

TECHNOLOGY IN THE COURTROOM

By: Patrick Michael

Jefferson Courtroom Upgrade Project, LLC (“JCUP”) is revolutionizing the process for conducting hearings and trying cases. JCUP has created state-of-the-art audio visual systems which are installed in eight courtrooms in the Jefferson Circuit Court (the “Technology Courtrooms”). No other courtrooms in the United States have the visual presentation capabilities available in these Technology Courtrooms. This cutting edge presentation technology will change the way lawyers try cases by providing an all-electronic method for presenting information and introducing evidence. The visual presentation system makes it easier for a jury to better understand and more efficiently process the information presented to them during the course of a trial.

THE TRIED & TRUE COURTROOM PRESENTATION TECHNIQUES

Many of us were taught to present evidence using one or more of the following trial presentation techniques:

- Writing important information on a large pad attached to an easel;
- Writing on a white board;
- Displaying important documents or photographs mounted on 2 foot by 3 foot foam core boards;
- Publishing documents by handing them to the jurors to pass among themselves; or
- Impeaching witnesses by reading the original testimony from the transcript.

No question these are tried and true evidence presentation techniques. Unfortunately, these techniques are no longer effective in communicating with today’s jurors. Today’s jurors are communicating every day with smart phones, texting and e-mails. Today’s jurors take photographs and videos with their phones, posting them on *Facebook* and *YouTube*. Today’s jurors communicate their moment-to-moment thoughts and reactions on *Twitter*. This new generation of jurors is accustomed to the instantaneous delivery of information using the latest technology. As lawyers, we need to use the same technology that today’s jurors are using every day, if we expect to effectively communicate with them.

THE JCUP MODEL: A PUBLIC-PRIVATE PARTNERSHIP

JCUP was initiated by **Judge McKay Chauvin**, the presiding judge in Division 8 of the Jefferson Circuit Court and its current chief judge. Judge Chauvin assembled a group of lawyers from all aspects of trial practice along with judges, court administrators and representatives from the Louisville Bar Association. Thirteen members of this group, who are all trial lawyers, formed JCUP as a public-private partnership with the Jefferson Circuit Court (the “JCUP Managers”).¹

The project was tasked with securing the funding, developing a state of the art audio-video presentation system, and implementing it in Jefferson Circuit Court. Before the installation of these systems, typically, only the well-heeled parties could afford to rent the equipment and hire a consultant to create the content and run the system during trial.

JCUP’s objective was to develop a system for improving the communication capabilities of trial lawyers by enhancing the method for presentation of evidence. For generations, grade schools, high schools and universities have taught courses using multiple blackboards to display content. This methodology has been updated in the educational arena by using multi-screen, electronic presentations. Recent university studies have shown that students’ test scores improve by 14 – 15 percent, or one letter grade, when the course is taught with two or three different, simultaneous presentations compared with single screen content. These studies were the driving force behind JCUP’s decision to install independent, multi-screen displays in the Jefferson Circuit Courtrooms.² By translating this concept into a courtroom, our juries will have a better understanding of the cases which will facilitate their decision-making process.

THE JCUP AUDIO VISUAL PRESENTATION SYSTEM

The Technology Courtrooms feature dual-projection screens with high definition projectors and a 55” HDTV monitor which allows trial counsel to display three different images simultaneously. The AV system includes two VGA and two HDMI

inputs at each counsel table. Lawyers have the option of using a combination of any two inputs at the same time: two VGA; two HDMI; or one VGA and one HDMI. In addition, each party has a separate VGA or HDMI input that may be used by support staff. The multiple-input, multi-screen AV system gives lawyers the capability to use virtually any device that outputs a video or audio signal, and to display different information on each screen.

This combination gives each lawyer the option of inputting audio and video signals from three different sources. For example, a doctor may be testifying by video on one screen, while at the same time, an X-Ray appears on screen #2 and a treatment timeline on the TV monitor. In addition, each of these images may be input sequentially into the official court record. A lawyer also has the capability to print the image displayed on any one of the three screens.

The AV system is controlled by an iPad that is dedicated to each courtroom. The user interface is a picture of the courtroom showing the various counsel tables and screens. A trial lawyer or support staff routes the input by selecting the picture of their counsel table, the connection into which they have plugged the computer, and the screen to which they want to route the output.

The AV system is built around a digital switching system called Enova developed by AMX. The switch, communication controllers and annotation gear reside in an equipment rack that is installed in a closet behind the Technology Courtrooms. The beauty of the system is that it can be operated by lawyers without the support of a technical staff. The user only needs a laptop and either a VGA or HDMI cable to connect to the AV system.



iPad Home Screen Display (© JCUP 2014)

The AV system flexibility was demonstrated during a recent murder trial in the Jefferson Circuit Court. The prosecution used a document camera to display a diagram of the crime scene on one screen. Photographs of the physical evidence identified on the diagram were shown on the second screen from a laptop. The defense utilized the touch-screen technology with a witness illustrating the distances between pieces of evidence on the crime scene photographs. The AV system allowed the diagrams and photographs displayed on the projection screens to be captured in the court "Record."

A lawyer may also connect Apple TV to the AV system, and communicate with it using a wireless router. The combination of these two devices allows the user to connect wirelessly to Apple TV with an iPad or MacBook Pro using its "AirPlay" mirroring function. This feature makes it possible for a lawyer to control output of audio or video content from an iPad while moving around the courtroom.

JCUP TRAINING PROGRAM

You don't have to be a tech genius to control the AV system. A user is able to master the system with minimal training. JCUP has designed and implemented a training program which is conducted by JCUP members during a lunch hour CLE through the Louisville Bar Association. It is required by the Jefferson Circuit Court before using the AV system in the Technology Courtrooms. The training is free for JCUP contributors, but will cost \$100/person for those who are not participants in the project.

JCUP has plans to film the training program for broadcast as a web-based series of training videos that will be available through the Louisville Bar Association. In addition to the training program, JCUP has created a user guide that provides step-by-step instructions for using the AV system.

JCUP is also sponsoring a related training program through the Louisville Bar Association on conducting paperless trials in a Technology Courtroom with an iPad. JCUP is also planning to roll-out a multi-session, training program designed to teach lawyers how to build content for use in the Technology Courtrooms. The program will be based upon the NITA model of learning-by-doing.

JCUP BUSINESS MODEL

The AV system is ground breaking, but it isn't the only inventive part of this project. The Commonwealth of Kentucky did not have the funding to support this initiative, but was amenable to allowing JCUP to install presentation systems in its Jefferson

County courtrooms. The Administrative Office of the Courts also agreed to provide logistical support through its local staff. JCUP was tasked with all other operational responsibility including entity structure, revenue generation, system development, installation, training, maintenance and replacement.

JCUP incorporated as a Kentucky limited liability company whose sole member was the Louisville Bar Center, a Kentucky not-for-profit doing business as the Louisville Bar Association ("LBA"). The affiliation with the LBA assured that a sustaining organizational structure existed for the long-term operation of JCUP. In addition, this organizational structure lent legitimacy to the project, and put the ultimate operations in the hands of the local bar association whose more than 2,000 members would control the project.

JCUP had no source of funding; therefore, it had to develop a plan for generating revenue to support the project. JCUP could sell Krispy Kreme donuts, or conduct car washes, but neither of those options seemed designed to generate enough money to make this project a reality. Instead, JCUP decided to raise funds from the people who would use the system—the local trial bar. JCUP designed a fundraising program that was built around the concept of pre-paying for the use of the system. In other words, contributors, which JCUP calls its "participants" are provided with free use of the AV system for the next five years.

JCUP wanted to involve as many project participants as possible. This meant that the contributions had to be affordable, and that the contributors would see real value in their participation. Consistent with these objectives, JCUP established easily attainable minimum contribution levels. JCUP also allowed its participants to spread the payments over the three-year project development period to ease the pain. The minimum individual contribution was set at \$300/person but these contributions have been in the \$1,500 - \$3,000 range. The firm minimum was set at \$1,000, but contributions from small firms have been in the \$5,000 - \$6,000 range, mid-size firms \$10,000 - \$15,000, and large firms have contributed \$25,000 - \$30,000.

From the outset, JCUP did not have a functioning AV system to show potential participants. Instead, JCUP was promoting a concept. The JCUP Managers – individually and through their firms – agreed to contribute the seed money to raise \$60,000 for one pilot-project courtroom. JCUP believed that if it could build and demonstrate the capabilities of a Technology Courtroom,

the fundraising effort would be more successful. JCUP underestimated the appetite for state-of-the-art Technology Courtrooms. By the time JCUP conducted its first demonstration of the pilot-project courtroom, it had raised \$430,000.

The reasonably modest contribution levels along with the delivery of the pilot-project allowed JCUP to achieve one of its fundraising goals: broad support from the trial bar. The project has approximately 120 individual and firm contributors which JCUP officially refers to as its "participants." The participants have contributed \$776,370 for the installation of the AV systems and the wifi network in the Jefferson Circuit Court-house.

JCUP created the concept and design for the Technology Courtrooms. It contracted with a local vendor, Trinity Video Communications, for the engineering, software development, system installation and maintenance. JCUP ultimately rolled out two pilot-project systems which were installed in Divisions 1 and 8 of the Jefferson Circuit Court during the spring and summer of 2013. These two systems were extensively tested and "debugged" prior to the roll-out in the other courtrooms. Following a testing period, the AV system has been installed in Divisions 2, 3, 4, 11, 12 and 13. This brings the total to eight installed courtrooms – the "Technology Courtrooms" – with at least one courtroom on each floor of the Jefferson Circuit Court.

JCUP periodically polled its participants during the initial AV system design and pilot-project stage for feedback concerning design and user preferences. The polling process provided JCUP with direct feedback that it used to refine its system design. For example, JCUP had to determine to what extent and how document cameras would be used in the courtroom. JCUP polled its participants to obtain their opinions. The results indicated that document cameras were no longer considered a primary courtroom presentation tool. The lawyers also preferred that the document cameras be mobile so that they could be moved around the courtroom. Based upon this feedback, JCUP purchased one document camera per courtroom floor, and placed them on mobile carts.

The cost to install the AV system ranges from \$50,000 - \$90,000 per courtroom depending upon the specific courtroom requirements. The Jefferson Circuit Courts are configured with four courtrooms per floor: three standard courtrooms and one large courtroom. JCUP designed the AV system so that every two courtrooms share an equipment rack which is in an equip-

ment closet between the two courtrooms. This design made the installation of the initial courtrooms more expensive, but it maximized the use of the equipment and reduced the overall project cost. For example, the equipment racks were installed for each of the Large Courtrooms (Divisions 1, 3 & 11). The cost to install a large Technology Courtrooms is around \$90,000, but the adjacent courtroom installation that shares the large courtroom rack is only about \$50,000.

JCUP has developed a business model for maintenance over the next five years with some system replacement anticipated by the end of this period. JCUP anticipates generating revenue from CLE fees, Louisville Bar Association support, public law library fees, Louisville and Kentucky Bar Foundation contributions and sponsorship fees from corporate advertising.

JCUP is also developing an Access Management system ("AMS") which will serve as the AV system log-on procedure. Users will be required to logon to the AV system by scanning their index finger. The AMS will verify that the user has taken the CLE Training Course. If so, the AMS will determine if the user is a participant. If a participant, the AV system will become operational for that counsel table and staff support position. If not, the AMS will determine if the user has credits in his/her account. If the user has credits, the AV system will become operational. If not, the user will be directed to purchase credits through the LBA website.

The AMS will also collect data concerning AV system usage. This information will be reviewed to determine maintenance intervals and costs, and to develop user pricing models. JCUP will sell multiple-credit packages at discounted pricing; the more credits you buy, the less the cost/credit. The analysis of AMS user data will provide JCUP with information that may be used to recommend the appropriate subscription package based upon historical use.

At the end of the initial five year period, all users, including the original Participants, will be converted to the user-subscription-model. The revenue generated from the various sources will be used to fund the cost of AV system maintenance and replacement, sustaining the project into the future.

THE FUTURE IS NOW

JCUP conducts surveys of lawyers that use the AV system and of jurors who experience it during trials. The results of our juror surveys show that 96 percent of the jurors find the AV system improves their experience and understanding of the cases they are asked to decide.

JCUP is not simply installing fancy AV equipment, but is using this equipment as the catalyst for teaching trial lawyers techniques for visually presenting their clients' cases at hearings and trials in an effective manner. JCUP's long-term objective is to change the way hearings and trials are conducted. Ultimately, the visual presentations and methodologies JCUP is developing will meet the expectations of the modern jurors who are accustomed to instantaneous, paperless communications.



Patrick Michael is a partner in the Louisville office of Dinsmore & Shohl. He is a business advisor and trial lawyer whose practice is concentrated in the area of commercial litigation

and business consulting including contract and business disputes, non-competition agreements, and the Uniform Commercial Code. Michael is also the CEO of Jefferson Courtroom Upgrade Project, a company that has created and installed a multi-display courtroom audio visual presentation system that is revolutionizing the way lawyers present cases. He

was awarded the Distinguished Service Award by the Louisville Bar Association for his work on this project in January 2012. He was recognized in the 2014 edition of Louisville Magazine as one of the top business lawyers in the Louisville legal community.

¹ Jefferson Courtroom Upgrade Project, LLC, is a limited liability company whose sole member is the Louisville Bar Center, Inc., a tax-exempt organization under Section 501(a) of the Internal Revenue Code that operates as the Louisville Bar Association. The 13 managers of JCUP are:

- Patrick Michael**, president & CEO, Dinsmore & Shohl, LLP;
- John L. Tate**, vice president, Stites & Harbison, PLLC;
- Kenneth L. Sales**, secretary, Bubalo Goode Sales & Bliss, PLC;
- John W. Bilby**, Stoll Keenon Ogden, PLLC;
- Tonya Yarbrough Bowman**, Frost Brown Todd, LLC;
- A. C. McKay Chauvin**, chief judge, Jefferson Circuit Court;
- Brian Cook**, Bahe D. Cook Cantley & Nefzger, PLC;
- Bradley R. Hume**, Thompson Miller Simpson, PLC;
- Joseph C. Klausning**, O'Bryan Brown & Toner, PLLC;
- Byron E. Leet**, Wyatt Tarrant & Combs, LLP;
- Mark S. Riddle**, Bingham Greenebaum Doll, LLP;
- Richard P. Schiller**, Schiller Osbourn Barnes and Maloney, PLLC;
- James E. Smith**, Darby & Gazak, PSC; and
- Edward H. Stopher**, Boehl Stopher & Graves, LLP.

² See *Using Multi-Screen Systems in Teaching College Mathematics Based on the Cognitive Theory*, Department of Industrial Management, National Taiwan University of Science and Technology, March 4, 2008. See also *Analysis of Information Retention Scores*, University of North Texas, December 2002, available from Trizenter, LLC, 4350 Brownsboro Road, Suite 110, Louisville, KY 40207; 502-394-0996; www.trizenter.com.

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