US Is Creating a Virtual Library to Help Restore Iraqi Science

Scientists working in the US State and Defense departments are championing a program intended to reconnect the once-vibrant Iraqi science community with researchers around the globe.

A program that began last year with a simple question asking what the US could do to help Iraqi scientists and engineers may soon bring thousands of scientific journals to Iraqi universities via an internet-based virtual scientific library. The virtual library would be a step toward replacing vast amounts of information lost in Iraqi libraries that were looted or destroyed in the wake of the US invasion in March 2003.

The Iraq Virtual Science Library project (IVSL), being overseen by the US State Department but funded initially by $364 000 from the Department of Defense's Defense Threat Reduction Agency (DTRA), should be up and running by early next year, provided several hurdles are cleared. Officials at the National Academy of Sciences are trying to finalize reduced-fee contracts with journal publishers, State Department officials are trying to conclude agreements with Iraqi universities on who will have access to the library, and defense officials are trying to put together a computer network to make the virtual library work.

"There are a large number of trained physicists and other scientists in Iraq," said physicist Barrett Ripin, a senior science diplomacy officer at the State Department. "This library is a way for them to become current and part of the world's scientific community." Iraqi scientists are "hungry to make connections and to collaborate with other scientists and the virtual library will help them do that."

While the effort to establish the library is being promoted within the US government as one of the more positive stories coming from the war-torn country, the state of science in Iraq, and even the number of scientists left in that country, remain open questions. An Iraqi physicist educated in the US said in response to questions via e-mail from PHYSICS TODAY, "Scientific and teaching programs are severely damaged because of the serious destruction of equipment. In addition, no chances have been available for scientists to be abroad for updating their knowledge."

The Iraqi physicist, who insisted on anonymity for security reasons, said there are many physicists still in Iraq, "but I cannot give a number." The physicist said scientists working in Iraq use the internet as much as possible to find "free scientific materials. Not many can pay for the needed ones." The virtual library, the scientist said, "is a helpful part of the story, but equipment and scientific training and knowledge are other important and necessary parts."

Security concerns

Many Iraqi academics, including most scientists, are worried about security and kidnapping, a State Department official said, and a recent report in *Science* magazine quoted an Iraqi engineering professor as saying at least 58 professors, 150 medical doctors, and dozens of scientists have been murdered since the war officially ended in April 2003. A State Department official indicated he had no reason to doubt those numbers. It is within that violent context that the virtual library is being created, and many of those involved noted that it was just a starting point in trying to restore Iraqi science.

"We should recognize that this is the beginning of the reintegration of the Iraqi science and technology community into the international science community," said George Atkinson, science and technology adviser to the US Secretary of State. "But I emphasize that there are many other steps to be taken."

Turkey Turns War Death into Peaceful Purpose

Henry Moseley, the British physicist who died 90 years ago in Turkey, was feted in that country with a World Year of Physics event at Çanakkale Onsekiz Mart University on 29–30 September.

With the outbreak of World War I, Moseley joined the British Army in 1914 at age 26 and was sent to the Dardanelles to fight against Turkey. He fell at Gallipoli on 10 August 1915. Despite his short life, Moseley made lasting contributions to science. He is best known for his studies of x-ray spectra, which led to Moseley's law and to the arrangement of elements by atomic number rather than by weight in the periodic table.

Moseley is a famous scientist associated with Turkey, says Mehmet E. Özel, the astrophysicist who organized the September meeting. "Of course he is British, but he is lying in our land. We consider him part of our heritage."

About 100 physicists and students gathered to consider Moseley's contributions to science, the legacy of the Manchester group where he worked with Ernest Rutherford, the challenges in bringing Turkey's scientific enterprise to an internationally competitive level, and the roles and responsibilities of science in war and peace.

A few attendees made a pilgrimage to Moseley's gravesite, which Özel and others pinpointed earlier this year from war records. Still on Özel's wish list are reviving a proposal to name an element after Moseley and creating an international prize for young scientists in Moseley's honor. Özel says his hope "is for the war event to become a starting point for closer international cooperation, peace, and scientific development."

Toni Feder

MEHMET EMIN ÖZEL AND NURI EMRAHOGLU

Erdal Inönü, a physicist, science historian, and former deputy prime minister of Turkey, spoke on war, peace, science, and scientists at a meeting honoring Henry Moseley.