Attached you will find a position paper on the ePRINTit system which was deployed in Fall 2013. The De Anza Equity Action Council is under the understanding that the Steering Committee has been reconvened and student satisfaction surveys will be conducted among two groups of students at some point in the near future. A review of the project website (<http://ets.fhda.edu/idcardproject>) outlines the critical success factors for this project and as the position paper details, the ePRINTit system falls short of expectations even after three-terms of service.

Since the failings of the system are affecting with greatest severity those with the least resources, the following position paper is intended as a vehicle to not only call attention to weaknesses of the system, but also to urge that the steering committee include the voices of staff, faculty, and students who can realistically scrutinize the system from end-user perspectives. A student survey is one potential vehicle for feedback; focus groups or forums are also quite useful in having a full understanding of the context for ongoing dissatisfaction and concern. Both processes are critical components to fully understand the repercussions of this implementation.

We look forward to working together with you to determine solutions that will reduce barriers to student enrollment and student success and have a minimal impact on staff and faculty time.

The Equity Action Committee has taken an interest in the E-Print It system, as the students to whom a campus printing system is of greatest importance are those who do not have their own computers and printers and thus a campus printing system cannot fail to impact issues of access and equity. The following is information largely garnered from a survey targeting those staff and faculty members, namely Computer Lab West support staff, and Reference librarians and library support staff who help students with the top three most used E-Print stations at De Anza College- ground floor LC station and basement level LCW stations- asking them to grade that system and give an explanation of each grade. Please refer to the “E-print Stats Clarified” document for details on the exact data collected from 8 surveys of Computer Lab West and Reference library staff who completely answered the survey.

Cost to students and payment process

The $5 minimum balance coupled with the near necessity of having a debit or credit card prevents use for some of our students. In many cases, students don’t have either type of card and must go through the bookstore to add more to their account: but this service is only available when one of two people is there and unoccupied. A Library Technician mentioned that in one case, a student who had a card connected to an account couldn’t use the card despite the technician verifying that a balance existed, but further mentioned that their balance was only $50 dollars, so even if the function had worked, that $5 minimum was a tenth of the student’s savings. The increase in cost per page from 10 cents for the previous system to 15 cents also seems excessive, as we are not a for-profit entity, and 15 cents per page is what FedEx charges for the same service.

Presence of desired functions

There is a direct unavailability of function for the system-

* Does not support printing from password protected documents
* Cannot print portions of documents sent from computers except Lab and Reference Desk computers in LC or LCW; as the drivers to allow this are specialized, any students sending documents from laptops or computers outside of LC or LCW would have to either print the entirety at higher cost, or first create another version of the document with only the parts to be printed.
* Only supports the following file types: PDF, DOC(x), XLS(x), PPT(x), RTF, TXT, XPS and JPG according to their documentation: <http://fhdafiles.fhda.edu/downloads/etsfhda/ePRINTitInstructionsforStude.pdf>

As a result, non-Windows file types, as well as open source (meaning free) software file types need conversion before printing is possible.

* Refund process is inconvenient
* Password change function is not obvious, leading to less secure funds

- but also an indirect unavailability of function, in that when staff and faculty members are spending more time as adjuncts to a printing system or explaining the limitations of the system, they are not providing their normal services. Librarians at the Reference Desk, who normally spend the bulk of their time finding materials, giving advice on research techniques, or working on collection development, now spend much of their Reference shifts helping confused and frustrated students print documents. Technicians in the Computer Lab West have likewise had less time for their other duties due to the need to troubleshoot.

For reference: DAC Library use statistics show that services are used at higher rates by targeted populations, and more broadly, statistics have shown that libraries tend to be utilized to a greater extent by poorer populations, which makes a decrease in access to those services an equity issue as well.

Reliability

E-Print is not particularly reliable:

* Shuts down unpredictably and reboots, often in the midst of lines
* Sometimes cycles without apparent progress while rebooting
* Occasionally things sent do not arrive, or arrive hours later
* Occasionally the system will charge the user’s account and fail to print

When the stated strength of a system is that you can print from any computer connected to the internet, the fact that it does not do so dependably is devastating: especially so, when students upload files to print from off campus computers, confidently expecting their files to await them. A number of these students come to campus and find their files did not arrive, and their frustration increases if they do not have a thumb drive or email backup. Even when printing from a computer in the lab, students often find that despite having followed every step correctly, they are unable to print. In such cases, library staff and computer lab technicians often end up allowing students to print from staff printers, which incurs hidden, unmeasured material costs for the division/college/district. This outcome also goes against the original purpose for using E-Print, which was to transfer costs and labor of student printing efficiently, effectively, and affordably onto students. If the students end up needing to print from a computer to a staff printer because of the sheer necessity of working around E-Print, it makes a mockery of the entire concept.

Speed of use

The interface has a large number of steps, resulting in greater wait times even for a one page document with everything as simple as possible, money already in the account and everything working. When the time scales up for large documents, for patrons not familiar with the system, for when system is having issues, we have a situation where it is inevitable that some patrons will have to leave or lose patience before they get their documents.

Interface and ease of use

The interface relies completely on vision, and the nature of the system makes use by proxy unsecure for blind students. The interface has multiple extraneous options within menus which serve to confuse patrons and slow the process of printing. The unintuitive nature of the program and dearth of instructions causes problems, and when errors occur, the error messages are unclear as to exact nature and cause of those errors, which complicates troubleshooting. As a matter of placement rather than electronic interface, the height the stations are placed at makes use impossible by students in most wheelchairs.

Student experience

Usage statistics between the previous system and E-Print It indicate that students have noticed these issues: the E-Print It system, despite its debut in the busiest quarter, has a showing of 290,085 pages between Fall and Winter, whereas the statistics to which we have access show the GoPrint system had a low of 332,043 and a high of 377,935 for half year periods-which number is arrived at by taken the yearly output and dividing by 2- skewing the GoPrint number downward with the low Summer quarter numbers.

While it will take more time to survey the students directly, faculty and staff report that students are upset and frustrated with E-Print, that interactions surrounding the system are more negative than positive, that many students give up on it and walk away without their homework printed. The specific student complaints mentioned are that E-Print is too complicated and time-consuming, and that students have asked why we adopted this system and if we are planning to move back to the previous system.

Students, including a DASB Senator, spoke at the March 10, 2014 De Anza Academic Senate’s special meeting on printing solutions, also testified on the problems with E-Print, including how it widens student equity gaps between students who have printers at home and students who do not. De Anza Senior Staff were present at this meeting and heard these concerns. As one of the respondents noted, this is both a financial and digital divide- those who need on campus printing the most are paying more to get it, and those who have had the least opportunity to learn their way around interfaces are suddenly spending an excessive amount of time dealing with an inefficient one.

Conclusion

The above responses- from the Reference area of the Library, and from the Computer Lab West, two of the highest printing volume areas in the district- would be merely critiques of a piece of software if not for the impact on students, especially those students who have the least resources to fall back on when our system does not work. The students who have meltdowns and start yelling and the students who break into tears are in the minority, but how many more can’t use the system due to being unable to afford the price or the time or both? How many give up on it after sending files which never arrive, or who can’t send files because the system can’t access the file format? How many are frustrated to the point of giving up on a grade, if instead of a paper they spent hours on, they are bringing their instructor the tale of the nonfunctioning print system? How many simply assume that their instructors will simply take it as the next iteration of “the dog ate my homework” and not even bother mentioning it?

The previous printing system certainly had its faults, and so the intent is not to privilege it over other alternatives, but E-Print was given on average less than half the grade of the previous system, 31% of the possible points compared to 67%. Some of that is likely a rose-colored glasses effect for the old system, and some is likely teething troubles for the new, but even taking those possibilities into consideration this seems to indicate that moving to E-Print was a huge step backwards and that E-Print is not meeting our students’ printing needs.