Taking Stock of University Patents

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"FUTURE LOOKS BLEAK FOR RESEARCH." That newspaper headline, summarizing recent findings of the American Association for the Advancement of Science, hardly surprised members of the academic community. Cutbacks in federal funding of non-defense research have been commonplace in recent years. Still, it had to be disheartening to learn that funds for such projects through 2002 are likely to be reduced by 25 percent from the present level.

Faced with this economic fact of life, many universities will have to make some difficult decisions. The most obvious option is simply to reduce their research efforts, but for those with a proud heritage of innovation, this would be extremely difficult. There is a better means of coping with the funding problem; however, it would require nothing less than a 180-degree shift in the approach taken by most universities to research projects.

In deciding whether to undertake a project, universities seldom approach industry to determine the commercial viability of the product or process envisioned. Rather, a school typically will conduct the necessary research, develop the invention, and then approach companies that it believes might be interested in commercialization.

This scattershot approach is rarely effective. One reason is that the descriptions of the inventions circulated to industry are too brief. Consider, for example, the publication used by a major West Coast university for this purpose. Entitled "Technologies Available for Licensing," this spiral-bound report lists 95 inventions in just 95 pages; most are described in fewer than a dozen lines of text.

Another reason the scattershot approach seldom works is that mature companies that have the money to pay royalties usually have their own R&D programs. Rarely do the research projects of a university jibe with what these companies are doing. What then can a university do to derive revenues from its patents and at least offset the cost of maintaining a licensing office?

A logical alternative is to reverse the traditional method — i.e., approach companies that commercialize technology to see what would be of interest to them and seek to create products they would like to sell. As sensible as that idea is, it's doubtful that it would appeal to many schools because of the obvious restriction that it would place on the independence of free-thinking researchers.

If the traditional system doesn't work and reversing it isn't acceptable, is there any other viable option? Yes, but it would necessitate a radical change in the thinking of academicians. Instead of looking to royalty arrangements for revenues, universities would do better to take equity positions in companies interested in commercializing their inventions. There are at least three ways this technique could be employed.

First, approach start-up companies and more advanced firms that research analysts like to call "emerging growth" companies. Many of these would be willing, even eager, to acquire the technology embodied in universities' patents. Few of these companies have the resources to pay royalties because they need every cent of income they can generate to pay their overhead. It would take some effort to identify the appropriate companies to contact, but they could be reached through the media, consultants specializing in the industries where patents are applicable, and venture capitalists.

Second, work with venture capitalists. The bread and butter of venture capitalists is new technology. If a university patent appears to hold promise, it's possible that a venture capitalist would either find a way to use the technology in one of his or her portfolio companies or else create a company to commercialize the invention.

Third, when a graduate student at the university has been heavily involved in an invention, encourage him or her to form a company to commercialize it. These people know the technology underlying a patent and will be highly motivated to capitalize on the opportunity it offers.

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