COMING TO A NASA CENTER NEAR YOU

SFER WISDOM

RKSH

By Denise Lee

IN NOVEMBER 2001, THE APPL KNOWLEDGE SHARING INITIATIVE INTRODUCED A NEW PRODUCT, THE TRANSFER WISDOM WORKSHOP. THE IDEA WAS TO GIVE PRACTITIONERS AT EACH OF THE NASA CENTERS THE OPPORTUNITY TO ENGAGE IN A **KNOWLEDGE SHARING ACTIVITY.**

You know the feeling: you throw a party, invite a lot of people and you pray they show up. When we planned one of our first Transfer Wisdom Workshops (TWWs) at Goddard Space Flight Center, we expected to run a workshop with 25-30 people. Instead, only five people from Goddard had entered the room by the time we were supposed to start.

It's hard to "share" knowledge when you don't have people there to do the sharing, but you can only clear your throat so many times and say, "Maybe we should wait another ten minutes and see if a few more people get here." Eventually, we got things underway.

TWWs focus on practitioners' stories about their work experiences. We craft the stories we discuss and the questions we ask to bring out concrete examples of best practices and lessons learned. Our aim is to help the men and women who work on NASA projects step away from their work for a moment in order to better understand it,



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learn from it and then share what they have learned with others. By the end of a workshop, we have participants familiar enough with the concept of sharing knowledge through narratives that they write their own stories. (You can see a few of these stories on pages 18–19.)

Though we had only a handful of participants at that first Goddard workshop, we engaged them in lively discussions and, by all accounts, they left feeling that they had spent their time productively and had learned a great deal from one another. We had done a solid job running the workshop—but it was apparent that we had done a poor job recruiting participants.

At a coffee shop not far from Goddard, the Knowledge Sharing (KS) team gathered for a debriefing. I got into a discussion with Dr. Alexander Laufer (Editor-in-Chief of *ASK* and creator of the TWW concept) about our planning strategy. Alex's idea had been to go to each of the Centers and spend face-to-face time recruiting KS affiliates who would, in turn, sell the workshop for us. I pointed out that the plan sounded great in theory, but our affiliates were all busy people, top-notch project managers themselves, and they had precious little time to tout our initiative and make sure chairs were filled at our workshops.

I suggested that rather than relying on affiliates, I should "work" each Center to guarantee we had an adequate turnout. Alex argued that I wouldn't know how to identify the right people. I countered that if we found ourselves on the morning of a workshop not knowing how many people were going to walk through the door, then we weren't doing a good job marketing our program.

I believed that if I had more influence over signing up workshop participants, then I could make the process work. In fact, I promised that I would. I didn't have anything to back me up other than my confidence in the philosophies we were teaching and my belief in the value of the TWWs. We simply had to do a better job of getting our message out there.

To my surprise, Alex came to me the next day and told me that he thought my approach to the problem recognizing the need for hands-on marketing—was creative and might just work. He had to be willing to accept a risk, but project managers have to do that all the time. He gave me the go ahead.

NEXT STOP, FLORIDA

Our next workshop was at Kennedy Space Center in Florida. Two months before the workshop, I went with Michelle Collins (then NASA's KS project manager and someone who had spent most of her NASA career at Kennedy), and we walked the halls of the Center, talking with experienced project managers we knew from previous KS activities as well as managers who had been recommended to us. We met with 30 people in 2 days.

We introduced ourselves, gave an overview of the initiative and asked the managers for the names of people we should invite to the workshop. Then we asked them to encourage people on their projects to attend. We only requested 15-minute meetings, because we knew that the only way to get on a busy manager's calendar was to ask for a brief meeting and to honor that timeframe.

This idea of asking experienced project managers to recommend younger project managers for the Workshop goes along with our vision of knowledge sharing as a grassroots initiative. If young project managers get a form letter from NASA Headquarters suggesting they consider attending a new program, how likely are they to take time away from a heavy workload? If a project manager they know and respect tells them that it's a good thing to do, they're a lot more likely to go.

The people we're trying to get to come to the workshop aren't necessarily project managers or even people on a project management career track. We're targeting the team of people who work on a project, trying to get them to embrace the philosophy of knowledge sharing and put to use some of its practices and lessons. The idea is that projects have many components—for instance, procurement, systems



"What we're trying to do in this initiative is promote learning," says **DENISE LEE**, who manages Transfer Wisdom Workshops and Masters Forums for the APPL Knowledge Sharing Initiative. Lee didn't just come off the street to start doing this; her Masters degree in Organizational Learning focused on Knowledge Management. Says Lee of her current work, "My role is to

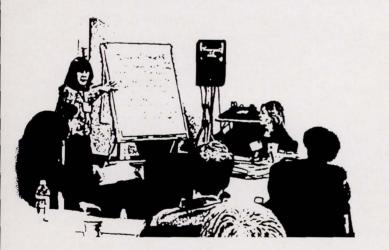
create the space where people can come together to learn from one other."

In a project like the Transfer of Wisdom Workshops, Lee works to change workplace mindsets and behaviors, and to help instill a culture of knowledge sharing at NASA. Her strategy? "Perseverance," says Lee, "is necessary in any change project. But even more important is a willingness to learn and adapt as you go."

engineering and human resources. All the different disciplines contribute to a project.

On the same visit that we spoke with project managers, we identified a champion in Training and Development at Kennedy, Tim Gormley. The idea was to cultivate a local champion because we were only going to be on site for two days. We sold Tim on the concept and he stayed with us every step of the way.

RSVPs for the workshop started coming in almost immediately. I didn't just let an RSVP drop into my email box. I called each person back and said, "I received your RSVP. Thank you so much. We are



THE MATERIAL WE PRESENT SPEAKS FOR ITSELF ONCE WE GET PARTICIPANTS THROUGH THE DOOR.

looking forward to meeting you and introducing you to the Knowledge Sharing Initiative."

How many workshops do you sign up for where someone calls you? Where you talk to the person who's actually going to run the workshop and they say, "I'm really looking forward to meeting you"? I tried to establish a relationship from the moment someone first heard from me. And from that moment on, I understood that my credibility was on the line.

SHOW TIME

The day of the Kennedy workshop, I had a knot in my stomach before people arrived. But as they trickled in, first alone and then in groups of two and three, I knew it was going to be a good day. And it was. By the time we got underway, we had 26 participants in the room.

TWWs use the stories in *ASK Magazine* as a starting point. At the Kennedy workshop, people began reading the story we had given them and silence fell over the room. Slowly, as people finished reading, we heard the murmuring of conversations starting up in the small groups we had set up.

People read at different speeds, and the sound of their voices grew as time passed, until the entire room was discussing the stories and leveraging the knowledge in the stories to talk about their own work. Lessons were continuously being generated and shared, generated and shared.

As I watched people talking at that first Kennedy TWW, I realized that the workshops themselves are the fun part of my job. The material we present speaks for itself once we get participants through the door. Our challenge is speaking for the material in advance, so that people have the opportunity to experience it. SPECIAL FEATURE: KNOWLEDGE SHARING CONTINUED

LISTEN UP Carlos Torrez, Ames Research Center *Transfer Wisdom Workshop November 7, 2001*

ur division was under a hiring freeze and our workload was increasing. We had one person on staff who was rarely assigned work on highprofile projects because he was thought to be nonproductive. I decided that it was time to bring this person out of mediocrity and into productive mode.

I believe that all people want to do well and want to succeed. I approached my manager with my thoughts about this. He laughed and said, "He doesn't have what it takes and won't change." I pointed out that if we did nothing, the workload would continue to rest on a few people and our best workers were likely to experience some form of burnout. I proposed that I become a mentor to this person.

I began by explaining that I wanted him to succeed. I spent a lot of time listening. Soon his work output and confidence began to improve. He came by and asked frequent questions and proposed possible solutions. This "problem employee" often solved his own problems as he spoke. By giving him the encouragement to extend himself and trust his judgment he seemed to blossom. He even went to my supervisor and asked for more challenging work!

My supervisor came by, excited, and said he had noticed changes and wanted to thank me for doing such

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a fine job being a mentor. I told him, "All I did was put him in touch with his own potential. He did all the rest."

I learned much from this experience: Do not judge. Take time to know people and their dreams and goals. Listening is often more important than talking.

TRUSTING THE ENEMY

Terri Rodgers, John Glenn Research Center Transfer Wisdom Workshop May 2, 2002

he opportunity to manage a flight project came up and I was eager to see what that world was like to actually see hardware fly. The only catch was that the opening occurred because the current project manager wanted out. It was too much work on top of his other workload, and the project scientist was driving him crazy.

Sure enough, as soon as I took the job, the project scientist started complaining all the way up to his

management chain. We would be in a meeting and have to step outside to argue over some disagreement. Finally I decided, "If you can't beat 'em, join 'em." I started to listen closely to his concerns and realized that some were valid. I also



started to recognize his strengths, and I capitalized on them. He was quite articulate and he was willing to share his ideas with an audience. I asked him to present a few charts at our monthly presentation to management. I also included him on the telecoms with our payload support managers at Marshall Space Flight Center and Johnson Space Center. These simple things gave him more insight into what was going on with the project, and they cost me nothing.

The project moved along and before too long our hardware was tested and ready to fly. It was time to present our work to management during a two-day review. The project scientist faded into the background because he trusted me to do my job. The first part went fine. I went home Friday evening, thinking about what I would say on Monday. But things didn't work out the way I planned. I was eight months pregnant, and I went into premature labor. I called work to say that I wouldn't be in on Monday.

When Monday came, the project scientist did a wonderful job presenting my charts—but not before praising me for the job I had done. This from a person, who looked more like an enemy than a friend when I first met him. You can go far when you reach out to "enemies" and listen.

GET IN BED

Jon Bauschlicher, Kennedy Space Center Transfer Wisdom Workshop January 23, 2003

uring a long and checkered professional career, I was taught to "never get in bed with the customer." While working for the government (NASA and US Air Force), "getting in bed" with the customer/supplier would, at worst, compromise your objectivity and result in a conflict of interest, and, at best, give the appearance of impropriety.

While working in private industry, we were told that "getting in bed" with the customer/supplier would reveal minor flaws in your product or process that the customer didn't really need to know about. We were told that the customer would nitpick you to death with questions and concerns that weren't important, and that decision-making would be delayed by bringing someone else into the decision making process. We were told that proprietary products or design processes would be revealed to someone without a "need-to-know."

One project changed my feelings about all that. Project KAFFU (Kiwi Air Force Fighter Upgrade) was a fighter retrofit program for the Royal New Zealand Air Force; we were trying to give F-16 capabilities to old A-4 fighter aircraft. When the contractor I was working for won the competition, the contract included sharing office space with the Royal New Zealand Air Force engineers, pilots, and maintainers throughout the entire development, prototype, and flight test effort—cradle-to-grave, as far as the engineering effort was concerned.

We sat side-by-side with these guys. They participated in every facet of the engineering development program. They helped write requirements, software, drawings, specifications, test plans, test procedures and test reports. They worked in the lab integrating and testing hardware and software. They knew how things worked, and they saw things fail. They saw smart and dumb engineers and managers. They worked and played with all of us. Aside from a few classified areas, they had full access to our entire facility—our engineering labs, work areas and our cafeteria. They were truly, fully, integrated into our engineering team. And the results?

We had product advocates (the Royal New Zealand Air Force engineers) who were trusted by both the customer (the Royal New Zealand Air Force) and the supplier (us). With less engineering work for us, we produced a product that more fully addressed our

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customer's needs and requirements. It was a better product—more capable and user-oriented—than we would have produced without the active participation of the customer's engineers, operators, and maintainers. And, in the end, we had a well-informed, well-educated customer expert in our system's uses and capabilities.

Overall, the results from "getting in bed" with the customer were nothing like I had been taught they would be. Nothing but good came from the effort, and both customer and supplier benefited—the ultimate win/win situation.



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