

Since 1985, courts in the state of Kentucky, USA, have been using audio/video recording as the official record of court proceedings. The use of audio/video recording has been one of the most successful uses of technology in our modern courtrooms.

Early History of Audio/video Court Recording

The state of Kentucky is best known in the United States and around the world for its tasty bourbon, fast racehorses, and Kentucky Fried Chicken—not for courtroom technology. But in the early 1980s, a general jurisdiction trial judge from rural Kentucky had an idea that revolutionized our court system.

Judge James S. Chenault, now retired, started his judicial career in 1966. His jurisdiction covered three counties and, at one time, had the largest one-judge workload in the state. Because he was so busy, he constantly tried to create a more efficient courtroom. For example, he began using a phone answering machine for jurors to call and check to see if they were needed for jury duty the next day, a practice that has become the standard for most courts.

Also at that time, court reporters were responsible for recording all official judicial proceedings. Judge Chenault noted, "I can't run this court if it doesn't suit the court reporter. I can't start it without a court reporter. I've got to always mess with a court reporter." Judge Chenault approached the state judicial Administrative Office of the Courts (AOC) with an innovative request: instead of using a court reporter, he requested funding for an audio recording system. He wanted a fixed system with four separate audio recording channels: one each for the judge's bench, plaintiff's table, defendant's table, and the witness stand. As Judge Chenault specified, he wanted "not a \$29.95 hand-held recorder, but a state of the art system that would pick up a mouse tinkling on cotton!" The AOC liked the idea but Judge Chenault wanted to go further—to add a video recording component as well. He wanted to both hear and see the court proceedings on tape.

Like all innovative ideas, timing is critical if the idea is to blossom. In the mid-1980s, the Kentucky appellate courts—both at the Supreme Court and the Court of Appeals—were experiencing terrible state-wide delays in hearing appeals, primarily due to extreme delays by many court reporters in preparing transcripts of the trial court proceedings. In many criminal cases, convicted defendants were incarcerated at the penitentiary for years before an appeal could even get started because of the lack of a trial transcript. Delays were equally as common in civil proceedings. The situation was unacceptable. Even contempt hearings and the jailing of a few court reporters did not improve the situation. Some court reporters had quit, retired, or even died, before transcripts were finished. Additionally, court reporters at that time kept their notes in their personal possession, which created additional problems (i.e., lost in a move, basement flooded, etc.). The time was truly ripe for change.

The making of a trial record is one of the court's most important functions. Without an accurate record, there can be no effective appellate review, thus, denying justice. However, the use of a new method for a trial court to make a record required the development of new court rules, which the Kentucky

Supreme Court developed. This included procedures for the trial court's safekeeping of its own records (video tapes, at this point) and back-ups. Additionally, rules for the proper method of citing to the audio/video record in the appellate briefs were required. It was further decided that the actual audio/video tape would be the record for appeal without having it transcribed.

Early on, Judge Chenault's rudimentary recording system ran into problems. The AOC contacted David Green, owner and founder of Jefferson Audio/video Systems (JAVS), to lend his expertise. JAVS specialized in broadcast television equipment, specifically hand held video cameras and large television station cameras. Green told Judge Chenault and the AOC that he could develop a proper audio/video recording system for courtroom use. Green was coming to the table with considerable experience in the field; at 18, he started working with sound amplification at his church, then worked 15 years as a television engineer for Kentucky's public broadcast station before breaking away to found JAVS in 1981. The system Green proposed to the AOC was a complete system, building upon Judge Chenault's early idea. The proposal was for a permanent, sustainable courtroom system that would automatically switch the microphones and the cameras to the person speaking and would not require an operator, except to turn the system on and off. The microphones would be able to catch the speaker's voice even if not directly close to the microphone. This was important, as attorneys often move around the courtroom while speaking. The recording system would reduce unwanted sounds (i.e., the hum of fluorescent lights or the rumble of air conditioning), lower loud voices, and amplify softer voices. The proposed system would have other needed options as well—a mute switch for private bench conferences, and sound reinforcement that would amplify the spoken words over the courtroom's public address system. And the recordings, which were made on VCR tapes, would reflect a date and time stamp. Kentucky's AOC gave Green a "go ahead" and after seven months of development and testing, a system was ready to put in use.

Initial Pilot Program

In 1985, a pilot project was started using the new JAVS system Green developed. This was the first of its kind in the United States and in the world. The new system was first installed in Chief Circuit Judge Laurence E. Higgins's courtroom in Louisville, Kentucky, and soon thereafter, two more systems were also installed in circuit courtrooms in the city. Circuit courts are general jurisdiction courts handling criminal felonies, major civil litigation, equity matters, and family law cases. These are courts where most of the appeals to the appellate courts originate. This new audio/video recording technology and new method of making a court record was an exciting development for courtroom proceedings. All of the judges and lawyers were very interested in seeing how the new system operated. The idea of having a record available immediately, and the availability of copies of the VCR tapes for appeals at little cost, was of great benefit to the litigants and the lawyers. Over were the days of spending thousands of dollars and waiting months (if not years) to have written transcripts prepared by court reporters.

I became a district court judge in Louisville a year before the 1985 pilot project. District Judges preside in limited jurisdiction courts primarily handling criminal misdemeanors and violations, small civil claims, probate cases, juvenile cases, and other matters. At that time district courts used cassette recorders to make a record, while circuit courts used court reporters. While a district judge, I presided often as a special circuit judge in Judge Kenneth G. Corey's courtroom, which was part of the pilot project. (In

1989, I was appointed as a circuit court judge to that same courtroom.) It was great to use the new audio/video recording system and to work in one of the original pioneering courtrooms.

Giving a circuit court judge the means and ability to start and end court as needed without the restriction of a court reporter's schedule meant creating a more efficient courtroom, particularly since these judges handle such large and varied caseloads. If attorneys, a judge, or even a jury needed to review prior testimony, the videotape was simply rewound to the testimony in question and played. There were other helpful benefits from the audio/video recording system that were not anticipated. The cameras in the courtroom were always activated whether or not you were recording. The judge, judicial secretary, bench clerk, and law clerk, all had small video monitors in their chambers or work areas. Therefore, the judge and staff could easily see what was occurring at all times in the courtroom. For example, while in chambers a judge could see if the attorneys and litigants were present and ready for the call of their case. Or, while the judge was on the bench, a judicial secretary or bench clerk could easily know when to come into the courtroom from their work areas to assist the judge, allowing staff to multi-task. Also, judges' chambers and conference rooms were fitted with microphones enabling recording of in camera hearings (i.e., questioning young children in custody cases or conducting adoption hearings). And the mere presence of cameras in the courtroom gave some criminal defendants and other litigants pause about acting out while on camera.

But arguably, one of the most significant benefits of audio/video recording is the transparency of court proceedings that it provides to the public. Unless an individual or a member of the media physically attends a court proceeding, the only way to know what occurred is by second-hand information or by persuading a court reporter to read from their shorthand notes (or to pay for a transcript). With audio/video recording, the prior court proceedings can be played back immediately and a copy can be purchased promptly at little cost. And, since VCR players were very common in the 1980s-1990s, easy playback was available. This really speaks to the fundamental, governing concept of our courts being open to the public.

The pilot project that first started in 1985 quickly proved to be a great success. Kentucky Supreme Court Chief Justice Robert F. Stephens lobbied the Kentucky legislature for funding to equip more courtrooms with the new audio/video recording systems, which were also very popular with the budget-sensitive state legislators. After the initial installation cost of the operatorless audio/video recording system, is was relatively cost free. Donald (Don) P. Cetrulo, who was the director of the AOC at that time, stated, "Many of the court reporters only worked part-time but were needed to be in their courtrooms on a full-time basis. The reporters argued that if they were required to be full-time employees that they should be entitled to full-time state employee pay and benefits." The judicial branch could not afford that expense, especially the primary health insurance and pension benefits. It has been estimated that audio/video recording has saved Kentucky taxpayers over \$27 million dollars annually. That financial reality really helped usher in the new technology.

As audio/video recording was implemented in more of Kentucky's 120 counties, other jurisdictions were taking note of the new innovation. The new audio/video recording systems were installed in other states' courtrooms. Some of the early states to adopt the new technology in those first years were Florida, Washington, Michigan, and Nevada. For Kentucky judges, hosting judicial delegations from other states and other countries, and welcoming them into our courtrooms for first-hand demonstrations of how we make our court record with audio/video recording, became a point of pride. We also appreciated the recognition in 1988, when Harvard University's John F. Kennedy School of Government gave Kentucky their Innovation in State Government award. The plaque for that award hung in my Circuit courtroom.

Modern Day Developments and Digital Technologies

As audio/video recording became popular, improvements were constantly being developed, and continue to be developed today. Some of the early improvements included changes to the microphones obtaining better clarity, and the filtering out of unwanted noise. But arguably the biggest evolution in audio/video recording started in 2000 with the conversion from videotape to the digital format. That was truly a game changer.

With digital recording, courts could now integrate the recording system with other digital applications, including case management and calendaring systems. Among many new features, the courts could create and manage a log of events, monitor audio/video levels, print reports, and create case schedules. And, the audio and video quality is much improved by digital recording. Going digital has given the court a means of capturing, preserving, and producing the record, along with a cost-efficient means to obtain said record. Additionally, court proceedings continue to be better enhanced with newer technologies, such as digital evidence presentation systems, video conferencing, and computer monitors for judges, jurors, and witnesses.

Developments like digital evidence presentation systems have changed the way attorneys communicate with judges and jurors. This equipment allows attorneys to enhance their ability to display demonstrative evidence. For example, photographs or objects can be magnified on the viewing screen for the judge and jury to observe evidence with much more detail and clarity. Digital evidence presentation systems integrate a wide variety of presentation equipment. Typical audio/video components include: a control system, LCD projector, VCR/DVD player, laptop connections and other digital input locations, keyboard, mouse, monitor, document/evidence camera, and a sound system. Newer developments include functions such as a judge preview, judge override, annotation, remote witness annotation, video conferencing, and video arraignment. New evidence presentation systems are also compatible with PCs, Macs, iPads, or other tablet computers. A feature I find particularly valuable for appellate review is a trial judge's ability to archive the evidence into the video record during a trial. This allows the appellate court to actually see what the judge and jurors observed at the original trial.

The development of video conferencing offers the benefit of a remote court appearance by an individual, with the added benefit of not just being heard, but also being seen on a courtroom monitor. Since the video conference is recorded as part of the court record, this is again useful for appellate review. Statistically, corrections facilities are the heaviest users of video conferencing for court appearances, since the transporting of prisoners is often problematic. United States state courts have turned to video conferencing with prisoners not just as a cost-saving measure, but also as a means of making it safer for law-enforcement officers to process offenders. We have also seen a significant rise in mental health

facilities—along with sign or foreign language interpreters—utilizing this cost-effective technology. Additionally, and aside from court proceedings, video conferencing serves other purposes such as: education and training, administrative business meetings, and continuing legal education programs. There are numerous online web conferencing services available to the courts that can transmit and receive remote witness testimony and conduct video conferences.

Beyond video recording, projection, and conferencing, technological advances are making their way into the physical courtroom as well. Computer monitors with annotation features allow a witness to make electronic marks on the exhibit being displayed in front of them. For example, a witness could

mark on a photograph exactly where he/she was standing in relationship to the location of an accident. Once this exhibit has been placed into evidence, the exhibit is preserved on the record and made viewable for the jurors. During the proceedings, the judge can observe the evidence on the bench monitor. And, the jurors can observe on smaller joint monitors, a flat screen monitor, or a projector screen. Upon appellate review, all of the electronic evidence/exhibits recorded on the record can easily be viewed.

Other current developments of interest involve the making of transcripts from the audio/video digital record. (Kentucky is in the minority of jurisdictions that utilize the actual audio/video digital record as the official record of the court, and does not require a written transcript.) Many court jurisdictions have their own in-house transcriptionists. Additionally, there are many independent transcription companies that can also provide the assurance of an accurate and timely transcript. The digital recording can be transmitted to a specific company or transcriptionist by CD/DVD, via the Internet, tape, the court's computer network, or even by a USB drive. Court digital recordings should be on a non-proprietary file format so anyone can view the recordings without the need for special, costly licensing. It is the role of courts to create a transcript management system that enables the litigants, the public, and the media to obtain an accurate transcript of the proceedings in a timely manner, as requested.

The future of speech recognition technology is still evolving and potentially will be a factor in the future as it could be applied to audio/video digital recording. Although speech recognition technology has much improved in recent years, it is still not completely accurate. Without that accuracy, use in the judicial sector is limited at this point in time.

In conclusion, it has been a professional highlight for me to witness and work with audio/video recording from its inception and to observe its continued development. New technology can continue to help the courts be even more efficient and transparent, while still being good stewards of public funds in our pursuit to deliver justice.

Author's Bio

Judge Knopf has served for 27 years as a Judge of the Kentucky Court of Justice, USA. He presided as both a Trial Judge on the District and Circuit Courts in Louisville, Kentucky, and as a state-wide Appellate Judge on the Kentucky Court of Appeals. He now works as a private mediator and speaks both nationally and internationally to Judges and Court Officials on judicial topics.

Judge Knopf earned his bachelors of business administration from Loyola University in New Orleans, Louisiana, in 1976, and his juris doctorate from the Louis D. Brandeis School of Law at the University of Louisville in Louisville, Kentucky, in 1978. He worked as an assistant commonwealth's attorney (felony prosecutor) from 1979 to 1981 and in the private practice of law from 1981 to 1984, handling criminal and civil litigation.

In 1984, he was appointed by Governor Martha Layne Collins as a district court judge—elected in 1984, and re-elected in 1985 and 1989. In 1989, he was appointed by Governor Wallace Wilkinson as a circuit court judge—elected in 1990, and re-elected in 1991. He was elected to the Kentucky Court of Appeals in 1995 and re-elected in 1999. He retired in 2006, and served as a senior judge until 2010.

Judge Knopf has served on the board of directors of the Louisville Bar Association, the Kentucky Bar Foundation, the Lincoln Heritage Council-Boy Scouts of America, the Rotary Club of Louisville (past-president), a member of the Kentucky Criminal Justice Council, and a member of the Kentucky Executive Branch Ethics Commission appointed by Governor Steve Beshear.