



Knowledge Federation Elevator Pitches



1 Global Brain Pitch

Do you know what might be a natural way to handle global issues?

2 Basic Research Pitch

What do you think basic research will be like in the 21st century?

3 Beyond the Book Pitch

For centuries, the book has determined not only how knowledge is recorded, but also how it is created. Now the new media are there. What do you think knowledge creation will be like in the future?

4 Future Pitch

Imagine the world fifty years from now. Our sustainability-related and other challenges have been resolved, and human society is experiencing an unprecedented era of progress and well-being. People are looking back at our time, and with the sort of clarity with which we look at our own past, they see that our pursuit of happiness, as well as our democracy, could not have functioned the way they were conceived.

5 Paradigm Pitch

You know the idea of a 'new paradigm'? It's a new way of organizing a domain of knowledge. An example is the change from the geocentric to the heliocentric view in astrophysics. Can you imagine a new paradigm in knowledge work at large?

6 Age Change Pitch

Some people are already talking about an ending of Information Age, and speculating about another age that will replace it. I would rather say that Information Age in a proper sense is just about to begin. Can you imagine what the next age change will be like?

7 Efficiency Pitch

Henry Ford didn't make it big because of his automobile innovations, but because of the production-line ones. Can you think of an Information Age equivalent?

8 Next Big Thing Pitch

What's your idea of a largest possible contribution to human knowledge?

9 IT Pitch

Can you imagine a large, orders-of-magnitude increase in information technology adoption rates?

10 Programming the Web Pitch

The Web invites a new kind of design whose results are large societal processes, such as knowledge creation and sharing. Who should be doing this kind of design? And in what way?



1

Global Brain Pitch

Do you know what might be a natural way to handle global issues?

Think of the totality of the people (researchers, journalists ...) and social processes that create knowledge as the global brain, whose vitally important role is to provide our 'social organism' awareness and guidance. It is not difficult to see that the present social organization, where scientists tend to be focused on problems within their discipline and journalists on sensations, is not the best possible way to align everyone's contribution to the shared task of providing

vision to a technologically advanced society in rapid change. If now the global organism appears to be acting unintelligently or even self-destructively, should we not begin the remedial action by examining what is likely to be the root cause of this problem? Should we not give the task of inter-connecting our global brain, and organizing it intelligently, a highest priority on our sustainability agenda?



2

Basic Research Pitch

What do you think basic research will be like in the 21st century?

Since the 17th century, the idea of ‘basic research’ has been based on an usually tacit but nevertheless omnipresent assumption that the role of science is to provide us an objective and exact understanding of the basic mechanism of nature, based on which we would be able to explain and predict all natural phenomena. During the 20th century this project was been proven implausible or impossible for a number of reasons, the first of

which is that the nature is not a mechanism (see, for example, Werner Heisenberg’s “Physics and Philosophy,” or Robert Oppenheimer’s “Uncommon Sense”).

What has remained as a task for this century is to re-think and re-create the assumptions that underlie knowledge work, and to develop appropriate methods and social organization.



3

Beyond the Book Pitch

For centuries, the book determined not only how knowledge is recorded, but also how it is created. Now the new media are there. What do you think the future will be like?

“Imagine that you are interested in climate change or, more concretely, the question ‘Is climate change a sign that human civilization is capable of influencing the planetary system to such degree that it has become necessary for us to change the way in which we think and behave?’ You have opened the book ‘The Dominant Animal’ by Ann and Paul Ehrlich, in which the answer to your question is vehemently affirmative, but while you are reading it you are not even sure whether Paul Ehrlich still has the same opinion. Perhaps he has changed it in the meantime? At the same time, you are aware that there are authors who deny his opinion. Or, let us pose a similar problem in this way: Wikipedia has shown that contemporary communication technology allows for a completely different way of creating knowledge. An article about

climate change in Wikipedia roughly reflects the current and global state of knowledge. If you are disagreeing with the published statements, you may change them or write your opinion on the associated ‘discussion’ page. But Wikipedia too has problems: If you are, for example, James Lovelock or Paul Ehrlich, you will want to publish your own opinion, you do not want to allow that enthusiastic high school students and representatives of business or political interests change it as they wish. However, the immense popularity of Wikipedia indicates that change is already under way. We are talking not only about the change of technology and the way of creating knowledge, but also about democratization, availability and simultaneity (the offered information reflects the current state of knowledge and changes when the knowledge changes).”

Drago Pilsel: Knowledge Federation. Novi List, Dec. 7, 2008



4

Future Pitch

Imagine the world fifty years from now. Our sustainability-related and other challenges have been resolved, and human society is experiencing an unprecedented era of progress and well-being. People are looking back at our time, and with the sort of clarity with which we look at our own past, they see that our pursuit of happiness, as well as our democracy, could not have functioned the way they were conceived.

They know that the task of synthesizing relevant insights—scattered across so many academic disciplines, cultural traditions and documents—to form an opinion about any complex issue is well beyond human ability. They have learned that this task has to be handled by a reliable and democratic social process.

What should information be like to enable safe and effective decision making, based on holistic and systemic insights, beyond narrowly conceived ‘special interests’?

A goal of knowledge federation is to evolve social processes by which suitable information can be created, as well as the enabling technology. Much of this technology (interactive document editing over the Internet, 2D console terminal, on-screen video, the mouse, hypermedia...) has been created by Douglas Engelbart. His purpose for doing so was to serve the vision I have just described. He is now 85 years old and still active. He will surely be glad to see a reliable social process that can continue his work.



5

Paradigm Pitch

Are you familiar with the idea of ‘new paradigm’? It’s a new way of organizing a domain of knowledge. An example is the change from the geocentric to the heliocentric view in astrophysics. Can you imagine a new paradigm in knowledge work at large?

It is instructive to look at how the present paradigm developed. A good metaphor is the splitting of the atom – what was originally conceived as the indivisible (a-tomos) particle of matter, ended up being seen as an intricate system of ‘subatomic particles’ with highly complex behavior. In a similar way, in their search for the bottom-line reality picture, sciences developed a complex, fragmented and vast body of knowledge.

To complete the analogy, notice that the Sun does not necessarily have to be in the center of the Solar System. One might just as well place

the Earth into the center, and represent all other motion with respect to it. The only disadvantage would be that the resulting model would be incomparably more complex.

This seems to me like a sensible new paradigm: Instead of insisting on using the ways of looking at things that were developed in the sciences, we consciously create new ways of looking that lead to simple models. Instead of fragmenting the field of knowledge aiming at precision, we synthesize knowledge, aiming at comprehensive understanding.



6

Age Change Pitch

Some people are already talking about an ending of the Information Age, and speculating about another age that will replace it. I would rather say that the Information Age is really just about to begin. Can you imagine what the next age change will be like?

Although we are calling our era 'Information Age' and distinguishing it from 'Industrial Age,' I don't think that this change of age has really quite happened yet. An age change needs to be a change of values and of the way of thinking, as it has always been the case in the past (think about the Renaissance, or the Enlightenment, or about the onset of the Industrial Revolution). We are, however, still applying the characteristically Industrial Age values – productivity, competition and profit – in all walks of life, and even to—information! Having become a commodity, information has been overproduced and it depreciated in value.

In Information Age, it is above all information that will be different. Information is also what will make the largest difference. We are reminded of the 13th century Zen Master Dogen who as a young man traveled throughout Japan, and to China, in search for the right knowledge. I believe that Information Age will be marked by a similar, but this time collective, search for the right knowledge. Like the legendary philosopher's stone, good information will enable us to transform everything else.



7

Efficiency Pitch

Henry Ford didn't make it big because of his automobile innovations, but because of the production-line ones. Can you think of an Information Age equivalent?

To see the possibility of an orders-of-magnitude improvement in efficiency of knowledge work that can be attained through knowledge federation, consider the efficiency improvement that federation may bring to a specific area - education. Think about a federated university course, where the learning resources are co-created by experts and students internationally, and offered to learners worldwide. Instead of having to create an entire textbook or lecture slides, an instructor is able to focus on a single lecture or

even a part of a lecture, and render it through cooperation with creative video artists, animators and communicators, who are also members of the federation. The learning resources are created and kept up to date by the people who have the best knowledge of the subject matter. The learners too participate in the creation, evaluation and 'digestion' of the knowledge resources, completing in that way a well-functioning knowledge ecosystem.



8

Next Big Thing Pitch

What's your idea of a largest possible contribution to human knowledge?

Normally, each of us is capable of contributing only one (fictitious) person-lifetime amount of knowledge. But by improving the over-all system of knowledge production, and thereby augmen-

ting everyone's ability to contribute and acquire knowledge, a much larger contribution to knowledge may be possible.



IT Pitch

Can you imagine a large, orders-of-magnitude increase in information technology adoption rates?

The existing social organization of knowledge production and sharing (book and article document formats, peer reviews, journals, promotion criteria...) is a complex system that has evolved based on the printed text and the lecture hall as media. A social organization that would best exploit the advantages of the new media technology is another complex system, arguably entirely different from the present one.

To highlight its newness and complexity, imagine it as a still unknown, solar-powered vehicle. Then the conventional way of deploying the techno-

logy would resemble bringing to the market various building blocks of this new vehicle (engines, wheels, steering...), produced by different companies, who never secured that their products fit together into a meaningful whole, and who don't even know what the whole thing is supposed to look like.

Knowledge federation undertakes to develop prototype instances of complete solutions. That can facilitate the adoption of technology, and the creation of the components that are still missing.



10

Programming the Web Pitch

The Web invites a new kind of design whose results are large societal processes, such as knowledge creation and sharing. Who should be doing this sort of design? And in what way?

Thomas Erickson writes in the Handbook of Research on Socio-Technical Design and Social Networking Systems: “But socio-technical design is not just about designing things, it is about designing things that participate in complex systems that have both social and technical aspects. Furthermore, these systems and the activities they support are distributed across time and space [and are] in constant flux. [...] this complexity raises a number of general questions that socio-technical systems designers will need to address. First of all, how do we represent such systems?

How do we cast a complex system into a material form in such a way that we can reflect on it? [...] how do we carry out reflective conversations with them? How will we go about ensuring that we ask the right questions, from the right perspectives, in the right contexts? Perhaps, taking

a cue from participatory design (e.g., Greenbaum and Kyng, 1991), we will need to greatly expand the range of participants involved in the reflective processes, which in turn may require developing new sorts of design artifacts to aid in participatory reflection. [...] How do we ensure that eventually we converge? Or do we? Perhaps the notion that the end result of a design process is a stable product is old-fashioned. Perhaps we’re headed towards a future of ‘permanent beta,’ in which things are designed so that their design may continue during use, where the leading edge of design resides not with the producers but with the users. [...] However things turn out, it seems clear that socio-technical design will require new methods, new tools, new participants, and new practices.”

We submit that a self-organizing federation of knowledge workers might be a suitable answer.