

FISCAL 2015 REPORT TO THE COMMUNITY











# ON CELEBRATING HISTORY

#### It is 1815. Napoleon is defeated in the Battle of

Waterloo. The United States, just 39 years old, is mopping up from its second military victory over Britain in the War of 1812. The hot composer of the day is Ludwig van Beethoven, who is up to symphony #8.

And two of the most unlikely people to contribute to the invention of the computer were born about a month apart.

George Boole was the son of a shoemaker and a maid. He went to a commercial trade school and had to start work at the age of 16 to support his family. But he was a bright boy who, in his spare time, taught himself mathematics. He blossomed, and at the age of 34, without any college degrees, he was appointed to the chair of mathematics at what is now University College Cork in Ireland.

Although he didn't know it at the time, Boole invented the logic that all computers would use. In 1854 he published a book titled *An Investigation of the Laws of Thought*, on which are founded the mathematical theories of logic and probabilities. In it he created a mathematical language for logic, which we now, in his honor, call Boolean algebra.

Ada Lovelace, born Augusta Byron, was the only legitimate child of the poet Lord Byron. A sickly girl, she was privately tutored. Lovelace developed a surprising (for girls at the time) interest in mathematics, • which her mother encouraged because she thought it would prevent her daughter from developing what she saw as her estranged husband's insanity.

Lovelace met computer inventor Charles Babbage when she was 18, and it changed her life. She understood and helped explain what his Analytical Engine could do. She collaborated on algorithms for it to compute mathematical functions. She even saw what Babbage apparently didn't: that his computer could also process symbols and might, for example, "compose elaborate and scientific pieces of music."

These are remarkable people, and it is entirely appropriate that we celebrate their accomplishments on the occasion of their bicentennial birthdays. At the Computer History Museum we will be holding events and mounting exhibits in their honor this fall.

But it is also important that we be historically accurate about what we are celebrating and avoid contributing to myth-making. George Boole did not invent computer logic. Ada Lovelace did not invent computer programming and wasn't the first computer programmer. Yet you can find websites that authoritatively say those things.

It is natural to want, with good intentions, to embellish the past to make a point or to motivate the next generation. But fiddling with the truth is both dangerous and unnecessary. As historians Tom Haigh and Mark Priestly have said, "Good history ...will ultimately prove more inspiring and more relevant than superhero stories."<sup>1</sup>

We don't need to exaggerate. So bring on the celebrations, but let them always be grounded in good history.

Jen Ahurter

LEN SHUSTEK Chairman of the board of trustees





<sup>1</sup> Thomas Haigh and Mark Priestly, "Innovators Assemble: Ada Lovelace, Walter Isaacson, and the Superheroines of Computing," Communications of the ACM, vol. 58, no. 9 (September 2015): 20–27.

# ON EXPANDING OUR REACH

# Fiscal 2015 was a year of major expansion for the

Computer History Museum. We built on the substantial momentum we've experienced in the five fiscal years since the opening of *Revolution: The First* 2000 Years of Computing and saw our missionoriented work expand on almost every front.

The highlight of the year was a lightning-quick fundraising campaign that raised \$4 million in six months to acquire the Museum's third building: the Shustek Center in Fremont. The 50,000-square-foot building will house the Museum's growing software collection and serve as a hub for a newly expanded strategy in research, writing, and scholarship within the field of software history. The center is named for our founder and chairman, Len Shustek, and the fundraising campaign attracted broad participation from dozens of individuals who respect and appreciate all that Len has done for the Museum since its inception.

We initiated a series of beta programs this year in support of a new center on innovation and entrepreneurship that will launch in fiscal 2016. Executive Director Marguerite Gong Hancock has joined us from the Stanford Graduate School of Business to head the effort. We were pleased to welcome Marguerite, who enjoys an international reputation in the field, and are planning a major, long-term effort within the center to examine innovation in Silicon Valley and around the world.

Our exhibitions team inaugurated two temporary exhibits this fiscal year, including *Fearless Genius*, a brilliant photo essay by Doug Menuez, and *On You*, a fascinating exhibit about wearable computing. These exhibits engaged new and returning visitors in our expansive lobby area for major portions of the year. Attendance achieved record highs during each exhibit period. Our collections team, working with two major grants, accelerated the processing of our world-leading collection and the careful pruning of our archives. Our education team expanded our landmark middle-school initiative, Broadcom Presents Design\_Code\_Build, in partnership with the Broadcom Foundation, and began ramping up its efforts toward an eventual 50-week program by 2017. Our *Revolutionaries* series continued to draw some of the most engaging and impactful figures in computing worldwide, and our broadcast partners at KQED Public Television renewed *Revolutionaries* for a fifth consecutive TV season. At the end of FY15 we were also preparing for expansion to the BBC World Service and the WGBH WORLD channel on digital platforms.

All of this work expanded our mandate to use history as a platform for exploring computing's technological, economic, and societal impact—and the implications in all of those areas for the future. Our donors, our members, and our dedicated volunteers played a leading role in this effort. They joined with our talented staff and our highly engaged Board of Trustees in continuing to build the Museum into an institution with a rising reputation, both nationally and internationally. On their behalf, and on behalf of the entire Museum community, I extend my heartfelt and profound thanks.

Yours sincerely,

JOHN C. HOLLAR PRESIDENT AND CHIEF EXECUTIVE OFFICER

# **FY15 HIGHLIGHTS**

# 110,000



Revolutionaries events re-broadcasted on public television and radio

Visitors to exhibits



Events as Silicon Valley's premier venue

# **130,000**+

Social media followers





Countries represented



Increase in Museum visitors

Exhibits: On You and Fearless Genius

Website sessions



Attendees at Museum events

New Fellows: Evelyn Berezin, Charles Bachman, and Bjarne Stroustrup

*Revolutionaries* programs staged

# EXHIBITION UPDATE



**On July 7, 2014**, the Museum opened *Fearless Genius: The Digital Revolution in Silicon Valley 1985–2000.* It featured photographs by renowned documentary photographer Doug Menuez. In his 15 years of unprecedented behind-thescenes access to Apple, Kleiner Perkins, Adobe, and other iconic Silicon Valley organizations, Menuez captures a pivotal moment in the Valley's history as the computing industry began its transition from analog to digital.

This exhibit chronicled the rise of pioneering innovators like Steve Jobs, Bill Gates, Charles Geschke, and John Doerr, while shining an often forgotten spotlight on the banal moments that frequented office life and the everyday men and women who toiled to turn the digital dream into reality, often at great personal sacrifice and struggle. Menuez seeks to document all aspects of the human experience from this unique moment in Silicon Valley's history.

This exhibit was made possible through the generosity of:

Micron



PHOTOGRAPHS BY DOUG MENUEZ

EARLES

GENIUS

In the last decades of the tweniteth century, a secretive tribe of brilliant engineers, entrepreneurs, and venture capitalists sparked an explosion of innovation in Silicon Valley that today we know as the digital revolution. They were on a mission to invent the impossible and would change our world forever.









# EXHIBITION UPDATE



**On June 30, 2015**, the Computer History Museum and Georgia Tech partnered to show an exhibit of wearable technology titled *On You: A Story of Wearable Computing*, curated by Clint Zeagler and Thad Starner from Georgia Institute of Technology.

Pioneers have experimented with wearing computers for half a century. Yet aside from a few specialized apps, like fitness trackers, our bodies remain largely free of the smart tech that fills our pockets and purses.

Why? Besides larger questions around how wearable computing might fit into our everyday lives, the technology wasn't ready—until recently. Early devices were too bulky, hot, isolated, or hard to use. And yet, the promise of being able to navigate information seamlessly, everywhere, inspired researchers to keep working on those issues for more than two decades as chips, batteries, and interfaces improved.

Showing consumer, professional, and homemade devices, *On You* explored the four key technical hurdles to making a consumer wearable computer: power and heat, networking, mobile input, and display.

This exhibit was made possible through the generosity of:

Micron

# FELLOW AWARDS

From left to right: Uday Kapoor, Doug Fairbairn, Jeff Katz, and Federico Faggin enjoy the cocktail reception.



**On Saturday, April 25, 2015**, the Museum rolled out the red carpet to celebrate the remarkable contributions of its 2015 Fellow Award honorees: database pioneer Charles Bachman, computer designer and entrepreneur Evelyn Berezin, and C++ inventor Bjarne Stroustrup.

Evelyn Berezin was nominated for her early work in computer design and a lifetime of entrepreneurial activity.

Charles Bachman was nominated for his early work on developing database management systems.

Bjarne Stroustrup was nominated for his invention of the C++ programming language.







Fellow Evelyn Berezin during acceptance speech.

# TOP 10 ARTIFACTS

#### NEC PC-FX game console, Japan, 1994

102741230 Gift of Raja Bose

Japan's NEC Corporation released the PC Engine game system in 1987. It was successful, but the 16-bit consoles released by competitors Sega and Nintendo outperformed and outsold the system. NEC developed a 32-bit system around NEC's V810 microprocessor using CD-ROMs as the game medium. The PC-FX went in a different direction from many of its rival systems. It used pre-programmed polygon graphics instead of a separate polygon processor to handle graphics, which allowed for improved full-motion video. The PC-FX incorporated an IBM PC-compatible card allowing users to create their own games, but strangely those games could only be played on PCs, not the console. A lack of game releases for the PC-FX, as well as increased competition from the Sony PlayStation, led to poor sales in Japan and no North American release.

# IBM 7094 drawing by Helmut Jacoby, US, ca. 1961

#### 102741494 Gift of Catherine Schulbach

Helmut Jacoby was a master of architectural renderings. His drawings of houses and buildings designed by architects, like Frank Lloyd Wright, Kenzo Tange, and I.M. Pei, show buildings in the planned environment where they would be built and garnered Jacoby an international reputation. IBM hired Jacoby to create images of computer installations in the early 1960s, including this drawing of an IBM 7094 mainframe computer system. The image shows the computer in a massive, glass-sided building situated among rolling hills in a parklike setting. This image may be a statement from IBM on the role of computers in society: important machines deserve to be set in a magnificent public space.

#### Magnavox Odyssey TV video game system, US, 1976

102741395 Gift of Albert Valcour

Designed by American inventor Ralph Baer, the Magnavox Odyssey was the first home gaming system. Following the success of Atari's home Pong console, Magnavox introduced many of its own versions of games with the Odyssey label. Released in 1976, the Magnavox 4305 was a color television with a built-in Odyssey 300 system. Much like the stand-alone Odyssey 300, the system used an AY-3-8500 "Pong-on-a-Chip" processor chip and was limited to playing one of three games, Tennis, Hockey, or "Smash." The system was expensive, the controllers uncomfortable, and most users already owned televisions. The introduction of cartridgebased systems, like the Fairchild Channel F and Atari 2600, led to the rapid demise of built-in TV game systems, and Magnavox never tried to

release another.

# Oculus,VR LLC, Oculus Rift DK2, VR Head-Mounted Display Dev. Kit, US, 2014

102741375 Gift of Oculus Rift VR

The head-mounted display dates back at least to the 1960s and research by computer pioneer Ivan Sutherland and others. Attempts to apply the technology to gaming began in the early 1990s. The limited technology of the time led to a lot of prototypes but no commercial products. Oculus Rift is an attempt to create a head-mounted virtual reality (VR) gaming environment. Founded by Palmer Luckey, Oculus was initially crowdfunded through Kickstarter, raising more than \$2 million in its initial phase. This development kit was widely disseminated to a large community of developers as a way to quickly generate content for the platform. The system must be attached to a PC running Windows to operate, though the user has roaming capabilities. Oculus Rift impressed Doom creator John Carmack so much. that his company. id Software, announced that the next version of Doom-one of the top classic games of all time-would be created for the system.

#### IBM Roadrunner supercomputer Tri-blade computing unit, US, ca. 2008

102742470 Gift of Los Alamos National Laboratory

Built by IBM for the US Department of Energy's Los Alamos National Laboratory at a cost of \$100 million, Roadrunner was the world's fastest computer when completed in 2008. Using more than 12,000 IBM PowerXcell 8i processors, as well as 6,000 AMD Opteron CPUs and the Red Hat Enterprise Linux operating system, Roadrunner was the first machine with a sustained performance of more than one Petaflop (one quadrillion floating point operations per second). Each of the more than 3,000 Tri-blades includes two Opterons, four Xcell 8is, and 32 GB of memory. The Department of Energy used Roadrunner to determine the reliability of the aging US nuclear arsenal. IBM Roadrunner was shut down on March 31, 2013.

# IBM 3277 and IBM 3278 Display Terminals, US, 1971

102741496 Gift of IBM

IBM's mainframes ruled computing in the 1960s and '70s. Their System/360 and System/370 series of mainframe computers were the most profitable line of computers by any manufacturer until that time and were used in both business and scientific applications. Operator terminals are, in many ways, the "face" of the computer since that is where the human interaction occurs. IBM's 3270 series of terminals allowed both local and remote mainframe access. IBM 3270 terminals were in use well into the 1990s and the 3270 protocol is still used in many largescale computing systems that run legacy software.

# Bell Labs Tic-Tac-Toe, US, ca. 1960

102741433 Gift of Mike DeBlasio

With its limited move set and easily visualized game board, Tic-Tac-Toe was one of the earliest games computer researchers began investigating. Bell Labs engineer William Keister drew up a version of the game as early as 1937, but did not actually build a machine until 10 years later. Built out of the same kind of relays used in the Bell System telephone network, the machine played flawlessly; it could be tied, but never beaten. Keister's machine was on display at the Bell Labs Pavilion at the New York World's Fair of 1965, alongside other marvels such as the PicturePhone, Dataphone, and Vocoder. This version may have been built as a touring version for schools.

#### Gary Kildall's First Consumer CD-ROM, US, 1985

102747872 Gift of Scott Kildall

The CD-ROM revolutionized consumer data storage. With hundreds of times more storage space than floppy disks, CD-ROMs became the most popular method of distributing software for nearly 20 vears. Personal computing pioneer Gary Kildall founded Activenture, later renamed KnowledgeSet, to explore the potential of publishing on optical disks. In 1985, KnowledgeSet developed what may be the first consumer CD-ROM product—a version of Grolier's Academic American Encyclopedia. CD-ROM-based encyclopedias remained popular until superseded by online resources like the World Wide Web.

#### IBM M1 Rifle, US, ca. 1942

102741401 Gift of Bill Carlson

The outbreak of World War II reoriented American industry when hundreds of US firms turned over their manufacturing capabilities to support the war effort. By 1942, General Motors, the Rock-Ola Jukebox Company, Underwood Typewriter, and IBM were producing the M1 carbine rifle under US Army contract. IBM's Poughkeepsie, New York, plant manufactured barrels, slides, and bolts, and developed new techniques that reduced cost and increased barrel manufacturing output. IBM would produce more than 300,000 M1s, selling each to the US government for \$42.29.

#### Teleregister Airline Agent Set, US, ca. 1957

102742469 Gift of Mark Howe

Prior to the invention of realtime computing systems, reserving seats on airline flights was slow, difficult, and error-prone. The process relied on manual paperbased methods, involved significant labor, and the information available was frequently out of date. Future growth in the airline industry demanded a new solution. By the mid-1950s, the Teleregister Corporation had built several computerized airline reservation systems, including the Unified Airline Processor, developed for TWA. The UAP used two processing units with 4,500 vacuum tubes in total and more than a megabyte of magnetic drum storage. Travel agents could now contact this central computer using terminals such as this one and make reservations directly. This greatly sped up the reservation process and accuracy of the transaction, making it possible to place as many as 12,000 reservations per hour.

Top: IBM 7094 Drawing by Helmut Jacoby, US, ca. 1961. Bottom left: Teleregister Airline Agent Set, US, ca. 1957. Bottom right: Bell Labs Tic-Tac-Toe, US, ca. 1960.





# TOP 10 Oral Histories

Charlie Sporck shakes hands with Sherman Fairchild, April 28, 1965.





From left to right: Tom Rudkin, David Brock, and Dennis Austin, March 30, 2015.

#### Gérard Théry Interviewed by Pierre Mounier-Kuhn

October 28, 2014 X7283.2015

Gérard Théry is a French engineer perhaps best known for his contributions to Télétel and Minitel in France. The Minitel network was a large-scale nationwide videotext network in France launched in 1982 that soon had millions of users—a decade before the World Wide Web. Théry attended the École Polytechnique and the National School of Telecommunications, graduating and immediately finding work at French Telecommunications in 1956. Théry served as directeur général des Télécommunications for France from 1974 to 1987, Executive Committee member of the Société Générale from 1984 to 1989, and finally organization director within Renault from 1989 to 1992.

#### Charles Sporck Interviewed by Floyd Kvamme

November 21, 2014 X7310.2015

Charles "Charlie" Sporck was a driving force behind the development of the Silicon Valley semiconductor industry. Born in Saranac Lake, New York, he developed a love of working on cars, which, after a tour in the army, led him to enroll in Cornell University to pursue a degree in mechanical engineering. After school he began work at General Electric before being recruited by Fairchild Semiconductor, starting out as production manager and eventually rising to vice president and general manager.

Sporck left Fairchild in 1967 when he was offered the position of CEO at National Semiconductor, a company he turned into a multibilliondollar giant.

#### John Morgridge and Don Valentine Interviewed by John Hollar

November 19 and December 8, 2014 X7309.2015

This oral history features two key figures in the development of Cisco Systems. Don Valentine graduated from Fordham University, was a founder of National Semiconductor, and was an executive at Fairchild Semiconductor. In 1972, the grandfather of Silicon Valley venture capital" left Fairchild and founded Sequoia Capital. He was one of the principal investors in Cisco in 1984 and spearheaded the search for a president and CEO to replace Bill Graves in 1988. The search ultimately led to the hiring of John Morgridge, who held the position for seven years. Prior to his arrival at Cisco, Morgridge attended the University of Wisconsin and Stanford University and worked for Stratus Computer and Honeywell Information Systems. He also served as president and COO of GRiD Systems.

#### Mitchell Baker Interviewed by Marc Weber

December 10, 2014 X7311.2015

Winifred Mitchell Baker is best known for her role with the Mozilla Foundation, where she works as executive chairwoman. She is also the CEO of Mozilla Corporation, which coordinates the development of Mozilla's Internet applications. Baker grew up in Berkeley, California, and received a BA in Chinese studies and a JD from University of California, Berkeley. Soon after finishing law school, Baker began her career in the high-tech world, taking a position at the law firm Fenwick & West. In 1993 she left the firm to accept a position at Sun Microsystems and, late in 1994, she was hired as part of Netscape's legal department. She became the head of the Mozilla Foundation shortly after AOL purchased Netscape in 2002.

#### Japanese Semiconductor Oral History Series Interviewed by Stanley Myers

December 10-December 16, 2014 X7368.2015-X7374.2015

Stanley Myers conducted seven oral histories in Japan in as many days, visiting Osaka and Tokyo to gather accounts from key contributors to the Japanese semiconductor industry. Those interviewed include Tokuo Kubo, former president of Tokyo Electron who served on the board of directors of SEAJ (Semiconductor Equipment Association of Japan) from 1986 to 1994; Tsuyoshi Kawanishi, who led Toshiba's semiconductor business as general manager of the Oita Factory in 1977 and eventually became the corporate executive vice president of Toshiba from 1990 to 1994; Hajime Sasaki, who joined NEC in 1961 and, over 50 vears. held numerous management and executive titles before becoming chairman of the board; Bujirou Kobayashi, former director of the board of Mitsubishi Electric and general manager of semiconductor strategic planning; Ikuo Anada, former director of the board at Oki

Electric Industry; Kazuo Kimbara, senior advisor of Hitachi Ltd.; and Yoshiyuki Kawana, former Division and Deputy Director of Sony Research Center and President of Success International Corporation.

#### Larry Boucher Interviewed by Tom Burniece

January 27, 2015 X7398.2015

A Silicon Valley native, Larry Boucher was born in San Mateo, California, and grew up in nearby San Carlos. After serving in the navy, he acquired a BS in business administration and an MBA from San José State University and an MS in electrical engineering from the University of California, Berkeley. During his career, Boucher pioneered the movement of storage capabilities into silicon, developing dozens of patents in the process. He is best known as the founder and CEO of three major storage companies: Adaptec Inc. in 1984, Auspex Systems in 1987, and Alacritech Inc. in 1997. Prior to founding Adaptec, Boucher was the director of design services at Shugart Associates, where he conceived the idea of the SCSI interface and authored its initial specifications.

#### Charles Bachman Interviewed by Gardner Hendrie

February 4, 2015 X7400.2015

Charles "Charlie" Bachman was born in Manhattan, Kansas, in 1924 and grew up in East Lansing, Michigan, in the heartland of American automobile manufacturing, leading him to pursue an education in mechanical engineering. He received his BS from Michigan State College (now MSU) in 1948 and his MS from the Towne School, University of Pennsylvania in 1950. He is best known for his invention of the first random access database management system, the Integrated Data Store (IDS). He was also the driving force in creating the first packaged enterprise resource planning solution, MIACS, and for establishing online transaction processing systems for large enterprises. In 2015 he was named a Fellow of the Computer History Museum.

#### Bjarne Stroustrup Interviewed by Paul McJones

February 5, 2015 X7399.2015

Bjarne Stroustrup was born in Aarhus, Denmark, and received a master's degree in mathematics from Aarhus University in 1975 and a PhD in computer science from Cambridge University in 1979. He then joined Bell Labs' Computer Science Research Center where, in 1978, he began developing the program language C++ (which he originally called "C with Classes"). The new language guickly became one of the most widely used programming languages in the world and is now used in applications as diverse as embedded systems, computer games, financial analysis, large-scale websites and computer graphics. He is currently a managing director in the technology division at Morgan Stanley, holds the College of Engineering Chair in Computer Science at Texas A&M University, and is a visiting professor at Columbia University. In 2015 he was named a Fellow of the Computer History Museum.

#### Massimo Banzi Interviewed by Shayne Hodge

### May 12, 2015 X7483.2015

Massimo Banzi is best known for his co-creation of the Arduino hardware and software ecosystem, an open-source prototyping platform with millions of users. He studied electrical engineering, but when the web started gaining traction in 1993, he began building early websites and worked for many years as a web developer and software architect for Italia Online, Sapient, Labour Party, BT, MCI WorldCom, Smith-KlineBeecham, Storagetek, BSkyB, and boo.com. Banzi even spent a year as CTO for the Seat Ventures incubator. He eventually became an associate professor at the Interaction Design Institute Ivrea (IDII), a small town in northern Italy. In fact, the name "Arduino" comes from a bar in Ivrea, where Banzi and the other founders used to meet. He currently teaches Interaction Design at SUPSI Lugano and is a visiting professor at the Copenhagen Institute of Interaction Design.

#### PowerPoint Demonstrations and Panel Discussion with Dennis Austin and Thomas Rudkin Interviewed by David C. Brock

March 30, 2015 X7444.2015

Dennis Austin and Thomas Rudkin are the engineers who wrote the first version of PowerPoint for Forethought Inc. Together they give a demonstration of the first release of PowerPoint and discuss the origins of the program. In addition to his time at Microsoft (which

purchased Forethought in order to acquire the rights to PowerPoint), Rudkin has worked at Intel and Bell Northern Research. He is a Kansas native with a mathematics degree from Kansas University and a master's degree in computer science from the University of Wisconsin. Dennis Austin is from Pennsylvania and attended the University of Virginia before coming to California immediately after graduation. Before Forethought, Austin worked at General Electric (eventually was acquired by Honeywell) and the Burroughs Corporation.

# AN EVENTFUL YEAR

#### 07.09.14

**CHM Soundbytes** Fearless Genius, by Doug Menuez

**Speaker** Doug Menuez Photographer

# 07.24.14

#### **CHM Soundbytes**

The Intel Trinity: How Robert Noyce, Gordon Moore, and Andy Grove Built the World's Most Important Company

#### Moderator

Scott Budman NBC Bay Area Anchor & Host of *Tech Now!* 

#### **Speaker** Mike Malone

Author

### 08.07.14

#### CHM Presents Revolutionaries

Akamai's Co-Founder & CEO Tom Leighton in Conversation with Museum CEO John Hollar

# Moderator

John Hollar President & CEO Computer History Museum

### Speaker

Tom Leighton Co-Founder & CEO Akamai

# 08.21.14

### CHM Soundbytes

From Mainframe to Smartphone: What an Amazing Trip It's Been, with Dr. Dileep Bhandarkar, Qualcomm

#### Speaker

Dileep Bhandarkar IEEE Fellow & Vice President of Technology Qualcomm Technologies, Inc.

# 09.26.14

**CHM Soundbytes** Computer History Museum Celebrates 35 Years

**Moderator** John Hollar President & CEO Computer History Museum

# Speakers

Gordon Bell Co-Founder Computer History Museum

Len Shustek Chairman of the Board of Trustees Computer History Museum

## 10.03.14

#### CHM Presents Revolutionaries on the Road at NPR's Studio One An Evening with Entrepreneur &

Philanthropist Steve Case
Moderator

John Hollar President & CEO Computer History Museum

# Speaker

Steve Case Chairman & CEO Revolution Co-founder America Online

### 10.08.14

#### CHM Presents Revolutionaries

How Google Works Authors Eric Schmidt & Jonathan Rosenberg in Conversation with Yahoo's Marissa Mayer

# Moderator

Marissa Mayer President & CEO Yahoo, Inc.

#### Speakers

Jonathan Rosenberg Senior Vice President, Product Management Google, Inc.

Eric E. Schmidt Executive Chairman Google, Inc.





POSTER DESIGNS: JENNIFER ALEXANDER



























AUTHORS ERIC SCHMIDT & JONATHAN ROSENBERG In conversation with Yahoo's Marissa Mayer



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# COMMUNITY AND COMPUTER THE ARDUING EXPERIENCE

SOUNDBYTES

# 10.14.14

# CHM Presents

Revolutionaries The Innovators Author Walter Isaacson in Conversation with Museum CEO John Hollar

# Moderator

John Hollar President & CEO Computer History Museum

Speaker

Walter Isaacson Author

## 11.18.14

#### CHM Presents Revolutionaries

IBM's Chairman, President & CEO Ginni Rometty in Conversation with Museum CEO John Hollar

**Moderator** John Hollar

President & CEO Computer History Museum

Speaker

Ginni Rometty Chairman, President & CEO IBM

# 12.03.14

**CHM Presents** A Private Screening of *The Imitation Game* 

# 12.09.14

#### CHM Presents Revolutionaries

Theranos Founder & CEO Elizabeth Holmes in Conversation with KQED's Michael Krasny

Moderator Michael Kr

Michael Krasny Host of *Forum* KQED

**Speaker** Elizabeth Holmes Founder & CEO Theranos

# 12.17.14

#### CHM Presents Revolutionaries Defy Ventures Founder & CEO Catherine Hoke in Conversation with NPR's Laura Sydell

#### Moderator

Laura Sydell Digital Culture Correspondent NPR

#### Speaker

Catherine Hoke Founder & CEO Defy Ventures

# 01.29.15

# CHM Presents Revolutionaries

Composer & Cellist Philip Sheppard in Conversation with Sid Lee's Will Travis

#### Moderator

Will Travis President & CEO Sid Lee

#### **Speaker** Philip Sheppard Composer & Cellist

02.18.15

#### CHM Presents Revolutionaries

*Believer* Author David Axelrod in Conversation with Museum CEO John Hollar

#### Moderator

John Hollar President & CEO Computer History Museum

#### **Speaker** David Axelrod Author

# 02.19.15

**CHM Presents** Mastering the Pixel: 25 Years of Photoshop

**Moderator** John Hollar President & CEO Computer History Museum

**Speakers** Russell Brown Senior Creative Director Adobe Systems, Inc.

Thomas Knoll Adobe Photoshop Co-creator Adobe Systems, Inc.

John Knoll Adobe Photoshop Co-creator Adobe Systems, Inc.

Adobe Photoshop Product

Adobe Systems, Inc.

CHM Soundbytes

Grady Booch

Grady Booch

Engineering

Research

03.19.15

the Future

Moderator

John Hollar

Speaker

CEO

President & CEO

Alejandro Agag

Formula E Holdings

CHM Presents

Revolutionaries

FIA Formula E Racing: Drive

Computer History Museum

Speaker

Computing: The Human

Experience—Anarchy &

Order, with IBM Fellow

Chief Scientist, Software

IBM Thomas J. Watson

Steve Guttman

Manager

02.20.15

#### 04.15.15

04.07.15

CHM Presents

Revolutionaries

with Museum CEO

John Hollar

Moderator

John Hollar

Speakers

Rick Tetzeli

Author

Author

President & CEO

Brent Schlender

Becoming Steve Jobs

Authors Brent Schlender &

Rick Tetzeli in Conversation

Computer History Museum

#### CHM Presents Revolutionaries on the Road at KQED's Studio A KQED's John Boland & NPR's Jarl Mohn in Conversation with Museum CEO John Hollar

**Moderator** John Hollar President & CEO Computer History Museum

**Speaker** John Boland President & CEO KQED

Jarl Mohn President &CEO NPR

# 04.17.15

**CHM and CHF Presents** Moore's Law (050: The Man and The Law

Speakers David C. Brock Senior Research Fellow Institute for Research Chemical Heritage Foundation

Arnold Thackray Founder & Chancellor Chemical Heritage Foundation

# 05.05.15

CHM Presents Revolutionaries The Thrilling Adventures of Lovelace & Babbage Author Sydney Padua in Conversation with Google Doodle Leader Ryan Germick

**Moderator** Ryan Germick Doodle Team Lead Google, Inc.

**Speaker** Sydney Padua Graphic Artist & Animator

#### 03.13.15

**CHM Soundbytes** Secrets of the Antikythera Mechanism

**Speakers** Nicolaos G. Alexopoulos Professor Emeritus Dept. of Electrical Engineering and Computer Science University of California, Irvine

Tatjana Dzambazova Technology Whisperer & Product Manager Autodesk

Brendan Foley Research Specialist Applied Ocean Physics & Engineering, Woods Hole Oceanographic Institution

Michael Hawley Educator & Researcher MIT Media Lab

Michael Wright Honorary Research Associate Imperial College, London

### 05.28.15

# CHM Soundbytes

Community and Computing: The Arduino Experience

#### Speaker

Massimo Banzi Co-founder Arduino Project

# 06.19.15

**CHM Soundbytes** Towards the Third Age of Computing

**Moderator** John Hollar President & CEO Computer History Museum

**Speaker** Tony Hey Theoretical Physicist

06.30.15

**New Exhibit Opening** On You: A Story of Wearable Computing

#### Moderator

John Hollar President & CEO Computer History Museum

# Speakers

Thad Starner Professor Georgia Institute of Technology

Greg Priest-Dorman Wearable Computing Pioneer and early Google Glass team member

# FINANCIAL Summary

INCOME STATEMENT (\$K)	FY 2015	FY 2014
Total Revenue	\$14,240	\$11,016
Total Expenses	\$12,076	\$10,406
Changes in Net Assets	\$2,164	\$610
REVENUE CATEGORIES (\$K)		
Unrestricted Donations	\$1,597	\$1,499
Public Programs	\$9,184	\$3,811
Museum Operations	\$2,310	\$1,946
Investment Gain (Loss)	\$1,162	\$3,718
Other Income	\$184	\$241
	\$14,240	\$11,016
EXPENSE CATEGORIES (\$K)		
Operations	\$2,184	\$1,873
Content & Public Programs	\$6,120	\$4,910
Marketing & Development	\$1,122	\$1,031
Depreciation & Amortization	\$2,649	\$2,593
	\$12,076	\$10,406



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**Museum** is the world's leading institution exploring the history of computing and its ongoing impact on society. The Museum is dedicated to the preservation and celebration of computer history and is home to the largest international collection of computing artifacts in the world, encompassing computer hardware, software, documentation, ephemera, photographs, oral histories, and moving images.

The Museum brings computer history to life through large-scale exhibits, an acclaimed speaker series, a dynamic website, docent-led tours, and an award-winning education program.

### HOURS

Wed, Thurs, Sat & Sun 10:00 a.m. to 5:00 p.m. Friday 10:00 a.m. to 9:00 p.m.

#### CONTACT

Computer History Museum 1401 N. Shoreline Blvd. Mountain View, CA 94043 info@computerhistory.org 650.810.1010

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Inside Cover: Close-up of the Difference Engine No. 2 (2002 ): The Difference Engine No. 2 was designed by Charles Babbage between 1847 and 1849 to automatically calculate polynomial functions. It consists of 8,000 parts, weighs 5 tons, and measures 11 feet long. © Marcin Wichary

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