Abstract: Many computing people call themselves professionals without the necessary validation or credentials that other professional groups possess. Perhaps computing needs greater maturity to develop standards of best practices. Even defining the meaning of a computing profession may be difficult. This panel will explore perspectives on these and related issues.

Computing professionals are often involved in the design of systems that affect the public interest. However, we have all witnessed cases where such individuals with little formal education claim to be computing professionals. Some states or nations permit such practices. Others apply strict rules where professions practiced by barbers, lawyers, insurance salespeople, doctors, beauticians, accountants, bartenders, dentists, and manicurists require formal validation to practice in their fields.

Most engineering disciplines have developed their standards of practice over a long period of time as their disciplines were developing. [The Discipline of Engineering, Michael Davis] In fact, the pace at which the impact of computing is moving is outdistancing the rate at which professional standards are developing to define computing best practices. Computing has in many respects simply adopted the major elements of other engineering codes of ethics and professional practice to meet its own needs. [History of the ACM Code, Ron Anderson]

These conceptual difficulties are well documented in the computer ethics literature and several of the panelists have written in this area. The computing industry has a documented interest to improve the professional approach to the development of software, as witnessed by the six-year effort of the IEEE-Computer Society and the ACM to professionalize software engineering. In addition to the new situations for which we have not established well-defined ethic responses, there is a problem within computing education. Neither the practitioners nor the teachers of computing have treated “computing as a profession” [The Responsible Software Engineer, Colin Myer, Springer-Verlag, 1996] nor have they been trained to view computing as a profession. One could question whether computing is indeed a profession or just a group of people, each doing its own thing. This raises a series of problems about how to define best practices in an emerging profession.

Many questions come forth concerning computing as a profession. Among these are the following. What determines whether something is a profession? How can we organize the computing discipline to define best practices in a positive way? What is the best way to educate the practitioners, teachers, and students about a professional approach to computing? Is a standard code of ethics a good place to start? Will licensing software professionals help? How does the issue of licensing of software-oriented professionals relate to the phenomenon of computer science tracks existing in art and sciences, or engineering and information systems tracks existing in business? If we consider that software engineering is “professional,” what about the rest of computing or portions of it? Does professionalism lead to licensing? Is the licensing of all software engineers inevitable? What does licensing of software engineers mean for academic departments that are traditionally titled computer science, computer engineering, or information systems? If a computer science track were more theoretical or intellectual than a software engineering track, could one consider it less “professional?” What impact will a move toward professionalism have in other related areas? What are the responsibilities of the computing societies in developing professionalism?

This panel will address some of these professional issues of computing from a historical perspective and from current practices. Panelists will present their views and give suggestions on how computing societies can better address the issue of professionalism in education and practice. Audience interaction and participation are strongly encouraged.