



THE UNIVERSITY EXPERIMENT

Universities must evolve if they are to survive. A special issue of *Nature* examines the many ways to build a modern campus.

When the first universities emerged in eleventh-century Europe, their mission was education, scholarship and nothing else. They housed bright young clerics, studying the newly rediscovered works of ancient thinkers such as Aristotle and Euclid. Only in the nineteenth century, following the lead of Britain and Germany, did universities begin to give equal weight to a second mission: scientific research.

But in the past few decades, universities around the world have begun to take on further missions. Today they are supposed to be not only centres of education and discovery, but also engines of economic growth, beacons of social justice and laboratories for new modes of learning.

In the face of these sometimes conflicting requirements — not to mention financial pressure from cash-strapped governments — today's

universities are evolving and changing at an unprecedented pace. In this special issue, *Nature* looks at some of the myriad ways in which universities around the world are trying to free themselves from old habits of thought, and to explore new ways of doing things.

One perennial issue is the departmental structure that keeps researchers mentally and physically separated. Two articles look at US attempts to tackle that problem: the first, on page 292, describes how Arizona State University in Tempe is aggressively promoting interdisciplinary centres; and the second, on page 297, discusses efforts to facilitate the commercialization of research by putting scientists from industry in the same buildings as their academic counterparts.

A second challenge is the ivory-tower mindset that leads faculty members to disdain commercial activity. A Comment (see page 295) reveals efforts in China to introduce a Western-style tenure system that will encourage innovation and risk-taking. Other countries are grappling with their own educational legacies, and a News Feature explores some of the diverse efforts to institute change (see page 288). A South African university is attempting to overcome the legacy of apartheid, for example, whereas one in South Korea is throwing out ineffective teaching methods such as mass lectures. There is plenty more content at nature.com/universities.

No one knows which of these experiments will produce the best-educated students or the greatest leaps in academic understanding (see page 273). But all share the sentiment that the twenty-first-century university could be dramatically different from the institutions of the past. ■



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