Training Infrastructure at MIT:
An L2L Project conducted for the Training Alignment Team

By: Tracy Purinton, Larry Gallagher, David Conrad, and Jim Bales
Sponsors: Jane White and John Armstrong

Executive Overview

Purpose and scope of this L2L Project
Our L2L project team was charged with supporting MIT’s training alignment team (TAT). Our sponsors were Jane White and John Armstrong. The goal of the TAT is to transform MIT into a place where:

- A well-trained workforce exemplifies MIT’s renowned administrative excellence in support of research and education
- MIT staff have the skills, knowledge and motivation to do world-class work
- People are clamoring to work at MIT in part because the Institute has a reputation for developing and growing people from within
- The training enterprise at MIT is seen as integrated, proactive and well-resourced

After some discussion, we agreed with our sponsors that the scope of our L2L project would include:

- Creating an inventory of the physical infrastructure used for training by the organizations within the TAT, analyzing its use, and
- Surveying the trainers in the organizations within the TAT to assess their understanding of how well this infrastructure works for them, to elicit their recommendations on its improvement, and to explore how these changes might enhance training at the Institute.

Conclusions
These conclusions are drawn from considering the transcripts of our interviews, our analysis of the room-use data from SAP, and our collective 50+ years of experience at MIT and other institutions.

- There is a significant gap between current conditions and TAT’s desired end state.
- There is an inconsistent look and feel to current training spaces and an inconsistent level of resources dedicated to the various training spaces on campus. TAT would benefit from some kind of consistent branding for training across the Institute.
- The peripheral location of current training locations sends a negative message to the community about MIT’s commitment to training.
- We are getting some mixed messages from the trainers group -- nostalgia for W89 on the one hand, and not wanting to change on the other. A hybrid approach appears promising.
- Achieving the TAT vision will require investing in space and infrastructure, including dedicated staffing.
- Creating an active, inviting, cluster of training rooms in a centralized location would be a strong step towards achieving the TAT’s vision.
Process
Jane White collected the data on room use that was available through SAP for Fiscal Years (FYs) 2006, 2007, and 2008 and sent it to us as an Excel spreadsheet. We conducted various analyses on the data, including sorting by the organization offering the training and the total offerings per room for each FY.

We created a questionnaire for the interviews, which we then asked Jane and Meg Chute (of HR) to critique. After incorporating their comments, we then conducted the first interview, with Meg as the subject. One L2L Fellow asked the questions, while a second transcribed answers on a laptop. For the first few interviews, a third Fellow observed the interview process and recorded their impressions. We used this feedback to tighten up the interview process, and felt we did not need to continue the observer role for the remaining interviews. The questionnaire and summaries of the responses are included in Appendix A.

Results from analysis of room use
This analysis comes with the caveat that, since SAP does not capture all training, this data generated by SAP is necessarily incomplete. However, from the interviews we found that SAP:

- Captures all training classes that use SAP for registration.
- Appears to capture most (if not all) of the training in the heavily used spaces, except possibly the Cayman rooms in NE49.
- Does not capture attendance at drop-in classes.
- Does not capture all training classes arranged by special request for a DLC.
- Does not capture one-to-one training offered by IS&T (although John Fothergill of IS&T has been trying to change this).
- May not capture all one-on-one training for EHS.

Even with these caveats, SAP is capturing the bulk of regularly scheduled, open enrollment training by the organizations of the TAT. This data gives us a good first-order assessment of the rooms used for training at MIT.

<table>
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<th>Total Offerings</th>
<th>HR</th>
<th>IS&amp;T</th>
<th>EHS</th>
<th>Facilities</th>
<th>OSP</th>
<th>CAO</th>
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<td>916</td>
<td>126</td>
<td>322</td>
<td>210</td>
<td>13</td>
<td>27</td>
<td>36</td>
</tr>
</tbody>
</table>

Further investigation showed that 85% of the training sessions (2,140 out of 2,510) took place in 10 of the 50+ rooms used for training over the three years. These rooms were:

- E19-306, E19-431 (HR)
- N42-186, N42-Demo, W92-203, W92-206 (IS&T)
- NE49-GndCymn, NE49-LtlCymn (VP Finance)
- N52-496, N52-496A (EHS)

Grouping these by their controlling organization gives us Figure 1, and grouping them by location gives Figure 2. (Note that, particularly for IS&T, many of the training sessions were offered by other organizations than that controlling the room.)
Results from interviews
We conducted nine interviews, with responses from twelve different trainers. Jean Roberge and Sue St. Croix, of CAO were interviewed together, as were Pam Greenly and Laurie Veal of EHS, while Carol Wood, of OSP, consulted with her colleague Colleen Leslie to get Colleen’s input on the questions.

Note: Our L2L project team intentionally narrowed the scope to include only the training providers. We recommend that additional populations (including users and managers/supervisors) be interviewed before any final recommendations or changes are made.

Some of the key findings are summarized below.

Trainer’s perceptions of the infrastructure
In general, the trainers find that the spaces and equipment they use are adequate for the task. On the other hand, none described their facilities as exceptional or outstanding. The most common concerns we heard were:

- Peripheral location
- Cramped spaces (particularly for training that requires computers)
- No break room; no coffee, etc.; no local lunch options for attendees
- Temperature issues
- Poor room layouts
- Insufficient desk/work space for attendees
- Trainers required to set up or break down and clean rooms (as this often interferes with either preparing to train or post-session interactions with training participants.)

Location
The scattered locations of the training rooms was a recurring theme with many interviewees noting that distance was a significant barrier for attendance. However, trainers also stated that they appreciated the convenience of having the training room just down the hall from their office. Some noted that having their office located within their unit (e.g., HR, EHS, etc.) helps them to stay well integrated with their organization.

Some trainers use spaces not co-located with their office for at least some training. When they use a multi-purpose space (e.g., multi-function rooms in the Student Center, W20), they expressed more concern of the space and...
infrastructure than when they use a dedicated training space (e.g., the IS&T computer classrooms in W92 and N42), which are well supported. In particular, they felt that they had greater uncertainty about the room set up, working A/V equipment, etc., for the multifunction spaces. In contrast, they have found the dedicated spaces at IS&T to be well prepared and functioning for scheduled training sessions.

(We must note that those trainers who use IS&T’s computer rooms in W92 and N42 are unanimous in their praise for the efforts of John Fothergill and his colleagues in maintaining those facilities.)

**Attendance**

No-shows are an issue for most trainers. The offerings with fewest no-shows are those required for the job and the popular IS&T offerings (e.g., web publishing). Voluntary subjects have the greatest problem of no-shows, where a no-show rate approaching 20% seems common.

Late arrivals are an issue at W92. It is routine to have people miss the last shuttle that can get them to W92 on time, leading to an influx of late attendees after the subject has begun. While a trainer noted that this likely reflects poor planning on the part of the attendee, such poor planning is certainly characteristic of the Institute, if not the larger world.

**SAP**

SAP was invaluable in allowing Jane to quickly collect the data for our analysis of room usage. However, trainers noted some ways in which SAP has been less than helpful. They find that it can be cumbersome for staff to register via SAP. It is difficult for the trainings organizations to modify what appears in SAP. For computer-based training, IS&T has a particular concern in that SAP does not capture special needs of attendees (e.g., large-type displays, alternative mouse or keyboard inputs).

Perhaps the greatest issue is that SAP does not automatically send reminder emails to pre-registered attendees. Several trainers reported that this is a necessary step to reduce the number of no-shows. Currently, someone in the organization (typically the registrar) has to send out these reminder emails by hand, and the benefits are considered worth the added effort.

[Note from sponsor: SAP does support automated reminder emails for training events. Once this misunderstanding was brought to light by the L2L team, we worked with the training registrants to ensure that they were all aware of the feature and trained to use it.]

**Spaces and Booking**

Some organizations use training spaces for other purposes. For example, IS&T uses training spaces for internal training of help desk workers, for demonstrations, and for internal meetings. OSP has no choice, as some of their training occurs in their conference room.

Many organizations set their training schedule 3 months in advance. Trainers for these organizations seemed more willing to forgo control over the scheduling of the training spaces as long as the entity controlling the space was seen as fair and even-handed.

**Concepts of an ideal training facility, and potential benefits.**

Unsurprisingly, different trainers had different ideas of what an ideal training facility would look like. However, certain elements were common to many of their responses.

- A central location on campus, to encourage attendance. Possible, multiple small clusters of rooms scattered across campus.
- Food, coffee, water, quick workstations readily available. Spaces for side conversations and to place calls on one’s cell.
• Opportunity to interact with colleagues at the Institute; common spaces that invite other staff to drop in for coffee or lunch and mingle with trainees on break.
• A resource center for people to drop in and practice the skills they have been taught.
• Infrastructure to support active learning (e.g., clickers, as in the TEAL classroom).
• Flexible space for break out groups.
• Local supporting staff for A/V, set up, tear-down and clean-up.
• Training in diverse topics happening concurrently in one cluster, allowing more interaction across disciplines and work groups.
• Training spaces of various sizes, so groups large or small have an appropriate-sized room to work in.

The potential benefits trainers cited include:
• More senior leaders teaching classes because they don’t have to travel so far.
• Attendees who are more engaged and less frustrated, with a dramatic drop in no-shows.
• A bustling, high-energy, cluster of rooms, where staff are excited and engaged, valuing their professional development.
• A space that sends message that training, matters, where the EVP comes in on their way by and stops in because it is right there, for example.
• Trainers at MIT becoming a community of practitioners, rapidly getting up the learning curve on new training methods.
• Quality audio and video productions, from recording training sessions, with professional-quality training podcasts available to everyone, helping us to deliver distance learning to other members of the community.

In short, the trainers envision a vital, lively, centrally located space, which attracts passers-by to drop in and chat with co-workers taking a training class, or to just grab a coffee or latte. They seek a forum whose very existence broadcasts the message that MIT values its staff and makes professional training a priority. They would like an environment that helps bring them together to help each other develop their skills as a trainer.

Three Lenses Analysis
We found it valuable to consider the data above using the three-lenses approach.

Strategic/Structural Lens
From a structural perspective, we note that there is no central control of training. Rather, control is distributed across the units that provide it. We have found that, on the whole, each unit in the TAT has created the best training spaces that they can with the resources at their disposal. At the trainer level, the cross-unit interactions are limited in scope, with a pragmatic focus.

Furthermore, there is no consistent look-and-feel to the rooms. Similarly, the binders, handouts, and other physical objects the users receive have different styling, logos, etc. In short, there is no consistent branding of training at the Institute.

While this decentralized, somewhat ad-hoc, infrastructure is sufficient for providing training that is adequate for the current needs of the Institute, it clearly does not support the broader vision of the TAT. Achieving that vision will require a concerted, sustained, collaborative effort among the organizations that provide training. In other words, if TAT did not exist, we would recommend inventing it!

Political Lens
From a political perspective, the key finding is that the bulk of the training occurs in a small number of rooms, which are under the control of four key units within MIT. This means that a collaborative effort by those four units
would be sufficient to make impactful changes. In this case, these units have started the process by forming the TAT.

**Cultural Lens**
We base our findings through the cultural lens not only on the results of the room analysis and interviews, but also on our collective years of experience.

MIT has a long tradition of local control and local initiatives. Centralized control of anything breaks with tradition. It is interesting to note that when MIT had a unified training center (W89), the control was shared by HR and IS&T. Many trainers felt that that model was tested and trustworthy.

Trainers have told us that, once a particular training session is not required by a supervisor, the number of no-shows dramatically increases. This suggests that our staff perceive training and professional development as of relatively low importance unless it is directly applicable too (or mandated by) their work. This is consistent with MIT’s culture of doing–training isn’t doing, so it tends to be discounted.

Finally, the map of Figure 2 highlights the peripheral location of the training rooms. Some trainers described this as sending a negative message about the importance of training at the Institute and note that it reinforces any sense among staff that training is peripheral to their work.

**Analysis of Interviews**
First and foremost, while trainers don’t consider the existing infrastructure to be exemplary, they are (on the whole) comfortable with what they have. It’s easy to keep the status quo, as the current infrastructure is sufficient. Local control of space is a positive, particularly with respect to scheduling or competition for space. However, trainers that were here when W89 was in use clearly saw a benefit to a centralized facility. Several articulated a desire for a hybrid model. They felt that a central facility is not a viable trade off for local control and proximity, that scheduling, cost, distance, and location are key issues.

This hybrid approach would employ a combination of locally controlled training spaces plus a centrally located and shared facility/cluster of designated rooms. This cluster should be technology enhanced, well supported with permanently assigned staff and full IT support. There would be a combination of rooms with fixed work-stations and rooms (spaces) that allows for flexible (moveable) tables and work-flow. Having a space for socializing/networking during breaks, as well as a social space for eating lunch, was considered vital.

**Conclusions**
In summary, we found that:

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Appendix A

Needs Assessment Questionnaire

1. What kinds of training does your organization currently offer?

2. Here is the data we pulled off of SAP with regard to training offerings from you area. Are there any gaps? Does SAP capture all of your offerings?

3. How would you describe the attendance at your trainings? (We are looking for an estimate and/or your perception). What is the impact of no-shows? over subscription? wait listing?

4. What spaces do you currently use for training?
   a. Are these spaces used for other purposes as well?
   b. Do you have satellite training facilities in the DLC's
   c. May we take a picture of the spaces after this interview?

5. Do you feel your training facilities are adequate (from a trainer’s perspective)?

6. Do your facilities meet your users' expectations?
   a. How long are your training sessions typically? Does the space accommodate the users given the length of the training (are the bathrooms convenient, are there nearby places to eat, etc.)
   b. What feedback (positive and negative) have you heard from your attendees about the space and/or location?
   c. In your opinion do any of these things affect attendance?

7. What are the infrastructure requirements for your trainings? (What tools do you use and what is the environment?)

8. Does your training facility / the space you use for training have the infrastructure you need? (If not, what are the barriers to getting the infrastructure you need?)

9. To what degree could video capture and on-demand delivery to the desktop be used to support your training objectives?
   a.) Could video training modules be used as an effective substitute for "live" training sessions?
   b) Could video be used as an effective supplement (but not substitute) to your live training (for on demand review, etc) ?
   c ) What percentage of your training needs could be met with video delivery?

10. Are there any barriers to people getting to or getting into your facilities?

11. What is the impact of distance or location of existing facilities on participation?

12. Did your organization use W89 when it was available as a centralized training facility from1997-2003?
   a. If you know the history of this, was there a notable change in participation rates when W89 was closed?

13. Who maintains your training space/facility?
   b. What fraction of time is your space unavailable due to regular maintenance and up-grades?
c. Have maintenance issues ever affected your trainings?
d. What staffing is required for maintenance and upgrades?
e. If you are doing it yourself, how much staff time is spent on it?
f. What might be the impact of having a training coordinator supporting distributed training clusters?)

14. What would the ideal facility be like?
   g. What capabilities would it have?
   h. What location?
   i. What 'Environment'?
   j. Is there a facility you’ve seen that is close to this ideal?

15. What could you do differently if you had the facilities you wanted? What are the pedagogical opportunities or outcome opportunities therein?

16. Were MIT to establish a centralized facility for training, what might discourage you from using it (e.g. control, scheduling, cost, distance, location, convenience, etc.)?

17. How important is it for you to control the schedule of your training facility?

18. In your opinion, if MIT were to establish a centralized facility, who should control the space?
Appendix B

Power Point Presentation