

Web Site Technology

ONLINE OPPORTUNITIES FOR BYWAYS



TELE-WORKSHOP SPOTLIGHT SPEAKERS

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Speaker Profiles:

Associate Professor Stephen W. Clyde specializes in software engineering, object-oriented models and methods, and distributed systems at Utah State University. He has been the principle investigator on numerous external research projects with local, state and federal government agencies and with commercial businesses. One of these projects, which began in 1995, included developing and maintaining the National Scenic Byway Web site and supporting information systems.

Stephen's current research interests include development processes for Web-based applications, object-oriented conceptual models, and architectural design patterns for distributed systems. Stephen has managed numerous software projects in both commercial and academic settings. He has published papers on a variety of topics, including formal software models, object-oriented design methods, curriculum design for computer science, knowledge-based code generation, and expert systems. Also, he has presented his research and development activities at conferences, workshops, and seminars.

Over the years, Stephen has taught courses in software engineering, object-oriented software development, conceptual models, operating system design, data and computer communications, database systems, computer security, programming environments, and software testing.

He received a Ph.D. in Computer Science from Brigham Young University, Provo, Utah in April 1993. Before receiving his degree at BYU, Stephen worked in the software industry for 14 years in a variety of jobs ranging from software developer to chief scientist. During this time, some of his accomplishments included co-founding a successful software company, developing dozens of commercial software systems, and inventing a knowledge-based code generator that automatically produces source code from high-level designs.

RESEARCH THE TRENDS

A familiar name in the byway community, Steve Clyde has shared his professional expertise and industry insights through his work with the National Scenic Byways (NSB) Web site, www.byways.org. His in-depth knowledge of the program allowed him to provide specific information relevant to byway leaders during the call.

Steve began the Tele-Workshop by introducing six discussion points:

1. Trends in how people plan travel on the Internet
2. Trends in what information people are looking for
3. How www.byways.org can help byways meet these informational needs
4. How to best work with the Web site staff to keep your byway's information updated
5. Improvements under construction
6. Thoughts about what's coming down the road

INTERNET TRAVEL PLANNING TRENDS

The dramatic increase in people gaining access to the Internet becomes more meaningful to byways if you understand how potential visitors use the Internet to plan their travel.

According to Steve, people use the Internet in travel planning for three main purposes:

- 1) Browsing
- 2) Researching a trip
- 3) Booking a trip

"The Web provides travelers with a practically endless source of travel ideas," he said. Once travelers decide on a destination or type of

trip, they move into a research mode to learn more about their specific options and the costs involved. Steve referred to a report prepared by Forrester Research in October 2002 that found 6 out of 10 households use the Internet to research their leisure travel online. "About half of that sixty percent of online American households also book travel online," he said.

Other research firms report similar observations. In May 2002, eMarketer's surveys showed that 32 percent of U.S. travelers used the Internet to book travel arrangements during the first part of 2002. Steve referenced additional statistics that also shed light on travel planning trends:

- By the end of the year, Web travelers will spend just under 30 percent of their leisure travel budgets online, generating revenues of USD 22.5 billion (Forrester Research).
- Online bookers spend more than twice as much on their trips than leisure travelers who don't research or book online (National Tour Association).
- An estimated 34.3 million households in the U.S. will book online by 2007, bringing online leisure travel revenues to USD 50 billion (Forrester Research).

Steve also noted that the National Tour Association studies have found that people are waiting longer before booking their travel. "People are delaying the booking process," he said. "It's the just-in-time travel era. They're not booking months in advance anymore. Is it driven by the travel industry? Last-minute specials are incentives for late booking. It could be 9-11 fears or uncertainties about the future that stall the bookings, too."



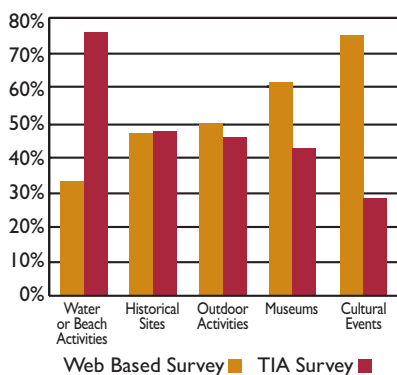
INFORMATION WANTED

For online audiences, quality information is critical. Steve defined “quality information” as data that is reliable, current and detailed. Online users appreciate simplicity in format and navigation of the Web site. Not surprisingly, they also look for good deals and respond best to the guaranteed lowest prices, according to the National Tour Association.

In addition to ideas for destinations and side trips, the online audience is more likely to

pursue travel related to culture and history, according to research by the Travel Industry Association of America and research conducted at Utah State University. “Cultural events and museums outranked outdoor activities, and historical sites were on par with outdoor activities,” Steve said.

WHAT TRAVELERS ARE LOOKING FOR



- The National Tour Association reports that museum visits are up.
- Similarly, the Association of Art Museum Directors reports that art museum attendance is up 22 percent over the last 10 years; 80 percent of the museums report they have had increased attendance since September 11; 20 percent have experienced a sustained increase in attendance since that date.

BYWAYS.ORG CAN HELP

The National Scenic Byways Web site, www.byways.org, provides America's online travel planners with a trusted resource for browsing and researching. “We have more credibility as a resource than many sites, especially because we're non-commercial,” Steve noted.

The NSB Web site provides visitors with the types of information online visitors prefer:

- accurate and inviting descriptions of byways
- stories about intrinsic qualities or themes for each byway
- byway maps and pictures
- detailed byways facts
- detailed information about interesting places along byways
- suggested itineraries
- contact information, and more

“The NSB site can really help travelers. It provides information for browsing and for research,” said Steve. “The suggested itineraries and contact information are especially important to travelers.”

He emphasized that the NSB site can't sell or book travel and it cannot participate in lobbying activities. “However, we can provide links to local travel sites or other Web sites that offer reservation services.”

IMPROVE YOUR BYWAY'S PRESENCE ONLINE

“Our challenge is to present all the information on the NSB Web site in a way that's consistent with the National Scenic Byways marketing strategy,” Steve commented.

The Web site team at Utah State University includes researchers for gathering, organizing and presenting information about byways. They work to ensure the accuracy and timeliness of the data, highlighting the byway's intrinsic qualities.

“Continually review your information on the Web site. Does it best represent your byway's qualities? Talk with the researcher assigned to your byway and send changes or additions to your researcher,” said Steve. He recommended including specific information such as seasonal attractions, road condition updates and especially event schedules.

WEB SITE IMPROVEMENTS AHEAD

Some enhancements are under construction on the NSB Web site already, including more integration with the national brand. “The focus is on the traveler's needs and goals. About 98% of the hits are from travelers,” said Steve. “The byway community section will stay, but the site will become more dynamic at the byway level. We want to offer better control of marketing messages at the byway level and improve the image library, too. Much of the NSB site features public-domain images, but some photos are copyrighted.”

He said he expects the site to offer electronic post cards, better surveys, and better reporting and statistics at the byway level, too. “We're in the process of releasing a new survey system with improved data gathering,” he said. “You'll be able to see how travelers are using information for your specific byway.”

Down the road, the next generation of the Web site will use enhanced technology. “It will become more of a planning tool for travelers. If the traveler says, ‘I'm interested in art and old buildings in Chicago. What can I do?’—the software will scan the information and collect it for the traveler to see,” explained Steve. “To do that, we need updated and detailed information from byways.”

A calendar of events, which is a valuable tool for travelers, will integrate a standard format for byways to use to submit their information. Steve also said that the team has designed ways to handle complex byways, such as the Great River Road and other multi-state byways. He also anticipates fly-over and drive-through graphics for all byways.

“We're integrating technology we developed here at Utah State University to create two-dimensional fly-overs that use satellite data,” Steve said. “The traveler can click on icons on the images to learn more information about points of interest.”

Drive-throughs feature 3-D real-time images like a video game. “We developed the program so that the traveler can navigate through the scenery by moving the cursor,” Steve explained. “Unlike fly-overs, the drive-through uses generated terrain – not real photos. But like the fly-overs, it will incorporate icons for more information.”

Steve would like to see Web cams, panoramic views and on-line custom itinerary generation become available, as well as closer ties to booking sites for hotels and other travel services providers. ♦

Q & A After the primary presentation, Steve answered questions from the participating byway leaders.

Q. It seems like the next-generation Web site involves coordinating a lot of information. How will that happen?

A. Each byway will work with a researcher at Utah State University. We have a checklist that defines the items that we would like to see from each byway. Some of the list can wait; it all doesn't have to happen at once. And the byways don't have to provide all of the imagery. The drive-through images come from GIS; the fly-over images come from a satellite company. We do the geo-encoding according to longitude and latitude. So what we really need from the byways are the facts, descriptions, points of interest, calendars of events—not entirely different information than what you already provide.

Q. Are there considerations for age or education in the online survey results?

A. We compared the Travel Industry Association of America data with a survey conducted at the Utah State University and found similar results. There were bumps in the age bracket of 50- to 60-year-olds and also among the 20- to 30-year-olds, but generally a fair distribution across all ages of people planning their travel online.

Q. Tell us more about the National Scenic Byways Web site and its relationship to local byway online efforts.

A. The NSB Web site provides a virtual community for byways. You can interact with each other, communicate with experts, connect with the folks at the Federal Highway Administration, and do your own browsing. Importantly, the NSB site is in a good position to attract national online traf-

fic and direct it to local Web sites. A local Web site, incidentally, may not be under the same restrictions for selling or booking travel services. And, it's a great opportunity for generating involvement from the local area. The virtual community you create locally can stimulate unity and motivate new partners so that the actual byway community grows together. It's not easy, but it's very do-able with the technology that's available. For one thing, a local Web site must acquire and maintain accurate information. You want to become a trusted source. Old information or incorrect information can quickly deteriorate your credibility. If your local Web site is well maintained, then we can use your site to extract information for the NSB site and you gain more exposure. Or, conversely, you can use our Web site as a repository of information and set up your local site for bookings. We can even create auto-exchanges of data. Gathering and maintaining information are the most costly and time-consuming portions of operating a good Web site; you don't want to duplicate efforts.

Q. Can we do a Web site alone?

A. Probably not. You should expect to spend some money to contract with a professional to help with your Web site development. You want a Web site that you can maintain yourself. You don't want to pay a programmer every time you need to update your calendar. It's more expensive up-front to create your Web site this way, but it's cheaper in the long run to maintain an accurate system. It's an investment and one of your most effective marketing tools.

Q. We already have a local Web site. Can our member organizations post their information to it?

A. Exchanging information with your partners can be a good way to keep your Web site updated while you support the community spirit. Software is available for uploading information. The "owner" of the information can come into the site and update information as needed. This is how the NSB Web site is set up. There are some costs involved in customizing for a local site.

Q. How do you get your local site to come up on Web searches?

A. It's an interesting game. The prime search engines, like Google, don't like auto feeds. It's not good enough to have your keywords at the top of the Web page for the crawlers to find, although it's still very important. The prime search engines like to see many pages linking to you, as well. If a lot of links point to your Web site from other sites, then the crawler considers your site to be a more engaged (and, therefore, worthwhile) response for the query. We're actively pursuing links to us. Here again, your local Web site can benefit from the traffic the NSB Web site captures.

Q. This is a lot to think about. How does a byway reach you to connect with the assigned researcher or ask more questions?

A. Call 1-800-4BYWAYS, Extension 3. Call for one-on-one discussions anytime during business hours.

Resources:

<http://www.nua.com>
<http://www.tia.com>
<http://www.emarketer.com/products/reports.php>
<http://www.ntaonline.com/>
<http://www.fhwa.dot.gov/pubstats.html>
<http://tinet.ita.doc.gov/research>

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America's Byways Resource Center provides information, connections and expertise that help build better byways. State coordinators, local groups, volunteers and organizations with ties to nationally designated scenic byways look to us for hands-on assistance in planning, preserving, promoting and managing scenic byways.

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