



Innovating for Inclusion

How Illinois Tech's Digital Transformation Enhances Access and Equity



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In the bustling corridors of [Illinois Institute of Technology](#) (Illinois Tech), a private research university renowned for its rigorous programs in engineering, science, architecture, law, design and business, the limitations of outdated data systems had become all too apparent. Administrative processes like analyzing enrollment trends or updating student records were frustratingly slow due to the aging infrastructure. Clearly, a change was more than just overdue – it was urgent.

Recognizing the need for a transformative approach rather than temporary fixes, Illinois Tech decided to take a bold step forward. The university partnered with Amazon Web Services (AWS) and [Quantiphi](#), an award-winning digital engineering consultancy, to comprehensively overhaul its data management systems. “That’s the idea behind investing in this area,” shared Illinois Tech’s interim CIO Sejal Vaishnav. “We can then capitalize on those insights to better serve our institution and students.”

This initiative was about more than just catching up; it aimed to redefine how the university operates, setting a new standard for technological integration in higher education. With Quantiphi's expertise in AI and digital engineering and AWS's robust, scalable cloud services, the collaboration was poised to reinvent Illinois Tech's data handling. Their goal was clear: to create a seamless, efficient data ecosystem that would free the university from the burdens of outdated technology, allowing them to focus entirely on their foundational mission of inclusivity and innovation.

Transforming data into action at Illinois Tech

At Illinois Tech, the challenge wasn't just about managing data; it was about making the data they already had work for them. For years, the university's outdated systems splintered crucial information across various departments, causing bottlenecks that hampered everything from enrollment decisions to daily administrative tasks. The legacy systems were slow and cumbersome and stifled the creativity and responsiveness that Illinois Tech prided itself on.

Recognizing the need for change, the university's leadership didn't just want a quick fix; they envisioned a sweeping transformation of their data processes. They planned to unify their approach, bringing together experts from across campus to rethink how Illinois Tech could use technology to empower their community.

The first order of business was to streamline their scattered data into one accessible, centralized location – a data lake. This change wasn't just about storage; it was about creating a dynamic resource that could feed into every corner of campus life, improving decision-making and reducing redundancies.

One standout project has been the implementation of Qdox, Quantiphi's cutting-edge document processing solution powered by AWS. This tool has revolutionized how the university handles academic transcripts, allowing faster updates to student records and significantly reducing manual data entry.

Finding the right partners for transformation

Recognizing the moment for change was as crucial as choosing the right partners to make it happen. Their choice to collaborate with AWS and Quantiphi was pivotal. AWS provides a robust and scalable cloud infrastructure including enterprise generative AI capabilities, while Quantiphi brought expertise in AWS foundational services, AI and digital engineering, crucial for modernizing Illinois Tech's data systems.

Under Vaishnav's guidance, Illinois Tech took a strategic leap into cloud computing. Quantiphi deployed an AWS landing zone which set up foundational governance within the cloud infrastructure for Illinois Tech's teams to access systems and data in a compliant manner. This was the first critical step to unify disparate data streams in a secure manner, facilitating seamless access and more efficient data utilization across the university.

These improvements have laid a foundation for Illinois Tech to explore new avenues, such as predictive analytics for enrollment and fiscal management, areas previously bogged down by the limitations of old technology.

This integration was crucial for operational efficiency. For example, Illinois Tech applied Quantiphi's AI-driven solution, [Qdox](#), to automate the processing of academic transcripts. The insights gleaned from this process were directly fed into the university's CRM system, speeding up data handling and significantly reducing manual labor. Vaishnav highlighted the efficiency gained, noting, "This system enabled us to streamline operations and better utilize our resources towards enhancing student support and academic excellence."

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Empowering staff through cultural changes

At Illinois Tech, the shift to advanced data management was as much about technology transformation as it was about evolving the institutional culture. Recognizing the need for flexibility in decision-making and quicker response times, the university undertook significant organizational changes to foster a more dynamic and open environment.

Central to this cultural shift was the decision to flatten parts of the IT organization, a move aimed at enhancing transparency and accelerating communication. This structural change allowed concerns and ideas such as “Are we ready?” to surface more freely, empowering staff to engage more actively in the transformation process.

Vaishnav championed this new approach with a clear directive: “We have to move. We’ll never know what could work if we don’t take the first step. We will figure it out!” This proactive mindset helped cultivate an environment where experimentation was not just accepted but encouraged.

Adding to the culture of empowerment, leadership also prioritized the continuous professional development of their staff, particularly in areas critical to the university’s new technological direction. Partnering with Quantiphi and leveraging AWS services, Illinois Tech invested in extensive training programs to upskill their cloud team. This model of training, followed by immediate application to projects, was vital for keeping the team engaged and confident in their new roles.

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Mike Gosz, Vice President for Data Analytics, emphasized the effectiveness of this approach, saying, “The knowledge transfer with AWS has been invaluable. It’s empowering our team to learn and apply new skills that immediately impact our operations. This has allowed us to try new things, learn quickly, and adapt, which is vital in today’s fast-evolving educational landscape.”



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to streamline processes and improve student experiences. Intelligent document processing accelerates decision-making, while enhanced data analytics provide earlier insights into student behaviors. They are also improving multilingual communication to better support their international students.

Such cultural adjustments, supported by committed leadership, ensured that the university's staff not only adapted to but thrived under new operational paradigms, effectively marrying technological advancements with a supportive, innovative workplace culture.

This ongoing transformation is powered by a robust partnership network, innovative technological solutions, and a dedicated staff – all working in concert. Most importantly, they continue to center learners at the heart of their work. Vaishnav emphasizes the impact: “Our advanced infrastructure will provide the global student community access to essential tools and experiences that support their needs and our institutional growth strategy. Traditional methods can't meet our needs.”

Looking ahead at Illinois Tech

Illinois Tech continues to push the boundaries of what's possible in higher education, driven by a commitment to serve its diverse student population. Their latest initiatives use advanced technologies

As Illinois Tech looks to the future, its collaborative approach serves as a model for how technology and teamwork can transform education, making it more inclusive and effective.

Learn more about how to engage Quantiphi and AWS in support of your mission below:

[Quantiphi Qdox](#)

[AWS for Higher Education](#)

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