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## KEXP Demonstrates New Technology at Public Radio Conference

Seattle WA, May 2001



ResearchChannel

KEXP radio will exhibit a suite of exciting new technologies at the 2001 Public Radio Conference. The technologies allow the station to deliver its content through innovative applications, including a CD-quality uncompressed audio stream. Through its relationship with the University of Washington (UW), ResearchChannel and Pacific Northwest Gigapop, KEXP radio has become a testing ground and has adopted new technologies into everyday use.



UNIVERSITY OF WASHINGTON

At KEXP's booth, conference attendees will find a high-definition television (HDTV) stream delivered via internet technology, a new real-time playlist application, listening stations to hear the quality of KEXP's uncompressed audio stream, and a live camera link to the radio station's broadcast booth.

### RADIO APPLICATIONS

The new real-time playlist technology was developed at the UW and allows the station to build a database as music is broadcast and to match simple metadata from an online source. KEXP plans to build upon this technology and offer website users instant information about the song being streamed.



In October 2000, KEXP began its groundbreaking uncompressed audio stream in the Windows Media format. Approximately 5% of KEXP's daily web listening audience use a cable modem or better network connection to listen to the CD-quality, uncompressed stream. At the Public Radio Conference, attendees will be able to compare sound quality of KEXP's 1.4Mbps uncompressed audio stream with its 60Kbps compressed streams.



Additionally, conference attendees will be able to watch the station in action as a camera will capture the air studio image live. This image is broadcast-quality and also will be transmitted via the Internet.

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## HIGH DEFINITION VIDEO

KEXP's growth and evolution into a technology rich entity is detailed in a high definition video that was shot and created at the UW. The video is being streamed rather than run from tape, demonstrating the expertise of the radio station's partners. The high bandwidth application of streaming HDTV over the Internet offers viewers extreme, high-quality images. KEXP's experiment transports Sony HDCam via internet technology and streams at over 200Mbps, as compared to current television broadcasts on the Internet, which employ 20 to 200 kilobits per second for short video clips in small PC windows.

The experiment streaming HDTV video over the Internet follows a number of pioneering demonstrations that began in fall 1999 between the University of Washington and Stanford, sponsored by ResearchChannel, a consortium of leading research institutions creating greater access to research information. Pacific Northwest Gigapop is providing network connections and Sony Corporation provides support to the UW and its Internet2 experiments.

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KEXP radio is actively shaping the next generation Internet through its partnership with the UW and the UW's ongoing Internet2 and other high-speed network experiments. The station has a technological mission to help develop and apply new technology, and in working towards that mission is developing several new web initiatives designed to provide the user with a very rich cultural experience combining audio, metadata, and content management.

In addition to its technological mission, KEXP is dedicated to enriching people's lives through a musical, cultural journey. KEXP programs a wide and deep array of music that spans many genres including alternative rock, electronica, world music, roots, jazz, rap, and blues. The station is licensed to the University of Washington and recently began a partnership with EMP, the Experience Music Project in Seattle. KEXP's programming can be heard at [www.kexp.org](http://www.kexp.org).

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