



Report on the Status of Printing
Print Management Task Force
February 2009

The Print Management Task Force was commissioned by the Student Technology Fee Committee at its November 6, 2008 meeting and convened under the auspices of the Doctoral Students' Council (DSC). This ad-hoc group, consisting of student members of the Student Technology Fee Committee, DSC representatives, and other graduate students, met to evaluate the status of print management at the Graduate Center and make prioritized recommendations for improvement. A draft of this report was presented for discussion at the December 12, 2008 general meeting of the DSC.

Background

Print management continues to be a widely held concern at the Graduate Center. Though the current system offers recognizable benefits (e.g., unlimited printing, duplex printing), it also produces excessive waste that increases both cost and environmental imprint. This situation is caused primarily by duplicate print requests for the same document. Users make these requests for several reasons, including

- inability to verify that print jobs have been sent to working machines,
- trouble locating documents that have successfully printed, and
- long spooling times that make print status ambiguous.

Since the creation of a print room on the Concourse level of the Library and the purchase of additional Konica Minolta multifunction machines, the situation has improved. However, software limitations prevent Mac users from duplex printing (which saves paper resources), and spooling times have increased. We recommend hardware, software, and staffing improvements to address these ongoing issues.

Recommendations

Ideally, recommendations A–E below would be pursued simultaneously to address printing issues in the short term. Recommendations F and G reflect long-term options that merit further investigation. Finally, recommendations H–J apply to any future print systems at the Graduate Center.

(A) *Install print release stations on the Concourse and 2nd Floor of the Library.* Print release stations help address the first two issues above by requiring users to manually confirm print requests at the location of the printer itself. Confusion about whether a document has printed and where it has printed are eliminated, since users know they have released their print job to a specific machine or set of machines. In addition, the need to personally release a large print job decreases the likelihood that users will print unnecessarily and gratuitously.

(B) *Purchase Konica Minolta high-volume printers with automatic collator attachments to replace several multifunction machines.* The present machines are not designed for high-volume printing. Purchasing more appropriate hardware (and optimized drivers) would help to address the third issue of long spooling times. In addition, large collators would help eliminate confusion over where different print jobs end, thereby reducing lost pages and duplicate requests.

(C) *Increase the number of machines on 2nd Floor of Library.* In addition to purchasing more efficient machines, additional machines should be purchased for the second floor, which contains a high computer-to-printer ratio at present.

(D) *Install software that more intuitively tracks print jobs.* At present, there is virtually no way to tell whether a specific machine is working. Thus, users send duplicate jobs to multiple machines, hoping that one of them will print successfully. More informative software, in conjunction with print release stations, would ensure that users feel confident about the status of machines and the likelihood that their jobs will print.

(E) *Change default settings to duplex printing, including on Mac machines.* To help reduce waste, duplex printing should be set as the default on all machines. Users wishing to override this setting should be able to through an options dialogue. This setting should be thoroughly announced to students, preferably through a dialogue box and certainly through signage around the printers and workstations.

(F) *Activate a roving print system.* In conjunction with clustered release print stations, a roving system within each cluster would help make printing faster. Without a release station, however, it becomes hard for users to know which machine their document has been sent to. Thus, a roving system should be planned carefully, and only in conjunction with options such as (A) and (D) that eliminate uncertainty over which machine a print job has been sent to.

(G) *Dedicate IT staff to end-user printing.* An IT staff member should be dedicated to end-user printing, including troubleshooting print jobs (for example, in a print release system) and monitoring machine and supply status.

(H) *Avoid print quotas.* Current levels of Student Technology Fee funding permit supply budgets at or well above their present rates. Thus, there is no economic reason to institute print quotas. Though quotas would address issues of misuse and waste, serious research should first be conducted to demonstrate that print quotas would significantly improve these factors. Student representatives on the Student Technology Fee Committee and the Doctoral Students' Council should also be consulted before any measures are seriously considered. Moreover, it is important to note that print quotas would do little to address the three concerns above, which are the chief problems of print management at present.

(I) *Avoid cover pages.* Cover pages increase waste by adding one sheet to every print job, even single-page documents. Since they look virtually identical, they do little to help users identify their own jobs, and other options, such as the collators discussed in (B) above, are more efficient. Moreover, cover pages do little to address the first and third issues above.

(J) *Avoid running headers.* Printing running headers on each page poses a problem for professional documents, such as cover letters, grant applications, and dissertation chapters, that must conform with certain conventional formatting standards. Running headers do little to address the first and third issues above.

Additional Recommendations

In addition to print management issues, the task force has addressed two peripheral needs in the Library concerning document imaging. Many students rely on imaging services for their teaching assignments, and the current scanning abilities on the Concourse Level are insufficient for high speed, automatic feed, and duplex scanning. In addition, though microform imaging is possible, connectivity issues make it inconvenient.

To enhance document-imaging capabilities, the task force makes the following recommendations:

- (1) Enable scanning on some of the KM multifunction machines used as copiers on 1st and 2nd Floors of Library. Options for enabling scanning (in order of preference)
 - (a) users input an email address that the scan is sent to
 - (b) scans sent to local computer and emailed or saved to flash drive
 - (c) scans stored in a general network location for retrieval; improvements must be made in the file naming structure and documents must be deleted regularly for privacy reasons.
- (2) Use Ethernet/WiFi connections in Library to allow emailing of images from microform readers.