WHAT'S NEXT IN THE CASEWORKER'S Digital Toolkit?
child welfare caseworkers are inundated with high caseloads, many documentation requirements, and a lack of insightful support from antiquated systems. This leaves them with less time to interact with families and make any necessary fast-paced decisions. Time-consuming processes are often put in place to respond to adverse situations. Even when all steps are perfectly followed, something may inevitably happen to a child, which results in yet another protocol being created. These protocols tend to be manual at first and have a pile-on effect. Manual processes take precious time away from what is needed most in good casework practice—time to focus on the child’s physical, psychological, and emotional well-being, and that of the family unit as a whole.

Imagine smart technologies taking over some of these routine, high-volume, and repetitive tasks. Imagine your child welfare information system providing intuitive decision support suggestions. It may seem far-fetched, but not very long ago using mobile technology to do casework in the field seemed futuristic. Today smartphones, laptops, and tablets are a necessity and a critical part of a caseworker’s equipment. Another example is the use of predictive analytics. What was once theoretical talk about the power of machine learning to support predictive analytics to help establish a course of action that abates risk and improves outcomes is no longer theoretical. It is here and
in use. We are once again at an inflection point to test and understand how other advances in technology can be adapted and applied to improve social casework. Along with the induction of mobile in day-to-day casework, the possibilities that technology advancements bring to the modern casework practice are in sight. The only question is how quickly are we willing to move?

The Comprehensive Child Welfare Information System (CCWIS) federal regulations are a catalyst for infusing advanced technologies into child welfare casework. The CCWIS empowers child welfare agencies to break free from their current and dated monolithic systems—designed primarily as data collection and reporting tools—to modern, modular, and nimble solutions that support contemporary casework practices. What role can modern technologies, like robotic process automation, dark data analytics, anomaly detection, micro-services and blockchain play in technology support for casework? Let’s examine some of the many possibilities.

Can a “Bot” Do It?

Robotic process automation (RPA) is a technology with the singular purpose of automating repeatable tasks. Unlike a typical automated system function, RPA is software that operates at the user interface level and mimics the activities of a caseworker using one or multiple applications. In the health insurance industry for example, a medical insurer used these automated users (“bots”) to process claim adjustments, with a 44 percent cost savings compared to manual entry and administration.²

Using “bots” nests with the CCWIS requirement to be efficient, economical, and effective by allowing administrative tasks to be automated, saving caseworkers and supporting staff precious time. For example, the foster family application process can take hours of worker time in repetitive tasks. Imagine having a bot take a scanned foster family application, enter it into the appropriate system, and even do a check in a separate system to determine if a mandatory lead inspection was completed in the home. This not only allows more time to determine if the home qualitatively meets the expectations of a foster home, but it also provides an automated check of the lead inspection information without requiring a data exchange to be established with that system. This is one example. The challenge is to continuously look for those low-risk, high-volume, repetitive tasks that traditionally take time away from the caseworker and support staff and give those tasks to the “bot.”

Dark Data Analytics: Finding Unknown Connections Using Under-Exploited Data

As a new, relatively untapped source of understanding, “Dark Data Analytics” is the ability to draw insights from unstructured data, or data that have typically never been used for analytics. These data can be found in narratives, documents, email, and even video and pictures. The data can reveal important interrelationships—especially across health and human services programs and data repositories that were previously difficult or impossible to determine. With the explosive growth of technologies such as natural language processing and semantic analysis, deriving insights and drawing conclusions from these data has never been more real—or more important.

Caseworkers make hundreds of determinations every day based on years of experience. This experience brings lessons learned to achieve a higher rate of positive outcomes to meet the needs of the children served. In many states, decades’ worth of data sit buried in narratives throughout systems. This is dark data—hidden and unmined by current analytic tools—data that detail caseworkers’ experience with families, services, and outcomes. How can dark data knowledge and experience be systematically leveraged to provide insights to caseworkers of all levels of expertise to create positive child outcomes more quickly?

There are many examples of dark data analytics in use today in the commercial sector. For example, retailers use dark data analytics to drive highly personalized shopping experiences.

See Digital Toolkit on page 32
Along with the induction of mobile in day-to-day casework, the possibilities that technology advancements bring to the modern casework practice are in sight. The only question is how quickly are we willing to move?
across multiple business processes and serve multiple purposes. Although a single massive data exchange within each entity may technically work, micro-services make these interfaces easier to build, prevent a single point of failure, allow greater flexibility in phased implementation approaches, and are easily scalable and modifiable to meet the needs of the casework business.

The CCWIS requires system modularity. Modular systems typically have more failure points and more dependencies on infrastructure stability. Due to the nature of the work, child welfare systems require stability around the clock, every day of the year. Employing self-monitoring and self-healing capabilities within the micro-services solution and infrastructure provide an extra layer to insure that impacts to connectivity are detected early and resolved as quickly as possible.

**Blockchain: A Better Way to Identify People in the Digital Age**

Blockchain, the foundational technology behind the famous cryptocurrency “Bitcoin,” is making its way into the public sector. Blockchain enables the transfer of value. Defining value beyond money is where some of the most exciting opportunities for blockchain exist. Blockchain is a distributed ledger, or database, that records digital interactions and is designed to be secure, transparent, immutable, and auditable, without having to rely on a trusted intermediary.

The financial industry has been exploring and embracing blockchain technology. Globally, governments are also taking an interest and are actively exploring blockchain uses. Estonia has established digital identities for 98 percent of its citizens, in lieu of traditional identification documents such as birth certificates, social security cards, driver’s licenses, and passports.

Digital identity is at the core of the most effective uses of blockchain technology. Imagine gaining access to a child’s birth records and parent information, or other government service information and trusting its accuracy; or the elimination of duplicate children records in your systems. We can finally have an accurate and true digital identity for clients to provide more streamlined identity verification processes and a better understanding of how the government is serving them across programs.

**Summing Up**

Thousands of children come into the care of our caseworkers every year. Caseworkers are tasked with caring for them at arguably the worst moments of their lives, all while following extensive decision-making processes and documentation guidelines. Advancements in technology present an opportunity to enable and support difficult and complex decision-making and alleviate time-consuming repetitive tasks. The technology is here and the CCWIS gives states and jurisdictions the freedom needed to explore and use these newer technologies in support of modern casework models. Are you ready to expand your digital toolkit?

**Reference Notes**


This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms or their related entities (collectively, the “Deloitte Network”), is, by means of this communication, rendering professional advice or services. Before making any decisions or taking any action that may affect your finances, or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.

As used in this document, “Deloitte” means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright ©2017 Deloitte Development LLC. All rights reserved.