



A More National Technology

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Over the past several decades, many computer societies have begun to focus on IT, leaving computer science behind.

Is there a fundamental division between computer science and IT? Is one of these fields more international than the other? I would have never considered these questions had I not been prodded by a friend who spent his career dealing with the differences between these two approaches to computation.

Roger and I met at the offices of the British Computer Society, an institution that straddles the fields of computer science and IT. As we settled into our conversation, Roger suggested that I had misunderstood the experience of national computing societies by comparing them to the models of the IEEE Computer Society (IEEE CS) and ACM—both of which are international in scope and interested in supporting international discussions. When researchers publish in IEEE CS or ACM periodicals, they are presenting an idea to the largest possible audience, one that isn't limited by national boundaries.

Roger noted that by 1965, most of the national computer societies were moving away from general computer


science and starting to focus on IT. The two principal exceptions were the ones I knew the best: the IEEE CS and ACM. Even in the 1960s, both touted themselves as international organizations.

IT is more nationalistic than computer science because it's connected to corporations—institutions that work entirely within the nation-state. National governments charter corporations and regulate their operations within national boundaries. Even companies that operate globally must have local subsidiaries that are incorporated and governed by national governments.

Working in service to corporations (or by extension, national agencies), IT is more than a mere application of computer science, just as electrical engineering is more than a mere application of physics. Engineering disciplines have goals that differ from those of the sciences. They strive to build useful systems and explain how the systems work, even if that explanation doesn't quite agree with the current theories of natural phenomena. In a similar manner, IT strives to provide systems that can be used to store and retrieve information, facilitate decisions, support operations, and coordinate labor. In the process, IT has to explain how its systems work,

but that explanation might provide only limited insight into the nature of computation.

Even when IT deals with international issues, it does so in ways that support nationalistic goals. Most of the world's computer societies are involved in workforce development and most follow some form of international standards, such as the International Computer Driver's License (ICDL). Developed by the European Union, the ICDL program offers training and certification for basic computer skills in 40 languages and 100 countries. For many computer societies, the ICDL provides an important contact with the international community and a source of revenue to support other activities.

Along with the IEEE CS and ACM, the British Computing Society is one of the few computer societies that has been able to contribute to both computer science and IT. It publishes four academic journals and manages the ICDL program within the UK. It has been able to support both fields because it has a history that stretches back to the early days of computation, though not quite to the days of Alan Turing or Charles Babbage. Most computing societies, however, were asked to support the national economy and national corporations. As a result, they began directing their attention toward IT, leaving computer science behind. 

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