MITOPENCOURSEWARE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MIT OpenCourseWare
Program Evaluation Findings Report

March 2004

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I. Executive summary

A. About MIT OpenCourseWare

MIT OpenCourseWare (OCW) is a large-scale, web-based electronic publishing initiative, accessible on the Internet at ocw.mit.edu. Through OCW, MIT makes its core teaching materials—lecture notes, problem sets, syllabi, reading lists, simulations, etc.—openly available for non-commercial educational purposes. OCW publishes those materials in standards-based formats for anyone with access to the Internet.[1] OCW has a dual mission:

- To provide free access to virtually all MIT course materials for educators, students, and individual learners around the world.
- To create an efficient, standards-based model which other universities may emulate to publish their own course materials.

B. Evaluation design

To measure the success with which OCW is fulfilling its mission—as well as to establish a thorough and continuous feedback process that guarantees its improvement over time—OCW conducts substantial ongoing evaluation, which includes assessments of external access, use and impact (program evaluation), and internal effectiveness and efficiency (process evaluation). This report presents findings from the program evaluation activities conducted from October 1 through November 30, 2003. Appendix 2 describes the logic model that structures this evaluation, and appendix 3 provides the evaluation indicator worksheet that connects the logic model to the data collection methods we used in this evaluation. The evaluation probes three general areas of user behavior and user profile:

- Access. Numbers and characteristics of OCW users, including their geographic locations, educational backgrounds, methods of locating the OCW site, technical contexts through which they access OCW, and how well the OCW technical architecture performs in supporting access.
- Use. How visitors use the site and how well it meets their needs. Evaluation is based on hypothesized scenarios of use (described in appendix 2) for the following user roles:
    - Educator. Educators are defined as users professionally employed in providing instruction to others at any level. Educator users are of particular interest to OCW because of the potential of reaching secondary audiences though educator adoption of OCW materials.
    - Student. Students are defined as learners enrolled in a formal institutional program of study at any level.
    - Self-learner. Self-learners are defined as learners not enrolled in a formal institutional program of study at any level. Generally, learners in employer-sponsored professional development programs are considered self-learners.
- Impact. Outcomes resulting from OCW site use. In particular, this area of inquiry focuses on OCW's impact on individual teachers and learners, as well as its impact on the open sharing of educational materials.

[1] See appendix 1 for more background information on the OCW initiative at MIT.

C. Evaluation data sources

OCW undertook this evaluation from October 1 through November 30, 2003.[2] We used multiple data collection strategies (an integrated "portfolio approach") that included the following data sources:

- Web Analytics. Akamai, OCW's web hosting and content distribution network provider, captures aggregate usage data such as page views, object views and user location. Akamai also offers a more sophisticated analytic tool called SiteWise,[3] which OCW employed starting November 1, 2003. Some measures in this report synthesize data from these two sources through correlations. In particular, site visit and page view statistics for the month of October are extrapolated from Akamai hit data; after November 1, site visit and page view information is a direct measure using the SiteWise tool. All geographic traffic information is drawn from Akamai, due to its greater accuracy. [4]
- Online intercept surveys. Between November 6 and 19, a survey tool invited (via pop-up window) a random sample of 21,467 OCW visitors to complete an online survey.[5] Of those prompted, 3573 people began the survey, and 1220 completed it fully, with a dropout rate of 66% and an overall completion rate of 5.7%. The sample provides a margin of error of not more than 3%. While overall completion rates roughly parallel high-level geographical distribution of OCW traffic, self-learners were slightly more likely to complete the survey once started (as opposed to educators and students), and partial completion rates were lower in North America and the Pacific region (primarily Australia), indicating language played a role in survey completion.[6] The intercept survey is included in appendix 4.
- Supplemental surveys. A supplemental survey was distributed to 600 individuals around the world with emphasis on some target regions (Latin America, Africa, Asia and Eastern Europe) and roles (primarily educators and students). 62 respondents started to fill out the survey, and 29 completed it, with a dropout rate of 53% and overall completion rate of just under 5%. This sample set is not representative of the overall OCW visitor base, but provides qualitative insights into the experiences and attitudes of OCW visitors in those target geographies. See appendix 5 for supplemental surveys.
- Interviews. Interviews were conducted with a small subset of people in various target groups and geographies to gather textured qualitative data about the use and impact of OCW. Interviewees were selected from those whose responses sparked the curiosity of the evaluation team. Members of the OCW research team conducted twenty-five in-depth interviews with willing participants from intercept and supplemental survey respondents, distributed across several target regions (Latin America, Asia, Eastern Europe, North America) and educational roles (educators, students and self-learners). The interview questions and protocol are included in appendix 6.

The data sources employed for this evaluation provide a rich statistical picture of site usage through the web analytics and intercept survey, with additional qualitative information derived from the supplemental surveys and

[2] Please note that OCW announced the publication of the 500th course on October 1, with an accompanying surge of media coverage and publicity. This led to unusually high levels of site access and usage patterns during that period (particularly an unusually high number of first time visitors to the site).

[3] SiteWise tracks users anonymously via cookies, and so identifies unique visitors by browser; for the month of November, the SiteWise system reported 5.6% of OCW traffic had cookie support disabled. SiteWise also relies on JavaScript; for the month of November, the SiteWise system reported 0.6% of OCW traffic had JavaScript disabled.

[4] Due to limitations in SiteWise regarding accuracy of geographical distribution data, the total visitors by region data shown is created from hit ratios measured in Akamai tools, which are then applied to unique visitor data from SiteWise to generate the approximate breakdown of where visitors originate. Data between these two systems correlates at a 98% level.

[5] See appendix 4 for the complete text of the intercept survey. Note that the online surveys (intercept and supplemental, see below) are built with research logic that dynamically presents a logical subset of the survey questions based on the respondents' answers.

[6] Self-learners made up 7.5% less of partially completed surveys than fully completed surveys; students accounted for 5% more of the partially completed surveys than fully completed surveys; educators made up 2.5% more of the pool of partially complete surveys than fully completed surveys. North American respondents accounted for 47.0% of completed surveys and 34% of partially completed surveys; Pacific region respondents made up 1.4% of fully complete surveys and 0.8% of partially complete surveys; in all other regions, ratios were either statistically equal or indicated a higher percentage of partial respondents by 3-6%.

interviews. Web analytic statistics combined with survey and interview data provide a complementary picture of site access, use and impact, with no apparent contradictions.

D. Summary of findings

At the highest level, the program evaluation data show:

1. Access

a. OCW traffic volume is high, and there is a core of repeat visitors.

- The OCW site recorded 718,000 visits between 10/1 and 11/30/2003—an average of almost 12,000 visits per day for that period.
- Returning visitors account for around 25% of daily visits for the month of November.
- Over 95% of OCW users plan to return to the site in the future.
- Almost 10% of visitors report daily use of the site; a further 25% at least weekly use; over 40% of visitors report more than 10 previous visits to the site.

b. OCW has attracted international attention, with over half the site traffic coming from outside North America.

- 45% of OCW visitors come from North America (USA/Canada).
- Western Europe is the second most common point of origin (19%) and East Asia is third with 18%.
- The Middle East and North Africa (1.6%) and Sub-Saharan Africa (0.4%) represent small but measurable portions of OCW's traffic.

c. Educators, students and self-learners access the site extensively.

- Numerically, self-learners predominate, representing almost 52% of visitors with an average of over 6000 daily visits. The self-learners are most likely to come from North America (60% of North American visitors).
- Students represent approximately 31% of visitors or an average of over 3600 daily visits.
- Educators represent over 13% of the visitors, an average of 1550 visits per day.
- The OCW user base is well educated; almost 70% have earned a bachelors or graduate degree.

d. Educators from around the world visit the site; about half have less than five years teaching experience and most often have expertise in electrical engineering and computer science, or business and management.

- Educators represent a higher percent of visitors for several regions outside North America, e.g. Latin America (18%) and Eastern Europe (20%).
- Almost 49% of educators using OCW have less than 5 years teaching experience; the balance of educator use is distributed across the remaining spectrum of experience levels.
- 55% of educators using OCW teach at 4-year colleges or the equivalent and their expertise is most commonly focused in electrical engineering and computer science (26%) or business and management (14%).

e. OCW's technical platform results in high levels of satisfaction with site performance across a wide range of connection types.

- Over 95% of current OCW users reported they were satisfied with the site performance.
- Approximately 16% of OCW users accessing the site via dial-up connections reported only slightly lower satisfaction at 94%.

f. User awareness of OCW comes via a range of channels.

- Almost 63% of visitors became aware of OCW via online or offline media articles.
- Over 25% of users report that they became aware of OCW through a colleague, peer, or teacher.
- While search engines drive just over 10% of OCW traffic, the prevailing search phrases are variants of "OpenCourseWare" rather than topic-based searches, indicating those searching became aware of OCW through other channels.

2. Use

a. OCW use is centered on subjects for which MIT is a recognized leader.

- Electrical Engineering and Computer Science course sites attract 34% of traffic for users who accessed specific course materials on OCW while only accounting for 10% of the total courses published.
- Mathematics, Management, Economics and Physics sites account for an additional 26% while representing a further 21% of courses published.

b. Users are largely confirming hypothesized scenarios of use for OCW.

- Educators primarily use the site for planning, developing, improving and teaching courses or classes (44%), and secondarily to enhance their personal knowledge (25%).
- Students most frequently use the site to find subject matter and materials for use in conjunction with a course they were currently taking (43%), and secondarily to enhance their personal knowledge (39%).
- Self-learners overwhelmingly use the site to enhance personal knowledge (80%).
- No significant new scenarios of use emerged from the evaluation.

c. Users are largely satisfied with the quality, breadth and depth of content available; they find OCW useful in supporting their educational activities, and are highly satisfied with the usability of the OCW web site.

- In attempting to complete a specific scenario-related task, more than 90% of users reported they were either completely or somewhat successful.
- More than 92% of users express high levels of satisfaction with the overall quality of course materials published on OCW.
- 79% of users are satisfied with the breadth of subject matter and course areas available on the site, (currently less than a third of MIT's overall curriculum).
- 71% of users express satisfaction with depth and completeness of materials for courses available on OCW.
- Over 97% reported satisfaction with the site visual design and presentation of materials.

3 Impact

a. OCW users overwhelmingly find that OCW has, or will have, significant positive impact on both teaching and learning activities.

- Over 80% of all users report either positive impact or extremely positive impact, 18% report moderate or some positive impact and less than 2% report no positive impact.
- Over 95% of all users report an intention to return to OCW in the future.
- Over 92% agree that they will recommend OCW to someone else.

- 76% of educators agree that OCW will impact their future teaching practices.

b. Educators have already reused OpenCourseWare materials or are planning to do so in the future.

- Over 97% of educators expressed satisfaction with the quality of the course materials published in OCW.
- Over 47% have reused MIT OCW materials (or plan to); 41% may reuse materials in the future.

c. OpenCourseWare is perceived as being consistent with MIT's overall brand.

- Over 84% of users report OCW is consistent or extremely consistent with their perceptions of MIT.
- Less than 2% indicate the site is somewhat or extremely inconsistent with their perceptions of MIT.

At this early stage of the OpenCourseWare project, educators, students and self-learners from around the world come to the OCW site—and return—in great numbers. Many educators worldwide are already incorporating MIT teaching materials and practices into their own instruction. Site visitors are highly satisfied with the materials they find and expect OCW to have significant impact on teaching and learning. These findings demonstrate early progress toward the fulfillment of the mission of OCW and provide baseline data with which we can guide program planning and decision-making, and against which we can measure improvement over time.

II. Findings: Access

OCW materials are meant to be accessible to users across geographies using various web browsers and accessing the Internet through high- and low-bandwidth connections. OCW intends that all users encounter a reliable technical infrastructure, and have technical access to the full range of content on the site. OCW also engages in an ongoing communication effort (newsletter, press relations) to make educators, students and self-learners aware of the site through a variety of channels and media. The current evaluation provides a baseline measure of usage levels, user profiles, and awareness channels.

A. Site traffic

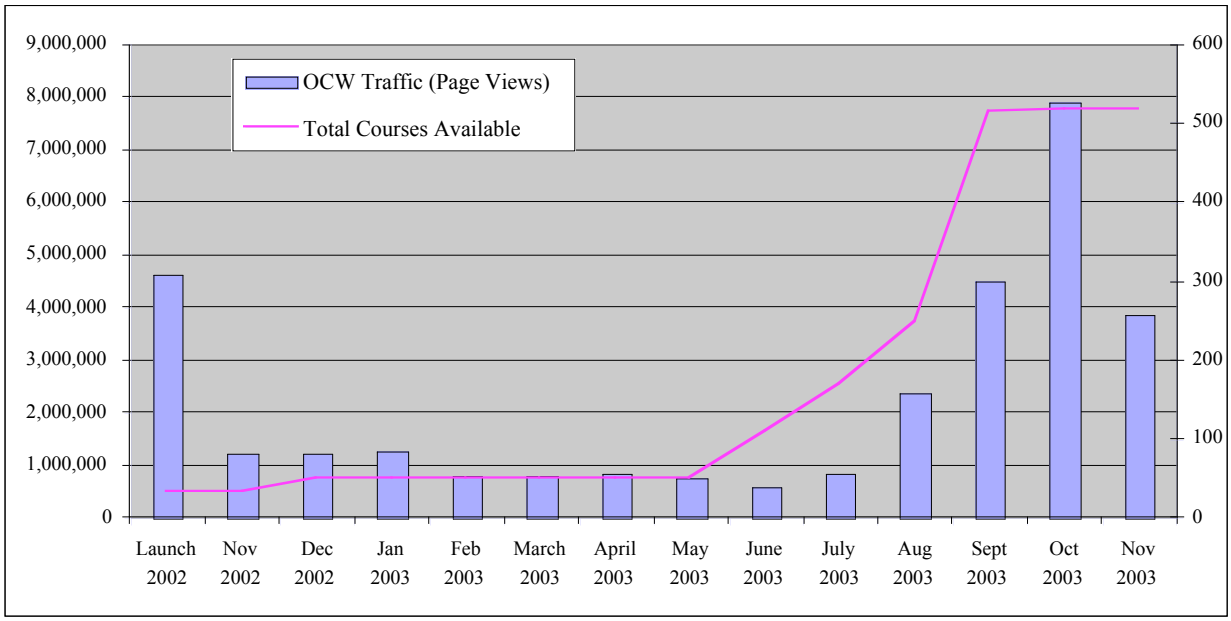
1. Historical context

The MIT OCW site was first made available to the public in late September 2002. At that time, there were 32 courses published on the proof-of-concept site. A large initial spike in site traffic accompanied the October 2002 public announcement, and throughout this initial year, the site received significant traffic. Beginning in June 2003 the OCW team published an increasing number of courses, continuing through late September 2003, when the 500th course was published. As the number of courses grew, the level of traffic on the site grew rapidly, as shown in Figure 1 below.

OCW traffic volume is high, and there is a core of repeat visitors.

- The publication of 456 course sites from June through September 2003 (in addition to the 50 proof-of-concept sites), and the ensuing press coverage, resulted in a dramatic initial increase in OCW site usage.
- The OCW site recorded 718,000 visits between 10/1 and 11/30/2003—an average of almost 12,000 visits per day for that period.
- Returning visitors account for around 25% of daily visits for the month of November.
- Over 95% of OCW users plan to return to the site in the future.
- Almost 10% of visitors report daily use of the site; a further 25% at least weekly use; over 40% of visitors report more than 10 previous visits to the site.

Figure 1. OCW Historical Monthly Site Usage



Source: Page Views: Akamai and SiteWise
Courses Available: OCW CMS

2. Overall traffic level

Overall site traffic statistics from October 1 through November 30, 2003 (see Table 1) show a total of just under 12 million page views, from over 718,000 visits. An average of nearly 12,000 visits to the OCW site occurred daily during that period.[7]

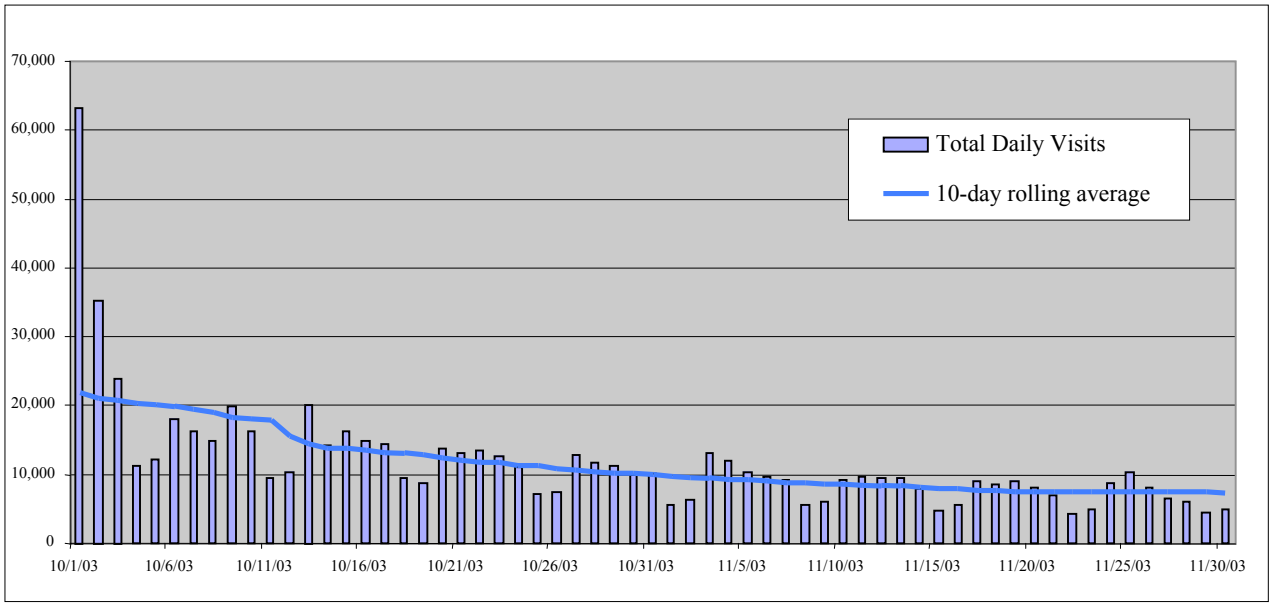
Table 1. Summary Site Traffic Statistics (10/1/03 - 11/30/03)

Site Traffic Statistic	Total For Period	Daily Average During Period
Website Page Views[8]	11,738,898	192,441
Website Visits	718,866	11,785

Source: Akamai and SiteWise

Traffic in early October 2003 reflects the high media and public interest as the site reached the 500-course milestone, and traffic levels in late October and November are expected to more closely reflect the activity of core user groups.

Figure 2. OCW Site Visits: October - November 2003



Source: Akamai and Sitewise

As illustrated in Figure 2, the number of daily visits was somewhat consistent through the workweek, with a distinct pattern of lower usage on weekends. Many users interviewed, particularly self-learners, reported accessing the site through higher bandwidth links available at work or their place of study (versus home). One self-learner interviewed in Argentina described how he frequently arrives at work 30 minutes early to browse the web (including OCW) and will sometimes print or download materials to review in more depth outside of work hours.

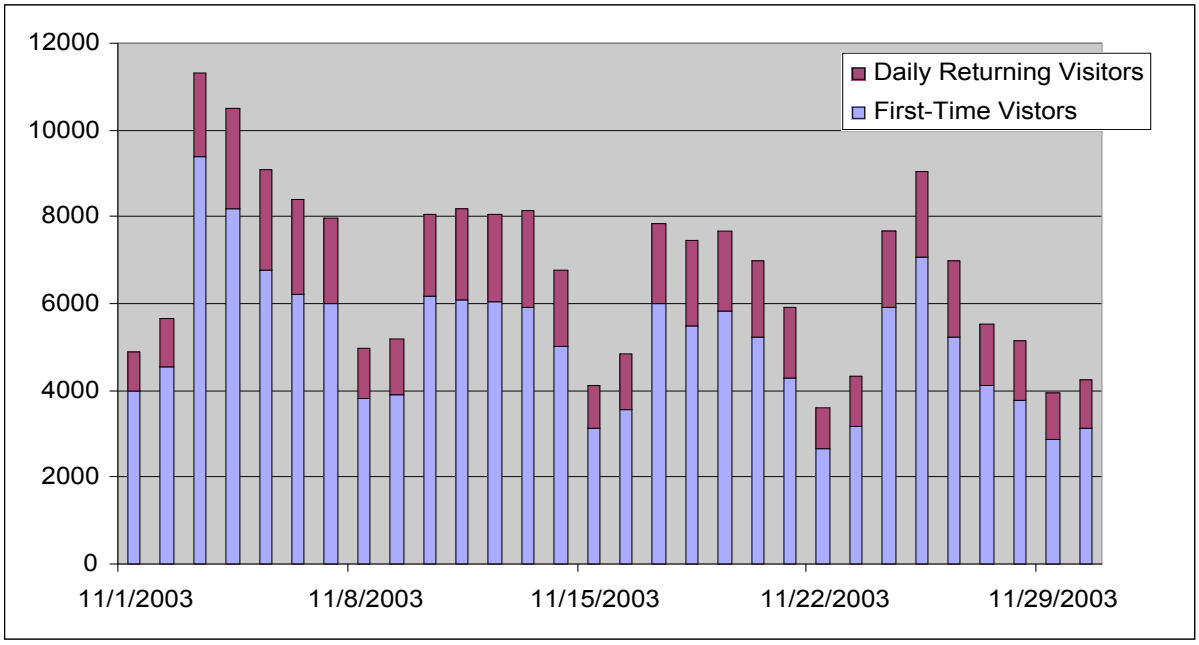
[7] Due to a transition in web analytics tools that occurred during the month of October, raw usage and geographic data was being captured in the basic Akamai analytics product. This data was correlated with November SiteWise usage and visit data to produce an integrated view of daily site visits from October 1 – Nov 31. Additional usage data related to visitor technology, referring URLs, entry points, and department and course section level visit activity were captured in SiteWise starting November 1.

[8] Site page views only counts HTML page views. Approximately 66% of the content on the OCW site is contained in PDF document format (approximately 5000 HTML pages vs. approximately 10,000 PDF and other format documents and other materials). Thus, the page view number is a conservative measure of total site activity.

3. First time and returning visitors

OCW began implementation of more sophisticated web site metrics software than previously used, starting October 1, 2003, and we are still accumulating the data necessary to support accurate analysis of returning versus first-time visitors to the site. Significant numbers of visitors counted as "first-time" in this measurement have likely visited the site prior to the October 1st implementation. The statistics for November (Figure 3), however, give an early indication of first time versus daily returning visitor traffic, with a strong flow of around 5,000 first time visitors to OCW per day.

Figure 3. OCW Site First-Time and Daily Returning Visitors (November 2003)



Source: SiteWise

Measurement of returning visitors shows a solid base of daily returning visitor traffic, running at an average of around 1700 visitors per day for the month of November. This is supported by the intercept survey results in Table 2, which show a significant base of returning visitors.

4. Visit frequency

Over 57% of all survey respondents report that this was not their first visit to the site. Of the returning visitors, over 40% report having visited OCW on more than ten occasions previously, indicating a strong core of longer-term repeat visitors. The most common frequency of use for this group is weekly visits to OCW, with 23% of all repeat visitors reporting more than 10 visits based on a weekly basis.

Table 2. User Frequency/Number of Visits

Visit Frequency	% of Users	Number of Times Previously Visiting			
		Once	2-5 Times	6-10 Times	> 10 Times
This is the first time	42.3%	N/A	N/A	N/A	N/A
Daily	8.9%	1.6%	3.3%	1.4%	8.8%
Weekly	24.8%	1.4%	10.2%	8.2%	23.0%
Monthly	9.8%	0.1%	6.3%	5.1%	5.1%
Occasionally (< 1/month)	14.3%	1.8%	15.1%	4.8%	3.1%
Total	100%	5.0%	34.8%	19.6%	40.1%

Source: Intercept Surveys Responses

B. Geographic profiles

OCW has attracted international attention, with over half the site traffic coming from outside North America.

- 45% of visitors to OCW come from North America (USA/Canada).
- Western Europe is the second most common point of origin (19%) and East Asia is third with 18%.
- The Middle East and North Africa (1.6%) and Sub-Saharan Africa (0.4%) represent small but measurable portions of OCW's traffic.

Among users of OCW, North Americans predominate (see Table 3), accounting for close to 46% of total visitors—well ahead of their proportion of global Internet usage. Western Europeans and East Asians (including Chinese) are the next two most frequent users of OCW, though the proportion of users from those regions is lower than their overall proportion of Internet usage. Users from two regions—Eastern Europe and Latin America—visit OCW in relatively greater proportion than their overall Internet usage. Underrepresented relative to global Internet usage are the Middle East, North Africa and Sub-Saharan Africa.[9]

Table 3. Visitors by Geography

Rank	Region	Est. Daily Visitors	% of OCW Traffic by Region	% of Total Internet Users By Region[10]
1	North America	5,352	45.4%	29.6%
2	Western Europe	2,234	19.0%	26.2%
3	East Asia	2,153	18.3%	28.3%
4	Latin America	693	5.9%	5.0%
5	Eastern Europe	465	3.9%	2.0%
6	South Asia	301	2.5%	2.6%
7	Middle East & North Africa	187	1.6%	2.1%
8	Central Asia	165	1.4%	1.2%
9	Pacific	163	1.4%	1.9%
10	Sub-Saharan Africa	53	0.4%	0.9%
11	Caribbean	19	0.2%	0.2%
Total		11,785	100.0%	100.0%

Source: Akamai and SiteWise

C. User roles

Educators, students and self-learners access the site extensively.

- Numerically, self-learners predominate, representing almost 52% of visitors with an average of over 6000 daily visits. The self-learners are most likely to come from North America (60% of North American visitors).
- Students represent approximately 31% of visitors or an average of over 3600 daily visits.
- Educators represent over 13% of the visitors, an average of 1550 visits per day.
- The OCW user base is well educated; almost 70% have earned a bachelors or graduate degree.

Numerically, the largest group of OCW users is self-learners (as shown in Table 4), followed by students and educators.

Regionally, North America and Western Europe show the highest proportion of self-learners (see Table 5). As a result, because of the large size of their overall OCW user population (as shown in Table 3 above), North America and Western

[9] Due to limitations in SiteWise regarding accuracy of geographical distribution data, the visitor region data shown is created from ratios measured in Akamai tools, which are then applied to unique visitor data from SiteWise to generate the approximate breakdown of where visitors originate.

[10] This column represents an approximate distribution of Internet users by geographical region. Estimates of total number of Internet users from www.Internetworldstats.com. Underlying usage information comes mainly from data published by Nielsen-NetRatings, ITU, and local NIC and ISP sources.

Europe account for almost 70% of self-learners accessing OCW. North America has the lowest proportion of educators using OCW of any region. However, US educators visit the site in numbers that are estimated to be proportionally higher than their percentage of the US population.[11] Most other regions show relatively stronger educator representation.

Table 4. OCW Visitors by Role

Role	OCW Visitors by Role	Est. Daily Visits
Educators	13.1%	1,546
Student	30.9%	3,642
Self-learner	51.6%	6,075
Other	4.4%	522
Total	100.0%	11,785

Source: Role distribution: Intercept Survey Responses
Est. Daily Visits: Akamai and SiteWise

Table 5. OCW Visitors by Role versus Geography

Role	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Educators	**13.1%**	8.4%	20.0%	13.8%	18.0%	20.3%	9.0%	33.3%	14.3%	23.5%	20.0%	23.5%
Student	**30.9%**	26.5%	29.8%	40.7%	30.3%	48.4%	40.3%	25.0%	14.3%	23.5%	40.0%	23.5%
Self-learner	**51.6%**	59.9%	46.8%	43.4%	49.2%	26.6%	41.8%	41.7%	57.1%	53.0%	20.0%	53.0%
Other	**4.4%**	5.2%	3.4%	2.1%	2.5%	4.7%	9.0%	0.0%	14.3%	0.0%	20.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Surveys Responses

The OCW visitor base worldwide is well educated (see Table 6). Most visitors (almost 87%) have some level of post-secondary education; over 80% of the educators who visit the site have a master's degree or higher, and over 60% of the students surveyed are working towards post-graduate degrees. Even among self-learners, educational levels are quite high; nearly 85% of all self-learners have attained a bachelor's degree or beyond.

Table 6. OCW Visitors by Role versus Educational Level

Level of Education Completed	% of Total Respondents	Educators by Education Level	Students by Education Level	Self-Learners by Education Level
High school/secondary school diploma or equivalent	**13.3%**	1.9%	29.0%	8.6%
Associates degree or equivalent 2 year college degree	**6.5%**	0.6%	8.7%	7.2%
Bachelors degree or equivalent 4 year college degree	**31.6%**	14.6%	32.2%	38.5%
Masters degree or equivalent	**33.9%**	36.1%	27.9%	36.4%
Doctoral degree or equivalent	**11.9%**	46.8%	2.2%	9.3%
Other	**2.7%**	0.0%	0.0%	0.0%
Total	**100.0%**	100.0%	100.0%	100.0%

Source: Intercept Surveys Responses

[11] According to the 2000 US Census, 0.4% of the overall United States population was employed in postsecondary education instruction; 6.2% of the overall population was enrolled in higher education and 16.5% of the overall population had earned at least a bachelor's degree. Based on this data (assuming self-learning on the site requires a bachelor's degree, as indicated by Table 6), a rough expected distribution of US OCW use based on total available audience would be: 1.7% educators, 26.8% students, and 71.4% self-learners.

Regardless of their roles, OCW visitors are incorporating the tool into their educational routines. As shown in tables 7 and 8 below, overall, 34% of users report making daily or weekly visits to OCW. Among students, 41% report making either daily or weekly visits. Educators report a lower than average visit frequency and a significantly higher percentage of only monthly or occasional use of OCW. They are also significantly less likely to have used OCW more than ten times. These visit frequency patterns correlate with prevailing scenarios of use for each role, as faculty most often visit the site to develop courses—a relatively low frequency activity—while students and self-learners tend to visit the site in support an ongoing course of study—a relatively high frequency activity.

Table 7. Frequency of Visits by Role

Frequency of Visits	% of Total Respondents	% of Educators	% of Students	% of Self-Learners
Daily	**8.9%**	4.4%	10.3%	9.2%
Weekly	**24.8%**	15.6%	30.7%	24.1%
Monthly	**9.8%**	9.4%	11.1%	9.0%
Occasionally (less than once a month)	**14.3%**	20.0%	15.1%	12.8%
This is the first time	**42.3%**	50.6%	32.8%	44.8%
Total	**100.0%**	100.0%	100.0%	100.0%

Source: Intercept Surveys Responses

Table 8. Prior Visits by Role

Number of Prior Visits	% of Total Respondents	% of Educators	% of Students	% of Self-Learners
1-5 times	**40.0%**	52.6%	40.9%	36.5%
6-10 times	**19.7%**	17.9%	18.9%	19.7%
More than 10 times	**40.3%**	29.5%	40.2%	43.8%
Total	**100.0%**	100.0%	100.0%	100.0%

Source: Intercept Surveys Responses

D. Educator profiles

Educators from around the world visit the site; about half have less than five years teaching experience and most often have expertise in electrical engineering/computer science, or business/management.

- Educators represent a higher percent of visitors for several regions outside North America, e.g. Latin America (18%) and Eastern Europe (20%).
- Almost 49% of educators using OCW have less than 5 years teaching experience; the balance of educator use is distributed across the remaining spectrum of experience levels.
- 55% of educators using OCW teach at 4-year colleges or the equivalent and their expertise is most commonly focused in electrical engineering and computer science (26%) or business and management (14%).

Most educators accessing OCW are relatively new to the profession; almost 50% report that they have been teaching for less than five years (see Table 9). However, the balance of educators using OCW is relatively evenly distributed across the full remaining range of teaching experience levels. The proportion of new educators is even higher in South and East Asia, as well as in the Middle East. While the sample set of educators in Sub-Saharan Africa and the Pacific are both quite small, the majority of those reporting are new educators.

Educators accessing OCW teach at a variety of institutions and institution types (see Table 10). At this point, usage is widespread and there is no measurable concentration of educators coming from particular institutions.

Table 9. Educator Experience by Geography

Educator Experience	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
<=5 Years	**48.8%**	45.8%	48.8%	65.0%	40.9%	30.8%	66.7%	50.0%	0.0%	75.0%	100.0%	0.0%
6-10 Years	**14.4%**	16.7%	12.2%	15.0%	22.7%	7.7%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%
11-15 Years	**10.0%**	10.4%	14.6%	0.0%	9.1%	15.4%	0.0%	0.0%	100%	0.0%	0.0%	0.0%
16-20 Years	**10.0%**	6.3%	7.3%	10.0%	13.6%	15.4%	16.7%	25.0%	0.0%	25.0%	0.0%	0.0%
>20 Years	**16.9%**	20.8%	17.1%	10.0%	13.6%	30.8%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**0.0%**

Source: Intercept Surveys Responses

Table 10. Type of Institution Where Educators Teach

Type of Institution	Educator %
Secondary school (e.g., "high school")	7.6%
2 year college, junior college or the equivalent	8.3%
4 year college or university or the equivalent	54.8%
Graduate or professional school	17.8%
Technical or other trade school	4.5%
Other	7.0%
Total	100.0%

Source: Intercept Surveys Responses

As shown in Table 11, educators' areas of interest align closely with subject areas for which MIT is generally best known—the core engineering domains, physics, mathematics and management. However, over 6% of educators visiting OCW identified their expertise as being in a subject other those available on the site (see Table 11).

Table 11. Educator Areas of Interest/Expertise

Subject Area	% of Educators
Electrical Engineering & Computer Science	25.6%
Management	8.8%
Mathematics	8.1%
Other	6.3%
Mechanical Engineering	5.6%
Business	5.0%
Physics	3.8%
Economics	3.8%
Literature	3.8%
Civil and Environmental Engineering	3.1%
Chemistry	3.1%
Materials Science and Engineering	3.1%
Biology	2.5%
Brain and Cognitive Sciences	2.5%
Chemical Engineering	2.5%
Media Arts and Sciences	1.9%
History	1.3%
Health Sciences and Technology	1.3%

Subject Area	% of Educators
Linguistics	1.3%
Science, Technology, and Society	0.6%
Aeronautics and Astronautics	0.6%
Political Science	0.6%
Engineering Systems Division	0.6%
Architecture	0.6%
Foreign Languages and Literatures	0.6%
Writing and Humanistic Studies	0.6%
Comparative Media Studies	0.6%
Earth, Atmospheric, and Planetary Sciences	0.6%
Biological Engineering Division	0.6%
Music	0.6%
Philosophy	0.0%
Anthropology	0.0%
Nuclear Engineering	0.0%
Ocean Engineering	0.0%
Theater Arts	0.0%
Total	100.0%

Source: Intercept Survey

E. Technical profiles and performance

The vast majority of users access OCW using PCs running Microsoft Windows operating systems and using versions of Microsoft's Internet Explorer (see Tables 12 and 13). While other operating systems and browsers do appear among visitors to the OCW site, they represent a relatively small percentage of the whole.

OCW's technical platform results in high levels of satisfaction with site performance across a wide range of connection types.

- Over 95% of current OCW users reported they were satisfied with the site performance.
- Approximately 16% of OCW users accessing the site via dial-up connections reported only slightly lower satisfaction at 94%.

Table 13. Desktop Operating System Usage

Rank	Operating System	% of Visits
1	All Windows Versions	94.9%
2	Linux	3.2%
3	Macintosh	1.6%
4	Sun	0.3%
5	Unix	0.0%
6	AIX	0.0%
7	OS/2	0.0%
8	IRIX	0.0%
9	WebTV	0.0%
10	OSF1	0.0%
Total		100.0%

Source: Akamai SiteWise

Table 12. Browser Usage

Rank	Browser Type	% of Visits
1	All Internet Explorer Versions	87.5%
2	All Netscape and Compatible	9.7%
3	Opera	2.5%
4	Safari	0.3%
5	Other (incl. Lynx, Omniweb etc.)	0.1%
Total		100.0%

Source: Akamai SiteWise

Data on host ISPs (Table 14) indicate that visitors access OCW via a wide range of ISPs and other Internet access services. The most common host organization for OCW visitors is AOL but it only serves around 3% of the user base. Similar percentages come via other major US services such as RoadRunner, AT&T, Comcast, PacBell, Cox etc. and other non-US ISPs such as wanadoo, interbusiness, and telesp.net. A measurable amount of traffic originates from large North American companies, including IBM, Boeing, and Raytheon, businesses whose activities correspond with MIT's strengths, particularly in computer science and various branches of engineering. Access data shows that Raytheon.com is the 20th most common host ISP for visitors coming to OCW (see Table 14). Navy.mil appears as the 36th host organization on the list.

Table 14. Top 50 User Host Organizations

Rank	OCW User Host Organization/ISP	% of Visits	Rank	OCW User Host Organization/ISP	% of Visits	Rank	OCW User Host Organization/ISP	% of Visits
1	aol.com	2.9%	18	bellsouth.net	0.7%	35	proxad.net	0.4%
2	rr.com	2.8%	19	ne.jp	0.7%	36	navy.mil	0.4%
3	attbi.com	2.6%	20	raytheon.com	0.7%	37	dtihq.com	0.4%
4	comcast.net	2.1%	21	adelphia.net	0.6%	38	Btopenworld.com	0.4%
5	mit.edu	1.5%	22	mindspring.com	0.6%	39	sify.net	0.3%
6	pacbell.net	1.3%	23	Shawcable.net	0.6%	40	uu.net	0.3%
7	cox.net	1.3%	24	level3.net	0.6%	41	att.net	0.3%
8	verizon.net	1.2%	25	swbell.net	0.6%	42	rcn.com	0.3%
9	rima-tde.net	1.1%	26	netvigator.com	0.5%	43	intel.com	0.3%
10	wanadoo.fr	1.1%	27	ameritech.net	0.5%	44	nus.edu.sg	0.3%
11	interbusiness.it	1.0%	28	charter.com	0.5%	45	libero.it	0.3%
12	Simpatico.ca	0.9%	29	telus.net	0.4%	46	lmco.com	0.3%
13	rogers.com	0.8%	30	ibm.com	0.4%	47	prodigy.net.mx	0.3%
14	telesp.net.br	0.8%	31	dsl-verizon.net	0.4%	48	telepac.pt	0.3%
15	optonline.net	0.8%	32	boeing.com	0.4%	49	seed.net.tw	0.3%
16	hinet.net	0.7%	33	covad.net	0.4%	50	skynet.be	0.3%
17	t-dialin.net	0.7%	34	qwest.net	0.4%			

Source: Akamai SiteWise

Worldwide, 83% of visitors access OCW through a variety of high-bandwidth connections, many doing so from their place of work or place of study. As shown in Table 15, high-bandwidth connection use is particularly high in North America, East Asia, and Western Europe, which correspond to the three highest regional concentrations of OCW users. Visitors from other areas of the world show proportionally greater use of low-bandwidth dial-up connections, particularly in Central and South Asia and the Middle East and North Africa.

Table 15. OCW User Internet Connection Type by Geography

Connection Type	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Dial-up	**15.7%**	12.9%	11.7%	13.1%	22.3%	17.5%	31.3%	33.3%	42.9%	37.5%	20.0%	50.0%
Cable modem	**21.2%**	27.3%	12.2%	14.5%	28.1%	23.8%	3.0%	8.3%	0.0%	18.8%	0.0%	0.0%
DSL	**21.7%**	23.4%	33.2%	14.5%	14.9%	11.1%	11.9%	25.0%	0.0%	25.0%	20.0%	0.0%
LAN	**39.5%**	33.9%	41.5%	55.2%	33.9%	47.6%	52.2%	33.3%	57.1%	18.8%	60.0%	50.0%
Other	**1.9%**	2.4%	1.5%	2.8%	0.8%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Survey Responses

Overall, however, as shown in Table 16, connection type does not seem to fundamentally impair users' reported satisfaction with OCW; an average of 96% of users state that they are satisfied with the performance of the site. For the slowest connection type, dial-up, which represents 16% of OCW users, the reported satisfaction with performance is slightly lower at 94%.

It is clear that using a low-bandwidth dial-up can impact usability as one user from the Middle East observes, "It takes too long to download all the PDF files with a 28 kbps Internet connection!" It is also clear that users are finding reasonable "work-arounds" in some cases. Users cite printing documents for review off-line or taking downloads at work when they have access to a higher bandwidth connection and then loading them onto their home machine for off-line viewing as alternatives.

Table 16. OCW Site Performance - Satisfaction by Connection Type and Geography

Connection Type	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Dial-up	**94.2%**	97.3%	100.0%	73.7%	92.6%	100.0%	95.2%	75.0%	100.0%	100.0%	100.0%	100.0%
Cable modem	**96.5%**	98.1%	96.0%	81.0%	97.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DSL	**95.5%**	98.5%	94.1%	90.5%	94.4%	100.0%	75.0%	100.0%	100.0%	75.0%	100.0%	100.0%
LAN	**95.8%**	97.4%	98.8%	90.0%	95.1%	96.7%	94.3%	100.0%	100.0%	66.7%	100.0%	100.0%
All Types	**95.6%**	**97.8%**	**97.0%**	**86.5%**	**95.0%**	**98.4%**	**92.4%**	**91.7%**	**100.0%**	**87.5%**	**100.0%**	**100.0%**

Source: Intercept Survey Responses

F. User awareness of OCW

As with any web site, a major barrier to access is always creating awareness of the site on the part of potential users. OCW has an aggressive, multi-channel communication plan to increase awareness of the site and its content. As indicated in Table 17, on- and off-line media together drive almost 63% of user awareness of OCW, followed by peer referrals (23%), and search

User awareness of OCW comes via a range of channels.

- Almost 63% of visitors became aware of OCW via online or offline media articles.
- Over 25% of users report that they became aware of OCW through a colleague, peer, or teacher.
- Search engines drive just over 10% of OCW traffic; the prevailing search phrases are variants of "OpenCourseWare" rather than topic-based searches, indicating those searching became aware of OCW through other channels.

engines (10%).

Table 17. OCW Visitor Awareness

Channel	% of Users	Educator	Student	Self-Learner
Online media (online news article, link, etc.)	**37.2%**	31.6%	37.8%	38.1%
Offline media (newspaper, magazine, television, radio)	**26.9%**	20.9%	23.6%	30.4%
Colleague or peer	**23.0%**	34.2%	22.8%	20.5%
Search engine	**10.4%**	10.8%	10.7%	10.2%
Teacher	**2.5%**	2.5%	5.1%	0.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Surveys Responses

1. Media

When asked, OCW users cite most frequently reported on- and off-line media references as the way they find out about OCW. As Table 16 shows, 37% become aware of OCW through online media including BBC Online, MSNBC and a range of online magazines. 26% became aware through off-line media articles such as those in *Wired Magazine*, *US News and World Report*, and the French daily *Le Monde*. Some of these media mentions are an explicit result of OCW marketing efforts, while others come from unsolicited press coverage. Self-learners more frequently report this as the mechanism through which they become aware of OCW.

2. Peer referrals

Whether through traditional word of mouth, on-line community interactions, or communications within learning or business organizations, a large number of OCW visitors become aware of the site through some form of peer referral. Nearly a quarter of all referrals to the site come through word-of-mouth communication between existing users and non-users. Of the OCW users surveyed, 37% indicated that they had already communicated with others about OCW.[12] These communications occurred in a range of ways including conversation, email, web logs, and others. One Australian self-learner reports that he has "mailed the OCW link to many friends who are either students or scientists. Amazingly enough, many scientists were not aware of MIT initiative."

Peer referral is the predominant awareness-building mechanism for educators. At Masaryk University in Brno, Czech Republic, a university-wide email from one educator led a number of people in the university community to visit the site. One educator from the Bannari Amman Institute of Technology in India reports: "We have put all materials in our LAN and students, staff regularly browse these coursewares." A number of educators report that they first came to OCW after receiving an email about OCW from a colleague. At this time, this level of communication does not seem to carry over to educators' communication with students. Overall, fewer than 3% of all respondents report that they learned about the site through a teacher (5% for students).

Peer referral also occurs within the corporate environment as well. One survey respondent reports: "I work for Raytheon, and I received an e-mail from the company regarding the OCW web site." The 47th most common referring URL (see Table 18) is http://eng.ids.web.boeing.com, indicating that there is a link to OCW on a page within Boeing's engineering department Intranet site.

3. Search engines

Search engines drive just over 10% of all OCW traffic. Google (all country sites combined) is first among them, accounting for almost 85% of search engine referrals, and Yahoo! is second with just over 11% (see Table 19). This usage reflects the relative overall popularity of search engines.

[12] 37% responded affirmatively to the question "Have you communicated with others (e.g., colleagues, educators, etc.) about any of the specific materials or pages from OCW?" 4.2% were not sure.

Table 18. Top 50 referring URLs

Rank	Referring URL	% of Visits	Rank	Referring URL	% of Visits	Rank	Referring URL	% of Visits
1	www.mit.edu	21.8%	18	search.msn.com	0.6%	35	www.zanthan.com	0.4%
2	web.mit.edu	16.8%	19	slashdot.org	0.6%	36	www.brudirect.com	0.4%
3	www.google.com	16.1%	20	news2000.libero.it	0.6%	37	ask.slashdot.org	0.4%
4	search.yahoo.com	3.1%	21	www.google.co.in	0.6%	38	65.54.244.250	0.3%
5	mit.ocw.universia.net	3.0%	22	www.lib.tsinghua.edu.cn	0.6%	39	65.54.246.250	0.3%
6	mit.edu	2.8%	23	blog.japan.cnet.com	0.6%	40	www.google.com.br	0.3%
7	www.zfilter.com	2.5%	24	mailman.mit.edu	0.5%	41	bbs.cenet.org.cn	0.3%
8	www.planetizen.com	1.6%	25	highschoolhub.org	0.5%	42	www.livejournal.com	0.3%
9	search.mit.edu	1.6%	26	alumweb.mit.edu	0.5%	43	www.google.es	0.3%
10	www.google.ca	1.1%	27	www-math.mit.edu	0.5%	44	groups.yahoo.com	0.3%
11	www.lemonde.fr	1.0%	28	creativecommons.org	0.5%	45	www.google.de	0.3%
12	www.centerdigitaled.com	1.0%	29	www.google.co.uk	0.4%	46	207.68.164.250	0.3%
13	www.google.fr	1.0%	30	www.utdallas.edu	0.4%	47	eng.ids.web.boeing.com	0.3%
14	crs.akamai.com	0.9%	31	www.aaai.org	0.4%	48	www.ctex.org	0.3%
15	www.linuxforum.net	0.9%	32	www.langa.com	0.4%	49	www.epubcn.com	0.3%
16	slashdot.jp	0.8%	33	www.google.com.au	0.4%	50	64.4.16.250	0.3%
17	aima.cs.berkeley.edu	0.7%	34	www.wired.com	0.4%			

Source: Akamai SiteWise

Table 19. Top Referring Search Engines

Rank	Search Engine	% of Visits
1	Google (all countries)	84.2%
2	Yahoo! (all countries)	11.3%
3	Microsoft Network	2.9%
4	AOL NetFind	1.0%
5	AltaVista	0.3%
6	Excite	0.2%
7	Other (Yandex, iWon, Overture, Mamma etc.	0.1%
Total		100.0%

Source: Akamai SiteWise

During the two-month evaluation period, over 6000 different search phrases were used to access OCW. The most common phrase that resulted in OCW access was "*MIT,*" but that only accounted for 8% of the OCW site traffic, resulting from searches. Overall, the top 100 search phrases used to access OCW are almost entirely variations of "*MIT," "OpenCourseWare," and "OCW"* along with other more general phrases such as "*Free Course"* (Source: Akamai SiteWise). This indicates that users already had some awareness of OCW and were using search engines to find the correct URL.

Many of the remaining 6000 phrases resulting in OCW visits were more subject-specific such as "*diffusion animation"* or "*countingSort.java.*" However, OCW material rarely appears near the top of a topic-based search. For example, a Google search for a well-defined topic such as "Linear Algebra" returned OCW's course site 18.06—one of the richest published to date—as the 15th link based on default result ordering. One student interviewed described how he had been looking via Google for materials applicable to a linear algebra paper and had not found OCW's site, but had found useful information on a different site, www.algebra.math.ust.hk, from the University of Science and Technology in Hong Kong.

4. Awareness by geography

While awareness triggers are relatively constant across world regions, some variations exist (see Table 20). In Latin America, for example, there is an above-average tendency towards hearing about OCW through off-line rather than on-line publications, while in South Asia there is a slight tendency towards peer referral.

Table 20. Awareness Triggers by Geography

Source of Awareness of OCW	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Online media or link	**37.2%**	39.4%	38.1%	40.6%	25.6%	38.7%	28.1%	54.5%	28.6%	35.3%	20.0%	0.0%
Offline media (mag, TV, &c)	**26.9%**	26.6%	28.2%	25.9%	32.2%	22.6%	26.6%	18.2%	42.9%	11.8%	20.0%	0.0%
Colleague or peer	**23.0%**	22.6%	20.8%	22.4%	24.0%	22.6%	31.3%	9.1%	0.0%	47.1%	20.0%	100%
Search engine	**10.4%**	9.9%	10.9%	8.4%	11.6%	9.7%	12.5%	18.2%	28.6%	5.9%	20.0%	0.0%
Teacher	**2.5%**	1.4%	2.0%	2.8%	6.6%	6.5%	1.6%	0.0%	0.0%	0.0%	20.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Surveys Responses

III. Findings: Use

Educators, students, and self-learners around the world are free to use OCW content for non-commercial educational purposes. They may adapt, distribute, and create derivative works from OCW materials in any way they choose. OCW content lends itself to many possible uses. Evaluation research conducted around the OCW proof-of-concept phase suggested a number of common usage scenarios (see appendix 2). The current evaluation validates and extends those findings.

A. Subject areas of interest to users

Users of all roles come to MIT OCW with a wide range of intellectual expertise and interests, spanning the breadth of MIT's departmental offerings and beyond (see Table 21). As with educators (see Table 11), students and self-learners identify the largest concentration of interest and study in computer science, electrical and mechanical engineering, and business, economics, and management.

OCW use is centered on subjects for which MIT is a recognized leader.

- Electrical Engineering and Computer Science course sites attract 34% of traffic for users who accessed specific course materials on OCW while only accounting for 10% of the total courses published.
- Mathematics, Management, Economics and Physics sites account for an additional 26% while representing a further 21% of courses published.

These interests correlate to actual site usage (see Table 22), with the top three most accessed departments—Electrical Engineering and Computer Sciences, Mathematics, and the Sloan School of Management (Business and Management courses combined) accounting for just over half of the traffic to OCW. Course use also generally correlates with departments that have the largest number of courses (and by extension, the amount of course material) available.

Table 21. Student and Self-Learner Areas of Interest

Subject Area	% of Students	% of Self-Learners	Subject Area	% of Students	% of Self-Learners
Electrical Engineering & Computer Science	33.4%	28.2%	Linguistics	0.0%	0.7%
Management	2.9%	6.3%	Science, Technology, and Society	1.3%	3.8%
Mathematics	6.9%	6.3%	Aeronautics and Astronautics	1.3%	2.6%
Other	5.0%	5.4%	Political Science	2.1%	1.9%
Mechanical Engineering	8.5%	3.9%	Engineering Systems Division	1.6%	1.6%
Business	4.2%	7.5%	Architecture	0.8%	1.5%
Physics	6.4%	4.7%	Foreign Languages and Literatures	0.0%	1.2%
Economics	6.1%	4.4%	Writing and Humanistic Studies	0.5%	1.0%
Literature	0.3%	1.3%	Comparative Media Studies	0.0%	0.9%
Civil and Environmental Engineering	2.9%	1.9%	Earth, Atmospheric, and Planetary Sciences	0.5%	0.4%
Chemistry	2.7%	1.0%	Biological Engineering Division	1.3%	0.3%
Materials Science and Engineering	1.3%	0.7%	Music	0.3%	0.3%
Biology	1.6%	2.2%	Philosophy	1.6%	0.9%
Brain and Cognitive Sciences	0.8%	2.2%	Anthropology	0.5%	0.7%
Chemical Engineering	2.4%	0.7%	Nuclear Engineering	0.5%	0.3%
Media Arts and Sciences	0.3%	1.0%	Ocean Engineering	0.3%	0.3%
History	0.8%	2.0%	Theater Arts	0.0%	0.0%
Health Sciences and Technology	0.8%	1.8%	Total	100.0%	100.0%

Source: Intercept Survey Responses

Table 22. OCW Content Use by Department (Subject Area)

Rank	MIT Department	# Courses Published	% of Courses Published	Dept Total # Visits	% Of Visits (Excl. Global Pages)
1	Electrical Engineering and Computer Science	55	10.7%	481,062	33.6%
2	Mathematics	18	3.5%	114,678	8.0%
3	Sloan School of Management	47	9.1%	112,795	7.9%
4	Economics	21	4.1%	71,260	5.0%
5	Physics	21	4.1%	67,526	4.7%
6	Mechanical Engineering	20	3.9%	49,113	3.4%
7	Brain and Cognitive Sciences	62	12.1%	47,389	3.3%
8	Aeronautics and Astronautics	16	3.1%	39,250	2.7%
9	Foreign Languages and Literatures	21	4.1%	38,569	2.7%
10	Architecture	16	3.1%	28,019	2.0%
11	History	17	3.3%	26,685	1.9%
12	Linguistics and Philosophy	15	2.9%	24,911	1.7%
13	Biology	5	1.0%	24,595	1.7%
14	Literature	22	4.3%	23,864	1.7%
15	Chemistry	6	1.2%	23,606	1.6%
16	Civil and Environmental Engineering	9	1.8%	22,540	1.6%
17	Materials Science and Engineering	12	2.3%	21,423	1.5%
18	Urban Studies and Planning	24	4.7%	19,024	1.3%
19	Health Sciences and Technology	13	2.5%	18,133	1.3%
20	Political Science	20	3.9%	17,849	1.2%
21	Anthropology	6	1.2%	16,795	1.2%
22	Ocean Engineering	11	2.1%	16,713	1.2%
23	Writing and Humanistic Studies	9	1.8%	15,830	1.1%
24	Science, Technology and Society	4	0.8%	15,599	1.2%
25	Media Arts and Sciences	10	1.9%	14,292	1.0%
26	Chemical Engineering	3	0.6%	13,529	1.0%
27	Engineering Systems Division	4	0.8%	12,407	0.9%
28	Earth, Atmospheric and Planetary Sciences	3	0.6%	11,855	0.8%
29	Nuclear Engineering	11	2.1%	11,698	0.8%
30	Music and Theater Arts	4	0.8%	10,548	0.7%
31	Women's Studies[13]	6	1.2%	9,482	0.7%
32	Biological Engineering Division	2	0.4%	8,336	0.6%
33	Comparative Media Studies	1	0.2%	6,126	0.4%
Total			100.0%	---	100.0%

Source: Akamai SiteWise

B. Uses of materials

1. Uses by educators

As shown in Table 23, educators use OCW primarily as a curriculum and course development tool (64%), and secondarily as a means to enhance their subject matter understanding (22%). 36% of educators use

Users are confirming hypothesized scenarios of use for OCW.

- Educators primarily use the site for planning, developing, improving and teaching courses or classes (44%), and secondarily to enhance their personal knowledge (25%).
- Students most often use the site to find subject matter and materials for use in conjunction with a course they are currently taking (43%), and secondarily to enhance their personal knowledge (39%).
- Self-learners overwhelmingly use the site to enhance personal knowledge (80%).
- No significant new scenarios of use emerged from the evaluation.

[13] Currently, the only courses under Women's Studies Section are cross-links to courses published under other departments.

OCW to develop or plan a course. A further 11% use OCW to prepare for teaching a specific class, 10% for developing overarching curriculum for a department or program and 7% for advising students as part of their course of study. Usage of OCW in support of research activities is limited to around 11% of educators.

A high percent (50%) of more experienced educators (greater than 16 years) identified developing or planning a course as their primary usage scenario (see Table 23). At the same time, less experienced educators (0-10 years) showed a below average likelihood (30%) of using OCW to develop or plan a course but showed an above average use of OCW for learning about subject matter to enhance personal knowledge.

Table 23. Educator Usage Scenarios versus Level of Experience

Basic Usage Scenario	All Levels	0-5yrs	6-10yrs	11-15yrs	16-20yrs	>20yrs
Developing or planning a course(s) that I am or will be teaching	**36.0%**	30.3%	28.6%	40.0%	57.1%	45.8%
Learning about subject matter to enhance my personal knowledge (not directly related to my teaching)	**22.0%**	25.0%	28.6%	6.7%	14.3%	20.8%
Learning about subject matter to enhance my research	**11.3%**	14.5%	9.5%	6.7%	14.3%	4.2%
Preparing to teach a specific class	**10.7%**	9.2%	19.0%	20.0%	7.1%	4.2%
Developing or planning a curriculum for my department/program	**10.0%**	15.8%	0.0%	6.7%	0.0%	8.3%
Advising students about their course of study	**6.7%**	5.3%	4.8%	6.7%	7.1%	12.5%
Planning or developing an educational web site or related ed technology	**3.3%**	0.0%	9.5%	13.3%	0.0%	4.2%
Total	**100.0%**	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Intercept Survey Responses

Educators' curriculum and course development activities range from using OCW for complete overhauls of pedagogical systems to small, tactical changes in how they present course content to students. OCW is most often used in developing new courses, particularly courses that educators have not previously taught. One educator in Latin America describes how he used OCW for ideas on structure, subject area, and specific materials such as laboratory assignments when asked to teach a course in analog circuit design. Another in Pakistan explains: "I have been assigned two new courses, Software Engineering and Artificial Intelligence. These days I'm preparing their course outline and lectures. Came to know of this site so just logged in to have a look."

Educators also visit OCW to improve and adopt specific teaching materials. One South Asian educator, for example, comes to the site "in search of useful material for teaching modeling of thermal system to post-graduate students of my department [sic]…even though I have a book with me to teach that subject, to make my lecture lively I would like to make use of material from MIT." This use of materials in course isn't restricted to educators from higher education. Approximately 8% of educators using OCW are teaching at the high school level where OCW content can still be very relevant. For example, one North American educator reports visiting OCW in search of materials to "infuse into a middle school classroom lesson on heredity."

OCW is being used as a curriculum-planning tool. An educator from Eastern Europe, reports that he has used OCW because "our institution is in the process of reforming curricula and also modernizing education process." Educators from all around the world employ OCW in support of benchmarking activities, by which they are able to gauge their own curricula and courses against a recognized leader in the field. This is useful both for their own edification, and, as one North American Educators-member explains, "…to show…my students what [MIT] and other top institutions require of [their] students."

OCW was less often used to support research. An educator in Latin America identifies the IEEE Journals, available to him through his university's library, as his preferred source of information for research. The main value of OCW in its current form for supporting research appears to be in cross-discipline uses. One PhD student in Japan comments: "I like to look at related problem solving-approaches used in different areas [say of Engineering]."

Geographically, there is a noticeably higher proportion of educators in developing regions using OCW in the course development and planning scenario (see Table 24).

Table 24. Educator Scenarios by Geography

Usage Scenario	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Devel/plan course will be teaching	**36.0%**	27.9%	28.9%	40.0%	42.9%	50.0%	33.3%	25.0%	100.0%	75.0%	100.0%	0.0%
Learn subject matter for pers knowledge	**22.0%**	25.6%	18.4%	35.0%	14.3%	16.7%	0.0%	50.0%	0.0%	25.0%	0.0%	0.0%
Learn subject matter for research	**11.3%**	4.7%	13.2%	10.0%	28.6%	8.3%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Prepare to teach specific class	**10.7%**	11.6%	18.4%	0.0%	9.5%	8.3%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Devel/plan curriculum for dept/program	**10.0%**	16.3%	7.9%	15.0%	4.8%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Advise students on course of study	**6.7%**	7.0%	10.5%	0.0%	0.0%	16.7%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%
Plan/devel educ web site or educ technology	**3.3%**	7.0%	2.6%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**0.0%**

Source: Intercept Survey Responses

2. Uses by students

Students use the site as a tool to enhance their learning, both within and outside the context of the courses they are taking. Most often, they regard OCW materials as alternatives or complements to the materials they have through their own educational institutions.

Many students cite access to high quality materials as a major reason they come to the site, and others appreciate free access to materials that are either too difficult or too costly to acquire through their home institutions. One Eastern European student, for example, had been using the Internet for some time to search out educational materials in electrical engineering and management that are not available at her home institution. She perused other North American university sites looking for course materials, particularly basic articles and textbooks on-line. A Latin American student makes a similar point: "In foreign countries," he explains, "it is difficult to obtain the necessary books."

Some students employ the OCW site for self-study to add breadth to their education. A Czech student studying in Japan explains how he "looks at Aerospace and other related courses to understand approaches to problem solving and compares them to Mechanical Engineering" [his formal field of study]. This illustrates how OCW provides students with a view into other disciplines that would not otherwise be readily available. Other students use the OCW site as a self-learning tool to study subjects not available to them at their home institution. A student from Serbia and Montenegro comes to the site for information on medical informatics, a subject "hardly taught at all in my country, and there is absolutely no literature at all."

Table 25. Student Scenarios by Geography

Usage Scenario	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Learn subject matter for current course	**49.9%**	41.2%	49.1%	33.9%	40.0%	53.3%	42.3%	100.0%	100.0%	75.0%	50.0%	0.0%
Learn subject matter for pers knowledge	**39.4%**	42.6%	33.3%	39.0%	42.9%	33.3%	46.2%	0.0%	0.0%	25.0%	50.0%	0.0%
Plan my course of study as a student	**10.7%**	10.8%	12.3%	15.3%	8.6%	6.7%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Study course not offered at my institution	**6.6%**	5.4%	5.3%	11.9%	8.6%	6.7%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**0.0%**

Source: Intercept Survey Responses

Geographically, there are relatively minor variations in the ways that students are using OCW (see Table 25). Western and Eastern Europe show a higher focus on using OCW in the context of their current study program while South Asia has a noticeably higher focus on learning to enhance personal knowledge.

3. Uses by self-learners

As discussed earlier, self-learners from North America constitute a major grouping of users of OCW, both in terms of proportion of users in the region and the absolute number of users (see Table 5 above). Self-learners from East Asia, Latin America, and Western Europe also use the site in large numbers.

Often, self-learners use it as a resource to begin thinking about and planning a formal course of study in the future. A Turkish student describes exploring the site prior to enrolling in an Industrial Engineering program. At the time he had difficulty using the material because he lacked a sufficient background in the field; after enrollment, the factor most limiting his use of the materials was the depth of materials on particular course sites. This anecdote is significant in conjunction with data from Table 6 (under Access), pointing to formal college-level educational experience as a key characteristic of successful self-learner OCW use.

Like many formally enrolled students, self-learners use OCW (and other Internet sites) to overcome local educational limitations. Anecdotal evidence is emerging that demonstrates OCW has spawned a number of loose-knit, informal communities where people share insights and ideas. At this point, these are mostly organized around more broad-reaching community or web log sites such as Slashdot.org or Planetzen.com.

Table 26. Self-Learner Scenarios by Geography

Usage Scenario	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Learn subject matter for pers knowledge	**80.9%**	83.6%	84.6%	74.6%	83.3%	64.7%	72.4%	60.0%	66.7%	100.0%	0.0%	100.0%
Study course not otherwise available to me	**8.7%**	8.8%	7.7%	7.9%	6.7%	11.8%	6.9%	20.0%	0.0%	0.0%	100%	0.0%
Plan my future course of study as a student	**8.0%**	6.7%	4.4%	17.5%	6.7%	11.8%	20.7%	0.0%	33.3%	0.0%	0.0%	0.0%
Plan/devel educ web site/other educ technology	**2.4%**	0.9%	3.3%	0.0%	3.3%	11.8%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Survey Responses

While the majority of self-learners view OCW as a tool for enhancing personal knowledge, there are some apparent regional variations (see Table 26). The most noticeable difference is that in several of the less developed regions, OCW is used more as a tool for planning study.

C. User satisfaction

Users are largely satisfied with the quality, breadth and depth of content available; they find OCW useful in supporting their educational activities, and are highly satisfied with the usability of the site.

- In attempting to complete a specific scenario-related task, over 90% of users reported they were either completely or somewhat successful.
- More than 92% of users express high levels of satisfaction with the overall quality of course materials published on OCW.
- Though less than a third of MIT's courses have been published, 79% of users are satisfied with the breadth of subject areas available on OCW.
- 71% of users express satisfaction with depth and completeness of materials for courses available on OCW.
- Over 97% reported satisfaction with the site visual design and presentation of materials.

1. Usefulness by task

Overall, OCW is recording high levels of usefulness. As shown in Table 27, when asked if they were successful in accomplishing a task related to their scenario of use, over 90% of users report that they were either completely or somewhat successful. This level of success is fairly consistent across the three major user

groups, educators (89%), students (90.1%), and self-learners (90.9%).

Table 27. Overall Success in Using OCW

Success Level	% of Respondents	Educator	Student	Self Learner
Completely successful	**43.0%**	45.3%	36.3%	45.5%
Somewhat successful	**47.4%**	43.4%	53.8%	45.4%
Not successful	**9.6%**	11.3%	9.8%	9.1%
Total	**100.0%**	100.0%	100.0%	100.0%

Source: Intercept Survey Responses

Of the users who indicate that they were not successful in using OCW, many report that the course content does not extend to their areas of interest or that they are unable to find specific materials.

2. Usefulness by scenario

Regardless of role, users indicate they feel the OCW site is useful for their identified activities. In all cases where users indicate use related to a scenario, they rate the site as extremely useful or useful at least 60% of the time. Another 10 to 20% of users rate the site as moderately useful for each scenario.

As shown in Table 28, educators find OCW useful in support of all scenarios, with the highest levels of usefulness reported for developing and planning courses (74% useful or extremely useful).

Table 28. Educator Usefulness Ratings by Scenario

Scenario	Overall % of Use	Usefulness Rating For Scenario					
		Extremely Useful	Useful	Moderately Useful	Somewhat Useful	Not Useful	Total
Developing or planning a course(s) that I am or will be teaching	**36.0%**	28.3%	47.2%	17.0%	7.5%	0.0%	100.0%
Learning about subject matter to enhance my personal knowledge (not directly related to my teaching)	**22.0%**	21.9%	40.6%	34.4%	3.1%	0.0%	100.0%
Learning about subject matter to enhance my research	**11.3%**	23.5%	47.1%	17.6%	11.8%	0.0%	100.0%
Preparing to teach a specific class	**10.7%**	18.8%	43.8%	6.3%	31.3%	0.0%	100.0%
Developing or planning a curriculum for my department/program	**10.0%**	26.7%	40.0%	0.0%	33.3%	0.0%	100.0%
Advising students about their course of study	**6.7%**	10.0%	50.0%	20.0%	20.0%	0.0%	100.0%
Planning or developing an educational web site or related educational technology	**3.3%**	20.0%	40.0%	20.0%	20.0%	0.0%	100.0%
Total	**100.0%**						

Source: Intercept Survey Responses

75% of students report that OCW is useful or extremely useful in the most common use scenario, learning about subject matter to complement a course they are taking (see Table 29). Other scenarios received equally high usefulness ratings from OCW student users.

Table 29. Student Usefulness Ratings by Scenario

Scenario	Overall % of Use	Usefulness Rating For Scenario					
		Extremely Useful	Useful	Moderately Useful	Somewhat Useful	Not Useful	Total
Learning about subject matter to complement a course I am currently taking	**43.3%**	25.3%	49.4%	16.5%	5.7%	3.2%	100.0%
Learning about subject matter to enhance my personal knowledge	**39.5%**	30.8%	41.3%	18.2%	7.0%	2.8%	100.0%
Planning my course of study as a student	**10.7%**	25.6%	51.3%	12.8%	5.1%	5.1%	100.0%
Learning about subject matter as a substitute for a particular course not offered at my institution	**6.6%**	33.3%	45.8%	12.5%	8.3%	0.0%	100.0%
Total	**100.0%**						

Source: Intercept Survey Responses

More than 82% of self-learners report that OCW was useful or extremely useful in supporting the most predominant scenario, learning about subject matter to enhance personal knowledge (see Table 30). Similar levels of usefulness are reported for the other scenarios.

Table 30. Self-Learner Usefulness Ratings by Scenario

Scenario	Overall % of Use	Usefulness Rating For Scenario					
		Extremely Useful	Useful	Moderately Useful	Somewhat Useful	Not Useful	Total
Learning about subject matter to enhance my personal knowledge	**80.6%**	39.2%	44.9%	10.3%	4.2%	1.3%	100.0%
Learning about subject matter as a substitute for a course not available to me	**8.8%**	50.9%	29.1%	10.9%	7.3%	1.8%	100.0%
Planning my future course of study as a student	**8.1%**	38.5%	46.2%	11.5%	3.8%	0.0%	100.0%
Planning or developing an educational web site or related educ/knowledge-exchange technology initiative	**2.4%**	25.0%	68.8%	0.0%	0.0%	6.3%	100.0%
Total	**100.0%**						

Source: Intercept Survey Responses

3. Content satisfaction

As shown in Table 31, the general satisfaction levels with both the breadth and depth of content in OCW are high. Combining all three measures, users express over 80% satisfaction with OCW content.

Table 31. User Satisfaction with OCW Content

Content Characteristics	% Satisfaction All Roles	% of Educators	% of Students	% of Self-Learners
Subject matter and course areas covered on OCW site	79.4%	73.0%	73.7%	84.6%
Types of course materials for specific courses	71.0%	73.6%	65.3%	72.8%
Quality of the course materials for specific courses	92.2%	97.5%	86.7%	93.6%

Source: Intercept Survey Responses

80% of users are satisfied with the subject matter and course areas they find, a remarkable number given that OCW currently contains less than a third of MIT's curriculum. For this measure, self-learners show a significantly higher level of satisfaction. One such self-learner from Greece notes, "The fact that I can get the whole picture of a field I am interested in easily (i.e.: am interested about Biology and Genetics). Would take me 1000s of hours to search in the Web to find tutorials or interesting books. OCW is the path for me." A self-learner from the USA notes, "The availability of knowledge and thinking of others is readily available to anyone that wants to take the time to look at it."

The lowest level of satisfaction identified by users (71% for all roles) relates to the types of course materials, and by extension, the completeness of the course materials available for specific courses. Students are most critical of this aspect, with a satisfaction rating of only 65%. Many students and others point to the fact that many of the courses are published "as-is" and may have incomplete course notes, lecture notes and other materials that educators may not have had readily available. A student from South Africa observes: "Understanding is more than just PowerPoint slides and PDF outlines. It requires input and a more structured mechanism for progression. The textbooks are a good start however ... in poor countries this is cost prohibitive." Students who are trying to leverage OCW content are vocal about the value of increasing the completeness and richness of the content to facilitate usefulness and impact.

The quality of the course materials has the highest satisfaction—over 92% for all roles, with educators scoring this very high at 97%. Anecdotal indications are that educators are more interested in the course structure and materials such as reference lists, exercises, and exams. They less frequently express interest in following an entire course from end-to-end.

4. Site usability

OCW visitors are overwhelmingly satisfied with the design and architecture of the OCW site, with fewer than 5% reporting usability-related problems finding the content they are looking for (see Table 32). Educators were slightly more critical of OCW usability including the organization of the site and its performance.

Table 32. User Satisfaction with OCW Site Usability

Usability Enablers	% Satisfaction All Roles	% of Educators	% of Students	% of Self-Learners
Organization of the OCW web site	93.8%	90.6%	94.4%	94.1%
Visual design or presentation of the site	97.8%	97.5%	98.1%	97.6%
Performance or functionality of the site	95.6%	93.7%	94.7%	96.3%

Source: Intercept Survey Responses

When asked how strongly they agree or disagree with statements of site attributes, more than 85% of users strongly agree or agree that the site is easy to use, easy to navigate, and its navigation can be understood quickly (see Table 33). Fewer users strongly agree or agree that they are able to find what they are looking for on OCW (72%).

Table 33. User Satisfaction with Additional Usability Attributes

Attributes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
The OCW web site is easy to use	38.4%	51.9%	5.2%	2.1%	2.4%	100.0%
The OCW web site is well organized, easy to navigate	37.2%	50.7%	7.9%	2.0%	2.2%	100.0%
I am able to find what I'm looking for on OCW	24.7%	47.6%	19.0%	5.6%	3.0%	100.0%
I learned how to use the OCW web site quickly	46.6%	39.3%	9.6%	2.0%	2.5%	100.0%

Source: Intercept Survey Responses

5. User-recommended improvements

Throughout the evaluation process, users frequently recommend improvements to the OCW site. Most relate to a desire for more complete course content and materials, not on changing the site design or structure. As one student from the USA sums up "[I would like] more courses, more course materials and deeper course materials." Students and self-learners often request technical changes to the site within the context of gaining more insight on class activities, such as downloadable videos/audio lectures rather than streaming media and downloadable zip files containing complete course content. See appendix 7 for representative user-recommended improvements.

IV. Findings: Impact

A. User perception of impact

Assessing the impact of an educational venture is challenging in the short term. However, it is possible to establish initial indications based on user expectations. To this end, a wide range of OCW users were asked to assess the overall impact of OCW based on their role.

OCW users overwhelmingly are finding that OCW has, or will have, significant positive impact on both teaching and learning activities.

- Over 80% of all users report either positive impact or extremely positive impact, 18% report moderate or some positive impact and less than 2% reporting no positive impact.
- Over 95% of all users report an intention to return to OCW in the future.
- Over 92% agree that they will recommend OCW to someone else.
- 76% of educators agree that OCW will impact their future teaching practices.

Table 34. Perceptions of Impact by User Role

Role	Extremely Positive Impact	Positive Impact	Moderately Positive Impact	Somewhat Positive Impact	No Positive Impact	Total
Educators	29.7%	50.6%	10.1%	8.2%	1.3%	100.0%
Student	35.4%	48.0%	11.8%	3.8%	1.1%	100.0%
Self-learner	41.4%	43.4%	9.9%	3.8%	1.4%	100.0%

Source: Intercept Survey Responses

As Table 34 shows, eight out of ten visitors believe that OCW has had or will have a positive or extremely positive impact on their teaching and learning; less than 2% believe it to have no positive impact. As shown in Table 35, the level of impact correlates with the frequency of visit with occasional visitors reporting noticeably lower impact than frequent visitors.

Table 35. Perceptions of Impact by User Role versus Frequency of Visits

	All Frequency of Visitors			Daily Visitors			Occasional Visitors		
Role	Extremely/ Positive Impact	Moderately/ Somewhat Positive Impact	No Positive Impact	Extremely/ Positive Impact	Moderately/ Somewhat Positive Impact	No Positive Impact	Extremely/ Positive Impact	Moderately/ Somewhat Positive Impact	No Positive Impact
Educators	80.4%	18.4%	1.3%	85.7%	14.3%	0.0%	78.1%	21.9%	0.0%
Student	83.6%	15.3%	1.1%	92.3%	7.7%	0.0%	64.9%	31.6%	3.5%
Self-learner	84.8%	13.8%	1.4%	91.4%	8.6%	0.0%	84.1%	15.9%	0.0%

Source: Intercept Survey Responses

At least 70% of users identify that they are able to be more productive and effective and that OCW has helped or will help them learn or increased their motivation and interest in learning.

Table 36. Attributes of OCW that Facilitate Impact

Attributes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
OCW has or will help me be more productive/effective	28.5%	45.4%	19.7%	4.3%	2.1%	100.0%
OCW has or will help me learn	38.7%	45.5%	11.0%	2.6%	2.2%	100.0%
OCW has increased my motivation/interest in learning	35.3%	42.0%	16.9%	3.7%	2.0%	100.0%
I would recommend OCW to someone else	64.6%	27.5%	4.0%	1.6%	2.3%	100.0%

Source: Intercept Survey Responses

Reasons for this satisfaction are wide-ranging and heavily dependent on the individual's situation and interest in learning. For some people in disadvantaged situations, the ability to access what they perceive to be top quality

educational materials at no cost is a major incentive. A student in China observes that he "[hopes] there will be more advanced courses open to the public. There are many courses that we can't get in our colleges." For others, it is the ability to assess their own educational situation and take advantage of MIT materials. For example, a student from Indonesia comments: "I expect that I will constantly refer to OCW for every subject that I take to get reassurances that what I am being taught is relevant and meeting the highest standards. I hope that OCW will expand its depth into course materials."

In some cases, it is simply the value of access to quality materials at a motivated learner's own pace. A self-learner from the USA explains: "As a very busy parent I find it very difficult to attend classes at local universities. I am able to find time to do the study but it is at times that are either very late at night or very early in the mornings. Also, it gives me control over the subject matter I want to study and to discover ways of applying that knowledge in my career and in my everyday experience."

Table 38. User Plans to Return to OCW

Role	Will Return	Unsure/ Mixed	Will Not Return	Total
Educators	95.6%	3.8%	0.6%	100.0%
Student	96.8%	2.7%	0.5%	100.0%
Self-learner	98.6%	1.0%	0.5%	100.0%

Source: Intercept Survey Responses

Table 37. Would Recommend OCW to Others

Agreement Level	% of Users
Strongly Agree	64.6%
Agree	27.5%
Neutral	4.0%
Disagree	1.6%
Strongly Disagree	2.3%
Total	100.0%

Source: Intercept Survey Responses

Another direct indicator of impact is the level of people who intend to return to a site over time. As described earlier, OCW has built a solid core of repeat visitors, many of whom visit the site on a weekly or even daily basis. As shown in Table 37, over 95% of all visitors express their intention to return to the site again in the future.

In addition, the level at which people recommend OCW to others may indicate the site's potential impact. As described earlier, 25% of current OCW users identify a peer referral as the way they found out about OCW. Of these same OCW users92% agree or strongly agree that they would recommend the site to someone else (see Table 38).

1. Impact on educators

More than three quarters of educators feel that OCW has had or will have a positive impact on their teaching practices and courses they deliver to their students (see Table 39). From the wide range of impact descriptions from educators, certain themes emerge. Access to content from a recognized, leading technical university is often cited, as illustrated by this Peruvian educator's comment: "MIT is the leader in the science world. Teachers always want the best for their students. OCW is the option." One educator in Canada reports, "I have improved my material. I have found some interesting cases and texts. I am more confident in my material (I had the opportunity to do some benchmarking. I realized that my material is good. I made a few adjustments to improve it)." While another from Spain points out that OCW can impact by reducing the amount of time spent "reinventing the wheel," allowing educators raise the standard of the courses and to spend more time on student interaction and other high value activities.

Table 39. OCW Impact on Educators' Teaching Practices

	Agree	Neutral	Disagree
Will have positive impact	75.9%	17.6%	8.6%

Source: Intercept Survey Responses

Anecdotal evidence suggests that OCW improves higher education by providing educators with easy access to course materials they can use to benchmark their own materials. One educator in Greece reports, "OCW courses

provide a standard against which to compare our work," while a Brazilian educator comments, "[with OCW] I understand the level [at which] American students are based and I try to stay in the same level. After that I will arise my personal studies to advanced one, but here is the place which I consider the level to begin (I think what are described here is what I should know for stay in the same level of American students) and I continue from this level to pick more information." Illustrating the significant influence OCW can have in indirectly increasing student achievement levels, an educator from the USA comments: "I am going to show this to my students partly to justify what we are doing in class and to show them what you and other top institutions require of your students."

It is clear, however, that there continues to be strong user demand for further increases in the completeness of the available materials. An educator from Mauritius comments that in their current form, "The materials are not sufficient to learn from. They should be made more general to adapt to a more global syllabus. The material should be such that after following the course, you can sit for an exam."

Table 40. Perception of Impact by Educators by Geography

Impact	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Extremely positive	**80.4%**	81.3%	85.4%	65.0%	90.0%	100.0%	84.6%	50.0%	50.0%	100.0%	0.0%	0.0%
Moderately positive	**18.4%**	16.7%	14.6%	35.0%	10.0%	0.0%	15.4%	50.0%	50.0%	0.0%	0.0%	0.0%
No positive impact	**1.3%**	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**0.0%**

Source: Intercept Survey Responses

Within the educator community, there are some regional variations of in the reported level of impact (see Table 40). Among the target areas, Latin America and Eastern Europe show significantly higher positive impact, reflecting the above average use of OCW by educators in those regions. One educator from Serbia and Montenegro comments: "[I will use OCW] to follow the current themes in my fields of teaching and to improve me to modernize courses without investing too much money on books."

2. Impact on students

84% of students using OCW report positive or extremely positive impact on their learning activities. This theme holds for most regions of the world. Students in North America and Western Europe are just as likely to value the resources and their impact on their studies as students in more disadvantaged regions of the world.

Behind this impact, students cite modes of impact ranging from the tactical to the more strategic. Strategically, the benefits relate to the course of study that the student is undertaking and the ability to easily access additional or complementary course materials to improve their understanding of the subject matter. A student from the Peru illustrates how OCW impacts ongoing studies, saying: "I have learned things I did not know. I was able to study a subject at a more profound level that I had seen at my actual university." A student from the US comments, "This will definitely improve my understanding of lecture topics that I may not have understood in class."

Table 41. Perception of Impact by Students by Geography

Impact	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Extremely positive	**83.4%**	84.8%	85.0%	81.0%	86.1%	85.2%	77.4%	100.0%	100.0%	0.0%	0.0%	0.0%
Moderately positive	**15.5%**	13.2%	15.0%	17.2%	13.9%	14.8%	22.6%	0.0%	0.0%	100.0%	100.0%	0.0%
No positive impact	**1.1%**	2.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**0.0%**

Source: Intercept Survey Responses

At a more tactical level, students are also focused on how OCW can help them with an upcoming exam, or a project that is part of their course. One student from Turkey comments that: "I have a midterm on Linear Algebra tomorrow.

We use G. Strang's book. I wanted to solve some questions that the author himself asks in midterms quizzes etc. The video lectures are also great." Another from the USA is "looking for a web document to serve as a suitable subject for analysis for a course assignment in Information Organization."

There were only slight regional variations, with South Asia showing lower impact for students. Language may contribute to this variation, as one student in China observes: "The impact on learning is positive. The courses offer a good set of material that is not often available to students in China. However language difficulties would limit use of OCW to just the most motivated students."

3. Impact on self-learners

Self-learners not only represent the majority of OCW's user base but also indicate the highest levels of satisfaction and impact and the intention to return to OCW in the future. For example, 85% of self-learners report a positive or extremely positive impact on their learning activities when using OCW.

The descriptions of the modes of impact for self-learners closely mirror those for students. Most prominent is access to up-to-date materials in subjects that are relevant for business/career use or simply general interest and the freedom to conduct self-paced study any time, anywhere. An Indian self-learner reports, "The structure and content of the OCW enables me to explore it from time to time and helps me in taking considerable interest in matters which might not have been known to me throughout the entire course of my life." A German self-learner illustrates how OCW is a resource for lifelong learning: "It is the job of today's engineer to constantly learn. The information I have found on this web site has helped me improve my current skill set as well as brainstorm new ideas for the future."

The geographical distribution of self-learners is heavily skewed to the USA, where close to 60% of OCW self-learners originate. There are some variations in impact by region (see Table 42) that appear to largely follow those for the student population. Latin America and Eastern Europe indicate above average impact. There is also an above average sense of positive impact among OCW self-learner users from South Asia, particularly India.

Table 42. Perceptions of Impact by Self-Learners by Geography

Impact	All Regions	North America	Western Europe	East Asia	Latin America	Eastern Europe	South Asia	Middle East/North Africa	Central Asia	Pacific	Sub-Saharan Africa	Caribbean
Extremely positive	**84.8%**	84.8%	80.0%	79.4%	91.7%	93.1%	93.8%	77.8%	80.0%	100.0%	100.0%	100.0%
Moderately positive	**13.8%**	13.8%	20.0%	19.0%	6.7%	6.9%	0.0%	11.1%	20.0%	0.0%	0.0%	0.0%
No positive impact	**1.4%**	1.5%	0.0%	1.6%	1.7%	0.0%	6.3%	11.1%	0.0%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Survey Responses

B. Adoption of OCW materials

Educators, students, and self-learners around the world are free to use OCW content for non-commercial educational purposes. By the terms of the OCW Creative Commons license, users may adopt course materials as-is or adapt them to their own needs by editing, translating, adding material, and incorporating them into their own materials.

Educators have already begun to reuse OpenCourseWare materials or are planning to do so in the future.

- Over 97% of educators expressed satisfaction with the quality of the course materials published in OCW.
- Over 47% have adopted MIT OCW materials (or plan to); 41% may adopt materials in the future.

Of particular interest is the level of adoption and reuse of materials among educators since they are most likely to actually take materials and incorporate them into other offerings. Despite having only accessed English language content, almost half of the educators using the OCW site reported that they are reusing—or plan to reuse—materials from OCW in their curriculum, courses or research (see Table 43).

Table 43. OCW Content Adoption by Educators

	Yes	No	Not Sure	N/A (not currently teaching)	Total
Have adopted or are planning to adopt	47.1%	12.1%	37.6%	3.2%	**100.0%**

Source: Intercept Survey Responses

The way educators use OCW materials varies widely but generally follows the usage scenarios discussed earlier in this report. The impact is felt most in the classroom where the educators leverage OCW for activities ranging from benchmarking to supplementing course materials. In general, this impact is achieved after some level of reorganization and repurposing, but in areas such as problem sets and references, the materials are often used directly.

C. OCW and users' perception of MIT

Many users of OCW have some awareness of MIT and come to the site with at least some perceptions of the Institute, ranging from the quality of an MIT education to the types of subjects taught at MIT. When asked how consistent the OCW site is with their perceptions of MIT, over 84% of OCW users indicate that their experience is consistent or extremely consistent. Less than 2% found it inconsistent.

OpenCourseWare is perceived as being consistent with MIT's overall image or brand.

- Over 84% of users report OCW is consistent or extremely consistent with their perceptions of MIT.
- Less than 2% of users indicate OCW is somewhat or extremely inconsistent with their perceptions of MIT.

Table 44. User Perception of OCW Consistency with MIT Image

Level of Consistency	Overall %	% of Educators	% of Students	% of Self-Learners
Extremely consistent	**27.7%**	26.0%	23.9%	30.3%
Consistent	**56.6%**	57.8%	58.2%	55.4%
Mixed	**14.0%**	12.3%	16.3%	13.0%
Somewhat inconsistent	**1.4%**	3.9%	1.1%	1.0%
Extremely inconsistent	**0.4%**	0.0%	0.5%	0.3%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Intercept Survey Responses

Appendix 1
Background on MIT OCW

Overview

First announced in April 2001, MIT OpenCourseWare is a large-scale, Web-based electronic publishing initiative. Its goals are 1) to provide free, searchable, coherent access to virtually all MIT course materials for educators, students, and individual learners around the world and 2) to create an efficient, standards-based model that other universities may emulate to publish their own course materials.

MIT's mission is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world. OCW is an exemplary manifestation of the MIT faculty's deep commitment to this ideal. Through OCW, anyone may access and freely use MIT course materials for non-commercial educational purposes.

OCW is being developed with generous support from the William and Flora Hewlett Foundation, the Andrew W. Mellon Foundation, Massachusetts Institute of Technology, and the MIT Faculty.

"OpenCourseWare looks counter-intuitive in a market-driven world. It goes against the grain of current material values. But it really is consistent with what I believe is the best about MIT. It is innovative. It expresses our belief in the way education can be advanced – by constantly widening access to information and by inspiring others to participate."

– Charles M. Vest, President of MIT

Content of OCW

Ultimately, OCW will include the materials for approximately 2,000 undergraduate- and graduate-level courses taught in all five of the Institute's schools (School of Architecture and Planning; School of Engineering; School of Humanities, Arts, and Social Sciences; Sloan School of Management; School of Science). Publication began with the OCW Pilot—32 courses introduced on the OCW web site in September 2002. The official launch of OCW came in September 2003 with the publication of 500 courses. As of April 1, 2004, OCW offered the educational materials from 701 courses. The remaining courses will be published over the next four years.

While the total number of MIT courses remains relatively constant over time, faculty create new courses and retire old courses at the rate of roughly 100 to 150 per year. OCW will continue to publish these new courses—and maintain an active, accessible archive of the old courses, permanently into the future. In addition, faculty members continually revise almost all active courses, and OCW will publish these revised versions as they evolve. This ongoing publication strategy ensures that the MIT course materials available on OCW will always remain timely and relevant.

OCW includes all MIT's academic disciplines, including Aeronautics and Astronautics; Anthropology; Architecture; Biology; Brain and Cognitive Sciences; Chemical Engineering; Civil and Environmental Engineering; Comparative Media Studies; Earth, Atmospheric, and Planetary Sciences; Economics; Electrical Engineering and Computer Science; Engineering Systems Division; Foreign Languages and Literatures; Health Sciences and Technology; History; Linguistics and Philosophy; Literature; Materials Science and Engineering; Mathematics; Mechanical Engineering; Media Arts and Sciences; Nuclear Engineering; Ocean Engineering; Physics; Political Science; Sloan School of Management; Urban Studies and Planning; and Writing and Humanistic Studies.

The materials for a typical course include at least a syllabus, course calendar, and lecture notes. Most courses also have one or more additional categories of material such as assignments, exams, problem/solution sets, labs, projects, hypertextbooks, simulations, demonstration/learning tools, tutorials, and video lectures.

Using MIT course materials
OCW materials are organized by course within department. However, OCW incorporates a rich "metadata tagging" scheme so that it is easy to search and retrieve materials across disciplines according to criteria specified by the user. OCW is designed with educators, students, and self-learners in mind, striving to anticipate the ways in which these audiences would use the materials.

MIT offers the materials under an open "Creative Commons" license that:

- Grants users the right to use and distribute the materials either as-is, or in an adapted form
- Allows users to create derivative works
  - Edit
  - Translate
  - Add to
  - Combine with or incorporate into other materials
- Obliges users to meet certain requirements as a condition of use:
  - Use *must* be non-commercial
  - Materials *must* be attributed to MIT and to original author/contributor
  - Publication or distribution of original or derivative materials *must* be offered freely to others under identical terms ("share alike")

Accordingly, educators may adopt whole courses into their curricula, or they may adapt just those parts that fit well with local purposes. Students, self-learners, and researchers may use the materials as a supplement to other educational resources available to them.

World reaction
Visitors to the OCW Web site have come from every corner of the globe. With well over 300 million "hits" since first publication of the OCW pilot in September 2002, traffic has come from 210 countries and city-states around the world.

OCW has received thousands of unsolicited messages in support of the initiative. Some examples:

> "Let me tell you in this 1st feedback on this Sept 30 2002 that today is a Historic Day. It's the Big Bang of the Knowledge Universe." – Algeria
>
> "I think this pilot program is very easy and helpful, especially for those living in developing countries like Vietnam who are unable to study in the land of America." – Vietnam
>
> "Once completed, the MIT OpenCourseWare will be akin to Gutenberg's creation in importance. It is the boldest thing done in the name of freedom of knowledge in many years." – Britain
>
> "Your free-of-charge OCW is something Brilliant – and unfortunately, very rare – in this commerce and money driven world of ours… [OCW] is returning to the very fundamental academic values of information open for all!" – Spain
>
> "I have to say this is one of the most exciting applications of the Internet to date. I look forward to taking advantage of this opportunity to 'take a dip' in MIT's enormous reservoir of human intellect." – Nigeria
>
> "The OCW site is the coolest thing on the Internet. It may very well be the coolest thing in human history…. This is the start of something big." – Seattle

Conclusion

OCW provides a new model for the dissemination of knowledge and collaboration among scholars around the world. It contributes to the "shared intellectual commons" in academia, which fosters cooperation and synergy across MIT and among scholars everywhere. MIT is publishing the materials for all its courses through OCW because this effort:

- Advances MIT's fundamental mission
- Reflects and embraces faculty values and provides an instrument for realization of faculty goals
- Counters the privatization of knowledge and champions the movement toward greater openness for the benefit of society.

"Everybody knows that the way to make progress in science is by using the best results of others–'standing on the shoulders of giants' is one way of expressing this idea. That's why we publish scientific results. OCW will let the same thing happen in education."

— MIT Professor Paul Penfield

OCW encourages educators and learners to take full advantage of these materials to support teaching and spread knowledge throughout the world. OCW also encourages other institutions to adopt their own open courseware programs in this same spirit, and we are happy to share information about the systems, methods, and processes we have used to implement OCW at MIT.

For more information about OCW, please contact:

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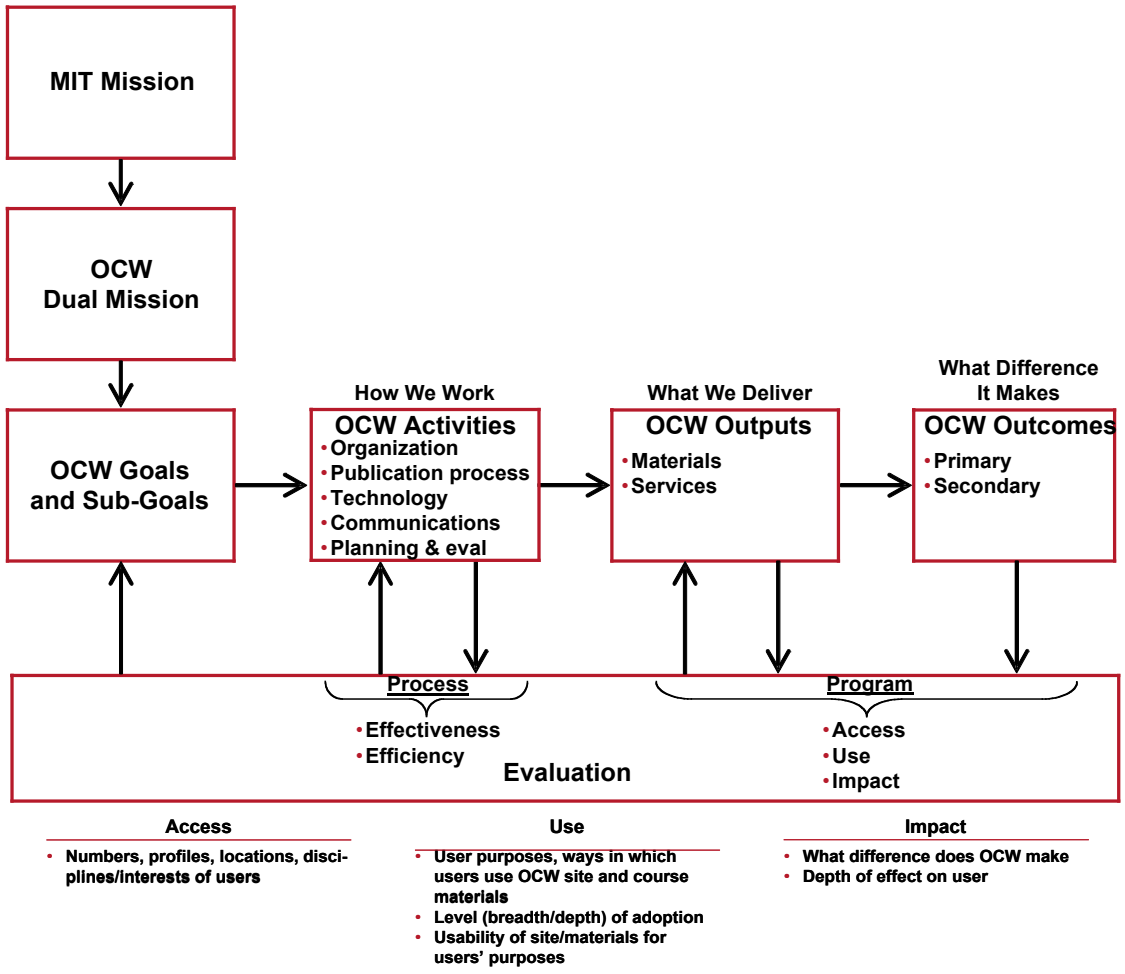
Appendix 2
Program Evaluation Methodology and Data Collection

OCW Logic Model

In order to structure and organize the evaluation, OCW developed a logic model that derives an array of questions and indicators from OCW's mission and goals. The logic model has guided the design of the evaluation strategy. It has driven our initial hypotheses, structured the data we have sought to collect, and informed our choice of methods and instruments. The logic model ties every element of the evaluation back to MIT's educational mission and OCW's role in advancing it. Figure 1 below depicts the overall model:

Figure A2-1: Evaluation Logic Model



In Figure 1 above, primary outcomes flow directly from the OCW goals. These are the focus of the evaluation effort. These include, for example, the use of OCW by educators for course and curriculum development, and by students for supplemental learning. Secondary outcomes are those results—both positive and negative—that have no specific programmatic intent. These may include, for example, improvements to MIT teaching materials through faculty efforts to make them ready for publication.

Evaluation Background and Objectives

From its earliest conception, MIT OCW has always contemplated a rigorous evaluation component. The purposes of the evaluation effort are to:

- Provide feedback to allow continuous improvement of OCW features and services.
- Guide long-term direction to keep OCW relevant to a wide array of users over time.
- Show the impact of the "open courseware" concept and thereby encourage other institutions to share their materials through similar efforts.

OCW evaluation began with the original pilot in mid-2002, with initial focus on testing usability and refining early designs of the OCW web site. In spring and summer 2003, we developed a strategy for more comprehensive evaluation as a permanent activity of the OCW enterprise. The November 2003 document *OCW Evaluation Strategy and Plan* describes this strategy in detail.

Key Questions and Scenarios

The discussion below explains what we mean by "access," "use," and "impact" as components of the program evaluation, and details the questions that the evaluation seeks to answer. All the data collection methods and instruments (described in Appendix 2 below) were designed to support our understanding of access, use, and impact. They allow us to differentiate results by educational role of the user (educators, student, self-learner), by educational and socio-geographic context, as well as by other dimensions. Appendix 3 details the specific indicators for each question, and also relates the indicator back to the evaluation method(s) used to probe it.

Access

OCW materials are meant to be accessible to users across geographies using various web browsers accessing the Internet through high- and low-bandwidth connections. OCW intends that every user encounter a reliable technical infrastructure, and have technical access to the full range of content on the site. OCW has made, and will continue to make, efforts to improve access by providing translations, improving search functionality, and employing the techniques of "user-centered design." OCW also engages in an ongoing communication effort (newsletter, press relations) in an effort to make people aware of the site. The evaluation measures the accessibility of OCW to users, and provides general demographic data about users that will help to identify and address gaps in accessibility. Key questions for evaluation of *access* include:

- Who is accessing OCW?
- Where, geographically, are OCW users coming from?
- What is the educational profile of the users?
- What are the technical contexts through which people access OCW?
- How well does OCW technical architecture perform in enabling people to access desired content and materials?
- What is triggering awareness of and access to OCW?

Use

Educators, students, and self-learners around the world are free to use OCW content for non-commercial educational purposes. By the terms of the OCW Creative Commons license,[14] users may adopt course materials as-is, or adapt them to their own needs by editing, translating, adding material, and incorporating them into their own materials.

[14] For terms of the full license, see the Legal Notices page at www.ocw.mit.edu.

Given this flexibility, OCW hypothesizes that the site and its materials will be particularly useful for the purposes (scenarios of use) shown in Figure 2 below.

Figure A2-2: Scenarios of Use[15]

Educator Scenarios
• Curriculum development. Establishing or revising overall curriculum organization and content; establishing or improving course offerings within disciplines. • Course development. Planning, developing or improving a course. Developing or enhancing methods and techniques for teaching particular content; establishing or revising course syllabi, calendars, etc. • Course delivery. Integrating new materials into an existing course; adding elements (demonstrations, problems sets, assignments, etc.) to a course or specific class. • Advising students. Providing feedback to students about courses of study and curriculum options. • Advancing research. Understanding current state of knowledge in a research subject area; connecting with colleagues with shared interests and research agendas. • Subject matter learning or reference. Exploring new areas or gaining new insights; understanding the current state of knowledge in an area of interest; connecting with academics who have similar interests; using OCW as a reference tool. • Educational technology development. Planning or developing an educational web site or related technology initiative using OCW content.
Student Scenarios
• Subject matter learning in support of current studies. Gaining new and complementary insights and alternative study materials related to a subject currently being studied.
• Subject matter learning in support of courses that are not available. Providing access to course materials that are not provided or otherwise available through the current program in which they are enrolled.
• Personal interest subject matter learning or reference. Exploring new areas or gaining new insights; re-learning or reviewing materials from previous educational interactions; using OCW as a reference tool.
• Planning courses of study. Exploring the range of subject matter in a particular discipline; making personal decisions about academic path.
• Advancing research. Understanding current state of knowledge in a research subject area; finding links to information related to a research topic.
Self-Learner Scenarios
• Personal interest or professional related subject matter learning or reference. Exploring new areas or gaining new insights; re-learning or reviewing materials from previous educational interactions; using OCW as a reference tool.
• Subject matter learning in lieu of courses that are not available. Providing access to course materials that are otherwise not available to the learner.
• Planning future courses of study. Exploring the range of subject matter in a particular discipline; making personal decisions about academic paths.
• Educational technology development. Planning or developing an educational Web site or related technology initiative using OCW content.

The site is designed to support these scenarios. The evaluation measured the degree to which the site is successful in that regard, and identified other, hitherto unanticipated uses of OCW. Key questions for evaluation of *use* include:

- What are people attempting to accomplish by interacting with OCW?
- What do people expect from OCW?
- How useful is OCW?
- How well does OCW support people in achieving their goals and completing their scenarios and tasks?
- What areas and aspects of OCW draw the most/least interest and use?
- How do people use/reuse OCW content offline/outside of OCW?[16]

[15] This table is updated from the Evaluation Strategy document dated 11/05/03 to reflect further developments in hypothesis about user scenarios.

- How effective and usable is the OCW site and content for users?

Impact

Once people access and use OCW, the question becomes: what difference does it make? The ultimate goal of ongoing the ongoing evaluation process is to understand and measure the various effects OCW has on its audiences of educators and learners. We wish to know how individuals' teaching and learning experiences change (if at all) through the use of the site. We also want to understand what broader effects OCW may have, noting, of course, that OCW is still in its infancy, a substantial number of courses was published just at the beginning of the evaluation period, and so our impact data at this point can only be prospective, and primarily anecdotal. Key questions for evaluation of *impact* include:

- What is the impact of OCW on individual teachers and learners?
- What is the impact of OCW on the open sharing of educational materials?

Program Evaluation Data Sources

In pursuit of a thorough and comprehensive evaluation, OCW has adopted an integrated "portfolio approach" to evaluation. This approach comprises a variety of evaluation methods including traditional surveys, interviews, on-line intercept surveys, and advanced web analytics. The combination of these methods helps us to achieve both breadth and depth in the evaluation. The table that follows summarizes the data sources used for the program evaluation.

Table A2-1: Summary of Program Evaluation Data Compiled

	Access ***Who is using OCW?***	***Use*** ***How are they using it? Does it meet their needs?***	***Impact*** ***What outcomes result from this use?***
Web analytics (all site activity)	Traffic volumes, geographic origination, linked referral source, site entry points, site performance	Usage patterns/behavior, frequently visited areas	N/A
Online intercept surveys (random, representative sampling of users; self-reported)	User profiles (role [educator, student, self-learner, other], institution profiles, country/context of origin, technology context/means of access, reliability, performance, referral source	User goals/purposes/ scenarios/tasks, user expectations, site usability and usefulness/ relevance, ability to complete intended tasks, level of adoption of materials, level and nature of adaptation	Leads for further follow up via supplemental surveys or interviews on significant outcomes
Supplemental surveys (targeted sampling of users; self-reported)	Complementary to online intercept surveys to obtain richer understanding for targeted groups (e.g., educators in regions with less developed educational infrastructure)		
Interviews (targeted sampling of users; self-reported)	Complementary to surveys to gain in-depth insights for development of case studies of OCW use		

Web Analytics

Web analytics refers to monitoring and analysis of online user behavior and interactions with OCW. Akamai, OCW's web hosting and content distribution network provider, provides worldwide content caching of the OCW site. Since October, we have been transitioning our Web analytics capture processes from the basic Akamai product (which captures aggregate usage data such as page views, object views and user location) to their more sophisticated product called SiteWise. SiteWise analyzes web site traffic and tracks many aspects of individual visitor behavior.

[16] This can be addressed qualitatively as well as using an adoption>>adaptation dimension to understand and measure use/reuse (e.g., are people adopting courses, course elements, learning objects, etc. wholesale or are they repurposing/adapting them or some combination.) Understanding this can inform decisions about content priorities and publishing formats, as well as provide rich case studies to inform communications to promote increasing use/adoption of OCW.

Among its features, it provides navigation analysis ("click stream paths"), visitor segmentation analysis and geographic trends analysis (origin of user access).

SiteWise uses a small piece of JavaScript code embedded in OCW's HTML pages. When a visitor views a page from the site, the JavaScript initiates an interaction between the visitor's browser and SiteWise. The JavaScript code collects data about the visitor's browser and activity and transmits it to an analysis engine. No personally identifiable information is captured or communicated. The analysis engine aggregates the data with that of all other visitors to the site, stores it, and makes it available in reports that can be viewed and downloaded to OCW from the SiteWise site.

Due to the transition that occurred during the month of October, raw usage and geographic data was being captured in the basic Akamai analytics product. This data was correlated with November SiteWise usage and visit data to produce an integrated view of site visits from October 1 to November 31. Additional usage data related to visitor technology, referring URLs, entry points, and department and course section level visit activity were captured in SiteWise starting November 1.

The SiteWise technology continues to capture all user visit data on an on-going basis except geographic trend data. Geographic trend data will continue to be sourced from the basic Akamai product. The full transition to SiteWise including geographic trend data is due to be completed in the first quarter of 2004. That data will inform future and comparative evaluation work.

Online Intercept Surveys

In order to garner data about users of OCW and their intentions, goals, and scenarios of use, we have employed an on-line intercept survey, using NetRaker technology.[17] The survey collected "profile" information to characterize the people who are accessing OCW, as well as usage data pertaining to the ways they are incorporating OCW into their teaching and learning routines, both online and offline. The survey also gathered feedback from users about the effectiveness, value, and impact of OCW.

Between November 6th and 19th, the survey tool invited (via pop-up window) a random sample of 21,467 OCW visitors to complete an online survey.[18] Of those prompted, 3573 people began the survey, and 1220 completed it fully, for a dropout rate of 66% and an overall completion rate of 5.7%. The composition of the sample—though ultimately a product of chance and self-selection—is broad enough to allow useful directional comparisons across key independent variables (e.g., educational role, geographic region, area of interest, scenario of use etc.). It is also large enough to provide a margin of error of not more than three percent.

Supplemental survey

The supplemental survey has provided a complement to the intercept surveys. While the supplemental survey's topics of inquiry were quite similar to that of the intercept survey, the mode of distribution was quite different. The supplemental survey was distributed via e-mail to members of target groups who may or may not have had previous experience with OCW. The purpose of the supplemental survey was to enable in-depth exploration of selected contexts in which OCW has little usage, in order to identify problems or barriers to use—whether technical, cultural, or other. Prospective respondents were identified by a variety of means: some self-selected through their expression of interest (e.g., at conferences at which OCW is represented); some identified through selected lists of academics provided by other organizations with which we are partnering. The e-mail linked participants to a NetRaker survey, which in turn led them to the OCW web site. Like the intercept survey, the supplemental survey collected profile information as well as initial responses to the usefulness and usability of OCW's on-line tools.[19]

The supplemental survey was distributed to 600 individuals around the world with emphasis on some of the target regions (Latin America, Africa, Asia and Eastern Europe) and roles (primarily educators and students). Sixty-two respondents started to fill out the survey, and 29 completed it, for a dropout rate of 53% and overall completion rate

[17] Netraker has the capacity to capture and analyze user paths—or "clickstreams"—through the site. Netraker complements the SiteWise web analytics tool by providing data shading into the behavioral realm of web analytics. This data enabled integrative analysis of users' self-reported intentions, goals, and scenarios on the site with their actual behavior.

[18] See Appendix 4 for the complete text of the intercept survey. Note that the online surveys (intercept and supplemental, see below) are built with research logic that dynamically presents a logical subset of the survey questions based on the respondents' answers.

[19] The supplemental survey may be found in Appendix 5.

of just under 5%. This sample set, hand picked as it was to provide extra input from target regions and visitor types, is in no way representative of the overall OCW visitor base. While the data garnered is not generalizable, they do provide illustrative qualitative insights into the experiences and attitudes of OCW visitors in those target geographies.

Interviews

Interviews were conducted with a small subset of people in various target groups and geographies to gather a deeper, richer narrative understanding than could be generated through surveys and web analytics alone. The purpose of the interviews was to gather textured qualitative data about the use and impact of OCW, including case studies and examples of how particular educators, students and self-learners have employed the tool to further their educational pursuits. Interviewees were selected from among intercept and supplemental survey respondents who indicated a willingness to participate, and whose responses sparked the curiosity of the evaluation team.

Members of the OCW research team conducted twenty-five in-depth interviews with participants distributed across several target regions (Latin America, Asia, Eastern Europe, North America) and groups (educators, students and self-learners). Appendix 6 contains the interview protocol used.

Evaluation cycles

The OCW evaluation has been—and will continue to be—a permanent, ongoing aspect of the OCW initiative. For the program evaluation, capture of web analytic data (traffic and access measures) is a continuous process. In addition, our current plans are to perform:

- One major evaluation study, similar to the one reported on in this document, every twelve to eighteen months, focusing on use and impact. This study will include a complete review of questions, indicators, and research instruments.
- Periodic smaller studies to evaluate the effectiveness of the OCW site or to answer specific questions that may arise.
- Ongoing review and analysis of real-time user feedback and Web analytic data from the SiteWise tool.

In addition the data and analyses summarized in this document, we also engaged in four types of evaluative analyses during the pilot phase of OCW (September 2002 – September 2003). These included:

- Web trends analysis. We collected basic usage (web trends) data from Akamai to measure overall traffic levels to the OCW site and the origins of that traffic.
- Site feedback analysis. Since the launch of the proof-of-concept pilot in September 2002, OCW has consistently invited voluntary user feedback, either via a feedback form on the OCW Web site, or simply through e-mail. This feedback has been mined for information on how people access and use OCW, and the impact that it has. This has resulted in a valuable set of anecdotal insights as well as an appreciation for how the OCW concept is being received by users around the world.
- Usability research. We conducted a research effort to gain a preliminary, baseline understanding of how people access and use OCW. That baseline analysis helped shape not only our current evaluation logic model and hypotheses, but also provided valuable input into the OCW site design itself. We obtained data for this research from:
    - External Educators interviews. OCW conducted 12 in-person interviews with North American Educators members at a number of institutions. These in-depth conversations provided a detailed understanding of how Educators in the United States use OCW, and provided a framework for improving the content and information design.

In addition to the insights and design guidance these early evaluation efforts provided, they also extend the baseline data on which future evaluation efforts will build, enabling (among other things) development of longitudinal access data from the earliest days of OCW.

Appendix 3
Evaluation Indicator Worksheet

Key Goals/Questions	Web-Analytics (* SiteWise unless otherwise noted)	Intercept Survey Questions	Supplemental Survey Questions	Interviews
ACCESS				
Who is accessing OCW?				Self report >qualitative OCW user profiles characterizing multiple dimensions/variables (e.g., geo, ed context, ed role, level etc.)
Where, geographically, are OCW users coming from? (OCW geographic reach)				
Which geographic regions are OCW users coming from?	Akamai geographic area - overlay with OCW regions	4 with region overlay	4 with overlay	
Are people in target regions (e.g., Sub-Saharan Africa) accessing OCW?	Akamai geographic area - overlay with OCW regions	4 with overlay	4 with overlay	
What countries are OCW users coming from?	Akamai geographic area	4	4	
Are people in target countries (e.g., "developing nations") accessing OCW?	Akamai geographic area	4	4	
Where are people coming from online?	Referrers-> Referring Domains Referrers-> Referring URLs Referrers-> Organizational Type	N/A	N/A	
What is the educational profile of the users?				Self reports/descriptions/profiles of selected/prototypic OCW users
What are the **educational roles** of the people who access and use OCW?		1		
To what extent are faculty, students, and self-learners accessing OCW?		1a, 1b, 1c		
To what extent is OCW being accessed by others (e.g., media, admin, government, etc.)		1d		
What **level of education/experience** are OCW users?				
What educational level (years of ed) of student or self-learner is accessing OCW?		5 with 1b and 1c	5 with 6	
What is the level of experience of the faculty accessing OCW?		13	14	
What are the **educational/learning contexts** of the people who access OCW?	Referrers-> Referring URLs			Self reports/descriptions/profiles of selected/prototypic OCW users' educational contexts (including specific target contexts)
What **specific formal educational institutions** are OCW student users affiliated with?		7	8	

What **types of formal educational institutions** are OCW student users affiliated with?		6	7	
What **specific formal educational institutions** are OCW faculty users affiliated with?		11	12	
What **types of formal educational institutions** are OCW faculty users affiliated with?		10	11	
Key Goals/Questions	**Web-Analytics (* SiteWise unless otherwise noted)**	**Intercept Survey Questions**	**Supplemental Survey Questions**	**Interviews**
To what extent is OCW being accessed by people in **constrained ("disadvantaged") educational contexts**?		4 with overlay, 7, 11	4 with Overlay, 8, 12	
Level of **"quality"** of educational institution		7+Overlay, 11+Overlay	8+overlay; 12+overlay	
What are the technical contexts through which people access OCW?				Self reports/descriptions/profiles of selected/prototypic OCW users' technical access/contexts
What are the OS's of the people accessing OCW?	System-> Platforms System-> Platform Versions	19	17	
What are the browser types of people using OCW?	System-> Browsers System-> Browser Versions	19	17	
What are the range and prototypic display setups when people access OCW?	System-> Screen Resolution System-> Screen Width System-> Color Map	N/A	N/A	
What are the connection types (particularly bandwidths) of the people accessing OCW?		20	18	
To what extent are people using specialized browsers to enhance accessibility e.g. Lynx while accessing OCW?	System-> Browsers	19	17	
How well does OCW tech architecture perform in enabling people to access desired content and materials?				
How do people evaluate the performance of OCW? (reliability, speed)		24c	23c	
How do people using browsers with accessibility features enabled evaluate the performance of OCW? (reliability, speed)		19 and 24c and 33a	17 and 23c and 33a	
What is triggering awareness of and access to OCW?				Self reports; awareness/access (profiles/scenarios/case studies) and qualitative descriptions of inhibiting and facilitating factors
To what extent is awareness and access being promoted/triggered by peers, colleagues, teachers, etc.?		18a, 18b	1 and 2a, 2b	
To what extent is awareness and access being promoted/triggered via offline media?		18c	1 and 2c	
To what extent is awareness and access being promoted/triggered via online channels, activities, promotions, and links?	Referrers -> Referring URLs	18d	1 and 2d, 2e	

Where are people coming from online? (E.g., search engines, academic sites, community sites, etc.)	Referrers-> Referring Domains Referrers-> Referring URLs Referrers-> Organizational Type Referrers-> Referring Countries Referrers-> Search Engine	18e	2e	
How effective are OCW online communication activities, "campaigns" and links?	Akamai geographic area overlay with OCW region.	18d	2d	
What are the primary **points of access** for people accessing OCW?	Navigation-> Entry Pages	N/A	N/A	

Key Goals/Questions	Web-Analytics (* SiteWise unless otherwise noted)	Intercept Survey Questions	Supplemental Survey Questions	Interviews
USE				
What are people attempting to accomplish by interacting with OCW?		25, 26, 27		Self reports; narrative characterizations/case studies of scenarios, goals, tasks, values, priorities, expectations
What are the range and prototypic **scenarios** (online and offline) within which faculty interact with OCW?		25	1c or 1d and 24	
What are the range and prototypic **scenarios** (online and offline) within which student interact with OCW?		26	1c or 1d and 26	
What are the range and prototypic **scenarios** (online and offline) within which self-learners interact with OCW?		27	1c or 1d and 28	
What are the primary **goals** of people in using OCW?		22 with categorization by role	25	
What are the primary online **tasks** of people using OCW?			22?	
How do people perceive the MIT OCW value proposition?		28 with 23 cross check	30	
How are people using OCW?				Self reports and narrative characterizations/case studies of use of OCW (general usage patterns, scenarios, tasks etc.) online and offline
What are the general patterns of online use and interaction?				Self reports and narrative characterizations/case studies of use of OCW (general usage patterns, scenarios, tasks etc.) online and offline
Do people use OCW repeatedly over time?		16, 17	1, 3	
How does OCW use vary in relation to educational calendars and milestones?		N/A	N/A	
What areas and aspects of OCW draw the most/least interest and use?			20	Self report and narrative characterization of user values/priorities
What subject matter areas draws the most/least interest and use in aggregate	Pages-> All sub-menu items Pages-> Activity by Content Group == Department; Global section; Course Pages-> Activity by Sub-group == n/a; Global Page; Courses Section	9, 14, 15	(20d or 20e) and 21	
What subject matter areas draw the most/least interest and use? Faculty		9	6a and (20d or 20e) and 21	
What subject matter areas draw the most/least interest and use? Student		14	6a and (20d or 20e) and 21	
What subject matter areas draw the most/least interest and use? Self Learner		15	6a and (20d or 20e) and 21	
What courses draw the most/least interest and use?	Pages-> Activity by Content Group	N/A	N/A	

What type/format of content draws the most interest and use?	Pages-> All sub-menu items Pages-> Activity by Content Group Pages-> Activity by Sub-group	N/A	N/A	
How do faculty use/reuse OCW content offline/outside of OCW?		34, 35, 36	34,35,36	Self reports and narrative characterizations/case studies about re-use (adoption/adaptation) of OCW content/materials
Key Goals/Questions	**Web-Analytics (* SiteWise unless otherwise noted)**	**Intercept Survey Questions**	**Supplemental Survey Questions**	**Interviews**
How effective is the OCW site and content for users?				Self report and narrative characterization of ease of use, (re-)usability, utility and effectiveness of OCW
How usable is the OCW site? (in general)		33	33	Self report and narrative characterization of ease of use, (re)usability, utility and effectiveness of OCW site
Do people perceive OCW as easy to use?		33a	33a	
Do people perceive the OCW site and materials as well organized and easy to navigate?		33b	33b	
Can people easily find what they are looking for?		33c	33c	
Does the search tool enable people to find materials of interest?	Navigation-> All sub Pages-> All sub	N/A		
Do people find the OCW site easy to learn		33d	33d	
What are the barriers that interfere with the usability of OCW?		24	23	
How well does OCW support people in achieving their goals and completing their scenarios and tasks?				Self report and narrative characterizations/case studies of effectiveness of OCW (site and content) in supporting user goal achievement, scenario/task completion
Can people complete their scenarios and tasks effectively through OCW site and content?		28, 23	30, 31	
Curriculum development scenarios		25a with 28	24a with 30	
Course planning, development and teaching scenarios		25b, 25c with 28	24b or c with 30	
Subject matter learning scenarios		25e, 26b, 26c, 26d, 27b, 27c with 28	24e, 26b, 26c, 26d with 30	
Advising/course of study planning		25d, 26a, 27a with 28	24d, 26a, 28a, with 30	
Planning educational website or related technology		25g, 27d with 28	24g, 28d with 30	
Advancing research and knowledge		25f with 28	24f with 30	
What are the barriers that interfere with the completion of scenarios and tasks?		24, 28c, 28d, 28e with 29, 42 and 43	23 with 30c, 30d, 30e with 31, 44b and 45	
How useful is OCW?				Self report and narrative characterizations/case studies of usefulness of OCW (both online and offline)

Do people perceive OCW site and materials to be relevant, useful, and compelling?		24d, 24e, 24f, 32, 33	20	
What is most relevant/useful about OCW (site and/or content)		40	21, 42	
What is least relevant/useful about OCW (site and/or content)		41	21, 43	
What are the barriers that limit the relevance/usefulness of OCW?		24, 33	44a with 45	
What would make OCW (site and/or materials) more relevant and useful?		42a with 43	20, 44a with 45	

Key Goals/Questions	Web-Analytics (* SiteWise unless otherwise noted)	Intercept Survey Questions	Supplemental Survey Questions	Interviews
IMPACT				
What is the impact of OCW on individual teachers and learners?		30	30	Self report and narrative characterization of impact of OCW (both online and offline)
High Level Adoption Indicator: What is the level of interest in continuing to use OCW in the future		39	40	
What is the impact of OCW on **faculty**?		1a overlay on 30 plus 31	6a overlay on 30 plus 31	Self reports and narrative characterizations of impact of OCW by faculty on various aspects of educational practice and experience (across ed scenarios); qualitative self reports re: nature of impact, barriers, and changes to optimize/enhance
How has OCW impacted on **teaching** (approach and quality of teaching from faculty point of view)		1a overlay on 33g	6a overlay on 33g	
Has OCW helped to enrich/improve approach to teaching in general		1a overlay on 33e, 34a	6a overlay on 33e, 34a	
If so, how? If not, why not?		1a overlay on 31 and 32	6a overlay on 31 and 32	
Has OCW helped enrich/improve existing courses?		1a overlay on 33g, 34	6a overlay on 33g, 34	
If so, how? If not, why not?		1a overlay on 31 and 32	6a overlay on 31 and 32	
Has OCW helped you design, plan and/or teach new courses?		N/A	N/A	
New courses in your ed institution?				
Courses that faculty had not previously taught?				
If so, how? If not, why not?				
Has OCW helped to enrich/enhance/extend **subject matter understanding**?		1a overlay on 25e plus 28 and 30	24e plus 6a overlay on 30 and 31	
If so, how? If not, why not?		1a overlay on 31 and 32	1a overlay on 31 and 32	
Has OCW impacted on **curricula**?		25a plus 1a overlay on 28 and 29 and 30	24a plus 6a overlay on 31 and 32	
Has OCW contributed to the creation of new course offerings in ed institutions/departments?		25a and 25b	24a and 24b	
Has OCW impacted on **student advising**?		25d plus 1a overlay on 28 and 29 and 30	24d	
Has OCW impacted on **research**?		25f plus 1a overlay on 28 and 29 and 30	24f	
What would make OCW more valuable/impactful for faculty (in general and in each specific area)?		1a overlay on 32	1a overlay on 31 and 32	
What is the impact of OCW on **perceptions of MIT**?				

Is MIT OCW consistent with what is expected of MIT? (standards, values, etc.)		1a overlay on 44 and 45	1a overlay on 46 and 47	
What is the impact of OCW on **students**?				Self reports and narrative characterizations of impact of OCW by students on various aspects of educational experience (across ed scenarios); qualitative self reports re: nature of impact, barriers, and changes to optimize/enhance
Key Goals/Questions	**Web-Analytics (* SiteWise unless otherwise noted)**	**Intercept Survey Questions**	**Supplemental Survey Questions**	**Interviews**
What is the impact of OCW on **subject matter understanding**?		26b,c,d and 1b overlay on 28 and 30	26b, 26c, 26d plus 6b overlay on 30,31	
What is the impact of OCW on **course experiences**?		26b and 1b overlay on 28 and 30	26b and 6b overlay on 30, 31	
What is the impact of OCW on **course of study planning?**		26a and 1b overlay on 28 and 30	26a plus 6b overlay on 30,31	
What is the impact of OCW on **motivation for and approach to learning?**		1b and 33h	6b overlay on 33h	
What would make OCW more valuable/impactful for students (in general and in each specific area)?		1b and 32	6b and 32	
What is the impact of OCW on **perceptions of MIT**?				
Is MIT OCW consistent with what is expected of MIT? (standards, values, etc.)		1b overlay on 44 and 45	6b overlay on 46 and 47	
What is the impact of OCW on **self-learners?**				Self reports and narrative characterizations of impact of OCW by self learners on various aspects of educational experience (across ed scenarios); qualitative self reports re: nature of impact, barriers, and changes to optimize/enhance
What is the impact of OCW on **subject matter understanding**?		27b,c and 28 and 30	28b 28c and 6c overlay on 30, 31	
What is the impact of OCW on **course of study planning?**		27a and 28 and 30	28a and 6c overlay on 30, 31	
What is the impact of OCW on **motivation for and approach to learning?**		1c and 33h	6c and 33h	
What would make OCW more valuable/impactful for self-learners (in general and in each specific area)?		1c and 32	6c and 32	
What is the impact of OCW on **perceptions of MIT**?				
Is MIT OCW consistent with what is expected of MIT? (standards, values, etc.)		1c overlay on 44 and 45	6c overlay on 46 and 47	
What is the impact of OCW on the open sharing of educational materials?				Self reports re: impact of OCW on open sharing of ed materials (most relevant for faculty and self learners who participate in professional learning communities)
Has OCW stimulated other institutions to consider making course materials publicly accessible via the web?		25g, 25h 27d	24g, 28d	

Is the MIT OCW model being directly emulated by other educational institutions or learning communities?		N/A	N/A	

Appendix 4
OpenCourseWare Intercept Survey

This appendix contains the detailed questions and research logic used in the OCW program Intercept Survey, conducted using Netraker technology.

Intercept Survey Invitation, Introduction and Exit

[NOTE: the following text will appear on a pop-up invitation window]

Title: MIT OCW User Feedback

[SURVEY DISPLAY NOTES:
Display invitation in pop-up window (branded MIT OCW). If user indicates will complete, then display questions in frame, while continuing to display the initial OCW page that the visitor accessed.

Please take a moment to complete this survey. Your feedback will help us make improvements to MIT OpenCourseWare.

This survey has two parts and takes 20 minutes to complete. Part 1 asks for background information, then invites you to explore OCW. Part 2 asks how effective you found the OCW site, and how valuable you find the MIT course materials you accessed. Of course, all information you provide is completely confidential.

*INSTRUCTIONS: Click the Continue button below to begin. Answer each question, and click the next button to proceed through the survey. Please do not close the survey window. If you inadvertently close it, you can restart the survey, by going to the Netraker Control Window and clicking on the link "***Click here to open the survey window again.**"

IF yes THEN continue with survey
IF no THEN close window

[SURVEY DISPLAY NOTE: Display questions in frame, while continuing to display the initial OCW page that the visitor accessed]

{SURVEY EXIT – THANK YOU}

We appreciate your taking the time to complete this survey. Please feel free to provide additional thoughts by clicking on the "Feedback" button on the MIT OCW Web Site, or through the Contact Us link.

Section 1: Entry Questions

---

1. Which of the following best describes your primary **role in education and learning**?
   1.a. Faculty (working within a formal educational institution or program)
   1.b. Student (currently enrolled in a formal educational institution/program)
   1.c. Self learner (independent learner not affiliated with/enrolled in a formal educational institution/program)
   1.d. Other Specify: _____

RESEARCH LOGIC:
If 1.c. go to Question 4
If 1.d go to Question 4

---

2. Are you formally affiliated with MIT?
   2.a. Yes
   2.b. No

RESEARCH LOGIC:
If (1.b AND 2.a) OR 2.b go to Question 4

---

3. {MIT Faculty only} Later this fall, OCW will send out a Faculty Survey. We will obtain your feedback through that process, and therefore do not need to take your time today. Thank you for your interest in helping OCW, and thank you in advance for responding to the upcoming Faculty Survey. END

RESEARCH LOGIC:
EXIT (End survey)
---

4. What **country are you currently located in**? [Show comprehensive alphabetized drop down list Obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file)
Go to Question 5

---

5. What is the **highest educational degree** that you have received?
   5.a. High school/secondary school diploma or equivalent
   5.b. Associates degree or equivalent 2 year college degree
   5.c. Bachelors degree or equivalent 4 year college degree
   5.d. Masters degree or equivalent
   5.e. Doctorate degree or equivalent
   5.f. Other. Specify _____

RESEARCH LOGIC:
If 1.a go to Question 10
If 1.b and 2.a go to Question 9
If 1.b and 2.b go to Question 6
If 1.c go to Question 15
If 1.d (other) go to Question 15

[NOTE: Student profile questions]
---

6. Which of the following best describes the educational institution in which you are currently enrolled?
   6.a. Secondary school (e.g., "high school")
   6.b. 2 year college, junior college or the equivalent
   6.c. 4 year college or university or the equivalent
   6.d. Graduate school
   6.e. Technical or trade school
   6.f. Other. Specify _____

RESEARCH LOGIC:
Go to Question 7

7. What is the **name** of the specific educational institution in which you are currently enrolled?
   FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 8

---
8. Where **is your educational institution located**?
   [Show comprehensive alphabetized drop down list Obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file?)
Go to Question 9
---

9. Which of the following best describes **your major field of study**? [Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]
   9.a. Aeronautics and Astronautics
   9.b. Anthropology
   9.c. Architecture
   9.d. Biological Engineering Division
   9.e. Biology
   9.f. Brain and Cognitive Sciences
   9.g. Business
   9.h. Chemical Engineering
   9.i. Chemistry
   9.j. Civil and Environmental Engineering
   9.k. Comparative Media Studies
   9.l. Earth, Atmospheric, and Planetary Sciences
   9.m. Economics
   9.n. Electrical Engineering and Computer Science
   9.o. Engineering Systems Division
   9.p. Foreign Languages and Literatures
   9.q. Health Sciences and Technology
   9.r. History
   9.s. Linguistics
   9.t. Literature
   9.u. Management
   9.v. Materials Science and Engineering
   9.w. Mathematics
   9.x. Mechanical Engineering
   9.y. Media Arts and Sciences
   9.z. Music
   9.aa. Nuclear Engineering
   9.bb. Ocean Engineering
   9.cc. Philosophy
   9.dd. Physics
   9.ee. Political Science
   9.ff. Science, Technology, and Society
   9.gg. Theater Arts
   9.hh. Writing and Humanistic Studies
   9.ii. Other

RESEARCH LOGIC:
Go to Question 16 (online computer context)

[NOTE: Faculty profile questions]
---

10. What best describes the educational institution within which you are a faculty member?
    10.a. Secondary school (e.g., "high school")
    10.b. 2 year college, junior college or the equivalent
    10.c. 4 year college or university or the equivalent
    10.d. Graduate or professional school
    10.e. Technical or other trade school
    10.f. Other. Specify _____

RESEARCH LOGIC:
Go to Question 11
---

11. What is the **name** of the specific educational institution with which you are affiliated?
    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 12

---

12. **Where** is your educational institution located?
    [Show comprehensive alphabetized drop down list Obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file)
Go to Question 13

---

13. **How many years** have you worked as a faculty member?
    [Show drop down with choices Less than 3 years; every year from 4-20, greater than 20]
    13.a. 1 Year or less
    13.b. 2 Years
    13.c. 3 Years
    13.d. 4 Years
    13.e. 5 Years
    13.f. 6 Years
    13.g. 7 Years
    13.h. 8 Years
    13.i. 9 Years
    13.j. 10 Years
    13.k. 11 Years
    13.l. 12 Years
    13.m. 13 Years
    13.n. 14 Years
    13.o. 15 Years
    13.p. 16 Years
    13.q. 17 Years
    13.r. 18 Years
    13.s. 19 Years
    13.t. 20 Years
    13.u. Greater than 20 Years

RESEARCH LOGIC:
Go to Question 14

---

14. Which of the following best describes **your primary field of expertise**?
    [Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]
    14.a. Aeronautics and Astronautics
    14.b. Anthropology
    14.c. Architecture
    14.d. Biological Engineering Division
    14.e. Biology
    14.f. Brain and Cognitive Sciences
    14.g. Business
    14.h. Chemical Engineering
    14.i. Chemistry
    14.j. Civil and Environmental Engineering
    14.k. Comparative Media Studies
    14.l. Earth, Atmospheric, and Planetary Sciences
    14.m. Economics
    14.n. Electrical Engineering and Computer Science

14.o. Engineering Systems Division
14.p. Foreign Languages and Literatures
14.q. Health Sciences and Technology
14.r. History
14.s. Linguistics
14.t. Literature
14.u. Management
14.v. Materials Science and Engineering
14.w. Mathematics
14.x. Mechanical Engineering
14.y. Media Arts and Sciences
14.z. Music
14.aa. Nuclear Engineering
14.bb. Ocean Engineering
14.cc. Philosophy
14.dd. Physics
14.ee. Political Science
14.ff. Science, Technology, and Society
14.gg. Theater Arts
14.hh. Writing and Humanistic Studies
14.hi Other

RESEARCH LOGIC:
Go to Question 16...(go to online computer context)

[Self-learner primary interest question]
---

15. Which of the following best describes **your primary field of interest**?
[Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]
15.a. Aeronautics and Astronautics
15.b. Anthropology
15.c. Architecture
15.d. Biological Engineering Division
15.e. Biology
15.f. Brain and Cognitive Sciences
15.g. Business
15.h. Chemical Engineering
15.i. Chemistry
15.j. Civil and Environmental Engineering
15.k. Comparative Media Studies
15.l. Earth, Atmospheric, and Planetary Sciences
15.m. Economics
15.n. Electrical Engineering and Computer Science
15.o. Engineering Systems Division
15.p. Foreign Languages and Literatures
15.q. Health Sciences and Technology
15.r. History
15.s. Linguistics
15.t. Literature
15.u. Management
15.v. Materials Science and Engineering
15.w. Mathematics
15.x. Mechanical Engineering

15.y. Media Arts and Sciences
15.z. Music
15.aa. Nuclear Engineering
15.bb. Ocean Engineering
15.cc. Philosophy
15.dd. Physics
15.ee. Political Science
15.ff. Science, Technology, and Society
15.gg. Theater Arts
15.hh. Writing and Humanistic Studies
15.hi Other

RESEARCH LOGIC:
Go to Question 16

What is triggering awareness of and access to OCW?

---

16. How often do you visit the OCW Web site?
    16.a. This is the first time
    16.b. Daily
    16.c. Weekly
    16.d. Monthly
    16.e. Occasionally (less than once a month)

RESEARCH LOGIC:
If 16.a go to Question 18
Else go to Question 17

[Visit frequency question]

---

17. How many times have you visited the OCW Web site before today?
    17.a. Once
    17.b. 2-5 times
    17.c. 6-10 times
    17.d. More than 10 times

RESEARCH LOGIC:
Go to Question 18

---

18. How did you **first become aware of** OCW?
    18.a. Colleague or peer
    18.b. Educator
    18.c. Offline media (newspaper, magazine, television, radio)
    18.d. Online media (online news article, link, etc.)
    18.e. Search engine
    18.f. Other. Specify: _____

RESEARCH LOGIC:
Go to Question 19

--

{Technical context and domain questions}

19. What are the OS's and browser types of people accessing OCW?

RESEARCH LOGIC:
Hidden Question
Go to Question 20

--

---

20. Please describe your Internet connection
    20.a. Dial-up
    20.b. Cable modem
    20.c. DSL
    20.d. LAN
    20.e. Other. Please Specify _____

RESEARCH LOGIC:
Go to Question 21

--

---

21. {INSTRUCTIONS} Please continue your session on OCW. When you are done using OCW, click the "Next" button to continue with the second part of the survey.

    We will then ask you a few more questions to get your feedback about our Web site and the course materials you've found here.

RESEARCH LOGIC:
Resize/minimize Netraker question frame (display horizontally at the top of the page and make it very narrow)
Show the web page from where the user was intercepted
When participant clicks Next button
Go to Question 22, resize maximize Netraker question frame

Section II: Exit questions: Use – Scenarios, Tasks, Site and Content Effectiveness

---

22. Describe **what prompted you to visit the MIT OCW Web site today.**
    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 23
---

23. Were you able to successfully accomplish your objectives today using the OCW web site?

    23.a. I was completely successful
    23.b. I was somewhat successful
    23.c. I was not successful

RESEARCH LOGIC:
If 1.a AND (23.a) go to Question 25
If 1.b AND (23.a) go to Question 26
If (1.c OR 1.d) AND (23.a) go to Question 27
Go to Question 24

---

24. Which of the following factors limited your success in accomplishing your goals? **Select all that apply**.

    24.a. Organization of the OCW web site
    24.b. Visual design or presentation of the OCW web site
    24.c. Performance of the web site (e.g., errors, responsiveness/speed, etc.)
    24.d. Subject matter and course areas covered on the OCW web site
    24.e. Types of course materials available for specific courses
    24.f. Quality or nature of the course materials provided for specific courses
    24.g. Other (Please Specify)

RESEARCH LOGIC:
If 1.a go to Question 25
ELSE If 1.b go to Question 26
ELSE go to Question 27

{Scenarios of use}
{Faculty scenario list}

25. Please indicate **the educational scenario, situation, or challenge that best describes why you visited OCW today.**
    25.a. Developing or planning curriculum for my department
    25.b. Developing or planning a course
    25.c. Preparing to teach a specific class
    25.d. Advising students about their course of study
    25.e. Learning about subject matter to enhance my personal knowledge (not directly related to my teaching)

25.f. Learning about subject matter to enhance my research
25.g. Planning or developing an educational Web site or related technology
25.h. Other: please describe _____

RESEARCH LOGIC:
Go to Question 28

{Student scenario list)
26. Please indicate **the educational scenario, situation, or challenge that best describes why you visited OCW today.**
    26.a. Planning my course of study as a student
    26.b. Learning about subject matter to complement a course I am currently taking
    26.c. Learning about subject matter as a substitute for a particular course not offered at my educational institution
    26.d. Learning about subject matter to enhance my personal knowledge
    26.e. Other: please describe _____

RESEARCH LOGIC:
Go to Question 28

{Self learner/other scenario list}
27. Please indicate **the educational scenario, situation, or challenge that best describes why you visited OCW today.**
    27.a. Planning my future course of study as a student
    27.b. Learning about subject matter as a substitute for a course not available to me
    27.c. Learning about subject matter to enhance my personal knowledge
    27.d. Planning or developing an educational web site or related technology initiative
    27.e. Other: please describe _____

RESEARCH LOGIC:
Go to Question 28
---

28. How **useful** is the OCW Web site in helping you address your primary educational scenario?

    28.a. Extremely useful
    28.b. Useful
    28.c. Moderately useful
    28.d. Somewhat useful
    28.e. Not useful

RESEARCH LOGIC:
Go to Question 29
---

29. Please explain your rating. _____

RESEARCH LOGIC:
Go to Question 30

30. We are eager to understand the **impact** of OCW and the difference it makes for the educators and learners who access it. Please indicate the degree of **positive impact** that the OCW Web site has already had, or that you expect it to have, on the educational scenario, situation, or challenge that you identified earlier.

    30.a. 5: Extremely positive impact
    30.b. 4: Positive impact
    30.c. 3: Moderately positive impact
    30.d. 2: Somewhat positive impact
    30.e. 1: No positive impact

RESEARCH LOGIC:
Go to Question 31
---

31. Please explain your rating. Be specific—elaborate on the impact OCW has had on you.

    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 32
---

32. In your opinion, **how can we improve OCW to make it more useful, effective, or valuable** in helping you address your primary scenario/challenge?
    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 33
---

33. Do you agree with the following statements as they apply to the OCW web site? Please rate your agreement on a scale of 1 to 5,

    33.a. The OCW web site is easy to use
    33.b. The OCW web site is well organized and easy to navigate
    33.c. I am able to find what I'm looking for on OCW
    33.d. I learned how to use the OCW site quickly
    33.e. OCW has or will help me be more productive and effective
    33.f. OCW has or will help me learn
    33.g. As an educator, I was/will be able to improve my courses using OCW
    33.h. OCW has increased my motivation and interest in learning
    33.i. I would recommend OCW to others

RESEARCH LOGIC:
Go to Question 34
---

34. MIT is making course materials freely available for non-commercial educational purposes, and encourages their use according to the "open" license terms in our legal notices page.
    Have you used or do you expect to use any of the materials or pages from OCW in any courses that you teach or will teach in the near future?
    34.a. Yes
    34.b. No
    34.c. Not sure
    34.d. Not applicable (I don't teach and do not anticipate teaching in the near future)

RESEARCH LOGIC:
Go to Question 35
---

35. Have you used or do you expect to use any of the materials or pages from OCW in any way that doesn't directly involve teaching?
    35.a. Yes
    35.b. No
    35.c. Not sure

RESEARCH LOGIC:
If (35.b OR 35.c) AND (34.b or 34.c or 34.d) go to Question 37
ELSE go to Question 36

---
36. Please describe how you have used or expect to use these materials.
    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 37
---

37. Have you communicated with others (e.g., colleagues, educators, etc.) about any of the specific materials or pages from OCW?
    37.a. Yes
    37.b. No
    37.c. Not sure

RESEARCH LOGIC:
If (37.b OR 37.c) go to Question 39
ELSE go to Question 38
---
38. Please describe your communications about OCW.

    Be specific regarding what you have communicated about, who you communicated with (e.g., students, fellow educators, research colleagues, etc.), and how you communicated (e.g., emailed links or files, informed verbally, etc.).
    FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 39
---

39. What is the likelihood that you will visit the OCW Web site in the future?

    39.a. Definitely will return
    39.b. Probably will return
    39.c. Unsure/Mixed
    39.d. Probably will not return
    39.e. Definitely will not return

RESEARCH LOGIC:
Go to Question 40
---

40. What is **most interesting and useful** to you on OCW?

FREE TEXT_____

RESEARCH LOGIC:
Go to Question 41
---

41. What is **least interesting and useful** to you on OCW?
FREE TEXT_____

RESEARCH LOGIC:
Go to Question 42
------

42. Do you think OCW could be changed to make it more effective, useful and valuable to you?
42.a. Yes
42.b. No
42.c. Not sure

RESEARCH LOGIC:
If (42.b OR 42.c) Go to Question 44
ELSE go to Question 43
----

43. Please describe what you would change to improve OCW.
FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 44
----

44. In your view, how consistent is OCW with what you expect from MIT?
44.a. Extremely consistent
44.b. Consistent
44.c. Mixed
44.d. Somewhat inconsistent
44.e. Extremely inconsistent

RESEARCH LOGIC:
If (44.a or 44.b) go to Question 46
ELSE go to Question 45
----

45. Please explain your rating: _____

RESEARCH LOGIC:
Go to Question 46

------

46. May we contact you in the future to learn more about your experiences using MIT OCW?

If you are willing to be contacted, please provide your email address below.

As described in our privacy policy, we will not share your contact information with anyone. Providing your email address does not obligate you to participate in future surveys.

If you do not wish to be contacted, simply click on the "Done" button below

_____

RESEARCH LOGIC:
Display Survey Exit (Thank You message after this)

Research Logic Flow

Figure A4-1 – Entry Questions

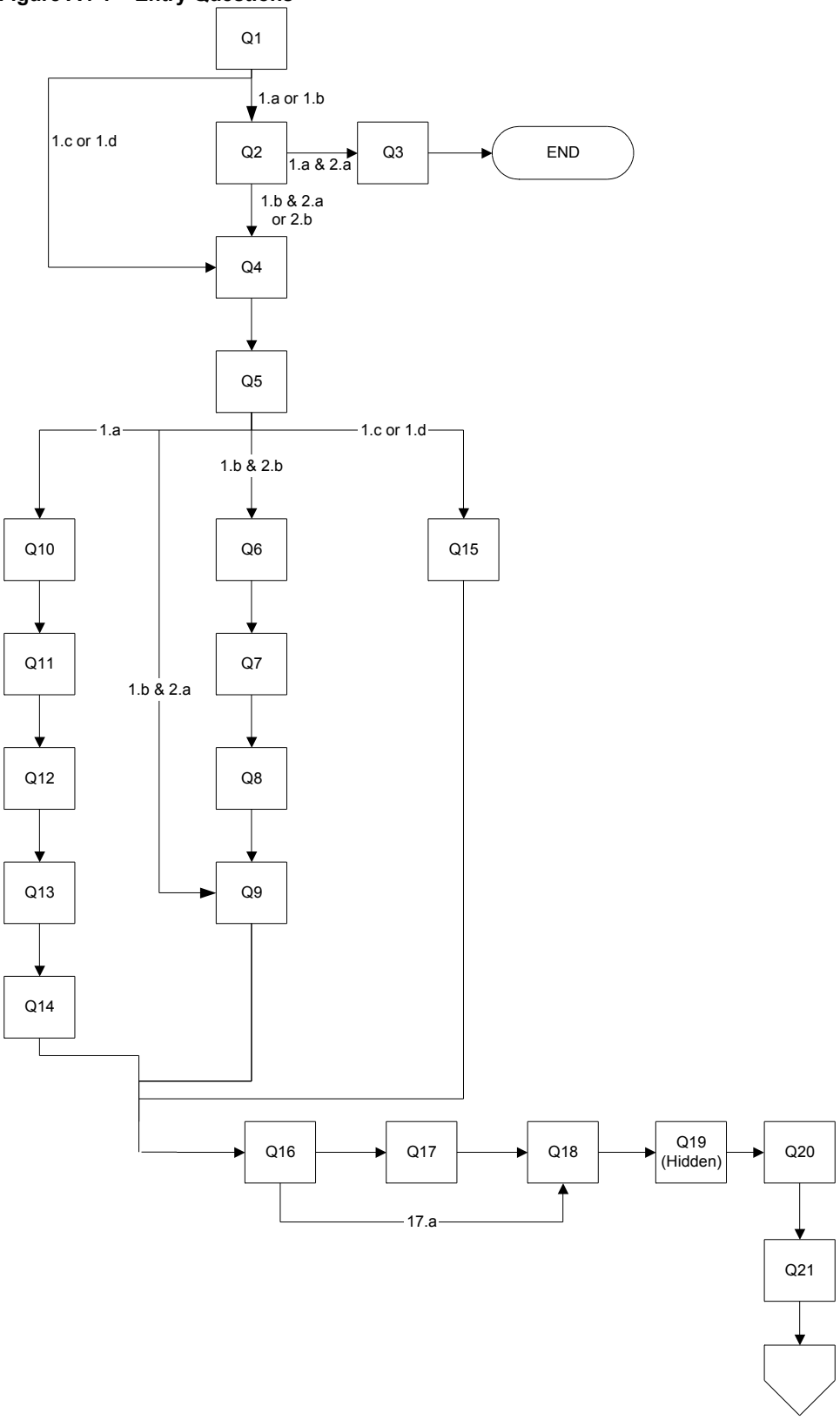
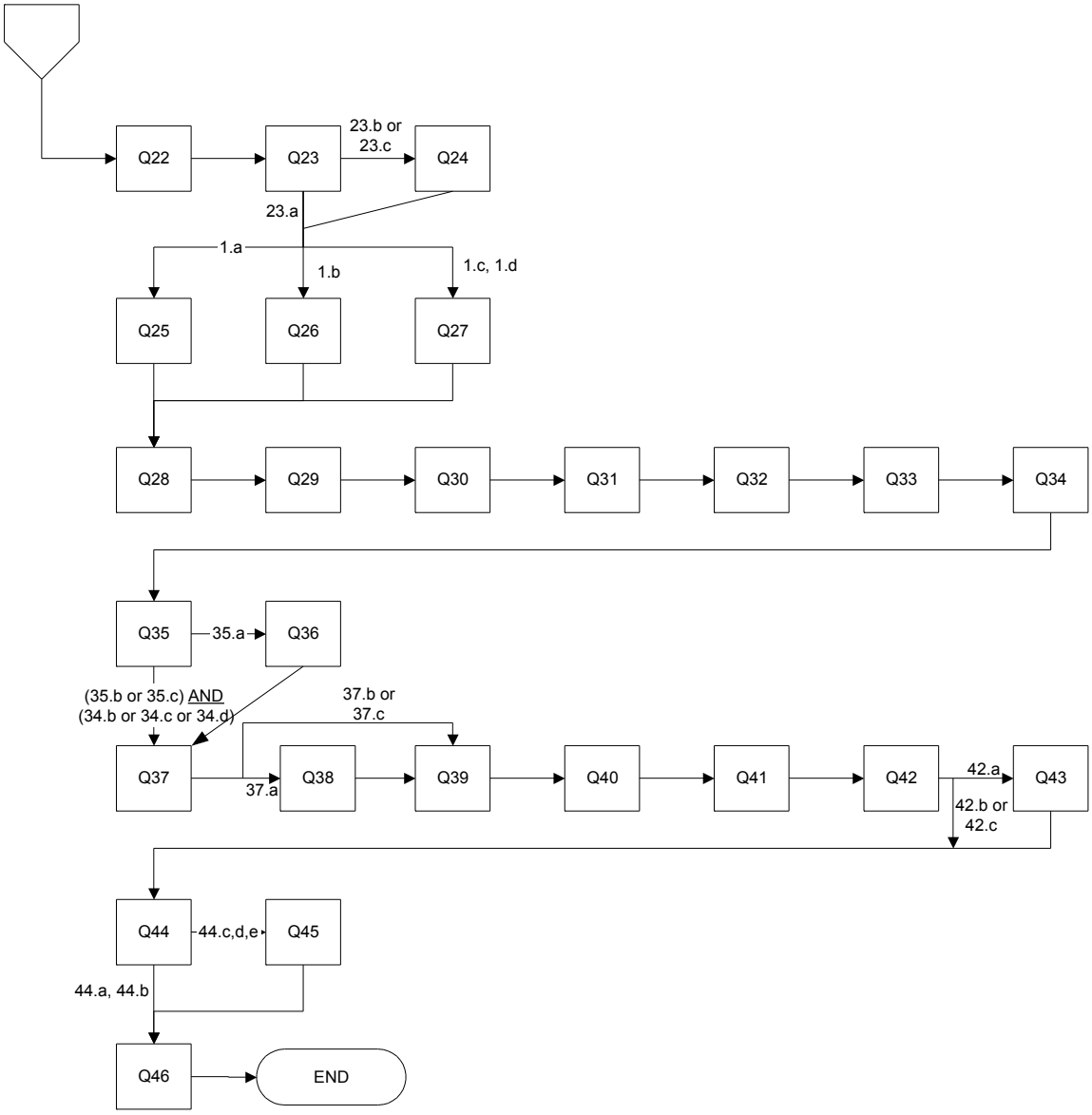


Figure A4-2 – Exit Questions



Appendix 5
OpenCourseWare Supplemental Survey

This appendix contains the detailed questions and research logic used in the OCW program Supplemental Survey, conducted using Netraker technology.

Invitation E-mail Text

Dear Colleague**,**

We invite you to provide your feedback regarding MIT's OpenCourseWare initiative (OCW). As you may know, OpenCourseWare (http://ocw.mit.edu) represents MIT's effort to make course materials — syllabi, readings, lecture notes, etc. — freely available to the learning and teaching public. OpenCourseWare is a part of MIT's fundamental mission: to advance knowledge and education to best serve the nation and the world.

At this point, we have published the materials from over 500 courses on the Web. As we continue to publish and develop our on-line resources, we would like input from you — the educators and learners whom this resource is intended to serve. We ask that you please complete a brief survey. It includes a few background questions, a scan of the OCW Web site, and quick feedback on what you see. The survey takes approximately 20 minutes to complete.

Our sincere thanks,

The MIT OCW Team

To begin, please click on the following link:

http://www.netraker.com/code/delivery.asp?action=IE&SID=552020&FID=1960343

AOL and Compuserve users, follow this link:

Click here

Supplemental Survey Introduction and Exit

Welcome pop-up text:

Please take a moment to help us help you by completing this survey. Your feedback will help us make improvements to MIT OpenCourseWare.

This survey has two parts and takes 20 minutes to complete. Part 1 asks for background information and then invites you to explore OCW. Part 2 asks you about how effective you found the OCW site and how valuable you find the MIT course materials you accessed. Of course, all information you provide is completely confidential.

INSTRUCTIONS: Click the Continue button below to begin. Answer each question, and click the next button to proceed through the survey. Please do not close the survey window. If you inadvertently close it, you can restart the survey by clicking on the link in the original email survey information.

Farewell Popup text:

We appreciate your taking the time to complete this survey. Please feel free to provide us with any additional thoughts by clicking on the "Feedback" button or through the Contact Us link on the OCW site.

Section I: Entry Questions

---

1. Before responding to this survey, were you…
   1.a. unaware of OCW
   1.b. aware of OCW but had not visited the site
   1.c. a one-time or occasional visitor to OCW
   1.d. a regular visitor to OCW

RESEARCH LOGIC:
If 1.a go to Question 4
ELSE go to Question 2
---

2. How did you **first become aware of** OCW?
   2.a. Colleague or peer
   2.b. Teacher
   2.c. Offline media (newspaper, magazine, television, radio)
   2.d. Online media (online news article, link, etc.)
   2.e. Search engine
   2.f. Other Specify: _____

RESEARCH LOGIC:
Go to Question 3
---

3. How many times have you visited the OCW Web site before today?
   3.a. Never
   3.b. Once
   3.c. 2-5 times
   3.d. 6-10 times
   3.e. More than 10 times

RESEARCH LOGIC:
Go to Question 4
---

4. What **country are you currently located in**? [Show comprehensive alphabetized drop down list—obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file)
Go to Question 5
---

5. What is the **highest educational degree** that you have achieved?
   5.a. High school/secondary school diploma or equivalent
   5.b. Associates degree or equivalent 2 year college degree
   5.c. Bachelors degree or equivalent 4 year college degree
   5.d. Masters degree or equivalent
   5.e. Doctorate level degree or equivalent
   5.f. Other. Specify _____

RESEARCH LOGIC:
Go to Question 6
---

6. Which of the following best describes your primary **role in education and learning**?
   6.a. Faculty (working within a formal educational institution or program)
   6.b. Student (currently enrolled in a formal educational institution/program)
   6.c. Self learner (independent learner not affiliated with/enrolled in a formal educational institution/program)
   6.d. Other Specify: _____

RESEARCH LOGIC:
If 6.a go to Question 11
If 6.b go to Question 7
If 6.c go to Question 16
If 6.d go to Question 16

[NOTE: Student profile questions]

7. Which of the following best describes the educational institution/program in which you are currently enrolled?
   7.a. Secondary school (e.g., "high school")
   7.b. 2 year college, junior college or the equivalent
   7.c. 4 year college or university or the equivalent
   7.d. Graduate school
   7.e. Technical or trade school
   7.f. Other. Specify _____

RESEARCH LOGIC:
Go to Question 8
---

8. What is the **name** of the specific educational institution in which you are currently enrolled?
   FREE TEXT: _____

RESEARCH LOGIC:
Go to Question 9
---

9. Where **is your educational institution located**?
   [Show comprehensive alphabetized drop down list Obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file)
Go to Question 10
---

10. Which of the following best describes **your major field of study**?
    [Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]
    10.a. Aeronautics and Astronautics

10.b. Anthropology
10.c. Architecture
10.d. Biological Engineering
10.e. Biology
10.f. Brain and Cognitive Sciences
10.g. Business
10.h. Chemical Engineering
10.i. Chemistry
10.j. Civil and Environmental Engineering
10.k. Comparative Media Studies
10.l. Earth, Atmospheric, and Planetary Sciences
10.m. Economics
10.n. Electrical Engineering and Computer Science
10.o. Engineering Systems
10.p. Foreign Languages and Literatures
10.q. Health Sciences and Technology
10.r. History
10.s. Linguistics
10.t. Literature
10.u. Management
10.v. Materials Science and Engineering
10.w. Mathematics
10.x. Mechanical Engineering
10.y. Media Arts and Sciences
10.z. Music
10.aa. Nuclear Engineering
10.bb. Ocean Engineering
10.cc. Philosophy
10.dd. Physics
10.ee. Political Science
10.ff. Science, Technology, and Society
10.gg. Theater Arts
10.hh. Writing and Humanistic Studies

RESEARCH LOGIC:
Go to Question 17

[NOTE: Faculty profile questions]

11. What best describes the educational institution within which you are a faculty member?
    11.a. Secondary school (e.g., "high school")
    11.b. 2 year college, junior college or the equivalent
    11.c. 4 year college or university or the equivalent
    11.d. Graduate or professional school
    11.e. Technical or other trade school
    11.f. Other. Specify _____

RESEARCH LOGIC:
Go to Question 12
---

12. What is the **name** of the specific educational institution with which you are affiliated?
    FREE TEXT: _____

RESEARCH LOGIC:

Go to Question 13
---

13. **Where** is your educational institution located?
[Show comprehensive alphabetized drop down list Obtain comprehensive list from World Bank]

RESEARCH LOGIC:
Display list of countries (from XML file)
Go to Question 14
---

14. **How many years** have you worked as a faculty member?
[Show drop down with choices Less than 3 years; every year from 4-20, greater than 20]
14.a. Less than 3 Years
14.b. 4 Years
14.c. 5 Years
14.d. 6 Years
14.e. 7 Years
14.f. 8 Years
14.g. 9 Years
14.h. 10 Years
14.i. 11 Years
14.j. 12 Years
14.k. 13 Years
14.l. 14 Years
14.m. 15 Years
14.n. 16 Years
14.o. 17 Years
14.p. 18 Years
14.q. 19 Years
14.r. 20 Years
14.s. Greater than 20 Years

RESEARCH LOGIC:
Go to Question 15
---

15. Which of the following best describes **your primary field of expertise?**
[Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]
15.a. Aeronautics and Astronautics
15.b. Anthropology
15.c. Architecture
15.d. Biological Engineering
15.e. Biology
15.f. Brain and Cognitive Sciences
15.g. Business
15.h. Chemical Engineering
15.i. Chemistry
15.j. Civil and Environmental Engineering
15.k. Comparative Media Studies
15.l. Earth, Atmospheric, and Planetary Sciences
15.m. Economics
15.n. Electrical Engineering and Computer Science
15.o. Engineering Systems

15.p. Foreign Languages and Literatures
15.q. Health Sciences and Technology
15.r. History
15.s. Linguistics
15.t. Literature
15.u. Management
15.v. Materials Science and Engineering
15.w. Mathematics
15.x. Mechanical Engineering
15.y. Media Arts and Sciences
15.z. Music
15.aa. Nuclear Engineering
15.bb. Ocean Engineering
15.cc. Philosophy
15.dd. Physics
15.ee. Political Science
15.ff. Science, Technology, and Society
15.gg. Theater Arts
15.hh. Writing and Humanistic Studies

RESEARCH LOGIC:
Go to Question 17

[Self-learner/Other primary interest question]

16. Which of the following best describes **your primary field of interest?**

[Show drop down of all mid level educational departments/disciplines using MIT OCW org framework with "Other: Specify choice]

16.a. Aeronautics and Astronautics
16.b. Anthropology
16.c. Architecture
16.d. Biological Engineering
16.e. Biology
16.f. Brain and Cognitive Sciences
16.g. Business
16.h. Chemical Engineering
16.i. Chemistry
16.j. Civil and Environmental Engineering
16.k. Comparative Media Studies
16.l. Earth, Atmospheric, and Planetary Sciences
16.m. Economics
16.n. Electrical Engineering and Computer Science
16.o. Engineering Systems
16.p. Foreign Languages and Literature
16.q. Health Sciences and Technology
16.r. History
16.s. Linguistics
16.t. Literature
16.u. Management
16.v. Materials Science and Engineering
16.w. Mathematics
16.x. Mechanical Engineering
16.y. Media Arts and Sciences
16.z. Music
16.aa. Nuclear Engineering
16.bb. Ocean Engineering
16.cc. Philosophy
16.dd. Physics
16.ee. Political Science
16.ff. Science, Technology, and Society
16.gg. Theater Arts
16.hh. Writing and Humanistic Studies

RESEARCH LOGIC:
Go to Question 17

{Technical context and domain questions }

17. What are the OS's and browser types of people accessing OCW?

RESEARCH LOGIC:
Hidden Question
Go to Question 18

---

18. Please describe your internet connection
    18.a. Dial-up
    18.b. Cable modem
    18.c. DSL
    18.d. LAN
    18.e. Other. Please Specify _____

Research logic
Go to Question 19

{INSTRUCTIONS}

19. Now we'd like you to begin to explore OCW. Please take this opportunity to explore OCW to find content and materials that would be interesting, useful, and valuable to you. Explore OCW for as long as you would like. When you are done, click the "Next" button. We will then ask you a few more questions to get your feedback about our Web site and the course materials you've found here.

RESEARCH LOGIC:
Resize/minimize Netraker question frame (display it horizontally at the top of the page and make it very narrow)
Show the web page from where the user was intercepted
When participant clicks Next button
Go to Question 20, resize maximize Netraker question frame

Section II: Exit questions: Use – Scenarios, tasks, site and content effectiveness

20. Please rate the level of interest you have in the materials contained on the MIT OCW web site.
    20.a. Totally irrelevant to me
    20.b. Not that interesting or relevant to me
    20.c. Neutral
    20.d. Somewhat interesting to me
    20.e. Very interesting and completely relevant to me

RESEARCH LOGIC:
Go to Question 21
---

21. Please explain your ratings:
*FREE TEXT*_____

RESEARCH LOGIC:
Go to Question 22
---

22. Based on your exploration of OCW today, what do you think you might be able to accomplish using OCW (the site and the materials)? Please be specific in describing ways that OCW might be useful to you.
    TEXT:_____

RESEARCH LOGIC:
Go to Question 23
---

23. Did any of the following factors interfere with your ability to find content and materials on OCW that were interesting, useful, and valuable to you? Select all that apply.
    23.a. Organization of the OCW web site and/or course materials
    23.b. Visual design or presentation of the OCW web site
    23.c. Performance of the web site (e.g., errors, responsiveness/speed, etc.)
    23.d. Subject matter and course areas covered on the OCW web site
    23.e. Types of course materials that were available for specific courses
        23.e.1. Quality or nature of the course materials provided for specific courses
    23.f. Other (please specify) _____

RESEARCH LOGIC:
If 6.a go to Question 24
Else if 6.b go to Question 26
ELSE go to Question 28

{Faculty Scenarios}

24. Please indicate the educational scenario, situation, or challenge that OCW might help you address.
    24.a. Developing or planning a curriculum for my department
    24.b. Developing or planning a course
    24.c. Preparing to teach a specific class
    24.d. Advising students about their course of study
    24.e. Learning about subject matter to enhance my personal knowledge (not directly related to my teaching)
    24.f. Learning about subject matter to enhance my research
    24.g. Planning or developing an educational Web site or related technology
    24.h. Other: please describe briefly: _____

RESEARCH LOGIC:
Go to Question 25
---

25. For the educational scenario, situation, or challenge that you identified in the previous question, please describe how you might use OCW to address this challenge.
    TEXT: _____

RESEARCH LOGIC:

Go to Question 30

{Student scenario list)

26. Please indicate the educational scenario, situation, or challenge that OCW might help you address.

    26.a. Planning my course of study as a student
    26.b. Learning about a specific subject matter to complement a course I am currently taking
    26.c. Learning about a specific subject matter as a substitute for a particular course not offered at my educational institution
    26.d. Learning about subject matter to enhance my personal knowledge
    26.e. Other: please describe briefly: _____

RESEARCH LOGIC:
Go to Question 27
---

27. For the educational scenario, situation, or challenge that you identified in the previous question, please describe how you might use OCW to address this challenge.
    TEXT: _____

RESEARCH LOGIC:
Go to Question 30

{Self learner/other scenario list)

28. Please indicate the educational scenario, situation, or challenge that OCW might help you address.

    28.a. Planning my future course of study as a student
    28.b. Learning about a specific subject matter as a substitute for a course not available to me
    28.c. Learning about subject matter to enhance my personal knowledge
    28.d. Planning or developing an educational web site or related technology initiative
    28.e. Other: please describe briefly: _____

RESEARCH LOGIC:
Go to Question 29
---

29. For the educational scenario, situation, or challenge that you identified in the previous question, please describe how you might use OCW to address this challenge.
    TEXT: _____

RESEARCH LOGIC:
Go to Question 30

Scenario usefulness question

30. We are eager to understand the impact of OCW—the difference it makes for the teachers and learners who access it. Please indicate the degree of **positive impact** that the OCW site has already had, or that you expect it to have, on the educational scenario, situation, or challenge that you identified earlier.
    30.a. Extremely positive impact

30.b. Positive impact
30.c. Moderately positive impact
30.d. Somewhat positive impact
30.e. No positive impact

RESEARCH LOGIC:
Go to Question 31
---

31. Please explain your rating. Be specific—elaborate on the impact OCW has had or may have on you.

TEXT: _____

RESEARCH LOGIC:
Go to Question 32
---

32. In your opinion, how can we improve OCW to make it more useful, effective, or valuable in helping you address your primary scenario/challenge?
TEXT: _____

RESEARCH LOGIC:
Go to Question 33
---

33. Do you agree with the following statements as they apply to the OCW web site?

33.a. The OCW web site is easy to use
33.b. The OCW web site is well organized and easy to navigate
33.c. I am able to find what I'm looking for on OCW
33.d. I learned how to use the OCW web site quickly
33.e. OCW has or will help me be more productive and effective
33.f. OCW has or will help me learn
33.g. As an educator, I was/will be able to improve my courses using OCW
33.h. OCW has increased my motivation and interest in learning
33.i. I would recommend OCW to others

RESEARCH LOGIC:
Go to Question 34
---

34. MIT is making these course materials freely available for non-commercial educational purposes, and encourages their use according to the "open" license terms in our legal notices page. Have you used or do you expect to use any of the materials or pages from OCW in any courses that you teach or will teach in the near future?
34.a. Yes
34.b. No
34.c. Not sure
34.d. Not applicable (I don't teach and do not anticipate teaching in the near future)

RESEARCH LOGIC:
If 34.a go to Question 35
ELSE go to Question 36
---

35. How do you expect to use materials from OCW in your teaching? Be specific about the materials you will use and how you will use them.
    TEXT: _____

RESEARCH LOGIC:
Go to Question 36
---

36. Do you expect to use any of the materials or pages from MIT OCW in any way that doesn't directly involve teaching?
    36.a. Yes
    36.b. No
    36.c. Not sure

RESEARCH LOGIC:
If 36.a go to Question 37
ELSE go to Question 38
---

37. Please briefly explain how you expect to use materials.
    TEXT: _____

RESEARCH LOGIC:
Go to Question 38
---

38. Do you expect to communicate with others (e.g., colleagues, teachers, etc.) about any of the specific materials or pages from OCW?
    38.a. Yes
    38.b. No
    38.c. Not sure

RESEARCH LOGIC:
If 38.a go to Question 39
ELSE go to Question 40
---

39. Please describe your communications about OCW. Be specific regarding what you will communicate about, whom you will communicate with (e.g., students, fellow teachers, research colleagues, etc.), and how you will communicate (e.g., emailed links or files, informed verbally, etc.)
    TEXT: _____

RESEARCH LOGIC:
Go to Question 40
---

40. What is the likelihood that you will visit the OCW Web site in the future?
    40.a. Definitely will return
    40.b. Probably will return
    40.c. Unsure/Mixed
    40.d. Probably will not return

40.e. Definitely will not return

RESEARCH LOGIC:
Go to Question 41
---

41. Please explain why.
TEXT: _____

RESEARCH LOGIC:
Go to Question 42
---

42. What is most interesting and useful to you on OCW?
TEXT_____

RESEARCH LOGIC:
Go to Question 43
---

43. What is least interesting and useful to you on OCW?
TEXT_____

RESEARCH LOGIC:
Go to Question 44
---

44. Do you think that MIT OCW could be changed to make it more effective, useful and valuable to you?
44.a. Yes
44.b. No

RESEARCH LOGIC:
If 44.a go to Question 45
ELSE go to Question 46
---

45. Please describe what you would change to improve OCW.
TEXT_____

RESEARCH LOGIC:
Go to Question 46
---

46. In your view, how consistent is OCW with what you expect from MIT?

46.a. Extremely consistent
46.b. Consistent
46.c. Mixed
46.d. Somewhat inconsistent
46.e. Extremely inconsistent

RESEARCH LOGIC:
If 46.a OR 46.b go to Question 48
ELSE go to Question 47
---

47. Please explain your rating: _____

RESEARCH LOGIC:
Go to Question 48
---

48. May we contact you in the future to learn more about your experiences using MIT OCW? If you are willing to be contacted, please provide your email address below.

    _____

    As described in our privacy policy, we will not share your contact information with anyone. Providing your email address does not obligate you to participate in future surveys.

    If you do not wish to be contacted, simply click on the "Next" button below

RESEARCH LOGIC:
Display Survey Exit (Thank You message after this)

Research Logic Flow
Figure A5-1 – Entry Questions

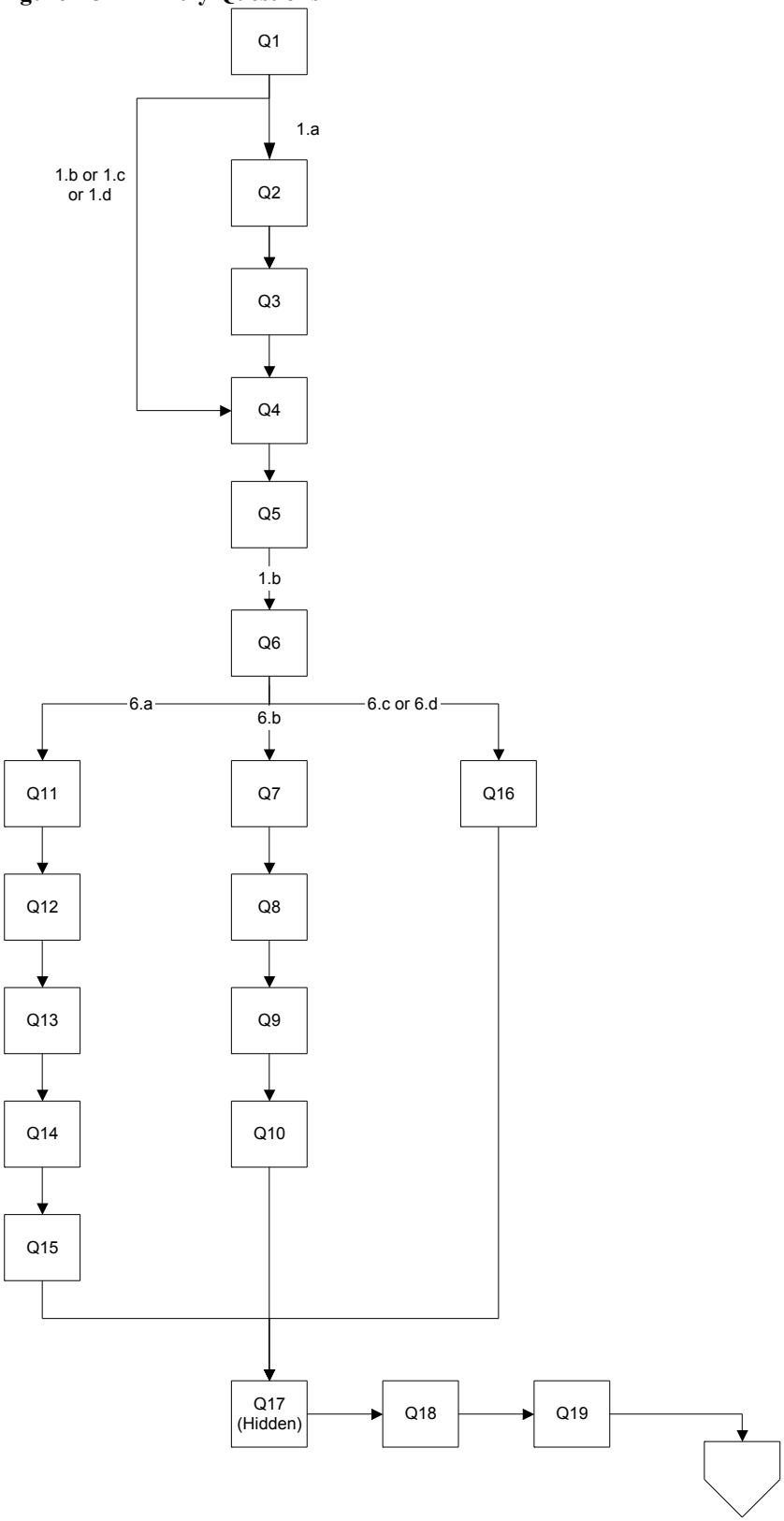
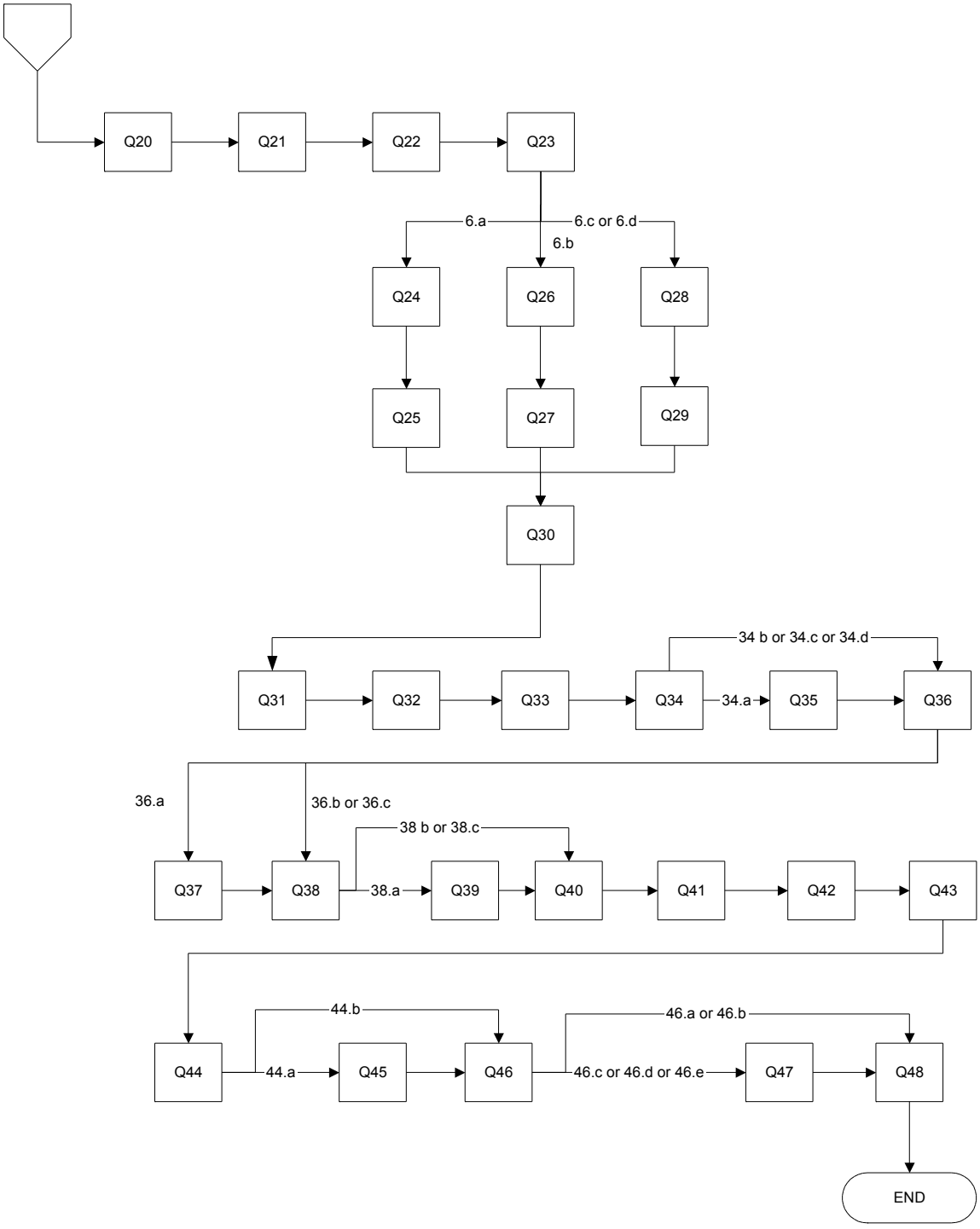


Figure A5-2 – Entry Questions



Appendix 6
Interview Protocol

What Is An Interview Protocol?
Interview guides, or "protocols," are sets of high-level questions that the team will explore in interviews with research participants. Protocols are not rigid scripts. Rather, they are flexible tools that help researchers guide conversations. Often, research participants share significant perspectives and insights that researchers had not previously contemplated. Aided by the protocols, researchers adapt their inquiry to explore new topics as they arise. A protocol provides a baseline level of consistency across interviews and among researchers. At the same time, it is a living, evolving tool that facilitates thought and invites insight.

Interview Objectives and Methodology
This protocol was created to guide interviews with educators and learners outside of MIT about MIT's OpenCourseWare offering. It supports the overall goals and objectives of the 2003 OCW baseline evaluation, as outlined in the OCW evaluation plan. Interviews will be conducted with selected users of OCW to gather a textured understanding of how they use the tool and the impact it has on their learning and teaching. Interviews will provide a richer, deeper understanding of those issues than can be generated through other evaluation techniques, including surveys and Web analytics.

Interviewees were selected from among respondents to the intercept and supplemental surveys who indicate a willingness to participate, and whose responses spark the curiosity of the evaluation team. Interviews will be conducted by the OCW research team as well as by OCWs partner organizations around the world. The latter will conduct interviews with target users of the site who are hard to reach (due to location, infrastructure constraints, etc.) and/or who require that interviews be conducted in languages other than English. OCW conducted approx. 30 in-depth interviews, with participants distributed across several target regions (Latin America, Africa, Asia, Eastern Europe, North America) and groups (faculty, students, self-learners).

Note: A small number of interview participants will not be at all familiar with the OCW tool at the time of the interview. For those people, there is a brief Web site exploration session built into the protocol.

Sections of the Protocol
In keeping with the evaluation logic model, the interviews will cover three main areas, and provide answers to the following questions:

Access. Who is accessing OCW? Are users of the site educators, students, self-learners, or others? What are their disciplines or areas of interest? Where are they located? What are the technical parameters of their connection to OCW? How well does the OCW technical architecture perform in enabling people to access desired content and materials? What is triggering awareness of and access to OCW?

Use. What are the general patterns of online use and interaction? How do various types of people in diverse locations use OCW? Is OCW designed appropriately to facilitate their use? To what extent, and in what ways, do users of the site adopt MIT course materials for teaching and learning? How do people use/reuse OCW content offline/outside of OCW?

Impact. What benefits are being realized through the use of OCW? How does OCW change the experience of teaching and learning for the people who use it? What is the impact of OCW on learning communities? What is the impact of OCW on the open sharing of educational materials?

Addressing issues of Access, Use and Impact requires that we develop a set of lower-level, more specific questions that we will pose to interview participants. This document details those questions. As we undertake the evaluation and learn more about how target users access and use the site and the impact it has on their teaching and learning, we may update the protocol questions. This is a living document, intended to evolve as our knowledge expands.

Notes:

- Time allocations are based on a 60-75 minute interview. They are approximate and intended to provide the interviewer with guideposts for the conversation.
- Text in blue represents guidance for the interviewer.

Access
Estimated Duration: 15 minutes.

- Background information (Note: when interview participants have already completed an intercept or supplemental survey, we may already have this background information, and be able to skip this section).
    - Please tell us a little bit about yourself (name, age, geographic location, educational background)
    - Please describe your role at the university
        - For students: year, course of study, intellectual and extra-curricular interests, educational goals, career goals
        - For faculty: area of specialization, title, length of time at the university, career history and trajectory, research focus
    - How often do you visit OCW? How long, approximately, are your visits to the site?

- Web site exploration session (Note: for interviewees with no prior knowledge of the OCW tool only).
    - Please take a few minutes to explore OCW Web site (http://ocw.mit.edu). Please review the homepage, and navigate to the site areas that are of most interest to you. (note: allow the interviewee to take ten minutes or so to focus on the site, especially if that person has never visited it).
    - Do any of the course materials here seem relevant to your pursuits?
    - How might you imagine using this site in the future?
    - Please leave the site open and refer to it over the next few minutes, as I ask you more detailed questions…

- Awareness (Note: this section may be of minimal relevance to interviewees with no prior knowledge of the OCW tool).
    - How did you first learn about MIT|OCW?
    - Can you recall other places where you have heard about or seen reference to OCW?
    - Where else would you expect to find information about OCW? (e.g. educational journals, other Web sites, professional publications, etc.)
    - Have you mentioned OCW to others, or referred others to the tool? Why? In what context? How did that person respond to the site?
    - When was the last time you heard someone mention MIT|OCW? In what context?
    - What has prompted your visits to the OCW site? What have you expected to find there? Has the site met those expectations?
    - For non-users who have heard of the site: What has kept you from visiting OCW?

- Technical specifications
    - How do you usually access OCW? From home? Work? School? What internet provider do you typically use to access OCW?
    - What kind of computer do you use? What is your internet browser of choice?
    - Please describe your internet connection (dial-up, broadband, LAN, etc.)
    - Do you ever have technical difficulties accessing OCW? If so, can you describe them? What do you do to fix these problems?
    - Describe the most recent technical difficulty you had connecting to OCW? What was the problem? And how did you solve it?

Use
Estimated Duration: 30 minutes.

- Scenarios of use—Open-ended (Note: this set of questions is intended to query participants' use of OCW, with particular attention to the tasks and scenarios that are most important for them. The richest data comes directly from participants' personal experience of OCW; it is therefore desirable to linger on these few questions, and solicit as much unprompted feedback about how people use the tool as possible).

    - Please recall the last times you visited the OCW Web site. For each visit:
        - What were you trying to do on the site?
        - Were you able to accomplish your desired task?
        - Did you have any problems? What barriers prevented you from completing your task?
        - Were you satisfied with the outcome of your visit to the site? Why or why not?
        - What materials did you take away from the site, if any? How did you use/re-purpose them?

    - Do you plan to visit OCW in the near future? Why? What do you hope to accomplish using the site?

    - What do you regard as the most useful aspects of OCW? What could OCW do to improve the site and increase its usefulness? What do you see as the biggest hindrances on the site today?

- Scenarios of use—Specific (Note: this set of questions is intended to validate and expand upon some of the scenarios of use that we imagine may be of importance, and understand whether, why, and to what degree they apply for individual participants; some areas may have been covered in the section above, and interviewers will use their judgment — and take the participants' lead — to guide the interview towards the most fertile topics of conversions)

  FACULTY ONLY:
    - Tell me about the last time you solicited course materials — syllabi, readings, problem sets, etc. — from colleagues.
        - What prompted you to do so?
        - What were you looking to learn or do with those materials?
        - Did they satisfy your needs? Why or why not?

    - Do you, or could you imagine, using the OCW site for **curriculum development** at your institution? How might OCW help you improve course offerings? Establish or revise overall departmental organization? What do you see as the limitations of OCW with regard to curriculum development? What should OCW do to improve its offering in this regard?

    - Do you, or could you imagine, using OCW to improve your own **pedagogical practices or techniques**? How might OCW help you develop methods and techniques for teaching particular content? Integrate new course materials? Establish or revise course syllabi? Have you repurposed OCW content to meet your own teaching needs? What do you see as the limitations of OCW as a resource for improving pedagogy? What should OCW do to improve its offering in this regard?

    - Do you, or could you imagine, using OCW as a tool to help you **learn about specific subject matter**? How might OCW help you expand your base of knowledge using published course materials? Re-learn or review materials on specific topics? Might OCW serve as a sort of reference tool for you? What do you see as the limitations of OCW as an educational tool? What should OCW do to improve its offering in this regard?

    - Do you, or could you imagine, using OCW to help you **advise students** on their courses of study? Make learning and teaching more efficient? What do you see as the limitations of OCW as a tool for curricular advising? What should OCW do to improve its offering in this regard?

    - Do you, or could you imagine, using OCW to **advance your research**? Might it help you understand the current state of knowledge in your area of research? Connect with colleagues who have similar research interests and research agendas? What do you see as the limitations of OCW

as a tool to help you advance your research? What should OCW do to improve its offering in this regard?

- Do you, or could you imagine, using OCW as a **model of open sharing** in academia? Might it help you envision possibilities for leveraging technology to improve teaching and learning? What do you see as the limitations of OCW as model of open sharing? What should OCW do to improve its offering in this regard?

- What do you think of the format of the OCW course materials? How do you find working with pdfs as opposed to other file formats? What can OCW do to make downloads and learning objects more useful to you?

STUDENTS ONLY:

- Think back to your recent visits to OCW. What prompted them? Have faculty members or other students recommended it to you?

- Do you, or could you imagine, using OCW as a tool to help you **learn about specific subject matter**? How might OCW help you expand your base of knowledge using published course materials? Re-learn or review materials on specific topics? Might OCW serve as a sort of reference tool for you? Have you repurposed OCW content to meet your own learning needs? What do you see as the limitations of OCW as an educational tool? What should OCW do to improve its offering in this regard?

- Do you, or could you imagine, using OCW to help you **plan your course of study**? Make personal decisions about your academic path? What do you see as the limitations of OCW as a tool for curricular advising? What should OCW do to improve its offering in this regard?

- Do you, or could you imagine, using OCW to **advance your research**? Might it help you understand the current state of knowledge in your area or major? Connect with students and educators who have similar interests? What do you see as the limitations of OCW as a tool to help you advance your research? What should OCW do to improve its offering in this regard?

- What do you think of the format of the OCW course materials? How do you find working with pdfs as opposed to other file formats? What can OCW do to make downloads and learning objects more useful to you?

SELF-LEARNERS ONLY

- Think back to your recent visits to OCW. What prompted them?

- Do you, or could you imagine, using OCW as a tool to help you **learn about specific subject matter**? How might OCW help you expand your base of knowledge using published course materials? Re-learn or review materials on specific topics? Might OCW serve as a sort of reference tool for you? Have you repurposed OCW content to meet your own learning needs? What do you see as the limitations of OCW as an educational tool? What should OCW do to improve its offering in this regard?

- Do you, or could you imagine, using OCW to **advance your personal or professional endeavors**? Might it help you understand the current state of knowledge in your area of interest? Connect with academics who have similar interests? What do you see as the limitations of OCW in this regard? What should OCW do to improve its offering?

- What do you think of the format of the OCW course materials? How do you find working with pdfs as opposed to other file formats? What can OCW do to make downloads and learning objects more useful to you?

Impact
Estimated Duration: 30 minutes

- We are eager to understand the impact of OCW—the difference it makes for the teachers and learners who access it.
    - Think back over the times you've used OCW. Have their been instances when it has made a significant difference in your teaching/learning? Please describe those instances.
    - Are you aware of instances when OCW has made a difference for your friends or colleagues?
    - Do you see opportunities for OCW to develop or evolve so as to become more responsive to your needs?
    - Can you think of instances when OCW has made a difference…
        - In developing course materials and evolving your pedagogical approach
        - In helping you learn about topics within or outside your specific
        - In providing a model for on-line learning
    - Would you recommend OCW to others? To whom and why?
    - What else, in your opinion, can OCW do to get the word out and encourage usage by others?

- MIT is making these course materials freely available for non-commercial educational purposes, and encourages their use according to the "open" license terms in our legal notices page.
    - Have you used or do you expect to use any of the materials or pages from MIT OCW in any courses that you teach or will teach in the near future?
    - Have you shared any of these materials with friends or colleagues?
    - Have you used these materials to establish or engage with specific communities of learning?

Recruiting Email Text

For individuals whom we've recruited based on their answers to survey questions:

Dear XY, Thank you for participating in the 2003 MIT OCW evaluation survey. We found your responses particularly interesting, and would like to speak with you further regarding your use of the OpenCourseWare Web site. We would like to ask you a series of questions that will delve deeper into how you use (or might use) OCW and your perceptions of the OCW site. The interview will be conducted by phone. It will take about an hour, and requires no further preparation on your part. With your permission, we'd like to schedule the interview sometime during the week of Month/Date. Please let us know when we might be able to speak to you, and the telephone number you'd like us to call. We thank you again for your help, and look forward to speaking with you soon.

For individuals whom we've recruited directly:

Dear XY, I am contacting you on behalf of the Massachusetts Institute of Technology's OpenCourseWare initiative. As you may know, OpenCourseWare (or OCW for short) is a program designed to provide free and open access to MIT's course materials through the World Wide Web. The URL for the site is www.ocw.mit.edu. As part of the OCW project, we are currently conducting an evaluation of the program, in order to understand how useful this resource is (or could be) for educators and learners. And, we'd like to hear your feedback. We would like to ask you a series of questions that will delve deeper into how you use (or might use) OCW and your perceptions of the OCW site. The interview will be conducted by phone. It will take about an hour. Prior to the interview, we'd ask that you explore the OCW site. Then, with your permission, we'd like to schedule the interview sometime during the week of Month/Date. Please let us know when we might be able to speak to you, and the telephone number you'd like us to call. We thank you again for your help, and look forward to speaking with you soon.

Appendix 7
Representative Suggestions from Users

The following are representative of the most common suggestions from OCW visitors. This list provides a baseline of user input that the OCW team will use to inform their future planning processes. The order of the requests roughly corresponds to their frequency of occurrence.

Representative Suggestions – Educators

Course materials structure, completeness and currency

- More courses and more material. (USA)
- Improve the quality of lecture notes provide exercises with solutions. (UK)
- The materials are course oriented, not learning oriented. There are generally no specific educational outcomes or student feedback. (USA)
- More video lectures maybe all the lectures should be videoed. (Republic of Korea)
- Include the texts of [reference] materials. (Iran)
- Your instructors can be lively and informative during lectures. They are current on their areas and bring topical info into their classes. The materials on OCW are "dead". This is an archive of the past. Interview professors each semester to see what new things they have brought to their lectures. (USA)

Community support

- Chat rooms with developers of courses to see different approaches to teaching the material. (Greece)
- You could integrate an automatic notification service that lets me know via email when new content of interest is added to the site. (Germany)

Accessibility of materials

- [Improve] the search engine. (France)
- The links in the right-hand sidebar are not consistent from course to course. For example, in one course the syllabus link may take one to a brief overview of the course whereas for another course the syllabus link will actually link to a detailed syllabus. It would be better if there were some consistency. (USA)
- Make video lectures downloadable. Make sure links do not vanish!!!! Make sure older things do not get thrown away!!! (Sweden)

Course Structure

- Pre-requisites recommendations. (USA)

Representative Suggestions – Students and Self-Learners

Course Content Completeness

- Again, please keep the materials full, updated, easy to download and easy to find. (Russian Federation)
- I would include required reading in an electronic form. (United States of America)

- Include more study materials and turn handwritten notices into common text documents. (Czech Republic)
- If I am self-educating in areas which I am not familiar, partial lecture notes or key take-aways will not provide me with an ample understanding of the topic. I will still have to rely on additional resources to provide a complete picture. As such, the only topics in which OCW will be of any value to me is the areas in which I am already educated. (United States of America)
- Include lecture notes for all courses and include all the courses taught at MIT. (India)
- OCW should rely on the course notes more than the textbooks. And the quizzes and the exams of the courses should also be published. (Turkey)
- Add info about the teaching methods used. (UK)
- It depends on what you wish to ultimately achieve with the sight. Making sketchy notes available is not enough for a student at least. For many of the courses more in-depth information is required to understand the concepts trying to be put across. (South Africa)
- It's good that an attempt is being made to make course work online, its usefulness for non-MIT students will come only when the materials posted are self explanatory, and not in current format. May be putting class video recordings, etc will be helpful. (USA)
- PDF the online textbooks. PLEASE. I don't enjoy reading large volumes of text such as these on a computer screen. Also get the added benefit of being able to write on printed materials. (USA)
- Constantly update course materials and remain freely available to public. (Malaysia)

Course Breadth/Depth

- More courses, more course materials, deeper course materials. (USA)

Video Lectures

- 1. Lectures for every course. 2.The lectures should be downloadable because the Internet here does not allow smooth streaming. So it really disturbs in understanding this especially for me since English is a foreign language for me. (Pakistan)

Community Support

- Maybe make interactive communications with learners, such as open a forum to discuss and use e-mail to communicate with the learners. (China)
- Updating the reader about his/her interest by regular e-mail. Free access to all electronic journals. (UK)

Downloadable Materials

- I have mentioned before but at the risk of repetition it is my fervent appeal to make video lectures downloadable. Streaming video needs a lot of bandwidth that people in the developing world do not have or cannot afford. (India)

Introductory Materials

- Easier access to novice, i.e. some introductory materials about each discipline. Most important, multimedia-rich, at least figures-rich and interactive on-line materials. (China)

Study Paths
A schedule of recommended classes and the order that they should be taken. (USA)