

Focus on microscopy: Opening the world of microscopy for Internet purchases

Barbara Foster

The worlds of analytical chemistry and microscopy are converging daily, but new hybrid instruments and combined applications are not the only things crossing the chasm. According to recent research,¹⁻⁶ Internet purchasing is also gaining a foothold in the worlds of microscopy and related imaging technologies. Microscopists, like their analytical counterparts, are learning that e-commerce can save them time, money, and effort.

Who's buying what?

By its very nature, microscopy is a "show-me" science. Typically, instrument purchases follow the same edict: Microscopists need to try out an instrument before making a decision to buy. At first glance, this approach flies in the face of e-commerce, but the Web's convenience and availability invite certain types of purchases (*Figure 1*). For instance, approx. 40% of scientists from all disciplines surveyed buy sample preparation equipment over the Internet. Researchers are more comfortable with this approach than other groups, typically reporting Web-based

Microscopists, like their analytical counterparts, are learning that e-commerce can save them time, money, and effort.

shopping between 5 and 10 percentage points higher than other categories. Numbers from the biological community are about half of those gathered from materials science and the semiconductor industry.

Interestingly, image analysis software trends followed an opposite pattern. Approx. 20% of the scientific attendees participating in the materials-driven Microscopy and Microanalysis (M&M), Materials Solutions (ASM), and International Symposium for Testing and Failure Analysis (ISTFA) studies held in 2000 would buy this type of software over the Net compared to 30% of the Cell Biology audience* and just under half of the Neuroscience group.

E-commerce also affects other imaging technologies. While numbers varied considerably meeting by

*Researchers in this audience bumped the number to 41%.

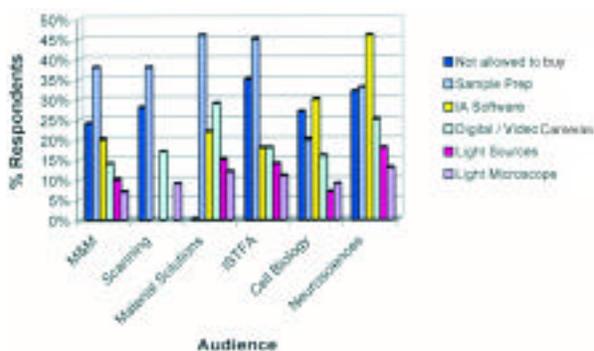


Figure 1 Graph showing what microscopists buy electronically.

meeting, between 15 and 25% of each group would purchase digital or video cameras and about 15% would buy light sources using this method. About 10% would even buy light microscopes this way.

From where?

Key sites for the microscopy market vary dramatically from sites central to the analytical world. Instead of frequenting typical laboratory supply shops such as **Daigger** (Vernon Hills, IL; www.daigger.com), some microscopists shop closer to home through companies such as **Ted Pella, Inc.** (Redding, CA; www.tedpella.com), **SPI, Inc.** (West Chester, PA; www.spi2.com), and **EMS-Diatome** (Fort Washington, PA; www.emsdiasum.com). **Polaroid** (Wayland, MA), which uses a dealer network for distribution, posts a dealer locator form on its Web site (www.polaroid.com). This site not only identifies the local source of **Polaroid** products, it provides driving directions and direct links to the dealer's shopping cart.

Budgets and new methods for buying

These studies revealed an expected bimodal budget picture. Typically between 15 and 20% of each audience experiences a ceiling of \$1500 or less. Occasionally, about 10% stretch that limit to the \$1500-2500 range.

The real power of e-commerce emerges when scientists are limited only by their budgets. They are free to scan the Web for necessary equipment and

supplies, compare prices and service, place the order, pay for it, and receive it, typically within a few days. Overall, about 15–20% of each audience operates at this level. The Scanning meeting, known for attracting industry gurus who specialize in confocal, atomic force, and electron microscopy, enjoyed the greatest freedom: 31% of that audience are limited only by the size of their budgets.

Slowly, companies and academic institutions are making new payment methods available. Results from the Scanning meeting indicate that about a third of Internet purchases still require a purchase order, while another 10% are invoiced. Another 20% each can use company- or government-issued credit cards. This trend is significant because the less paperwork, the greater the efficiency of the system.

Limitations and opportunities

Corporate thinking is the major barrier to e-commerce for microscopy and related imaging technologies: Between a quarter and a third of each audience is not permitted to buy over the Net at all. However, all signs point to a shift in this trend because Internet buying is a win-win situation for everyone. Scientists spend less time shopping and they receive needed equipment and supplies more rapidly, often at better prices. They are less distracted by administrative chores and can spend more time focused on their work. Companies benefit because the entire procurement process is streamlined, cutting administrative costs dramatically. Government organizations such as the National Institutes of Health as well as private firms such as **PerkinElmer** (Norwalk, CT) have already realized the impact of this approach and have brought their purchasing systems on-line. The studies reported here indicate that microscopists, who rely strongly on a reliable flow of preparation equipment as well as general imaging equipment and software, are beginning to benefit from the fallout and are quickly becoming part of this growing trend in Internet-based purchasing.

References

1. Scanning 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2000.
2. Microscopy & Microanalysis 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2000.
3. Materials Solution 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2000.
4. ISTFA 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2001.
5. Cell Biology 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2001.
6. Neuroscience 2000 Market Research. Microscopy/Marketing & Education, Springfield, MA, 2001.

*Ms. Foster is a Contributing Editor to American Laboratory and President, **Microscopy/Marketing & Education**, 125 Paridon St., Ste. 102, Springfield, MA 01118, U.S.A.; tel.: 413-746-6931; fax: 413-746-9311; e-mail: mme@map.com.*