

Time for Some Good Old-Fashioned PR

By Joanne Pransky

A long-awaited milestone was achieved in 1996 with a record breaking \$1 billion in U.S. robot sales — roughly two-thirds of which took place in the automotive industry. But the future of robotics lies in non-automotive applications such as medical, electronic, food, and the textile industries, to name a few. As we rapidly approach the next millennium, it's high time that we, as industrial robot manufacturers and integrators, refocus our terminology in an effort to appeal to a broader scope of end-users.

While engineers at customer sites are becoming more robotically literate and proficient, the vast majority of people with a decision-making role in robotics purchasing often have little or no knowledge of robotics. For those individuals, whether they be the CEO or the employee who will be working next to a robot, a negative image of robots may spell the difference between a new market beachhead and a lost opportunity.

Hollywood has not helped our cause, despite its fascination with robotics. Starring roles for futuristic robots in *The Terminator*, *Robocop*, and other films inevitably portray robots as harmful and destructive. It isn't far-fetched to say that these films leave a residual distrust of robotics in individuals with little other knowledge of the field.

Another source of mistrust is the perception that every robot represents one or more lost jobs formerly held by flesh-and-blood workers. Robotics, like computers, have created more jobs than they have destroyed, but the public, by and large, isn't aware of this fact. Perhaps we haven't done a good enough to document job and productivity growth yielded by robotics installations.

Although hard to imagine now, PCs also stirred fears that they would replace people. Secretaries represented one group voicing concerns about the impact of computers on their job pool. A little more than a decade ago, when PCs first hit the scene, there were three major classifications for secretaries — receptionist, secretary, and executive

secretary. Now there are roughly 18 classifications including desktop publishing/graphics specialist, word processor/administrative assistant, and data/order-entry clerk. Once people were trained and acquainted with the benefits of computers, their perceptions changed — and new realms of productivity were realized.

At the other extreme of public resistance to robotics is what I call the “Star Wars” complex — the disillusionment with robotic technology. Having grown up with Rosie from *The Jetsons*, Robbie the Robot, and R2D2 and C-3PO, many now cast a skeptical eye toward robots as an unfilled promise. To some, robotics-based automation is a pie-in-sky venture simply because it hasn’t yet caught up with science fiction depictions.

These two unflattering views of robotics, neither one accurate, lie between our industry and broader acceptance of industrial robots. Since we can’t control how the media chooses to depict robots, it’s time we consider efforts to educate the public and bridge the gap between reality and fiction. A good starting point is the terminology we in the industry use to define robots. Looking through the glossary of terms published by the Robotics Industries Association, it may be a time to update our terminology to make it appealing to a broader audience in yet-untapped markets.

For instance, I understand the definition of an industrial robot when I read it: “A reprogrammable, multi-functional manipulator designed to move material, parts, tools, or specialized devices through variable programmed motions for the performance of a variety of tasks.” But is this a definition a broader audience can sink its teeth into? I still have trouble with the acronym SCARA (Selective Compliance Assembly Robot Arm), a very common and industry-accepted term. It sounds like “scary” to me — and to others more familiar with the Terminator than an industrial robot arm. When describing a robot as “intelligent and articulate”, the knowledgeable understand this, but the neophyte may think they’re getting a machine with good voice diction.

We also need to be aware of inferred robot terminology. I’ll never forget my first meeting with the technical team of a robot manufacturer: “There are two ways to mount the robot, either on a table or on a pedestal. If it’s on a pedestal, you mount it from

behind,” the technician noted. I suppose I wasn’t the only one hearing a double entendre in this otherwise serious explanation.

When it comes to robot phraseology, should we continue with model numbers or should we consider names for types of robots? Unless one has spent time researching various industrial robots, I don’t think that the current end-user immediately understands, say, what an XM3000 series refers to without seeing one. Although the model numbers typically correlate to a workspace or some other specification, maybe names would diffuse some of the trepidation people feel toward robots — and end users often name their robots anyway. In the field, I’ve met the Seven Dwarfs, Cheech and Chong, Virginia, Billie, and other nicknames for steel employees once they are on the factory floor. If anthropomorphizing them helps make robots more appealing, it’s worth looking into.

Perhaps we should emphasize the types of jobs increased by robot sales, such as robot maintenance technicians, robot programmers, vision application engineers, etc., rather than just publishing the number of U.S. robot sales as though an army of steel workers are encroaching on factory floors. And what about the numbers of disabilities robots are helping to decrease, such as carpal tunnel syndrome, and the many jobs that robots now do that people either can’t or don’t want to do?

We’re poised on the edge of a new generation of robots that, according to Joseph Engelberger, the founding father of the industrial robot, will open up vast new opportunities for robotic applications. The next generation, mobile service robots (or “serve us” robots as I like to refer to them), will leave the factory floor behind and cater to millions of end-users in a variety of settings — from the hospital to the home, from restaurants to offices. The populace will be coming face to face with these service robots, and its views of robots will impact the growth rate of this potentially enormous industry. Some old-fashioned public relations is needed to speed their acceptance.

Whether we look at the short-term industrial robot expansion into new markets, or the long-term opportunities of service robots, it is time to inform and prepare the public for the exciting robotic developments ahead. We should consider how to engage the public, dispel their negative perceptions, and awaken their interest. A baby step in this

direction may be honing our terminology so that broader categories of people — CEOs, managers, and the public at large — are not put off. Think of it as the first step in making robots a part of everyday life.

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