JTC Resource Bulletin

Courts Disrupted

Version 1.0
Adopted 11 May 2017

Abstract

Technology and innovation have the power to improve as well as disrupt business processes in the court community. Innovative disruption from companies like Uber, Amazon, and Airbnb are shaping business practices in the private sector. The public sector, including courts, will not remain untouched by disruptive innovation. Court managers can leverage the concept of disruptive innovation to make justice available to a wider audience at a lower cost while preserving fairness, neutrality, transparency, and predictability in the judicial process.

Document History and Version Control

Version	Date Approved	Approved by	Brief Description
1.0	5/9/2017	JTC	Release document

Acknowledgments

This document is a product of the Joint Technology Committee (JTC) established by the Conference of State Court Administrators (COSCA), the National Association for Court Management (NACM) and the National Center for State Courts (NCSC).

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To improve the administration of justice through technology

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Introduction

The concept of disruptive innovation made its debut more than 20 years ago in a Harvard Business Review article. Researchers Clayton M. Christensen and Joseph L. Bower observed that established organizations may invest in retaining current customers but often fail to make the technological investments that future customers will expect.[1] That opens the way for low-cost competitive alternatives to enter the marketplace, addressing the needs of unserved and under-served populations.

Lower-cost alternatives over time can be enhanced, gain acceptance in well-served populations, and sometimes ultimately displace traditional products or services. This should be a cautionary tale for court managers. What would happen if the people took their business elsewhere? Is that even possible? What would be the implications to both the public and the courts? Should court leaders concern themselves with this possibility?

While disruptive innovation theory is both revered and reviled, it provides a perspective that can help court managers anticipate and respond to significant change. Like large businesses with proprietary offerings, courts have a unique customer base. Until recently, those customers had no other option than to accept whatever level of service the courts would provide and at whatever cost, or simply choose not to address their legal needs. Innovations such as non-JD legal service providers, online dispute resolution (ODR), and unbundled legal services are circumventing some traditional court processes, providing more timely and cost-effective outcomes.

While there is no consensus in the court community on the potential impact to courts (whether they are in danger of "going out of business"), there are compelling reasons for court managers to be aware of and leverage the concept of disruptive innovation. As technology dramatically changes the way routine transactions are handled in other industries, courts can also embrace innovation as one way to enhance the public's experience. Doing so may help courts "disrupt" themselves, making justice available to a wider audience at a lower cost while preserving fairness, neutrality, and transparency in the judicial process.

How Disruption Occurs

Digital disrupters unseat traditional businesses by appealing to consumers in one or more of three key areas: cost, customer experience, and/or platform.

Cost	Operational improvements, virtualization (e.g., e-readers instead of paper books and teleconference meetings instead of in-person gatherings), and innovative business models like group purchasing,

[1] Bower, J. L., and C. M. Christensen. "Disruptive Technologies: Catching the Wave." *Harvard Business Review* 73, no. 1 (January–February 1995): 43–53.

	"freemium" pricing, reverse auctions, and "pay-as-you-go" yield savings that drive down costs, creating a competitive advantage.
Customer Experience	Simplification, efficiency, and convenience improve the customer experience, luring consumers away from traditional offerings.
Platform	A unique digital space where providers and consumers can find each other easily and effectively through innovative technologies that leverage big data and human nature.

Offerings that reduce cost or improve the customer experience may attract some consumers but are not generally disruptive. When two or more of those benefits are combined, disruption is very likely to occur. Platforms have the potential to be particularly disruptive. They can be scaled rapidly at very low cost to create ever more connections between resources and those who need them. Disrupters' offerings are not just cheaper, they are very often simply better.

> Although their business models may focus on one type of value—low cost for example—most digital disruptors practice what we call "combinatorial disruption." They use digital technologies to fuse cost value, experience value, and platform value to deliver products and services that make offerings from incumbents immediately unattractive or obsolete.[2]

With platform value, an increase in the number of users benefits all the users. Facebook, Craigslist, Etsy, Snapchat, and Wikipedia, for example, work well because lots of people use them. In contrast, traditional courts work more slowly and less effectively when more people use them, opening the way for dramatic disruption.

> Digital disruptors are particularly dangerous because they grow enormous user bases seemingly overnight, and then are agile enough to convert those users into business models that threaten incumbents in multiple markets. [3]

Some industries are thought to be less vulnerable to digital disruption, which can create complacency in organizational leaders. Courts are particularly steeped in traditional and hierarchy, and protected in some measure by federal, state, and local statutes. The stakes are high for traditional businesses and entire industries, including courts, who may fall prey to their own lack of imagination. The timeframe from "business as usual" to

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[2] Bradley, Joseph, Jeff Loucks, James Macaulay, Andy Noronha, and Michael Wade. "New Paths to Customer Value: Disruptive Business Models in the Digital Vortex." *The Digital Transformation Playbook*, Global Center for Digital Business Transformation. November 2015. web. 13 March 2017.

[3] Bradley, Joseph, Jeff Loucks, James Macaulay, Andy Noronha, and Michael Wade. *Digital Vortex: How Digital Disruption Is Redefining Industries*. Issue brief. Global Center for Digital Business Transformation, June 2015. Web. 23 Mar. 2017.

disruption has been called a “digital vortex” because of the combination of speed and destructive force.

Technology-based Disruptors

While not all disruption will be of a digital nature, major disruption will occur as new technologies gather ever-increasing volumes of data that can be used in innovative ways to disrupt old processes. An increasing dependence on technology will create new responsibilities as well as vulnerabilities for courts.

Data

Data is at the heart of effective decision-making as well as digital disruption. In the past, courts could make claims that were difficult to verify or refute. While court records are public information, not all courts provide or permit access to their bulk data for analysis purposes. However, access to court data is becoming increasingly common. Disruption is likely to occur as innovators use court data to identify inefficiencies and hold courts accountable, even analyzing individual judge’s decisions to predict how they will rule in future litigation. Courts should mine their own data to glean essential insights, resolve inefficiencies, ensure fairness, and provide services to unserved and underserved populations.

Intelligent Automation

From threat detection to tax preparation, intelligent automation (IA) is being used to handle routine, repetitive tasks in many industries once dependent on manpower. While humans are necessary to address unique tasks, they are less accurate, efficient, and cost-effective than automation. IA has the power to bring efficiencies as well as increased accuracy to the judicial process.

Companies are increasingly using automated processes to complete routine customer service tasks, but must continue to provide sufficient human alternatives for situations that the automated process cannot anticipate or address. Consumers are increasingly accepting automated alternatives for tasks once performed exclusively by humans. A recent study of American tax preparation preferences, for example, reveals that the percentage of tax returns self-prepared using software is approximately equal now to the percentage that are prepared by accountants.[4]

Autonomics are systems designed to perform high-volume routine rules-based tasks that humans normally perform. Not only are these systems faster than humans, they are more accurate and cost a fraction of what it requires to handle the processes manually.[5] In the courts, autonomics might be used for redaction, document preparation, and inspecting electronic filings for compliance. While

[4] Kirkham, Elyssa. "43% of Americans File Taxes from the Comfort of Their Home, Survey Finds." *GOBankingRates*. ConsumerTrack, Inc., 25 Jan. 2016. Web. 18 Nov. 2016.

[5] Laurent, Patrick, Thibault Chollet, and Elsa Herzberg. Intelligent Automation Entering the Business World. Rep. Deloitte, n.d. Web. 22 Nov. 2016.

automation will disrupt entry-level clerical jobs, it can pave the way for higher-paying, more skilled, value-add roles.

Conversely, disruption due to autonomics could also increase some aspects of the court's work. Automated legal assistance will empower unserved and underserved audiences who were previously either unaware of their legal options or unable to exercise them due to the cost and/or complexity. For example, more than 160,000 parking tickets in London were successfully disputed in a matter of months using a free automated chatbot called DoNotPay. The website uses a series of questions to determine if someone qualifies for an appeal, and if so, creates the documents necessary to contest the parking ticket. In early 2016, the service was expanded to include New York City parking tickets. Within months of its release in March, the app had served more than 10,000 people.

Developer Joshua Browder has expanded his offering to address the issue of compensation for flight delays. Development is also underway to create a bot to help the newly evicted apply for housing assistance, and he is working with a human rights lawyer to craft a bot to help refugees apply for asylum.[6] The website's teenage developer sees bots as one way to "level the playing field for low-income and disenfranchised groups."[7]

Making a process quick, understandable, and inexpensive will increase access to that process. Courts should anticipate disruption from innovative legal assistance automation.

Online Dispute Resolution

Online Dispute Resolution (ODR) is a potentially disruptive automation that utilizes a unique blend of technologies to resolve customer complaints and other kinds of disputes without litigation. Disputes resolved using ODR may utilize fully-automated cyber negotiation, arbitration, cyber mediation, and traditional mediation using online technologies. Companies specializing in ODR include Modria, Arbitration Resolution Services, Youstice, Matterhorn by Court Innovations, and a host of others.[8]

This form of dispute resolution has already proven its effectiveness with organizations like eBay and PayPal. The private sector is not the only place where ODR is gaining acceptance. Canada has recently launched the Civil Resolution Tribunal to resolve property and small claims disputes. A Tribunal order carries the same force and effect as an order of the Supreme Court of

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[6] Macdonald, Cheyenne. "The Robot That Could Get You off a Parking Ticket: DoNotPay System Created by a Student Has Won 160,000 Disputes in London and New York." *Mail Online*. Associated Newspapers, 28 June 2016. Web. 22 Nov. 2016.

[7] Turner, Karen. "This Robot Lawyer Helps the Newly Evicted File for Housing Aid." *Washington Post*. The Washington Post, 9 Aug. 2016. Web. 18 Nov. 2016.

[8] "ODR Providers." *ODR.INFO*. The National Center for Technology and Dispute Resolution, n.d. Web. 13 Dec. 2016.

British Columbia.[9] For more detailed information about ODR and the Courts, see JTC Resource Bulletin "Online Dispute Resolution and the Courts."[10]

Changes in the Type and Quantity of Digital Evidence

Digital images are not disruptors: photographs have been in use in law enforcement and the courts since the 1840s. However, the volume of digital evidence being collected is increasing exponentially. The disruption-potential of digital evidence goes well beyond the dramatically increasing demand for secure digital storage to house millions of images collected from satellites, body-worn cameras, and consumer smart phones.[11]

In addition to burgeoning image data, there are ever more unique and complex kinds of digital evidence being collected, analyzed, and presented in court. GPS, DNA, text message, email, ATM transaction log, social media content, web browser history, neurobiological data, and other forms of digital evidence are dramatically changing the way courts gather, record, protect, and utilize evidence. Because digital evidence is searchable, it can be analyzed using automation. Digital forensics uses sophisticated algorithms for e-discovery document review, DNA sequence matching, and to detect cyber-crimes.

Of all the unique and complex varieties of digital evidence, neurobiological is one of the most daunting. Once limited to the realm of science-fiction, the use of neurobiological data as evidence has shifted to mainstream practice. Functional MRIs, cognitive impairment evaluations, and test results for genetic variants in DNA are all being used. Peer-reviewed scientific studies support the use of neurobiological evidence in certain circumstances, and it has already been used in routine state murder cases.

> We are now on the verge of a fundamental paradigm shift in which neuroimaging is becoming a highly significant part of the criminal justice process with the rapid advancement of forensic neuropsychiatry and neuroscience.[12]

As the type and quantity of evidence changes, so too will the number and variety of experts needed to handle and interpret the evidence. This in turn impacts court staffing and technology requirements.

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[9] See Civil Resolution Tribunal at www.civilresolutionbc.ca for more information.

[10] Joint Technology Committee. "Online Dispute Resolution and the Courts," *National Center for State Courts*. JTC Resource Bulletin, 30 Nov. 2016. Web. 17 Apr. 2017.

[11] For more information about the implications of digital evidence, see Joint Technology Committee. "Managing Digital Evidence in Courts," *National Center for State Courts*. JTC Resource Bulletin, 30 Nov. 2016. Web. 17 Apr. 2017.

[12] Gaudet, Lynn M., and Gary E. Marchant. "Under the Radar: Neuroimaging Evidence in the Criminal Courtroom." *Drake Law Review* 64.3 (2016): 577-661. *Drake Law Review*. Web. 17 Feb. 2017.

Cyberattack

Several recent cyberattacks have effectively demonstrated that when systems are compromised or unavailable, enormous disruption occurs. Clearly, the most important way to deal with this potential disruptor is to develop appropriate security measures to prevent as many unauthorized incursions as possible, and at the same time, to develop and rehearse an effective response plan for attacks that will inevitably occur. For more information about the implications of Cyberattack, see JTC Resource Bulletin *Responding to a Cyberattack*.[13]

Non-technical Disruptors

Consumers as well as organizations working to increase access to justice will increasingly demand lower cost, more customer-friendly and predictable alternatives to the current justice process.

> …persistent concerns about customer service, inefficiency, and bias are undermining the public's confidence in the courts and leading them to look for alternative means of resolving disputes or addressing problems that would have previously led them into the court system.[14]

Technology will play a role, but is not the only innovation with the potential to disrupt traditional court operations. The commoditization of legal services, unbundling of services, and the acceptance of Limited License Legal Technicians, for example, are interconnected potential disruptors.

Decrease in Case Filings

Over the past decade, many courts have experienced a steady decline in case filings. This may represent good news from many perspectives: less criminal activity, fewer abused and neglected children, and more potential litigants successfully using alternative dispute resolution. In some instances, the decline is tied directly to a successful justice initiative as in King County, Washington's Family Intervention and Restorative Services program.[15] Domestic violence case filings dropped 62% in the program's first year alone. However, another cause may be that court processes are simply too expensive, complex, and time-consuming.

> The roots of disruptive innovation lie in the serving of nonconsumption—areas in a sector where people have no access to the existing offerings

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[13] Joint Technology Committee. "Responding to Cyberattack." *National Center for State Courts*. JTC Resource Bulletin, 17 Feb. 2016. Web. 17 Apr. 2017.

[14] Gerstein, Bocian, Agne. "Public Trust and Confidence - Analysis of National Survey of Registered Voters." National Center for State Courts, 17 Nov. 2015. Web. 9 Nov. 2016.

[15] "Dramatic Drop in Juvenile Domestic Violence Case Filings Follows Launch of FIRS Program." *King County Youth Justice*. 29 Dec. 2016. Web. 05 Jan. 2017.

> because they are too expensive, inconvenient, or complicated to use and therefore the alternative to the innovation is nothing at all.[16]

No matter the causes of decreased case filings, the net effect is fewer cases to be processed.

Cost/Benefit Imbalance

Consumers value a favorable outcome in a dispute as well as the time and resources required to settle it. Traditional dispute resolution mechanisms favor those with sufficient resources to manipulate the system to delay and harass. Despite the court's mandate for procedural fairness and timely justice for all, many with just claims lack both the financial resources and time to resolve their issues.

Charles Dickens "purposely dwelt upon the romantic side of familiar things" with his tale of Jarndyce v Jarndyce, an inheritance case that drags on for so long that legal costs consume the entire estate before it is resolved. Despite the fact that *Bleak House* was published in 1853, it is hauntingly relevant and familiar today. Litigants today have more options than in 1853; however, litigation costs still routinely exceed the value of a large percentage of civil cases. [17]

Decoupling the Bar from the Court

Entrenched, historical differences between the court's interests and the bar's interests have many times constrained the court's options and limited innovation. For example, a jurisdiction's bar may oppose civil rules reforms designed to streamline processes that would ultimately better serve clients but reduce legal costs and law firm revenues.

> In our country, lawyers and judges regulate their own markets. The upshot is that getting legal help is enormously expensive and out of reach for the vast majority of Americans.[18]

New legal roles and non-legal paths to resolving disputes are two factors that are breaking the bar's monopoly on legal services. Disruption is already occurring. In the same way that Nurse Practitioners and Physician Assistants are increasingly handling routine medical care, licensed non-JD practitioners are beginning to handle routine legal matters in some jurisdictions. Lower educational costs for legal technicians reduce the entry-point cost for providers, who can then make a

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[16] Pistone, Michele R. and Michael B. Horn. "Disrupting Law School: How Disruptive Innovation Will Revolutionize the Legal World," Christensen Institute. Clayton Christensen Institute for Disruptive Innovation, 15 Mar. 2016. Web. 10 Nov. 2016.

[17] For more on this issue, see *The Landscape of Civil Litigation in State Courts*.

[18] Hadfield, Gillian. "Lawyers, Make Room for Nonlawyers." *CNN*. Cable News Network, 25 Nov. 2012. Web. 18 Nov. 2016.

good living while charging clients much less than JD practitioners. This will make some legal services accessible to a wider audience.

> Under the new licensing models, some traditional lawyer work, such as representing clients in court, will likely remain the sole province of lawyers, whereas other aspects of the traditional lawyer work will increasingly be performed by non-lawyers…[19]

The state of Washington granted Limited License Legal Technician (LLLT) licenses to its first non-lawyer practitioners in 2015.[20] While LLLTs cannot appear in court, they can gather information from clients, prepare documents, give advice in family law situations, and assist self-represented clients.

> The use of non-JD legal assistants and nonlawyer dominated businesses is not a venture into uncharted waters. The United Kingdom has a long history of allowing a wide variety of differently trained individuals and organizations provide legal assistance, and studies show that the practice works very well. In many cases, people are better served by a nonlawyer organization that specializes in a particular type of legal help—navigating housing or bankruptcy matters, for example—than they are by a solo practitioner with a general practice.[21]

What is clearly a win for consumers is understandably a threat to the monopoly that has sustained the legal profession. Many state bar associations continue to work vigorously to defend the status quo.

> The Washington State Bar Association opposed the LLLT proposal right up until its approval by the Supreme Court. It argued that the rigorous training lawyers receive is essential to competently handling legal matters and protecting clients' best interests.[22]

California's 2015 Civil Justice Strategies Task Force explored innovations in other states, including Washington's LLLT, and recommended that the California State Bar consider designing a similar program.[23] Note that in California, it is the Bar and not the courts exploring the concept. Connecticut, New Mexico,

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[19] Pistone, Michele R. and Michael B. Horn. "Disrupting Law School: How Disruptive Innovation Will Revolutionize the Legal World," Clayton Christensen Institute for Disruptive Innovation, 15 Mar. 2016. Web. 10 Nov. 2016.

[20] "Practicing Law without a Law Degree Now Permissible in Washington State." *In-Practice with CNA - A Practitioner's Perspective on Emerging Legal Trends*. CNA Financial Corporation, Apr. 2016. Web. 11 Nov. 2016.

[21] Hadfield, Gillian. "Lawyers, Make Room for Nonlawyers." *CNN*. Cable News Network, 25 Nov. 2012. Web. 18 Nov. 2016.

[22] Ambrogi, Robert. "Who Says You Need a Law Degree to Practice Law?" *The Washington Post*, 13 Mar. 2015. Web. 11 Nov. 2016.

[23] Rodriguez, Luis J., Chair. *Civil Justice Strategies Task Force Report & Recommendations*. Rep. State Bar of California, 2015, Web. 25 Nov. 2016. p. 53

Mississippi, Utah, and a growing number of other states are studying the possibility as well.[24]

The LLLT program was intended to serve the population that could not afford legal counsel. However, law firms are also embracing the use of LLLTs as a more cost-effective method of handling a variety of tasks once performed exclusively by lawyers.

In addition to having more options in legal service providers, clients also have the power to further control the cost of litigation through unbundled legal services. Sometimes referred to as *limited scope representation* or *discrete task representation*, unbundled legal services allow the client to take responsibility for some case preparation tasks, reducing the overall cost of legal representation. The attorney and client agree to the scope of the attorney's involvement and may also agree to a set price for the attorney's services.

The Massachusetts Court System pioneered the concept of unbundled services with its Limited Assistance Representation program in 2009.[25] The Alaska Court System's Family Law Self-Help Center uses unbundled legal services in its Early Resolution Program (ERP). The program provides free, unbundled legal assistance and/or mediation in some pro se family law cases.

> The court system anticipated that early intervention in the case process and the help of legal professionals could encourage parties to settle their issues rather than go through a protracted court trial. The result would be faster resolutions in which the parties create their own solutions after benefitting from legal advice, mediation or a settlement conference, and a lessening of workload for the courts.[26]

The program relies on a combination of lawyers, volunteers, mediators, and judges. The Family Law Self-Help Center provides training while the Alaska Legal Services Corporation recruits attorneys and provides malpractice insurance.

Since the 2009 pilot in Anchorage, the Alaska Court System ERP program has been expanded to three more Alaska state courts. More than 800 cases have been resolved. The process is quick, and participants frequently leave the courtroom with issues resolved and final paperwork signed. ERP is helping Alaska state courts reduce the stress of divorce litigation on participants in that

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[24] McKinley, Sands. "Legal Technicians Across the US." Blog post. *On the Future of Law*. Sands McKinley, 18 June 2015. Web. 25 Nov. 2016.

[25] For more information, see the Massachusetts Court System Limited Representation (LAR) Program at http://www.mass.gov/courts/programs/legal-assistance/lar-gen.html

[26] Marz, Stacey. "Early Resolution for Family Law Cases in Alaska's Courts." *Alaska Justice Forum*, 31.1-2 (2014): Web. 18 Nov. 2016.

process, and at the same time is freeing up court resources to address more complex cases.

Mandatory Arbitration Clauses

By contractually mandating that any dispute be resolved via arbitration, employers and businesses reduce the potential cost of resolving a conflict. That is one factor in the trend of fewer case filings. Where arbitration is mandated, however, it loses some of the real as well as perceived benefits. That also effectively denies employees and consumers the right to a fair hearing. In the case of sexual harassment claims, mandatory arbitration can "shield serial harassers from accountability, perpetuate predatory behavior and silence victims."[27] A 2014 Executive Order prohibits federal government contractors from mandating arbitration for sexual harassment and discrimination claims. Future legislation to either limit or strengthen individual projections may significantly impact the number of case filings.

Restorative Justice

While a variety of alternative mechanisms for dispute resolution are gaining acceptance in civil justice areas, courts are also testing alternatives to traditional justice in some criminal and juvenile delinquency cases. Restorative Justice is an approach to criminal justice that focuses on repairing the harm to an individual or community versus paying a debt to society.

> With crime, restorative justice is about the idea that because crime hurts, justice should heal. It follows that conversations with those who have been hurt and with those who have inflicted the harm must be central to the process.[28]

There are several approaches to Restorative Justice including Victim-Offender mediation and Victim-Offender Reconciliation. Texas has pioneered several restorative justice initiatives, resulting in diversion of numerous criminal cases from the traditional criminal justice system. King County, Washington's FIRS program utilizes de-escalation counseling to reunite youthful offenders with their families. Studies confirm the approach is beneficial to victims, perpetrators, and the community with quantifiable benefits including better outcomes for victims, significantly reduced likelihood of reoffending for perpetrators, and reduced costs and caseloads for courts.[29]

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[27] Martin, Emily. "Keeping Sexual Assault Under Wraps Forced Arbitration Shields Employers like Fox News from Scrutiny and Undermines Women's Rights." US News. *U.S. News & World Report*, 28 Sept. 2016. Web. 11 Nov. 2016.

[28] Braithwaite, John. "Restorative Justice." *War * Crime * Regulation*. John Braithwaite, n.d. Web. 13 Dec. 2016.

[29] Levin, Marc. "Restorative Justice in Texas: Past, Present & Future." *Center for Effective Justice*. *TexasPolicy.com*. Texas Public Policy Foundation, Sept. 2005. Web. 13 Dec. 2016.

Civil Justice Reform

Reporting requirements under the 1990 Civil Justice Reform Act are providing metrics that motivate courts to address delays and reduce costs in civil litigation. Jurisdictions have undertaken a variety of reform initiatives since then, addressing some issues with specific case types or delays at stages in the litigation process. Despite a decade and a half of improvement efforts, studies repeatedly show that at least 80% of civil legal need goes unmet in low-income populations.[30]

The 2015 report *The Landscape of Civil Litigation in State Courts* observed that high value tort and commercial contract disputes are often the focus of criticism of the American civil justice system, but found the majority (75%) of all judgments were less than $5,200. The United States currently has a judicial process that is designed for the 1% - the most complex, most high-dollar litigation. Unfortunately, that prices the other 99% out of the market.

> For most represented litigants, the costs of litigating a case through trial would greatly exceed the monetary value of the case. In some instances, the costs of even initiating the lawsuit or making an appearance as a defendant would exceed the value of the case.[31]

Courts should use automation wherever possible to streamline case processing for the high volume of simple cases, thus making skilled, human resources more available for complex cases. Business rules can help triage cases into the appropriate pathway.

Court-specific Obstacles to Preparing for Disruptors

Courts have unique characteristics that impact both the kinds of disruptions they will experience and the responses they are prepared and able to make.

Jurisdiction and Venue

Courts located in metropolitan areas often struggle to handle their caseloads while many rural courts have few cases and untapped capacity to address more. Workload balancing is common in the private sector, but jurisdictional and technical boundaries prevent most forms of workload sharing in the courts. In addition, court rules or statutes prescribe the kinds of cases that can be dealt with in each court. For example, small claims courts limit the dollar value of cases. Arbitrary limitations designed for a time when litigants were required to file

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[30] "Remarks by Attorney General Eric Holder at the Legal Services Corporation 40th Anniversary Event." *Office of Public Affairs*. The United States Department of Justice, 16 Sept. 2014. Web. 02 Mar. 2017.

[31] Hannaford-Agor, Paula, J.D., Scott Graves, and Shelley Spacek Miller. *Civil Justice Initiative: The Landscape of Civil Litigation in State Courts*. Report. National Center for State Courts and State Justice Institute, 2015. Web. 17 Feb. 2017.

and attend court proceedings in person prevent justice-seekers from choosing the venue and format of proceedings.

Perspective

The way courts view and treat their customers can be a catalyst for disruption as well as a barrier for preparing and responding effectively. Until now, courts have not had to compete for business. Consumers had no option but to utilize the courts to resolve issues. With no competition, there has been little incentive for courts to improve quality or even assess customer satisfaction. Having nothing to compare itself against can make any monopoly vulnerable to sub-par performance and overall inefficiency as well as self-congratulation.

> Voters continue to express concerns about customer service, particularly when it comes to innovation and use of technology… Only 51 percent say state courts "provide good customer service to people in the court system," down from 55% in 2014 and 53% in 2015… [J]ust 39 percent say ["innovative"] describes state courts well, while 54 percent say it does not; these numbers represent a six-point drop from a year ago, with the losses relatively consistent across demographics. Reflecting these concerns, a plurality continue to say "state courts are not effectively using technology to improve their own operations or how they interact with the people they serve." Previous research has consistently identified this failure to keep up with the technological advances that customers have now come to rely on as a primary driver of low customer service ratings and questions about the courts' efficiency and value to taxpayers.[32]

The courts' perspective is that alternatives to the traditional justice process create vulnerability for consumers. However, consumers already experience vulnerability (real and perceived) within traditional legal processes. If there are reasonable options, consumers will readily abandon the higher-cost solution, even if that means risking a potentially lower quality outcome. When consumers see an alternative as both more fair *and* less costly, they may completely abandon the traditional process.

> Concerns about inefficiency and unfairness are deep-seated and real. Such concerns may be making the public enthusiastic about alternatives to traditional dispute resolution…[33]

Rather than dismissing consumer mistrust as irrelevant or working to block consumer choices in the guise of consumer protection, courts can actively seek to better understand consumer needs and preferences, then act to meet those

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[32] *2016 Poll: The State of State Courts*. Presentation. The National Center for State Courts, Nov. 2016. Web. 2 Mar. 2017.

[33] Gerstein, Bocian, Agne. "Public Trust and Confidence - Analysis of National Survey of Registered Voters." National Center for State Courts, 17 Nov. 2015. Web. 9 Nov. 2016.

needs. Responding to consumer dissatisfaction with disruptive innovation is a "win:win" approach.

Protectionism

Bars and courts set standards and requirements that effectively stifle innovation. In the 2016 report *Disrupting Law School: How disruptive innovation will revolutionize the legal world*, authors Michele R. Pistone and Michael B. Horn of the Christensen Institute identify root causes of "nonconsumption" of legal services.

> Access to a lawyer is expensive and out of reach for many potential customers because the market for legal services is opaque, the provision of legal services has been restricted through licensure, and the services themselves have traditionally been provided on an individual, customized basis.

Law schools are scrambling to adjust their budgets to a decreasing number of students as the market for lawyers continues to decline. Courts, as well as law schools, must adjust. "Old school" lawyers and court managers may attempt to protect the status quo. However, tech-savvy, prescient organizations will protect jobs by embracing and facilitating innovation, rather than ignoring or attempting to impede change.

Statutes and Rules

Legislative/governing bodies rarely review their historical work looking for statutes or rules that prevent or limit the effective use of processes and technology to meet today's business requirements. They have an even more difficult time writing statutes and rules that are future-proof. Yet that is exactly what must happen for courts to be nimble in responding to disruptions.

"Lowest Common Denominator" Thinking

One issue that limits disruptive innovation in courts is the perception that every process or technology must be designed for the lowest common denominator: the least capable, least tech-savvy, most vulnerable potential audience. Offering multiple paths to the same resource is a better option than limiting development to technologies than can be backward compatible.

Organizational Structure and Hiring Processes

Court administrators report to and serve at the will of a chief judge or justice who is well-qualified to render legal judgements but may have no training or experience in corporate management, administrative functions, or information technology. Court administrators are professional managers who typically have never practiced law or served as a judge. Yet both need to understand their individual and mutual responsibilities for leading the court as an organization. The work of both court administrators and chief judges/justices must be informed by a common strategic vision, leading court improvement initiatives with

enthusiasm and clarity, even when IT initiatives necessarily challenge the traditional ways courts have functioned. This unity of purpose is also essential for working effectively with the court's justice system partners, whose work will also be transformed by these changes. To further complicate the working relationship, judges must maintain an awareness of how their actions might affect their ability to be re-elected.

Organizationally, the CIO is often not a member of the executive management team, limiting his or her ability to help the court leverage technology to meet the court's overarching goals. Recruiting and retaining well-qualified technology staff is already challenging within current salary constraints, coupled with the difficulty of recruiting obsolete skillsets and the painfully slow pace of public sector recruiting. Many current court job descriptions do not accurately reflect the technology requirements of today's jobs, and HR professionals estimate that job descriptions accurately written today will be obsolete in less than five years.

Reporting structures, job descriptions, hiring processes, and policies will need to change as fewer transactions occur within the courthouse itself and more work is done remotely and/or virtually. Court managers will need to prepare supervisors to effectively manage remote or virtual workers and work arrangements. Policies may need to be created to better define expectations of a remote workforce. Technology leadership must be positioned with sufficient authority and visibility within the organization. Court managers should begin now to adapt organizational structures, staffing practices, and policies to address this looming disconnect.

Procurement Practices

Court procurement practices and organizational budgets are structured around buying "things" but technology is an ongoing investment (a "process"). Purchase decisions may be made by individuals with no understanding of the product or service to be acquired. Managers with ultimate responsibility for the outcome of projects or initiatives may have only limited authority to make purchase and/or hiring decisions. Government procurement processes are often lengthy, which can be antithetical to innovation. Lengthy payment cycles may preclude all but the largest companies from doing business and some routine purchases are made from pre-negotiated contracts that discourage competition.

Court managers who have handled a large capital investment project during their tenure may have inappropriate expectations that can be a significant obstacle to innovation. Like building construction projects, technology project milestone deadlines help ensure the project progresses and is ultimately delivered. While both facilities and technology projects have a beginning, technology projects often don't have a hard-stop building-equivalent "end."

With building projects, the contractor makes a final walk-through, hands over the keys, and often never sets foot in the building again. Similarly, technology projects may include a final test and cut-over to a "final" build. However, at

almost the same moment that a new system “goes live,” efforts should begin to evaluate and enhance that system. Technology projects should be scoped and staffed for continual, iterative adjustment. The ability to respond quickly to changes in technology and processes, and to make frequent, ongoing improvements are essential components of an organization’s digital agility.

Technology changes at a pace dramatically accelerated from that of other industries. Court technology is not an island unaffected by rapidly changing operating systems, security risks, hardware standards, and consumer expectations. Innovations (both sustaining and disruptive) that involve technology will require on-going, iterative adjustment and improvement. Court managers must expect and budget for that ongoing development to ensure solutions remain useful and relevant, as well as functional.

Funding

Resources are notoriously constrained in the courts. Often the public demands changes that would be costly to implement but then votes against measures to provide funding. As the 2016 public opinion survey “The State of State Courts” confirms, the public’s perception of the courts is that they do a poor job of implementing technology and that public funds are poorly used.

The survey goes on to confirm that consumers expect the courts to adapt to new technologies, and that the lack of technology innovation in courts is a driving cause of poor customer service. Consumers recognize the difference between their interactions in the private sector and their interactions with the courts. The courts’ failure to embrace technology advances is increasing consumer dissatisfaction with the courts.

The gap is widening between what people experience with technology in the courts and what they experience with technology in the private sector. When effectively utilized, technology can help courts cut costs while improving service. Courts may need to reallocate existing funding to put sufficient resources into implementing technology so that long-term cost savings can begin to be realized.

Unions

Because disruptive innovation has the potential to impact the number and scope of jobs in the courts, unions are important partners. Some estimate that as much as half of the work done today will be performed by robots by 2055.

> The effects of automation might be slow at a macro level, within entire sectors or economies, for example, but they could be quite fast at a micro level, for individual workers whose activities are automated or for

companies whose industries are disrupted by competitors using automation.[34]

Courts are an industry that could experience fast disruption as technology and innovation are used to address bottlenecks and inefficiencies in court processes.

Recommendations

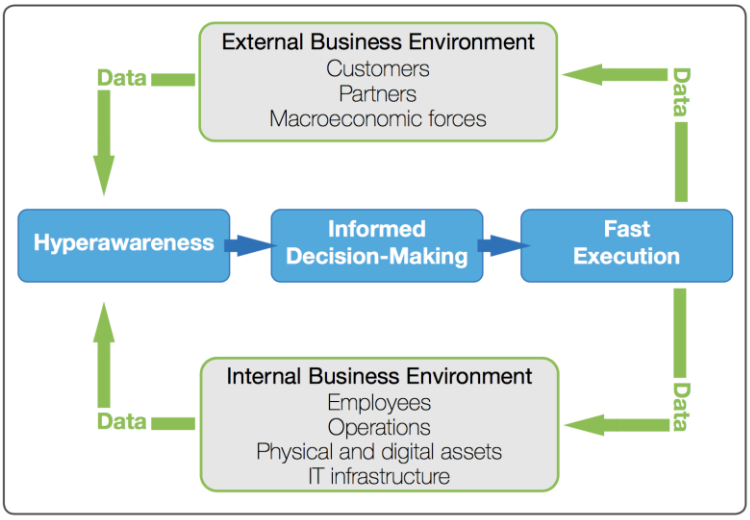
Disruptive innovation is ultimately about change. Courts must accept the need for change and become better and faster at changing. To avoid serious disruption, they must develop **digital business agility** - the capacity to use digital means to change.[35] Researchers at the Global Center for Business Transformation define digital business agility as the technology-enabled capabilities of hyperawareness, informed decision-making, and fast execution.

Hyperawareness:
The ability to detect and monitor changes in both the internal and external business environments.

Informed decision-making:
The ability to make data-driven decisions in response to those changes.

Fast execution:
The ability to act quickly and effectively on decisions.

Figure 1: Digital Business Agility



Source: Global Center for Digital Business Transformation, 2015

This triad of digital capabilities is often most apparent in small start-up companies and is nearly antithetical to the operational processes of most courts. Tradition, hierarchy, and organizational deference of court staff to their leadership pose significant challenges to developing digital business agility. The changes necessary to anticipate and effectively address potential disruptors are varied but are heavily affected as much by court culture, tradition, and mindset as by technology.

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[34] Manyika, James, Michael Chui, Mehdi Miremadi, Jacques Bughin, Katy George, Paul Willmott, and Martin Dewhurst. "Harnessing Automation for a Future That Works." *McKinsey & Company*. Global Insights, Jan. 2017. Web. 14 Feb. 2017.

[35] Bradley, Joseph, Jeff Loucks, James Macaulay, Andy Noronha, and Michael Wade. *Disruptor and Disrupted – Strategy in the Digital Vortex*. Global Center for Digital Business Transformation. November 2015. web. 30 March 2017.

Nurture a "can do" mindset

One of the biggest obstacles to innovation in the courts is a culture of low expectations. Some innovations will violate current rules, upset the status quo, and stretch court leaders and staff in uncomfortable ways. Rather than dismissing innovations that cannot readily be implemented, identify what must change and then work to change it. Identify and work to change court rules and statutes that limit innovation and the use of technology. In many instances, the obstacle to innovation is not a law or rule, but rather a mindset. Executive leadership is important in changing court culture to a "can do" mindset.

Create an environment that facilitates innovation

Court leaders must create a culture that gives space and opportunity for innovation. Mini "hack-a-thons" (collaborative, competitive development events) and "shark tanks" (relatively small financial incentives awarded to employees who suggest improvements) can encourage employee-driven innovation. Pilot projects and prototypes can be used to test innovative ideas. Assess the organization's digital agility. Address gaps in decision-making data access and quality.

Develop and deliver change management training related to reporting structures, job descriptions, hiring processes, and policies in anticipation of workforce shifts as fewer transactions occur within the courthouse and more work is done remotely. Engage union representatives in conversations about the way technology is shaping the number and scope of jobs in courts.

Encourage Bench-Bar sessions on the role and value of technology, new legal roles, non-legal paths to resolving disputes, and increasing access to legal services. Identify and fund a grass-roots initiative. Allocate staff time for creativity and collaboration.

The court's Chief Information Officer (CIO) does not have to drive all aspects of technology innovation, but must be an active partner to facilitate success. Include the Chief Information Officer in periodic meetings with the executive management team. Empower the CIO to guide the organization in identifying technologies to facilitate innovation.

Allow for failure

Closely tied to the concept of facilitating innovation is the idea that occasional failures are a healthy, entirely necessary, and expected part of innovation. Not every innovation will be successful immediately and some may not succeed at all.

A "no fail" court culture will dampen innovation and limit the scope of improvement efforts. Staff who are fearful of failing will not put forward innovative ideas. Court leaders must develop a higher tolerance for risk, as well as an appreciation for the long-term benefits of having occasional failures. Breaking

projects into smaller components can reduce the political repercussions of a failed effort.

Listen to the least / newest

Often, court managers look to seasoned court staff for input when evaluating court processes. However, that approach may inadvertently limit innovation. Staff with the most experience are also staff with the least exposure to the processes and approaches currently used by other organizations. Additionally, staff with less experience ("rookies") have a fresh perspective and will approach tasks differently than those in the "veteran comfort zone."[36] That difference can be key to innovation. Invite and encourage feedback from all levels, but pay attention to outsider/unique and/or dissenting voices. Ensure their ideas are not filtered out.

Challenge assumptions

Court managers must ensure they do not make development decisions based on false assumptions, particularly about access to technology. Begin measuring court consumer needs and preferences. Develop strategies and solutions to meet consumer preferences and address dissatisfaction. What may have been true of technology access and adoption just 3-5 years ago is likely not true today. For example, many expect that technology is less available to those with limited financial resources or in rural settings. However, cell phone ownership today is widespread even within homeless populations.[37] Digital resources make courts more accessible to rural populations who may be limited by the cost and inconvenience of traveling to the courthouse.

Digitize, digitize, digitize

The first layer of improvement and the foundation of informed decision-making will come as courts digitize every aspect of every process that can be digitized. Information becomes digital value that can be used in a variety of ways to deliver a better experience at a lower cost. At the same time, ensure digitization efforts don't simply automate ineffective processes. If a process performs poorly prior to the application of technology, digitization efforts may magnify rather than diminish issues. Evaluate a process before digitizing it.

Enhance data gathering and analysis tools

Tied in part to the "digitize everything" imperative, accurate, validated data is essential for informed planning and decision-making, and is essential for a court to develop digital agility. Sharing information more widely throughout the court can help every department hone ever more effective business processes and give individual contributors the ability to make better day-to-day decisions. Courts

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[36] Wiseman, Liz. *Rookie Smarts: Why Learning Beats Knowing in the New Game of Work*. New York, NY: Harper Business, an Imprint of HarperCollins, 2014. Print.

[37] Reitzes, Donald C., Josie Parker, Timothy Crimmins, and Erin E. Ruel. "Digital Communications Among Homeless People: Anomaly Or Necessity?" *Journal of Urban Affairs* 0 (2016): 1-17. Web. 27 Feb. 2017.

may need to first enhance data gathering and analysis tools before undertaking some initiatives.

Embrace tech standards

Systems built on industry-accepted standards are more flexible and less expensive to develop, implement, and maintain. Adhering to standards such as the National Information Exchange Model (NIEM)[38] and OASIS LegalXML Electronic Court Filing (ECF)[39] make it possible for courts to utilize technology solutions from multiple vendors or some that are designed for other industries. For more information on technology standards, see JTC Court Technology Standards at NCSC.org.

Design for increasingly tech-savvy users

Innovations very often are tied to new technologies, but court systems are often designed to be backward compatible with outdated operating systems and/or to meet the expectations of the least tech-savvy potential user. Rather than developing systems that could be used comfortably by a 75-year old using a 7-year old computer, use the most current technologies and address the user experience expectations of the tech-savvy.

Transaction and communication preferences are different for various demographics. Build user choice and better help resources into the process. For example, digital natives generally prefer asynchronous communication: websites, text, and chat at any time of the day or night. Individuals less comfortable with technology often prefer to deal with someone either in person or by phone during traditional business hours. Some court functions or case types may be far more common in certain demographics, for example, speeding tickets versus elder abuse cases. A mobile-friendly app may be the disruptive innovation to address the payment of traffic fines, while an automated case triage leading to a court clerk may be an innovation more suited to elder abuse cases.

The cost advantages of streamlining and automating some processes for the majority of cases can free up clerical resources to better address more complex cases. Clerks can then be more available to assist those who (for any number of reasons) cannot utilize technology or who prefer personal (human) assistance.

Outsource

The court's core competency is making fair, neutral decisions, not designing and maintaining technology. As technology continues to evolve, courts can leverage vendor innovations more quickly and inexpensively than developing, maintaining, and protecting systems in-house. Customizable off the shelf (COTS) and hybrid development (vendor solution with in-house customization) approaches can also extend the court's technology capabilities. While Court Managers and CIOs must

[38] See https://www.niem.gov/

[39] See https://www.oasis-open.org/standards#ecfv4.01

understand technology, they must now be highly skilled at managing vendor relationships, third-party contracts, data licensing, and procurement processes.

License court capabilities

Courts can license some court functions, making it possible for vendors to create systems to meet needs the courts are unable (or unwilling) to address. For example, efileTexas.gov is that state's e-filing portal. From the official website, filers choose an electronic filing service provider (EFSP) from a list of certified free or for-pay providers. Texas Administrative Office of the Courts hosts the filing manager portal. For-profit service providers facilitate e-filing and provide a variety of additional related for-pay services.

Consumers now have options, and that has created healthy competition, leading to more user-friendly e-filing options. The portal enables both filers and the courts to efficiently process documents and fees.

Leverage private sector innovations

Not all court solutions must come from court-specific solution providers. Explore innovations that are working well in the private sector. Customizing an off-the-shelf (COTS) product can save courts both time and money. British Columbia's Ministry of Justice uses a customized version of the Salesforce platform in its highly successful Online Dispute Resolution (ODR) process. Common consumer platforms like Salesforce, Microsoft Dynamics CRM, YouTube, LinkedIn, Evernote, Yammer, Flickr, and others are being used effectively by local, state and federal entities.[40] Many organizations offer unique versions of their products that align with government privacy and security regulations.

Embrace model revised statutes and rules

Laws and court rules governing privacy and access differ from state to state and even from county to county within some states. This creates complexity that increases the cost of system development and limits what vendors can deliver. Courts must work to remove language that constrains technology innovation. Participating in state and national initiatives to create uniform laws and court rules can benefit the local court as well as the broader court community.

Electronic documents were a reality before there were laws in place to permit the use of electronic signatures. Today, however, an electronic signature now carries the same legal standing as a handwritten signature in most jurisdictions in the US, throughout Europe, and in other parts of the world.

It is inherently inefficient for each state to have its own statutes, rules and practices around privacy and access. Where possible, court managers should

[40] For example, see the U.S. National Archives on Flickr or the United States Court of Appeals for the Ninth Circuit on YouTube.

participate in and/or ratify the efforts of organizations like the National Conference of State Legislators to craft model rules and uniform statutes.

Crowdsource

Wikipedia may be the first major digital crowd-sourced reference work, but the concept of crowdsourcing is not new. The Oxford English Dictionary was launched in the mid-1800s on the efforts of volunteer readers who copied passages from books to illustrate word usage.[41] It may be commonplace in the future for court-related questions to be fielded by fellow citizens. Instead of being the sole source of legal information, future courts may simply monitor forums to provide quality control.

Conclusion

Not every court innovation has to be disruptive. Courts can and should work to consistently improve existing processes, reduce costs, and enhance the customer experience. CIOs should work closely and collaboratively with judicial leaders and court managers to lead their organizations in selecting and implementing technology to meet organizational objectives. However, improving existing processes within the courts may bring incremental benefit but ultimately constrain real innovation. Gary Heil wisely observed that "Edison did not start out to improve the candle."[42]

Courts are likely to be more comfortable with sustaining innovation – doing just enough to experience the benefits of improvement. In spite of improvements, some disruptors will succeed: some aspects of the court's day-to-day "business" will disappear. While courts will not go out of business, case filings will continue to decrease at an accelerated rate, leading to funding cuts. Partner agencies will limit their exposure to organizations that could entangle and impede their operations. While keeping a "business as usual" approach is an option, courts may find themselves scrambling to respond to changes in "crisis mode" that could have been addressed in a more measured way.

Public dissatisfaction with the courts is growing and as a result, the courts' "customers" are increasingly bypassing traditional justice options. That is not, of itself, a bad thing. Some court functions and case types may be more efficiently and cost effectively handled by innovators outside the court community. To perform their essential role in ensuring access to justice, courts must ensure they retain control over three essential categories of cases:

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[41] Lih, Andrew. *The Wikipedia Revolution: How a Bunch of Nobodies Created the World's Greatest Encyclopedia*. London: Aurum, 2010. 67-68. Print.

[42] Bell, Chip R., and Oren Harari. "Coyotes Follow Procedure; Roadrunners Experiment." *Beep! Beep!: Competing in the Age of the Road Runner*. New York: Warner, 2003. Print.

Common law	Nearly 99% of civil cases are routine and can be addressed fairly in a variety of forums. Instead of focusing on those cases, courts must ensure they retain the very small percentage of key cases that make or change common law.
High stakes	Courts must ensure they retain “high stakes” cases where lives or large amounts of money are at stake. High stake cases also include criminal cases where the outcome might mean an individual is sentenced to prison or jail.
Power asymmetry	Ordinary citizens must be able to defend themselves from wrongs committed by governments or large corporations. Courts must ensure they retain cases that address issues of power asymmetry. Without a neutral forum, democracy cannot thrive.

Courts must begin now to have serious conversations about their mission and scope, and what they need to do to retain and successfully perform their essential role as an institution in a competitive environment. Retaining those essential roles will require not just improvement but transformation.

Digital business transformation is a journey that will require change in the fundamental business model, leadership mindset, and technology deployment of the courts in a quest to quantifiably improve performance. This is an imperative driven by the inevitability of digital disruption. The first step in digital business transformation is for courts to accept the need for change.