A new computer paradigm enabling open innovation and full adaptability
Hervé Bourlard, Technology in Review, New York Times, September 4, 2015

For more than 30 years, operating systems have been at the center of most users' experiences with computers, often hindering or limiting their innovation potential. And, indeed, over the last two decades Microsoft's success has been due in large part to its realization that control of the operating system would give it a large amount of leverage over computers (called PCs at some point), resulting in a complete dominance of the computer industry and related applications, which later spread beyond PCs into multiple consumer devices (games, telephones, PDAs, TVs, etc).

However, as confirmed by the recent collapse of Microsoft, as well as the general feeling shared by many of us over the last 10 years, operating systems, and computer platforms in general, have now become a pure commodity product, part of it having been moved to the lower level (typically integrated over the CPU/memory chips), while the more user-centered parts have been moved to a higher level, typically a web-based platform that runs in a browser and is written in the language of the browser rather than the language of the operating system. As witnessed through the numerous applications currently being developed, this new computer paradigm has boosted "open innovation" (also including open source architectures), facilitating the convergence/integration of technologies, sharing of the tools and knowledge, and enabling the functioning of very complex systems, merging in a principled way the electronic world and the physical world, and serving the human beings to enhance their well-being directly and indirectly through what they do and what they do for other human beings. This new paradigm has abolished the obstacles to the exchange of digital media and audiovisual content between creators and customers and among users, enabling different suppliers to deploy a plethora of multimedia services that competitively coexist and interact over a common access and personal and home environment, with direct impact in multiple application areas, including consumer electronics, storage (and content engineering), radio and audio, health, social networking, etc.

Furthermore, resulting devices and applications feature easy customization and user programmability, enabling users and other non-specialist stakeholders to develop and evolve "any" system (e.g., initially a cell phone), with or without the collaboration or assistance of design experts. Such development and evolution can even go beyond tailoring or personalization of a system for an individual or a group; it might, for example, include modifications that turn out to be valuable for users not initially considered, and in situations not envisaged.

Note: As a by-product of the above, rebooting consumer electronics is no longer an option (and no longer necessary!).