

ATG: First off, what's a "staff director"?

JD: It's society-speak for a vice-president, I think. It was my job title when I first came to the IEEE 18 years ago, and it's still my title now. My career hasn't advanced very much in 18 years.

ATG: Why does a scholarly society need a sales & marketing department?

JD: The IEEE is not a "business" exactly but we need to conduct ourselves in a business-like way. Our revenue was about \$350 million last year, which makes us tiny indeed next to the major STM commercial publishers, but big in the society world. About half of our revenue comes from our publishing business, which is the main activity my department is responsible for, but we also have a large conference business (we conduct over 600 conferences around the world each year) and, of course, we are a membership organization.

ATG: Anything else?

JD: Yes, we also develop technical standards, an activity that is fairly unknown in the STM publishing world, but carries a big stick if you are a technology company. Standards like Wi-fi and WiMax — and hundreds of others — are based on IEEE standards.

ATG: The IEEE was founded in 1884 as the American Institute of Electrical Engineers, yes?

JD: Yes, which means our 125th anniversary is coming up in 2009. We are planning some major events that I hope ATG and its readers can participate in.

But as you say, the Institute was formed in 1884 — just in time for an exhibition in Philadelphia of a new technology called electricity. With distinguished European scientists and inventors coming to America, which was still a new country, a country thought of as primitive by Old World Europe, four men (two of whom were **Thomas Edison** and **Alexander Graham Bell**) formed an "institute" to receive them. Although this was the first time that an international technology exhibition was ever held in the US, Congress had appropriated only \$7,500 to host it. Even then, that wasn't much. So they had to do something more, and the AIEE was the result.

ATG: And in 1912 the Institute of Radio Engineers was formed, eventually merging with the AIEE?

JD: That's an interesting story too. One month prior to the IRE's formation, on the night of April 12, 1912, one of history's worst maritime disasters occurred. On its maiden voyage, as we all know, the great ocean liner "Titanic" hit an iceberg with over 2,200 people aboard, and began to sink rapidly. What most of us don't know is this: the ship's wireless operator started to send out distress signals, which — although this technology was not



yet widely used, and although it was late at night — a few other ships were able to pick up. They relayed the message to the American mainland, and rescue ships were launched. The fact that over 700 people were saved that night was due completely to radio technology. Over the next days the entire world became engrossed in the drama of tragedy and survival that night. Within months governments around the world began to mandate the appointment of radio operators aboard all ships at sea — and radio and its operators became indispensable to world commerce.

So these two organizations joined to form what we now know as the IEEE in 1963. A pretty dramatic beginning!

ATG: What is your niche compared to, say, ACM? Are there other or competing societies? Do societies compete?

JD: Yes and no, but mostly no, societies don't compete. We see other scientific societies as our sisters and brothers, operating with a similar purpose. The IEEE is legally a 501(c)(3) organization, which essentially means we are run for the benefit of humanity. We don't exist to make money, we even don't exist for our own members' benefit, or for Americans, but for humanity itself. Most societies are run for similar reasons. So we mostly feel a kinship with other societies, not a sense of competition, although we occasionally do compete to publish a journal, say, or a conference. But much more often we co-publish a journal, or co-sponsor a conference, so scientific societies are more often "cooperators" than competitors.

ATG: So what about ACM?

JD: That's probably the closest society "co-opetition" in our space we could identify. ACM is a distinguished society. We publish two important journals together, and co-sponsor many conferences, but we also compete for papers, conferences and members. There is roughly a 20% overlap between ACM and the IEEE Computer Society memberships. In

my perhaps amateurish way of describing our niches, the IEEE publishes more toward the hardware side of computer science; the ACM represents more of the software side. But that's not always strictly true either. Have I cleared that up for you?

ATG: No, but let's move on. Why should we, your customers, care about whether a society or a commercial publisher publishes a journal?

JD: Ah, my favorite topic! If you look at all the standard quality indices, like the *Journal Citation Report*, journals published by societies usually rank significantly higher than journals published by commercial publishers, at least in our space. I don't hear that being remarked on as much as it should be. What we are also finding out is that some of the less-standard indicators, like the generation of important new patents, strongly show the dominant influence of society journals.

Let me give you an example, and we're very proud of this: Last year, in 2006, there were over 250,000 patents approved in the U.S. for the top 25 patent companies — companies like **IBM**, **Hitachi**, **Samsung**, **HP**, **Sony**, **Intel**, etc... That's not just their patents in technology, its all patents — chemistry patents, nano patents, mousetrap patents, all patents. Of these 250,000 patents, 38% of them were based on an IEEE journal article. That's a phenomenal result! In second place, with 9% of patents, was **Elsevier Science**. Virtually all the other patents by these top 25 patent companies were based on papers published by scientific societies — the **American Institute of Physics**, the **American Chemical Society**, the **American Vacuum Society**, and so on.

So you can make a strong case that the intellectual property published by the scientific societies is driving R&D discovery and, ultimately, the economy itself. Moreover, if you look at the big commercial STM publishers, many of the journals they publish are on behalf of scientific societies that are too small to publish themselves.

So that's why you should care if you're subscribing to a society journal or a commercial journal. University libraries can and should be discriminating customers. And I won't even begin to talk about price!

ATG: So what are the hot topics in technology?

JD: A good way to find out is to get your hands on the March/April issue of MIT's "Technology Review" magazine each year. In this issue they talk about ten new emerging technologies to watch — medicine, nanotechnology, software, energy, biotechnology, telecommunications, and so on. Very interesting, bleeding-edge stuff that these ten scientists and engineers are working on.

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Now what I like to do, as a marketing guy, is to research how many of these ten individuals have published papers in **IEEE** journals or given talks at **IEEE** conferences. Always, it's most of them — I've been doing this for five or so years now — and sometimes it's all of them. Then we talk about this at customer breakfast meetings at library and trade shows we go to. It's a way of dramatically illustrating how, just as in the case of patents, **IEEE** research is changing the world.

So to step back a little, when it began **IEEE** was devoted to electrical engineering. Then it was joined by radio engineering. And now in the 21st Century we've gone way beyond these disciplines to influencing all of technology itself, even medicine. In fact, a few years ago, in 2003, an **IEEE** member named **Paul Lauterbur** won the **Nobel Prize in Medicine** for inventing the **MRI machine**.

ATG: What should librarians know about IEEE?

JD: We hire them! We have a team of four Client Service Managers that literally travel the world — almost 60% of our business is outside North America — to train users on **IEEE** products, to tell them about the latest developments, and generally to be good ambassadors for the **IEEE**. Each one of these individuals, and to a person they are outstanding, also a librarian. Now they are working inside the biggest technology corporations, and the finest universities, in the US, Germany, Italy, China, Japan, India, Korea — you name the country, or the company, or the university, and they've been there.

In fact, I'll conclude with a great story about one of our librarian/CSMs. Her name is **Rachel Berrington** and she was at the **Jet Propulsion Lab at Caltech** doing a training session there a few years ago. **Rachel's** a great person and so are the people at **JPL**. This training session happened to occur during the final weeks before they were shipping the **Mars**

Rover out for launch. They had created a gold disc they were all going to sign and bolt onto the **Rover**. Since **Rachel** was there and they liked her and enjoyed the session, they asked her if she wanted to sign the disc too. She said, of course, yes, and she did. So **Rachel's** signature is on **Rover** on Mars. Pretty cool! Not many can say that.

ATG: Finally, tell us about yourself. Family? Hobbies?

JD: I'm not an engineer, although everybody asks me that. My degree was in literature and philosophy, so you can see I've put it to good use. I have a publishing background, having worked for companies like **McGraw-Hill**, **Prentice-Hall** (remember **Prentice-Hall?**), **Pergamon** (remember **Pergamon?**) and others. I'm an old guy but I have two young kids, 11 and 14, so I'm trying to hang around to see how they turn out. I have a trophy wife (I hope she's reading this!) and I like music a lot. I now have 2,467 songs, including symphonies, on my **iPod**, and I'm trying to figure out what order to listen to them in. 🐼