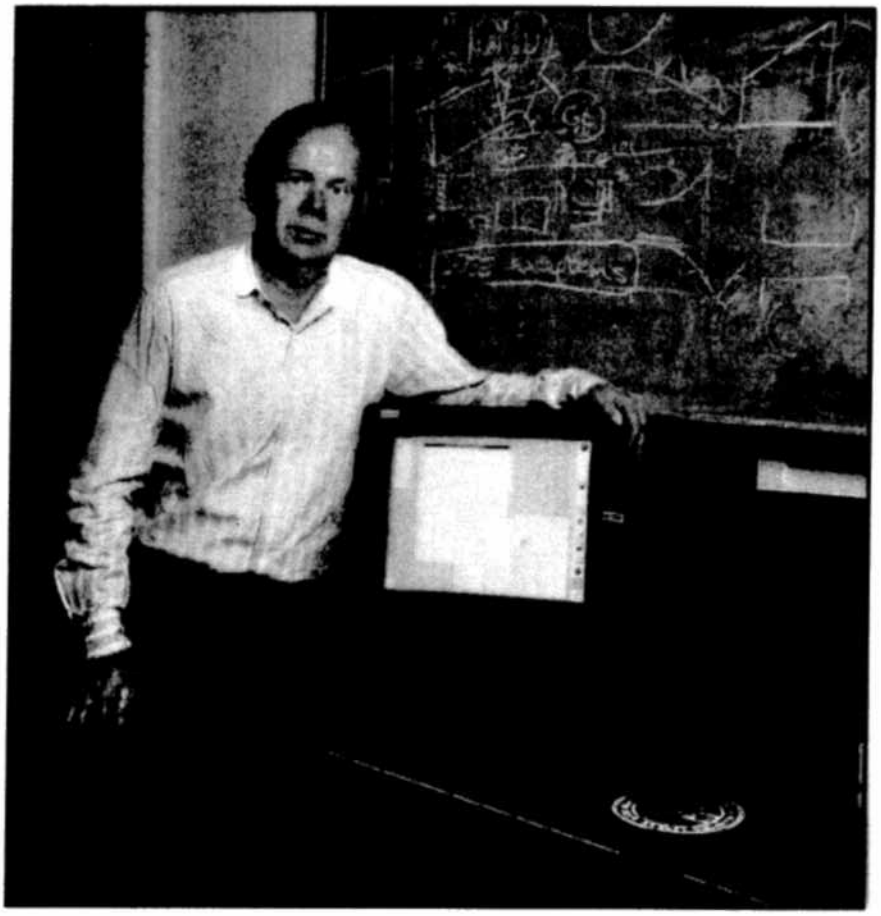
Source: Hobbes' Internet Timeline

Talkback: Post your comment here



CERN Bulletin 38/99; 20 septembre 1999

Le Web en Amérique



Le 12 décembre 1991, le World Wide Web débarquait aux Etats-Unis. Aujourd'hui, à 16 h 30, dans l'amphithéâtre principal, **Paul Kunz** nous raconte de quelle manière il a amené le Web en Amérique.

Pour plus d'information sur ces pages, veuillez nous contacter (C)

Newsmakers

Turning on the World Wide Web

By Paul Festa
Staff Writer, CNET News.com
December 10, 2001, 4:00 a.m. PT

newsmakers The commonly held image of the American Web pioneer is that of a twenty-something, bespectacled computer geek hunched over his Unix box in the wee hours of the morning, surrounded by the detritus of heavily caffeinated drinks and junk food while deep in pursuit of worldwide information domination and IPO riches.

This country's actual Web pioneer, by contrast, had smaller things on his mind when he launched the first Web server and Web page on U.S. soil. Much smaller, in fact: electrons.

It was at the Stanford Linear Accelerator Center (SLAC) that particle physicist Paul Kunz wrote and posted the first American Web page 10 years ago today. As an aside to his work smashing and studying subatomic particles, Kunz set up the first Web server outside Western Europe as a way of providing easier access to a database of scientific paper abstracts.

Researchers, long frustrated by more cumbersome protocols and interfaces for accessing distant computers over the Internet and other computer networks, took to the new World Wide Web with alacrity. Ambitious computer geeks, followed by venture capitalists, curious Web surfers and IPO speculators, were not far behind.

Kunz didn't invent the Web--that credit goes to Tim Berners-Lee, an English researcher then working at the CERN laboratory in Geneva, Switzerland, and now heading the World Wide Web Consortium (W3C), a pre-eminent standards body. But with his powerful, practical demonstration of the Web's potential, Kunz arguably set off a chain of events that turned the Web into a staple: first of academic research, and ultimately of everyday life.

Kunz spoke to CNET News.com from his office at SLAC (where he and colleagues refer to themselves as SLACers) about the dawn of the Web in America.

The way of the Web

1969
ARPAnet, the precursor to today's Internet, is commissioned by the Defense Department.

1985
Symbolics.com is cleared as the first registered domain name.

1990
The World becomes the first commercial provider of dial-up Net

Q: How is it that an atom smasher like yourself created the first U.S. Web page?
A: I was visiting the laboratory called CERN, in Geneva, Switzerland--a big international lab funded by European countries--and a guy by the name of Tim Berners-Lee asked me to come see him demonstrate the application he'd just written called the World Wide Web. It was written on a NeXT computer. There were only a few of us out there using them so we had to stick together. On Friday, Sept. 13, 1991, he showed me his Web browser that he had written on NeXT, with hypertext. I was terribly interested in that.

What interested you?
The first Web browser was more than just a browser: It had the ability to do a search on a remote machine. That's the key to the Web--the ability to do searches. He did a search on the mainframe IBM computer, and the help system gave back pointers as to where to find documents you might be searching for. That gave me the idea: If he could do searches, then I could do that too. I had a database online at SLAC that needed an interface to the Internet. That database is called SPIRES.

When I saw what Tim Berners-Lee had done, I said, "This is all well and good, but will it work over the Internet?" And Tim said, "Of course--it's designed for that." I said, "Show me." But he said the only problem is that all the Web servers in the world were in that same building. So what we did was we uploaded this browser software to my computer at SLAC, six thousand miles away, and then we ran the browser and pushed all the windows back to his machine at CERN.

The NeXT computers had that capability, to run an application on a computer and push the windows to another computer. It was a way for us to test how well the Web would work over the Internet. Would it be slow, would it be fast? We had no way of doing that without operating a Web browser by remote control.

This was the first demonstration of the World Wide Web in action?
Anything we did had to go from SLAC to CERN and back again. I believe that was the first time Tim Berners-Lee saw the (Web) work on the Internet. So I told him I would start a Web server at SLAC as soon as I got back, and the idea I had in mind was that we had a database at SLAC that contained at the time 200,000 references to papers that were written in the field of high-energy physics (HEP). Each entry contained authors, titles, keywords--this database was heavily used by the HEP community, thousands of users in 40 different countries.

So it was already accessible over computer networks.
Yes, but it was rather difficult to use because you were

access.

1991
The World Wide Web, developed by Tim Berners-Lee, is launched by the CERN research center.

Paul Kunz of Stanford Linear Accelerator Center sets up the first U.S.-based Web server.

1992
The term "surfing the Internet" is coined by public librarian Jean Armour Polly.

1993
The U.S. White House comes online.

The Mosaic Web browser takes the Internet by storm.

1994
The first banner ads--for the Zima beverage and AT&T--appear on Hotwired.com.

1995
Sun launches the Java programming language.

Dial-up systems from CompuServe, America Online and Prodigy begin providing Net access.

Netscape Communications sets the third-largest IPO share value ever on the Nasdaq Stock Market.

1996
The Web browser war, fought primarily between Netscape and Microsoft, rushes in a new age in software development in which new releases are made quarterly.

1997
Domain name Business.com is sold for $150,000.

1998
Network Solutions registers its 2 millionth domain name.

1999
Napster's file-swapping service launches.

2000
A massive denial-of-service attack is launched against major Web sites, including Yahoo, Amazon.com and eBay.

New Intel servers telecom market

Compaq, RealNe subscription deal

This week's hea

News Too

Get news by

Get news by

Listen live to Radio

always logging onto a foreign machine, and the database commands were not very user-friendly. And the database was not accessible to the Internet. So what I planned to do was use the Web as a more friendly interface so that people throughout the world could do searches, just like I saw with that help system at CERN.

2001
Napster is forced to suspend service; it expects to return as a subscription service.

New top-level domains .biz and .info are added to the root server.

Source: Hobbes' Internet Timeline

When I got back to the U.S., I gave the job to someone else and nothing happened for two months. I had something more important to do--I was working on another NeXT application, something that at the time seemed more important than putting the Web server up. Two months later, Tim reminded me that I was supposed to launch the demo, and said he was going to a hypertext conference. And that's why it wasn't until Dec. 12 that I finally finished the job and got the page up.

What was the substance of that first Web page?
What you could do with that home page was two things. The BINLIST link would allow you to do a search onto the SLAC online phone book and get phone numbers and e-mail addresses. The second link, called HEP, was an interface to a pre-print database. People would send a copy of their paper to various institutes before it got published, and that was called a pre-print.

"The grand finale of this demo was that (Tim Berners-Lee) connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped."

What did you use by way of a browser in those early days?
The only browsers available were on the NeXT machine. The only other thing you could use was the line-mode browser, like your DOS shell. Microsoft called it a command prompt. All people who did not have a NeXT machine would see was text. Wherever there was a link you'd find a number, and you'd have to type in the link.

But even that was an improvement over the way people used to interface with SPIRES. So I sent an e-mail to Tim Berners-Lee, saying, "Our server's up and running, give it a try." This would be Dec. 13. Tim wrote back and said, "Great, congratulations. But your pages don't look very pretty."

What happened next?
The next most important event happened a month later, Jan. 15, 1992. There was a workshop in La Londe, France, on advanced computing techniques for high-energy and nuclear physics. At that workshop, Tim Berners-Lee gave the first demo of the Web outside of the CERN laboratory. The attendance of the workshop was about 200 physicists from around the world, and he gave a demonstration that started off with his technology, showing what you could do, like a sales pitch. But the grand finale of this demo was that he connected to the SLAC database using his browser, and this opened people's eyes. Their jaws just dropped. They knew the database, and they saw how easy it was to access it from this town in southern France.

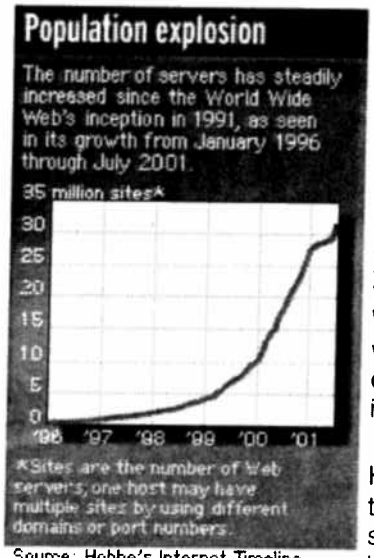
You had these 200 people, who were coming from maybe 100 or more different institutes from around the world, and imagine how anxious they were to get back home and show their colleagues! That was a giant push in advancing the Web. It not only existed, but it had something useful on it.

What was your traffic like in those early days?
It immediately started picking up once that conference was over. It took people awhile to figure out where to get a browser, but once they did, traffic started picking up. CERN had their own pre-print database, but it didn't take long before more CERN physicists were using

the SLAC database 6,000 miles away than the CERN database, because (the Web interface) was more friendly.

So this idea of friendliness is the key to the Web's success?
I think so. The early information on the Web may have been available by other means, but could mere mortals actually handle it? You usually found yourself on some foreign computer, you didn't know the commands, there was always some syntax you couldn't quite remember. There are two things about the Web: It makes things easier with visual clues, and what you see and do doesn't depend on what computer is hosting the service.

What happened with browser development after your Web page went up? There's some confusion over who invented the first browser, or the first browser with a graphical interface.
The only graphical browser available was for the NeXT machines, which were not that popular. I think there were fewer than 100,000 sold. Everybody else had a line-mode browser. And Tim Berners-Lee and Robert Cailliau were too busy promoting the Web to write a graphical browser for Unix. They hoped that the idea of the Web would spread and somebody else would do that work.



Source: Hobbe's Internet Timeline

Did you go on to become an ace Web designer?
No. I was too busy with my other projects. I handed it over to the chief librarian and told her she'd have to find some help to keep it going. I told her frankly that I didn't want to spend my time doing a lot of that but that she could find help from other people in the lab.

That group of people who helped her were called the Web Wizards. Tony Johnson was one of the people at that workshop. He started working much more closely with the Web and created the first dynamic Web pages, or pages that were dynamically created in response to the query, as opposed to static pages that are written up. That was an innovation--nobody had done that before he did it.

He was also interested in the graphics. He wanted a browser that would work under X-Windows (the Unix windowing system). Tony was interested in having not only a browser, but a browser that could do graphics.

What was (Netscape Communications co-founder) Marc Andreessen's contribution?
Marc picked it up and tried it out. Tony the other day showed us the e-mail he got from Marc, saying, "Congratulations, this is super," and then giving him a list of about 10 bugs. Over the next few days, he got an additional 10 messages from Marc with bug reports and additional features Marc wanted. At this point Tony felt he didn't want to work on the browser full time, and got out of the business. Marc took over. Once Mosaic came out from the NCSA, it really started moving.

But it all started among a bunch of physicists.
It really had to start somewhere, and it all started here in high-energy physics.

High-energy physics means atom smashing?
We don't do atoms anymore; they're too big. We smash particles. At SLAC we work on electrons. At Fermilab they do protons.

How did the first graphical browsers get started?
In parallel with all of our Web development there was an effort going on at Los Alamos. We had a pre-print server, so you'd get the pre-prints. That's OK, but if you were going to put the

"It really had to start somewhere

whole paper on the Web the figures in the papers needed graphics to be displayed. So the motivation to have a browser that would do graphics was pretty strong.

What's the worst thing about how the Web has developed, from a structural/architectural perspective?
I don't want to answer that question, because it's been so remarkably successful with hardly any glitches. The whole Internet itself was designed by a group of people sitting on the network with less than 256 computers. The original ARPAnet protocol, the predecessor of TCP/IP, could only support 256 computers. When they realized it was going to run out, they made the plans and did the testing, and since then things haven't really changed.

We've gone from tens of thousands of computers to millions of computers today without a major glitch. When you design systems, it's hard to design them to be scalable. That's a very hard thing to do, and they did a very, very good job. The same holds (true) for the Web itself. I don't think Tim Berners-Lee imagined that every high school, news station and airline would have a Web server. And yet it scaled that far without any fundamental change in how it works.

It's hard to think about the last 10 years and say there weren't any glitches.
Of course, along the way there are tricks that hackers like to do for fun that put some glitches in things. But this has always been relatively minor compared to the ways that it scaled from the original imaginings of its authors.

When did the Web become a central or daily part of the average scientist's life and work? When did it become ubiquitous in science?
Of course (the academic community) took to it immediately. It was obvious to everybody that this was the better way. It was an easy sell. This is an example of the science community solving problems for themselves with a residual benefit to the rest of the world. My bottom line is that you must have a healthy, adequately funded scientific community, because we're solving problems you don't even know you have yet. And the Web is one of the most outstanding examples of that. ■

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News - December 11,2001

10 Years Ago - The First W.W.Webpage

By:mark.j @ 10:02:AM - Comments (1) - SendNews [HERE] / PrintNews [HERE]

People have been reminded today by various publications that 10 years ago a particle physicist by the name of **Paul Kunz** posted the first global **web** page from Stanford Linear Accelerator Center (SLAC).

Typically it was also based off the first **web** server outside Western Europe and designed as a tool for providing easier access to scientific papers.

This forms an excellent reminder to people that the Internet is still infantile, yet expands almost as fast as the universe itself. Hopefully by 2010 we won't be overrun by strange robots called Terminators and toasters seeking revenge for their years of hardship, hopefully.

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Articles

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+alt.internet.providers.uk
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+alt.internet.providers.uk.free

+free.uk.internet.broadband
+uk.telecom.broadband
+comp.dcom.modems.cable

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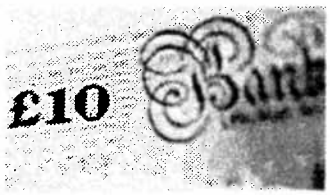

.co.uk Domains & Sites Unreliable?

By:mark.j @ 9:53:AM - Comments (3) - SendNews [HERE] / PrintNews [HERE]

In a damning new research report from the **web** software company Men and Mice, it has been found that the UK has one of the most unreliable **web** networks in Europe. More than 50% of 'co.uk' domains exhibit slow or failed connections!

*The research, which tested 2,500 randomly selected sites within the top-level domains associated with 14 European countries, found slow or unsuccessful connections with 53.6% of UK **web** addresses.*

Greece came out worst, with 75.2%, followed by Denmark (65.9%), Ireland (64.1%) and Portugal (61.8%), while France's results were the best with 31.1% of tests displaying errors. The Netherlands, Germany, Sweden, Austria, Finland, Italy and Spain also performed better than the UK.

More @ netimperative.com .

BT & Hutchison's 3G UK Deal

By:mark.j @ 9:46:AM - Comments (0) - SendNews [HERE] / PrintNews [HERE]

BT & Hutchinson3G UK have both signed an important network leasing deal that'll help enable the roll-out of 3G networks three months ahead of the expected launch!

While the deal itself is good for both companies, there's still some obvious disagreement over handset availability:

Both operators said the deal, which will allow Hutchison subscribers to use BT Cellnet's GSM network when they go outside 3G network coverage, would come into effect with the commercial launch of Hutchison's services. Hutchison claims that this will take place in September next year.

However, BT Cellnet, said last week that it will not launch its own 3G services commercially until 2003 due to delays in the availability of 'dual-mode handsets'; those compatible with 2G and 3G networks and which Hutchison subscribers will need to utilise the roaming agreement.

*A BT Cellnet spokesperson admitted that "**its all very confusing and incestuous**", and restated the company's belief that the handsets would not be available in bulk until 2003. He added: "**Hutchison obviously have a different view... if Hutchison want to think differently, it's up to them**".*

More @ netimperative.com .

NTLs Network Improvements

By:mark.j @ 9:33:AM - Comments (1) - SendNews [HERE] / PrintNews [HERE]

Hopefully the following areas on NTLs network should now be seeing some improved stability and or speed following an upgrade this morning:

Aldershot
Belfast
Cwmbrwla
Flitwick

12-11-

Chris
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[FAQ] [For

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[FAQ]

Guildford
Hartlepool
Kempstone
Middlesbrough
Reading
Stockton
Swindon
Warwick
Woking

Ethernet RADSL Officially Live

By:mark.j @ 9:28:AM - Comments (0) - SendNews [HERE] / PrintNews [HERE]

As we heard several weeks ago and ADSLGuide today reminded us, Ethernet S500 (business) customers will now have the option of RADSL (Rate Adaptive) coverage from most ISPs, thus extending the range from 3.5km to 5.5km.

Your IP is: 216.239.46.79 **and your local time is:** Tuesday, 11-Dec-2001 13:33:47 GMT

5,977,403

DAILY ROTATION

Quick Loading Headlines From 130 Tech Sites
You Pick The Sites. We Snag The Headlines

Set Preferences Message Board Contact Shell Extension City

HEADLINES

New visitor? This is the Default Configuration. Just a small sample of what we offer here. **Set Your Preferences** to get *all* the headlines you want, as well as your preferred font size, background colo and number of columns.

Wired

- Court: Online Scribes Protected
- Kid Porn Suspect's Strange Saga
- Toys, Toys, Toys, Toys, Toys
- Body Scanner Sees Like Superman
- Bluetooth is Here: Yawn or Yay
- Fidel Won't Like This Website
- Black Publisher: From Net to BET
- Napster Still Playing, in Court
- Interior Dept. Sites Still Down

Geeknews.Net

- Sun Backed P2P
- Lord of the Rings Already Pirated
- DeskMod Reopens shortly!
- Radio Gamer Uncovers Deficient Security with J2ME-Downloads
- Yet another Flash game (this time with laser puzzles)
- Oracle boasts it's unbreakable; so far takes on all comers
- New gadgets for X-mas
- 17-inch iMacs coming
- New notebook computer has fingerprint reader
- Turning chat into an opera

Newsforge

- Bochs Project releases open source x8 emulator
- Analysts: Packard foundation vote wil likely kill merger
- New vulnerability in OpenSSH
- The warped perspective: Open Source as mediocrity
- Free and Open Source software developers European meeting
- Linux shines at non-profit STAR Cente
- Holdouts put Microsoft's feet to Open-Source fire
- Linux supporter challenges virus clain
- A developer's review of LynuxWorks' BlueCat Linux
- The lost art of programming
- Open CASCADE 4.0 now available for free downloading
- Linux.conf.au 2002 Rrgistrations now open
- Former Italian president complains about Windows XP crash directly to Gates
- Bynari donating Insight mail client source code to the "community"
- Linux 2.4.17-pre8

Lockergnome

- PDA - Mind your manners
- SCIENCE - Lightening strikes
- TOYS - Good for hacking
- SEGWAY - Why not walk?
- OUTLOOK - Another security flaw
- TOURIST - Heading for space
- UPGRADES - Very challenging
- RAP - On your phone
- BROADBAND - Not here yet
- ROBOTS - Getting fishy
- NES - On your Pocket PC
- FOUND - Largest prime number
- HACKED - MCI network
- NEW - No HTML or Java
- GONE - Exite@Home closes Feb. 28

Slashdot

- Free Software And Its Revolutionary Social Implications
- Google Expands Usenet Archive to 20 Years
- World Govs Choose Linux For Security & More
- 3D Images Of Valles Marineris
- Nobel Prizes Awarded
- It's Beginning to Look a Lot Like Quickies
- Microsoft Offers A Modified Settlement
- For The Love Of Open Source
- 2.4 Maintainer Marcelo Tosatti Answers Your Questions
- Industrial-Strength P2P

Cipherwar

- Cipherwar News Alternatives
- More Information Warfare news...

Hack In The Box

- Splodge at deviantart
- Computer Virus Attacks Are Forcing Businesses To Cough Up Less Cash
- Antivirus firms balk at FBI loophole
- Microsoft foes solid in states' corner
- Hacker explains recent exploits in WorldCom site
- OpenSSH fails to properly apply source IP based access control restrictions
- DoS attacks defeat oldest IRC server
- 802.11 Alphabet Soup — What's "g" Got

WinCustomize

- DeskMod Announces Launch Date!
- sysFriend v 1.1 Released
- ObjectBar 0.75 available!
- Deep Blue Something "Skin Somethin(Contest
- ThemeBar 2.0 released!
- Stardock is Microsoft Certified Partne
- Trillian Version 0.70 Released
- C-net: How to make Windows 98/ME/2000 look like XP
- Aston 1.4
- Object Desktop turns 2!

ShackNews

- AMD and Intel Chip Dates
- Deus Ex 2 Q&A
- Q3 Generations Arena Soon
- Dungeon Siege Interview
- American McGee Interview
- Nakatomi Plaza Interview
- MoH Demo Friday
- Where Are They Now
- 2015 Job Openings
- Usenet @ Google
- New @ Shack Reviews
- Late Night Consoling
- Condition Zero Interview
- Freedom Force Diary
- MoH: AA Shots

Coredumpz

- ITpapers.com
- New Portable "Sonic" Flashlight
- It's Official: Dark Matter Exists In Spa
- A Different Kind of Mod
- Review: Activision 10 in 1 by Toy Max
- PC gamers compete for prizes, car
- Windows hack for **Web**-surfing privac
- Lane15 Software Lands $12 Million
- More Updates: PostNuke & PISG
- cygwin-1.3.6-1 Out

Ars Technica

- Quantum dots and Camelot
- Goner kiddies forget to cover their tracks
- Game.Ars presents its holiday reviews round-up
- Dueling Duallies: Ace's workstation

that "b" and "a" Don't?
- Infoworld's Live Discussion on .NET Security
- Israeli youths arrested over 'Goner' worm
- Netscape 6.2.1 Released
- Oracle's 'Unbreakable' Boast Attracting Hackers
- Fireproofing Against DoS Attacks
- A Distributed Computing Success Story
- Symantec and TruSecure to Provide Complementary Services
- Russian Kaspersky Lab publishes 'Top 20 Virus chart' for November
- Hackers 'siphoned off handouts from State'
- Guess Who's Hacking to Dinner?
- A New Twist in Computer Security Tools
- Sophos removal instructions for Goner

OS Opinion

- Holdouts Put Microsoft's Feet To Open-Source Fire
- The Warped Perspective: Open Source as Mediocrity's Mediator
- Analysts: Packard Foundation Vote Will Likely Kill the Compaq-HP Merger
- Israeli Teens Confess To Launching 'Goner' Worm
- The True Online Security Story
- AOL Revs Up 'Rings' **Web** Marketing Machine
- MacWorld: G3s, G4s, G5s, Oh My!
- Search Engine Results That Pay Off
- Is Now the Time To Buy a New Computer?
- Will the Holdout States Save the Microsoft Settlement?

Inquirer

- the INQUIRER front page
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- "Green" Athlon packaging reaches Japan
- Bluetooth not dead Brit firm insists
- Notebook LCD supplies threatened
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- i845 DDR is ready, steady. Go!
- Apple to use Quanta for new iMacs

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- Tech Report takes on the Radeon 850

BetaNews

- Weather1 3.24.4 Beta Released
- Alt Launch Band 1.01.002 Beta Releas
- Microsoft Offers Glimpse into 'Corona'
- XFilesDialog 2.00.067 Beta Released
- CDCheck 3.0.0.17 RC1 Released
- ZTreeWin 1.48i Beta Released
- Tannhauser Gate Opens 'Mimesis' Bet
- Taxee 0.6.0.6 Beta Released
- ObjectBar 0.75 Beta Released
- coverXP 1.36 Beta Released
- Microsoft Completes Office XP SP1
- Sony VAIO Chokes on XP Upgrade
- Microsoft Changes Tune on Liberty Alliance
- Interview: Beta Expert Michael Fine

Humorix

- Humorix Unveils New Form Of Intrusi Annoying Advertising
- Do You Want Linux With That?
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- Yet Another Horrible, Terrible Global Conspiracy
- ICANN Announces Unlimited TLDs For Private Use
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- How To Make Your Own Version Of Su
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- Bill Gates Receives Slap On Wrist; Carpal Tunnel Flares Up
- We Don't Want To eXPerience Windov Again
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- Here Comes The MCSE-ocracy!
- 8GB Ought To Be Enough For Anybody
- Humorixia Offers Free Citizenship To The First 50,000 US Refugees

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