

# OVERCOMING LANGUAGE BARRIERS IN THE CRIMINAL JUSTICE SYSTEM

Can Language Assistance Technology Help?

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## **From the director of Vera's Center on Immigration and Justice**

For nearly half a century, the Vera Institute of Justice has worked closely with leaders in government and civil society to improve the services people rely on for justice and safety. The Center on Immigration and Justice seeks to extend Vera's time-tested methodology to criminal justice issues that affect immigrants. We do this through program oversight, pilot program development and implementation, technical assistance, and empirical research.

The Translating Justice project is an important part of the Center's effort to ensure that the criminal justice system is fair, humane, and effective in its dealings with immigrants. Translating Justice pursues this goal by developing practical methods for communicating with people who do not speak English well. In addition to exploring the uses of computer and networking technology in bridging language gaps—as detailed in this report—the Translating Justice project has compiled criminal justice glossaries in Spanish and Chinese, published a practical guide of strategies for law enforcement to overcome language barriers, and promoted awareness of language issues through workshops and training.

We hope this report encourages you to explore the uses of language assistance technology in your own organization. For more information about the Center on Immigration and Justice or the Translating Justice project, please call (212) 334-1300 or visit us on the web at [www.vera.org/translatingjustice](http://www.vera.org/translatingjustice)

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## Executive Summary

In order to do their jobs safely and effectively, criminal justice personnel must be able to communicate with the people they serve. Yet, as a result of dramatic shifts in the demographics of immigration since the early 1990s, many criminal justice agencies are finding they are ill-equipped to communicate with growing numbers of people in their jurisdictions who do not speak English well. Criminal justice administrators are increasingly looking for creative and cost-effective ways to bridge this language gap.

One promising solution is to invest in “language assistance technology”—computer and networking technology that can ease communication among individuals who do not share a common language. To explore the possible uses of language assistance technology in New York’s criminal justice system, Translating Justice, a project of the Center on Immigration and Justice of the Vera Institute of Justice, invited a group of civic and government leaders to participate in a roundtable discussion at the Institute’s New York office.

This paper summarizes that discussion. The roundtable began with demonstrations of several language assistance technologies by developers and law enforcement personnel who had tested these technologies in the field. Roundtable participants then discussed how their own organizations might use these technologies. They also spoke about potential drawbacks, methods of field-testing the various technologies, ways to secure funding for them, and next steps for officials who are interested in acquiring and using language assistance technology.

Roundtable participants agreed that language assistance technology can be an effective tool for addressing some language barriers. Although the technology for two-way handheld devices is still in the developmental phase, one-way handheld devices and remote simultaneous interpreting technology appear to be useful, depending on the circumstances. The latter are more appropriate in situations that do not require discourse, such as crowd control. The former may be more effective in situations that call for back-and-forth discussion, such as a parole board hearing. Participants also believed that criminal justice organizations could benefit from more inter-agency dialogue about language assistance issues and the uses of technology in addressing these issues.

While the roundtable focused on the particular needs of criminal justice professionals in New York City, this publication aims to serve a broader audience as well. In surveying a range of technologies and providing information about the circumstances in which they work best, it seeks to provide justice officials across the nation with the information they need to make better informed decisions about language assistance technology.

## Overcoming Language Barriers in the Criminal Justice System: Can Language Assistance Technology Help?

At 4:30 on a Saturday morning, a Chinese female is admitted to a local women’s jail. As part of the intake process, a corrections officer reviews the facility’s rules and regulations with her and uses a standardized form to collect background information on any specialized medical and psychological needs. On this occasion, the intake officer notices that the detainee appears not to understand English. The officer has no idea what language she speaks and is concerned that she does not understand the questions she is being asked. No one at the facility speaks any Chinese dialects, and an interpreter is not available at this hour. Unable to communicate, the intake worker cannot complete the medical examination required by state law.

### Introduction

Geographic patterns of immigration have changed dramatically in the United States over the past decade. In the past, most new immigrants settled in either large cities or agricultural communities, where they were able to find steady work. But in recent years, newcomers have made their home in myriad communities across the country—in urban, suburban, and rural areas alike. In many of these places, local criminal justice agencies are ill-equipped to communicate with people who do not speak English well. As a result, incidents like the one described above—in which a language barrier impedes a basic criminal justice operation—have become increasingly common.

The need to address language barriers is particularly acute in New York State, where by one estimate as many as 130 languages are spoken and some 13 percent of the population is “limited English proficient” (LEP), meaning they do not speak English well.<sup>1</sup> As New York’s LEP population continues to grow, police and other first responders are facing unprecedented challenges. Having a bilingual interpreter on staff may be the ideal solution, but many agencies lack the resources to hire qualified interpreters.<sup>2</sup>

As a result, criminal justice officials have begun to look beyond staff interpreters for creative and cost-effective ways to bridge the language gap. One promising approach is to invest in “language assistance technology”—computer and networking technology that can help individuals who do not share a common language to communicate. In recent years, language assistance technology has been used with increasing success by the military as well as in healthcare settings. A number of court systems and law enforcement agencies have experimented with the technology as well. While language assistance technology is not a substitute for human interpreters, it can be an effective tool for many organizations that face language barriers.

To explore the potential uses of language assistance technology in New York’s criminal justice system, Translating Justice, a project of the Center on Immigration and Justice at the Vera Institute of Justice, invited a group of civic and government leaders to participate in a roundtable discussion at the Institute’s New York office. The roundtable, which took place in March 2007, was attended by representatives from justice agencies, nonprofit organizations, foundations, and local government. (See box on Roundtable Participants.) It also featured presentations by

<sup>1</sup> U.S. Census Bureau, Census 2000, <<http://www.census.gov>>.

<sup>2</sup> Those who work with language access issues often draw a distinction between interpretation and translation. Interpreters perform a particular type of translation, namely simultaneous oral translation.

researchers working to develop language assistance technologies and law enforcement personnel who have used these technologies in the field. The discussion covered a wide range of topics, including potential applications of language assistance technology, possible drawbacks, and factors that would need to be considered in implementing these technologies. This paper presents highlights from the discussion. While the roundtable focused on New York's criminal justice system, many of the topics covered are relevant to criminal justice agencies across the nation.

### **ROUNDTABLE PARTICIPANTS**

Fred Akinsiku, Senior Management Analyst, New York Criminal Justice Agency  
Tammy Arnstein, Director, Language Access, New York City Mayor's Office of Immigrant Affairs  
John Antonelli, Senior Deputy Commissioner, New York City Department of Correction  
Captain Robert Baldwin, Howard County (MD) Department of Corrections  
Alan Black, Research Professor, Language Technology Institute, Carnegie Mellon University  
Sandra Bryan, Coordinator of Court Interpreting Services, New York State Office of Court Administration  
Jennifer Gilroy Ruiz, Borough Chief, Queens Family Court, New York City Law Department  
Aquila Haynes, Analyst, New York City Department of Information Technology & Telecommunications  
Melissa Holland, Language Research Programs, U.S. Army Research Lab  
Clifford Hopkins, Researcher, Law Enforcement Analysis Facility  
Andy Jachimczyk, Deputy Director of Information Technology, New York City Department of Probation  
Michael Jacobson, Director, Vera Institute of Justice  
Azadeh Khalili, Deputy Commissioner, New York City Mayor's Office of Immigrant Affairs  
Anita Khashu, Director, Center on Immigration and Justice, Vera Institute of Justice  
Edwin Lee, City Administrator, City of San Francisco  
Irene Lee, Program Officer, Annie E. Casey Foundation  
Kristin Precoda, Director, Speech Technology and Research Laboratory, SRI International  
Siddharth Rastogi, Chief Executive Officer, SimulTel, Inc.  
Lieutenant Bill Rice, Shenandoah (VA) Sheriff's Office  
Mery Rosendorn, Public Information Specialist, New York State Office of Children & Family Services  
Susan Shah, Senior Planner, Vera Institute of Justice  
Mara Simmons, Director of Foreign Language Interpreter Program, Arkansas State Courts  
Robert Smith, Director of ACCESS, New York State Division of Parole  
Andrew Sperl, Analyst, New York County District Attorney's Office

## **ABOUT THE TECHNOLOGY**

### **One-way technology**

“One-way” language assistance technology generally refers to handheld devices (resembling a PDA or BlackBerry) that can be programmed with hundreds of pre-recorded phrases in several target languages. To “speak” in the target language, the user first selects a phrase in English by means of either a pointer or a vocal prompt. (These phrases are typically questions or commands that require little or no response.) The device then matches the English phrase with the appropriate translation and “utters” that translation through a speaker. Most one-way devices can be easily programmed to recognize the voices of several regular users. In addition, most are “hands-free:” they can be clipped to a belt or placed in a pocket. One-way technologies are currently used in corrections, law enforcement, and the military.

### **Two-way technology**

“Two-way” language assistance technology will allow users to have “impromptu” conversations that do not rely on pre-programmed phrases. Two-way technology is currently under development; at present, it remains impractical due to limited voice-recognition capacity and low translation accuracy. It is expected that two-way technology will eventually be available in both handheld devices and computer software packages. The military is currently experimenting with two-way devices in a limited capacity.

### **Remote simultaneous interpreting technology**

Remote simultaneous interpreting technology enables a skilled interpreter to provide nearly instantaneous oral interpretation from a remote location by telephone. The hardware includes a central server and an interpreter’s console, which allows the interpreter to control what callers hear. To use this technology, the individuals who want to communicate call the interpreter on separate phone lines. The interpreter then signals for the conversation to begin. As each caller speaks, the interpreter renders simultaneous interpretation to the other caller. Neither caller hears the other directly; rather, each hears the interpreter’s running translation (with a very short time lag). Remote simultaneous interpreting technology thus approximates a real-time conversation. This technology is currently used in courtrooms and hospitals.

## **Roundtable discussion: the technology**

The roundtable began with demonstrations of one-way, two-way, and simultaneous interpreting technologies (see About the Technology) by developers and law enforcement personnel who had tested these technologies in the field. Roundtable participants then discussed how their own organizations might use these technologies to improve communication with LEP individuals. They also spoke about potential drawbacks. Several participants were familiar with handheld one-way devices, but remote simultaneous interpreting technology was new to many.

### **One-way technology: demonstration and applications**

Captain Robert Baldwin of the Howard County Department of Corrections in Maryland and Lieutenant Bill Rice from the Shenandoah County Sheriff’s Office in Virginia provided demonstrations of one-way handheld devices. “These devices have helped tremendously in

breaking the ice with people who don't speak English," Baldwin observed. Both presenters explained that the devices are lightweight, portable, and easy to use. In addition, they are sturdy enough to withstand the wear and tear of police work and require little customization or technical support—they can be used right out of the box.

Baldwin noted that his staff at the county jail find the one-way devices extremely useful for communicating instructions or directives to LEP inmates. "Whether we're trying to evacuate, quell a disturbance, or remove an inmate from a cell, we can play pre-recorded phrases that tell inmates what to do," he said. Among the most commonly translated commands are "Place your hands through the bars" and "An officer will come to escort you from the unit." Baldwin also explained how his staff have hooked up the one-way device to a bullhorn so that commands can be heard in several languages throughout the facility.

Rice demonstrated the hands-free operation of one-way technology by placing a device in his pocket and simulating a traffic stop. He explained that deputies in his department commonly use the device to issue commands ("Step out of the car") or to convey information ("Your car is being towed" or "You are being issued a traffic citation"). His staff have also used one-way devices to notify LEP individuals of their Miranda rights. Finally, Rice explained, one-way devices can be used to prompt non-verbal responses to such queries as "Are you injured?" or "Point to where you are hurt."

In the discussion that followed, participants explored potential uses of one-way technology in their own organizations. Many believed that, because one-way devices are portable, they could be effective in situations that demand a swift or improvised response. John Antonelli, senior deputy commissioner of the New York City Department of Correction, explained that a "portable response" is particularly important for corrections officers: "If someone refuses to come out of his cell or there's a barricade situation, a portable translation device would work very well. It would not need to be very sophisticated."

Andy Jachimczyk, deputy director of information technology at the New York City Department of Probation, said that one-way devices could help probation officers surmount many of the language barriers they commonly face. In routine meetings, for example, probation officers often need to determine what language an individual speaks and to let that person know when an interpreter will be available. Or, in a juvenile justice context, probation officers may need to communicate with parents who do not speak English. Finally, probation officers commonly execute bench warrants to LEP individuals. Jachimczyk observed that one-way devices could be useful in all of these situations.

Robert Smith, director of the New York State Division of Parole's ACCESS program, a drug treatment and counseling program for parolees in New York City, added that one-way devices could help parole officers to supervise and execute warrants and to relay basic public safety commands during case management sessions or parole hearings. He also noted that, because volatile situations are frequently exacerbated by poor communication, handheld devices could be effective tools for easing tensions.

Jennifer Gilroy Ruiz, the borough chief of Queens Family Court for New York City Law Department, saw a role for one-way technology in the courtroom as well. One-way devices could be used to relay commands, convey information, and give directions. "A one-way device could give LEP parents basic information about what's happening in the process," she said. "It could work for basic information that needs to be conveyed, such as, 'What do I need to bring to court?'"

## **One-way technology: potential drawbacks**

Clifford Hopkins, who evaluates law enforcement and corrections technology at the Law Enforcement Analysis Facility in upstate New York, cautioned that, despite their benefits, one-way devices have drawbacks as well. “One problem is that the machines can’t switch to the desired language immediately,” he said. “All of these devices work in several languages. Choosing the right language quickly takes practice and training. Also, some devices tie up the user’s hands, which can be a safety issue.” Hopkins added that one-way technology may not be mature enough to aid in situations that call for an immediate response. Moreover, switching back and forth between languages can be cumbersome. This can be a problem when interacting with people who speak different languages (with a defendant who speaks Korean and a victim who speaks Spanish, for example).

Finally, for all their usefulness in the field, one-way translation devices are not suited for extended conversations with non-English speakers. Indeed, Baldwin and Rice both acknowledged that the devices are less than ideal for anything other than basic communication. As Howard County’s Baldwin pointed out, “These devices are useful for communicating one-way directives—which is something we do a lot of—but for extended dialogues we prefer to use a telephonic translation service.”

## **Two-way technology**

Because two-way technology is currently under development and not in common use, roundtable participants did not spend much time discussing it. The Defense Advanced Research Projects Agency (DARPA), the research and development unit of the Department of Defense, is currently experimenting with two-way devices in Iraq, as well as evaluating them in the laboratory. DARPA is also developing two-way technology for speakers of Chinese, Persian, Pashto, and Thai. The researchers present at the roundtable who are working to develop two-way technology encouraged justice system officials to partner with them to pilot and test it in real-world settings.

## **Remote simultaneous interpreting technology: demonstration and applications**

Siddharth Rastogi, chief executive officer of SimulTel, and Mara Simmons, director of the Foreign Language Interpreting Program in the Arkansas state courts, demonstrated the use of remote simultaneous interpreting technology. Rastogi compared SimulTel’s remote interpreting system to the language technology used by the United Nations (UN). “When delegates speak at the UN, people in the audience wear headsets and listen to a running translation in their own language,” he said. “There is a lag of about four to five words, but the interpretation is nearly simultaneous.”

Simmons followed with an account of how remote simultaneous interpreting technology has helped state courts in Arkansas provide more efficient and effective interpreting services. Telephonic translation allows a qualified interpreter to function from a remote location, so it is ideal for the courtroom, where establishing trust is essential but it isn’t always possible for an interpreter to be physically present. “It’s crucial for the judge to be able to build rapport with the defendant or the victim,” Simmons explained. “Remote simultaneous interpreting allows the interpreter to come ‘out of a box.’ Because the judge and the LEP person can still see each other, it’s easier to establish a connection.” Simmons noted that remote simultaneous interpreting

technology is used in a wide variety of circumstances in Arkansas courts, from giving testimony to helping victims file protection orders.

Jennifer Gilroy Ruiz of the Queens Family Court asked about accessing the technology. “We have a 24-hour response system for our major case unit, and we don’t have wireless access. Could remote simultaneous interpreting technology work through the phone jacks at, say, an NYPD precinct?” Rastogi explained that the technology is not complex and requires little in the way of specialized equipment. In fact, all that is needed is a pair of cell phones or land telephone lines.

Roundtable participants were enthusiastic about potential applications of remote simultaneous interpreting technology. In particular, many foresaw a role for this technology in helping their organizations build rapport and maintain relationships with LEP individuals. Andy Jachimczyk from the New York City Department of Probation remarked that simultaneous interpretation could improve communication between probation officers and probationers, especially during office visits and other circumstances “that involve lengthy interviews.” Robert Smith of the New York State Division of Parole said that remote simultaneous interpreting technology could be used during parole board hearings. “Currently we hire an interpreter to appear at the hearing in person. But we could also use remote simultaneous interpreting technology to conduct a hearing with an off-site interpreter.” Gilroy Ruiz likewise said that remote simultaneous interpreting could be useful in the family court system that she administers. “Currently we use in-person interpreters. It can be a challenge to get the interpreters to come out on the same day from Manhattan to Queens on short notice.”

### **Remote simultaneous interpreting technology: potential drawbacks**

In contrast to the one-way and two-way technologies discussed above, remote simultaneous interpreting technology ultimately depends on skilled interpreters. This makes it ideally suited for tasks where building relationships and establishing trust are paramount. However, relying on skilled interpreters has significant drawbacks as well. For one, training and retaining a pool of qualified interpreters can be costly—even though the technology allows organizations to use them with greater efficiency. Interpreters need extensive preparation if they are to interpret accurately, especially in specialized legal or law enforcement contexts. And as Simmons underscored, there can be no substitute for a qualified professional. “I’ve seen [the Miranda warning] translated in many ways,” she said. “Sometimes you wonder, ‘Is the translation accurate? Is the interpreter qualified?’” Moreover, interpreting can be exhausting work. Simmons explained that “even a seasoned professional can usually only go about 45 minutes before effectiveness diminishes markedly.”

Finally, several participants voiced concerns about the cost of implementing a remote simultaneous interpreting technology. Rastogi and Simmons agreed that, in order to be cost-effective, remote simultaneous interpreting programs need to be coordinated on a large scale. Ideally, a number of justice agencies would participate, thereby distributing expenses among several users.

### **Testing language assistance technology**

After participants had discussed the potential uses and shortcomings of each language assistance technology, Cliff Hopkins of the Law Enforcement Analysis Facility offered practical advice for

administrators interested in field-testing them in their own organizations. His suggestions included:

- **Test for quality, durability, and user-friendliness.** Staff who will be using a specific language assistance technology should test for sound quality and clarity, durability, and user-friendliness in trial runs. Such testing should take place over an extended period of time—say, one to three months—to determine whether the technology functions well over the long term and how well it holds up under the wear and tear of day-to-day work.
- **Test for practicality in real-life situations.** Language assistance technology should be tested in a variety of real-life situations to determine how it performs under conditions that are less than ideal. For example, a one-way device could be tested on a busy highway to determine whether loud background noise affects sound quality or accuracy. Similarly, remote simultaneous interpreting technology might be tested using cell phones in different parts of a jurisdiction. This would help administrators to determine whether local cell phone coverage has any effect on sound clarity and quality.
- **Test for accuracy and flexibility.** Administrators should take accuracy and flexibility into consideration when testing whether a particular technology is a good fit for their agency. For example, many one-way devices can be customized by modifying or adding phrases, either by means of a recording function or through supplemental memory “lexicons” geared toward the needs of specific users.

## **Funding and implementing language assistance technology**

Next, the discussion focused on making a case for funding and implementing a particular technology. Susan Shah, a senior planner at Vera, explained that it often makes sense to begin this process with an internal needs assessment. Such an assessment should provide a language profile of the population that the organization serves. It should also look at how frequently and under what circumstances agency staff come into contact with LEP individuals. Documenting language barriers in this way can help demonstrate the need for a particular technology.

### **Obtaining funding**

Participants then turned to what would likely be the most significant barrier to the implementation of language assistance technology: securing funds. Michael Jacobson, Vera’s director and a former deputy budget director in New York City’s Office of Management and Budget, stressed that administrators need to explain why investing in a particular technology will lead to savings both within their agency and elsewhere in the criminal justice system. “For example, if NYPD officials wanted to invest in one-way handheld devices, they could make the case that giving these devices to patrol officers would cut down on overtime and improve efficiency,” he explained. “They could also point out how one-way technology could save money elsewhere—say, by speeding up the arrest to arraignment process.” By framing the benefits of language technology in terms of systemwide efficiency, an organization can boost its chances of receiving funding for a pilot project. Other participants pointed out that administrators could cut costs by pooling or sharing technology resources. As Robert Baldwin and Bill Rice observed, it is quite practical for line staff to share handheld one-way devices. Moreover,

multiple organizations could make use of a single remote simultaneous interpreting network by splitting the cost of any necessary hardware and sharing a pool of trained interpreters.

## **Training**

As several participants pointed out, some personnel would likely adapt to one-way devices or telephonic interpretation more readily than others. As a result, it would be necessary to provide training. Participants who had used the technology in their own organizations recommended that administrators budget for training as part of the implementation process. Ed Lee, an administrator for the city of San Francisco, mentioned that his city often earmarks money for training in the initial budgets of pilot projects.

Fortunately, most of the language technology available today is relatively simple to use and does not have a steep learning curve. Also, most companies that manufacture language assistance technologies provide specialized training for law enforcement organizations and courts.

## **Potential legal issues**

Several participants observed that administrators who want to adopt language access technology will need to look into potential legal challenges. If there are local legal precedents that concern the use of technology for interpretation, these will need to be taken into consideration. If, for example, a jurisdiction frequently requires interpreters to testify in court, then a remote simultaneous interpreting program may not be a cost-effective measure.

## **Further considerations and next steps**

In closing, roundtable participants focused on what steps they might take to further explore the uses of language access technology in the criminal justice system.

Several participants wanted to learn more about what types of technology are available as well as the process by which new technologies are developed and implemented. One participant suggested that a “technology fair” at which criminal justice administrators try out new technologies and interact with researchers and developers could promote further exploration and dialogue. Researchers and developers likewise expressed an interest in further collaboration, which could help them to eliminate unnecessary trial and error and adapt the technology for specific uses.

Participants also said that criminal justice organizations could benefit from more inter-agency dialogue about language assistance. In particular, organizations that have conducted a thorough assessment of their language needs might share what they have learned. “You’ve got neighbors,” said Cliff Hopkins of the Law Enforcement Analysis Facility. “Don’t let them reinvent the wheel.” Inter-agency dialogue could help organizations that have already adopted the technology to boost efficiency and make more informed decisions. It could help agencies that are beginning to implement the technology to do so more smoothly. And it could help agencies that are just beginning to explore this technology to determine whether it would be a wise investment for their language needs.

## Conclusion

In recent years, criminal justice organizations across the nation have found that language barriers significantly impede their ability to deliver justice and protect public safety. Language assistance technology can be an effective tool for addressing these barriers, especially in rural or suburban jurisdictions that have experienced a recent influx of residents who do not speak English well or in urban settings where a multitude of languages are spoken. One-way handheld devices can be useful in situations that do not require back-and-forth discourse, while remote simultaneous interpreting technology can be effective in situations that call for extensive discussion. Both can be employed in a variety of different situations by a range of different criminal justice agencies, including the courts, parole and probation agencies, law enforcement organizations, and correctional institutions. While two-way technology shows promise, it is still being developed.

In summarizing the highlights of the roundtable discussion, this paper has aimed to encourage criminal justice administrators to think creatively about applications for language assistance technology. It has also sought to provide administrators with some of the practical information they need to determine whether these technologies make sense for their organization and, if so, how they might go about testing, funding, and implementing them. Ultimately, this information should help criminal justice organizations save money, function more efficiently, and deliver justice in a fair and impartial manner.