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TWO FLAVORS OF OPEN INNOVATION

Since Henry Chesbrough published *Open Innovation* (2003), the paradigm he described has been a subject of great interest and experimentation in corporations. Chesbrough defined open innovation as breaking down the boundaries of the corporation so that "valuable ideas can come from inside or outside the company and can go to market from inside or outside the company, as well." He contrasted this open paradigm with the more-traditional closed innovation paradigm based on the captive R&D laboratory.

Chesbrough's work encouraged companies to create porous innovation pipelines and to become more aggressive about licensing, working with start-up companies, spinning out concepts that don't fit with the core business, and partnering with other organizations to produce innovations. These approaches have created increased value for firms as diverse as P&G and GE, but they may be only the start of the redefinition of innovation. The emergence of open-source intellectual property (IP) and online communities for innovation and customer input is forcing continued rethinking.

Open innovation approaches are designed to source new technology and concepts broadly, seeking the seeds of the next innovation both within and outside of the corporate firewall (see, for example, Slowinski et al. 2009). Such initiatives are often supported by companies like Innocentive or Gen3 Partners, which help to frame the problem, connect the firm with external sources of expertise, and manage resulting IP. Control of the IP is a critical part of the management model. Similarly, control of the innovation process itself remains with the firm, which defines priorities, chooses how to source them, selects providers, and integrates them into its product roadmap. Open innovation stretches the role of R&D in

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important ways, but it operates *within the current management paradigm*. Open-source innovation, on the other hand, *redefines the corporation itself*. Two critical factors distinguish the approaches: the treatment of intellectual property and control of the direction of innovation.

Open-Source Innovation

Open-source innovation is a more radical model that is increasingly important in the development of everything from software to sports equipment. Economic research indicates that it may soon dominate corporate innovation in a steadily increasing number of fields. It is best known today in software development, where open-source software projects such as Linux and Apache are both communities and platforms that enable users to develop and share code that they need. In the open-source software model, there is no owned IP. Anyone can access, use, and modify the code. A large, and largely anonymous, crowd contributes to the development of the software. Although there are governance structures for deciding which code is incorporated into which release of the software, it is users, acting both individually and as a community, that decide what gets worked on. The users, therefore, dictate the direction of the product. Open innovation in this context means open governance, open IP, open direction.

Open-source innovation requires three large changes in corporate innovation thinking, each of which is difficult. First, it requires that firms take a modified view of IP, trading patent control for other sources of competitive advantage (speed, customer intimacy, voluntary contributions to the product). This can be threatening to the corporate R&D structure: creating, managing, leveraging, and controlling IP has long been a central function of R&D, and it continues to be under both open and closed innovation models. Opening IP is countercultural, more countercultural even than "open borders" innovation, but it has the potential to open doors to even greater customer engagement and value.

Second, an open-source mindset requires shifting the locus of control of new product directions closer to the user community. This is also challenging. Even in open innovation models, it is a central role of product

management and marketing to make these decisions. But the world is changing. Online networks greatly increase the potential for engaging customers in real time, shifting the locus of control of innovation away from producers and toward user communities. At times, as Eric von Hippel describes in *Democratizing Innovation* (2005), networks have enabled users to radically redefine the role of the firms that supply them.

Finally, open-source approaches to innovation require business models that can survive in a more open world. These models are only now emerging. They start with a true understanding of the ways in which community contributions can add value. Astute businesses use this understanding to create platforms that allow their user community to innovate—whether through technology platforms (like the Android smartphone platform), customer platforms (like open-source software), or platforms for fulfilling designs created elsewhere. Often, an open business model will also include a heavy dose of support services to supplement freely available products.

As online communities continue to emerge, and as the pace of change fundamentally reshapes the power of IP, the role of R&D and approaches to innovation within corporate structures will continue to evolve. Changes that simply open up corporate borders to innovations developed elsewhere will not be enough to keep up. Corporations increasingly need to consider open-source innovation, which involves much deeper changes to corporate culture and innovation practices than have been embraced to date.

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RTM Article Awarded Emerald Citation of Excellence

Emerald Management Reviews has awarded a Citation of Excellence Award to "Creating a Winning R&D Culture-I" by Greg Stevens and Kurt Swogger. The article appeared in the January-February 2009 issue of *Research-Technology Management.*

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