DOUG ENGELBART INSTITUTE

Personal Digital Archiving 2011

Learnings from a life's work:
The Doug Engelbart Archives

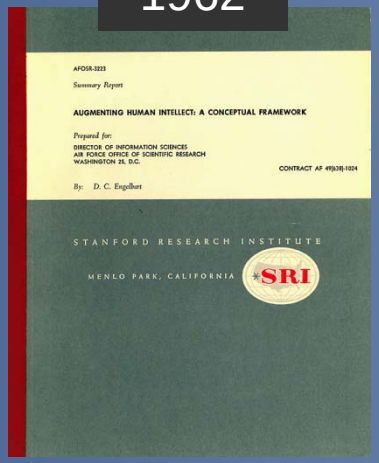
Christina Engelbart
Executive Director
www.dougengelbart.org

"Boosting our Collective IQ"

Story in a nutshell

1951

1962



1964

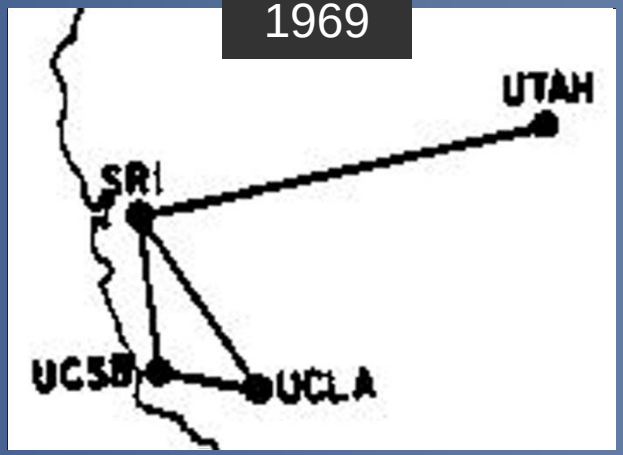
1967

1998

1988

1978

1969



1968

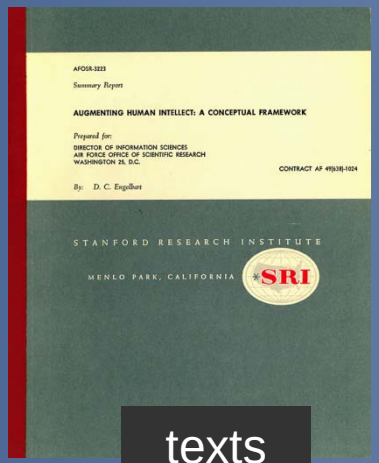
The human element

- experimental methods, conventions, practices
- new roles
- strategic approach

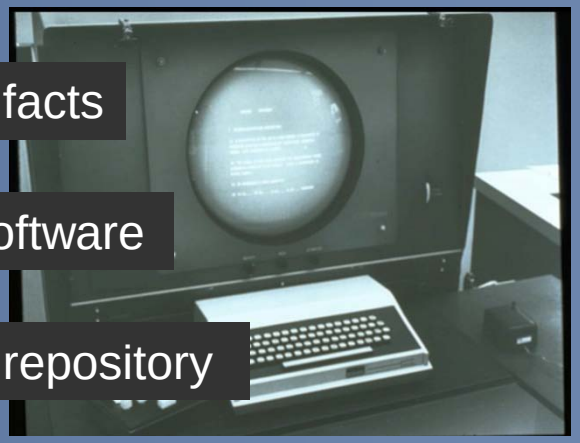
The stuff

photos

texts



artifacts

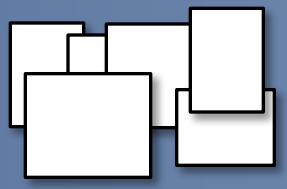


software

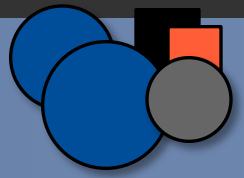
repository

audio / oral histories

Personal records

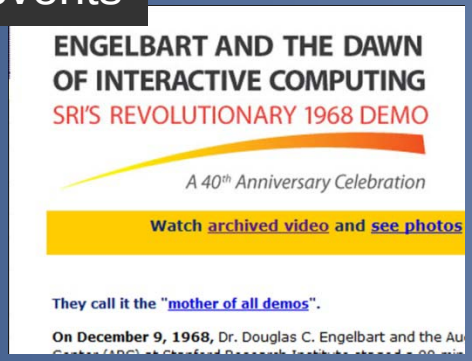


Backup Media



press

events



film / video

Archiving

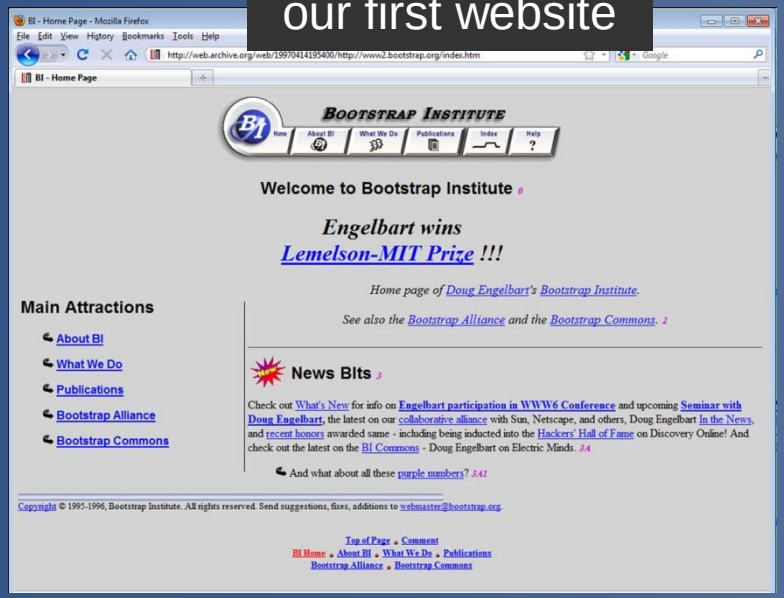
real-time

online

physical

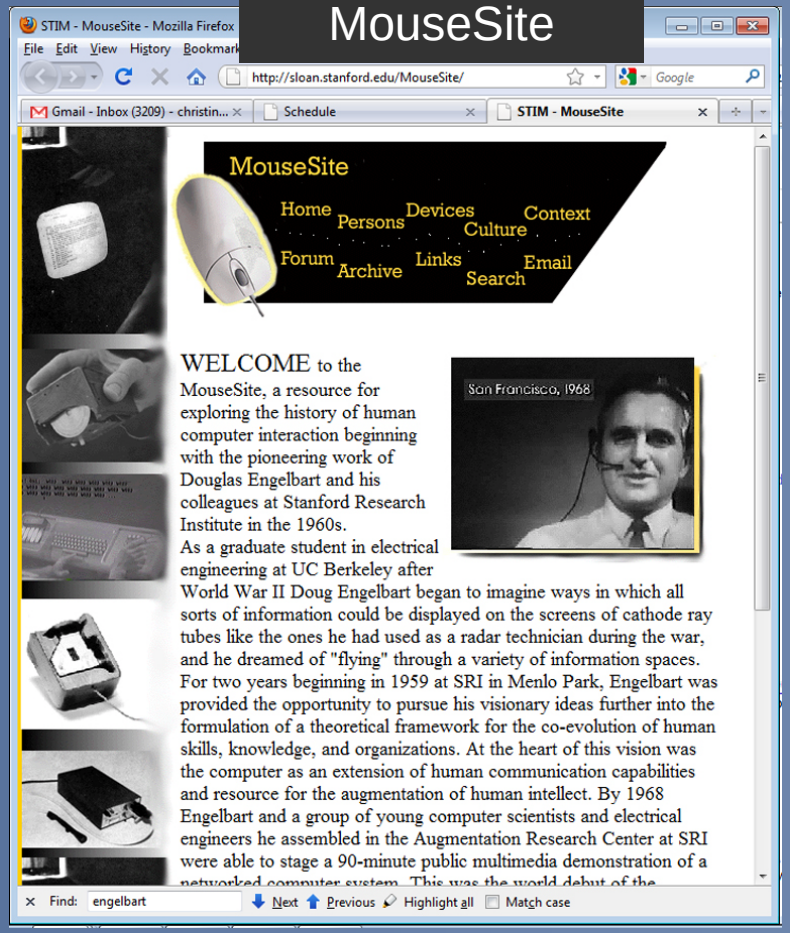
(Re)Archiving on the web

1995
our first website



preserved by Internet Archive

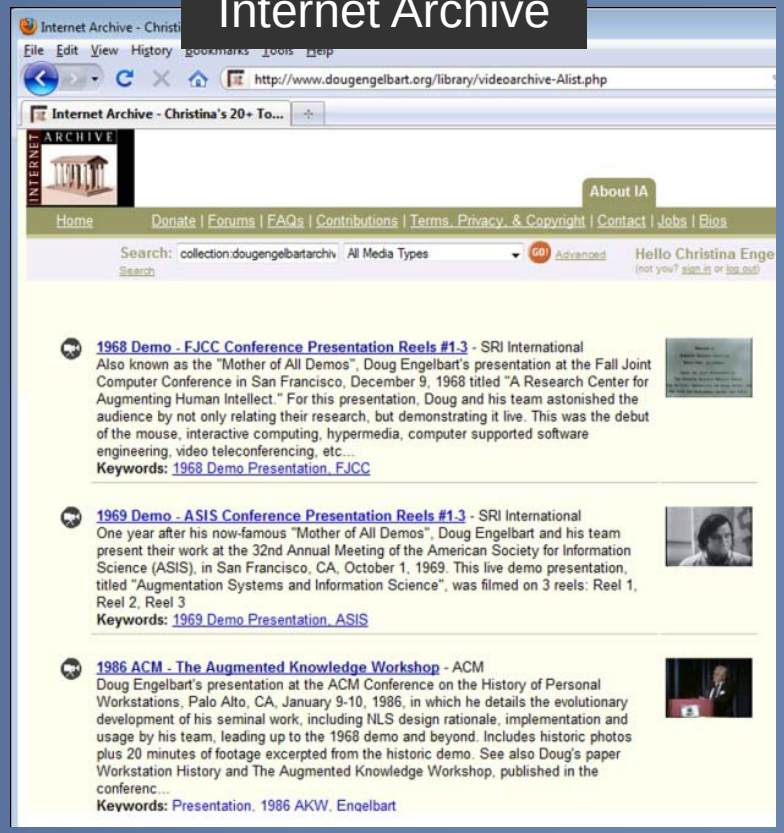
1990s
Stanford
MouseSite



Archiving on the web

Computer History Museum

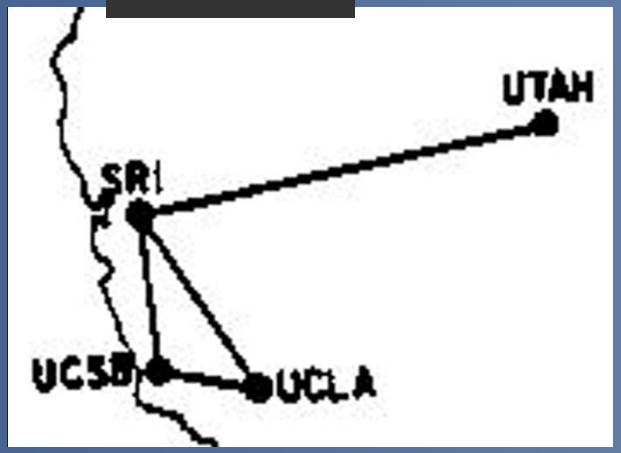
2010 Internet Archive



Context

What's their story?
What were they thinking?

"firsts"



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"Boosting mankind's capability for coping with complex, urgent problems"
- Doug Engelbart

"Father of the Mouse"

Doug Engelbart invented the mouse in 1963 in his research lab at SRI International (then Stanford Research Institute), 1 e patent was issued in 1970.

ea first came to him while sitting in a conference computer graphics in 1961, his mind mulling over ith efficient pointing devices for y. One idea he had was to use cabletop, one turning horizonta tically, each transmitting their rotation ysis. He sketched it out roughly. Later on, esearch team were getting interactiv y up and running in his lab at SRI, looki ting devices to move the cursor on the screen, he reviewed his earlier notes with his lead engineer Bill English, who built the first working prototype encased in a carved out wooden block with perpendicular wheels mounted in the underbelly. This first mouse had only one button simply because that was all there was room for in the wooden casing.

The team had a small NASA contract to test the efficiency of different pointing devices, and pitted the mouse against a half dozen other devices (see Mouse Alternatives below for some photos of contenders). The mouse won hands down, and was then included as standard equipment in their ongoing research (see 1965 Report detailing these experiments).

Watch Doug explain his invention (2004)
[courtesy Logitech, Inc.]

click to see photo gallery of first mouse
[courtesy SRI International and Stanford Special Collections]

Genesis of the mouse:

Doug's Early Vision:
From the introduction of his *Augmenting human intellect: A conceptual framework* (1962):

Let us consider an augmented architect at work. He sits at a working station that has a visual display screen some three feet on a side; this is his working surface, and is controlled by a computer (his "clerk") with which he can communicate by means of a small keyboard and various other devices.

He is designing a building. He has already dreamed up several basic layouts and structural forms, and is trying them out on the screen. The surveying data for the layout he is working on now have already been entered, and he has just coaxed the clerk to show him a perspective view of the steep hillside building site with the roadway above, symbolic representations of the various trees that are to

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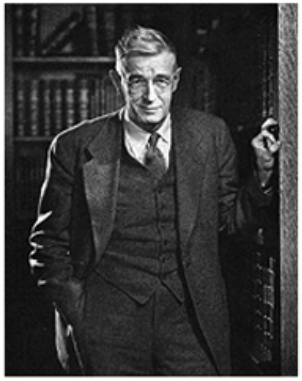
Video Archives

The MIT/Brown Vannevar Bush Symposium

The MIT/Brown Vannevar Bush Symposium was hosted at MIT on October 12-13, 1995, to celebrate the 50th anniversary of Vannevar Bush's seminal article "As We May Think," published in the Atlantic Monthly, July 1945. As a speaker at the event, Doug Engelbart received VHS copies of all the sessions, which later surfaced as part of the Doug Engelbart Archives Initiative. In researching the origin of the videos, we were pleased to discover the original conference resources dating back to 1995 still available on the MIT and Brown University websites. The video archives from the event are now available online at the Internet Archive, as shown below. Refer to Symposium program for title and abstract for each talk, as well as speaker bios, and panel notes; speakers' slides were captured and posted for the event, but are unsurprisingly no longer viewable. See section Additional Resources below for links to more, including a Memex Animation.



Vannevar Bush

MC: Andy van Dam
Intros and Historical Timeline [Bio]

#1 Paul Kahn
Visual tour of Bush's work [Bio|Memex Animation|Photos]

#2 Doug Engelbart
The Strategic Pursuit of Collective IQ [Abstract|Bio]

#3 Ted Nelson
Where the Trail Leads [Abstract|Bio]

#4 Bob Kahn

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The Doug Engelbart Archives

Overview

The Engelbart Archives Collection documents the life's work of Doug Engelbart. This is an ongoing initiative of the Doug Engelbart Institute, in collaboration with SRI International, Sun Labs, Internet Archive, New Media Consortium, and distinguished volunteers from Doug's alumni group, to preserve for historic interest, and to inform a next generation pursuit of his compelling strategic vision and significant prior work. The initial thrust of this Initiative is to gather, sift through, catalog, digitize, and upload archival documents, video footage, photos, and digital files for preservation and broad-based accessibility. We are currently working with 2,000+ digitized historic photos, 150+ digitized video tapes, plus dozens of digitized papers. This work complements the existing comprehensive collections at Stanford University Libraries Special Collections, and the Computer History Museum.

The Archives

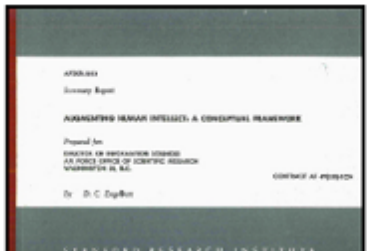
Texts

- Published Papers and Books - bibliography maintained at Doug Engelbart Institute with links to all of Engelbart's published papers and books, selected white papers, as well as links to books that feature his work.

- More papers, correspondence, reports, memos - available at the MouseSite Archive page, Stanford Libraries Special Collections, with links to their Annotated Table of Contents page, and Finding Aid - a Partial Guide to the Douglas C. Engelbart Papers, 1953-1998. Selected papers and reports are available online, the rest are hardcopy only. Stanford's extensive physical collection includes Doug's original notebooks, calendars, files, videotapes, audiotapes, etc.

Historic Photos

Videos



Harold "Doc" Edgerton - Mozilla Firefox

File Edit View History Bookmarks Tools Help

edgerton-digital-collection.org

http://edgerton-digital-collections.org/

fliptop spiral notebooks

Harold "Doc" Edgerton

VISIONARY ENGINEER

The Edgerton Digital Collections (EDC) project

Harold "Doc" Edgerton

Skip to Content

Search images/notebooks/site:

enter keywords or year Search

Home | Doc's Life | Galleries | Techniques | Stories | Notebooks

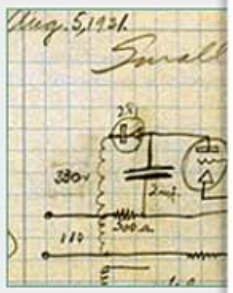
Milk Drop Coronet, 1957

Learn more > NEXT >

The Edgerton Digital Collections project celebrates the spirit of a great pioneer, Harold "Doc" Edgerton, inventor, entrepreneur, explorer and beloved MIT professor. This site is for all who share Doc Edgerton's philosophy of **"Work hard. Tell everyone everything you know. Close a deal with a handshake. Have fun!"**

Aerial Reconnaissa

Like every corner of MIT, was highly mobilized to military. Major Goddard during... Read more >



Doc's Notebooks

Doc's daily note-taking 8,000 pages of... Read

Fathoming the Oceans

Edgerton was intrigued by the unique engineering challenges of underwater research...Read more >

Where to go from here

- Learn from the Edgerton Digital Collection and archivists of notable persons
- Digital storytelling
- Digital museums – NMC MIDEA
- Engage faculty and interns
- Partnering and Funding

Objectives beyond webifying

- Humanizing history
- Connecting the technology to the vision
- Communicating the primary significance of the vision

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"Boosting mankind's capability for coping with complex, urgent problems"
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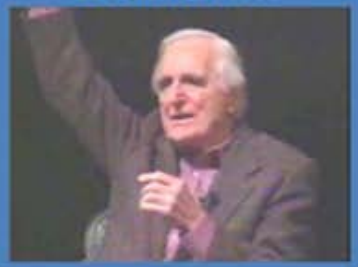
Engelbart Archive Collection

Interested in the "Mother of All Demos", or how Doug Engelbart invented the mouse? Learn about his many breakthrough innovations in the Engelbart Archive Collection of historic videos, photos, texts, stories, and more.

Doug's Strategic Vision
A Call to Action



What drove his innovations that sparked a revolution and catapulted us into the Information Age? Doug's strategic vision for boosting our Collective IQ is not only still viable, it is even more critical to business and society than ever.

Bootstrapping Innovation
Putting Vision to Practice

Doug put his strategic vision to work early on to increase Collective IQ and innovation capacity in his own team. Learn how to apply the same strategic principles for Bootstrapping Innovation™ in your own organization or society.

The National Medal of Technology

the highest award in its class in the United States

On December 1, 2000, the White House bestowed the medal on Douglas Engelbart, essentially for his technological achievements including the invention of the computer mouse.

See Honors for more on this and other prestigious awards.

In the News

- Doug Engelbart Receives Weatherford Award
- Improve Your Ecosystem's Ability to Tackle Complex Issues
- Bootstrapping Innovation: *Leveraging the Collective IQ*
- Visit our Press Room

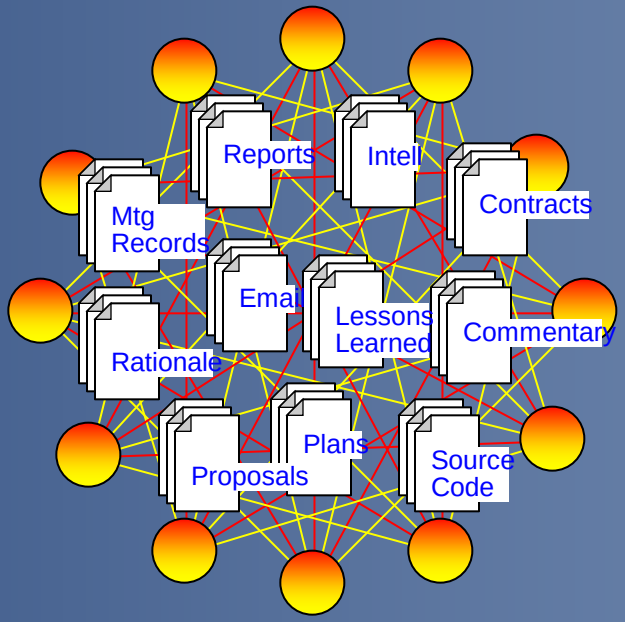
Site Showcase

- Story of the Mouse
- Engelbart Video Archives
- Awakening the Digital Imagination: a faculty development seminar
- Student-Faculty Showcase
- Toward Boosting Our Collective IQ
- Just for Kids

Blog Spotlight

- How Doug Engelbart taught kids to ride a bike (without training wheels)
- "Dreams About How the World Could Be"
- More on getting beyond paper and linear media

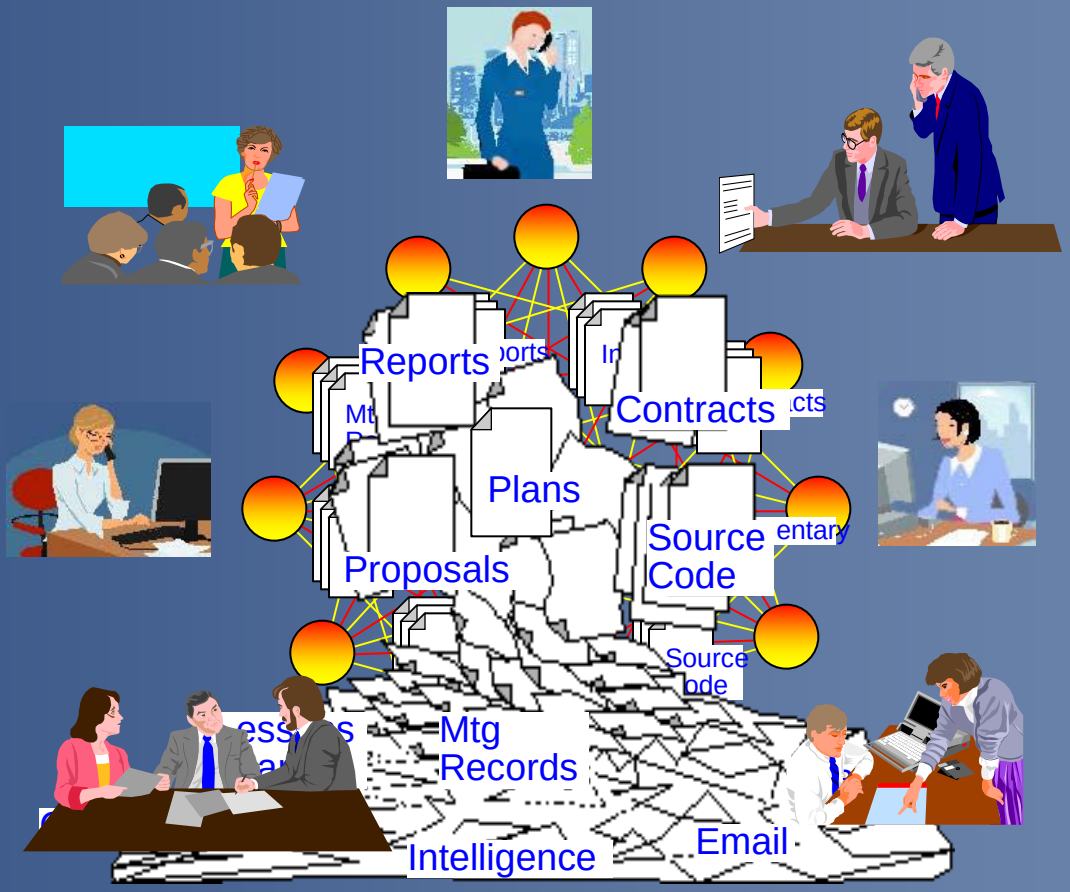
Knowledge Ecosystem



Knowledge Ecosystem

All plugged into a collective intelligence

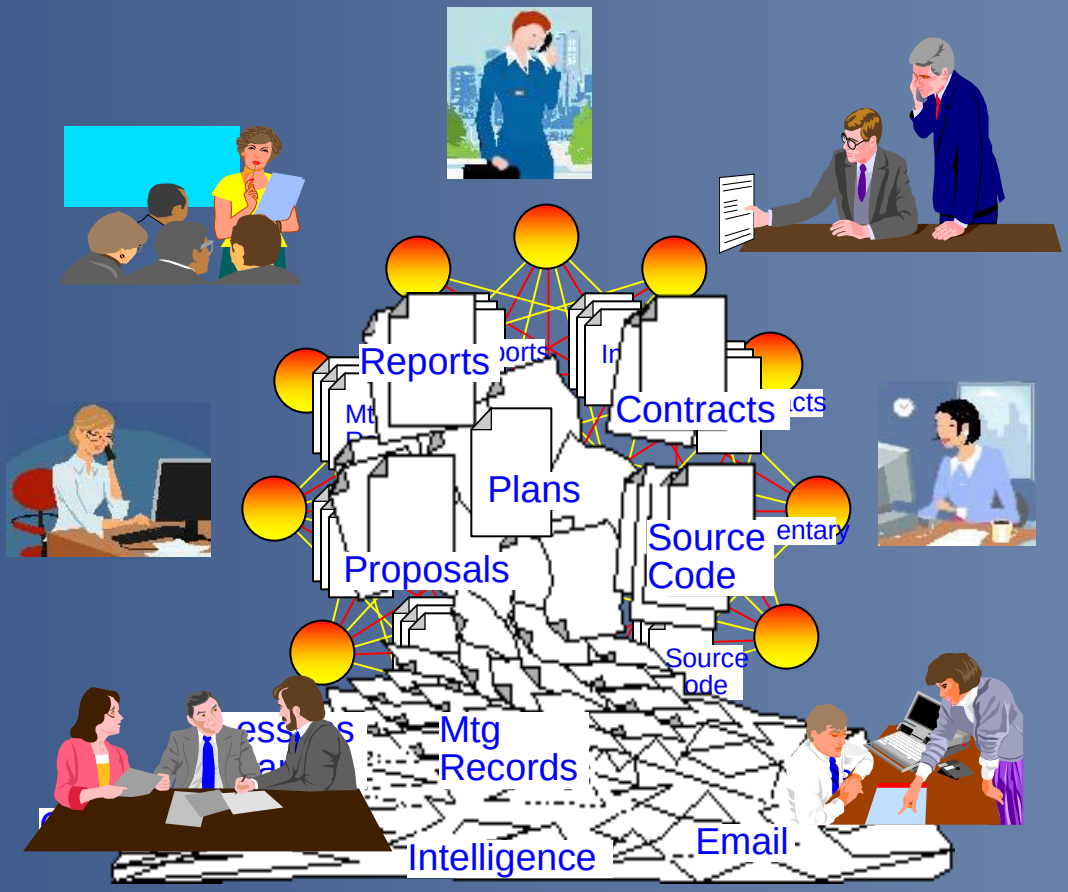
"Boosting our Collective IQ"



Dynamic Knowledge Ecosystem

"Boosting our Collective IQ"

dialog ~ intel ~ knowledge products



Concurrently

- *developing*
- *integrating*
- *applying*

KNOWLEDGE

Dynamic Knowledge Ecosystem

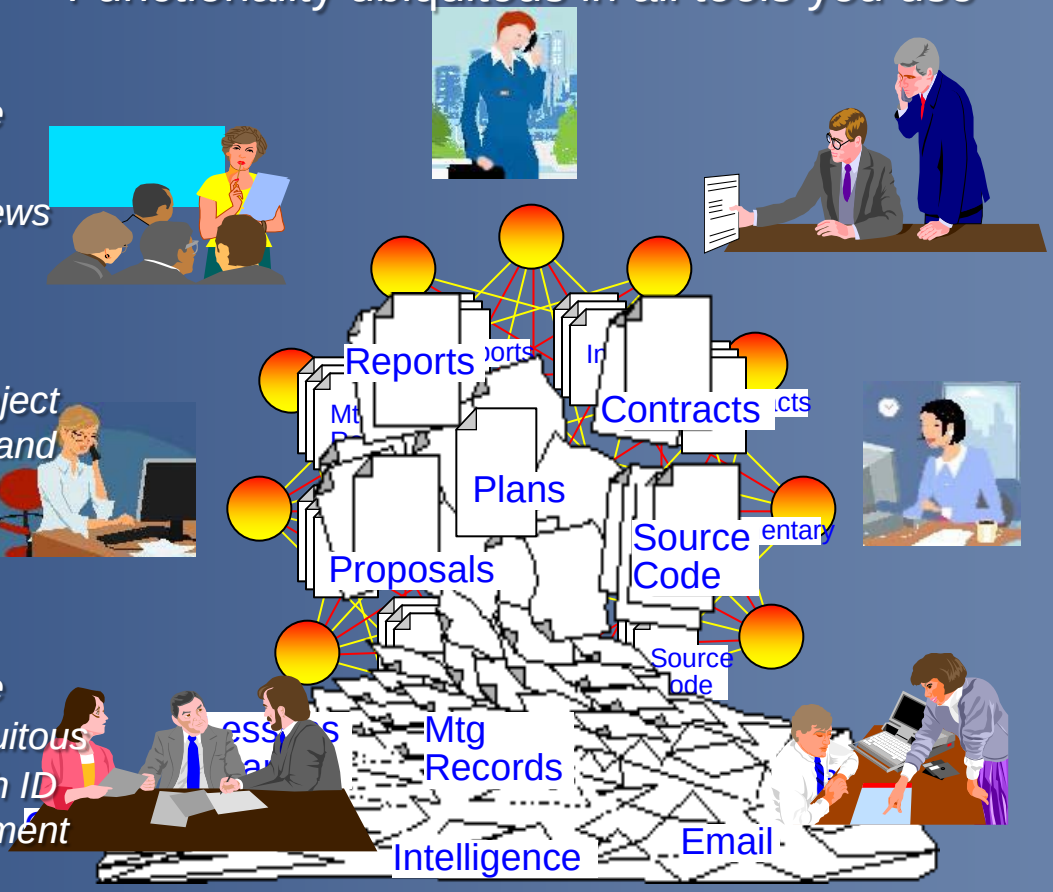
"Boosting our Collective IQ"

dialog ~ intel ~ knowledge products

Functionality ubiquitous in all tools you use

Tool / Knowledge Requirements:

- ✓*Open*
- ✓*Evolvable, migratable*
- ✓*Interoperable*
- ✓*Malleable, custom views*
- ✓*Permeable, every object addressable, linkable in any file*
- ✓*Identifyable, every object stamped with author and time of creation/edits*
- ✓*Annotate*
- ✓*Extensible*
- ✓*Customizable*
- ✓*Seamless experience*
- ✓*Shared desktop ubiquitous*
- ✓*Online publishing with ID and version management*



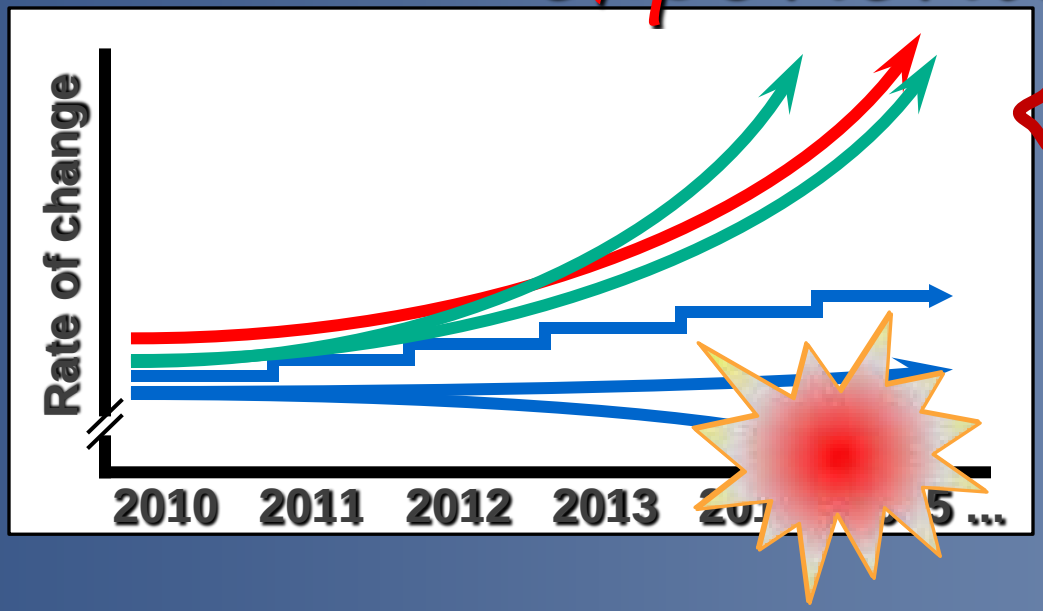
Concurrently

- *developing*
- *integrating*
- *applying*

KNOWLEDGE

Grand Challenge

Complexity and urgency are scaling up *exponentially*



with exponential Collective IQ strategy

with incremental Collective IQ strategy

Organizations and societies with no Collective IQ strategy

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Appreciation

- Alumni from Doug's lab and Institute
  - Jeff Rulifson, Harvey Lehtman, Jake Feinler , Bill Daul
  - Doug's long-time secretary Mary Coppernoll
- SRI International and Logitech at all levels
- Stanford Library Special Collections
  - Henry Lowood, Tim Lenoir and team
- Computer History Museum
  - Paula Jabloner, Marc Weber, Jake Feinler
- Internet Archive
  - Brewster Kahle, Laura Milvy, Jeff Ubois, and team
- New Media Consortium (nmc.org)
  - Larry Johnson and Alan Levine

www.dougengelbart.org