

University of Wisconsin- Green Bay Technology Plan

2021-2024

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UNIVERSITY of WISCONSIN
GREEN BAY

Introduction

When Chancellor Alexander included his vision of Digital Transformation¹ in the University's 2020 strategic priorities² he set in motion steps that brought us to the creation of this document. To further empower the advancement of Digital Transformation a cabinet-level position was created to ensure that across all aspects of the institution we are collaboratively working to achieve our goals. These bold actions have set the stage for success as we work to meet the needs of the people and industries in our region through education.

The concepts and ideas in this document were gathered through conversations with University of Wisconsin-Green Bay (UWGB) faculty, staff, students, and external experts. This tool is meant to outline specific goals and initiatives that we need to achieve over the next three years, in support of the overarching University strategic priorities. We live in a reality where resources are limited so to be successful, we must be willing to realign resources and prioritize investment in technology so that we can continue to build on it as our university grows.

Drivers of Change

The context for the delivery of technology services at the University is shaped by both the current and rapidly evolving drivers in the world around us. The pandemic has only confirmed that people expect to do their daily transactions from a mobile device or on the web. Virtual engagement and interaction for transactional business is efficient and can be sufficient.

Our faculty have more extensively explored new tools that will continue to enhance the classroom experience when everyone is back on campus. They are better versed in navigating and using our Learning Management System and their laptop computers. This will increase expectations, by faculty and students, of technology performance in classrooms and for scholarship moving forward.

Cloud computing and other IT services are becoming commodities for higher education systems, requiring that we rethink how we “do IT” on a regional comprehensive campus such as ours. We need to continue to find ways to collaborate and share systems asking, “Why are we all trying to do it on our own?” Data for decision-making must be a “push of a button” away and placed into the hands of those who are using the data.

UW-Green Bay is having to implement new, more efficient business models while holding on to the fundamental tenets of relational and broad-based learning that are core to delivering open access education. Graduate, certificate, and non-credit programs are increasingly offered online as non-traditional students

¹ <https://www.uwgb.edu/chancellor/strategic-priorities/digital-transformation/>

² <https://www.uwgb.edu/chancellor/strategic-priorities/>

require flexibility to balance school, work, and family obligations. Undergraduate students arrive on campus having experienced innovative and technology-rich teaching environments as K-12 schools issue laptops or tablets to each student, promote active learning, and foster creative engagement through multimedia projects. Many of these “digital natives³” arrive at UWGB with multiple devices and experiences with diverse technology platforms, and expect UWGB to deliver an even richer experience.

With growing regulatory requirements, UW-System projects/priorities, the ever-changing cyber threat landscape, and continual financial pressure, everyone at the University needs to work together to solve problems and make decisions collaboratively and strategically so that resources are focused appropriately. Every academic decision has an impact on technology as class size impacts classroom technology needs; program changes have an impact on the underlying data structure of our systems; and other locations require careful attention to data security and underlying infrastructure needed to support the endeavor. Through technology governance and relationship building we can work collaboratively to achieve our goals while effectively stewarding our limited resources.

Responding to Drivers of Change

These drivers impact the demand for technology services and the way they are provisioned at the University. The overarching goal is to support the mission of the University by providing an excellent technology user experience while managing our budget in a fiscally responsible way. To do this, we need to develop and maintain an infrastructure that is secure, reliable, resilient, flexible, scalable, and innovative where strategically advantageous.

The increased focus on digital transformation requires that everyone on campus be fully committed to understanding and learning about current and emerging technologies within their sphere of influence, and maintaining ongoing knowledge as to best practices in support of their work. All campus stakeholders are members of the “Technology@UWGB” team. We are working to build a technology advisory structure that is representative of faculty, administrators, and students to assist with ongoing prioritization and advocacy of digital transformation across campus to further support the shared stewardship of technology across our campuses.

University of Wisconsin-Green Bay Division of Information Technology (GBIT) is fully committed to supporting the institution in meeting its strategic, operational, and educational objectives through leadership, scholarship, and support of appropriate information technology solutions and services. This will be accomplished by:

³ <https://www.cnn.com/2012/12/04/business/digital-native-prensky/index.html>

- **Aligning and stewarding resources** to effectively support university priorities and objectives;
- Investing in the **development of close, transparent, collaborative, relationships** with faculty, students, staff, and other community members to best serve the campus' existing and future technological needs;
- **Encouraging** and supporting **innovation** in solutions;
- **Developing our employees** to ensure we are leaders in understanding, deploying, and supporting current and future information technology solutions to support the University's mission;
- **Partnering** with other educational institutions and external organizations with similar objectives to efficiently leverage technology resources.

The GBIT service catalog is under review as we look to discontinue services that no longer provide strategic value to the organization. Existing organizational functions continue to be redefined to improve our ability to deliver services. Our limited staffing resources will require deployed technologies be reliable and sustainable. We continue to search for solutions on platforms we already use/own, and to reduce or eliminate redundancy. Whenever possible we will look to implement an already available commercial solution rather than build a system in-house. GBIT is committed to identifying the best value solution, always looking for ways to save money.

As we change our technologies, the skill sets of our people, and our processes for interacting, we will need to maintain a team spirit across all divisions to solve the very difficult and expensive technology challenges we are facing. The load of everyday responsibilities to keep the current IT services running competes with the time and resources required to be transformational. We need to invest in strategic external partnerships to acquire the skills we need to advance projects quickly.

The initiatives in this document are admittedly ambitious. It will take the combined efforts of all campus stakeholders to accomplish our goals.

Priorities

Following are UWGB's key technology-related priorities, organized by the institution's current strategic initiatives:

Digital Transformation

Technology Ecosystem Alignment: We must invest GBIT staff efforts over the next year in strategically aligning and **updating current platforms** and services on which we can build our digital transformation strategy. We

will continue to advance a cloud-first strategy⁴; prioritize mobile access and accessibility; and **leverage external service providers** to assist us in moving more quickly where needed or to provide commodity services. We have several hundred technology platforms across campus that need to be evaluated and assessed to eliminate duplication and ensure that we are maximizing the value in our current investments. Some of the first **systems we need to assess** include **PeopleSoft SIS; the Event Management System/Campus Calendar; the Web Content Management System; the Incident Management Tracking System; Salesforce; and EAB Navigate.**

An important aspect of establishing a sustainable technology ecosystem is understanding and creating a **sustainable funding model** that will allow us to predictively manage and upgrade technology across campus. This effort will begin in FY22.

Each business area benefits from having a **Functional Super User/Analyst** assigned to work collaboratively with GBIT to identify business process and system improvement opportunities, to successfully launch new functionality, and to collaborate with institutional reporting efforts. GBIT technical staff will focus on the technical aspects of the systems while functional analysts focus on the end-user experience and reporting needs within their areas.

As departments are faced with business problems and possible solutions they need to **connect with GBIT before beginning a new solution investigation.** GBIT is then able to consult on possible existing solutions that can be leveraged to meet the need or to assist with evaluating how a new solution would fit within the University's technology ecosystem and the workload pipeline to ensure that value is fully realized in a timely manner.

Communication platforms: The campus community needs a solution for an **internal portal** on which we can provide links to “the things you need to do your job”; push internal information and communications; and better facilitate a positive campus community environment. This is a FY21 priority for employees. A student solution is also under investigation.

As the campus is working to expand its partnership with Microsoft we need to evaluate the opportunity we have to **consolidate all of our telephone, video, and other communication platforms** into Microsoft Teams (Teams). The pandemic demonstrated how many people have been able to operate without a desk phone; opting instead for cell phones or software-based telephone functionality. We need to start **equipping everyone**

⁴ A cloud first strategy involves a commitment to moving software, platforms, and infrastructure to a service provider who can provide premium services at a lower cost. This allows UWGB staff to focus specialized resources on mission critical activities.

on campus with the ability to use Teams with a camera, microphone, and headset so that we are ready for a larger transition in the future.

Technology Support Hub: Using the Information Technology Infrastructure Library (ITIL)⁵ principles we need to make it easy for community members to find and receive assistance with technology usage. Investments will be made in providing **more self-service options for password resets, finding “how-to” information online” and automating support request escalation processes** across all areas of campus that provide technological support. This model will enable us to better leverage cost-effective student employees who will gain useful real-world skills and create a margin for full-time professional staff to focus on more technical work.

We will look for opportunities to **leverage existing tools and resources** to support incidents and requests which occur outside of GBIT. These resources could include a unified ticketing system, integrated support phone system, and centralized student support.

Eliminating Paper Processes: To maintain workflow in a new world where team members no longer solely reside in their on-campus offices we need to invest in solutions that **enable transactions electronically and are connected to systems of record**. Our current **Image Now platform is end of life** and needs to be upgraded and transitioned to a vendor cloud-hosted environment. **Grant Management** is a system initiative that will improve processes in this area in FY22. A **Faculty Effort Tracking System** would provide faculty with a way to keep track of their activities in and outside of the classroom, thus supporting the faculty review processes that are in place at UWGB and making it easier to highlight the excellent work they are doing to others in the community.

As students gain valuable credentials from the University, we need to monitor and investigate evolving technologies in support of facilitating **life-long learner credentials**. **Blockchain technology** is emerging to facilitate just-in-time official access of earned credentials from a personal mobile device.

Employee and Student Onboarding: Technology support is a shared responsibility across campus. **Developing a technically curious community** across all departments starts during the onboarding process. We must work collaboratively to develop and maintain **electronic resources to support the effective onboarding of employees and students**. This effort is key to enhancing the understanding and success of Digital Transformation.

Class Scheduling: Scheduling classes is currently a manual and distributed process at UWGB. The deployment of an **automatic scheduling system** will allow the Registrar to focus valuable time on directly supporting

⁵ <https://www.cio.com/article/2439501/infrastructure-it-infrastructure-library-til-definition-and-solutions.html>

students and faculty. To do this effectively we need to agree as a campus to new space management processes that opens access to available rooms in a way that is more holistic across campus.

Data Analytics: UWGB is eager to **leverage data** to make smart operational and strategic decisions that will support our growth. We will work collaboratively to **understand the data resources** we have available to us; develop a **data stewardship program** that spans the institution to improve secure access of institutional data to those who need it; and engage a vendor to assist us with **developing a data analytics platform and associated data management tools**. For this to be successful we will need to be open to **adjusting business processes** and understanding that these systems and data belong to the institution. This endeavor will require hard work and the focused commitment of all involved parties. This project is in the investigation stage at this time.

UW-System: As a part of the state's Administrative Transformation Program (ATP) several major projects are underway that when complete will provide benefits to the UWGB campus community. **Workday** has been selected as the next generation Human Resource and Finance system. This native cloud product will create opportunities for business process change and workflow improvements. While most of the technical work will be managed by UW-System the magnitude of the change will touch everyone on our campus. To support this implementation, we will need to transition to a **systemwide identity and access management system** that will require significant effort on the UWGB campus as we "reconnect" existing systems to the new platform. These projects are unavoidable and the work effort required will reduce the capacity of GBIT staff for campus-focused projects.

Student Success

Classrooms and Teaching Spaces: To provide a reliable educational experience for our students and faculty and promote open access we must identify **annual funding to replace the technology** in classrooms and learning spaces every six years⁶ across all campus locations. We will attempt to develop learning spaces that are **flexible, streamlined, easy-to-use, allow for self-operation, and provide video and audio connections to facilitate remote learners**. In FY23 It is our goal to reconfigure a minimum of ten classrooms across all locations so they can be used traditionally or in support of hybrid learning.

We must refrain from building new spaces that require technology without first identifying the ongoing funding for replacement in five to six years. We will continue to put the appropriate level of technology into each space without over-building. Under the Provost's leadership, the University should consider reducing this

⁶ Industry best practice is to replace classroom technology every 4-5 years. Extending the time results in newer mobile devices not being able to connect to the displays.

expense by considering new ways of scheduling classes that would allow us to repurpose classrooms that need a regular technology refresh.

Student Course Feedback: The Faculty Senate recently adopted a recommendation to deliver course evaluations 100% online. Our current technologies are cumbersome and labor-intensive. In FY22 we need to identify a **new online system that is flexible and provides the insights** needed to support faculty development and student success.

Student Systems and Applications: We need to make the systems that students use across campus intuitive with up-to-date user interfaces making it easy for them to access the tools they need to be a student at UWGB. We need to focus on improving the housing and dining system; creating a sustainable **Campus Calendar that reflects all dates and activities across campus**; launching a system to better manage **student engagement activities**; maximizing self-service functionality for **degree exploration**, course exploration and registration; and **fully leveraging the capabilities** of PeopleSoft SIS and EAB Navigate. We must adjust internal business processes to better leverage the functionality and features that are available within our systems. We need to build a one-stop-shop for information on the many programs and courses that we offer (including credit, graduate, undergraduate, non-credit bearing, certificates, etc.) that better reflects the holistic educational services we are providing.

To support student success post-graduation, we need to invest in ensuring **that applications we teach in courses are up to date** and currently in use in the marketplace.

Residential Services: UWGB is expanding our residential living community and we need to offer **technology services similar to those that students can acquire** on the open market when they live off campus. Investments must be made to **upgrade the campus wireless network** so it can better handle the increased network load of students bringing multiple devices to campus. Network issues need to be resolved 24/7. Content streaming is taking over the entertainment programming market resulting in many of our students bringing **streaming accounts** (e.g. Hulu, Netflix, etc.) to campus. We need to evaluate whether cable television as a campus service continues to be a wise investment.

Technology for the University Post Office operation has advanced considerably. With a **mail and package processing automation system** the footprint of our mailroom could be reduced, and students would be able to use their mobile devices to manage delivery.

Excellence and consistency in online/hybrid course delivery: Creating and supporting efficient methodologies that **enable online and hybrid education while also providing equivalent access to campus resources** is key to ensuring the success of the program. Being able to leverage existing campus technologies and developing repeatable support structures will create a scalable learning infrastructure. Providing **high-quality**

instructional design for credit-bearing and non-credit bearing classes will help ensure the University's place and reputation in higher education. We need to effectively develop, manage, and share institutional standards and requirements for course development, delivery, and credentialing in a way that establishes a foundation we can build on.

University ID: The current system has aged and needs to be replaced. A replacement system will need to be accessible to many different services (e.g., building access, dining, library, Pass Points, etc.) We will consider how identity can be verified, as well as how transactions can be processed using mobile devices.

Chatbots: Students are able to access informational resources 24/7 when chatbots are deployed and integrated into campus web sites. The technology is not effective if the data sources that it is accessing is not complete or accurate. As our core systems are upgraded, websites updated we will be able to consider this as a tool in the future.

Inclusivity

BYOD for Students: Working with the Provost we will work to establish a process to support a **laptop requirement** for incoming students. A structure will be established to provide laptops for those students who need assistance. Expanding the use of virtual software computer labs will reduce the expense and need for proprietary computer labs on campus and facilitate greater student flexibility by encouraging the use of each student's own computer. This will also open up funding for other technology initiatives.

Open Educational Resources and Leveling the Playing Field: UWGB students come from a variety of backgrounds and bring a variety of capabilities. To successfully deliver our goal of providing education to everyone we need to accelerate the pace at which we develop support structures that open access to all. Reducing the cost of education through the use of **Open Education Resources** (freely accessible, openly licensed text, media, and other digital assets that are useful for teaching and scholarship) is one way to assist with this goal. In FY22 we need to develop and launch a campus-wide OER strategy, in partnership with faculty, to maximize the benefits of a collaborative approach.

Developing and delivering educational objectives through the use of **virtual reality, augmented reality, and gamification** can provide engaging learning platforms that support positive learning outcomes. Strategic investment needs to continue to **support faculty champions** with an interest in leading the campus in this area as we evaluate the degree to which these technologies should be expanded into other courses. These tools can be further leveraged as we expand our efforts to develop courses that adapt to the needs of the learner so that multi-abled students can succeed within the same overarching environment.

Community Connections

External Contact Tracking: Many people/roles across the institution are heavily involved with building relationships with external constituents. We need to develop a **system of centrally collecting and managing information** related to these contacts to maximize the impact of each subsequent visit.

Equipping our Locations: UWGB's Marinette, Manitowoc, and Sheboygan locations provide meeting space and other resources to their local communities. We need to develop a plan to **"right size" the number of rooms and expand virtual capabilities** at each location so that equipment is not sitting unused but rather we are better leveraging our resources throughout our region.

Training and Service Partnerships: Technology availability is constantly increasing. New software and hardware are being released continuously. We must develop **close partnerships with external training resources and service partners** to bridge the knowledge gap between what is provided by our central IT service points and what is needed or being used at the departmental level.

Partnership with organizations such as Microsoft and Tiletown Tech: Our partnership with these entities needs to be leveraged in a way that supports UWGB's desire to be a beacon of educational success to the region. Collaboratively we should explore designing and building a **"Classroom of the Future"** that can be used for UWGB classes as well as be a model for other schools in the region. The space could include technologies such as robot teaching assistants; robotic tablet holders that are controlled by remote students; Cortana responsive equipment; holographic participants; and smart classrooms that know when a faculty member walks in and activates the tools they use most frequently. We would need to dream big as to what could be possible and remove our thought barriers as to the reality based on our current experience.

Computer-generated or digitally enhanced imagery, the digital humanities, artificial intelligence, and robotics are all slowly getting traction in the academy. We will continue to work with faculty and strategic external partnerships to find **pedagogically appropriate applications for these emerging technologies** within our environment.

Sustainability and Environmental Work

EcoU goes Paperless: We should make significant strides to reduce our use of paper and printing by 50%, as we work to embrace our roots of being the first EcoU. This would require a fundamental culture shift as we eliminate paper tests and forms; require students to turn in assignments electronically; disallow the printing of paper forms and establish digital methods of processing important work items.

Per UW System policy we must work to maintain encryption on the many printing devices on campus. This project needs to be reduced in scope by establishing a policy curtailing the use of individual printers in offices and instead **leveraging shared multifunction printers** when printing is absolutely necessary.

Virtual Applications and Desktops: Virtualization facilitates access to University technical resources from anywhere or any type of machine (Mac or PC). It enables the use of older hardware for longer periods of time. They can also make cost-prohibitive software available to students who only need it for a short period of time. We will seek to expand our **strategy to virtualize applications and desktops** that will create value for the campus community.

GB Athletics & Weidner Center

These highly visible spaces need a strategy for maintaining reliable technology. The current funding model needs to be adjusted to rectify some historical practices that are creating unbalance within the organization.

Security and Compliance

Institutional Data Handling: Many staff and faculty regularly work with highly confidential data. We must provide **educational opportunities and policies that contain the download and access of sensitive data** to institutionally provided devices or through institutionally approved applications. Our current practice of allowing people to use their personal computing devices to install software and manipulate institutional data on their machine is a significant risk as personal devices are typically not managed in a professionally secure manner.

Infrastructure: The campus wired and wireless network is vital to the functioning of the University. The increased number of devices continually added by students, the increased reliance on cloud-based, services, and emerging “Internet of Things” (IoT) requires that we invest in scalable network bandwidth redundancy, and re-engineering to meet evolving technological needs. The nature of technology is that it is constantly changing and improving in its security capabilities. We cannot just install a network (wired or wireless) and then let it just keep operating like we can a copper water line. We must develop a plan to fund the maintenance and upgrades to our technology infrastructure in a sustainable way. A **campus master plan for technology replacement and maintenance** needs to be created and met.

Account Access Clean up: To ensure the security and integrity of our systems we need to develop a methodology and process for **deactivating accounts for inactive constituents**. While this can be challenging when students are fluid in their attendance patterns it must be done to ensure we are within licensing compliance limits and protecting the University from harm.

Security Information and Event Management: **Fortifying data security** is a top focus across campus. We need to deploy software or a service that will alert us to potential nefarious actions as they occur on our network so we can take immediate defensive action.

Conclusion

The priorities outlined in this document may be ambitious, but, when achieved, will have a measurable impact on advancing Digital Transformation at UWGB and positioning us for a future that is user-centric and in alignment with best practices within the industry. These plans will be reviewed annually and adjusted as needed to remain relevant.