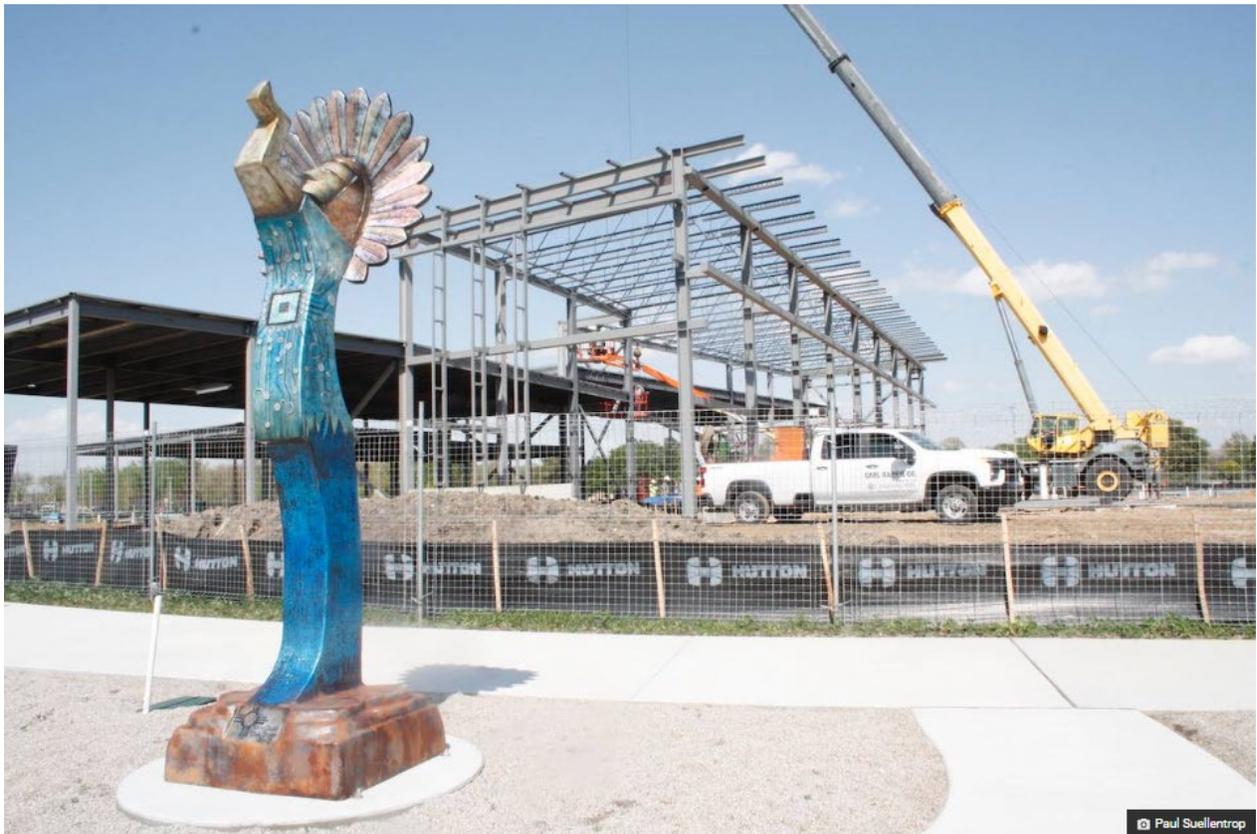# WSU News

May 6, 2022

Home for digital transformation rising on Innovation Campus

By Paul Suellentrop

The National Institute for Research and Digital Transformation (NIRDT) will contain a collaboration hub, cyber/data analytics area, testing labs, eight research labs and a 168-rack data center.

- **The National Institute for Research and Digital Transformation is scheduled to open by spring 2023 on the Innovation Campus.**
- **NIRDT has its roots in the beginnings of the Innovation Campus in 2012 and projects such as the Molecular Diagnostics Lab (MDL).**
- **Digital transformation brings many disciplines together to research and innovate ways to take physical practices and transfer them to the digital world.**

The steel columns and beams rising on the east edge of the Innovation Campus will soon provide a physical centerpiece for the ongoing work of digital transformation at Wichita State University.

The National Institute for Research and Digital Transformation (NIRDT) will occupy the building at 18th Street and Oliver by spring 2023. Construction on the 37,000-square-foot building began in January.

The work of digital transformation, boosted by Innovation Campus plans in 2012, is not new at Wichita State.

In 2011, LSI Corp., later purchased by NetApp, donated to Wichita State to start the first applied learning model using high-performance hardware. In 2014, NetApp announced its partnership with Wichita State and a move to campus. Projects such as new degrees in data science, data analytics, and digital arts, the Molecular Diagnostics Laboratory (MDL), and the Advanced Virtual Engineering and Testing Lab and others added to the university's progress.

"We've been building these capabilities and technical knowledge and skill for quite a while," said Tonya Witherspoon, associate vice president, Industry Engagement & Applied Learning. "What we want to do is open up those technical skills and industry to a broader range of industry. We want to do more."

Digital transformation is a broad term for taking physical practices and transferring them to a digital format to streamline processes or manufacture replacements for aging parts. In 2020, the Kansas Board of Regents approved the creation of the [National Institute for Research and Digital Transformation at Wichita State](#).

One example of digital transformation is how the business of watching a movie at home changed from renting a DVD at a store to an internet experience. When a person scans an airline ticket, instead of printing it out on paper, that is digital transformation.

At Wichita State, digital transformation is seen at the MDL, which uses digital microscopes to efficiently and accurately analyze samples. When students at the Advanced Virtual Engineering and Testing Lab use a virtual crash-test dummy to test the safety of an airplane seat, instead of costly physical materials, that is digital transformation.

At NIAR, parts are scanned, digitized and catalogued to help the U.S. Air Force and Army repair and sustain older aircraft in a cost-effective manner. Vizling, developed by Dr. Darren DeFrain, associate professor of English and former Wichita State student Aaron Rodriguez, is an app that allows visually impaired people to read comic books and graphic novels.

"In short, it touches everything we do and everything we want to do," said Rick Muma, Wichita State president. "It's an interdisciplinary, applied-learning, job-creating, entrepreneurial and research

workhorse. It's a vehicle to diversify our state's economy, makes education more accessible and contributes to the prosperity of the people and communities or our state."

The building will include a collaboration hub, cyber/data analytics area, testing labs, eight research labs and a 168-rack data center.

NIRDT will focus on innovation, applied research, and applied learning in areas such as:

- cloud computing and software development
- cybersecurity, cyber operations, AI, ML, xR, and IoT
- agile cultural and organization transformation focused on value creation in customer experience, operational processes, and business models
- research and service laboratories to provide the needed system engineering technology for Kansas to compete globally.