

Jury Managers' Toolbox

Best Practices for Implementation of IVR and Online Capabilities in Jury Automation

Overview

Interactive Voice Response (IVR) and Internet technologies both have such a ubiquitous presence in contemporary American life that it is hard to imagine how we lived without them for so long. Using touchtone telephone technology, we can conduct many routine tasks—suspending newspaper delivery, refilling medication prescriptions, navigating through large organizational bureaucracies to locate a particular person or service. On the Internet, we conduct research for work or home. We make travel reservations for airlines, trains, buses, and hotels. We can check weather, traffic, and local news virtually anywhere in the world. We can shop for almost any product or service. We can pay bills and conduct other financial transactions. Even state and local governments, including some courts, have adopted these technologies to communicate with citizens about basic news and services. But jury management, once the cutting edge of court automation, has been slow to adopt these technologies.

Benefits and Concerns about IVR and Online Technologies

The benefits of providing IVR or online communication technology for jury

management should be obvious. As recently as 2007, more than two-thirds of the U.S. population lived in a household with Internet access and nearly everyone had access to either a landline or cellular telephone.¹ Those percentages have undoubtedly increased since then.

These technologies provide a mechanism for jurors to communicate directly with the jury automation system on routine matters without requiring involvement by jury staff. For example, these technologies can significantly reduce the most time-consuming and labor-intensive tasks in jury operations: opening envelopes and removing the completed qualification questionnaires, reviewing and sorting the questionnaires into groups of qualified, disqualified, returned undeliverable, etc., and entering the information on the jury management system. Most of these systems can also manage routine juror requests such as requesting to be postponed to a new date or

¹ U.S. Census Bureau, Current Population Survey (Oct. 2007), Table 3: Reported Internet Usage for Individuals 3 Years and Older, by State: 2007; U.S. Census Bureau, *Extended Measures of Wellbeing: Living Conditions in the United States, 2003*, Table A: Percent of Households with Selected Indicators of Wellbeing: 1992, 1998, and 2003 (94.1% of households had a landline telephone and 62.8% of households had a cellular telephone in 2003).

documenting a name change or new address, thus freeing jury staff to respond to more complex inquiries. If the court includes prepaid, self-address return envelopes with the jury summons and qualification questionnaire, these technologies can also greatly reduce these costs. Many of these applications also provide options for jurors to receive telephone or email notices to remind them of their upcoming jury service and reporting information. Many courts report significant reductions in failure-to-appear rates as a result.

Once the requisite computer hardware (telephone exchanges, Internet servers) have been installed, the benefits of these technologies can also be employed in other areas of the court (e.g., to permit court customers to pay fines and fees online using a credit or debit card, to call for information about scheduled court hearings, to access information about court locations and hours of operations, etc.) Thus, the opportunity to extend the potential for reduced costs in non-jury court operations and increased convenience to court users other than jurors is likewise enhanced.

Nevertheless, some courts have hesitated to implement IVR and Internet technologies due to concerns about the “digital divide” and the potential impact of these technologies on the demographic composition of the jury pool. Would “low-tech” jurors disproportionately fail to respond to the jury summons? Provided that the court continues to offer traditional written, telephone and in-person communication options to jurors who need them, there should be no difference in the overall response rates. All the court does by implementing these technologies is to greatly expand jurors’ options

for responding to a jury summons with familiar technologies that are available 24 hours a day, 7 days a week. The District Court in Travis County, Texas (Austin) conducted an intensive evaluation of the impact of its I-Jury System, which permits jurors to respond to a jury summons online.² Although Whites and individuals from higher socio-economic levels were more likely to use the I-Jury System than Blacks or Hispanics (the two most prevalent minority populations in that community), the court found no impact on the overall composition of the jury pool. Blacks and Hispanics continued to respond to their jury summons through traditional means. The court did experience significantly reduced costs of jury operations and jurors responded very positively to the increased convenience of qualifying online.

Costs and Implementation Issues

A single principle should guide decisions concerning any new technology or automation: will it replace human effort with computer effort? This is as true for IVR and Internet communication technologies as for any other type of court automation. If the automation streamlines jury operations and reduces the number or complexity of staff tasks in a reasonably cost-effective manner, it is certainly worthy of consideration. If, on the other hand, the technology requires as much or more staff involvement to operate than the underlying function required before, it is probably wise to look elsewhere. Given that guiding principle, there are a number of other factors to consider,

² Mary Rose & Michelle Brinkman, *Crossing the ‘Digital Divide’: Using the Internet to Impanel Jurors in Travis County, Texas*, 1 J. CT. INNOVATION 5 (2008).

especially costs in relation to the purported benefits of the automation, the capability of the technology to deliver the promised benefits, the speed with which the technology operates, and the degree to which the organizational culture is open to change.

Costs for online and IVR interface technologies vary depending on the technical infrastructure needed to support the anticipated volume of IVR or online responses and the cost of ongoing maintenance support for the automation. Based on these factors, the pricing structure established by commercial vendors typically ranges from \$20,000 to \$35,000 for Internet-based systems, but can be much lower or much higher for very low or high volume courts. IVR systems require a more significant investment in computer hardware compared to online systems, so costs to implement IVR-based systems tend to range from \$50,000 to \$75,000, again depending on volume. Systems developed by courts using in-house IT staff or contractors may be less expensive and also more easily extended for non-jury court operations. But, of course, the in-house IT or contractors must have the requisite expertise to design, implement, and maintain these systems.

In terms of a cost-benefit analysis, a court considering these

technologies should try to quantify the monetary value of the existing human effort currently required to accomplish the tasks to be performed by the automation. Consider, for example, the table below.

A court employs three FTE jury clerks to process and sort the returned qualification questionnaires, enter the information on the jury automation system, and respond to written and telephone inquiries from jurors at an annual cost of \$105,000 for salaries and fringe benefits. The proposed cost of the IVR or online automation system is \$30,000. The new automation is expected to reduce the amount of manual processing by at least 40% and will likely increase over time as jurors become more familiar and comfortable with using these technologies to respond to the jury summons. If the automation is implemented, the court

**Example Cost-Benefit Analysis - Jury Automation System:
IVR/Online Automation versus Manual Processing**

Current Method - Manual Processing by Court Employees

Annual Cost per FTE Jury Clerk *	\$ 35,000
Number of FTE Jury Clerks Performing Manual Processing	3
Total Annual Cost of Manual Processing System	\$ 105,000

New Method - Automated Processing

Annual Cost of IVR or Online Entry System	\$ 30,000
Annual Cost of 1.5 FTE Jury Clerks required for manual processing **	\$ 52,500
Total Annual Cost Using Automated Processing and 2 FTE Jury Clerks	\$ 82,500

Estimated Dollar Savings in Jury Operations **\$ 23,000**

* Annual costs includes salary and benefits.

** IVR/Online Automation systems would not be used by everyone. Manual processing time would still be required. A 40% decrease in manual processing time is projected and this percentage could be expected to increase over time.

Notes: Other savings from this investment can be realized if the technology is implemented in other areas of the court. For example, if equipment could be used in the collection of fees and fines. Also, non-quantifiable benefits include increased benefits to citizens and other court users.

would still need 1.5 FTE jury clerks to do these tasks for jurors who decline to use the new technology (\$52,500), but could reallocate 1.5 FTE jury clerks to other tasks in the jury office or elsewhere in the court. In this case, the cost-benefit calculation favors implementation of the technology. The court expends \$30,000 in implementation and ongoing maintenance costs, but gains \$52,500 in staff resources that can be put to more effective use. The immediate benefits would be even more pronounced in a court with higher staff expenses, a greater reduction in anticipated staff processing, or lower automation costs.³ Other savings may be realized through reduced FTA rates and decreased postage costs. The combined value of these benefits would likely increase over time as the rate at which jurors use the technology increases.

Consider, on the other hand, a court that had already employed high-level imaging technologies to scan and upload juror information directly into the jury automation system, and thus only needed two FTE jury clerks to operate the imaging technology and respond to jurors' written and telephone inquiries. The benefits of supplementing the jury automation system with an IVR or Internet interface would not be as great in purely fiscal terms because much of the savings from reduced human effort had already been achieved through implementation of the imaging technology. This is not to say that the

³ This example only illustrates the potential savings in jury operation costs. A similar cost-benefit analysis should be done for all areas of court operations for which these technologies would be applied. The fiscal impact on jury operations alone may be minimal, but the fiscal impact on overall court operations can be substantial.

IVR or Internet communication technologies should be rejected. Other considerations, such as the ability to employ these technologies in other areas of the court as well as the intrinsic but less easily quantifiable value of offering convenience and expanded communication options to jurors and other court users, may still tilt the balance in favor of the technologies. But to avoid the situation of "buyer's remorse," the court should be realistic in its decision-making process about the desired objectives.

Although more difficult to quantify in monetary terms, the court should also consider factors other than the purely fiscal impact on jury operations in its decision-making. For example, is the technology capable of fulfilling its promised benefits given the infrastructure of the existing jury automation system? Specifically, how well will the technologies interface with the existing system? Will these systems operate in real time or will they require a parallel or shadow system to periodically upload juror information? And if so, does the court currently have sufficient technology infrastructure including telephone or Internet access to support these technologies? How frequently will juror information be uploaded to the system? If the technologies require changes in the business practices employed by jury or other court staff or officials to provide the maximum benefit, is the organizational culture of the court amenable to such changes?

Successful Internet Technologies in Jury Operations

In 2007, the NCSC explored courts' experience with online qualification through an informal survey of courts that have implemented this technology. That survey revealed a startling

picture. Some courts reported enormous success — with as much as 60 percent of summoned jurors responding online. Keep in mind that nationally more than 20 percent of summonses are returned undeliverable or are not responded to at all, so in courts with a 60 percent online qualification rate, three out of four summoned jurors are responding online. Other courts, however, had abysmal experiences with less than 2 percent online qualification rates. The average rate for all courts that responded to the informal survey was 30 percent — that is, approximately half the national rate of household Internet access at that time. In subsequent discussions with commercial jury software vendors and individual courts, the NCSC identified four factors that are likely to affect online qualification response rates. These suggest things that courts should consider while implementing online qualification technologies.

Community “Wired-ness”

Communities differ greatly with respect to the extent that individuals have access to and routinely use the Internet to communicate with each other for personal and business purposes. Age and education are key factors, with younger and more highly educated persons more likely to use Internet services than older and less educated persons. As a practical matter, courts cannot do much to affect the degree to which their communities are already using the Internet on a regular basis. But it is a question that courts should consider before investing in this type of technology. If jurors in your community are not already using Internet technology on a regular basis, perhaps other jury improvement efforts should take priority until the local demographic characteristics of

the community indicate that more people would use the online application if it were offered. Jury managers can assess this informally simply by asking jurors who report for service if they have Internet access at home or at work and if they would use an online qualification service if it was made available to them.

Website Functionality

Sandi Willett, Director of Education Services for JSI, Inc., a commercial jury software vendor, offered several insights about the impact of Web site functionality on her clients’ experience with online juror qualification rates. Website functionality refers both to the number of tasks or jury management functions that individuals can conduct online as well as the ease of conducting those tasks. According to Willett, the more tasks prospective jurors can conduct online, the more likely they are to conduct all of their juror communication online. Thus, courts that restrict online communication only to documenting juror qualification typically have lower overall response rates than courts that provide jurors with a broader array of options (e.g., document qualification information, choices for a new date for jury service, name or address changes, request to be excused from jury service, reporting status check, links to FAQs and other information about jury service on the court’s website, etc.) The office of the Massachusetts Jury Commissioner recently implemented a statewide application that has many of these functions and might serve as a model for other courts.

Procedural Factors

Related to Web site functionality is the extent to which jury management procedures have been adapted for online communications, particularly for situations that require supplemental documentation (e.g., proof of non-citizenship, doctor's verification for medical hardship excuse). Courts that permit jurors to submit supplemental documentation electronically typically have higher online response rates than those that require supplemental documentation in writing. For example, instead of requesting written proof of non-citizenship (e.g., copy of green card, foreign passport and visa, etc.), the court could simply request the person to submit the green card number, or passport or visa number and country of origin). For jurors who request to be excused due to medical hardship, the court might develop an electronic form that jurors could download, forward to healthcare providers for the appropriate documentation, and then email or fax back to the court.

Formal and Informal Incentives

It appears that a substantial factor in the success of courts' online juror websites is the extent to which those courts publicize the website and formally or informally encourage jurors to use it. Compare, for example, the online qualification rates for the Maricopa County Superior Court in Phoenix, Arizona, with that of the Phoenix Division of the U.S. District Court in Arizona. Both courts offered online qualification to jurors, and they drew from approximately the same geographic boundaries. But in 2007 the online qualification rate for the federal court was 29 percent compared to just 9 percent for the Maricopa County Superior

Court. The qualification questionnaire for the federal court included a prominent notice that stated "this questionnaire is available for completion online by visiting <http://www.azd.uscourts.gov> and clicking on juror information." In contrast, the summons for the Maricopa County Superior Court merely indicated that the recipient could obtain jury information by "visit[ing] the Web site at www.superiorcourt.maricopa.gov/jury;" it did not specify that jurors can complete the questionnaire online or conduct other business on the website. A more prominent notice of website availability and its uses would likely have improved online response rates.

In the NCSC survey of online qualification rates, 30 counties in Wisconsin submitted information. Eau Claire, Wisconsin, reported the highest rate in the state — 40 percent. Diana Miller, the Clerk of the Circuit Court in Eau Claire, was asked what her secret was. She replied that she had discontinued sending stamped, self-addressed envelopes with the qualification questionnaire. She had only received one complaint — ironically in an email message from someone who obviously had Internet access — but had saved more than \$1,200 in postage in the first year of the new policy. This is an example of a successful incentive to use the online qualification feature rather than first-class mail.

Conclusions

The lessons from these examples are fairly straightforward. Courts can benefit greatly by offering IVR and online qualification applications to prospective jurors, but implementing the software is only the first step to a successful transition from paper to IVR or

online communications with jurors. Courts need to think carefully about the Web site design and functionality and take into consideration how online communications differ from written (paper) or telephone

communications. They also need to develop a comprehensive strategy to inform jurors about the availability of the Web site and encourage its use.

Disclaimer: The guidelines discussed in this document have been prepared by the National Center for State Courts and are intended to reflect the best practices used by courts to evaluate the potential impact of IVR and Internet communication technologies and increase the likelihood of successful implementation.