Computers Fool Humans

In Restricted Turing Test

Computers made history at the Museum on November 8, 1991, when Joseph Weintraub, president of Thinking Software, Inc., Woodside, NY, won the first annual Loebner Prize Competition. The contest was a restricted version of the classic Turing Test of machine intelligence.

The test is based on a challenge to computer science issued by the late British mathematician Alan Turing in 1950—an experiment to determine if a machine could think. His test required a computer to emulate human behavior (via a computer terminal) so well that it would fool human judges into thinking its responses were human.

On November 8, a modified version of Weintraub's computer program, PC Therapist, scored highest of all the programs in human-like qualities. Programmed to make whimsical conversation, it fooled five of 10 judges into thinking it was human. Judges held conversations on eight computer terminals, trying to determine "who" was controlling the responses—two human beings hidden in the Museum or six programs running on computers in Alabama, California, Connecticut, New York, and Pennsylvania. The typed interplay was projected on large screens for the audience, while *Scientific American* columnist A. K. Dewdney offered commentary.

A throng of reporters and film crews from the United States, Great Britain and Germany covered the historic event, with *New York Times* technology writer John Markoff, the AP and others sneaking off to file their copy on deadline. The contest made the front page of the next day's *New York Times*, *Boston Globe* and *San Jose Mercury News*, while headlines appeared as far away as Italy, the USSR and the Middle East.

Weintraub, 48, received a $1500 award and a bronze medal. This year's contest was administered by the Cambridge (Mass.) Center for Behavioral Studies and hosted by The Computer Museum with funding from the

Almost 300 people—including 70 representatives of 35 media outlets from around the world—watched Robert Epstein announce the winner of the first annual Loebner Prize Competition.

Photograph: Fay Foto

National Science Foundation and the Alfred P. Sloan Foundation. A panel of distinguished computer scientists, philosophers, and psychologists oversaw planning. The Loebner Prize Competition was established in 1990, when New York philanthropist Dr. Hugh Loebner, President of Crown Industries Inc., offered a $100,000 prize for the first machine to pass the test. Instead of being open-ended—the way Turing intended—this first round gave the computer a better chance by limiting "conversations" to topics such as romantic relationships, Shakespeare's plays and Burgundy wines. Judges and confederates were chosen not to have extensive computer expertise. In fact, four of the six computer programs fooled at least one judge into thinking they were human, and two judges thought one human confederate was a computer!

At present, it is unlikely that any computer could pass an open-ended Turing Test. As Dr. Daniel Dennett, Tufts University Distinguished Professor of Arts and Sciences and Chair of the Loebner Prize Committee, said in his opening remarks, "Today's contest is still at the paper airplane stage. But you have to start somewhere." If a computer passes the open-ended test, at least $100,000 will be awarded, and the prize abolished. "When a computer does that, it will be an extraordinary milestone," noted Dr. Robert Epstein, Director Emeritus, Cambridge Center for Behavioral Studies. The Museum plans to create an interactive exhibit for its Smart Machines Gallery based on conversations of the winning program and those of a human confederate.

Our Computers Run on Your Support

The Computer Museum's vitality depends on our growing number of corporate, foundation, and individual supporters and volunteers from around the world. We couldn't build a new exhibit, support student interns, provide educational outreach or manage the collections without your help.

From 1982 to 1992, the Museum grew by a factor of seven. Visitors have increased from 20,000 to 150,000, and the operating budget from $300,000 to $2 million. At each step along the way, memberships and contributions have grown at a similar rate, accounting for nearly half the Museum's budget.

In 1982, the Museum started with nine corporate members and 22 corporate supporters. Now, those figures total 110 and 208 respectively. This growth was achieved by creating a variety of opportunities for corporate involvement via sponsorship of programs such as The Computer Bowl®, exhibits, and the Ticket Subsidy Program. In addition, the benefits of corporate membership have been expanded to include the exclusive Breakfast Seminar Series and special access to the Museum's growing collection.

Similarly in 1982, the Museum started with only 90 individual members, 60 contributors, and 20 volunteers, totalling 170 people. Now, well over 2,000 are involved. They support the Museum in many ways. Members receive free admission, invitations to special openings, this newsletter and a 10 percent discount in the Museum Store. Some people prefer to contribute via the Annual Fund, which has doubled in the last two years. Their dollars directly support our education programs and activities. Supporters now come from 42 out of the 50 United States and 15 countries.
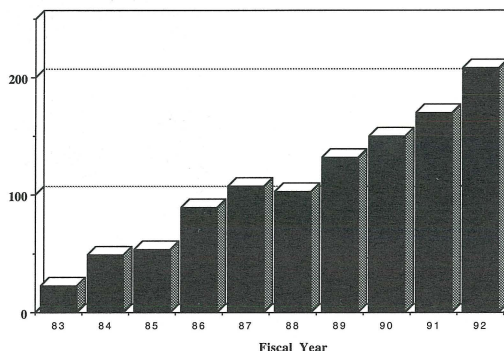
I look forward to equally dramatic growth in our second decade. Let us hear from those of you who have been loyal supporters in the past so we can better serve your needs. And help us garner new friends and supporters so that we can reach ever more people, in more places, with more and better exhibits and programs, and an even richer collection.

Thank you for your memberships, contributions, and activities on behalf of The Computer Museum.
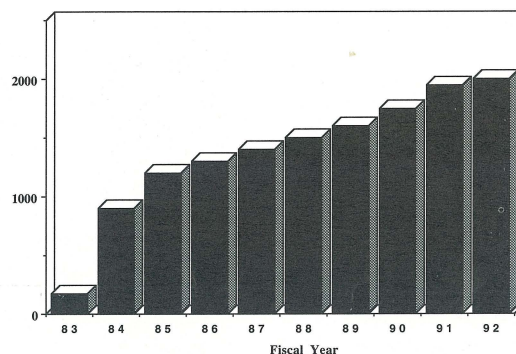
Dr. Oliver Strimpel
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**The Computer Museum
Number of Corporate Supporters**

(Bar chart: Fiscal Year 83–92, values increasing from approximately 25 to over 200)

**The Computer Museum
Number of Individual Members and Contributors**

(Bar chart: Fiscal Year 83–92, values increasing to approximately 2000)

Turing Test

Joseph Weintraub, 48, winner of the first annual Loebner Prize Competition, designs and sells artificial intelligence, expert systems and natural languages software. His entry was a modified version of the PC Therapist, a program it took him over three years to write. It uses five megabytes of memory and a knowledgebase of thousands of amusing quotations and rules for conversation, and runs on any IBM compatible. For the contest, he limited the topic to "whimsical conversation." He adds, "If only people would engage in whimsical conversation, the world would be a more peaceful place."
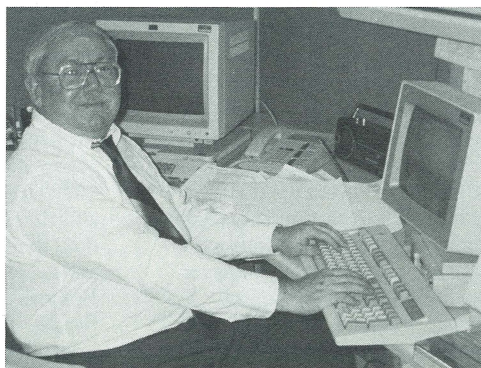
Excerpt from winning conversation with PC Therapist Program:

Judge: I am not sure what is whimsical?
Terminal: Do you think it's absolutely normal to be not sure what is whimsical? Please make me laugh. Is it because you are not sure what is whimsical that you came to me?
Judge: Probably.
Terminal: Probably no invention came more easily to man than heaven. Ipso facto nonsensico.. Please go on.
Judge: I am in the clouds now.

West Vows To Reclaim The Computer Bowl® in 1992

The West Coast will try to wrest the title "Computer Masters of the Universe" from the East, Friday, May 1, 1992. The Fourth Annual Computer Bowl, produced by the Museum and presented by the Association for Computing Machinery (ACM), will take place at Boston's Park Plaza Castle.

The Captain of the West Coast team is John F. Shoch, general partner, Asset Management Company. Joining him, the challengers from the West are: Jeffrey C. Kalb, President, MasPar Computer Corporation; Ruthann Quindlen, Principal, Alex. Brown & Sons, Inc.; Vern Raburn, Chairman/CEO, Slate Corporation; Dr. John E. Warnock, Chairman and CEO, Adobe Systems Incorporated.

Among those joining East Coast Captain Charles W. Bachman, Chairman, Bachman Information Systems, Inc., are: Bill Machrone, Vice President, Technology, Ziff-Davis Publishing Company; Dr. David L. Nelson, Chairman, Fluent Machines Inc.; Naomi Seligman, Vice President, The Research Board; Paul Severino, President, Wellfleet Communications.

Hosted by Stewart Cheifet, Executive Producer of the TV show *Computer Chronicles*, the Bowl will be telecast live from Boston to the West Coast, and will air nationally on PBS later in May.

Microsoft Corporation Chairman Bill Gates is set to ask the questions and 1991 Team Captains Heidi Roizen, President and CEO of T/Maker Company, and author Pamela McCorduck will judge the event.

The 1992 Bowl is the fourth contest that will culminate in The Super Computer Bowl in 1994 played by the Most Valuable Players (the highest point scorers) of the previous Bowls. The MVPs of past Bowls will play in a Pre-Game Show, starring Mitchell Kapor, Chairman, ON Technology, Inc.; Bob Frankston, Slate Corporation; and Pamela McCorduck from the East against Bill Joy, Vice President of R&D, Sun Microsystems, Inc., Bill Gates, and Dave Liddle, Vice President, New Systems Business Development, International Business Machines Corporation, from the West.

The Bowl trophy has changed coasts almost every year. After winning in 1988, the East lost in 1990 but came back last year to trounce the West 460-170. A one-of-a-kind benefit for the Museum's education programs, the Bowl has raised $1.6 million in cash, products and services since 1988.

Tickets for the live and satellite events are available. Chaired by Gwen Bell, the Bowl offers many sponsorship and volunteer opportunities.

Call Bowl Project Manager Kate Jose at (617)426-2800 ext. 346.

"I'll take my team bungee-jumping to be in top physical and mental shape when we march on Boston. With years of collective experience, we operate as a single high-performance, object-oriented, multi-media, client-server, fault-tolerant, massively-parallel processor. And we don't just eat nails—we pound them with our bare fists!"

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West Coast Captain
John Shoch

East Coast Captain
Charlie Bachman

Illustration: Ted Groves

3

Why Make History Hands-On?

For some people, names like Whirlwind or UNIVAC evoke vivid memories. But for others, these vintage computers have no apparent connection to their lives. The computer interactives in PEOPLE AND COMPUTERS were designed to involve everyone personally in computer history.

Some of the interactives offer a firsthand experience about the application shown in the historic vignette. At "Punch Your Name," for example, visitors can enter their name on a punched card like those used by the 1930s Social Security Administration. Other hands-on exhibits such as "What Do You Think?" help people relate what they see to their own lives. "Comparing Computers"

introduces information about computers, letting visitors choose comparisons with size shown in school buses and weight shown in pigs! Also interactive video stations throughout the exhibition offer over 100 entertaining, informative film clips on the people, technology, and popular culture of each era.

In exit interviews, over half the Museum's visitors said that the interactive computer programs and videos were their favorite part of PEOPLE AND COMPUTERS. Together, the interactives and the artifacts offer the widest range of visitors the chance to relive computer history.

Tell Your Own Tale

At the "Tell Your Own Tale" station, Museum visitor Chris Reiss told his own tale called "query," and Goober McNulty wrote "the snoiders and the fractal."

query

I read a quote on the wall that said unless computers can compare a sonnet and feel pain, they could never be considered human. That impressed me. But then I thought...I can't compose a sonata. I don't feel any pain. Next thing I knew, someone re-booted me and I became part of the displays in the museum.

the snoiders and the fractal

Once upon a time there were two snoiders named faafi and pfoogi who liked to mess around with computers. Unfortunately all they could do was snoid and peck and their cognitive functions remained rudimentary. Nevertheless, one day they found a fractal on their roof that had fallen off a passing rocket mailplane. They crawled inside and soon lost their way, getting deep into the Caves of Self-Similarity.

Greetings from
The Computer Museum
in Boston, Massachusetts.

Graphic: Dan Griscom
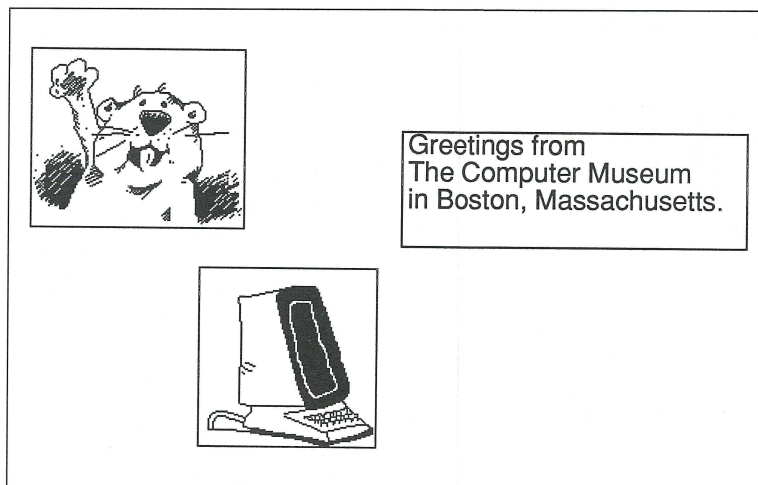
This postcard was created by a visitor at the "Publish Your Own Postcard" station where visitors can explore desktop publishing. See photo at right.

Programming a Computer
Press the trackball button to begin
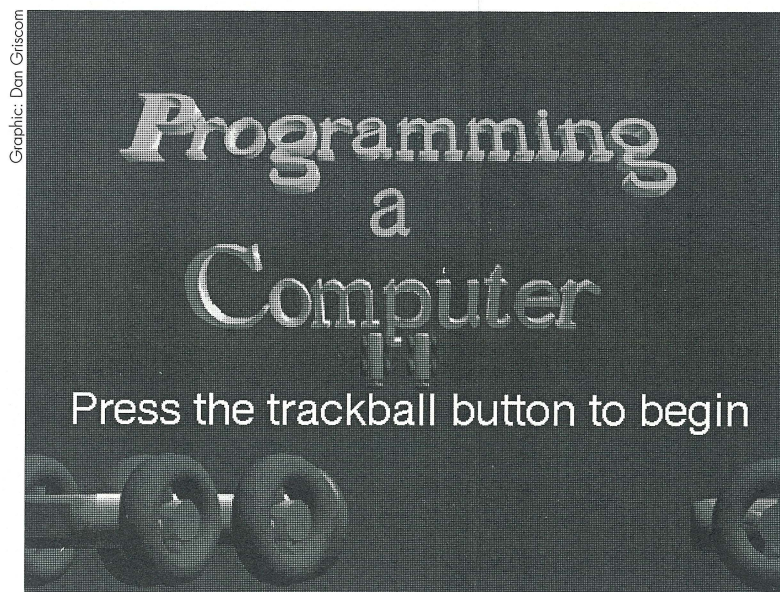
The High and Low Level Programming interactive gives those who have never programmed a computer the challenge of programming a car through a maze.

Photograph: Sue Petock

Cape Cod residents Diane Hutchings (left) and Doris Comtois enjoy history hands-on in PEOPLE AND COMPUTERS.

Exhibit Kits Launched

The Museum officially launched its Exhibits Kits Program in October at the annual conference of the Association for Science and Technology Centers (ASTC) in Louisville, Kentucky. Almost 1,000 people visited the Museum's booth, making it among the most popular at the conference. The Height Sensor, Haggle With a Computer Fruit Vendor, and Color the States kits were exhibited.

The Height Sensor drew the biggest crowds, and there was an order on the spot for a Spanish language version from Mexico's Papalote Museo del Nino. Color the States amazed one Australian delegate by recognizing his spoken commands despite a heavy accent.

To date, the Museum has received inquiries for information on kits from 50 institutions around the world. Other kits that are available are How Fast Are Computers?, Maze Programming, The Talking Computer, ELIZA: The Computer Psychologist, and How Computers Play Games.

The Exhibit Kits Program is made possible with support from the National Science Foundation, the Hearst Foundation, and the American Association for Artificial Intelligence. For more information, call Exhibit Kits Coordinator Chris Lazuk at (617)426-2800 ext. 377.
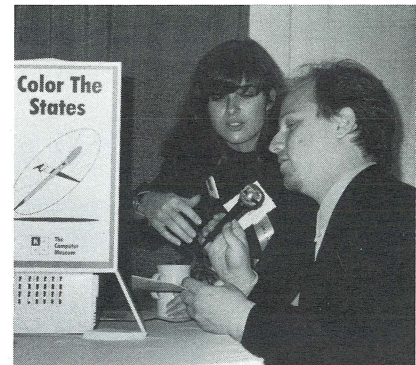
Photograph: Christa Santos

Group Visits Coordinator Christa Santos helps California marketing executive Ken Shapiro "Color the States" at the Museum's booth at the ASTC conference.

Visitor Assistants are now available on Wednesdays from 1-3pm to greet and orient groups with special needs. The VAs can guide groups to exhibits of particular interest, making displays more accessible by reading and discussing the exhibit text or letting visitors touch the artifacts. Recently, for example, the Visually Impaired and Blind Users Group (VIBUG) of The Boston Computer Society explored the machines and mannequins in PEOPLE AND COMPUTERS up close and "hands-on."

They also tried out the Musical Accompanist, Haymarket and the robot arm in Smart Machines. VIBUG member Bonnie O'Day said, "This is one of the most accessible museums I've ever been to...It's a get-in-and-experience-things place." The group also visited the Museum Store, where staff explained some of the games and souvenirs.

The Museum is entirely wheelchair accessible. Interested groups should call Group Visits Coordinator Christa Santos at (617)426-2800 ext. 334 to make reservations.
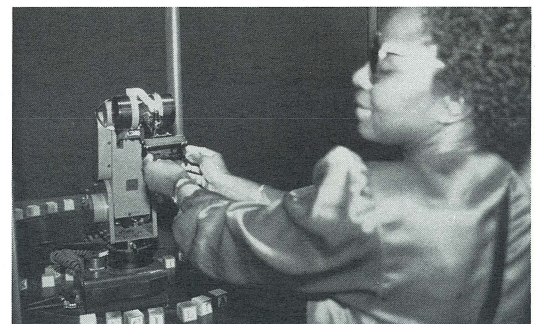
Photograph: Åsa Chibas

BCS VIBUG member Cecilia Ojoawo checks the robot arm's work in the Smart Machines Gallery.

Artifacts To Go

Photograph: Courtesy of The Computer Museum
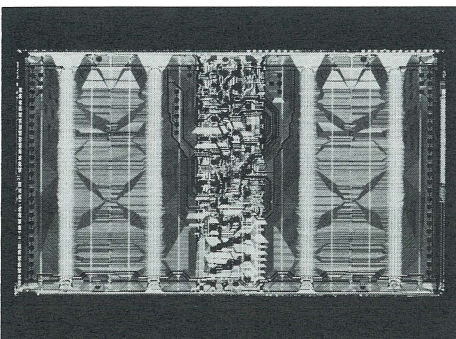
This photograph of a computer chip is like many of those in the Museum's Ziff-Davis display.

The Collections Department recently arranged displays of historical artifacts for several corporate supporters. One of them, Enhance, Inc., of Tarzana, California, asked the Museum to create a display for its booth at COMDEX. The Museum selected 22 computer memory devices including UNIVAC I metal tape and Jacquard Loom punch cards.

Enhance's Mark Walsh said visitor response was "excellent. I met engineers who had worked on the Apollo Guidance Computer's core memory. They told me that the core memories were so hot they could heat their pizza on them!"

Also, Ziff-Davis and the Museum finished their second collaboration on images and artifacts for corporate lobbies. Unlike the historical theme of the first project, this one incorporates stunning large-scale photographic reproductions of chip plots in the Museum's collection. These colorful studies, along with geometric arrangements of artifacts from the Museum's study collection, have been installed in the new headquarters of Ziff-Davis's *PC Computing* Laboratory near Boston.

Use of the collections is a benefit of corporate membership. If you are preparing an exhibit on corporate or other near-contemporary history or seek powerful graphics for publication, decoration or design, contact the Collections Department at (617)426-2800 ext. 342.

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We apologize for any inadvertent omissions from our donor list. Please inform us of any errors so that we may correct our records.

Exhibits

Through February 1, 1992

Computers in Art and Design: The 1991 SIGGRAPH Traveling Exhibition

A display of new computer art and design from around the world. Featuring two-and three-dimensional works, stereo images, animation, and a spectacular giant installation called "SAND." Via an interactive station, visitors can also explore an essay about the 1964 World's Fair.
Free with Museum admission.

Events

Friday, May 1, 1992

The Fourth Annual Computer Bowl

The Bowl returns to the East Coast as the West Coast tries to regain the title "Computer Masters of the Universe." Beamed live by satellite from The Park Plaza Castle, Boston, to the West Coast.
For ticket information,
call (617)426-2800 ext. 346.

Now Available

Exhibit Kits

Eight of the Museum's most popular and effective interactive exhibits are available as affordable kits for museums and science centers around the world.
For more information,
call (617)426-2800 ext. 377.

Demonstrations

January-May 1992

Sailing and Satellites

Follow Captain Bill Pinkney, as he tries to become the first African-American to sail solo around the world. The Museum will track his travels aboard his 47-foot ship via the Argos satellite system. Also featured: demonstrations of satellites and computers in tracking, navigation and emergency communication on land and sea, and demonstrations of equipment used in Operation Desert Storm.
Free with Museum admission.

COMING SOON: VIRTUAL REALITY ON A PC!

WINTER: The Computer Museum is open Tuesday-Sunday, 10am-5pm. Closed Monday, except Boston school holidays and vacations. Closed Thanksgiving, Christmas and New Year's Day.
SUMMER: Open daily 10am-6pm, Fridays until 9pm.

ADMISSION: Adults $6.00, students and seniors $5.00. Half price Saturday 10am-noon. Free to Museum Members and children under five. For more information on exhibits or special events, call our talking computer at (617) 423-6758.

To Join:

Members get free admission for one year; The Computer Museum *NEWS*, a quarterly newsletter of Museum activities; the *Annual*, a richly illustrated journal of computer history; invitations to exhibit previews and members-only events; advance notice of exhibitions and lectures; a 10% discount on purchases over $5 in The Computer Museum Store. For more information, call the Membership Department (617)426-2800 ext. 338.

Individual Memberships
- ☐ $30 One-year
- ☐ $50 Two-year
- ☐ $20 One-year student*

☐ I would also like to make a tax-deductible charitable contribution

Family Memberships
- ☐ $45 One-year
- ☐ $80 Two-year

For Family Memberships, please include names of immediate family members on a separate sheet of paper.

Yes, sign me up! My check, payable to The Computer Museum, is enclosed in the

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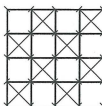
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☐ **Please contact me about volunteering at the Museum.**

Will your company match your membership? ☐ Yes ☐ No.
If yes, please send appropriate matching membership form.

*Please enclose verification

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The Computer Museum

Museum Wharf
300 Congress Street
Boston, MA 02210
(617) 426-2800

Address Correction
Requested