

# Data, Delinquency and Drug Treatment

How Technology Can Aid a Juvenile Drug Court



*Written by*  
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#### **About the Author**

Dory Hack is a technology project manager at the Center for Court Innovation.

#### **Technical Specifications for the Juvenile Intervention Court Technology Application**

The Juvenile Intervention Court Technology Application was written in Java Server Pages (JSP) language. Sun Solaris, application and database servers; Windows NT/2000 workstation, client; and TCP/IP make up the network environment. Software includes Oracle, Internet Explorer and WebLogic.

# How Technology Can Aid a Juvenile Drug Court

## Introduction

In the fall of 2002, the New York State Unified Court System unveiled new technology designed to support an experiment in judicial problem-solving — the Harlem Juvenile Intervention Court. The Harlem Juvenile Intervention Court is a community-based juvenile drug court that seeks to link delinquent youth to drug treatment and other services such as counseling, tutoring and positive social activities. The goal is to give young people the structure and support they need to avoid further criminal behavior.

The Juvenile Intervention Court Application — developed by the court system's independent research and development arm, the Center for Court Innovation, with support from the State Justice Institute — is a computer software program that uses Intranet technology to create an electronic workplace for the diverse group of players who participate in a juvenile drug court. Addressing the information challenges unique to a juvenile drug court, the technology enables judges, attorneys, probation officers, case managers and service providers to access information quickly and easily within the strict confidentiality guidelines of family court.

This white paper is intended to assist court planners in the design and implementation of juvenile drug court technology. It spells out a set of basic principles and walks through the main features of the Juvenile Intervention Court Application. The goal is to help others learn from the experience of Harlem technology planners, offering a foundation from which other technology experiments can be launched.

## Juvenile Intervention Court

Building on the success of adult drug courts around the nation, juvenile treatment courts have emerged as a new model for addressing the multiple problems of drug-involved young people appearing in family court. Like their adult counterparts, juvenile drug courts seek to use judicial authority to tackle the problems that people bring with them to court. In general, juvenile drug courts share many of the attributes of the adult drug court model: an expanded role for the judge, detailed assessment of each respondent, intensive case management, partnerships with community-based programs, graduated sanctions and rewards and strict accountability. Yet the two types of treatment courts differ in significant ways. In a juvenile court:

**Addiction is not the focus** Young people participating in juvenile treatment court use drugs but they are not, by and large, drug addicted. Because they use drugs, the

possibility of addiction down the road exists and needs to be addressed. Participants also confront other, related problems including chronic truancy, underachievement in school, family conflict, gang involvement and delinquency.

**The court has a broader mandate** Juvenile drug court cases are heard in the context of family court, where judges have much broader authority than in criminal court. Therefore the coercive power of the court can be used to mandate a broad array of sanctions in addition to drug treatment.

**Treatment plans are individually crafted** Facing complex problems and armed with broader authority, juvenile drug court judges need to construct individualized multi-faceted treatment and service mandates. In the Juvenile Intervention Court, this response is referred to as the strengthening plan. Each strengthening plan is unique, taking into consideration individual factors such as age, school performance, family support and barriers to treatment.

**Participants are involved in multiple programs simultaneously** Judges in juvenile drug courts must monitor compliance with a number of mandates including school attendance, academic achievement, participation in social service programs, progress in improving family relationships and participation in positive social activities — many more mandates than are tracked in a typical adult drug court.

**Family involvement is critical** Success in juvenile treatment court often depends upon family engagement. Juvenile treatment courts seek to link families to services and attempt to integrate family members (parents, guardians, siblings) into participants' treatment plans.

Sophisticated technology applications that have been successful for adult drug courts did not meet all the needs of a juvenile treatment setting. Adult treatment court applications are designed for a more static treatment plan and a more linear process of tracking compliance. Individually crafted plans, broad mandates across multiple programs and the developmental stage of the population require frequent changes in both the psychosocial assessments and the strengthening plans for juveniles in a treatment court. To be truly effective, a juvenile drug court technology application must facilitate communication between more partners — probation officers, school counselors, family members — while complying with a different, and more rigorous, set of confidentiality rules.

## **Role of Technology**

In developing a technology application to support case management, information sharing and data collection at the Harlem Juvenile Intervention Court, the New York State Unified Court System and the Center for Court Innovation drew on experience designing innovative technology for four other problem-solving courts — the Midtown Community Court, the Red Hook Community Justice Center, the Brooklyn

Treatment Court and the Brooklyn Domestic Violence Court. All of these courts have demonstrated that technology can increase a judge's ability to make informed decisions, enhance the accountability of offenders and promote collaboration among court partners.

In developing technology for the Harlem Juvenile Intervention Court, technology planners sought to achieve the following goals:

**Stronger Partnerships** As courts take an innovative, problem-solving approach to juvenile justice issues, they are turning to new partners for help. In developing these relationships, communication is essential. Technology can link everyone involved in the process, providing a common mechanism for sharing information.

**Better Information** A juvenile drug court requires that detailed data about each juvenile and his or her family be easily retrieved and updated. Details of a comprehensive psychosocial assessment and compliance with court orders need to be accessible in seconds. Armed with this kind of access to information, the court can eliminate time-wasting adjournments and garner credibility with its partners and the community at large.

**Increased Accountability** Careful monitoring of each participant's compliance is essential to foster accountability. The Juvenile Intervention Court Application seeks to make this monitoring possible with easy-to-read, graphic summaries of participant progress. Technology also raises the bar of accountability for treatment providers and court-based case managers — high-quality records become the standard and incomplete information is quickly detected.

**Better Measures of Success** Data about case outcomes and impacts are crucial to determining whether a new experiment like a juvenile drug court is successful or not. For this reason, Juvenile Intervention Court planners built data collection into the design of the Juvenile Intervention Court Application. Researchers can perform statistical analysis on a wide range of performance measures, helping to provide feedback to court administrators, funders and the community.

## Development of the Application

The first step in creating the technology application for the Juvenile Intervention Court was to create an advisory committee made up of court staff, service providers and community-based organizations to provide guidance in the design and implementation of the application. The advisory committee helped identify what information the court and other players needed about each case, gave feedback about the design of screens and experimented with test versions of the application as they were developed. Committee members included the Juvenile Intervention Court judge, and representatives from New York City's family court presentment agency, defender agencies, drug treatment providers, the New York City Department of Education, social service providers and the New York City Department of Probation.

Ideas came from all quarters. The judge, for instance, requested that each defendant's compliance information appear in reverse chronological order so that he could quickly review the most recent information first. Case managers wanted an assessment tool that allowed them to home in quickly on specific areas such as school information, home environment details and self-reported drug and alcohol use. The advisory committee also stressed the need to restrict access to drug-test results.

Planners decided to use Intranet technology for the application. The New York State Unified Court System's Intranet is a network accessible only by court system employees or others with authorization. An Intranet web site looks and acts just like any other web site, but the firewall surrounding an Intranet fends off unauthorized access. The application is easy and inexpensive to maintain because it uses software and hardware that are widely available, easy to support and familiar to many users. Unlike older technologies, an authorized user can get online with just an Internet browser, proper security access and a network connection; there are no additional installation requirements.

Another advantage of the system architecture is flexibility for additional application development. Since the database is accessible by web servers, the data can be utilized in other web-based applications. For example, the Juvenile Intervention Court created a companion Internet application — the Juvenile Intervention Network. Developed with support from the United States Department of Commerce's Technology Opportunities Program, the Network gives off-site partners, such as attorneys, service providers and even the young people access to communication tools and information about ongoing cases. By using the same database but different web-based applications, all players — in the courthouse and outside of it — have controlled access to the same set of information, further improving collaboration and the delivery of services.

## **Security**

Security is a priority in the development of any court-based application. Authorized users access the application through the New York State Unified Court System's network. Access is limited by the rigorous, well-tested security standards of the statewide court information system. In addition, each user's access is controlled through a log in process. Different users have different levels of access to data based on their roles in the justice system. Case managers, for instance, can view certain screens that clerks cannot. Different users also have access to different functions: while one user may be able to create and delete a record, other users can only read it. The advisory committee determined which categories of information various user groups (judges, case managers, prosecutors, defense attorneys, service providers and even family members) can access. A system administrator creates user accounts based on each individual's role within the court. Automatic log out and security technology, such as software-based encryption, further protects the system. Lastly, the system tracks all log ins and data changes to create an audit trail.

### **Easy-To-Use Application**

The Juvenile Intervention Court Application was designed as an easy-to-use application with a point-and-click user interface. Specifically, the Juvenile Intervention Court Application enables team members to:

- Build a profile of each participant, placing the respondent in the context of his or her family, school and peer group;
- Create a comprehensive plan of action mandated by the court;
- Share appropriate information among court partners; and
- Keep track of each participant's progress in fulfilling a complex service plan.

The system was designed for use by all members of the Juvenile Intervention Court team, including the judge, clerks, attorneys, court-based case managers and service providers. By ensuring that all of the players at the Juvenile Intervention Court are on the same page, the system strengthens judicial decision-making, improves inter-agency coordination and promotes accountability.

### **Blueprint for Others**

Although the Juvenile Intervention Court Application was created specifically to meet the needs of the Harlem Juvenile Intervention Court, it can serve as a blueprint for any jurisdiction that is interested in developing a system for use in a juvenile drug court. It can even be adapted for other specialized courts, such as family treatment courts and mental health courts, that involve family members and multiple service providers in complex service plans.

The pages that follow offer highlights of the application, showing how information flows among the application's users and the ways in which the application has been shaped by the court's needs and principles.

### Detailed Information

In order to understand the social, educational and family circumstances of each respondent, judges in juvenile treatment courts need detailed information. At the Harlem Juvenile Intervention Court, this information is gathered prior to a young person's first court appearance using an online interview, which gathers information about family composition, school attendance, existing involvement with social service programs, drug use and an assessment of family members.

Unlike a traditional paper assessment, the Juvenile Intervention Court Application allows case managers to record and retrieve a large body of data quickly and efficiently. Additionally, during the course of a juvenile's participation in the Juvenile Intervention Court, an earlier answer is saved even after it has been updated, allowing both case managers and project evaluators to track information as it changes over time.

Education Screen

**Easy navigation** The assessment interview is a series of interactive forms, accessed by clicking on this worksheet.

**Logical flow** Additional questions appear, depending on answers to other questions. For example, if the juvenile answers either "Full time" or "Part time" to "Are you currently enrolled in school?" a second question appears to capture more specific school information. The use of hidden questions allows the assessment to contain a large number of questions without overwhelming the user.



**Better Communication**

The Juvenile Intervention Court Application allows direct communication between all court players and partners. This reduces the need for multiple phone calls, eliminates duplicative data entry and provides up-to-date information between court appearances. Because court orders are available electronically, they can be reviewed, revised and shared with all relevant players. This is crucial to the ultimate success of the Juvenile Intervention Court, ensuring that information (and clients) do not fall through the cracks.

**Individualized Plans** Using the application, court staff can construct a detailed plan for each youth.

**Easy Updates** The judge can review each individual plan and make changes based on what happens at a hearing, specifying milestones for educational achievements, requirements for participation in treatment, and meetings with probation officers or case managers. The updated plan, reflecting these revisions, is then immediately accessible to the full team.

Strengthening Plan Screen

Court/Project & Obligations		Programs & Compliance	Weekly Schedule	Complete History	
Client: <b>Johnson, Matthew</b>		<a href="#">Assessment</a>		Case Manager: <b>Lisa Smith</b>	
Court or Project	Status	Note	Opened		
<a href="#">Juvenile Intervention Court</a>	<b>O</b>		10/10/2002	<a href="#">New obligation</a> <a href="#">New program</a>	
Status	Obligation	Opened	Service/Action	Description	Details
<b>O</b>	<b>(M)</b>	10/10/2002	<a href="#">Curfew</a>	On/By 11/10/2002	8:45 on Sunday through Saturday
<b>O</b>	<b>(M)</b>	10/10/2002	<a href="#">Individual counseling</a>	Ongoing	To address school related behavioral issues and parental relationships. 1x week
<b>O</b>	<b>(M)</b>	10/10/2002	<a href="#">School Attendance</a>	Ongoing	Maintain regular attendance
<b>O</b>	<b>(M)</b>	10/10/2002	<a href="#">Tutoring</a>	Ongoing	In all subject areas. 2x week
<b>O</b>	<b>(V)</b>	10/11/2002	<a href="#">After-school recreation</a>	Not Tracking	YMCA Basketball league
<b>C</b> Graduated	<b>(V)</b>	10/10/2002	<a href="#">Mediation Intake</a>	On/By 10/13/2002	Referral for intake for Matthew and mother (history)
<b>C</b> Failed	<b>(M)</b>	10/10/2002	<a href="#">Tutoring</a>	Ongoing	(history)

**Graphic Indicators** Graphics are used to communicate headline information. Icons indicate the status of an obligation (O=open, C=closed) and whether the obligation is a mandate from the court (M=mandatory, V=voluntary). Color is also used to communicate information. Green means "go" and everything is okay, while red means "stop" because something needs attention.

**Long-term Engagement** It would be overwhelming to have all historical information displayed for the user. Instead, the page displays a link to "history" through which the user can quickly get in-depth historical information.

## Accountability

Keeping track of a participant’s adherence to a complex service plan is a challenge. Case managers must be able to look at compliance across multiple programs simultaneously in order to get the full picture. Using the Juvenile Intervention Court Application, case managers can track and record compliance with multiple program enrollments. This includes short-term daily attendance in a social service program, long-term school attendance and single-event milestones such as completing a letter of apology. The judge and other team members have access to all information through an easy-to-read summary.

Programs and Compliance Screen

Court/Project & Obligations		Programs & Compliance		Weekly Schedule		Complete History	
Client: Johnson, Matthew		<a href="#">Assessment</a>		Case Manager: Lisa Smith		Update	
Filter Compliance by program:		<input type="text"/>		Submit			
Date	Compliance	Drug test result	Units Completed	Service Provider	Notes	Recorded by	
<a href="#">10/19/2002</a>	Y	-		HCJC: Clinical Service: Individual Counseling	Matthew opened up about siblings. Discussed goals for the upcoming months.	Lisa Smith	
<a href="#">10/19/2002</a>	N		0	HCJC: YJP Resource Center	failed to show. called home; but mother said she didn't know where Matthew is.	Marissa Ruiz	
<a href="#">10/17/2002</a>	Y			HCJC: Clinical Services: School Compliance	Spoke with Guidance Counselor. Matthew has attended every day this week, but was tardy on Tuesday (30 minutes late)	Lisa Smith	
<a href="#">10/16/2002</a>	Y		1 sessions	HCJC: YJP Resource Center	focused on fractions; reviewed for upcoming test	Marissa Ruiz	
<a href="#">10/15/2002</a>	Y	-		Phoenix House: CYT	Client attended first group session.	Ray Peters	
<a href="#">10/12/2002</a>	Y	-		HCJC: Clinical Service: Individual Counseling	discussed recent altercation at school with classmate	Lisa Smith	

**Drug test results** The drug test graphic quickly communicates whether there was a positive toxicology. By clicking on the icon, the user can get a full report on how and where the test was performed and the results for each drug.

**Reliability** The application provides direct communication among court players and service providers about critical information such as drug test results and program compliance. Transmitting information as events occur reduces the risk of lost or incomplete information. The Programs/Compliance screen presents a complete picture of all program enrollments and compliance with those programs. On one page, users get a snapshot of the juvenile’s current activities.

Compliance Entry Screen

**Role-based Access** Case managers keep two types of notes: public notes that can be shared with courtroom players and private clinic notes that can be accessed only by clinical staff. The application’s role-based system controls which users access this data field — case managers can, court players cannot — and ensures that confidential information remains secure.

Weekly Schedule Screen

Day	Schedule
Sunday	
Monday	<ul style="list-style-type: none"> <li><a href="#">Youth Resource Center: tutoring 6-7 PM</a></li> </ul>
Tuesday	
Wednesday	<ul style="list-style-type: none"> <li><a href="#">Clinic: Indiv. counseling 4-5 PM</a></li> </ul>
Thursday	
Friday	<ul style="list-style-type: none"> <li><a href="#">Computer lab: 4:5:30 PM</a></li> </ul>
Saturday	<ul style="list-style-type: none"> <li><a href="#">Basketball: 11-3 PM</a></li> </ul>

**Multiple Program Involvement** Using the Weekly Schedule page, a case manager can keep track of where each juvenile is supposed to be and when. She can also print out this page for the juvenile and his family, or use it as a reference when scheduling activities.

## Informed Decision-Making

The Courtroom Summary Screen brings together all of the most crucial information about a case; it acts as an electronic workplace for all the players involved in a case. Courtroom players can access the court appearance history, compliance with mandated programs and key information from the psychosocial assessment. The judge, resource coordinator and case manager can record notes to be reviewed by the entire team. By providing comprehensive information to court players and partners, the application encourages a coordinated response.

*Courtroom Summary Screen*

Family Court Courtroom Summary			
Respondent Name:	<b>Matthew , Johnson</b>	Docket #:	<b>DK09876</b>
Referral Source:	<b>Probation intake</b>	Petition Top Charge:	<b>PL123.45</b>
		Law Guardian:	<b>Anne Catarna</b>
Arrest Information		Appearance History	
Arrest Number:	<b>12345</b>	Date	Appeared?
Arrest Charge 1:	<b>PL123.45</b>	11/08/2002	Yes
Precinct:	<b>25rd</b>	11/30/2002	Yes
Arrest Date:	<b>10/5/2002</b>	Finding	Remarks/Dispositions
Arrest Time:	<b>9:30 am</b>	No finding	ADJOURNED
		Resp.	ADJOURNED
Summary Assessment Information		Strengthening Plan	
Date of Birth:	<b>12/13/1987</b>	<u>Services</u>	
Address:	<b>537 East 126 Street</b>	Case Manager:	<b>Lisa Smith</b>
Guardian/Parent name:	<b>Joyce Markham</b>	Resource Coordinator's Recommendations	
Guardian/Parent relationship:	<b>Mother</b>	<b>11/08/2002:</b>	Monitor school performance. Indiv. counseling.
Household makeup:	<b>Parents, Sibling(s)</b>	Judge's Notes	
Employment:	<b>Not in labor force, Student</b>	<b>11/08/2002:</b>	School attendance and performance should improve
School name:	<b>P.S. 123</b>		
Last grade completed:	<b>7th or 8th grade</b>		
Case Manager's Notes			
<b>11/08/2002:</b> Client has been satisfactorily participating in all programs.			

**Speed** The summary screen pulls data from across the system — from the Assessment, Programs, Compliance and Court Outcomes screens. The court can access information about the juvenile offender moments after entry by other partners. Similarly, court staff can transmit information about court proceedings and dispositions directly from the courtroom, so all players have immediate knowledge of decisions made in court.

**Compliance Information in the Courtroom** Access to obligation and compliance information is critical in the courtroom. Through this link, the judge can access the screens described earlier: Obligations, Programs and Compliance. At a click, the judge can get an up-to-date summary of activity, link to historical information and see comprehensive drug-test information. In addition, the judge can record changes to the strengthening plan — judicial responses to the juvenile's behavior can be captured during the appearance and be immediately available to the entire team.

### **Center for Court Innovation**

The winner of an Innovations in American Government Award from the Ford Foundation and Harvard's John F. Kennedy School of Government, the Center for Court Innovation is a unique public-private partnership that promotes new thinking about how courts can solve difficult problems like addiction, quality-of-life crime, domestic violence and child neglect. The Center functions as the New York State Unified Court System's independent research and development arm, creating demonstration projects that test new approaches to problems that have resisted conventional solutions. The Center's problem-solving courts include the nation's first community court (Midtown Community Court), as well as drug courts, domestic violence courts, youth courts, family treatment courts and others.

Nationally, the Center disseminates the lessons learned from its experiments in New York, helping courts across the country launch their own problem-solving innovations. The Center contributes to the national conversation about justice by convening roundtable conversations that bring together leading academics and practitioners and by contributing to policy and professional journals. The Center also provides hands-on technical assistance, advising court and criminal justice planners throughout the country about program and technology design.

**For more information, call 212 397 3050 or e-mail [info@courtinnovation.org](mailto:info@courtinnovation.org).**

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