Engelbart
Recontextualized:
Reworking Frameworks for Reworking Frameworks
(and more similarly meta things)
Who is Douglas C. Engelbart?

and what was he all about?

By Anisa Kannan and Will Sullivan
I’m rising Junior in Communication Arts major at VCU...

and I’m a rising Senior in Biomedical Engineering at VCU. We started our research on Doug Engelbart about a year ago, when we took the online pilot course for UNIV 200...
also known as Thought Vectors! It was formatted as a cMOOC

(connectivity-centric)

Massive Open Online Course

It was an experience
UNIV 200 is a required university class for all VCU Undergraduate students. Formally known as writing and rhetoric, this class is an exploratory research writing course, where students pick a topic to research and write and argumentative research paper throughout the semester.

The pilot online MOOC was called thought vectors, this all online class allowed students to show their research process through blogs and discuss with peers and teachers through blog comments and other social medias.

During Thought Vectors, we were first introduced to Engelbart’s ideas
Commonly thought of as a computer scientist and inventor of the mouse, we prefer to think of him as a computer philosopher.

But how did he get there?
1925  Doug Engelbart is born in Portland

Engelbart is drafted and goes to work as a Navy radar operator, first encounters Vannevar Bush’s *As We May Think* during this period

1948  Graduates from Oregon State after returning from the Pacific

1951  Realizes that he has no goals for his life, forms the basis of his philosophy and lifelong quest

1951  Returns to school

1955  Acquires Masters and PhD
1957 Begins work at SRI under Hewitt Crane

After this point Engelbart really started to take off, he goes on to publish the seminal paper, 

*Augmenting the Human Intellect*  
(in 1962)

From there, he forms the ARC (Augmentation Research Center) and began his true work
While working at the ARC Doug invented the mouse, pioneered NLS, and father the famous Mother of All Demo.

The Main Themes

**AUGMENTATION**
Narrowing the gap between human and machine interaction

**COLLABORATION**
Combining the efforts of many to solve complex problems

**BOOTSTRAPPING**
Improving how we improve so we can improve at increasing rates
“It’s as if suddenly, in an evolutionary sense, we’re getting a super new nervous system to upgrade our collective social organisms.”

-Doug Engelbart

AUGMENTATION

Engelbart’s goal was to make using a computer as effortless and simple as thinking.
“The synergistic effect of integrating many tools into one coherent workshop makes each tool of considerable more value than if it were used alone.”

-Doug Engelbart

Combining the efforts of many to solve complex problems

This quote holds true if you expand the quote to include humans. When disparate elements come together something greater than the sum of its parts is created.
“The better we get at getting better, the faster we will get better.”

-Doug Engelbart

BOOTSTRAPPING

Improving how we improve so we can improve at increasing rates
The ABC System

There are 3 levels of business and development

A: Core Business; the Primary Function of an organization

B: Improves the abilities of A; research and development

C: Improves abilities of B; helps people be better at C
Bootstrapping in the C Community

“C Activities from a wide range of enterprises will need to join forces in a cooperative ‘C Community’ to collaborate on common activities... by pool resources members can spread the risk and spend less to get more.”
This is a chart showing the relationship between humans and our tools. Engelbart’s goal was that the tool of computers be as natural to use as thinking!
A cybernetic meadow
Where mammals & computers
Live together in mutually
Programming mutually

“All Watched Over by Machines of Loving Grace”
by Richard Brautigan
If we then ask ourselves where that intelligence is embodied, we are forced to concede that it is elusively distributed throughout a hierarchy of functional processes... If there is any one thing upon which this 'intelligence depends' it would seem to be organization.

-Doug Engelbart
Doug saw that for people to solve complex problems they had to work together.

**COLLABORATION**
When it happens, it raises the Collective IQ of everyone involved.
Questions for Thought
How are we using Engelbart’s ideas in education already? How could they be improved?
What are the benefits and downfalls of augmented student researchers?
How could students today be more augmented? What tools would make them better knowledge workers?
What are some of the roadblocks when moving towards significant computer usage in education?
What are some of the roadblocks when moving towards significant computer usage in education?
Further Reading

Augmenting Human Intellect
  Doug Engelbart

Augmenting Society’s Collective IQ
  Doug Engelbart

Bootstrapping
  Doug Engelbart

Working Together
  Doug Engelbart

As We May Think
  Vannevar Bush

Personal Dynamic Media
  Alan Kay and Adele Greenberg