July 1994

Uplink

A newsletter for the National Institute for Computer-Assisted Reporting

Uplink update

For surfers of the Internet, we have good news. The National Institute for Computer-Assisted Reporting and Investigative Reporters and Editors have entered the online world.

Last month we set up two listservs (discussion group areas) through the University of Missouri. One listserv is NICAR-L and the other is IRE-L.

You can join the NICAR listserv by sending a message to listserv@mizzou1.missouri.edu. In the text of the message type:

subscribe nicar-l your name.

For example, Jackie Smith would type:

subscribe nicar-l jackie smith.

Do exactly the same for IRE, except type ire-l. Once you do that, every message sent to the listserv will land in your e-mail box.

In the NICAR listserv we plan to have discussions on computer-assisted reporting and on IRE on investigative reporting, computer and non-computer related.

In the coming months, we hope you will see other NICAR and IRE resources put online.

Inside

NBI list can help you find out

Are your bridges falling?

By Paul D'Ambrosio and Rick Linsk
The Asbury Park (NJ) Press

When you drive over a bridge, you assume it's safe. After all, the truck right in front of you made it across okay, so your little Honda should do just fine.

Don't be so sure.

To find out how bridges in our state were doing, we turned to the National Bridge Inventory list, a database detailing all inspections of bridges in the United States with a length of more than 20 feet.

In a story published in February, we found that one of every six bridges in the state needs major repairs. The bill for those repairs totals $4.8 billion — more than ten times what the state spends on bridge maintenance.

The NBI database only told us part of the story. Once we located bridges in questionable shape, we took a look at them. What we found were bridges with fractured foundations, one that had been struck by a train (but remained in use), and one that had state officials so scared they inspected it daily.

We discovered that temporary repairs on bridges are usually done to the road surface so motorists won't feel the bumps. The real decay, which can cause a bridge to be shut down, occurs underneath.

One tell-tale sign of decay was wood slate on the underside of the bridge. Highway crews put the slate there to catch falling concrete so motorists below don't end up with part of the bridge in their laps.

At first glance, the NBI code guide can be intimidating. Its 100 pages provide mostly technical detail on 116 fields. But you only have to use a few of these fields to get a good idea of what shape a bridge is in.

To understand how your area's bridges work, talk with a local engineer or county bridge inspection department. It doesn't make much sense to spend a lot of time looking at the "scour critical" field (dealing with water erosion under support piers) if most of your state's bridges are over desert.

In New Jersey we used Item 67, structural evaluation, as our divining rod. A rating of 0, 2, or 3 (1 is not used) told use that a bridge was in pretty bad shape.

Keep in mind that this database was designed by engineers, who tend to be pretty conservative creatures by nature. Nothing in this list will tell you if a bridge will fall down or how many more years of use it has. The latter used to be a field, but was discontinued.

Once we compiled a list of bridges, we examined the actual inspection re-

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Coming Events

August 14-19
NICAR Training Seminar
Columbia, Missouri
October 6-9
IRE Computer-Assisted Reporting Conference
San Jose, California

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Editor
Brant Houston
jourjbh@muccmail.missouri.edu
Managing Editor
Matt Reavy
c598896@mizzou1.missouri.edu
Senior Contributing Editors
Richard Mullins
jourram@muccmail.missouri.edu
Jennifer LaFleur
jourjal@muccmail.missouri.edu
Contributing Editors
Rosemary Armao
Tracy Barnett
Staff
Drew Sullivan, Kathy Thomas, Rich Deming, Seth Hamblin and Gwen Carleton

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NICAR services include hands-on newsroom training seminars in computer-assisted reporting, special academic and advanced training at Missouri, data analysis and advice.
NICAR is supported by a grant from The Freedom Forum intended to help the institute deliver its services nationwide to news organizations and associations.

Information highway or information landfill?

Why Internet is (mostly) cool

By Gwen Carleton
NICAR Staff

To hear some people tell it, Internet is a prodigious trove. Unfortunately, the treasure's behind a locked door — and the lock keeps changing.

By now, almost everyone knows what's in there: government documents and regulations, discussion groups, libraries, experts on everything. But knowing how to find what you need, and how to get it, consistently — that's the sticking point. For journalists with little patience and even less time, the result can be frustration.

Yet as the network continues to grow, so do its uses. And the successes of the net's most consummate users are giving their warier colleagues reason to take another look.

Internet's usefulness for gathering information in a crisis is unparalleled. It buzzed with live reports during the Tiananmen Square uprising, the Gulf War and the Soviet coup attempt to name a few examples. Michael Meiners, database specialist for the Sun-Sentinel, utilized the system's capabilities to contact people involved in the recent Indian rebellion in southern Mexico.

"We were able to contact local people ... and get first-hand accounts as well as a perspective that was not available through conventional media resources," he said. "The reporter was able to conduct interviews over the Net and ended up writing an excellent column."

Of course, Internet has proven useful during American crises as well, providing contact with people when all other lines of communication were down. After January's earthquake in Los Angeles, Neil Reisner, database editor for The (Hackensack, N.J.) Record, went online and logged some real-time conversations with survivors. Reisner also went a step further, checking an Internet site that tracks earthquakes around the world. The result was an immediate story with an unexpected international perspective.

During political crises and natural disasters, Internet is an obvious source for information. But advocates say the network's more mundane applications are its greater strength.

Meiners described how a reporter at The Tampa Tribune utilized the net to arrange a meeting with a source in Cuba who would have been unreachable by phone or mail. Entire interviews via Internet are becoming more common daily.

Another strength unique to Internet is its people-finding capability.

"I use PROFNET all of the time; it's one of the greatest tools I know," Reisner said. The database gives reporters access to the public relations departments of scores of universities nationwide.

People use PROFNET "to find out who can talk to you intelligently on a certain topic," explained Barbara Semonche, news librarian at the University of North Carolina. "The public information officers can check and see if they have someone who is an expert in this area. The reporter can then contact them directly."

USENET newsgroups, which most Internet users can tap into, provide access to an even larger pool of people. According to the latest statistics, there are now more than 7,800 USENET groups worldwide. Through them, reporters can locate people with almost any agenda, hobby or experience, discover local sources or just lay low in hopes of picking up story ideas.

Although much of the information on the net is also available through online databases and through printed sources, Internet offers some unique added conveniences — assuming users know what they're doing.

"Believe it or not," said Meiners, "one of the most successful uses I have found was to find complete texts of song lyrics or poetry."

The net offers help for weightier queries, as well. Favorite databases among journalists include FedWorld (a gateway to hundreds of federal agency bulletin boards), the Library of Congress, FEC campaign finance records, SEC filings, White House schedules, speeches, news briefings, U.S. Supreme Court decisions and census data.

During disasters, Internet is a great source for information. But advocates say the network's more mundane applications are its greater strength.
Entire interviews via Internet are becoming more common.

Tech Tips

Picking the right storage tools

By Drew Sullivan
NICAR Staff

Nine-track tapes continue to be the backbone of computer-assisted reporting. For 30 years, these trusty old reels have been the storage medium of choice for both mainframe and minicomputer users.

But, while nine-track reels remain popular, other media including CD-Roms, tape carts and others are now challenging their dominance . Knowing what to buy depends on your budget and your needs.

CD-ROMS

There is no reason why any news organization should not have a CD drive. They are cheap and easy to use. Double-speed drives cost about $160 and CDs hold 680 MB of non-corruptible data. Quadruple-speed drives available for about $900 can move data at a respectable rate of 600 KB/sec.

Some government data providers (notably the Environmental Protection Agency and the Census Bureau) are releasing data on CDs and more will be available in the future. In addition, private companies offer national phonebooks, business databases, industry directories, and other useful reference materials on CD.

But don't expect to get away with just CDs. Government agencies use them as consumer products rather than data storage, says longtime CAR reporter Elliot Jaspin of Cox Newspapers.

"CDs are terrific to distribute large amounts of data cheaply," Jaspin says. "But there are other kinds of data the government does not want to distribute freely and those will always be on some kind of mainframe storage tape."

Tape carts

A number of government and commercial users in the mainframe world have opted for 18-track 3480/3490 tape cartridges (carts) instead of nine-track reel tapes. Carts hold more data — depending on the data block size — and are smaller in size.

Larger organizations prefer them because they can be used with automated storage retrieval systems. But, except for the most well-supported CAR programs, not many people can afford their $9,000-plus price ticket.

Prices will inevitably come down, and Jaspin says he believes carts will start to supplant tape reels over the next two or three years.

In fact, tape reels may never really go away completely because of the large amounts of data stored on existing tapes. Like the transition from 5.25" to 3.5" floppies, CAR reporters may need both tape and cart machines for the next eight or nine years, Jaspin says.

Of course, there are alternatives to buying. In any medium to large city, many commerical firms offer to transfer data from carts to reel tapes at a cost of about $1 per megabyte (see your local computer magazines). Mail order services are also available through many companies.

Nine-track drives

Though they are admittedly waning, nine-track tapes are still a staple of the mainframe market and should be for the next century. But again, there are alternatives to rushing out and buying a new drive.

If you've just started doing computer assisted projects, you might want to hold off investing the $4,000 it takes to buy an entry level drive until you've got a few projects under your belt. NICAR and a number of commercial houses will transfer data from nine-track reel to other media.

However, if you do decide to buy a nine-track drive, there are a few things to consider:

For PC systems, a manual loading nine-tack tape drive, controller card, cables and software cost around $3,800. Though there are cheaper models, they do not handle the high density reels (6250 bits per inch) that have almost become an industry standard.

Speeds vary significantly from baseline systems reading 10 inches/sec. to high end systems ($7,000 to $15,000) that move 200 inches/sec.

Make sure you have room on your PC to mount the controller card.

Because reel tapes come from the IBM-dominated mainframe world, it is not surprising they are more compatible to the PC than the Mac platform. For Apple computers, the choices are more limited and more expensive.

A manual loading baseline nine-track tape drive and software for a Mac starts at $4100. The drives use a standard SCSI interface and don't require installing a controller card.

One problem is that the system only supports one software program called Qutape.

NICAR is now offering CD mastering services, allowing news organizations to move their most used databases like drivers license or voter registration records onto the non-corruptible media. Also, NICAR can transfer data between 3480/3490 tapes and most media at below market price.

Bits, Bytes and Barks

Pennsylvania suit seeks to treat tapes as public records

For year and years, Pennsylvania had treated its state payroll as a public record, providing the names, job titles and salaries of its 100,000 or so employees.

But there's a catch. To check on any employee, you must visit the state library in Harrisburg or buy your own paper copy of the records for what state officials describe as "a very nominal charge" (most recently $540 for 2,160 pages).

Last October, the Philadelphia Daily News asked for the same information on a 9-track tape. The governor's office turned down the request. In May, the newspaper sued.

Pennsylvania's Right to Know Law was written in 1957 and doesn't mention computers. But it does provide that any citizen shall have the right to make copies of public records, and leaves it to the custodians of those records to adopt and enforce "reasonable rules" to govern the making of such copies.

The Daily News lawsuit contends it is unreasonable for the state to force the public to deal with paper records when the state itself maintains the information in a computer database.

The Casey administration has not yet responded to the suit, which was filed in Commonwealth Court.

—BOB WARNER, PHILADELPHIA DAILY NEWS

Continued from page one

ports at the state and county offices. These documents gave valuable insight into every problem with the bridge and up-to-date repair estimates.

Not every bridge is examined at the same time and the NBI data isn't always current. Bridges should be inspected every two years, but depending on how vigilant the inspection crews are, this can range from once a week to once a decade. Before printing a list of troubled bridges, double check with the inspection department to see if any repairs have been done.

The NBI list also contained a lot of faulty locations for bridges, which can make mapping a nightmare. We found that most of the bridges in our areas were either in the wrong towns or used the wrong street names. Once again, we had to rely on the inspection department for proper locations. We later spent a lot of hours cleaning up the addresses.

An application that uses crosstabs can be helpful in grouping the ages of your state's bridges. We found that many of the bridges in New Jersey were built in the 1930s and 1950s, which means that most of them will have to be replaced in the next 10 to 20 years.

To obtain a copy of the NBI list on 9-track tape for $250, contact the Federal Highway Administration at (202) 366-0660. NICAR also has the NBI list available for the entire U.S. ($160) or by state ($75). Also, ask for a copy of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."

Advice for working with NBI data

To get the most out of the National Bridge Inventory list, you have to know what to look for in the 116 fields. If you examine the data well in advance, you will probably end up using only about a dozen of those fields.

- In Item 5, use only bridges with a code of "1." This means it's an actual bridge. Any other code means a roadway passes under the bridge.
- The NBI only deals with bridges more than 20 feet in length. If your favorite bridge isn't on the list, it may not meet the minimum requirement.
- Don't get hung up on one rating number. There is not single data field that will tell you if a bridge is good or bad. There are separate ratings for the deck, superstructure, and sub-structure. The closest you will come to an overall safety rating is Item 67, Structural Evaluation.
- Don't get too excited about the last item, Sufficiency Rating. This relies on a complex formula that takes into account how well traffic flows over a bridge, which has no bearing on the bridge's soundness.
- Because the government is still paranoid about nuclear missile attacks, it makes mapping almost impossible. The latitude and longitude of each bridge will be deleted from your copy of the tape (for national security reasons). No amount of begging has convinced the government that journalists are not a security threat.
- The database contains Federal Information Processing Standards (FIPS) codes rather than town names. You will have to join the FIPS with your own Census table to determine town names.
- Beware of typos and miscoding in the location field. In our area, 20 percent of the bridges either had a wrong code or no code at all.

Editor's Note: The full text of the Asbury Park bridge article is available from the IRE Resource Center. Also available are a Cox Newspapers article and NBC Dateline transcript, both of which came from a joint NBI analysis by Elliott Jaspin and David Hinchman in December (#9718). You can contact Paul D'Ambrosio and Rick Linsk at this e-mail address: pmd@cscns.com.