

tact with foundations, and Brown was the principal investigator on the original grant proposal. Miyagawa called Vest's role in the OCW project a rare display of "academic leadership exerted in a direct and useful fashion," and Margulies considers the involvement of MIT's administration to be the linchpin of OCW's success: "I don't think this ever would have happened at any place but MIT, or under any leadership but Chuck's. . . . Faculty come up with great ideas every day, but the leadership Chuck showed to seize this idea was really extraordinary."<sup>48</sup>

Though Vest and Brown have both left MIT, OCW continues to receive attention from administrators at the highest level. According to Lerman, "one of the virtues of Chuck Vest's unequivocal commitment was that it was passed on to future presidents and provosts," a legacy bolstered by the fact that Vest dedicated not only his presidency but the institution as a whole to establishing OCW as "a permanent feature of the MIT academic program."<sup>49</sup> Despite the turnover in these key posts, OCW continues to play a major role in the external conversations that the current president, Susan Hockfield, has about MIT. Current provost Rafael Reif summed up the administration's commitment to the initiative this way: "OCW is so much a part of MIT—we're all extremely proud of OCW."<sup>50</sup>

## Impact of OpenCourseWare

In a 2004 article he authored in the *Chronicle of Higher Education*, Vest defined the audience for OCW materials as incredibly heterogeneous: "a faculty member at a new engineering university in Ghana, a precocious high-school biology student in suburban Chicago, a political scientist in Poland, a literature professor in up-

<sup>48</sup>Interviews with Shigeru Miyagawa, 10/29/08, and Anne Margulies, 10/28/08.

<sup>49</sup>Interview with Steven Lerman, 10/31/08; Lerman, Steven R., Shigeru Miyagawa, and Anne Margulies, "OpenCourseWare: Building a Culture of Sharing," in *Opening Up Education: The Collective Advancement of Education through Open Technology, Open Content, and Open Knowledge*, ed. M. S. Vijay Kumar and Toru Iiyoshi, Cambridge, Mass.: MIT Press, 2008, 220.

<sup>50</sup>Interview with Rafael Reif, 10/30/08.

state New York, or an executive in a management seminar down the hall at MIT will be able to use the materials our professors rely on in teaching our full-time students.”<sup>51</sup> But Margulies and Vest both said that the audience originally envisioned for OCW was primarily other educators, and that the OCW team was surprised to eventually learn that more “self-learners” were using the materials than teachers.<sup>52</sup>

There has always been an emphasis on the developing world as a key audience for OCW. The first grant proposal states that “we expect OCW to be of particular value in developing countries that are trying to expand their higher education systems rapidly. . . . The OCW materials will be able to jump-start curriculum improvements in these countries.”<sup>53</sup> Lerman echoed this sentiment in the press conference announcing OCW, saying “we hope our materials will be translated. Developing countries need information, and they need to develop infrastructure and institutions.”<sup>54</sup>

The main appeal of OCW rests on the premise that these course materials will be useful to individuals around the world. But the OCW staff admits that much of the site may not be suitable for the average learner. According to Margulies, “the material starts with the assumption that you have to be an MIT-caliber student to be able to use [it]; it’s not at all for your average student.”<sup>55</sup> When asked if the site’s current offerings are geared toward any specific group, Carson responded that “in going for breadth, I think we probably skewed to the side of educators by covering the entire curriculum. The bare bones version of a course is only going to be useful to educators and educational administrators who are developing curricula. . . . But you need a relatively deep amount of

<sup>51</sup>Vest, Charles M., “Why MIT Decided to Give Away All Its Course Materials via the Internet,” *Chronicle of Higher Education*, online edition, January 30, 2004.

<sup>52</sup>MIT OpenCourseWare, “2005 Program Evaluation Findings Report,” June 5, 2006, [http://ocw.mit.edu/ans7870/global/05\\_Prog\\_Eval\\_Report\\_Final.pdf](http://ocw.mit.edu/ans7870/global/05_Prog_Eval_Report_Final.pdf), 11.

<sup>53</sup>“MIT OpenCourseWare: A Proposal,” 14.

<sup>54</sup>“MIT to Make Nearly All Course Materials Available Free on the World Wide Web,” press release, MIT News, April 4, 2001. OCW materials have subsequently been translated into more than ten languages, through formal translation partnerships or independent efforts.

<sup>55</sup>Interview with Anne Margulies, 10/28/08.

content in a course for independent learners to make use of it,” and many of the OCW versions lack that necessary depth.<sup>56</sup>

From the beginning, OCW did not plan to offer users any kind of interaction with MIT professors or graduate students, avoiding the asynchronous threaded discussion or live chats that characterized Fathom and AllLearn courses.<sup>57</sup> On the one hand, this limited the scope of the project in a way that allowed the OCW team to stay focused on its publishing mission and minimize distractions—and in a university full of people with personal and professional interests in technology, OCW has not allowed itself to become bogged down in unnecessary technological complexities.<sup>58</sup> But on the other hand, the lack of interactive features on OCW has also necessarily limited its impact: as Vest himself said in his first press conference on OCW, “real education requires interaction, the interaction that is part of American teaching.”<sup>59</sup>

From the beginning, MIT has felt an obligation to undertake self-evaluation efforts to track its user demographics along with levels and patterns of usage. But understanding usage scenarios for freely available online content has often proved quite challenging. Mar-

<sup>56</sup>Interview with Steve Carson, 10/27/08. “I would say about a third of our courses are primarily useful only to educators. Another third are useful to both educators and students, and then there’s a final third of our courses that really support independent learning in a significant way.”

<sup>57</sup>From the perspectives of some of the AllLearn team, MIT’s format was a step backward, as they considered interaction a key source of value for AllLearn. In a *Yale Daily News* article covering the launch of OCW, Yale President Richard Levin discussed the difference between MIT’s plans and those of the Alliance, saying “We would use the Internet to create online discussions, and our thinking is much more interactive. The MIT approach is just making it available to anyone who wants it” (quoted in Ladine, Bret, “MIT to Offer Access to Materials Online,” *Yale Daily News*, online edition, April 5, 2001). Stanford Provost John Etchemendy agreed, saying that in MIT’s case, “Putting course materials online is really just a step beyond what universities have always done,” resulting in what he saw as less innovative offerings than AllLearn’s (interview with John Etchemendy, 8/19/08).

<sup>58</sup>The majority of the course content is delivered in PDF files, and the “back-end” technology is also simple and straightforward, built using off-the-shelf commercial software products (although Margulies said that Microsoft donated substantial resources to customizing their back-end software). The fact that OCW did not use open-source technology drew some criticism, but Margulies defends it as an expedient business decision—evidence of the professionalized, deadline-driven working environment surrounding OCW’s production process (interview with Anne Margulies, 10/28/08).

<sup>59</sup>“MIT to Make Nearly All Course Materials Available.”

gulies said that “when we got grant funding, we knew we were going to have to have measurable results to report,” but “figuring out how to measure and evaluate results was *hugely* difficult.”<sup>60</sup> OCW first approached outsiders to investigate usage by issuing a request for user studies proposals, but after a series of unsuccessful partnerships, concluded that they would be better off conducting the research themselves.<sup>61</sup> To date, that research has centered mostly on gathering demographic information through surveys and web analytics, as well as employing survey methodologies to understand the uses to which the OCW content is put.

The original grant proposal states that concerning “the usage levels of OCW, we have not yet established clear, quantitative goals,” and the organization never developed a specific number of users they wanted to reach with the material.<sup>62</sup> An evaluation conducted in 2009 revealed that users were geographically dispersed, with 54 percent of visits originating from outside the United States. The report also broke down users by type, with 43 percent identifying themselves as self-learners, 42 percent as students, and 9 percent as educators.<sup>63</sup> As of July 2010, the OCW website claimed the site has received “100 million visits by 71 million visitors from virtually every country” since its launch, averaging 1 million visits per month.<sup>64</sup>

When it comes to the effect that OCW has had outside of the MIT community, OCW’s proponents are confident that their work has been meaningful worldwide, though the specifics or the scale

<sup>60</sup>Interview with Anne Margulies, 10/28/08. D’Oliveira agreed, saying “you’ve got to prove to your funders what they’re getting, and the more money you’re getting from them, the more imperative that evaluation is” (interview with Cecilia d’Oliveira, 10/29/08).

<sup>61</sup>Interview with Anne Margulies, 10/28/08. According to Margulies, the various interested parties were concerned more with using OCW to conduct academic research than with answering the questions about user behaviors that were important to MIT.

<sup>62</sup>“MIT OpenCourseWare: A Proposal,” 15.

<sup>63</sup>MIT OpenCourseWare, “2009 Program Evaluation Findings Summary,” [http://ocw.mit.edu/ans7870/global/09\\_Eval\\_Summary.pdf](http://ocw.mit.edu/ans7870/global/09_Eval_Summary.pdf).

<sup>64</sup>MIT OpenCourseWare, “About OCW: Site Statistics,” <http://ocw.mit.edu/about/site-statistics/>. In a 2008 publication, Lerman, Miyagawa, and Margulies wrote that “in addition, there are over 100 mirror sites in Africa and Asia that deliver MIT content to users who have limited Internet access. And users have downloaded complete course packages for off-line use over several million times” (Lerman, Miyagawa, and Margulies, “OpenCourseWare: Building a Culture of Sharing,” 216).

of that impact is difficult to determine. While internal benefits to MIT may have been an acknowledged consequence of the OCW project from the beginning, the external impact was always viewed as paramount. Vest wrote in 2004 that “the real pay-off of what we hope will become the open-courseware movement will be its effect on educators and learners around the world.”<sup>65</sup> The language of the original grant proposal’s sections dealing with impact reveals both MIT’s vast ambitions for OCW’s effects on the wider world and a lack of clear metrics for systematically assessing that impact. The proposal’s authors state that “we believe that in the long run, OCW, like other successful contributions to education, will lead to greater equality and improvements in economic performance, but these long-term, ultimate outcomes are impossible to isolate and measure.”<sup>66</sup>

Though web analytics can give the OCW team a sense of the traffic levels their site is receiving, whether or not OCW has actually made a difference in teaching, learning, or the state of global education is a more complicated issue. Margulies said that OCW has always known that it was important to collect data on impact—not only on who was using the materials and how, but also on whether the site was actually creating meaningful change in individual lives or institutions—but that the team knew that it would take time to develop a methodology for that sort of inquiry. “Because our audience is the world, it’s not like we could measure test scores or worldwide educational achievement, or even the achievement of our users. With OpenCourseWare, we couldn’t have a control group, so our impact data is still somewhat anecdotal.”<sup>67</sup>

When assessing its global impact to date, OCW has relied heavily on the voluminous—yet unscientific—feedback it has received.<sup>68</sup> The tens of thousands of overwhelmingly positive emails that users

<sup>65</sup>Vest, “Why MIT Decided.”

<sup>66</sup>“MIT OpenCourseWare: A Proposal,” 15.

<sup>67</sup>Interview with Anne Margulies, 10/28/08.

<sup>68</sup>As Vest stated in 2004, “since we announced OCW, we have received more than 13,000 e-mail messages from around the world endorsing our vision and the potential benefits of sharing knowledge freely” (Vest, “Why MIT Decided”). D’Oliveira said that OCW’s “impact may not be scientifically provable, but we love getting the anecdotal feedback on a daily basis from people who tell their stories. There aren’t many jobs I’ve had where you

have sent to OCW since its launch have convinced MIT that it has created something of true value. “I think it’s had—in some cases—a genuinely transformative and profound impact on lots and lots of individuals who have used it either to dramatically improve their teaching or to advance their learning,” Margulies said. “The accumulated over-the-top feedback that we get convinces me that it’s been enormously positive.”<sup>69</sup> User surveys have tried to generate some data on impact, and a detailed Program Evaluation Findings Report conducted in 2005 found that “80 percent of visitors rate OCW’s impact as extremely positive or positive; 91 percent expect that level of future impact.” The report also states that “visitor intent to return to the site is a strong indicator of perceived impact . . . 76 percent of first time visitors and 88 percent of returning visitors indicate that they will definitely return to the site.”<sup>70</sup> But the method of surveying visitors to the website who have volunteered to complete questionnaires necessarily limits respondents to a self-selected portion of the user population and excludes nonusers altogether.<sup>71</sup> While OCW has received positive feedback on all of the indicators of impact it has established, it has nothing to benchmark this level of usage and these reactions against—no way to evaluate if positive feelings translate into an impact commensurate with MIT’s hopes for the program.

Immediately following the program’s launch, community expectations for OCW’s impact were sky-high. In his 2001 President’s Report, Vest said that “the reaction to its announcement has been astounding. Some have likened it to the Gutenberg printing press and to the Great Library at Alexandria. This is a bit hyperbolic

---

get that many continual insights into the results of your work” (interview with Cecelia d’Oliveira, 10/29/08).

<sup>69</sup>Interview with Anne Margulies, 10/28/08.

<sup>70</sup>MIT OpenCourseWare, “2005 Program Evaluation Findings Report,” 4, 62.

<sup>71</sup>Education scholar Diane Harley’s research has emphasized this problem, and she notes that “both online surveys and TLA (transaction log analysis) are prone to overlook the universe of non-users. An understanding of non-users and their motivations can be extremely valuable for planning and development” (Harley, Diane, and Jonathan Henke, “Toward an Effective Understanding of Website Users,” *D-Lib Magazine* 13, no. 3–4 [March–April 2007], <http://www.dlib.org/dlib/march07/harley/03harley.html>).

for my taste, but even as clear-eyed an observer as IBM's CEO, Lou Gerstner, recently stated to Wall Street analysts: "What do you think happened when MIT put its entire course catalog on the Net, for free? If that didn't send a shiver through the higher education system in the world, I don't know what will."<sup>72</sup> But several years into the project, interpretations vary as to whether these early ambitions for OCW have yet been realized. A 2007 report to the Hewlett Foundation reviewing its investments in Open Educational Resources calls OCW a "world-changing project."<sup>73</sup> But Ira Fuchs of the Mellon Foundation takes a more tempered view. Although he credits the OCW concept with great potential for future transformative impact, in assessing the project's system-wide impact to date he said that "if you take away OCW completely, I'm not sure that higher education would be noticeably different."<sup>74</sup> A decade after OCW's launch, it is too early to determine whether the idea will fundamentally alter the way that universities disseminate knowledge—and if so, how.

More concretely, MIT OCW has served as a model for course dissemination efforts at other institutions, spurring the creation of over 200 similar projects at universities around the world (though it is important to note that some similar open projects, such as Rice University's Connexions or [webcast.berkeley](http://webcast.berkeley), profiled in Chapter 6, had quietly begun prior to OCW). From very early in OCW's history, its proponents have sought not only to publish MIT's catalogue of course materials but also to encourage other institutions to do the same. At the press conference announcing OCW, Vest said that "this is about something bigger than MIT. . . . We would be delighted if—over time—we have a world wide web of knowledge that raises the quality of learning—and ultimately, the quality of life—around the globe."<sup>75</sup> As suggested, success for the initiative in

<sup>72</sup>Vest, Charles M., "Disturbing the Educational Universe: Universities in the Digital Age—Dinosaurs or Prometheans?" Report of the President for the Academic Year 2000–01, <http://web.mit.edu/president/communications/rpt00-01.html>.

<sup>73</sup>Atkins, Daniel E., John Seely Brown, and Allen L. Hammond, "A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities," report to the William and Flora Hewlett Foundation, February 2007, 8.

<sup>74</sup>Interview with Ira Fuchs, 12/2/08.

<sup>75</sup>"MIT to Make Nearly All Course Materials Available."

the eyes of its founders hinged on both creating the OCW product and serving as a model for others to emulate.<sup>76</sup>

The OpenCourseWare Consortium (OCWC), launched in 2005 with a planning grant from the Hewlett Foundation, represents OCW's efforts to turn an idea into a movement. OCW began fielding requests from other universities—with early interlocutors including the Johns Hopkins University, Tufts University, and Utah State University—to tell its story and describe its processes. In OCW's early years, this outreach function was managed at a personal level by the project's leadership, but Carson explained that by 2005 the conversations involved so many outside participants that they were becoming unwieldy.<sup>77</sup> According to Margulies, “as we started to help people do what we were doing, a natural next step was to formalize it and organize ourselves.”<sup>78</sup> Following an initial planning meeting in February 2005, the Consortium had its first official meeting that September and established three objectives for itself: to “extend the reach and impact of OpenCourseWare by encouraging the adoption and adaptation of open educational materials around the world,” “foster the development of additional OpenCourseWare projects,” and “ensure the long-term sustainability of OpenCourseWare projects by identifying ways to improve effectiveness and reduce costs.”<sup>79</sup>

Until recently, the Consortium was basically run as a subsidiary of MIT. The OCWC's first director, John Dehlin, was hired in 2006 as an MIT employee reporting to Carson, and grant funding from Hewlett was awarded to MIT on the Consortium's be-

<sup>76</sup>Abelson said that while sparking worldwide interest in the creation of OCW was included in the first grant proposal as one of OCW's original intended outcomes, “the Hewlett Foundation gave specific funding for more aggressive action in the community,” so in later phases OCW went further in that direction using grant money allocated for that purpose (interview with Hal Abelson, 10/31/08).

<sup>77</sup>Carson said that once the level of interest hit a tipping point, “we decided to bring everybody together to talk about the idea of forming a consortium, and that way we're creating channels for Tufts to talk to Johns Hopkins to talk to Utah State, because they're facing different challenges than we were, because we had a lot more money to throw at our problems than they had to throw at theirs” (interview with Steve Carson, 10/27/08).

<sup>78</sup>Interview with Anne Margulies, 10/28/08.

<sup>79</sup>Carson, Steve, “The Unwalled Garden: Growth of the OpenCourseWare Consortium, 2001–2008,” *Open Learning: The Journal of Open and Distance Learning*, online edition, 24, no. 1 (February 2009).

half, giving MIT final authority over how it was to be spent.<sup>80</sup> In July 2008, the Consortium was incorporated as a 501(c)(3) organization independent of MIT (a structure that allows it to manage its own finances), and its leadership has shifted to a governing board composed of representatives from various member institutions, with Carson serving as its chair.

The Consortium currently includes several hundred institutions of higher education, with its most robust growth coming from non-English-speaking regions, particularly Asia. But elite U.S. institutions have not been particularly receptive to the OCW concept. Margulies said that when she and Provost Brown first discussed OCW's potential to inspire similar projects, they had assumed that public institutions in the United States would be early adopters. "Instead, we found that people got more excited about OpenCourseWare the farther you got from Cambridge—it was people from the other side of the world who really embraced the concept."<sup>81</sup> Carson agreed, suggesting that MIT's involvement with the Consortium has been "both a blessing and a curse": he believes that the MIT name has been a draw for some, while others have resisted joining for fear of appearing to be following MIT.<sup>82</sup> Time will tell in which direction the Consortium ultimately develops, but to date OCW's original vision of fellow American universities joining in droves has not been fulfilled.

The OCW project has been carried out in a coordinated and centrally planned manner, and now that OCW has become an established entity, the initiative may be evolving into a more prominent strategic element for MIT as an institution. Assessing OCW's internal value to the Institute, Carson said, "I think it started out as a strategic approach toward positioning MIT in the online world, but it's proved to be a tool that's useful in a great many other ways."<sup>83</sup>

<sup>80</sup>Interview with Steve Carson, 10/27/08.

<sup>81</sup>Interview with Anne Margulies, 10/28/08.

<sup>82</sup>Interview with Steve Carson, 10/27/08. While some elite U.S. institutions involved in online open courseware projects, such as the Johns Hopkins University and the University of Notre Dame, have joined the Consortium, others, like Carnegie Mellon and Yale, have not. Vest, Carson, and Margulies attribute those universities' decisions to a sense of competitiveness that makes them reluctant to appear to be in MIT's shadow.

<sup>83</sup>Interview with Steve Carson, 10/27/08.

Indeed, some of the “other ways” in which OCW could benefit the MIT community were present in its founders’ minds early on, and they have taken on greater importance in recent years. Margulies said that the OCW team may have initially “underestimated” the benefits that the project would have for MIT, although “it’s not as if they didn’t have an inkling . . . that it would have a subtle and secondary beneficial impact on improving the educational materials at MIT, and therefore MIT students would benefit.”<sup>84</sup> Brown and Abelson confirmed that the potential internal impacts of OCW were an important early component of the project and were especially valuable in convincing faculty to participate. Brown said that “when we went to sell it internally, it wasn’t about doing something philanthropic or noble for the world, as much as transforming educational content internally.”<sup>85</sup> Abelson agreed that planners felt they had to demonstrate to faculty that their own students would benefit from their participation in OCW. When first discussing the OCW concept with faculty, “the thing we had to fight was the notion that we were doing this for altruistic reasons. . . . We had to explain how [OCW] would give MIT a view of itself,” Abelson said.<sup>86</sup>

Many contend that OCW has positively affected teaching and learning at MIT. As Brown put it, the presence of a course’s written materials on OCW “pushes the faculty in the direction of ‘How do I best use the contact hours so that people learn?’ which is clearly critical.”<sup>87</sup> The 2005 survey showed that many professors felt that contributing to OCW improves their teaching: of the MIT faculty surveyed, 32 percent agreed that contributing to OCW “improves their teaching materials.”<sup>88</sup> Margulies suggested that the reason for this could be that faculty pay more attention to the quality of their course content when they know those materials will be shared with a world audience.<sup>89</sup> OCW has also permitted faculty to look closely at colleagues’ teaching materials and to identify gaps be-

<sup>84</sup>Interview with Anne Margulies, 10/28/08.

<sup>85</sup>Interview with Robert Brown, 10/27/08.

<sup>86</sup>Interview with Hal Abelson, 10/31/08.

<sup>87</sup>Quoted in Goldberg, “Auditing Classes at M.I.T.”

<sup>88</sup>MIT OpenCourseWare, “2005 Program Evaluation Findings Report,” 4.

<sup>89</sup>Interview with Anne Margulies, 10/28/08.

tween concepts covered in lower- and upper-level courses, evaluating the curriculum as a whole perhaps for the first time. Lerman said that a comprehensive publication like OCW has been somewhat of a uniting force for the MIT faculty: “OCW is one of the few things that all the faculty do together. I couldn’t get 5 or 10 percent of them to come to a faculty meeting, yet 90 percent of them have licensed their materials to OCW.”<sup>90</sup>

OCW also receives significant use on MIT’s campus and has generated positive feedback from students.<sup>91</sup> The 2005 Program Evaluation Findings Report states that “in all semesters for which the OCW site was available, the heaviest use from the MIT domain coincides with registration week,” suggesting that MIT students are using it as an “enhanced course catalogue” when selecting their classes. “Additional traffic spikes occur during mid-term and finals weeks, suggesting use of the site by students in preparation for examinations.”<sup>92</sup> OCW also benefits the Institute by preserving teaching materials.<sup>93</sup>

In response to OCW, MIT has received a great deal of positive—even glowing—attention from the press, due in no small part to the novelty of the open courseware concept when the project launched.<sup>94</sup> Some of OCW’s press coverage emphasized the Institute’s first-mover advantage. For instance, a 2003 article in *Wired* magazine definitively states that prior to MIT’s launch of OCW, “no institution of higher learning had ever proposed anything as revolutionary, or as daunting,” and that with OCW, “MIT earned

<sup>90</sup>Interview with Steven Lerman, 10/31/08.

<sup>91</sup>In his 2007 article, Abelson wrote that “of 600,000 monthly visits to the MIT OCW web site in September 2006, 25,000 originated from within MIT itself, a substantial number, considering that there are only about 13,000 students and faculty at MIT, and only 23,000 MIT network users in total” (Abelson, “The Creation of OpenCourseWare at MIT,” 173).

<sup>92</sup>MIT OpenCourseWare, “2005 Program Evaluation Findings Report,” 51.

<sup>93</sup>“By digitally archiving our faculty’s course materials, we are preserving a record of MIT’s continuously evolving curriculum” (Vest, “Why MIT Decided”). When OCW courses are updated, the old versions are moved to MIT’s institutional repository, where they are permanently archived. Links to those courses remain on the OCW website, so the older versions are still openly available (interview with Kate James, 10/28/08).

<sup>94</sup>As an indicator of impact, the 2005 Program Evaluation Findings Report states that “OCW is increasingly cited in professional and popular literature as an influential open educational sharing project,” referencing “more than 300 articles in global media” (MIT OpenCourseWare, “2005 Program Evaluation Findings Report,” 4).

the distinction as the only university forward-thinking enough to open-source itself.”<sup>95</sup> The volume and quality of press attention that MIT’s initiative has received may also owe something to the OCW team’s media savvy. While OCW does not devote funds specifically to marketing activities, it has been shrewd in its dealings with the media and employs two full-time external relations professionals. MIT leaked the OCW story to the *Times* before the funding had been officially secured—a bold move, and one that guaranteed that the Mellon and Hewlett Foundations’ eventual role in supporting the project would not detract from MIT’s primacy in that front-page coverage.<sup>96</sup>

OCW has yielded reputational benefits for MIT in the eyes of the world at large and the school’s own alumni. As one article noted, “in some academic circles, MIT was viewed as making a masterful PR move. If so, the scheme worked brilliantly, because most of the world applauded.”<sup>97</sup> This international appeal of OCW—and, by extension, MIT—was affirmed by MIT’s provost and president. According to Reif, OCW is “a way to stay connected with the globe,” and Hockfield said that “when we talk about global reach, OCW is a big part of our global reach.”<sup>98</sup> Vest also offered that OCW has been useful for strengthening ties between MIT and its alumni. He reported in 2004 that in his travels discussing the initiative, alumni have told him that, “because of OCW, they have never been prouder of the Institute.”<sup>99</sup>

<sup>95</sup>Diamond, David, “MIT Everyware.” *Wired*, online edition, September 2003.

<sup>96</sup>Abelson explains the timing of OCW’s announcement this way: “Announcing OpenCourseWare had originally been planned to coincide with the foundations’ funding approval. But as the spring of 2001 progressed, word of the proposed initiative—which, after all, was being widely discussed on campus—began to get around, and there had been inquiries from the local press. So the administration decided to engineer its own news release in a way that it could control the timing, and contacted the *Times*. The early announcement, as it turned out, proved beneficial, even though it was a bit of a risk, since the proposal to the foundations, submitted shortly after the announcement, was able to highlight some of the enthusiastic responses” (Abelson, “The Creation of OpenCourseWare at MIT,” 171).

<sup>97</sup>Diamond, “MIT Everyware.”

<sup>98</sup>Interviews with Rafael Reif and Susan Hockfield, 10/30/08. Vest said that once the initiative was up and running, “it became clear that this was going to be a very international project, which most of us liked, because this was also the time in which every university [was] beginning to worry about how to globalize, and we felt this was a very efficient and effective way of doing that” (interview with Charles Vest, 9/30/08).

<sup>99</sup>Vest, “Why MIT Decided.” According to the alumni survey conducted as part of the

Some members of the MIT community are also confident that OCW has played at least some minimal role in incoming first-year students' choice to attend the university. At the first OCW press conference, Vest asked rhetorically: "Am I worried that the OpenCourseWare project will hurt MIT's enrollment? No. In fact, I am absolutely confident that providing this worldwide window onto an MIT education, showing what we teach, may be a very good thing for attracting prospective students."<sup>100</sup> The 2005 report corroborates that hypothesis, stating that surveys of current students, faculty, and a sample of alumni showed that "71% of students, 59% of faculty members and 42% of alumni use the site, [and] 35% of freshmen aware of OCW before deciding to attend MIT were influenced by it."<sup>101</sup> But in Provost Reif's opinion, a program like OCW has limited powers in areas like attracting students: "I don't think a student comes to MIT for OCW, so I don't think it has attracted students to come who wouldn't have come already. I do think it's increased our prestige around the world—but I don't know that it's had an impact on measurable things like attracting talent to come."<sup>102</sup>

## OpenCourseWare and Sustainability

A large and complex endeavor with a production process reliant on many individuals, OCW has required an ample budget over the years, most of which has been provided by outside funding. The Hewlett and Mellon Foundations "initially committed \$11 million for the pilot phase of OpenCourseWare and have since awarded an additional \$15 million."<sup>103</sup> When the grants were initially made, they were outliers within both the Mellon and Hewlett Foundations'

---

2005 Program Evaluation Findings Report, "a strong majority of the MIT alumni (83%) believe the OCW site greatly enhances or enhances MIT's reputation" (MIT OpenCourseWare, "2005 Program Evaluation Findings Report," 59).

<sup>100</sup>"MIT to Make Nearly All Course Materials Available."

<sup>101</sup>MIT OpenCourseWare, "2005 Program Evaluation Findings Report," 3.

<sup>102</sup>Interview with Rafael Reif, 10/30/08.

<sup>103</sup>Lerman, Miyagawa, and Margulies, "OpenCourseWare: Building a Culture of Sharing,"

typical portfolios. Mellon gave two large grants and then curtailed its financial involvement with online courseware, but the Hewlett Foundation completely retooled its program areas following the OCW award, which program officer Catherine Casserly called the “anchor grant” of the Foundation’s new Open Educational Resources division.<sup>104</sup> As of July 2009, the OCW program has cost \$33,707,000, of which \$6,523,000 has been provided by MIT, not including the university’s substantial in-kind contributions to the OCW project (e.g., office space in MIT buildings, portions of administrators’ time).<sup>105</sup> The OCW staff projects that the cost of operating the project in future years will be \$4 million annually.<sup>106</sup>

In the early days of OCW, plans for the initiative’s long-term sustainability were not of primary importance.<sup>107</sup> Bowen said that he and members of the Mellon Foundation’s board had been unsure all along about OCW’s sustainability, and that “Chuck [Vest] didn’t know himself, he just sort of hoped that somehow all would work out.” While the board did grant OCW’s proposal, Bowen said that concerns about the project’s long-term financial viability were always present, and “I don’t know that there’s been an answer [to the question of sustainability] to this day.”<sup>108</sup> Lerman confirmed this, saying, “we have had more meetings than I can count to discuss sustainability—it is the single real unsolved problem of OCW.”<sup>109</sup> In recent years, the impending expiration of the project’s grant funding has heightened the sense of urgency associated with the problem.

<sup>104</sup>Interview with Catherine Casserly, 8/19/08. As previously stated, the Hewlett Foundation defines OER as “free tools and content” that “can include full courses, textbooks, streaming videos, exams, software, and any other materials or techniques supporting learning” (William and Flora Hewlett Foundation, “Education: Open Educational Resources,” <http://www.hewlett.org/oer>). In other words, OER includes, but is not limited to, open courseware.

<sup>105</sup>Figures prepared by Jeff Lazarus, 7/2/09.

<sup>106</sup>Interview with Steve Carson, 10/27/08.

<sup>107</sup>Margulies said that the sustainability question was not a big part of the OCW team’s thinking early on because they were so focused on simply getting the project off the ground: “we were always cognizant that it was looming out there, but we didn’t really have a plan, and we couldn’t devote much time and attention to it until we were midway through the ramp-up phase” (interview with Anne Margulies, 10/28/08).

<sup>108</sup>Interview with William Bowen, 7/23/08.

<sup>109</sup>Interview with Steven Lerman, 10/31/08.

Reliant as OCW was on foundation funding, it was always clear to members of the team that such awards would be temporary, and funding sources would eventually have to shift. An inquiry into OCW's financial future was conducted by the OCW Faculty Advisory Committee in 2005, resulting in a recommendation for a financial arrangement in which MIT's General Institute Budget would support a portion of OCW's operating costs, with additional funds raised by the OCW team. According to that recommendation, "the case for sustained financial support of OCW publishing rests on the internal educational benefits that the program provides to the Institute's overall educational mission."<sup>110</sup> As OCW looks to its parent institution to cover more of its operating costs moving forward, attention is turning increasingly toward enhancing the benefits that OCW offers the Institute. According to d'Oliveira, a project without direct local benefit might be too easily considered expendable during times of financial crisis, so "now there's a big new focus on 'how do we increase the benefits to MIT?'"<sup>111</sup> For now at least, the case seems to have been made to the administration that OCW is an important part of the educational experience at MIT. Provost Reif said that "clearly it's being used, not just by people in Africa, but by people right here at MIT. MIT students benefit from it, and that to me is very important—we need to worry about our kids first."<sup>112</sup>

All involved agree that perpetually updating OCW's offerings must be part of its sustainability plan, requiring that funds be devoted not only to adding new courses but also to refreshing existing materials. The first proposal mentions the need to continue to update courses in the Steady State phase (the period following the completion of the 1,800th course), aiming for "a complete renewal of each course's Web site, on average, every four years."<sup>113</sup> Hockfield believes it is absolutely necessary to continue updating OCW, as she does not want to become complacent and allow the

<sup>110</sup>Lerman, "Recommendation of the OCW Faculty Advisory Committee," 3.

<sup>111</sup>Interview with Cecilia d'Oliveira, 10/29/08.

<sup>112</sup>Interview with Rafael Reif, 10/30/08.

<sup>113</sup>"MIT OpenCourseWare: A Proposal," 24. According to Steve Carson, since 2007 OCW has been updating about 130 existing courses each year (replacing the old versions), as well as adding about 70 new courses per year (interview with Steve Carson, 12/9/09).

site's quality to deteriorate. "One of the wonders of the internet world is that everything evolves so fast, so for OCW to continue to be relevant and continue to be attractive, it needs to innovate and keep up," she said. "What is core to MIT's education is that it moves with the field—[OCW] is on its way to the junk heap of history if we don't update it every year" to ensure that it remains accurate enough that MIT can be proud of it.<sup>114</sup> The OCW team also hopes to be able to keep the technology current as new options become available, as well as to eventually create additional functionality for the site.

Over the years, OCW has engaged in a series of preliminary efforts to add new features to the site while still pursuing the primary goal of creating a nearly complete online publication of MIT courses. OCW partnered with an outside organization to add message boards to the courses, though the chats were later abandoned due to lack of interest. More successfully, OCW has added a "Highlights for High School" portal to direct students and teachers to the material on the site most suitable for secondary school coursework or preparation for Advanced Placement examinations. Other innovations have included a program to distribute OCW on hard drives to areas of the globe with connectivity problems, adding audio and video content to the site, and contracting with secondary distribution channels like iTunes U and YouTube.

Fiscal year 2009 was the first in which OCW had to operate without funding from the Hewlett Foundation. The project's current operating costs—to maintain the site, add new courses, and update and augment existing courses—are \$4 million per year; half of this is provided by funds designated in MIT's budget, while the other half must be raised.<sup>115</sup> A major gift of \$6 million from Ab Initio, a software company founded by an MIT alumna, has ensured that operating costs are covered for three additional years,

<sup>114</sup>Interview with Susan Hockfield, 10/30/08.

<sup>115</sup>Reif explained that the annual \$2 million given by the Institute's central funds to OCW is a permanent item in the budget and need not be requested each year. He added a caveat: "We cannot imagine what happens if the MIT budget has to shrink, but I don't know what that means for OCW any more than I do for the electrical engineering department or anything else we fund. Once something's in the budget, it doesn't have to be justified every year; it's just part of what we do" (interview with Rafael Reif, 10/30/08).

but the Institute has not settled on a concrete plan for generating revenue beyond that.<sup>116</sup> The OCW team agrees that a number of avenues for funding OCW should be explored simultaneously. Perhaps chief among them is pursuing donations, a strategy that has already met with some success. In addition to the large Ab Initio gift, Carson said that in 2007 OCW generated almost \$100,000 in online donations. In the fall of 2009 OCW launched a naming opportunities program so that individual donors could sponsor particular courses.<sup>117</sup> Other ideas for future sustainability efforts include soliciting and accepting corporate sponsorship for OCW, with an eye toward building an endowment.<sup>118</sup> Vest remarked that, going in, “we did not have a clear model, but we were pretty confident that if it was successful, we would find a way to keep it going.”<sup>119</sup> Moving forward, it remains to be seen how successful OCW can be in generating the funds it requires, and how the current necessity of focusing on fundraising may affect its core publishing effort.

.....

Perhaps OCW's most significant contribution has been symbolic, in that it offers a new way of thinking about university content online, both within and outside the academy. At MIT, OCW has become the cornerstone of an ideological commitment to openness rooted in the university's core mission. Vest wrote in 2004 that “our challenge is simple: Can the decision makers of the world's leading educational institutions use what we are doing on our campuses to improve the lives of people around the world? History has proved that education and discovery are best advanced when knowledge is shared openly.”<sup>120</sup> This sentiment is supported by MIT's more

<sup>116</sup>Interview with Steve Carson, 10/27/08.

<sup>117</sup>MIT OpenCourseWare, “MIT OpenCourseWare Diversifies Revenue Approaches,” press release, January 28, 2010, <http://ocw.mit.edu/about/media-coverage/press-releases/revenue/>.

<sup>118</sup>Reif revealed that a member of MIT's development staff has been identified to aid OCW in fundraising: “that's a link that I wish had occurred earlier” (interview with Rafael Reif, 10/30/08).

<sup>119</sup>Interview with Charles Vest, 9/30/08.

<sup>120</sup>Vest, “Why MIT Decided.”

recent institution-wide open-access mandate to begin making all products of the faculty's research openly available.<sup>121</sup> Externally, OCW has proved an influential exemplar. As John Dehlin, former head of the OCW Consortium, has said, "It's still not intuitive to share the learning. I think MIT's largest contribution is . . . putting this very simple idea of sharing the learning on the map in the public consciousness."<sup>122</sup>

Looking back on OCW's accomplishments to date, it is clear that the project's achievements in the realm of "intellectual philanthropy" have coincided with promotion of the university's brand: the project's successes are MIT's successes. Reflecting on OCW's founding with the benefit of hindsight, Vest concluded that "depending on your vantage point you could say MIT was arrogant, or you could say it was very generous, or that it was very far-sighted—probably some combination."<sup>123</sup>

<sup>121</sup>Albanese, Andrew, "Another First, as MIT Faculty Adopts 'University-Wide' Open Access Policy," *Library Journal Academic Newswire*, online edition, March 24, 2009. In September 2009 MIT joined four other universities in forming the Compact for Open Access Publishing Equity, through which the institutions committed to underwrite the contributions their own scholars make to open-access journals.

<sup>122</sup>Quoted in Chute, Eleanor, "How to Take a Course at MIT Free—At Home," *Pittsburgh Post-Gazette*, online edition, November 18, 2007.

<sup>123</sup>Interview with Charles Vest, 9/30/08.

Excerpted from UNLOCKING THE GATES: How and Why Leading Universities Are Opening Up Access to Their Courses, by Taylor Walsh for Ithaka S+R. To learn more about this book and the author, please visit <http://press.princeton.edu>. Copyright (c) 2011 by Princeton University Press. All rights reserved. No part of this text may be distributed, posted, or reproduced in any form by digital or mechanical means without prior written consent of the publisher.