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If, as political scientist Harold Lasswell famously proclaimed, politics is “who gets what, when and how,” public policy defines the pathways through which the winners of Lasswell’s pluralist game realize their gains. Public policy delimits social behavior, opening up certain choices and options while foreclosing others.

This classic social scientific insight is crucial to the defining the important issues in CHI and how we might address them. Researchers of computer-human interaction tend to focus, and rightly so, on technical challenges such as speech recognition and synthesis, human-computer interfaces, and natural language processing. As a political scientist, however, I contend that even the most exquisitely designed agent of the future will still have to be inserted into the very noisy domain of society. Furthermore, the degree of difficulty in integrating the technical with the social/political/cultural will depend on the specific policy domain in question.

Education, and particularly tertiary education, may be the area where CHI is both most desirable and most threatening. From enabling virtual tours of Victorian England in a class on Marxism to re-creation of the Constitutional Convention in Philadelphia, the desirable prospects of CHI in higher education are limited only by one’s imagination (or one’s sub-field). The threats, however, loom large and may become intractable if stakeholders are not engaged at the outset. The emerging lessons of the “virtual university” era of the late 1990s provide a cautionary tale for CHI enthusiasts. Questions of access, cost and quality of instruction via the Internet continue to bedevil the non-elite universities, and even the most prestigious consortiums have thus far failed to realize a profit on expensive online courses. Faculty resistance to changing modes of organization and work-practices also proved a formidable obstacle to scaling-up use of the Internet in higher education beyond “plug and play” software packages and the usual cohort of techno-enthusiasts that exists on any campus. These social and political challenges will be exacerbated by the emergence of virtual and natural-language pedagogical agents.

The first policy question one has to ask with respect to CHI is thus “what area of public policy are you most interested in (e.g., health, education, defense)?” The second question is “why is CHI relevant here?” For instance, in higher education, why do we need and want to pursue computer-human interaction in an institution that has endured largely in its present form for 800 years, and within which the major power center (the faculty) are notorious for a passive-aggressive style of resistance to change that is usually effective? What do we gain and what do we lose by pursuing this menu of technological possibilities? And finally, back to Lasswell, who gains and who loses? And why? The ethnographic concept of “information ecologies” pioneered by Nardi and O’Day (1999) provides a robust framework for beginning to answer these questions in local and national contexts.

Biographical Note: Amy Fletcher, Senior Lecturer in the School of Political Science and Communication, is a participant in a new international Virtual Instructors Pilot Research Group (VIPRG), sponsored by the IEEE Computer Society Technical Committee on Learning Technology. The VIPRG will conduct empirical research to devise the best approaches for building pedagogically effective virtual instructors and pedagogical agents. These virtual instructor systems may range from 3D computer graphic instructors in mixed reality environments to anthropomorphic robotic instructor systems. Results of this research will impact how e-training is delivered and how humans learn with virtual instructors.