of MITx. Reif, who was named Hockfield's successor as MIT's president on May 16, called the technology "a living platform," both delivering courses and driving extensive research on "how learners learn online."

Online courses and tools, said Harvard provost Alan Garber, who oversees the University's engagement with edX, offer "measurement capabilities that we've never had before." Educators can see how a student engages with a video, rewinds it, takes a test, and so on. With a large student population in the circuits course and online testing protocols, Reif said, MIT was already administering different versions of testsmaking it possible to derive statistically significant data on, say, how well students mastered material and how accurately tests captured that learning.

Garber characterized as "a deep question" how such experiments might in turn inform and improve campus-based classes. Faculty groups at Harvard, he said, are working to determine how to measure learning and teaching effectiveness; the right criteria and tools will be determined by faculty members themselves. Similarly, Reif said, broader course offerings through edX would help faculty members determine what elements of online learning and technology work best in what disciplines, with what applications—if any—in residential education.

Such research is already under way at the Hewlett Foundation-funded Open Learning Inititive at Carnegie Mellon University, among other venues. The Harvard-MIT commitment to the field suggests broader, and accelerating, interest throughout higher education.

THE JOINT VENTURE took shape in discussions during the past several months, according to Garber. The deal itself may have come together rather quickly: when it was announced, a Harvard faculty advisory council apparently had yet to be formed. In a note to faculty colleagues, Smith, who will take the leading role in working with them to develop and deliver courses, indicated that FAS courses in computer science and quantitative socialscience methods—both with online elements already in use—and perhaps history or world cultures would be offered this fall. But the details and mechanics for each remained to be settled.

Heretofore, Harvard has been relatively

HARVARD PORTRAIT



Russell S. Phillips

During his three-decade career in primary care, professor of medicine Russell S. Phillips has studied palliative care, lower-back pain, sexually transmitted infections, mindbody therapies, and computer-based medical records, among other topics. For the last decade, he has led Beth Israel Deaconess Medical Center's 115-person Division of General Medicine. His chosen field afforded him the opportunity for diverse research pursuits and leadership experience; now, as the director of Harvard Medical School's new Center for Primary Care, he will focus on getting others to be as excited about the field as he is. Phillips himself was drawn to primary care because it is "relationshipcentered." But young doctors starting out in the field may not experience it that way if they end up in solo practices, feeling isolated. The new center envisions reforming primary care to make it more team-based, so a physician might operate in conjunction with a registered nurse, a licensed practical nurse, and an office assistant, each handling responsibilities appropriate to his or her training. This would spare doctors such routine tasks as completing paperwork and giving shots. A team might also add a social worker and a health coach, with their distinct perspectives. Such improvements would not only make for more stimulating work and a convivial environment, drawing more medical students into the field; they would also improve the patient experience and health outcomes—the ultimate aim of primary care. Phillips is ceding his post as hospital division chief, but will still see patients one day a week; he finds work as a primarycare physician deeply gratifying, and hopes more and more medical students will agree.