

The Criterion



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OCTOBER MEETING



A New Model for Measurement and Evaluation in HPT

Wednesday, October 18, 2000

Presented by Arlene Brownell, Ph.D., Training Impact Group, Inc.

The traditional role of the training organization is changing from providing basic skills and knowledge to performance improvement. Today, business objectives are driving all performance improvement efforts and trainers and training organizations are being asked to demonstrate the impact of performance improvement interventions on job performance and business outcomes. In order to add value to their companies, successful trainers are becoming business partners and gaining a seat at the table when decisions are being made.

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TIME TO RENEW YOUR MEMBERSHIP

You may have already seen something in your mailbox! ISPI is moving to an annual renewal this year. This means that:

- All members of ISPI should have received a renewal notice in the mail.
- If you have not received a renewal notice, or if you have moved, please send a new member application (available off this website) to the PO Box.
- If you have been a member through a corporation that is no longer an ISPI member, take this opportunity to join at the regular rate.
- If you believe that you have received the renewal request in error, please send a letter to the PO box indicating your last date of renewal.

If you have any questions, contact Ryan Simmons (ryan.simmons@mail.com).



New members!

- Amy Arthur
- Lori Brown



ISPI FRONT RANGE CHAPTER MEMBER SURVEY

By Steve Madsen, Chapter President

During the past couple of years we have always tried to attract and schedule topics and speakers that will be the most interesting and beneficial to our membership. We have created a survey to solicit this information in addition to some membership information relative our members.

There are several open-ended questions to offer you an opportunity to speak directly to the ISPI Front Range Board and let them know of concerns, issues, compliments, and whatever comments you wish to make. Please take about 5 to 10 minutes out of your busy schedule to complete the survey by October 30th.

Fill out your member survey today at: www.insighted.com/ispi-frc_survey



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TECHNOLOGY TRENDS: HOST A VIRTUAL MEETING

By Amie Gemmell



You've heard of, maybe even participated in video conferencing, right? The results: poor quality and a far cry from the capabilities of the Starship Enterprise. While you may enjoy the airline cuisine and hotel beds that traveling to meetings offers, there may be another solution.

Enter Teleportation Conferencing. The Reality Interface Company, based in England, utilizes advanced digital technology to allow users to interact with aerial images. They transmit and display life size images of people from remote locations. Sounds like a scene that should involve Captain Jean Luc Picard but it's happening. In fact, the first teleportation conference was conducted at the TeleCommunications Managers Association exhibition in December of 1999. Reality Interface teleported Ian Steward from London to the exhibition location in Brighton.

The concept is simple really. Teleportation Conferencing generates a life-size image of a person and projects it in a three-dimensional environment behind a lectern for example. The audience views what appears to be the actual person rather than an image on a screen, which is the basic principle of video conferencing. According to the web site when compared to video conferencing, "...the Reality Interface systems provide a more natural means of interaction and a broader range of real world applications." What's more, the speaker sees the audience in front of him or her as well, allowing for eye-to-eye contact and virtual interaction.

"[T]he Reality Interface systems provide a more natural means of interaction and a broader range of real world applications."

So exactly how does it work? A visit to the Reality Interface web site at www.realityinterface.com leaves one with more questions than answers. It is unclear where the future of Teleportation Conferencing lies but certainly the achievements of Reality Interface thus far are impressive. The implications for using teleportation technology are mind boggling. While it might bring to mind the "big brother" world that George Orwell envisioned in 1984, the potential communication and training possibilities are virtually endless!

ONLINE LEARNING 2000 OR...AND THEN THERE WAS VIDEO

By Terry Thompson



There were probably two key themes in the recent On-Line Learning Conference in Denver. The first was stamina. According to Gloria Gery, in her Keynote address, attendance jumped from nearly 5000 last year to nearly 8000 this year. And, the Expo probably grew at an even greater rate with a huge increase in the types of vendors and in the overall number. To hope that you could cover that number of vendors in a three day period was to suggest an effort of Olympian proportion. It was as if the toyshop went on forever.

The second theme was video. I have a background in that area and have been waiting a long time for video to hit the On-Line / Web environment. I'm pleased to announce that it is here. As I traveled from one vendor to another it became clear that if they didn't have streaming audio and video now, it was the number one target in their next release. Of course, the fact that the new Windows operating system, Me, is largely aimed at that target probably has a lot to do with it. Microsoft is making a significant effort to become the leader in streaming media and has probably caught up to Apple's Quicktime and is on

the heels of Real. For designers of Training / Educational materials, it means a significant increase in the tools available for the production of multimedia based solutions. According to one presentation, the cost of going into production is less than \$1,000 (I took that to mean a small video camera, some editing software and a product like Media Cleaner to produce the codec based streaming file). Of course, you can go higher, especially if you consider a specially equipped server but the software for that server is, in many instances, free. There are a variety of options.

Conference presentations presented a range of topics but the time slots seemed to be more limited, thus making careful selection a priority. I attended mostly video-related presentations and they were quite good. The other two themes of importance there were, as expected, knowledge management and variations on the EPSS theme. They seemed to spend a lot of time trying to differentiate between the two but I've never seen the conflict myself. The final keynote address (from a nattily dressed, dreadlocked scientist from the National Tele-Immersion Initiative, Jaron Lanier) seemed to address the dichotomy by pointing out that the "new lingo" was more of an impediment to understanding than a help. He said a lot of other things that made sense as well, once you got over the fact that he paid little attention to the dress code. Our president-elect saw him in the parking lot and thought he was a taxi driver.

On-Line learning still has some growing up to do and many of the conference higher-ups acknowledged this fact. But, if the imposing size of the event was any indication, it has captured the imagination (and the pocket books) of the people in our industry and shows no signs of letting up. In fact, if next year's location, Los Angeles, doesn't meet your needs, I saw literature advertising the same conference in Asia for later this year. Looks like it might become a traveling road show. Just be thankful you're not in sales.

WHAT YOU SEE

Trainers don't need to be graphic design experts, but they should know the basics.

By Patti Shank

Ever noticed how, in the original Star Trek series (yeah, yeah, I know it dates me), the Starship Enterprise appears to swoosh into space and disappear? That's done with graphics and animation, and it's pretty cool stuff. You may consider graphics and animation the realm of TV and movie moguls, but it's important to Web-based learning, too.

Web designers and developers like to show off their skills, resulting in interesting but not-too-useful designs that hog bandwidth and don't do much else. If you've ever found yourself annoyed while waiting for the unnecessary Flash content of a splash (intro) page to finish, you know what I mean.

"Years ago, I worked on a project where the client wanted all the latest multimedia and tons of animations," says Christopher Whitlock, director of interactive communications for NETg, an e-learning supplier in Naperville, Ill. "We tried to dissuade him, but that's what he wanted. Ninety percent of the project costs were swallowed up in animation. It was beautiful, but initial focus group testing showed that the animations made it run too slowly." Whitlock's group replaced them with static images.

The lesson? As online learning creators, we need to be especially aware of users' needs. Adding lots of bells and whistles can inadvertently exclude or annoy people.

What's the big deal?

Good graphic design is integral to a good learning site. We only get a few seconds to make an impression, and sites that aren't attractive aren't well received. The design of the site also helps learners understand how it works. Those nifty rollover buttons and drop-down menus are more than just pretty. They tell learn-

ers where they are, where they've been, and how to get somewhere else.

Some trainers and instructional designers are lucky enough to work with graphic designers. In that case, it makes sense to have an understanding of their world. Others have to make do without professional assistance. (I see some hands waving out there.) Since there are a heap of ways to do Web graphics wrong, it makes a heap of sense to learn something about good design.

The scope of graphic design can be immense. To be an expert, you have to know something about images, animation, simulations, information architecture, video and more. Cynthia Sowder, director of the interactive training media department at Microsoft Corp. in Redmond, Wash., is part of a team that creates Flash animations, illustrations, icons, simulations, video, screen captures and Web pages. To do this, she uses Freehand, Microangelo, Director, FrontPage, Dreamweaver, Premier, Flash, Sound Forge and Photoshop software.

But software and design skills are not enough, according to Sowder. "Graphic design folks also need to have a good understanding of Web technologies, since optimization of file sizes, streaming and palette issues are so important," she says.

This may sound intimidating, but don't put up your deflector shield yet. Graphic designers are expected to know a lot more about graphics than we mere mortals in the training field. But we can easily become proficient in some of the basics.

Beam me up

Graphics gobble bandwidth, so you have to choose them wisely. Consider this: It takes about 1K of data to fill an entire browser screen with text. Add this one little creature (recognize him?) and he takes almost 5K all by his lonesome.

Why? Here's an analogy that might make sense. Remember how Scotty, in the original Star Trek series, sometimes had

problems with the transporter? People or objects sometimes took a long time to "download," and some even got lost. The same happens with Web graphics. Users wait for what they think might be an important Federation official to appear on their screen, only to find out it's just a bunch of tribbles. And you know what happens with tribbles - trouble. If you do this to your learners, you may lose them for good.

Say you're working on your learning site and wondering if you should use that cool clip-art image. First question: Does it add something to the page? If not, forget it. Think of all the dreadful PowerPoint slides with cheesy clip art you've seen. Gag me! It's tempting to add images to liven up the page, but many are not worth the time they take to load. Ask yourself, "Would I want to wait for this?"

Graphic loading speed depends on the size of the image and the user's bandwidth. Some images (like charts and pictures) could add a great deal to your training, but they're still too big. That's where image editing software like Photoshop or Fireworks comes in. I use Fireworks a lot, and I appreciate how it tells me the size of each image and how fast it'll load on a 28.8 modem.

Standing still

Let's start with some basics about static (as opposed to moving) Web graphics. The two major Web graphic formats are GIF (graphic image file format) and JPEG (joint photographic experts group).

The majority of images we see on the Web are in GIF format. GIFs are limited to 256 or fewer colors, but that often doesn't matter too much. GIFs are mainly used for simple graphics: clip art, diagrams and simple illustrations. A traditional GIF image downloads one line of pixels at a time, so the viewer sees the image gradually building on the screen.

JPEGs, on the other hand, are full-color images. This format is ideal for graphics that are more complex, like photos, medical images, scanned images or complex

illustrations. The compression scheme used for JPEGs is much more sophisticated than the one used for GIFs, which means you have more choices about the degree of compression and the resulting image quality.

Want to see examples of these file formats at work? Try the Web graphics section of the Yale Style Manual at <http://info.med.yale.edu/caim/manual/graphics/graphics.html>.

There's one more file format you should be aware of: PNG, or portable network graphics. In 1995, a group of designers developed an image format that is portable across platforms and operating systems. They wanted it to work well on the Web, too, and eventually replace GIFs.

Right now, most browsers do not support the PNG file format. But according to the serious Web development e-zines, you can expect a lot of activity and interest as soon as Microsoft and Netscape increase support for this format.

File formats aside, there are two types of graphics: bitmapped and vector. Bitmapped images are saved as individual pixels. This pixel-by-pixel approach creates some pretty large files, which is why compression is necessary. Vector graphics, on the other hand, are saved through mathematical algorithms. Points and lines are defined, and since there are fewer of these than pixels, the file sizes can be much smaller.

Moving right along

What about graphics that move? There are many tools and techniques we could talk about in this category. But to stay out of tribble - I mean trouble - we'll limit our discussion to animated GIFs, DHTML, Shockwave and Flash.

The type of animation you'll use depends on your desired outcome, the capabilities of the user's browser and the available bandwidth. For instance, Flash animations are hot stuff because of the potentially small file sizes and streaming capabilities. But although Flash is great with vector-based graphics such as illus-

trations, it doesn't do well with bitmapped graphics (photos, for instance).

You'll need to look at the strengths and limitations of each animation technology to determine what will work best in each situation. Want to get a quick feel for the uses and limitations of each? Check out Webmonkey's animation tutorial at <http://hotwired.lycos.com/webmonkey/multi-media/animation/tutorials/tutorial1.html>

Animated GIFs (GIF89s) have been around since the late 1980s. If you've seen those annoying, blinking banner ads, you've encountered animated GIFs. File sizes tend to be large, and GIF89s have no sound capabilities. But since every browser knows how to read them, they continue to be popular for small animations. The file-size limitations of GIF89s mean you're limited in the number of frames you can use, and this makes the animation jerky. Need examples of how you can use animated GIFs to do something besides annoy people? The Webmonkey animation tutorial has many examples.

DHTML (dynamic HTML) is another way to add pizzazz to Web pages. It uses JavaScript, cascading style sheets and HTML. Dynamic HTML allows you to make changes to a page after that page has been loaded into a browser. Want the background image to change after five seconds? No problem.

Well, there is one slight problem. DHTML implementation across different browsers (mostly versions 4.0 and higher of Internet Explorer and Netscape Navigator) is no sure thing. Think tribbles were trouble? Captain Kirk had nothing on Web developers trying to make DHTML work across myriad browser versions.

And then along come plug-ins, which add specific functionality to a Web browser. Macromedia's Shockwave plug-in for Director allows folks to see Director content online. You can see many examples of Shockwave content at www.shockwave.com.

Macromedia bought Flash from Future-Wave and then released a plug-in designed specifically for the Web. Even though Flash has only been out for a short time, it has quickly become popular. It's easier to work with than DHTML and has a host of impressive animation features. It produces small files because it's based on vector graphics.

Flash uses streaming technologies, which means users start seeing the beginning of the animation while the rest of the file downloads. It's a Web animator's dream come true. Flash lets you drop audio into a timeline to link with specific parts of your animation or user interactions. The potential uses for training are endless.

Pointers from the pros

I asked some folks in the field to give me advice on how training types can use graphics in online learning. Here's what they said:

- **Keep it simple.**

Don't get so carried away with visual metaphors that you lose your message. "I once saw an artist try to use a graphic of a gymnast to explain how a database could be flexible," says NETg's Whitlock. "It bombed."

- **Get organized.**

Make sure the information flow is logical, says Microsoft's Sowder. "One concept should lead to another," she says, "so that related information is grouped together. The more concisely the information can be delivered, the less likely the user will get lost. Sometimes less is more."

- **Know your learner.**

Greg Pallai, a Web developer at Chicago-based Teach.com, recommends talking to potential learners before considering graphic elements. "The more computer-literate your learner, the more advanced concepts you can use," he says. Knowing your learner means considering each user's hardware, software, screen resolution, bandwidth, browsers and plug-ins.

Microsoft's Sowder suggests asking yourself what your audience expects. Someone learning critical information probably won't have much patience for fluff. On the other hand, if a user is expecting to be entertained, animation and sound make sense.

- **Know your resources.**

Pallai says it's important to have a realistic picture about your financial restrictions before chasing Klingons across the galaxy. Smaller budgets lend themselves to static graphics. Larger budgets allow for video, illustration and complex animations.

Staying out of tribble

You may recall that when Scotty had engineering problems on the Enterprise, he always came up with bizarre solutions that got everyone out of terrible messes just in the nick of time.

In the training business, it's best to stay out of trouble in the first place. Whitlock recommends critiquing your own work and having others do the same. He also suggests that you take the course you're creating to see if any problems jump out at you. Testers and potential users are critical, too. Make sure you use formative evaluation techniques to judge the effectiveness of your design, graphics and animations.

And of course, a Vulcan mind meld with an awesome graphic artist might help, too.

Patti Shank is a learning technologies consultant and faculty member. She can be reached through her Web site at www.insightful.com.

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OCTOBER MEETING CONTINUED FROM PAGE 1



Kirkpatrick's four levels of training evaluation (developed over 40 years ago) were fine as far as they went, but these changes call for new skills and new approaches. Personal computers and common software programs that most people have on their desks now make it possible to move beyond the four levels to focus on process and continuous improvement.

About the presenter:

Arlene is Vice President of Consulting Services at Training Impact Group (TIG), a consulting company dedicated to demonstrating bottom-line results from performance improvement interventions. Prior to joining TIG, Arlene established and directed the Research Department for International Learning Systems, a performance improvement consulting firm working with Fortune 500 companies worldwide. An organizational consultant since 1987, Arlene has designed and implemented numerous human performance improvement interventions for companies that include AT&T, First Data Corporation, GTE, Hewlett-Packard, among many others. In addition, Arlene has developed and facilitated training on measurement and evaluation to Abbott laboratories, Bristol-Myers Squibb Company, The ServiceMaster Company, and Warner-Lambert Company.

2000 BOARD OF DIRECTORS

Check out the web site for the current listing and contact information for your 2000 Board of Directors!

www.ispi-frc.org/ispi-frc



MEETING INFORMATION

Where: Blue Cross Blue Shield, 700 Broadway.

When: Wednesday October 18 2000. Light dinner at 6pm, the presentation will start promptly at 7pm.

Parking: Turn into the Blue Cross Blue Shield parking garage entrance on 7th Avenue and park on level P1. Parking is free. After 6:00 p.m., you will be asked to sign in with the security guard on the 1st Floor. Follow signs to the meeting place.

Cost: Students & Members - \$10.00
Non-Members - \$14.00

Don't forget to RSVP by 10/16/00!
Call the ISPI Hotline at: **303-313-1621**
or email : reservations@ispi-frc.org

NOVEMBER MEETING



Scott Simmerman presents to the Front Range Chapter on Monday November 6, 2000. Mark your calendars and be on the lookout for more information!



**INTERNATIONAL SOCIETY FOR
PERFORMANCE IMPROVEMENT**

Our Vision

ISPI is the primary source of information, education,
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Our Mission

ISPI is dedicated to improving human performance
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