

Esports and digital innovation meet in academia

Illinois State University evolves a digital-gaming program and elevates the creative use of virtual and mixed reality in higher education



Higher Education

United States

Organization needs

Illinois State University aimed to offer students a facility where they could meet and hone their esports skills while also exploring the benefits of innovative technology in teaching and learning.

Solutions at a glance

- [Dell Alienware desktops and peripherals](#)

Organization results

- Enables students to advance esports, academic, teamwork and communication skills
- Performs reliably to support challenging esports and educational workloads
- Fosters innovation in instructional design
- Helps level socioeconomic differences in students' background
- Attracts incoming students

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Craig Jackson,
Director of Infrastructure, Operations and Networking,
Illinois State University

Illinois State University delivers graduate and postgraduate programs to more than 20,000 students, achieving graduation and retention rates well above national averages. Illinois State is listed among the top 100 public national universities by U.S. News & World Report in 2020.

Illinois State's athletic teams, known as the Redbirds, include Redbird Esports, a student organization that was looking for a place to practice, play and develop a community. Illinois State is one of the first universities in the U.S. to officially launch an esports program. Redbird Esports President Jack Blahnik presented to university leadership and administrators about the team and technology culture of esports, highlighting the interest from students and the millions of people who watch esports championships.

Identifying the best technology for an esports program

Illinois State decided to build a new lab space: the Digital Innovation Graphics and Gaming Studio (DIGGS). Students were to play a leading role in designing and running the facility. Charles Edamala, chief technology officer and associate vice president at Illinois State, says, "We created DIGGS because we saw the opportunity to give students access to advanced technology in a resource that could facilitate esports and enable innovative research and learning."

When it was time to select computers, monitors and peripherals for DIGGS, Illinois State consulted with other universities and assessed several technology providers. "We wanted a device that could support digital learning and intense gaming workloads, from a vendor who could support us for years to come," says Craig Jackson, director of infrastructure, operations and networking at Illinois State. "We found what amounted to a de facto standard in esports because of its design, performance and robustness—Alienware from Dell."

Digital lab running on robust, high-performing hardware

At Illinois State, highly trained students in technical programs collaborate with the IT organization to deploy, test and support technologies, including the Alienware devices and peripherals at DIGGS. They configured the esports environment with two rows

of five Alienware desktops used in playing "League of Legends" and other games, plus two desktops for coaches and testers. Alienware monitors and 55-inch screens and whiteboards from Dell augment the experience quality for esports participants and allow them to strategize team approaches. Redbird Esports facilitators and coaches assist students in honing their skills and manage access to the lab.

Alienware met the university's hopes for performance and reliability. Jackson says, "Students couldn't be happier with the DIGGS space and the Alienware machines. We have not had any issues with the devices." Blahnik says, "When we discuss esports with other colleges, I always recommend getting the most powerful and reliable device instead of settling for a standard PC. The Alienware desktops have performed flawlessly for us."

"We're anticipating a big data conference and a virtual reality summit—and it all started with the innovative potential of DIGGS and a dozen Alienware computers."

Charles Edamala,
Chief Technology Officer
and Associate Vice President,
Illinois State University

Enhancing student skills and evolving esports

DIGGS supports Illinois State's mission to foster equity and inclusiveness by providing a safe digital environment to students of all backgrounds, including those who cannot afford to buy high-end devices. Edamala says, "We've made gaming and advanced technology accessible to a wider range of people. DIGGS will make a great difference in their lives and careers."

By enabling live interactions in the esports context, DIGGS helps students grow their social and collaboration skills. “Students taking advantage of DIGGS can mature into team leadership and mentoring roles fully confident of receiving strong support,” Jackson says. “We have also observed that esports proficiency and academic achievement go hand in hand.”

As the profile of esports in higher education continues to rise, Illinois State is preparing to participate in esports events like the Sixty Six Games Expo and its associated tournaments. DIGGS may grow into a larger facility as it evolves from a prototype into a key component of a full-fledged esports program that will be similar to Illinois State’s athletics teams. The university’s commitment to esports already plays a role in attracting learners. “More and more incoming students are looking for an esports club,” says Blahnik. “DIGGS equipped with Alienware makes Illinois State increasingly attractive.”

Exploring virtual and mixed reality in academics

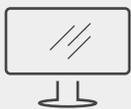
While other universities support esports and rely on Alienware devices to facilitate them, what’s unique about DIGGS is how closely it is connected to Illinois State’s faculty and research. Edamala says, “DIGGS accelerates technological transformation at ISU. I credit the design and performance of Alienware with inspiring our leadership and instructors to think innovatively.”

Several faculty members are exploring digital-learning scenarios that require the kind of demanding computing that the Alienware devices in DIGGS can easily support. These projects include a music professor developing software that enables the composition of music in virtual reality and an arts and technology instructor creating a game-design program. Several planned use cases involve extremely large files or data volumes.

At Illinois State, the use of augmented, virtual and mixed reality to enhance teaching and learning is going to expand within the framework of a program called XR@ISU. The IT organization will acquire additional equipment for this purpose, and DIGGS will be one of several facilities where instructors and students can use these technologies. Edamala says, “We’re anticipating a big data conference and a virtual reality summit—and it all started with the innovative potential of DIGGS and a dozen Alienware computers.”

Insight from a resourceful partner

Edamala hopes to engage more closely with Dell to gain insight into the direction of technologies such as virtual reality or autonomous vehicles and ready Illinois State to incorporate them into the learning environment. Edamala notes, “I can say without reservation that Dell has been a good partner to us. Our contacts there have always been willing to listen to our ideas and have conversations, beyond what their contract requires. Our relationship with Dell will only get better.”



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