

Beyond telecommunications

While the burst of the Internet bubble was a painful time for all of us, more than an economic change, it marked the digital world's transition from a revolution to a culture. The Internet revolution is over. It is now an integral part of civilisation, soon to become a human right alongside health and education.

I am reminded of the scene in *The Graduate* (1967), where a man sidles up to Benjamin Braddock (Dustin Hoffman) and says: 'Plastics', as a sure sign of the future and opportunity. Ten years later, the scene would have used 'Telecom'. Today it might be nanotech or biotech. As time marches on, one field after another becomes the discipline du jour. Telecommunications is no longer that. However, is it an over-fished pond or fertile soil for innovation? The papers that follow indicate the latter.

A century ago, electrical engineering spun off from physics and matured into a discipline — every university now has both fields separately represented as departments. More recently, half a century ago, cybernetics was born, capturing the finest scientific minds of the time, but the field no longer exists and there are no departments of cybernetics. Instead, it morphed and spawned new disciplines, to form the core of such diverse fields as artificial intelligence, developmental psychology, communications theory and computer science.

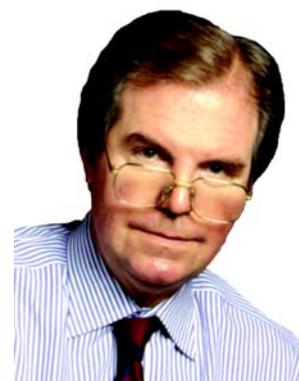
Telecommunications, will follow cybernetics. It will form the basis of new life styles, be at the root of new content and drive totally new businesses and business models. Furthermore, it will engage all scales in the physical sciences, from the minute to the astronomical. Under these conditions, the field is suddenly as broad as economics, as concrete as engineering and as creative as architecture.

Not surprisingly, an eclectic band of academic insurgents provides an early warning system in the papers that follow. What these authors have in common is attitude. Their way of thinking is deeply multidisciplinary, always contrarian, and usually trend setting. What makes this collection different is the mix of backgrounds — technical and artistic, rooted in both applications and science, both basic and applied. From such wide points of view, telecommunications and living are one and the same. I am constantly asked what is the Media Lab's most unique contribution. 'The birthplace of multimedia' is a likely and expected answer. But the real answer is the Lab itself — its existence and style of work, at first scorned, then envied, now copied. Among its many attributes, the most notable is its interdisciplinary nature.

In the pioneer period of the 1980s, there were no rules or standards by which to judge success. A steady stream of innovation was sufficient. Post revolution, people expect a stable, reliable, replicable set of theories and experiments. While academic performance and review may push some of our faculty towards this more traditional norm, revolutionaries do not necessarily make good statesmen. For this reason, it is time to move on, to find a new revolution, to build new bandwagons, and not to bask in the glory of one's past successes.

Towards this end, a number of new themes prevail, some of which are likely to launch a new wave of innovations — 10x, Simplicity, 'viral communications' and 'computers with common sense' are examples. Telecommunications serves not only as a common thread, but also as the means to achieve such advances.

Eighteen years ago, British Telecom (as it was then called) and the Media Lab began a collaboration to imagine new systems and services. Then the idea of a close yet intercontinental collaboration was unusual and viewed by some as unimaginable or unpatriotic. For this reason, the Media Lab has worked hard to be a venue for veritable partnerships beyond a one-night stand. Almost two decades later, after uncountable collaborations and peer discussions between BT and MIT, with a BT Lab on campus, we have living proof of a strong, long-term partnership and the methodology has entered the mainstream. The papers that follow are further evidence.



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