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Computer Aided Democracy (CAD)

by Bob Cassilly

The important roles computers and the internet played in stirring passions among activists in the Middle East come as no surprise to veterans of U.S. Provincial Reconstruction Teams (PRTs) in Iraq. Since the U.S. involvement in Iraq in 2003, computers have steadily emerged as indispensable tools of unlimited potential in development of effective, transparent, and democratic government.

When I first arrived in Tikrit as a PRT member in early 2006, Coalition efforts to computerize Iraq held a firm toehold but the process was still in its infancy. Coalition governments and nongovernmental organizations had furnished most Iraqi government offices with caches of desk top computers loaded with a basic Microsoft Office package. Unfortunately, many of the computers were unused and the remainder was employed almost exclusively for word processing. Internet connections were rare and the sporadic electrical service of only hours per day was sufficient to temper the enthusiasm of even the most ardent computer user.

My initial PRT assignment was as leader of a small, international team of “governance advisors” who comprised one of the PRT’s four technical advisory sections. Our PRT was one of the State Department’s 16, civilian lead PRTs, whose mission was to push forward into combat zones technical experts in governance, rule of law, economic development, political development, health, and reconciliation. They provided a level of front line expertise that would otherwise have been confined to the walled Embassy compound in Baghdad.

Operating under the very capable protection of U.S. Forces, the PRTs worked day to day with Iraqi provincial officials throughout each of Iraq’s 18 provinces to support Iraqi efforts to implement the rule of law, encourage economic development, adopt democratic processes, and employ effective methods of governance to facilitate the development of infrastructure (water, sewage, streets, etc.) and delivery of public services; PRTs served in essence as shots of adrenaline for Iraqis struggling to rebuild provinces ravaged by decades of war and dictatorial oppression.

During one of our initial visits to the provincial government offices in Tikrit, the PRT’s governance team observed a room full of young Iraqi clerks, working intently to complete a financial report. One clerk appeared to be rather flustered. He had typed his assigned portion of the report in a Microsoft Word format and totaled the product with a hand calculator. To his considerable dismay, his hard work and careful attention to detail had apparently been rendered moot by his boss’s lengthy list of additions and deletions to the document. His attention once again shifted to his calculator.

Our Iraqi-American PRT member, Afthal, provided the young clerk with a quick demonstration of Microsoft Excel which was already included in the Iraqi’s computer software package. The clerk quickly grasped that changes in entries automatically changed the totals.

His computer terminal was quickly surrounded by half a dozen excited, young Iraqis, amazed by the revelation that they had on their desks the power to remove the immense drudgery of their jobs.

We had attracted a loyal following in the world of provincial clerks and were anxious to build upon that success. Their excitement had transformed our six man team into Microsoft missionaries for democracy. Our next move was to encourage provincial leaders to support an enhanced computer training program as a segue into a far more ambitious plan for computer based governance.

Spoiled by the quick success of our dealings with the provincial clerical staff, our team anticipated a quick sell. Unfortunately, Provincial leaders not only lacked their young employees' enthusiasm for computers, but were also quite skeptical of any suggestion that computers had a positive role to play in lifting Iraqi society from the ravages of war and despotism. Our Iraqi interpreter explained that provincial leaders' associated computers with pornography and this made it unlikely that they would accept expanded computer usage in the mixed sex environment of the provincial offices. To demonstrate his point the interpreter suggested that the PRT tour the nearby American equipped, emergency operations center, one of the few computer centers in the province with ample internet connections.

Several days later I conducted an unannounced visit to the operations center. As I walked the isles of Iraqi young men seated before computers they began speaking excitedly as pornographic images disappeared from one computer screen after another. (Because the center was controlled by the national government it was beyond the reach of the local officials.) It was easy to appreciate provincial officials' concerns that such images would invade the young, mixed sex work places of the provincial offices.

Our team accepted this obstacle as just another of the many, daily challenges of life on the PRTs, along with the extreme heat in the 120s, choking dust storms, IEDs, and sniper attacks. We decided to advance our position by playing on provincial officials' concern for the daunting task they faced in preparing their first true provincial capital budget to send to the national government. The Australian finance expert on our PRT developed a computerized presentation of a notional provincial budget that could be used to demonstrate the important benefits that could be realized by building the budget process around a computer centered approach.

The Provincial Council was dominated by elder tribal sheiks with whom we had developed a sufficient level of friendship and influence that they agreed to view our budget demonstration. Curious council leaders crowded around a PRT laptop computer propped on the edge of a filing cabinet in the council chairman's office and observed politely as Afthal reviewed PowerPoint slides of the hypothetical budget. Final slides included computer generated, color enhanced graphs of a budget allocated by both sectors (education, roads, health, etc.) and geography (districts, cities, and towns). Afthal asked the Iraqis to select different budget allocations of their choice which he plugged into the model budget. Excitement filled the room as the councilmen commented with pleasure on the instantaneous, graphic depictions of their policy decisions.

We had won support for expanded computer training of the provincial staff. The councilmen quickly grasped the level of control computers could provide over a complex budget that, until then, was confined to a set of cryptic, hand written set of about a dozen log books that defied meaningful oversight by anyone, including the authors. Unfortunately, with the

councilmen's internet pornography concerns unresolved, our victory in computer training was achieved on the condition that the computers would not be connected to the internet.

As much as our Iraqi friends benefited from this exchange, I was every bit as much the student. It was fascinating to see that with the stain of pornography removed, the simple logic of the computer had instant, cross-cultural appeal. This lesson proved beneficial later on during the PRT's efforts to address concerns by conservative provincial officials who felt that democratic reforms were synonymous with excessive personal freedoms which they saw as ill-suited for Iraqi society. As confided by one former Iraqi general turned politician: "America is a very great country but you let too many freedoms get in the way of your greatness." Building on our successful appeal to computer logic, we developed a presentation of a "possible" system of provincial government which we based upon a standard corporate model. This proposal was well received by our Iraqi hosts who preferred it over their own democratic constitution because the proposal mimicked a corporate model with shareholders, a board of directors, and president. The Iraqis were amused and our point hit home when we produced a chart in which the corporate stockholders in our model were renamed "voters," the corporate directors renamed the "provincial council," and the corporate president recast as the "provincial governor."

PRT led computer training began a short time later in the provincial offices using a bank of computers on loan from a USAID partner. Young provincial clerks involved in the budget process, all anxious to minimize the tedium of their jobs, did a quick workaround on the provincial government's internet restriction. Each evening they would download their work to a thumb drive. A private internet connection was then used to transmit the data to our team whose Arabic speaking members would provide prompt, additional advice and instruction via the email. The PRT also supercharged the process by employing a team of young Iraqi computer science students from the local university who added their skills and support to the effort.

Observing all of this, the governor's assistant for technical affairs Mr. Qhatan, a barrel chested Iraqi engineer, offered his regret that our extensive efforts would in the end produce limited results. He explained that the immature Iraqi democratic process had unfortunately produced a council filled with teachers, farmers, mothers, and other non-technical people, all of whom he had assessed were ill-suited to the complexities of the important tasks of capital budget development and oversight. (A year later, I would hear the very same complaint from a very capable Iraqi engineer in Karbala province.) Mr. Qhatan was surprised to learn that America's legislative bodies are similarly composed. He accepted with obvious reservation the PRT's explanation that the creative and effective use of computers was the key to enabling citizen legislators to comprehend the complexities and paralyzing magnitude of multi-million dollar budgets. It's not clear to me if he supported our efforts out of curiosity, commitment, a sporting nature, or a mix of the three.

With eager young Iraqis in the lead, the new computerized budget process enabled the province to be the first in Iraq to vote on a provincial capital budget. At the PRT's urging, each council member was provided in advance of the vote with a printed copy of the detailed budget as well as graphic summaries by sector and geography. The original budget was actually rejected by the full council when they observed the grossly unequal distribution of the proposed budget among the districts and the lack of continuity between their earlier stated sector priorities and the spending priorities as emerged in the proposed budget. An additional week of intense political negotiations was sufficient to gain near unanimous approval of a revised budget. Provincial newspaper reports on the final budget featured pictures of the Excel generated budget

graphs which were seen as unassailable proof of the fair allocation of provincial resources among politically acceptable priorities.

After a year in Tikrit and a nine month break from Iraq, I was assigned to the PRT in Karbala, a Shia dominated province in southern Iraq. It was 2008 and internet access had become far more prevalent but was still in its embryonic stages. Internet cafes were evolving but that growth was retarded by their inclusion among religious extremist's priority targets; the PRT tried to level the field by quietly sponsoring several internet cafes through local Iraqi nonprofit associations. Private connections were much more common, enabling some fortunate Iraqis to explore internet relationships through international chat groups and pursue worldwide friendships, far beyond the local violence and intellectual deprivation. Independent Iraqi reporters routinely filed reports from the field to Baghdad and beyond. Young Iraqi civil engineers implored PRTs for assistance with the acquisition of computer aided design programs. Current and former PRT members routinely communicated via the internet with local Iraqis interested in American views on the decreasing violence in Iraq. Even the normally technology adverse Iraqi judges had been introduced to the potential of legal research on USG provided computers.

Iraq continues to make steady progress towards becoming a computer enabled democracy. Still, the surface is just being scratched in Iraq and beyond as the region struggles with the tremendous challenge of overcoming the intense corruption that continually undermines efforts to convert barrels of oil into the infrastructure, services, and economic opportunities that can serve the interests of the population at large. Computerized budget processes are an essential ingredient in efforts to develop antidotes for the horrendous corruption that places Iraq and much of the Region at the bottom of the Transparency International Corruption Perceptions Index, but computerized budget processes are only one of many areas in which computers, software, and related training (local or remote) can enhance such efforts. For example:

- Computer aided design and project management software enable local engineers and managers to generate the quality designs and job estimates necessary to tackle fraud and incompetence in bidding and project management processes.
- Computer proficiency empowers legislators, reporters, prosecutors and others to pierce the veil of ignorance that facilitates corruption.
- Computer based training that fuses the brilliance of subject matter experts, the culture bridging abilities of capable interpreters, and the flair of talented computer experts enables consistent, widespread, quality training.
- Computer based irrigation management programs allow responsible use of precious water resources
- Computer based urban design software enable a localized, logical, and prioritized approach to development

While the final outcome in Iraq and the region is far from certain, it is beyond question that the creative use of computers and related technology must continue to play a central role in any successful struggle for competent, effective, and transparent, government.

Bob Cassilly was the lead Governance Advisor on the PRT in Salah ad Din Province from April 2006 to April 2007 while serving as an Army JAG. From December 2007 to December 2008 he served as the U.S. Department of State Senior Governance Advisor on the PRT in Karbala Province and from July 2009 to August 2010 as the Senior Strategic Planner for the Office of Provincial Affairs, Embassy Baghdad. He is an attorney and former municipal mayor and county councilman from Maryland. The views expressed in this article are his own and do not necessarily reflect the views of the U.S. Department of State or the U.S. Government.

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