An Introduction to 'Research On Open Innovation'

By Andrew Updegrove

Once upon a time, the learned of the world willingly shared Great Ideas and discoveries among themselves, both nationally in scientific societies, and internationally through letters, often composed in Latin, the *lingua franca* of the recently enlightened Europe of that time. The resulting advancement in a broad range of scientific disciplines was prodigious, reaping enormous benefits we still enjoy today.

Or, at least, that's how the idealised version goes, and in fact much invaluable information was shared one-on-one among the great theoreticians and investigators of the time. But this was also the age of the Guilds, which jealously guided their knowledge, and later on of the era in which Darwin sat on his revolutionary theories for decades. He was only startled into expedited disclosure when he received a letter from a young species collector named Alfred Russel Wallace, who was seeking the great man's opinion of Wallace's more high level, but otherwise consistent theory of evolution.

In truth, there has always been a tension between the making of a discovery and the where, when and how of its sharing. Sometimes brilliant innovations are kept secret, and used for the sole commercial benefit of their discoverers. Other times their description in a respected, peer-reviewed publication is the ultimate goal. And in many cases the sharing of the discovery is only allowed to occur after it has been protected as completely as possible under patent law – a slow and time-consuming process. The result in each case is that the advance of knowledge and the

benefits for society that can follow materialise in a jerky, delayed fashion.

And yet in virtually every case discoveries are based upon the prior revelations of others – as Newton graciously phrased it, discerned only because the discoverer stood on the shoulders of the giants that came before. But what if all research, all experimental results, and all theories, were exposed to the world immediately?

The enormous benefits that such a practice could provide are almost beyond estimation. Not only might new cures for diseases be discovered and deployed more rapidly, but fewer billions of research dollars and countless hours of research time might be wasted if failed tests, as well as successful ones, were reliably and promptly reported, rather than never disclosed at all. Not only could science advance more quickly, but the return on foundation and tax dollars could be immeasurably greater as the same funds were redeployed to more productive use.

With the advent of the Internet as well as almost infinite, cheap computing power, the ability to capitalise on all forms of "openness" – in data sets, in research results, in source code, and more – and to benefit from the results has become too large to ignore. The degree to which innovation could broaden and accelerate in such an environment is almost limitless. Equally powerfully, the degree to which data and discoveries can be turned into products and services would provide an economic acceleration that governments, particularly in Europe, are beginning to realise and embrace.

Proponents of proprietary information, systems and code might scoff that such a vision is simply another idealised conception of scientific reality. But they would be wrong, and that is what this book, the third in OpenForum Europe's continuing series of books on all things open, is all about.

Unlike the prior anthologies in this series, which primarily included essays, 'Research On Open Innovation' compiles full length research papers by respected experts in their fields. In each case, the authors take a detailed, thoroughly referenced look into an area of scientific, commercial, legal or policy importance. In some cases, the authors investigate a single scientific discipline or industry sector, such as chemistry or communications. In others, they explore a foundational element, like intellectual property licensing, or practice, such as government procurement. Taken together, the findings presented in these papers begin to fill in the details of what a true open innovation-based ecosystem should look like, and how it would operate.

In reading the work of these authors, it is to be hoped that you will begin to think of ways that open access could accelerate your own work, whatever it may be. And also about how much more that work could be leveraged by others, if you were to embrace the same commitment to openness.

Not surprisingly, this book has been made available as a free download. We encourage you to visit the OpenForum Europe Web site, http://www.openforumeurope.org/ to learn more about what the Forum seeks to achieve in Europe, and about how you can help advance the goal of openness wherever in the world you may live.

Andrew Updegrove is a co-founder and partner of the Boston law firm of Gesmer Updegrove LLP. Since 1988 he has served as legal counsel to over 135 standards development organisations and open source foundations, most of which he has helped structure and launch. He has been retained by many of the largest technology companies in the world to assist them in forming such organisations.

He has also written and spoken extensively on the topics of consortia, standard setting and open source software, has given testimony to the United States Department of Justice, Federal Trade Commission, and Congressional and State legislative committees on the same topics, and has filed "friend of the court" briefs on a pro bono basis with the Federal Circuit Court, Supreme Court, and Federal Trade Commission in support of standards development in leading standards-related litigation. In 2002, he launched ConsortiumInfo.org, a website intended to be the most detailed and comprehensive resource on the Internet on the topics of consortia and standard setting, as well as Standards Today, a bi-monthly eJournal of news, ideas and analysis in the standard setting and open source areas with over 7,000 subscribers around the world. In 2005, he launched the Standards Blog. ConsortiumInfo.org serves over 10 million page views annually.

He has been a member of the United States Standards Strategy revision committee, and received the President's Award for Journalism from American National Standards Institute (ANSI) in 2005. His current and past Board service includes the Boards of Directors of ANSI, the Linux Foundation and the Free Standards Group, and the Boards of Advisors of HL7 and Open Source for America. He is a graduate of Yale University and the Cornell University Law School.