



From the Editors

Can IT Start-Ups Slay Telecommunication Incumbents? Stories of David versus Goliath

In the computer and telecommunications world there have been many stories that parallel the tale of David and Goliath. Recall that D&G is a biblical story of the Old Testament where David is a young shepherd boy and Goliath a giant warrior. David, with just a stone and sling in hand, slays the mighty Goliath, routing the Philistine army and giving the victory to the Israelites.

When applying the D&G story to the ITID world we often find ourselves casting monopolistic, incumbent telephone providers in the role of Goliath. And for many countries across the globe the fit is quite good, with an incumbent that is large and powerful—but also arrogant, predatory, slow, and in a word, a philistine. Indeed, such a Goliath-like description would fairly describe *most* incumbent providers, even to this day, in Africa, Asia, and Latin America.

In contrast to Goliath, David is characterized as fleet-of-foot, plucky, creative, and artful. Indeed, in the biblical story when David was not out shepherding his flocks or slaying giants he was writing psalms, reciting poetry, and playing music. When casting players from the ITID community in this role we would usually turn from the telecommunications to the computer sectors—looking to software start-ups, Internet providers, cyber cafés, and related organizations. To be sure, there are examples of such Davids in the developing world—small, fast, and innovative firms.

The simple answer is “no,” and this is where the parallels to the D&G story break down. In fact, while our Davids are happy to win the occasional battle against Goliath they have been dead-set on *losing* the war. This is because David, ultimately, is dependent on Goliath. Consider an Internet service provider: while they may have some of their own infrastructure connecting their best customers, they probably rely on the incumbent phone company for dial-up access as well as their international bandwidth. If Goliath were dead, so would die David’s business. But skirmishes are fought over things such as Voice over IP services, last-mile coverage, or permission to bypass the incumbent’s international gateway. And increasingly, with the liberalization of the sector, the introduction of competition, and the development of strong, independent regulatory authorities, David is winning these battles.

Today a new David has entered the scene that might be so revolutionary as to be willing and able, in some instances, to slay Goliath. The new David is enabled by emerging low-cost terrestrial wireless technologies and supportive public policies, including license-exempt radio spectrum use. The model goes something like this: small entrepreneurs purchase inexpensive wireless local (e.g., WiFi) or metropolitan (e.g., 802.16) area technologies and broadcast on unlicensed bands. They provide basic and value-added services including, in some cases, broadband Internet. Many of these small operators begin to weave together a patchwork of universal access. This patchwork would be fast, robust, and extremely responsive to innovation and local needs. It also scales since, as the number of providers