

Committee on Graduate Admissions Report June 21, 2012

This is the first report by the Committee on Graduate Admissions reviewing the transition to the EECS graduate admissions system.

Summary

The graduate programs utilizing the EECS system have been overwhelmingly positive about their experiences. Programs report savings in time and cost for their admissions process arising from their adoption of the EECS system. The primary recommendations made are to (a) improve oversight of application customization for all graduate programs (i.e. not just the programs using the EECS system) to ensure the legality of questions asked of applicants, (b) develop and implement a plan to improve the interface to MIT enterprise systems that currently occurs through Grade20, (c) incentivize the sustainment of the informal graduate administrators users group to help new and previous adopters learn the system including the development of a Wiki (or similar) help resource, and (d) improve the user interface to the system in particular targeting the needs of the graduate administrators.

Utilization Data

The programs utilizing the EECS system for the September 2012 admissions cycle and the number of applications handled are provided in Table 1. The EECS (6), Aero-Astro (16), Mathematics (18), and CDO programs have been using the system previously while the rest of the programs are new users. The total number of applications processed was 9,252 of which 1,185 were admitted (13% overall admissions rate).

Department	Total	Admitted
1	619	147
2	1263	243
5	650	111
6	2966	195
7	621	86
7MBD	77	8
8	745	35
9	458	30
10	511	71
16	507	108
18	464	58
ESD	309	75
CDO	72	18
Total	9252	1185

Table 1: Application data for programs using EECS system for Fall 2012 admissions

CGA review process

The CGA administered a survey to the graduate programs that utilized the EECS system for Fall 2012 admissions. The survey questions are provided in an appendix. In addition, members of the CGA held a separate brainstorming session with the staff that administer the admissions for these programs. Input was also sought from Frans Kaashoek and Robert Morris and from Marilyn Smith and Eamon Kearns. Two meetings of the CGA were held to synthesize these inputs.

Improvements to admissions process

The EECS system has had the impact one would imagine, specifically, reducing manual labor, streamlining the review process, eliminating most usage of paper and photocopying, etc. The streamlined process also resulted in some programs being able to make admissions decisions earlier than in previous cycles.

All programs report significant savings in time in moving to the EECS system. The result is a cost savings that occurred either through elimination of significant overtime or not hiring temporary support staff during the admissions cycle. Multiple programs estimate these savings to be several thousand dollars, which is probably a safe lower bound on the savings being realized by the individual programs. Some of the quotes taken from the survey are:

- *“Very significant savings in time. The admissions process can now be completed about 3 weeks earlier than before, especially for international applications.”*
- *“We no longer need to hire a seasonal admissions assistant, which used to be the case when we relied on a paper process. That's a savings of between \$5K-\$8K I would guess. We also save at least a few hundred dollars on office supplies and copy paper.”*
- *“We didn't hire a temp to help with processing which saved us several thousand dollars.”*
- *“Savings, yes, in terms of both time and money in that I did not need to do any overtime at all during what would normally have been a hectic time of the year (Jan-Mar).”*
- *“I can take time off at Christmas now without feeling guilty, so that's amazing! It has improved things 100%. Instead of shuffling paper or dealing with systems that were constantly breaking (ahem, College Net) I can add value by communicating with applicants and processing their applications in a more in depth manner. It is remarkably efficient.”*
- *“The work flow was very even, and incredibly streamlined. The vast reduction of paper was a plus for record keeping.”*
- *“Almost no emails from applicants or recommenders experiencing problems - used to get MANY from people using CollegeNet. Less troubleshooting, much less manual processing - no paper files, collating records, much less data input.”*
- *“Less than half the time and effort required to process the admissions cycle. Far less problem-solving required with this system.”*

Primary themes and recommendations

The following are the major themes and recommendations that arose during the CGA review of the transition to the EECS system.

Oversight of application customizations: Given the largely decentralized nature of graduate admissions, Institute oversight of the process is lacking. While decentralized admissions is clearly required due to the independence of the graduate programs, one concern is the legality of information requested on the application. This lack of oversight was an issue prior to the transitioning to the EECS system, but has probably worsened. Specifically, in the past for programs using CollegeNet, any requests for changes/additions to the applications would go through the Admissions Office, who would then coordinate with MIT lawyers. This type of oversight needs to be established, and in fact is probably needed for those programs not using the EECS system. Given all programs may not adopt the EECS system and that the CGA is an *ad hoc* committee, the CGA may not be the correct oversight body.

Recommendation: ODGE should establish a (nimble) process for oversight of application customization for the purposes of ensuring legality of any information requested of applicants. This process needs to be applied to all programs (i.e. not just those adopting the EECS system).

Challenges interfacing with other MIT systems: Consistent concerns were described with the need for manual labor resulting from the Grade20 MITSIS interface. At this point, the most significant lack of automation for those programs using the EECS system appears to be Grade20. Some specific issues and/or suggestions include:

- Admissions decisions cannot currently be uploaded automatically into Grade20 and must be entered manually.
- If an applicant has an MIT email address (e.g. from a previous time at MIT), all other email addresses are overridden in MITSIS.
- Many problems were reported with the matching of GRE scores to applicants resulting in more than half of the applicants requiring manual entry of GRE scores. Direct uploading from ETS into the EECS system would be a significant benefit.
- Some graduate administrators requested that additional program-specific data be transferred into Grade20 so that it could then be extracted for program-specific uses later (and avoid having to construct program-specific databases drawing from both the EECS system and Grade20).

The challenges with Grade20 and, more generally, interacting with existing MIT enterprise systems were previously recognized by the Task Force on Graduate Admissions.

Recommendation: The issues surrounding interacting with MIT enterprise systems, in particular via Grade20, need to be addressed as they are a limiting factor on the overall automation of the EECS-based graduate admissions system. Given the numerous complaints with respect to Grade20, we recommend determining if the needed functionality is best accomplished through a potentially modified Grade20, or if alternatively a different process would be more effective. Specifically, we recommend the Institute develop and implement a plan to improve the interface to MIT enterprise systems that currently occurs through Grade20.

Learning the EECS system: No major problems were reported in learning the EECS system for either staff or faculty. The available resources used to learn the system were: direct assistance from Professors Frans Kaashoek and Robert Morris, informal interaction with administrators that had been using the EECS system previously, and some limited but useful online documentation. Professors Kaashoek and Morris were uniformly praised for their responsiveness. The informal group of administrators, in particular incorporating experienced users, was highly valued.

During the discussion with the graduate administrators, the idea was proposed to develop a Wiki page for graduate administrators and maintained by graduate administrators as a potentially effective resource without burdening the implementation team (though that team could contribute to it). In a separate discussion, Professors Kaashoek and Morris proposed recruiting last year's administrators to answer questions by actively using a user mailing list.

Recommendation: Professors Kaashoek and Morris should be recognized for the contributions they have made towards improving graduate admissions at MIT.

Recommendation: ODGE should support the sustainment of the informal graduate administrator users group and incentivize the development of a graduate administrators Wiki page and email list or similar discussion mechanism.

Improving the user interface: The user interface is, by design, minimalistic and oriented toward a user with some computer science/programming experience. For reviewers, because the functionality needed to perform a review is limited and because the reviewers tend to be faculty that are often reasonably proficient computer users, the current interface is probably acceptable. However, for the administrative staff, who have more complex needs (for sorting, searching, reporting, extracting, etc) and who may not have the relevant computer experience, the interface can be improved. The following is a list of recommendations for improving the user interface, specifically with administrative functions in mind:

Recommendation: The search capability is highly flexible but requires some reasonable understanding of computer programming logic to take full advantage of power. Some possibilities for improvement might be:

- a) Ability to label and save searches (this was a high priority suggestion)
- b) Some manner to look-up field names that can be searched. Related question: is it possible to search by citizenship?
- c) A search interface with drop down menus to select: fields to be searched; EQUALS/CONTAINS/ETC conditional statements; and AND/OR logic operations to combine conditionals. Note: it would be useful to implement this interface while still maintaining the current string-input search capability)

Recommendation: Tagging is a very useful feature. The following modifications would improve this capability:

- a) Creation of an administrative tag that only chairs can modify (high priority)
- b) Check boxes (defined and only set by chairs) would be easier for many uses of tagging

Recommendation: While reports can be generated (specifically, extracting information from the system in the form of a spreadsheet), the ability to customize a report is lacking. At present, report customization is done through Professors Kaashoek and Morris (or is not well documented if other options exists). Some combination of expanded capability and better documentation for reporting would be useful.

Recommendation: ODGE should consider supporting a person with webpage experience that could implement these types of changes to the interface (in collaboration with Professors Kaashoek and Morris).

Robustness to staffing: Members of the CGA and as well various graduate administrators expressed the concern that the EECS system could be significantly impacted if Professors Kaashoek and Morris were to suddenly stop their involvement. In discussions with Marilyn Smith and Eamon Kearns of IS&T, both expressed that, while this is a concern, in their experience the same level of staffing is common in many of potential vendors for similar software including internal IS&T efforts. For example, while CollegeNet has the impression of providing increased robustness (and service) being a company, MIT's experience has been that CollegeNet in fact has only one or two programmers to respond to needs. And, often, those programmers change from year-to-year. Similarly, IS&T staffing for most programming projects is typically only at the level of one or two people. Finally, IS&T expressed their comfort with the current staffing and recognized the potential that they could be called on to play a larger role in the development or maintenance of the admissions system. Given the demonstrated ability of Professors Kaashoek and Morris to deliver a high quality of service, now over a significant number of programs, we do not recommend any changes to address this risk; however, it is suggested that this issue be revisited for subsequent CGA reports.

Plan for future CGA activities

Per the charge to the CGA, we plan to develop a report to be issued no later than the end of the Fall semester. The primary focus of this report will be to review the progress on the primary recommendations and the additional suggestions (given below).

Additional Suggestions

Beyond the primary recommendations, the following suggestions are made for potential improvements in the EECS admissions system. These suggestions are in an approximate order of priority:

1. Non-chairs can currently change their status to be chairs, and therefore gain full access privileges. This should not be allowed.
2. Multiple school/country codes can exist for the same school/country. Also, different codes exist for the same country for birth and citizenship. Utilizing some kind of input system that limits the possibility of this occurring would be a significant improvement (and likely help with some of the Grade20 interface problems).
3. Some programs would like the ability for applicants to see a more thorough status of their application. For example, applicants cannot see if their official transcript is in; applicants cannot see if payment has been received; etc. Based on discussions with graduate administrators, different programs would desire different amounts of visibility so some amount of customization will be necessary.
4. Receipts are frequently requested by applicants and the ability to auto-generate them within the EECS system would be beneficial.
5. Reply forms from applicants (i.e. to accept an offer of admission) should be electronic only (currently the Admissions Office receives many paper/faxed reply forms and then sends them to the respective graduate programs).
6. Change the term "zip code" to "postal code". "zip" code has caused confusion with some international applicants.
7. Applicants to programs with multiple sub-programs can select the wrong sub-program. It would be useful for administrators to be able to switch the sub-program indicator to place the student in the correctly.
8. Text input does not maintain its formatting (i.e. line breaks, indentation, etc). This can cause problems for example in faculty application reviews, statements, etc. Maintenance of text formatting would be useful.
9. More detailed sub-group of ethnicity is apparently not showing in reports.
10. If an applicant is an international student, some fields should be blocked out by default (e.g. URM, disadvantage status, SSN).
11. Re-activation of applications from a previous year would be useful.

Appendix

CGA Charge and Membership

Charge: The CGA will serve as the primary Institute body for review and oversight of the graduate admissions transition to the EECS platform. The CGA will periodically review, discuss and provide feedback and recommendations to the project team on the all-electronic graduate admissions system including, for example; individual graduate program transitions, customization, maintenance, enhancements, integration with Institute enterprise systems, and student information privacy considerations (in consultation with relevant committees such as the Committee on Student Information Policy).

Process: The CGA will coordinate meetings between transitioned departments to exchange information on the transition and also will carry out research by interviewing the transitioned departments individually.

Membership:

Vivek Bald (Writing and Digital Media)

David L. Darmofal (CGA Chair; Aeronautics and Astronautics)

Xavier de Souza Briggs (Urban Studies and Planning)

Leslie A. Kolodziejski (Graduate Officer, Electrical Engineering and Computer Science)

Sumeet Kumar (Graduate Student Representative, Mechanical Engineering)

Suzanne Maguire (Academic Administrator, Chemical Engineering)

Bjorn Poonen (Graduate Officer, Mathematics)

Emily Sheldon (Admissions Office, Office for the Dean for Undergraduate Education)

Staff to the Committee: Clarice Aiello (Graduate Student, Nuclear Science and Engineering)

Appendix
Survey of Graduate Administrators and Officers

1. What admissions platform and processes were you using prior to the transition to the EECS system?
2. How many applications did the EECS system process this cycle for your graduate program?
3. Please comment on the training process and documentation, and any recommendations for future development for training purposes.
4. Describe the improvements you have observed in your graduate admissions process due to the transition to the EECS system
5. Have you realized any savings in cost and/or time in your graduate admissions process due to the use of the EECS system? If you can estimate any of these savings, please provide this information.
6. Describe any challenges you have faced with the new EECS system.
7. Describe any challenges you have faced with the interface with central enterprise systems (e.g. Grade20)
8. How have your faculty adjusted to the use of the EECS system?
9. Provide any additional comments and suggestions.