Developing Staff Development through Technology (A Roadmap to staffX)

Team Members:
Catherine Canney
Glen Comiso
John Donnelly
Jay Perault
Patricia O’Riordan

December 13, 2012
# TABLE OF CONTENTS

1 EXECUTIVE SUMMARY ................................................................................................................. 1
   1.1 INTRODUCTION ...................................................................................................................... 1
   1.2 ESTABLISHING A VISION: STAFFX ........................................................................................ 1
   1.3 WORKING TOWARDS THAT VISION ......................................................................................... 2
   1.4 STEP ONE: PAUSE .................................................................................................................. 2

2 STEP TWO: ASSESS .......................................................................................................................... 2
   2.1 INTERNAL INVENTORY ............................................................................................................ 3
   2.2 EXTERNAL BEST PRACTICES ................................................................................................. 5

3 STEP THREE: ALIGN ...................................................................................................................... 7
   3.1 VISION .................................................................................................................................. 7

4 STEP FOUR: DEVELOPMENT ......................................................................................................... 8
   4.1 TECHNOLOGIES .................................................................................................................... 8
   4.2 WEB PORTAL ........................................................................................................................ 8
   4.3 VIDEOS ................................................................................................................................. 9
   4.4 BLENDED LEARNING .......................................................................................................... 9
   4.5 SOCIAL COMMUNITIES ...................................................................................................... 10

5 STEP FIVE: EXPERIMENTATION AND LAUNCH .................................................................... 11

6 CONCLUSION .............................................................................................................................. 11
1 EXECUTIVE SUMMARY

1.1 Introduction

Our initial challenge, how to develop staff training and development through technology, was quite broad. Exploring how to shape that challenge into a reasonable project required an iterative process of assessment, alignment, refinement, and testing. As we met with leaders across the Institute and learned more about best practices in on-line learning, we continued to better understand the complexity of our challenge. More important, we discovered how many great minds were already working in this area. Through that period, our goal remained the same—to deliver a report that has a meaningful impact in furthering the cross Institute discussion on how to mobilize on-line technology towards the betterment of MIT staff development.

The following report outlines a process rather than a solution. Our early assumption was that in December 2012 we would be presenting a technology enabled platform for training and development. However, as we moved through the last six months, we determined that

- There are a tremendous number of great minds working on issues of training, development, and on-line platforms.
- People are exploring questions about training and development from a role-based perspective, the perspective of the educator, a technological perspective, etc.
- This exploration is happening in a larger context with initiatives and products like ELANA, the EVP teams, and the Enterprise Learning System.
- Most important, Training and Development is just one interrelated part of a larger topic: the MIT employee experience.

Summarily, our group feels that the Institute may be at a point of inflection with regard to technology and employee engagement. Our research suggested that not everyone is working under a set of shared understandings, expectations, and desired outcomes. As such, the following report outlines a process meant to drive consensus on vision, enhance coordination across the various parties, and result in the development of a robust product that, through an inclusive process, meets the needs to MIT’s staff learners.

1.2 Establishing a Vision: StaffX

Regarding vision and eventual product, the climate at MIT and the commitment of a significant cohort of talented staff suggest that we may be well ready for pushing the boundaries of conventional staff education models. By developing an on-line platform that (1) guides employees through their time at the Institute, and (2) focuses on the integrated nature of on-boarding, training, development, information sharing, skill building, networking, mentoring, and more, we feel that MIT is positioned to follow the innovation of MITx and edX with a product that could be termed staffX. staffX would be the embodiment of our vision for staff training and development which is:
Empower MIT staff with a personalized, integrated experience for training and development that leverages technology, engages and motivates, and provides opportunities for the advancement of the Institute and the individuals who serve it.

1.3 Working Towards that Vision

This report outlines our proposed process, or roadmap, for determining how to best use technology to enhance staff training and development. The following sections offer initial thoughts and research for the five core components of the process (illustrated below).

1.4 Step one: PAUSE

If united under a set of shared understandings, the collective enthusiasm and energy directed towards employee engagement (and more specifically enhanced training and development) could bolster the Institute’s staff, and establish MIT as a leader in developing, supporting, and retaining staff. To capitalize on this opportunity, it is critical to create space and time for consensus building, organizational buy-in, internal infrastructure building, research, etc.

Our recommendation is that at all levels of the organization pause and consider:

- What is it that we are all trying to do?
- Is there a shared vision for the employee experience?
- Do we have an integrated definition of employee learning that takes into account: training, development, on-boarding, mentorship, etc…
- Do we have enough information about the employee learners?
- How should technological tools facilitate this work?
- Do we have the appropriate commitment for investment of time and financial resources?

2 Step two: ASSESS

Our initial thought on how to approach this project was to focus on a single cohort group. We chose the Administrative Officers (AO) as we believed their training and development needs would be a good representation of what tools would work well across the Institute.
Prior to conducting our research, we made early assumptions about the tools AOs would benefit from. Many of these assumptions turned out not to be invalid and this experience supported the evolution our overall proposal. For example, we assumed that part of the solution would involve social networking. We thought that one of the available social networking tools could be used to develop a site that AO’s could use it to communicate and bounce ideas off each other and would be welcomed by the AO’s. This turned out not to be the case as most the Administrative Officers to whom we spoke preferred personal networking and face-to-face interactions as well as questioned it for confidentiality reasons. We had rushed to product before doing a thoughtful assessment of what practices exist and what the learners needed. This led us to the conclusion that the first step in any project of this scale and scope must be assessment.

The key actions coming out of the assessment phase are (1) definition of the goals for staff training and development at the Institute and (2) development of learner profiles. Setting goals for the effort, will help ensure that the many talented individuals already involved in the numerous activities going on in this area are all working towards the common vision. Developing learner profiles will enable better planning of courses in a learner-centered way with a delivery format that suits the individual preferences of the learner.

Also critical to assessment is the creation of an inventory of current work being done at the Institute, as well as best practices at other universities and corporations.

2.1 Internal Inventory

We have indentified some of those efforts below; however know that is not a comprehensive list. Internal to MIT, amongst others, we have Enterprise Learning, the Training Alignment Team, Lynda.com and the Training Partners. There are also several EVPT teams focused on some element of training and development (Learning Experience, On-boarding Experience, Hiring Experience, Talent Management and the Elana Project). It is important to note that a lot of what we are recommending, particularly under the assess and alignment phases, seems to be happening already at the Institute. Listed below are some of the current activities going on in the training and development space at the Institute.

TAT – Training Alignment Team

The Training Alignment Team (TAT) is a collaborative and cross-functional group that formed in the summer of 2004 to develop and implement strategies that result in effective and efficient training and development of MIT staff. The Training Alignment Team's overall purpose is to align and enable Institute-wide training initiatives for world-class work. Members of TAT represent departments on-campus who provide Institute-wide, work-related training activities (EHS, HR, IS&T, OSP, and VPF).

The Training Alignment Team sponsored a 2006 survey that tried to determine what methods MIT employees preferred when they received training. In that survey, “classroom training with instructor” was chosen as “most effective for learning,” and was rated highest overall - 30% higher than the next highest rated method. “Classroom training with
instructor” was also rated highest on three of the four subject areas. The report showed that respondents believe they can learn effectively with all seven training delivery methods surveyed. Part of developing the learner profiles will help identify if that is still the case or has the introduction of blended learning programs, more online courses, more interaction with social media, etc., changed those preferences.

**Enterprise Learning**
The Enterprise Learning project is part of the SAP platform and is used for registering, delivering, and tracking training courses for employees. While the original focus was on compliance training, the platform has expanded to other areas of the Institute with delivery of electronic medium courses and materials. The system is centrally managed and maintained, and the project that led to its development was sponsored by the Training Alignment Team.

**Lynda.com**
The Institute offers online courses to employees via Lynda.com. At lynda.mit.edu, the MIT community can access lynda.com’s catalog of courses. Online training from lynda.com is provided free of charge by IS&T to MIT students, faculty, and staff. Each course is taught by an industry expert and consists of multiple short videos which can be watched and replayed at any time. Each MIT student, faculty, and staff can have his or her own individual profile on lynda.com. Arriving at the home page, you will be greeted by name. From the new My Training menu option, you can:

1. View your lynda.com history at the course and module level;
2. Create bookmarks for courses and modules of interest
3. Receive, print, and email a Certificate of Completion for any course you have viewed in its entirety.

**Massive Open Online Courses (MOOCs)**
While we were doing our project, MIT’s venture into online education was announced (first with MITx and then with edX). One only has to read President Reif’s inaugural speech to understand what an important time we find ourselves in at this moment in history. Nobody knows how the future of higher education will change, but however it changes, it is sure to be profound. Along with edX, Coursera, a for-profit company, was founded by a couple of Stanford University professors. Udacity is another player - a private educational organization with the stated goal of democratizing education.

**School of Engineering**
The School of Engineering launched an initiative about a year ago that encourages MIT Engineering students to develop videos on basic science and engineering concepts. The videos are aimed at younger students, in grades from kindergarten through high school and are available on You Tube as well as MIT’s website. The videos are short (~5 minutes). Students check out equipment and a post doc reviews every video for accuracy.

---

1 See article on online learning initiatives at: [http://nation.time.com/2012/10/18/college-is-dead-long-live-college/](http://nation.time.com/2012/10/18/college-is-dead-long-live-college/) .
Training Partners
This is an Institute-wide network of employees who do training at MIT. It is sponsored by the Training Alignment Team, TAT.

Employee Experience Teams
Under the project name of Elana, there are multiple teams formed by the EVPT, Israel Ruiz, doing assessments of not only training and development needs, but also all the elements that are involved with an employee's experience – from hiring, to on-boarding, to learning, to performance reviews. The Elana Project is about creating a person-centric experience for employees and the MIT community. The finished project will be a system that will serve as a "one-stop-shop" that will connect people to the services and information that they need.

2.2 External Best Practices
In addition to all the internal relevant MIT training and development activities, our team did a scan of best practices with external organizations. Many of these highlighted utilizing innovations and technologies such as mobile devices, computer games, online learning interfaces, training portals. The examples below were a result of conversations with experts, web searches, literature searches, and recommendations from Training Magazine.

Higher education
Surveying other Ivy+ institutions, the team did not find any examples of systems more advanced than MIT’s current e-learning programs.

The most interesting relevant program discovered during this process is NYU’s iLearn system. NYU iLearn is an online training portal where NYU faculty and staff can register for in-person training or take online training courses. This web-based training system provides all NYU staff, administrators, and faculty 24 hour with access to view required or assigned training, register for classroom or online courses, complete online courses and view current training records. The following exhibit is a screen shot of the NYU iLearn portal.
Industry and non-profit examples

The team also investigated non-higher-ed models, and identified a few for further exploration:

An interesting government example is the US Office of Personnel Management Federal E-Training Environment Effort. The USOPM took a holistic approach to addressing their training needs and using technology in this space. They determined that there was a need to address inter-agency HR training issues, and created shared training services and consolidated systems across several agencies. The system they developed is user friendly and one-stop shop. Training was tied closely to development while incorporating state-of-the art technologies.

Google corporation took an approach for developing training for employees by employees. Google’s EngEDU is a unique engineering training group that provides training classes and orientation through career development, tutorial services and mentoring which are programs built by Google engineers. All employees are supposed to undergo training and development in leadership programs so as to equip them professionally in the future. The company has a huge blogging tool which every employee is encouraged to start his own. The TGIF meetings done on weekly basis assist the employees to preview the week and the coming week on what has been amended and what needs to be done. Google’s philosophy is a reflection of a whiteboard culture. Finally, Google utilizes its own tools used for training purposes – analytical tools, media tools, content sharing tools, etc.

The EMD Serono Virtual Preceptorship program is another example of utilizing advanced technologies for training purposes. In traditional preceptorships, sales professionals shadow a health-care provider for one day while they attend to patients, meet with their staff, attend grand rounds presentations, etc. It is difficult to ensure the consistency, quality, and transfer of knowledge gained on each individual preceptorship. EMD Serono developed the Multiple Sclerosis Virtual Preceptorship, an e-learning program that simulates a live preceptorship using realistic 3-D environments, engaging text, audio, video, animation, and interactive exercises. Some 200 sales professionals had the opportunity to complete this training in 2010.

Finally, the Sprint Nextel Corporation i-Comply program has established a robust compliance system for its employees. Sprint Nextel created a training compliance practice that educates employees on ethics, compliance, governance, and Sprint policies. An important component of this is their knowledge management portal on the corporate intranet that consolidated the content of 15 training courses, 10 Websites, and two manuals. Employees access policies, resources, compliance education, and annual certification by simply typing “icomply” in their intranet browser. The intent is to create a one-stop shop and educate employees about company policies in the environment where the policies are housed versus discussing the policies in separate documents or courses. The platform allows employees to access resources when the need arises, versus previous compliance training,
which used multiple, unrelated, and unconnected Websites, manuals, and courses. i-Comply implies ownership, setting an expectation for employees to be active consumers of training. Content is straightforward and actionable to help employees recognize the dos and don’ts and how to apply policies on the job through practice exercises. Learning components have included interactive puzzles, a graphic novel, a comic strip, a game show, a scenario-based video, a news show, a virtual superhero, a soap opera, a digital short, and podcasts employees can download to mobile devices. i-Comply learning is sometimes viral as employees talk and share e-mails about their favorite components. Since implementing i-Comply, compliance has increased from approximately 70 percent to 100 percent, while the time employees spend in compliance training has decreased by 60 percent—a cost savings of $6.3 million. Recent Sprint Employee Survey results indicate ethics training from i-Comply resonates with both front-line employees and management.

3 Step three: ALIGN

After the assessment of the current training and development environment both internal and external to the Institute, we recommend that an alignment behind a single vision occur. As part of the alignment process, we feel a “champion” for this effort should be named—a senior leader with the responsibility for the creation and follow-through of the vision, discussed below, and someone who has ultimate responsibility for the training and development of the Institute’s employees.

We also feel that a governance and reporting structure should be created. This will enable all teams involved with training and development effort gets connected to “champion” and the vision. As such, it is important to define these relationships and create dotted line relationships where possible.

3.1 Vision

Several of the training and development professionals we talked to said that the Institute lacked a unified vision—something people could refer to as they developed training and development programs for MIT employees. As part of the alignment phase, we recommend that a vision statement be created. Reiterated here is the suggested vision statement our project team developed:

*Empower MIT staff with a personalized, integrated experience for training and development that leverages technology, engages and motivates, and provides opportunities for the advancement of the Institute and the individuals who serve.*
4 Step four: DEVELOPMENT

During the development stage, the Institute must involve many constituencies across campus using a process that allows feedback. This process will help to identify a pilot group as a starting point. Various training delivery options should be explored in an effort to discover matches to the learner profiles. Some of these options will be discussed below.

We think much, if not all, of this work can be done internally using a process of experimentation and continuous feedback. We should also leverage recent innovations such as edX and MITx.

It will be critical to have a senior leader champion for this effort as discussed during the Align section.

4.1 Technologies

Currently there are many applications housed in numerous Departments, Labs, and Centers (DLCs) around campus. These applications serve specific training needs within the DLC. The number of technologies, servers, service agreements and hours spent maintaining the vast array of applications is staggering.

4.2 Web Portal

The creation of a “myMIT” web portal is recommended. This portal will serve as a connector to many aspects of an employee’s professional development, MIT related news, Yammer, links to commonly used internal applications as well as other learning and development tools that are provided by MIT.

The DLC or employee can modify this portal’s content and layout, although, the department charged with staffX would control certain portions. This allows development opportunities to be pushed to the employee’s “myMIT” page. An additional recommendation would be to remind employees of their performance management goals at certain points throughout the year. Below is a mockup of what “myMIT” portal may look like.
4.3 Videos

During our assessment stage, we found that many now turn to short videos to learn. The amazing success of the Khan Academy shows us we should provide more options for training at MIT. One of these options is the creation of short videos that can be created for staff by staff.

A few internal examples of these videos are:

- EHS Lab Safety Competition Video
- Chemlab Bootcamp
- MIT Video

4.4 Blended Learning

Blended learning allows people at MIT to learn in different ways. The material can be delivered via a lecture, a presentation, online, social media, games or many other creative ways. This blended approach engages the learner and allowing them to interact or provide feedback, further shaping our delivery method and content.

A July 2012 report titled “Blended Learning at MIT” created by MIT’s Jeff Pankin, John Roberts and Mike Savio they provided the following recommendations:

- Provide appropriate support for learners (time, technology, guidance)
- Develop clear learning and performance goals
- Make objective decisions based on the best learning outcomes (not cost, or prestige)
- Make collaborative decisions (across departments, from learner’s perspective)
- Obtain visible, enthusiastic management support
• Move basic skill development to eLearning and use the classroom for more advanced topics
• Choose low-hanging fruit, start slowly and build

4.5 Social Communities

We must bring people together to share and exchange information. These communities or virtual spaces allow professional development and create networks outside of our cohorts, a cross-functional social network. Brin.gy is a cutting edge technology that is being explored at the Media Lab.

**Brin.gy: What Brings Us Together**
Henry Holtzman, Andy Lippman and Polychronis Ypodimatopoulos

“We allow people to form dynamic groups focused on topics that emerge serendipitously during everyday life. They can be long-lived or flower for a short time. Examples include people interested in buying the same product, those with similar expertise, those in the same location, or any collection of such attributes. We call this the Human Discovery Protocol (HDP)...”

http://brin.gy/#apps

Once we create these virtual spaces, we must work to keep people there. Many applications see a dramatic spike when rolled out but then experience a steady fall-off as the application matures. An incentive system should be developed to drive people to staffX consistently. Barter is a cutting edge technology that was developed at the Media Lab.

**Barter: A Market-Incented Wisdom Exchange**
Dawei Shen, Marshall Van Alstyne and Andrew Lippman

“Creative and productive information interchange in organizations is often stymied by a perverse incentive setting among the members. We transform that competition into a positive exchange by using market principles. Specifically, we apply innovative market mechanisms to construct incentives while still encouraging pro-social behaviors. Barter includes means to enhance knowledge sharing, innovation creation, and productivity...”

http://barter.mit.edu/
5 Step five: EXPERIMENTATION AND LAUNCH

Experimentation and continuous feedback is an important aspect of the way the MIT community works - whether it be creating new technologies in the lab, creating new educational systems or developing processes to benefit the staff. Most recently, this is the approach used for developing the MITx technologies for online learning. This approach should also be integral part of the staffX development process.

Once prototypes are in place, our team recommends a rigorous testing and experimentation process to refine and test the hypotheses. While our team has proposed some ideas around video, portals and blended learning, a holistic approach should be used in testing. Depending on the comprehensiveness of the system, this process may take a few months to a year.

Our team recommends that a first step in testing is to identify a contained pilot group. We suggest the Administrative Officer group as a logical initial group due to the needs and opportunities we determined for this group during the discovery phase of this project. This group also has enough members for critical mass, and we believe they would be receptive to this approach.

Also, in parallel to this, a communications strategy should be developed and enacted to appropriate staff. We believe this is critical for awareness and buy-in.

Once traction starts to develop within the community, the next step is to officially launch technology over other entities within MIT – eventually including appropriate stakeholders from the full institute. While we have determined several possible solutions and opportunities, the key will be to finalize and then align with the ultimate vision – once that has been established, we will need to go through the rigorous steps of assessing, aligning, developing and experimenting.

6 Conclusion

At MIT we are immersed in a culture of innovation, entrepreneurship and most important, learning. The administrative staff of the Institute works tirelessly to empower the faculty and students, providing them the systems, the support, and the funding necessary to fulfill the Institute’s mission. This new administration has been vocal in its appreciation for the need to coordinate a similar kind of environment for staff. This support presents an amazing opportunity for those dedicated to training and development at the Institute.

Our L2L project taught us a great deal about the complexities of change at a large, decentralized organization. It also taught us a great deal about the opportunities presented by having a talented, committed staff. There is a great deal of energy and intelligence being thrown into on-line technology, training and development, and the staff experience, Coordinating that energy, centering it around a set of goals and an overarching vision, and providing this important work with a strong administrative champion will surely bring great benefit to the Institution. As important is taking full advantage of the the rich MIT culture, finding inspiration in innovations like MITx and edX, and staying true to principles of discovery—the importance of thorough research, analysis, experimentation, and measurement.