

Write Once, Run Everywhere: How the Right Technology Might Get Funded – A Response to Matthews

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As I read Matthews' paper, *Year Zero for the Archaeology of Iraq*, I kept asking myself two questions: How can technology help stimulate greater appreciation for and study of Iraq's cultural heritage, improve communication between archaeologists and the local communities surrounding field projects, publish and publicise new findings more quickly, build a library of works translated into Arabic, and give new relevance to the Islamic era of Iraq? And who is most likely to fund it?

First, technology can greatly assist in all these areas using the Internet and high-bandwidth interconnectivity. The real issue (beyond increasing Internet access in Iraq) is the user interface. Second, funding may come about through the process of rebuilding Iraq, which will uncover new ways to create public-private partnerships.

My proposition is that all the concerns Matthews brings up are related to giving access to a greater number of people, and this can be done by creating Internet tools that can increase the number of stakeholders. In other words, we should be creating tools that would be useful to a broader range of people and would bring them together. So far, the only acknowledged stakeholders have been archaeologists and curators (and, to a small degree, the law enforcement community). Matthews starts to think outside this box. I'd like to go further and say that the stakeholders should include all those involved in the reconstruction of Iraq.

What I find particularly interesting in Matthews' paper is the rationale behind his proposals. The points he makes would be useful to programmers in designing the user interface and the features that are specific to new aspects of cultural resource management. There is enough in Matthews' paper to allow a good project lead to start fleshing out a 'design document' for some technology solutions.

'Technology at the service of mankind' is an appealing concept to many in the technology sector, as evidenced by the large number of open source developers who continually improve programmes and freely distribute their improvements and innovations. Unfortunately, this willingness on the part of programmers is an under-utilised asset because there is no strong feedback loop between the thought leaders in the cultural heritage community and the project leads in the technology sector. I propose gathering the comments of the *PIA* Forum as well as documents that resonate with Matthews' paper (for example, the Arab Human Development Report 2003) and mining them for heuristics that would guide programmers interested in promoting Iraq's cultural heritage. If the *PIA* Forum could be broadened to include new disciplines and perspectives,

I am confident that the proper feedback loop can be established to develop a suite of tools to enable new forms of multi-sector collaboration.

Why is this Necessary?

On one hand, there is an urgent need to contain the cultural crisis in Iraq during rebuilding, and this will require the efforts of more than archaeologists and curators. Reconstruction projects may pose a threat to Iraq's cultural property equal to the looting of the Iraq Museum and the archaeological sites around the country. Planning and collaboration technology are needed now to keep cultural heritage one step ahead of the bulldozers. On the other hand, there is a need for long-term strategies in order to establish durable relationships with a stable and prosperous new Iraq. To date, the cultural dimension of doing business with Iraq has been conspicuously missing from reconstruction conferences in the USA, and yet the need for cross-cultural understanding is readily expressed by Iraqis and other Middle Easterners attending those events. For a sustainable future in Iraq, we need the input of those involved in 'Socially Responsible Investment' funds, public diplomacy, diversity training, multi-cultural marketing and new product design, education reform, community cultural development and other areas. These participants, along with archaeologists and curators, will benefit from a common collaborative platform. Here is an example of how a multi-sector collaborative tool might be created.

The near-term offers an opportunity for contractors in Iraq to show some corporate responsibility. The United States Agency for International Development (USAID) requires impact studies as part of its reconstruction contracts. Its RFP No. M/OP-04-004 Iraq Infrastructure Reconstruction – Phase II, issued in October 2003, contains a special contract requirement on the preservation of historical, archaeological and cultural resources. It says:

Contractor and its subcontractors shall immediately stop work in any work area where cultural resources or artefacts with archaeological or historical value are discovered and immediately notify USAID. The Contractor/subcontractors shall not disturb or take any artefacts, items, or materials from the area of discovery. After receiving approval from USAID, the Contractor and its subcontractors shall proceed with any stopped work. Neither Contractor nor any of its subcontractors shall have property rights to such artefacts, items, or materials and must secure and guard such items until turning them over to USAID or other party as directed by USAID. Contractor shall also require that its personnel and its subcontractors comply with this provision and respect all historic and archaeological sites in the areas where they are performing work.

In his paper, Matthew says, "In addition to learning local languages, archaeologists working in Iraq need to learn and respect local customs, a lifelong process of interacting directly and indirectly with people and traditions". This is good advice for any company involved in the reconstruction process as well.

Among his recommendations, Matthews calls for integration of field projects with local communities. Again, his rationale applies to those reconstruction projects that have an element of cultural heritage preservation. He then goes on to suggest a programme of local integration. He says that such a programme “may include elements such as illustrated literature in Arabic for distribution to nearby towns and villages, education sessions in local schools, appreciation of views and histories of the local past, and above all a concern both to situate archaeology within the local scene and to incorporate the local scene into an archaeological framework of practice and knowledge”.

The Baghdad Museum Project, a non-profit initiative to bring Iraq’s cultural heritage online, has proposed a system that can “mass customise” the production of such materials to support local integration programmes. For example, a geographic information system (GIS) that combines reconstruction data and cultural data can be used to print out any number of maps, each one specific to a particular construction project. These can be distributed to companies, local communities and archaeologists. In a similar manner, a “virtual heritage” database can be used to generate customised picture books, historical overviews and planning worksheets that are specific to particular communities and the reconstruction projects headed their way.

On August 28, 2003, at the first “ReBuilding Iraq Conference” in Washington, D.C., Michael Mele, Iraq Program Manager, U.S. Army Corps of Engineers (USACE), announced that his team was putting together a comprehensive GIS database on Iraq. He said that the unclassified version of this system would be made available to reconstruction companies.

That day, the Baghdad Museum Project proposed to Mele organising and adding relevant cultural data to the GIS: latitude and longitude of sites and buildings (McGuire Gibson at the Oriental Institute, for instance, has a list of coordinates for 5000 sites), archaeological site plans and photos, 3D models of sites and other visualisations or depictions of ancient communities.

USACE recently approved the idea, and plans are currently underway to establish a separate GIS database that can be continually updated by the archaeological community. This GIS database would be linked with the USACE GIS database, which itself would be continually updated with reconstruction data. The system will use ArcIMS software that will make data and interactive maps accessible over the Internet. With additional software, it could also be used to design and print learning materials on demand.

Such a programme would give local communities new opportunities as stakeholders, as they recognise the value of their public goods. By being a part of a planning process that combines both cultural heritage and development, the Iraqi people would develop their own respect for and commitment to cultural heritage preservation, and still look forward to the improvements brought about through reconstruction.

The programme would also accelerate the process of rescue digs. The Institute for the Visualisation of History has developed a system to merge high-resolution aerial imagery with 3D visualisations of sites as they existed thousands of years ago. Delivered over the Net, these predictive displays could be updated by archaeologists in the field throughout an excavation.

Meanwhile, for the reconstruction companies paying for the service, the programme would minimise construction delays. Hopefully, it could be a part of a company-wide cultural approach to doing business in Iraq, one that increases cultural awareness, promotes diversity sensitivity, stimulates cross-cultural group problem-solving and leads to sustainable long-term business relationships with the people of Iraq.

This is but one example of how one tool can serve very different users sharing their data – and sharing the cost of development through a public-private partnership. I believe that more examples will make themselves apparent in the days ahead through this forum.

The Baghdad Museum Project can be found at <http://www.baghdadmuseum.org>.