

## SUPER COURSE FOR SCIENCE PROJECT

### **A SUPERCOURSE FOR SCIENCE: A PROPOSAL FOR THE 21<sup>ST</sup> CENTURY**

“Education is the most powerful weapon which you can use to change the world”.  
-- Nelson Mandela

#### **I. Background:**

Today, 80% of the World’s populations are still living deprived of quality on line or on time access to the most relevant scientific information that could help change their lives.

Today, teachers of science in many of the developing countries do not have the tools or the means to present to their students science in an effective fashion, thus keeping them and their students distant from the best of science today.

Promoting the values of science, with all they mean for the promotion of tolerance, rationality, creativity, the search for truth, adherence to codes of behavior and a certain constructive subversiveness. This last, is because it is essential in science to be able to listen to the contrarian view, and accept or reject it on the basis of empirical evidence. Science and the scientific enterprise also create a forum for the exchange of ideas and the arbitration of disputes that has served humanity extremely well in the last few centuries. Promoting the values of science is the best investment in fighting obscurantism, fanaticism and xenophobia

Beyond the ideas of teaching science and mathematics, there are at least three fields of obvious interaction between people and science, these are: Medicine (and public Health); Agriculture; and Engineering. Furthermore, Environment is a domain where do-gooders with limited understanding, are now giving way to an impressive body of scientific knowledge that should help inform the actions of governments, institutions and individuals.

Here is where the proposed Science Supercourse approach, with Just-in-time (JIT) lectures and knowledge delivery systems can be of enormous help in:

- Building ties across nations and expand the community of science across silos of disciplinary isolation
- Providing badly needed information to people who can use it to combat poverty, disease, hunger and malnutrition.
- Providing high-quality Just-in-time (JIT) materials to assist those who are dealing with crisis situations.

## **The Means are at Hand:**

Using internet based approaches, and relying on the ubiquity of PowerPoint presentations all over the world, we propose to establish communities of practice in the four domains mentioned above. The concept we are discussing has been tested successfully in at least one domain: Epidemiology, Prevention and Public Health. Recent efforts showed also that the concept of JIT lectures and materials were enormously helpful in crisis situations.

This experience is more than a “proof of concept”, it is a case study of a major return on very limited investments of public funds largely through the commitment of a few learned individuals and the positive reaction and participation of thousands of individuals all over the world who were moved by the vision and enthralled by the content of the material. Ultimately hundreds of thousands participated and millions benefited. This case study, which started in epidemiology, deserves to be presented in more detail, as it shows what can be done, and establishes the credibility of the present proposal, and of the individuals advancing the proposal.

## **The Experience So Far: Supercourse, Global Health, and Information Sharing**

- A New System for our times:
  - Prevention education is the most powerful weapon which can improve the health of the world. However, in the world of health there are health knowledge “haves” and “have nots”. During the past few years we have been developing a new system for global training in prevention, making shared networks and knowledge available to all, especially to reach the unreached with state of the art scholarly global prevention knowledge.
  - We want to build a bridge between East and West and have worked closely to build a Muslim Scientific Supercourse of 1800 individuals closely interacting with the US and the West.
  - A copy of the Supercourse is on the Library of Alexandria server.
  - We have built a public health diplomacy going from east to west and from west to east.
  
- Helping in Crisis Situations Just-in-Time lectures
- SSC/ Public Health lectures DVD is distributed worldwide
- A network of Public Health professionals is created gathering all eminent figures and scientists from the four corner of the globe.

## **The outputs of the SSC project are:**

An International Portal for Activist Science: “Best Scientists, Best Lectures Reaching the Most People”

From science education to crisis management, an enormous amount of posted information, organized into coherent domains of knowledge, will be available, searchable and downloadable for free. The BA had formally joined the Digital Library Federation, a group of some thirty institutions that include the Library of Congress, MIT, Caltech, Stanford, Harvard, Yale, and thus has the wherewithal to undertake this task.

Communities of Practice: in every domain, in every country in the world. Networked communities of practice will be engaged in the promotion of science and education, using the

tools of the 21<sup>st</sup> century to address the global problems of ignorance, poverty, disease and malnutrition. These linked thematic communities of practice will become a very powerful tool for the promotion of international collaboration in many fields. Thus we have networks that are domain specific, and then we also foster the bridges across networks, basically a network of networks.

Crisis teams: drawing from different communities of practice and building on experience it will be possible to create crisis teams to address the needs of different crisis situation from around the world. These will include combinations of scientific/technical expertise and ICT expertise. The presence of such teams means that we will also build on shared experience from different crisis situations to become ever more effective.

Golden Lectures: A selection of the best of the best lectures that will result in millions of people being able to have the experience of attending such an event, and the storage of such video lectures for others, will create a great educational legacy over time. The goal is to create multiple channels of lectures which include web casting, video, web archiving, PowerPoint, and pod casting. The more channels we have, the easier it is to cross the digital divide.

Derivative materials: the above mentioned “communities of practice”, “crisis situations and teams”, and “the golden lectures”, could share as important inputs and materials for developing broadcasted television programs by people documentary and educational movie makers.

Distribution systems to schools: Our mission is to reach out for teachers all over the world with very high quality lectures which they can use with their students. An internet based supply chain shall also be established, which will be an end-to-end solution to bring the best possible global scientific materials to the world’s classrooms.