

UW-Eau Claire: Sustainable printing conversion nearly complete

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The beginning of the spring semester will mark the completion of a lengthy and systematic conversion of printing operations at the University of Wisconsin-Eau Claire to a sustainable model across campus, launched in phases since 2019.

By the end of Winterim, all departments will be converted to the new devices under the FollowMe system, a change that will bring the number of printing devices on campus down to 154 multifunction devices and a handful of single-function printers for specific exempted purposes. During a print study conducted in 2018, more than 1,016 printing output devices were discovered. The switch to sustainable units was first launched for administration and housing units in 2020.

The idea for sustainable printing was originally proposed in 2015 by a Rapid Action Task Force examining budget planning and sustainability, according to Craig Ernst, information technology manager in Learning and Technology Services (LTS).

The stated goals of better stewardship of printing would allow UW-Eau Claire to:

- Be more environmentally friendly and reduce expense by using less toner and less paper by making two-sided printing the default.
- Provide more consolidated print/copy/scan options with significantly fewer machines.
- Increase Americans with Disability Act compliance with approved devices.

“Four years later, after extensive coordination with area supplier EO Johnson, we drafted a plan that followed our guiding principle to make data-informed decisions,” Ernst says.

Ernst explains that getting all students using student ID card-enabled

PaperCut/FollowMe for mobile printing was the essential first step, and the next phase was to roll out the device conversions in administrative units and housing. The Human Sciences and Services building (HSS), Marshfield campus and Pablo Center at the Confluence also were converted at this time. UW-Eau Claire – Barron County already was using PaperCut as part of UW Colleges, and they were moved into UW-Eau Claire’s instance of PaperCut easily when LTS migrated the campus’ information technology resources to UW-Eau Claire’s systems in 2019.

“In the fall of 2019, the order was placed for that number of printers for the new system. They were all installed and deployed at the end of February 2020,” Ernst says. “Then, as we know, COVID-19 lockdown happened.”

While no technology is without flaws, Ernst says it’s fair to say that the system is working well with no significant problems with the devices or the process. He says while EO Johnson had run the calculations to estimate cost savings on paper, toner and electricity, the changes in so many operations since COVID have rendered some of those estimates moot in terms of comparison and cost savings analysis.

“With all transparency, the amount of printer utilization now compared to pre-COVID is dramatically lower across the board,” Ernst says. “Processes have all changed significantly — online methods have been maintained in various aspects on both the teaching and learning ends, and the need to print things has been drastically reduced. I don’t know that we will ever return to the levels of printing seen before COVID, at least not in academic areas.”

That said, there are some telling data points to highlight in examining the big picture related to the overarching sustainability and stewardship goals of the project.

Pre-conversion circumstances and statistics:

- 1,016 devices campuswide; almost a 1:1 ratio of employees to devices.
- 177 different types of ink/toner cartridges.
- Energy consumption was estimated at \$3,000 per month for the “phantom energy” used to leave devices plugged in around the clock.
- LTS support costs for hundreds of unique models were significant.
- Departments were tasked with ordering paper and toner for all the various devices in their units.

Post-conversion improvements:

- 154 new devices installed, all with copy, print, scan and virtual fax features.
- Only 12 different multifunction device models to support.
- Monthly phantom energy costs were reduced to \$260 per month.
- The default mode on all machines is double-sided printing on all jobs; only 165 of the original fleet of devices offered two-sided settings.
- Old devices not sold through surplus were recycled through EO Johnson and partnership with First Choice Computer Recycling in Eau Claire.
- 100% of cartridges are recycled with EO Johnson and Ricoh.
- New devices are constructed using recycled materials.

“On the second floor of Schofield Hall alone, there were 85 separate devices when we conducted the inventory,” Ernst says. “That whole area now shares five multifunction devices.”

Lillian Strehlow, campus sustainability specialist for the Office of Risk Management, Safety and Sustainability, emphasizes the importance of this sustainable printing project in reducing the carbon footprint of UW-Eau Claire.

“Reducing the number of printers on campus directly reduces our carbon footprint, through reduced consumption of toner cartridges, paper and the printers themselves,” Strehlow says.

“The resources required to keep one idle printer on standby may seem innocuous, but what about 1,000 printers? According to the Lawrence Berkeley National Laboratory, it all adds up; electricity use from inactive electronics composes 1% of our global greenhouse gas emissions.”

Although typical campus printing behavior has shifted and exact comparisons across time are hard to quantify, Ernst points to one number that he says is encouraging.

“The first few days of a semester have always been telling,” he says. “Pre-COVID, it was normal for us to see 75,000 impressions (sheets printed) back when it was unlimited free printing to students. This year, fall semester 2022, that first-day number was around 25,000 impressions. It may creep up slightly over time, but it’s hard to imagine it would approach that old number.”

Additionally, Ernst says that before the pandemic, many normal weeks outside of that semester start saw average daily printing of 30,000 pages per day, and now the average has remained under 15,000.

Academic unit pilot success

While the academic units have been the last phase of the conversion, one department asked to be included in the phase two order — the communication sciences and disorders (CSD) department. Ultimately, the entire HSS building opted to be included in this phase. According to Dr. Abby Hemmerich, associate professor and chair of the CSD department, the change has been a positive one and faculty and staff are glad to have jumped in early on the timeline.

“The department was offered an opportunity to be an early adopter of the sustainable printing initiative,” Hemmerich says. “As a department, we often like to be involved in pilot projects to help work through new technologies and other campus processes. By joining in the sustainable printing initiative early, we were able to have dedicated attention from LTS and a chance to work through any challenges that arose.”

One major problem the new system solved for CSD was one regarding wasted printing use.

“In our unit, forgotten print jobs were very often left in the printer — now there is no wasted paper on a forgotten job; it just isn’t printed. Simple solution,” Hemmerich says.

“Finally, opting for a sustainable printing option seemed like the right thing to do to meet the sustainability goals of our campus. This was one way our department could directly contribute to those goals.”

For CSD master’s student Emily Monson, the printing changes have been easy to use and effective in helping her become more aware of her paper/toner use.

“With the CSD clinic, I am constantly creating lesson plans and treatment activities, and completing assignments for classes. I found myself being more conscious of what I needed to print versus what I can turn in online,” says the Hutchinson, Minnesota, native. “I came to Eau Claire with a printer of my own, but I’ve never had to use it because the printing services in the building are very easy and quick

to use.

“By taking the proactive steps to implement this system early, our department showed how mindful the group is about sustainability. Because the HSS building is older and not very efficient in reducing waste, making this device switch offered a visible way to do so. CSD leads by example and strives to promote ways to be more sustainable for the students.”

For Strehlow, positive feedback from students like Monson help to bring momentum for more change focused on reaching campus sustainability goals.

“This is a great example of a win-win-win when it comes to sustainability on campus. Not only did we reduce our resource use, but we also saved money and created a more accessible printing platform for disabled students and staff,” she says. “Everyone is benefiting from this transition — including our environment.”