

LARRY TESLER

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strategic management consulting for user experience innovation

professional experience

Board director for a FTSE 250 company, vice president in three Fortune 500 corporations, executive in two Silicon Valley startups. 29 years building and managing teams of software and hardware engineers, designers, scientists, product managers and marketers to deliver innovative customer-centered products.

2009-Present **Larry Tesler, Consultant** Portola Valley, CA
sole proprietor

User experience management/research/design/programming for desktop/web/mobile/print.

2008-2009 **23andMe, Inc.** Mountain View, CA
product fellow

In-house expert on user experience and innovation for a direct-to-consumer genetic testing startup.

2005-2008 **Yahoo! Inc.** Sunnyvale, CA
vp, user experience and design

Managed teams of 10 to 200+. Coordinated user experience activities worldwide. Decentralized the U.S. design organization, resulting in more tightly knit product teams. Created a centralized design flex force to provide short-term assistance to product groups. Concurrently served as a Research Fellow, contributing to user experience innovations and patent applications.

2001-2005 **Amazon.com** Seattle, WA
vp, shopping experience

Created the usability group. Managed data mining, market research and usability as a single organization that provided customer insights more cheaply and effectively. Managed engineering teams and the data warehouse. Contributed to patent filings.

1997-2001 **Stagecast Software, Inc.** Redwood City, CA
co-founder & president

Co-founded an education software startup. Raised angel and venture capital. Shipped two versions of an award-winning product aimed at ages 7-12 and popular in computer camps and computer labs.

1980-1997 **Apple, Inc.** Cupertino, California
vp & chief scientist

Built and managed teams of up to 200 technologists and designers that contributed to such innovative products as Lisa, Macintosh, Color QuickDraw, QuickTime, AppleScript, HyperCard and Newton. Contributed to several patents. Accomplishments included:

- o Managed user interface design and software engineering for the Lisa application API and office suite. Personally conducted usability studies during the formative first year of the project.
- o Led a staff of seven in the development of the first commercial object-oriented frameworks, the Lisa ToolKit and MacApp.
- o Grew an advanced development team from 30 to 200 in Cupertino and Los Angeles, CA, Cambridge, MA and Columbia, MD.
- o Expanded Apple R&D into new areas such as animation, 3-D graphics, speech synthesis, massively parallel systems, distributed computing and scientific visualization.
- o Championed the spinout of Advanced RISC Machines (ARM) from Acorn plc and served on ARM's board for 13 years. Apple's investment of under \$5 million resulted in a gain of over \$800 million.

1973-1980 **Xerox Corporation Palo Alto Research Center (PARC)**
member of the research staff

Conceived, implemented and usability-tested the following GUI (graphical user interface) and IDE (integrated development environment) capabilities that have become standards in the industry:

- o insert or overwrite text without entering a mode by simply clicking or dragging and then typing;
- o move or copy text without entering a mode using cut/copy and paste;
- o type or paste *find & replace* text into a form that can be edited before and after searching;
- o browse source code and inspect run-time state by clicking menus in paned windows.

1968-1973

**Stanford University Artificial Intelligence Laboratory (SAIL)
research assistant**

Participated in original research in artificial intelligence, cognitive modeling, natural language representation and symbolic programming languages.
Designed and implemented [PUB](#), the most powerful and scriptable markup language of its time.

4/68-7/68

Systems Concepts Santa Monica, CA
software engineer

Designed and implemented the first version of the SDS Sigma 7 macro assembler.

1963-1968

Information Processing Corporation Palo Alto, CA
founder and president

Developed software for hire. Managed up to four employees.

1962-1964

Stanford University Departments of Genetics and Computer Science
programmer

Developed batch and interactive software for biochemical research.
Developing the output formatter for SUBALGOL, a dialect of ALGOL-60.

corporate boards

1990-1997 [ARM \(Advanced RISC Machines\) Holdings, Ltd](#) Cambridge, England ([co-founder](#))

1998-2004 [ARM Holdings plc](#) Cambridge, England

On behalf of Apple, negotiated the spinout of the ARM microprocessor development team from Acorn Computers plc. Recruited the ARM CEO, Robin Saxby. Advised management as a board member for 13 years. ARM has become the world's leading microprocessor intellectual property design and licensing company.

1997- [Stagecast Software, Inc.](#) Burlingame, CA ([co-founder](#))

After downsizing the company and stepping down in 2001, remained board chair.

non-profit boards

2000- [The Gorilla Foundation](#) Woodside, CA

1991-1994 [Computer Science & Telecommunications Board](#) Washington, DC

1976-1978 [Peninsula School](#) Menlo Park, CA

patents

USPTO #[5390281](#), #[5477447](#), #[5621903](#), #[5644735](#), #[6236396](#) (various Newton-related innovations) for Apple

USPTO #[7325045](#) ("Error processing methods for providing responsive content to a user when a page load error occurs") for A9.com

USPTO #[7392510](#) ("System for tracking and providing access to information about server components invoked during the dynamic generation of web pages") for Amazon.com

Others pending:

[20060167757](#) ("Automated selection of products for online comparison") for Amazon.com

[20080046968](#) ("Authentication seal for online applications") for Yahoo! Inc.

[20090157442](#) ("System and method for improving the performance of digital advertisements") for Yahoo!

[20100076775](#) ("Progressive capture of prospect information for user profiles ") for Yahoo!

[20100082658](#) ("Systems and methods for surfacing contextually relevant information ") for Yahoo!

education

1965 [Stanford University](#) Bachelor of Science, Mathematics (Computer Science Div.)

memberships

[Association for Computing Machinery](#)

[Special Interest Group on Computer-Human Interaction](#)(SIGCHI)

[SIGCHI Academy](#) (recognizes leadership in the profession)

[IEEE Computer Society](#)

selected publications

"Networked Computing in the 1990's", *Scientific American special issue on Communications, Computers, and Networks* (Sep. 1991), pp. 86-93.

An invited speculation on trends in networked computing.

"Interactive Image Analysis of Borehole Televiewer Data" (with C.A. Barton and M.D. Zoback), in the *Proc. of the Symposium on the Application of Geophysics to Engineering and Environmental Problems*, Knoxville, TN. (Mar. 1991), pp. 211-232; reprinted in *Automated pattern analysis in petroleum exploration*, I. Palaz and S.K. Sengupta (eds.), Springer-Verlag (1992), pp. 223-248.

Software implemented during a sabbatical leave from Apple. It included an innovative user interface, now standard in geophysical software, for interactive tracing of an indistinct sinusoidal feature in a borehole image.

"Object-Oriented Languages: Programming Experiences", *Byte* 11:8 (Aug. 1986), pp. 195-206.

Lessons on methodology gleaned from interviews with neophytes.

"Programming Languages", *Scientific American* 251 (Sep. 1984), pp. 70-78.

An invited introductory article illustrating the diversity of programming languages.

"Personal computers are coming to campus", *Proceedings of the ACM 12th annual computer science conference SIGCSE symposium* (Jan. 1984), pp. 49-50.

Apple's view.

"The Smalltalk-80 compiler" in *Smalltalk-80: The Language and its Implementation*, Goldberg & Robson, Addison-Wesley (1983).

"Enlisting user help in software design" in *SIGCHI Bulletin* 14:3 (Jan. 1983). Originally presented at ACM 82 during a panel, "People-Oriented Systems, Revisited" (Lorraine Borman, moderator).

An early tract describing what we now call low-cost talk-aloud usability testing.

"The Smalltalk Environment", *Byte* 6 (Aug. 1981), pp. 90-147.

A frequently cited article about browsing and the modeless user interface.

"Personal computing: problems of the 80's" (with Portia Isaacson, Robert Gammill, Richard Heiser, Adam Osborne, and Jim Warren) in *Proc. of the Oregon Report on Computing in the 1980s* (Mar. 1978); *Computer* 11 (Sep. 1978), pp. 86-96; *ACM SIGPC Notes*, 1:3 (Sep. 1978), pp. 46-55.

A surprisingly prescient report.

"A directed graph representation for computer simulation of belief systems" (with Horace Enea and Ken Colby), *Mathematical Biosciences* 2 (Feb. 1968), pp. 19-40.

An early proposal for a semantic network representation of knowledge.

Additional papers and articles are listed at <http://www.nomodes.com/CV.html>.

attributed adages and coinages

Tesler's Law of Conservation of Complexity (ca. 1984). *Every application has an inherent amount of irreducible complexity. The only question is: Who will have to deal with it—the user, the application developer, or the platform developer?* For details, see [Dan Saffer's interview](#).

Tesler's Theorem (ca. 1970). My formulation of what others have since called the "AI Effect". As commonly quoted: "Artificial Intelligence is whatever hasn't been done yet". What I actually said was:

"Intelligence is whatever machines haven't done yet". Many people define humanity partly by our allegedly unique intelligence. Whatever a machine—or an animal—can do must (those people say) be something other than intelligence. The theorem is cited in various blogs and books.

The word *modeless* to mean a user interface in which the user is never "stuck" in a mode (ca. 1970). Others, including Alan Kay, began to use the term with the same meaning at around the same time. An early modeless editor was [Gypsy](#) (1974), which I developed with Tim Mott at PARC. See also [About Face 3: The Essentials of Interaction Design](#) by A. Cooper, R. Reimann and D. Cronin, Wiley (2007), p. 425.

The term *friendly user interface* has been attributed to me (ca. 1974 at PARC). The first known usage in a publication was "The Office of the Future", *Business Week* (30 June 1975), p. 48, in a story about PARC. My earlier usage of the term is cited in a quote by Robin Kinkead in [Paper Prototyping: The Fast and Easy Way to Design and Refine User Interfaces](#) by Carolyn Snyder, Morgan Kaufmann (2003), p. 47.

The word *browser* (1976) to mean a point-and-click information navigation window. The first known window to bear that name was the multi-paned [Smalltalk Browser](#) (1976) that I conceived, named and implemented to navigate through a source code hierarchy.