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Try Software on Workers First, Correct Malfunctions Later

By Ben Worthen
From The Wall Street Journal Online

When Jay Reinke's July 31 paycheck wasn't automatically deposited into his bank account, the 42-year-old painter at Arizona State University, went to the school's human-resources office. A paper check was waiting for him. For $0.00.

Mr. Reinke is one of roughly 3,000 Arizona State employees who have been underpaid or unpaid since the school started using new software from Oracle Corp. to manage its payroll. Others have received paychecks thousands of dollars too high. The payroll problem has caused so much unrest that armed police guarded the university's HR office on several recent paydays.

"When you live paycheck to paycheck," Mr. Reinke notes, "it is tough to survive."

The frustration that comes with switching computer software is a perennial water-cooler complaint -- especially when, like Arizona State, it involves integrating disparate programs into one system to manage everything from admissions and class registration to finance and HR.

So-called enterprise-resource planning, or ERP, software is notoriously costly and difficult to implement. Hershey Co. and Nike Inc. blamed faulty software for multimillion dollar write-offs in 1999 and 2001. And Hewlett-Packard Co. estimates that it lost $120 million when it couldn't respond to an order backlog caused by its new inventory system in 2004. "No one wanted to use the word ERP. For a while it was taboo," says Lee Geishecker, a vice president at AMR Research.

But, in a way, the confusion at Arizona State was all part of the plan.

The Tempe, Ariz., school has installed its new software using an unconventional -- if painful -- approach: Admit from the start that there will be mistakes; then work through the glitches with users' help. Most companies take their time and don't start using a new computer system until they are convinced almost everything works right; then they are caught off guard when mistakes inevitably happen. Often, the delays allow them to expand the project's scope, which adds cost and can further compound problems.
The information-technology department at Arizona State decided it would be more effective to stick to rigid deadlines, releasing the software on schedule even if all the kinks hadn't been worked out -- and try to fix problems on the fly.

Admitting there will be flaws from the beginning is "like having your wisdom teeth out," says Adrian Sannier, the university's technology officer. "You can have them out one at a time and have it hurt four times or you have them done once."

The models for Arizona State's project are Internet companies like Google Inc. These companies label the software they release "beta," meaning that it is good enough to use, but it isn't finished. Sometimes they keep it that way for years, using feedback from customers to create ever-more-refined versions.

Academic tech leaders familiar with the project have mixed opinions. The chief information officer at the State University of New York at Buffalo, Elias Eldayrie, says he is seriously considering following the Arizona State model, albeit without the payroll glitches. "ERP implementations are difficult projects," he says. "Considering the cost of these projects it's important to look at it."

But Lev Gonick, CIO of Case Western Reserve University, says that missing multiple payrolls is a cardinal sin of tech projects and that calling it a "beta release with some finishing touches to be completed because we reinvented ERP implementation is spin."

While unpaid employees may have been less than thrilled, school administrators, and consultants and software companies involved in the project rave about Arizona State's strategy. Oracle hailed it as a model for both universities and corporations to follow in a report it published in April 2007. In a statement, Jim McGlothlin, an Oracle vice president called the project "highly successful." Gary Somers, who worked on the project for CedarCrestone, Inc., the consulting company that helped implement the system, calls Arizona State's method "the wave of the future."

The final price tag for Arizona State's project is $15 million to deploy the software and another $15 million to support it over the next five years, which includes $6.5 million that the school's board of regents approved at the end of August. The total is well below the $70 million the board expected to spend. Charlie Moran, a Chicago-based software consultant who advises the board of regents, says the cost savings are unheard of and deems the project a phenomenal success.

Arizona State, one of the two largest universities in the country, planned to avoid delays and cost overruns by doing things fast, squeezing into 18 months a project that has taken similar-sized institutions upward of four years. To maintain the breakneck pace, Arizona State's Mr. Sannier elected to spend money on extra programmers and consultants rather than risk missing a deadline.

There would be moments of pain as people started using a system that wasn't a finished product, but managing the pain was part of the plan. Mr. Sannier calls this strategy "implement, adapt, grow," since it not only relies on the IT department to fix any technical glitches, but requires employees to help identify problems, as well as to adjust to working within the new system.

He acknowledges some mistakes, but insists that hindsight will show that they are just a small piece of a more successful whole. "You can't repave the road and have no one know that you did it," he says.

Arizona State started using the new payroll system in July, at the beginning of its fiscal year. There were problems right away. Employees weren't getting paid. In some cases this was because they didn't know to use a computerized punch clock that was part of the new system. In particular, this was a problem for employees who don't have their own computers, like the school's maintenance and janitorial staffs. Mr. Reinke, the painter, says he had to wait in a line 30-people deep each morning to use the one computer in his department.

But more often it was a natural byproduct of converting employee records from one system to another -- an inconsequential error in the old system could lead to a meaningful error in the new one. Mr. Sannier -- who didn't miss a paycheck -- accepted the risk that there might be payroll problems as part of the project's pace and approach. And the university developed a plan to deal with these problems. In this regard, the technology systems worked as expected. The breakdown occurred with what Mr. Sannier calls the "human systems."

To compensate for any technical problems, the human-resources department was supposed to write checks on the spot to any employee with an inaccurate paycheck, no questions asked. But check writers couldn't keep pace with the underpaid employees who flooded the HR offices. Mr. Reinke says instead of writing him a check to replace his blank paycheck, he was told that a change would be made in the system. He received

his check a week later. In the meantime, he had to extend his overdraft protection in order to pay his $800-a-month mortgage. Hundreds of other employees had to wait as many as 12 days to have their paychecks fixed. A spokesman for the Arizona State Credit Union says that 55 people took out short-term loans.

The new strategy's pain is undeniable. "Morale is the lowest it's been in the 14 years I've worked here," says Allan Crouch, who works in the university's human-resources department.

After the problems with the checks, two HR employees were placed on administrative leave. Michael Crow, the university's president, sent letters of apology to affected employees, offered to pay any expenses they incurred, and gave them $25 gift cards. Mr. Reinke calls the gift cards "kind of a slap in the face."

Yet, the IT department has been able to fix 84% of known payroll problems within four days, which Mr. Sannier says "feels about right." The most recent payroll had a 4% error rate, which is bellow the 6% error rate the old system traditionally had. While the payroll problems have lessened, employees say the campus is still in a state of confusion. Mr. Reinke, for example, recently received a paycheck that was 50% too high.

"Everyone knows there'll be problems when you institute new computer systems," says Toni Genalo, who directs data collection for the psychology department. "We were prepared for that. Just not at this level."

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-- September 27, 2007

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