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CNN Gets Virtual for Election Night: Enhanced technology from Vizrt and SportVu includes 3D virtual model of Capitol, revamped exit poll display and holographic correspondents.

By Glen Dickson -- Broadcasting & Cable, 10/30/2008 8:00:00 AM

In a television news landscape where high-definition cameras and 3D graphics have become commonplace, CNN still has a few technical surprises in store for viewers of its election night coverage.

One is the introduction of virtual elements into its real-world set at the Time Warner Center in New York, using virtual-set technology from graphics firm Vizrt and Israel-based sports enhancement specialist SportVu.

CNN has created a 3D virtual model of the U.S. Capitol in Washington, D.C. to give a graphic representation of the impact of Senate races, which chief national correspondent John King will control from CNN's touch-screen "magic wall."

More dramatically, the network may use virtual sets located at Obama and McCain election-night headquarters in Chicago and Phoenix, respectively, to conduct remote interviews between election-night anchor Wolf Blitzer and field correspondents Candy Crowley and Dana Bash by projecting a holographic image of the field reporters onto the New York set. CNN Senior VP and Washington Bureau Chief David Bohrman hopes that an interview with a holographic correspondent will be "a little more intimate" than showing a split-screen with Blitzer on one side and the field correspondent on the other.

But Bohrman is most excited about a complete overhaul of how CNN will display exit poll results using its Vizrt graphics system. Bohrman and CNN design director Jonathan Kemp collaborated on an exit poll analysis system that displays the 50 states at once, from top to bottom, on a touch-screen wall and shows how each state voted based on campaign issues like the economy, terrorism, Iraq and others.

"We're completely reinventing exit polls, with so much more information than we were able to do before," says Bohrman, who has been working with exit poll data since 1984.

The states are depicted top-to-bottom as thin bars, which conceptually are the "edge of a drawer," says Bohrman. Each is color-coded red or blue, based on exit poll data indicating whether the vote from a different demographic group, such as men, women, college graduates, etc., is leaning Democratic or Republican on a certain issue. The length of each bar is related to the percentage of the vote in that state, which tends to give the overall list either an hourglass or vortex shape. A bar representing the national average is also included.

A simple touch of a state's bar will render a pie-chart graphic that shows the actual percentage vote in a state on a certain issue according to the exit polls, and another touch of the screen will let anchors Soledad O'Brien and Bill Schneider quickly compare that state to another.

CNN political director Sam Feist and Senior Political Analyst Gloria Borger joined Bohrman in experimenting with the system on Wednesday afternoon, and their excitement was palpable. "We've always had individual islands of state by state," says Bohrman. "We've never had a way to show exit polls across the country for all the different demographic groups, and see how one state compared to all states."

HOLOGRAPHIC CORRESPONDENTS

Bohrman is also enthusiastic about the virtual set technology, which he has been evaluating at NAB shows for years. While he still thinks that complete virtual-set environments look "cartoonish," Bohrman believes that introducing discreet virtual set elements into a real-world set can work. He actually first did that back in 1996 at MSNBC for the O'Brien-anchored show "The Site," which featured a virtual avatar named Dev Null that commented on technology issues.

The virtual Capitol for this year's Election Night was envisioned as a significant upgrade from the touchscreen that former CNN analyst Jeff Greenfield used to explain the Senate voting action during the 2006 elections. The virtual-set camera interpolation technology will allow CNN to do realistic camera moves over the 3D model of the Capitol, such as an aerial flyover with a camera mounted on a jib boom. A look inside reveals a virtual representation of the U.S. Senate chamber that will be dynamically updated to show the outcome of individual state races.

Formerly Democratic seats that have been newly claimed by Republicans will be depicted with a blue base and a red center, and vice versa, and the overall total of Democratic and Republican seats will be depicted in a graphic in front of the virtual Capitol. The 3D graphics can be used to render various voting scenarios and show how they would shift the balance of power in the Senate.

"You can over-do it," says Bohrman of the virtual technology. "But hopefully we'll keep it to where we're clarifying and explaining."

Bohrman isn't sure how much CNN will use the remote virtual sets in Chicago and Phoenix, which were still being fine-tuned on Wednesday and represent only two of some 40 camera feeds CNN will be using on Election Night. The network has created green-screen virtual-set environments that will be set up in mobile trailers outside the Obama and McCain headquarters and will use a mix of mechanical and infrared camera-tracking technology to create a realistic holographic image of the correspondent on the floor of the "Situation Room" set in New York. The field correspondents will have a 37" plasma monitor showing a return feed of the "Situation Room" set with Blitzer to give them a frame of reference.

Watching a demonstration of the system from the CNN control room was akin to seeing a person "teleported" from Chicago to New York, as in a science-fiction movie. To let the audience in on the trick, Bohrman says CNN may actually show viewers the remote green-screen room first, as well as the field correspondent out in election-night crowds, before going to the holographic image in New York.

But Bohrman, who says he has been considering such technology for 12 years, doesn't consider the holographic system a one-night gimmick. Instead, he thinks it could have long-ranging implications for news. "It's an interesting step in how TV can do live interviews," he says.