

Turning Aspen into 'Beta' of energy activism

Scientist uses Google Earth to map the global crisis

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ASPEN — A scientist from the Los Alamos National Laboratory believes individual action is the only way to resolve the inherent conflicts and confusion that dominate what he calls “the global energy system.”

On Wednesday, Rajan Gupta, a theoretical physicist at Los Alamos, will give a talk in Aspen, “The Rosetta Stone: Unlocking Global Energy Solutions.” He intends to explain how Roaring Fork Valley residents can be a part of his vision of a grassroots, worldwide effort to find ways to fix the global energy crisis.

Gupta will speak at Aspen High School for a session with students in the afternoon and at 4:15 p.m. at the Physics Cafe, in the Wheeler Opera House lobby. He also will give a lecture at 5:30 p.m. in the Wheeler auditorium in Aspen. All presentations are free, and the Physics Cafe and evening lectures are open to the public.

Gupta explained that his idea is to use Google Earth, a web-based technology that “combines the power of Google Search with satellite imagery, maps, terrain and 3D buildings to put the world's geographic information at your fingertips,” according to Google’s description on the website.

Gupta, working partly for the University of New Mexico, partly for Los Alamos and partly on his own time, has been developing software to “overlay” onto the Google Earth maps and images, allowing users to determine the “carbon footprint” of anything from a coal-fired power plant to an individual home.

Admitting he is not an expert in the field of energy use, Gupta said he got interested in it through an odd channel. About nine years ago, he said, he was volunteering in hospitals, clinics and schools in India and the U.S. While meeting and talking with patients and kids about the HIV crisis, particularly in India, he noticed that rural areas were shockingly lacking in basic energy technologies.

Looking into the worldwide distribution of energy, he concluded that the difficulties inherent in changing and improving the delivery of energy, not to mention related issues such as global warming, economic development, hunger and pollution, were such that coming up with a solution could not be left to the managers of the very system that needed fixing.

Instead, he reasoned, there is an “urgency for action” that can only be dealt with in a broad-based way. And it can only be done if there is greater understanding of the issues on the part of people everywhere.

About three years ago he hit upon the idea of using the Google Earth mapping technology but adding layers of data so that, along with images of one’s own home or a nearby power plant, an observer also can read data accumulated from public sources and displayed for free in response to an inquiry.

For example, highlighting a power plant or a house will call up information about the air-pollution plume from that power plant or the amount of heat used for that house.

“What Google Earth has done is, it makes it personal,” he said. “You can see what the impact is on your

environment.”

His assumption is that once people can see how they are affecting their environment, they will begin to demand that national and international leaders get busy finding solutions to a whole host of social and environmental problems that otherwise get bogged down in controversy and inaction.

“If people can be engaged at this level and they still don’t respond, we all have a big problem,” Gupta said. He said that the data collection, software programming and other work are still in their infancy at this point, although it is far enough along that it will be demonstrated at the school and at the Wheeler Opera House.

“It’s fully functional, it’s just not yet sexy,” he explained.

Ultimately he plans to have all of it on a website, accessible to all and free of charge, that will allow students to use the information for school projects, communities to use it to map out plans for energy conservation and management, and policy makers to use it in negotiating internal and intergovernmental issues.

At that point, he continued, “All the information is free, transparent and available to the world. This is national security. This is energy security. The question is, are people willing to step out of their comfort zones and be willing to do something.”

Kevin Ward, director of the Aspen Science Center, said that with Gupta’s presentation he hopes Aspen will become inspired.

“Basically, we’re trying to launch Aspen as a Beta,” he said, referring to the designation of a preliminary version of a new concept in science. “The direction we’re trying to go is applied science ... you learn why it’s important, and then you do it.”

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