Vinton Gray "Vint" Cerf (born June 23, 1943) is an American computer scientist who is the "person most often called 'the father of the Internet'." His contributions have been recognized repeatedly, with honorary degrees and awards that include the National Medal of Technology, the Turing Award, and the Presidential Medal of Freedom.

Cerf has worked for Google as its Vice President and Chief Internet Evangelist since September 2005. In this role he has become well known for his predictions on how technology will affect future society, encompassing such areas as artificial intelligence, environmentalism, the advent of IPV6 and the transformation of the television industry and its delivery model.
Jacob Marschak (1898-1977)

The Jacob Marschak Interdisciplinary Colloquium on Mathematics in the Behavior Sciences at UCLA
A Decade of eBizForum: A Review

K Yang
Contents

  - Statistics
  - Topics
- In Perspective
  - Can Ants See Anteaters?
Summary / Statistics

- 1998/5 ~
  - Background
  - http://dure.net
- 82 Sessions
- 182 Topics (78 Academics)
- Formats
- Emergent Topics
  - Meme, TRIZ, Social Physics, Economics of ~, CCL
- Keywords
  - Connection, Consilience, Convergence, Common, Collaboration, Communication, Content, Computing...
- Lessons
  - Popularity / Interest
Session Titles

In Perspective

- Motivation
  - *McKinsey Quarterly*
  - QoL / GNH
- Where are we heading?
- Systematic Problems
- An Approach
Motivation

- NP-Complete Problems
- Transform into Knapsack Problems

\[
\begin{align*}
\text{Maximize} & \quad \sum_j p_j x_j \\
\text{subject to} & \quad \sum_j w_j x_j \leq c \\
x_j & = 0 \text{ or } 1 \forall j.
\end{align*}
\]

- Problem complexity
- Problem/Solution space
Can Ants See Anteaters?

- Instances
  - Social Physics
  - Anchoring Effect
  - Dot.com burst/Mortgage
  - Time Space
    - Out of sync in society and technology
    - Out of sync in society and governing body
“What we’re lacking are street smarts. Does anyone here not have an MBA?”
Random vs. Scale-free

(a) Random network
(b) Scale-free network
Cascading Effect
I'd like to question the leadership on this moron.

Shut up! You're undermining the troops!
Background

- Information Explosion
- Agility to Cope with Change
- Specialization/Compartmentalization of Sciences
  - Taxonomy of Sciences
- Role of Technology
The Problem

- Information Overload
- Unbalanced
- Right Methodology/Paradigm
Problem Solving

- Efficiency in Learning
  - Alignment
    - Target – Instruments
    - Among Participants
  - Balanced/Holistic Approach
    - Cognitive Science
    - Informal/Formal Logic, Axiom
    - Integration/Consilience
An Example

- $700 Billion Bailout
- Problems
  - Systematic Flaw
  - Intellectual Curiosity
  - Ballpark
Learning

- Learning by Conditioning
- Cognitive Learning
  - Frame of Reference
    - Formal Logic
    - Absolute FR
    - Linguistic & Cultural FR
- Aligning Cognitive Process
- Awareness Campaign
Examples

- Telling Directions
  - Can you tell direction in Antarctica?
  - Sender / Receiver Protocol
- Positive / Normative statements
  - Value Judgments
  - Equilibrium/Equality/Equivalence/Evenness/Sameness/Fair-ness; Polarization; 1%, 300%
- Framing problem
  Fed official hints at recession:
  San Francisco Fed President Yellen acknowledges what Bernanke and others generally try to avoid in describing U.S. economy.
- 配慮
  - Attention; Consideration; Care
  - Linguistic FR; 易地思之
$700 Billion – Revisit

- Digits Grouping
  - Unaligned Read/Write
  - Problem Solving I
  - Problem Solving II
[입시일반] 우리말로 숫자 읽기

문종양 서울대 국사학과 교수

입력 : 2005.05.01 21:51 14 / 수정 : 2005.05.01 23:32:27

초등학교 4학년이면 자녀가 수학 숙제를 풀면서 읽어대고 있었다. 자녀들이 자기 머리 헛을 하면서 금기야 올리까기 적절해야 도움을 청했다. 알まい 못한 수학문제는 7자리 수 이상의 큰 수를 우리나라로 읽어내는 것이었다.

비판에 200,000,000을 우리말로 맡으면서 7자리 수를 자기보지 않고이 숫자를 즉각적으로 우리말로 말할 수 있는 사람이 없이나 했다. 한참을 고민하다 문제들을 모두 고쳤다. 두 원의 문제는 2,000,000으로 고치고, 우리나라의 만, 억, 조, 천이 비 자리로 들어 있는 단위나를 알아주었다. 그 뜻으로 사인이라는 피처보지 않고도 숫자를 보자마자 즉각적으로 맡아, 옳았으면 받어냈다. 자녀의 헛된 머리 헛을 하며 펼쳐진 지인이나 자신이 나서 문제를 풀어나갔다.

현재 우리는 숫자를 세 자리마다 줄바로 적어 헛도록 되어 있다.
이 방식은 서울말로 숫자를 읽는 방식이다. 즉 6,000은 식스 사
무진이고 2,000,000은 두 백만이다. 그러나 우리말의 만, 억, 조, 천은 비 자리로 들어 왔어야 한다. 즉 2,000,000은 이
억, 6,000은 낙만이다. 세 자리 식사의 숫자 기술 방식은 우리
말과 전혀 맞지 않는다. 그 결과로 수많은 평범한 사람들은 수학
에 헛간한 비로 만들어 버렸다.

누구를 위해 세 자리마다 줄바로 구분하는 방식을 사용하고 있
는지 모르겠다.
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Another Examples

- Subway
  - Route Numbering
  - Destination Naming – Danggogae-bound
  - Map Orientation
  - Outer/Inner Circle

- Conditioning
  - 주민번호

- Out of Sync / Misalignment
Learning and Remembering Meaningful Information

A Cognitive Model

1. New information

2. Prior knowledge in the form of an organized network of cross-referenced shorthand "propositions"—not banks of encyclopedic prose.

Working Memory

3. Connected (=comprehension)

4. Elaboration of connections between 1 and 2 increases relationship between new information and prior knowledge.

5. Learning takes place when the new information becomes part of the knowledge network. If elaborated and well-integrated, the new knowledge becomes meaningful and useful. New knowledge may fit into the knowledge network or modify it.

6. Retrieval of knowledge specifically learned

7. Construction of knowledge never specifically learned but inferred from the knowledge network

—After Perry, 1990
Choosing Right Coordinates Systems
- Cartesian/Polar Coordinates
- Ballpark

\[ x^2 + y^2 = a \]

\[ r = a \]
Yet Another Example

- Learning process
  - CGS / MKS
  - cm / mm / m / km
  - cc / ml / l / dm³
  - g / kg / mg / ton
  - Earth’s circumference?
Wisdom of Crowds

- **Francis Galton** (1822-1911)
- In 1906 Galton visited a livestock fair and stumbled upon an intriguing contest. An ox was on display, and the villagers were invited to guess the animal's weight after it was slaughtered and dressed. Nearly 800 gave it a go and, not surprisingly, not one hit the exact mark: 1,198 pounds. Astonishingly, however, the average of those 800 guesses came close — very close indeed. It was 1,197 pounds.
The Underlying Conditions

- Diversity
- Independence
- Decentralization
- Aggregation
Collusive Acts

- *The JoongAng Sunday is the only Sunday newspaper in Korea.*
  

- Trackback
  - *Technorati; Blogdex*

- Gutenberg Project

- Wiki
We Offer Personal and Business Products

Banking Hours
Monday-Thursday - 8:30 a.m. to 5:00 p.m.
Friday - 8:30 a.m. to 7:00 p.m.
Saturday - 9:00 a.m. to 12:00 p.m.

BANtING HOURS
Monday-Thursday - 8:30 a.m. to 4:30 p.m.
Friday - 8:30 a.m. to 6:00 p.m.

Inside Schnucks Supercenter
2073-A Washington Crossing
Washington, MO 63090
Phone: 636-239-7831 or 636-390-4445
FAX: 636-390-4446
An Approach

- Basics
  - Reading/Writing
  - Basic Sciences; Logics,…
- Emphasis on Integration
  - Ballpark / Mapping
  - Humanity/Liberal Arts Education
- Public Awareness/Campaign
  - Rules of Epidemics
● **What to Learn**
● **What is being Taught(?)**
● **Discrepancy**
● **Cognitive Processes**
  - Perception, Introspection, Memory, Creativity, Imagination, Conception, Insight, Reasoning, Volition, Emotion, …

● **Learning**
  - Eg. Creativity
  - Jewish Mom
    - Think Questions
  - Mass Education vs. Socratic Dialog
Phillips Exeter Academy

A gift from oil magnate and philanthropist Edward S. Harkness in 1930 established a method of teaching unique to Exeter and central to its teaching philosophy. The Harkness plan calls for an oval table in each classroom, with class size averaging 12 students and ample opportunity for dialogue. The Harkness table places students at the center of the learning process and encourages them to learn from one another.
The Harkness Table

Since the arrival of *Harkness tables* on campus, the principal mode of instruction at Exeter has been discussion around an oval table. The Harkness table is central to both the Exeter classroom and the Exeter curriculum. …

As the physical table itself implies, learning at Exeter is a cooperative enterprise in which the students and teacher work together as partners.