

# No More Print on Demand

Want to end the student printing free-for-all? Campus policies and print management systems can leverage students' desire to save money and the environment.

**FOR MANY YEARS NOW**, college campuses have been providing public-access printers, a practice that has unquestionably been a boon to students. But there's a financial and environmental cost to this campus convenience: Anytime/anywhere printing can lead to major paper waste.

Keith Fowlkes recalls the situation just a few years ago on the Wise campus of the **University of Virginia**, where he serves as vice chancellor for information technology and chief information officer. "Students printed as much as they wanted to whenever they wanted to. They would use a half ream of paper to print out a website they thought was cool, and they'd just leave it on the printer and walk away."

While there are no formal statistics available for quantifying paper waste on college campuses, a white paper from print management system vendor GoPrint ([goprint.com/controlling-printing-costs.asp](http://goprint.com/controlling-printing-costs.asp)) claims that waste accounts for at least 40 percent of what's printed. "If a campus with just 25 public access printers experienced the waste of just one ream of paper each day (500 sheets per printer," the report hypothesizes, "that would equate to 12,500 wasted sheets of printed paper every day, which is more than 2.5 million wasted pages each year."

More and more colleges are turning to campuswide print management systems to get a handle on printing waste and overall costs. But many institutions have found that installing a print management program alone is not enough. If waste is to be reduced and cost savings realized, schools also need to incentivize and educate students to use these systems wisely.



## Paying to Print

"Students will print insane amounts if it's free." So says Thomas Hoover, director of instructional technology support at **Pepperdine University** (CA), but ask any print administrator and you'll hear pretty much the same thing. To put the brakes on runaway printing costs, many colleges charge students a fee. The amount varies as does the means by which students are charged. Some colleges give students a printing allowance, some do not, but sooner or later students must pay for what they print. ▶

**Marquette University** (WI) came early to pay-to-print. The school was well-motivated, says Jan Judziewicz, the Milwaukee university's director of applications. "We used to see stacks and stacks of paper left at printers, students not picking things up, not caring, because if it didn't cost them anything, it didn't mean much to them."

Marquette began charging students for printing in 1998, when it instituted its PrintWise program, a card-swipe transaction that links printers running Pharos print management software with Blackboard Transact. At the beginning of each academic year, students receive a \$21 allowance for printing in a separate account on their MarquetteCard, the refillable, multipurpose ID and access card used to pay for campus expenditures. According to Judziewicz, about 17 percent of students don't use any of their print allowance—they either print elsewhere or simply don't print at all—while 43 percent use all of it. The remaining 40 percent stay within the annual quota.

**Mercyhurst College** in Erie, PA, employs a similar transactional approach: It tracks student printing as a declining balance on OneCard, the student ID and campus transaction card. Students get an allotment of 167 black-and-white pages per trimester. "If they choose to print in color, the value declines at a higher rate," explains John Patterson, Mercyhurst's OneCard director.

UVa-Wise, a small campus in the rural southwestern corner of the state, gives students \$30 worth of free printing

per academic year. "The funds are in their account on the print server, so whatever machine they use, anywhere on campus, they just log in with their password," explains Fowlkes. "The system knows who they are and how much is left in their print account." When the money runs out, they can top up their account at the campus bookstore.

Pepperdine opted to forgo a print allowance, so students pay from page one. "It's nice to be able to give free things to students, but there does need to be some kind of deterrent or they're going to print as many pages as they want," says Hoover. But, he adds, compared with other institutions, Pepperdine does not charge a separate technology fee and the per-copy charge is relatively low.

Regardless of how they implement their programs, all campus administrators agree that pay-to-print is perhaps the most effective tool for managing students' print habits. Judziewicz reports that Marquette's pay-to-print program was successful "right off the bat," citing a 40 percent reduction in waste and overall printing costs. He's a firm believer that charging for printing is "probably the biggest push" a campus can make toward reducing student printing waste.

## Queuing, Previewing, and Duplexing

But beyond pay-to-print, there are other ways to encourage responsible printing, some of which require merely taking advantage of standard features of many printers and print management systems.

Print queues, for example, have proven to be effective at helping to control wasteful printing. The Pharos system used by Mercyhurst (like the GoPrint system at Pepperdine and PrintLimit Pro at UVa-Wise) incorporates a print queue to safeguard against unwanted or abandoned print jobs. Students send jobs to a queue, but nothing happens until they swipe their card at the printer and confirm which jobs they want to print. As Patterson explains it, "You may know you screwed up or made a change so you don't want the first two CAD drawings, for example, but do want number three. Students can pick the one they want, cancel the others, or leave them and they will be wiped from the queue in three hours."

Previewing the job is another big money- and waste-saver. Marquette explicitly encourages students to use this standard printer feature to double-check that they really want to print their queued-up jobs, including e-mails with endless tails of repetitive forwarded material, which can turn a one-page printing job into a dozen or more pages of wastepaper.

Duplexing, or printing on both sides of a sheet, is a definite paper-saving option at all four schools, but giving students a price break encourages them to do it. At UVa-Wise, for example, black-and-white prints cost 10 cents a sheet, whether they're printed on one side or two—cutting the cost of a print job in half when it is duplexed. At Marquette, a single-sided black-and-white page costs seven cents; a

## ▶▶ Print Management 411

### **Marquette University** (Milwaukee, WI)

**Print management system:** PrintWise, which integrates Pharos UniPrint and Off-the-Glass (*pharos.com*) with Blackboard Transact (*blackboard.com*)

**Access:** card swipe

**Print allocation:** \$21/year

### **Mercyhurst College** (Erie, PA)

**Print management system:** Pharos with Secure Release; copy center managed by IKON Office Solutions (*ikon.com*)

**Access:** card swipe; print queue

**Print allocation:** 167 b&w pages/trimester

### **Pepperdine University** (Malibu, CA)

**Print management system:** GoPrint (*goprint.com*) with CBORD (*universities.cbord.com/solutions*)

**Access:** card swipe; print queue

**Print allocation:** none

### **University of Virginia College at Wise** (Wise, VA)

**Print management system:** PrintLimit Pro (*netop.com/products*)

**Access:** password login; print queue

**Print allocation:** \$30/year

double-sided sheet is only three cents more. For color, simplex is 50 cents, duplex 80 cents. To further encourage duplexing, Marquette makes it the default setting so students have to make a conscious choice if they want to print one side only.

### Integrating Multiple Functions

Multifunction printers (MFPs) that integrate other features like copying and scanning are proving to be cost-effective campus solutions for many reasons.

First, MFPs make it possible for a campus to streamline its hardware offerings. At Mercyhurst, for example, print services are managed through a contract with IKON Office Solutions. Before IKON came in, a jumble of inkjet, laser, even a few old dot matrix printers—565 in all—were scattered around campus. Those have since been replaced with 69 multifunction printers, each offering printing, copying, and scanning with the swipe of a student's OneCard. For the college, integrating copying and scanning into the print system has reduced not only the number of devices, but lowered spending on ink and toner, as well as maintenance and repair.

In addition, the use of MFPs extends cost savings to students. Patterson says that Mercyhurst "students can do all kinds of things right at the device that they previously had to pay a premium fee for." Using the MFPs at Pepperdine is "almost like going to a copy center," echoes Hoover. Not only do the devices allow duplexing, stapling, three-hole punching, and binding, but they reduce the cost per page over desktop laser printers by a penny or more.

Furthermore, the MFP scanning option enables students to bypass paper altogether. Instead of printing or copying, students can scan material directly onto their computers or other storage devices.

There's no charge for scanning at any of the four campuses. Mercyhurst's MFPs, says Patterson, "are good enough that if [students have] a thumb drive—and I don't know a kid that doesn't have one—they can plug it into the machine itself and scan their images" right into the device.

Marquette actively encourages scanning as a paper- and cost-saving measure. Explains Judzewicz: "It's another way

we say, 'You know, you might want to consider scanning instead of printing if you can, to save on paper.'"

### Linking to the Environment

Awareness of the environment is in the air at UVa-Wise, says Fowlkes, whose office is in the new data center and IT office complex, built to Leadership in Energy and Environmental Design (LEED) standards. That same awareness went into the decision to adopt a print management system that keeps students informed about the cost of everything they print. "We had to find a way to help students realize that it was not environmentally responsible to print stuff they didn't need," he explains, referring to both the pay-to-print policy and the fact that students can see a running balance on their print account. "We needed to help them understand that paper is a limited resource, and there is a cost that goes along with it." The result? "We saw an immediate 30 percent drop in paper usage on campus when we put in PrintLimit Pro."

Marquette stresses responsible use of printing resources as part of its "Think Green" initiative, tying saving paper to saving money for ecology/economy-minded students. Among the strategies recommended on the PrintWise web page, which pops up every time a student logs in, are:

- Duplex printing
- Using "Print Preview" before printing
- Using e-mail to send papers and assignments to faculty or using the Desire2Learn drop box
- Saving documents to a disk or USB flash drive to read on-screen or print out at home
- Scanning and e-mailing the document

Mercyhurst's Patterson thinks that students are primed to connect environmental concerns with printer use, and that using print management systems wisely is an easy step for students to take. "They're really very conscious of the greener aspects of the expectations of society," he says. "They not only want to save money, but they're also looking at not wasting paper and printing jobs they don't really need." **CT**

*Barbara Ravage is a freelance writer and editor who lives on Cape Cod, MA.*

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