Program for the Future
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San Jose and Stanford, California
A conference report by Frank Nemec

The idea for this conference began as a tribute to Doug Engelbart, on the 40th anniversary of his historic "mother of all demos" at the Fall Joint Computer Conference in San Francisco. Its scope broadened to cover Collective Intelligence (CI). Doug was passionate about CI, and considers it much more important than his better known invention, the computer mouse. Much about the conference can be seen at http://programforthefuture.org/. I offer a few highlights from my perspective.

CI arguably began with the invention of written language, and has been embodied by the library for centuries. The conference focused mainly on the two topics below.

The Computer as an Intelligent Personal Assistant

When visiting a city for the first time, which would you prefer, a map or a knowledgeable cab driver? I want to ask Google why water isn't compressible, and receive a correct intelligent answer. Several expressed the wish that Google is working on it.

People Working Together to Achieve an Intellectual Product

One method for facilitating this was practiced during the conference, the World Café, based on these design principles:
1.   Clarify the context.
2.   Create hospitable space, physically and behaviorally. The ideal is 4-5 people per table. Suspend the urge to interrupt.
3.   Explore questions that matter. "We grow in the direction of the questions we ask."
4.   Encourage everyone's contribution.
5.   Link and connect ideas. Listen to each other. How do these ideas connect?
6.   Listen together for patterns and deeper possibilities.
7.   Harvest, record, and share.

The experience of using this method showed that it works best with a team of qualified peers. Democratic participation allots plenty of time to people with nothing relevant to say.

There were far too few examples or case studies of CI working well. Joyce Reynolds-Sinclair discussed one good one, the Project on National Security Reform. CI works best on a shared cognitive challenge, using a process that allows diversity, independent thinking, freedom of expression, and iteration. Metronome meetings were held with a predictable rhythm (weekly), where each individual issue is handled one phase per week: collect divergent ideas, converge to a consensus, and confirm the consensus.

Others mentioned in the context include Wikipedia, Creative Commons, Google, Digg, YouTube, Innocentive, Climate Collaboration, Kasparov versus The World (chess match), PAL program (DARPA Personalized Assistant), CALO project (SRI Cognitive Agent that Learns and Organizes).

Some icons of failures of CI: Hitler, Ku Klux Klan, GM, FNMA (and the current collapse of the financial sector).

Some Thoughts of My Own

Legal status of ownership of intellectual property, an impediment to collective intelligence. How can people share their contributions, while protecting them and being appropriately rewarded for them? DRM (digital rights management) is getting absurd. The traditional moral foundation of Western Christianity-based society is so severely eroded that honesty and the Protestant Work Ethic no longer discourage people from cheating, stealing, and laziness. Add the fact that technology now makes reproduction and distribution free. Those facts conspire to make technology solutions to DRM a necessity. We need some good ones, fast.

I'll pay $2 to read an article on anesthetics and sleep apnea but not $30. Especially if it's easy to pay. If it's easy, I'm happy to pay the San Jose Mercury News 10 cents to read an article but I don't want or need pounds of paper delivered to my driveway. Journalism is at risk because its business model depends on delivery of paper.

I want to check out a library book from anywhere. That's one thing that a state or federal department of education could usefully do. It's mostly a matter of computers, standardization, and interoperability. I'll pay a fee for a book that needs to come from a distance. The Santa Clara County library system does a superb job of this. It's a shame San Jose feels it necessary to try to duplicate this.

I want a quality-controlled form of Yahoo Answers.

I want open courseware (such as MIT offers) on a grand scale, so the smallest, poorest school in the world, as well as the richest, to have access to quality, public-domain instructional material on all the basic subjects. Surely there are enough people in the educational establishment who care about education to accomplish this, even if unions and book publishers don't want it. I want to break the union/government monopoly on education. The Teaching Company does a superb job of providing quality high school and college level lectures, but it's a niche, thus expensive. Surely other faculty do a fine job and might consider education above profits. Why can't I point struggling students to websites teaching algebra and acceleration?

The open source model is a good basis, with Wikipedia a prime example. It combines good organization and indexing, public availability and access, and the potential for peer collaboration and refereeing. It can point to content with respected value which isn't offered for free. It depends on ultimate control from a team which evaluates credentials and reputations and manages abuse.

I want high standards of intellectual honesty and objectivity, so medical researchers and practitioners will study, report, and organize information about the value of nutrients, even if it doesn't make money for a drug company. So issues like global warming don't get hijacked by political interests promoting global government, and researchers can objectively pursue and present all viewpoints.

Doug Engelbart contributed the mouse, and the information world should be eternally grateful. Aside from the still-promising potential of voice recognition, nothing beats the keyboard for text entry. Touch typing is a readily learned skill, and should be universally taught. But both functions require the hands, and using the mouse takes the hands away from the keyboard. Perhaps Doug can offer a yet better solution. Surely he and others have thought about it. Touch pads and IBM's trackball are still awkward. Perhaps technology will improve the touch pads enough for them to work. Several technologies are capable of detecting gestures, but all are expensive.

A problem begging for the successful application of CI is health care reform. Harold Luft, author of Total Care, discussed this. CI can be used to help design a health care system to meet human needs in a cost-effective manner. But it's not enough to resolve fundamental conflicts of interest.