



Child Support

Job No. 1 for the Children's Hospital Boston IT group is enabling world-class patient care for the 300,000 kids that come through the doors every year. But when a PeopleSoft ERP project was launched without IT's early input, things were touch and go for a while. **BY DAVID JOACHIM**

THE IT STAFF AT CHILDREN'S HOSPITAL BOSTON loves coffee as much as any high-strung bunch of overachievers. But it may take them a year to use all the paper cups their administrative assistant ordered a few weeks ago.

The order was one of admin Tanya Johnson's first using the hospital's new ERP (enterprise resource planning) system, which went live in April. She couldn't tell if the "quantities" field referred to sleeves of cups or boxes of cups, so she erred on the high side. Johnson laughs about the mix-up now, but hundreds of employees are still having trouble adjusting their work styles to the PeopleSoft system, which includes materials management, human resources and financial applications.

Even more troubling than the user problems are the spiraling costs of the Children's PeopleSoft project: \$14 million-plus to date, with more than half that going to consultants; the rest has gone for software, hardware, staff and training.

The principals admit—and experts who reviewed details of the implementation agree—that the hospital overpaid and suffered unnecessary pain during the transition because hospital officials deferred big decisions about technical specifications and personnel to PeopleSoft and systems integrator Arthur Andersen (which has since been bought by KPMG Consulting and now calls itself BearingPoint). Susan Hancox, the operations vice president who oversees the hospital's HR and materials management, says she and other Children's executives were naive about how the software industry works and how the agendas of product vendors and integrators can negatively affect the cost and effectiveness of an ERP project.

What follows is a rare behind-the-scenes look at how a user organization can lose control of a big software project—and what it takes to get back on course.

Wholesale Replacement

SOME 500 EMPLOYEES WHO PROCESS and approve purchase orders and time sheets now use the PeopleSoft 8.0 system. They include materials management and

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45 Triage, IT Style

ONLINE

» Go behind the scenes with Children's Hospital Boston to see how its top-notch IT department conducts business amid the pressure and clamor of this fast-paced facility. You can read posts from the staffers and even ask them a question or two of your own. www.nwc.com/go/childrens.html

PHOTOGRAPHS BY MARK ALCAREZ



Susan Hancox
VP FOR ADMINISTRATION
AND HUMAN RESOURCES



payroll personnel, as well as department managers who interact with them. The rest of the hospital's 7,000 workers are coming online this month as Children's rolls out PeopleSoft's online benefits module, which lets employees enroll in medical plans and view their pay stubs, among other things.

In one bold stroke, Children's replaced its individual materials management, HR and financial systems. Such wholesale replacement of legacy enterprise applications is common among manufacturers but rare for health-care facilities, experts say. It's also out of character for Children's, a pediatric teaching hospital affiliated with Harvard Medical School. Before the appointment of CIO Daniel Nigrin last year, Children's IT shop usually solved one problem at a time, implementing best-of-breed systems for different operational areas.

The departments affected were running decades-old systems "held together with bandages," Hancox says. Push came to shove when the legacy vendors (Enterprise Systems for materials management, Ross Systems for finance and Cyborg Systems for payroll) threatened to drop support because Children's was using old versions.

"We wouldn't upgrade because always hanging out there was that we were going to get new systems," Hancox recalls. "So everybody was trying to be fiscally responsible, and now the house is getting older while we don't replace the windows and the doors and the roof."

The old systems were incompatible with one another, leading to delays while data was rekeyed and workers placed countless phone calls to determine the status of payment authorizations and checks. Says Hancox, "Here we are, the highest-tech hospital from a patient care standpoint, and we're living in the Dark Ages from a systems standpoint."

Plain Vanilla

THE STRATEGIES CHILDREN'S used in its ERP rollout were based on lessons learned from the hospital's last major IT project, a collection of applications called the Integrated Clinical System (ICS) designed to keep track of patient billing and electronic medical records. The business case for buying that software called for so much customization that the product became almost unrecognizable, says Chief Technology Officer Scott Ogawa.

Project costs went over budget on that project, so the hospital had to scale it back drastically. Today, ICS handles mostly patient accounting and appointment scheduling. The hospital's conversion to electronic medical records is on hold.

Children's difficulty with ICS is a big reason the organization isn't messing too much with the PeopleSoft ERP code. The mandate is to stick with the plain vanilla, out-of-the-box functionality to minimize development and maintenance costs.

This approach has trade-offs, Ogawa acknowledges. Many users have complained that the user interface isn't intuitive, in part because version 8.0 is PeopleSoft's first ERP revision that relies on a browser rather than a full desktop client. Children's could have tried to perfect the user interface and workflow before rolling out the modules, but with that approach, "you have no return for the entire implementation cycle. It's all investment," Ogawa says. By evolving with the application while it's in production, "maybe it's not intuitive, maybe it's cumbersome, but we're running the business."

Perhaps the biggest lesson of the ICS project, Ogawa says, is that big software projects require owners who can be held accountable. "When we went live with ICS, you had all these people involved and all you saw were their palms saying, 'It wasn't me, I didn't choose this, I didn't want to go this way,'" he says.

This time, should the PeopleSoft project suffer the same fate as ICS, the fall guys are Hancox, Nigrin and Chief Financial Officer David Kirshner. Hancox and Nigrin don't even want to think about the consequences of failure. (Kirshner wouldn't comment.)

It's the first such massive project for all the principals. Hancox says she has overseen system upgrades but never for so many departments at once. What's more, the seven software developers on staff had virtually no experience with large-scale enterprise applications, so Children's had to add four more developers and bring in some 20 consultants, says lead developer Leo Judge.

It was this lack of internal experience that tilted power to PeopleSoft and Andersen.

"I think they used a bit of a scare tactic," Ogawa says, "to state, 'if you want to say your IT staff will step up to the plate and do this, we'll put a big disclaimer into the contract to say,

CHILDREN'S HOSPITAL BOSTON

VITAL STATS

1869
Year founded

325
Beds

18,000
Inpatients treated yearly

300,000
Outpatient visits per year

5,000
Full-time employees

800
Active medical and dental staffers

700
Residents and fellows

800
Patient-services staffers

240
IT personnel

13
Consecutive years
Children's has been rated
the No. 1 pediatric hospital
in the nation by *U.S. News
& World Report*



fine, all we have to do is worry about the functional side. Your IT people will handle the technical side.”

This was already months into the project planning—PeopleSoft knew it had won the contract, so it was holding all the cards.

Pressure Cooker

SEVERAL CHILDREN'S EXECUTIVES REFER TO “artificial” deadlines imposed by the CFO to meet the April 22 go-live date, which itself was produced under pressure from the hospital’s executive committee, which approved the \$16 million budget and wanted to see returns fast. (About \$2 million is budgeted for Phase 2 of the project, which will add benefits administration, employee self-service and some module customization.)

“We were almost implementing the software before we had finalized the contracts with both PeopleSoft and Andersen,” Nigrin says. “That was not a good negotiating position. Before you get people working, it’s probably a good idea to decide what you’re going to pay them.”

Indeed, Hancox grew angry when, just a few weeks before the go-live date, she says PeopleSoft refused to sign a guarantee that its software would work as advertised. She says Children’s was in no position to force the issue: “They were willing to walk away.”

Jamie Wyatt, PeopleSoft’s vice president of health-care solutions, says the vendor’s policy is to “warrant to our published documentation.” But PeopleSoft won’t guarantee statements made in a demo or discussion during the sales process, he says, because “that’s difficult to manage.”

In a way, Children’s ended up deferring to PeopleSoft and Andersen so internal stakeholders wouldn’t have to take the blame if things went wrong, Ogawa says. As a result, the IT staff was left in the dark about a range of requirements, from helpdesk training to hardware sizing (see “Triage, IT Style,” page 45).

IT assumed, for example, that Andersen was readying hardware recommendations, and Andersen apparently thought the same of Children’s. A scramble

department, Ogawa says: The boxes sat idle for more than six months after they arrived in May 2001 because the contract with Andersen was still incomplete.

For its part, PeopleSoft says it provided Children’s with written materials that spelled out hardware requirements, albeit generically. Typically, the company says, the customer consults with its preferred hardware vendor and replies to PeopleSoft, which in turn works with the hardware vendor directly to round out the specs (ideally, with customer input and oversight). After the project is fleshed out and transaction volumes are projected, PeopleSoft recommends another round of assessments to “make sure you have the horses to run the race,” Wyatt says.

That final interaction never happened. “As the scope of the project changed, Children’s didn’t revisit the sizing,” Wyatt says. “I can’t be sure about what happened. Maybe Andersen was saying the initial sizing was OK. But we did offer to come in.”

Ronald Goldberg, the BearingPoint managing director who supervised the Andersen team, says it was never his job to determine hardware sizing. “We gave some advice but not a recommendation,” he says.

In all, Children’s has experienced a “normal level of trouble,” Goldberg says. “Every implementation has its share of troubles and quirks.” The most important

ON LOCATION SERIES 2

WELCOME TO OUR SECOND ‘ON LOCATION’

documentary-style technology case study. This package spotlights the largest pediatric medical center in the United States, Children’s Hospital Boston, which cares for more than 300,000 patients every year regardless of their families’ ability to pay. Children’s is also the main teaching hospital for Harvard University and home to the world’s largest pediatric research facility. Clearly, the IT staff is a dedicated lot, but they’ve been pushed to the limit by a \$14 million-plus PeopleSoft ERP implementation upper management sprung on them. In this issue, we evaluate the project to date and how IT is handling ongoing user issues. Future coverage will include print and online progress reports. You can post questions, comments and suggestions at our online forum. Go to www.nwc.com/1323/1323f1.html.

IN OUR FIRST ‘ON LOCATION’ PACKAGE we visited Life Time Fitness, a \$150 million health club operator that was counting on its custom-built, \$25 million Member Management System to pump up growth (see “And Now for the Heavy Lifting,” at www.nwc.com/1314/1314f1.html).



EXERCISE CAUTION

Several consultancies we interviewed suggest bringing in a ‘third, third party’ to keep an eye on both the vendor and the systems integrator. We say, use common sense. Beyond the cost, consider that you’ll have to manage even more vendors.

ensued in spring 2001 when everyone realized no hardware had been ordered.

“The hardware specs were rushed because IT wasn’t involved and then suddenly—bam!—they were in the hot seat,” says Ogawa, who adds that Children’s probably overspent on the 16 or so servers as a result. “There wasn’t enough early planning about architecture.”

What happened next tested the patience of the IT



measure of success, he says, is that Children's never missed payroll and never missed payments to vendors.

Calculating Returns

Children's also deferred to outsiders in generating a return-on-investment analysis of the project. This was because the hospital had never tracked the ROI of technology projects before. The hospital paid Cap Gemini

Ernst & Young \$50,000 for an 80-page document that presented the business case, vendor evaluation and detailed ROI analysis.

Children's executives didn't drill down into the ROI figures until well after the go-live date. Hancox blames the tight deadline schedule. Only when she began asking departments to track how well they were accomplishing their ROI goals did she begin to question the validity of the numbers.

For instance, the ROI worksheet for HR called for eliminating "a tenth of an employee here, a tenth of an employee there," she says. "I go back to my HR director and say, 'You've got to start meeting your ROI,' and he says, 'I don't even have enough people to meet this ROI.'"

Patricia Heller, a vice president in Cap Gemini's health-care practice, says she provided Children's with ROI models but that Children's used its own dollar and head-count data to generate the ROI worksheets.

Shortcomings of the ROI model aside, Children's executives say they're already seeing positive results from the ERP project. Directors don't have to wait as long for reports, and the data is more reliable because it's entered into the system only once. Some hard-dollar returns haven't panned out, including \$150,000 per year Children's hoped to save in licensing fees for the decommissioned legacy systems (it's more like \$75,000, Hancox says). But in all, Hancox expects that by year five of implementation, Children's will cut \$2.5 million per year in operating expenses. By then, she also expects the costs associated with the ERP project to exceed \$20 million.

Hancox points out that, in some areas, those dollars cut will be replaced by new spending. For instance, Children's figures it will save at least \$1 million per year by paying vendors early, but because the money remains in the budget, it will likely be spent. "The practicality of applying the ROI is a huge piece that was never addressed," she says.

Still, Hancox downplays the importance of hard ROI. The cultural gains will be far more pronounced as the software forces employees in different departments to work together. "There's less bureaucracy," she says. "One of our mistakes was that we used ROI as our selling point [to get funding], and that should really be a 'by-the-way' because you're doing this for other reasons. It's not going to carry itself on a financial ROI but rather on a qualitative ROI."

Pains and Gains

Employees who are hands-on with the PeopleSoft applications say they've had difficulty adjusting; ordering too many coffee cups is the least of their problems. Johnson, the IT administrative assistant, complains that the user interface for the time and labor module is clunky. She must continually scroll from top to bottom of the browser screen to fill out time sheets. Also, the sheets require her to fill out every form from

Susan Hancox

VP FOR ADMINISTRATION AND HUMAN RESOURCES



At Work: Oversees human resources, materials management and other operations

At Home: 52 years old. Divorced. Hobbies include llama farming

Alma Mater: Western New England College, M.B.A. with health-care concentration;

Denison University, B.A. in sociology

HOW SHE GOT HERE:

1987 to 1994: Vice president, human resources and operations, Boston University Medical Center

1980 to 1987: Vice president, human resources, Beverly Hospital/Northeast Health Systems

MOUTHING OFF:

If only I had a bigger IT budget, I would: "Test more and run parallel operations longer."

'I would have tripled our hires up front. Just overstaff.'

Greatest business challenge for Children's: "Continuing to ensure money doesn't become a barrier to top-notch patient care and cutting-edge research."

Chief difference between Children's and other hospitals:

"The focus, the intensity and the number of people who are the best in their fields."

I love technology when: "I feel like I can zoom through work."

I hate technology when: "The network is down, a program is stuck or slow, and I am trapped."

If I could do this project over, I would: "Better prepare the organization for the impact of the new system."

My next career: "Retirement, I hope."

When I retire, I will: "Be a full-time llama farmer and a specialist in exotic fibers."

scratch, rather than just make changes where exceptions occur. CIO Nigrin says his programmers are working to correct the problem by creating templates for different types of workers.

Johnson has also fallen victim to the limitations of a pure-Web product. She has timed out while completing large requisition forms and been forced to start over. "I was on line 28 of 30 when it went, boop!" she says. Now when she fills out requisitions, she constantly hits Refresh.

Because she doesn't quite trust the system yet, Johnson maintains most of her paper processes in addition to the new online ones. For example, she asks Ogawa to approve requisitions not only online but also on a paper form. Requisitions for accounts payable are also entered into a Microsoft Access database that the IT department maintains for its own records, says Sheila Mortali, IT business development manager.

"It's certainly not paperless," Mortali says. "It's a lot more work on the input side, but the information is cleaner." Like Johnson's Refresh tactic, Mortali finds her own ways to work around the user-interface limitations. Often she keeps two browser screens running to view financial data, rather than repeatedly pressing the Back and Forward buttons.

The user-interface problems will be resolved over time through vendor upgrades and some custom programming, officials say. Children's experience proved the "never buy version 1.0" maxim because, even though the package is called PeopleSoft 8.0, it's the vendor's first ERP version based strictly on a Web client.

'In a Cave With a Scout'

All that said, Hancox describes PeopleSoft's software as "world class" and says she would recommend the consultants without qualification. It's the cozy, nontransparent relationship between software vendor and consultant that she doesn't like.

"Everyone who knows the most information about the project has a vested interest not to share it com-

pletely with you," she says. "You're in a cave with a scout. If you want to get out of that cave, you need the scout. It's why none of us trusts them."

If Hancox had to do it all over again, she would have hired many more in-house staffers than Andersen recommended. "I would have tripled it up front. Just overstaff," she says. "When you're spending \$14 million, don't begrudge another six months of a DBA."

AMR Research analyst Jim Shepherd suggests building in performance clauses that reward the vendor and integrator when certain performance thresholds are

Scott Ogawa

CHIEF TECHNOLOGY OFFICER



At Work: Leads five-year strategic IT planning; enforces technology standardization; oversees capital and operating budgets for major clinical, financial and research applications

At Home: 37 years old. Married, no children

Alma Mater: University of Texas, San Antonio, B.S. in computer science

HOW HE GOT HERE:

1996 to 1998: Director of IT, Stony Brook University

1984 to 1996: Various positions including chief of IS operations, Wilford Hall Medical Center, Lackland Air Force Base, Texas

MOUTHING OFF:

Toughest moment during PeopleSoft project: "Stepping in after the resignation of a fellow IT director who had primary responsibility for technical oversight of the PeopleSoft project."

'The support from management has been greater than at any other organization I've worked in.'

Boss horror story: "I once destroyed several gigabytes of my boss's personal file share in trying to back up the data for a presentation he was about to give."

Greatest technical challenge for PeopleSoft

implementation: "Maintaining a balance of getting incumbent technical staff up to speed while keeping consultant resource spending under control."

If I could change one thing about the IT organization, I

would: "Keep all staff collocated. Having IT staff spread out in various locations away from the community they serve has a significant impact on our ability to meet their needs."

The chief difference between the Children's IT organization and your average IT organization:

"The support from executive management at Children's Hospital has been greater than at any other organization I've ever worked in."

Worst high-tech invention ever:

OS/2 Warp.

Why I'd take a CTO job over a CIO job any day:

"The CIO takes a significant beating from unsatisfied users. That's not to say that the complaints don't ultimately come my way, but the buck stops with the CIO."



THE FALL GUYS

Past IT projects at Children's failed because no one was accountable for their success. For the PeopleSoft project, the CFO, CIO and VP of operations are in the hot seat.



ON LOCATION CHILDREN'S HOSPITAL BOSTON

met. "The important point is that software vendors and consultants do this every day," he says. "They are so much better at this than the buying organizations who do this every decade or two. It's a battle with an unarmed man."

But Rob Leavitt, research director at the Information Technology Services Marketing Association, a company that helps IT consulting firms market their services, warns that consultants will want a premium in exchange for these performance guarantees. "You probably need to be willing to share the upside," he says. He thinks IT shops should set aside 10 percent of the project costs to perform due diligence on the vendor, the consultant and the ROI figures.

When embarking on an ERP project, pick the consultant first and then the vendor, Leavitt says. It'll help you avoid losing leverage like Children's did. Sure, certain consultants may push you toward using their preferred vendors, but you're not locked into doing so, he says. Also, if you're a marquee customer like Children's, offer to be a vocal and supportive reference account from the outset. All the big vendors are battling for these accounts, and the offer could save you money.

Shepherd and Leavitt agree that Children's should have waited much longer to award the contract to PeopleSoft. As it happens, Hancox and the IT staff favored Lawson Software over PeopleSoft. The final decision was made by former CIO Lac Tran, who had experience rolling out PeopleSoft at Stony Brook University on Long Island and is now CIO of Methodist Health Care System in Houston. Tran did not return phone calls.

Already, Children's officials say they may go with other vendors for new modules such as e-procurement. Several executives said separately that they are



ROI WIZARDRY

Cap Gemini's ROI models called for savings of 'a tenth of an employee here, a tenth of an employee there.' Only when execs started asking department heads to track how well they were accomplishing their ROI goals did they realize the model counted more labor savings than there were employees.

considering replacing the PeopleSoft time and labor module with software from Kronos, which specializes in such software.

If they do start a new selection process for those applications, at least they'll be doing so with the benefit of experience. As Children's learned the first time around, enterprise application deployments are not a place to learn as you go.

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For more on the technical aspects of the Children's PeopleSoft project, see page 45.

Daniel Nigrin, M.D.

CHIEF INFORMATION OFFICER



At Work: Oversees IT operation and treats pediatric endocrinology patients

At Home: 37 years old. Married, two sons. Hobbies include electronic music, soccer and cycling

Alma Mater: Massachusetts Institute of Technology, M.S. in medical informatics; American Board

of Pediatrics, board certification, pediatric endocrinology; Johns Hopkins University School of Medicine, M.D. Johns Hopkins University, B.A. in biophysics

HOW HE GOT HERE:

1998 to present: Informatics program staff, Children's Hospital Boston

1998 to present: Pediatric endocrinology staff, Children's Hospital Boston

2000 to 2001: Director, clinical computing, Children's Hospital Boston

1995 to 1998: Pediatric Endocrinology Fellow, Children's Hospital Boston

'You really get a sense of caring the moment you walk into Children's.'

MOUTHING OFF: Toughest moment during PeopleSoft

project: "My initial moments with the project. I had to learn about the rationale of our vendor selection process and overall project to date."

If I could change one thing about the IT organization: "I wish the IT staff also had an intimate knowledge of medicine."

Chief difference between Children's and other hospitals: "You really get a sense of caring the moment you walk in. And though some might think it could be a sad environment in which to work, it's actually the opposite."

I love technology when: "It works!"

I hate technology when: "It's applied to a problem that didn't need a technology solution in the first place. Technology for technology's sake bugs me."

Worst high-tech invention ever: "GameBoys. I see way too many kids hooked on those things when they should be out running around or reading."

Which is more fascinating: the genetic code of the pancreas or the programming code of a Web app?: "No comparison—the genetic code of the pancreas. It's orders and orders of magnitude more complex and beautiful."