Nine Elements of a Profession

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Delivered as a Toastmasters speech #3 (Organize Your Speech) from the Communication and Leadership handbook in October 2001.

Audience: A group of professional co-workers, most in Information Technology, all working for an insurance company.

Goal: Deliver a five- to seven-minute speech showing strong organization (beginning, middle, and end), with a cohesive set of ideas. The Toastmasters International manual recommends making only two to three main points, to avoid confusing the audience in the short time allotted for the speech. I attempted to introduce nine main points, and according to audience feedback, the speech was successful, largely because of the use of a real life example (a doctor) to tie the theme together.

Below find both the speech text and a handout.

Speech Text

I am here to talk to you about being a professional, but to start, I would like some of YOU to tell ME about what it means to be a professional. Who here considers him or herself a professional? [Raise my own hand. Wait for hands, call on someone. If no hands, then ask who knows a professional] Tell me, what makes you a professional? [Wait for answer, call on more people if it is working out well]

Those are all good definitions of a professional. Today I am talking about a very specific type of "professional". I am talking about people whose work conforms to the technical or ethical standards of a profession. People like doctors and lawyers.

I work in two fields that are in the process of BECOMING professions: software engineering and project management. It is clear from my reading that I have a way to go before I am a true "professional," even though I belong to the Project Management Institute, the IEEE Computer Society, and the ACM, even though I have earned a Project Management Professional certificate.

In front of you is a handout describing one theory about the elements of a profession. Lets review these in order, following a made-up character John starting in high school, following his journey to become Doctor John.

John knows exactly what he must do to become a doctor: get an undergraduate degree with a pre-med major, get a medical degree from an accredited graduate school, and finally complete the residency program. Then he will be Doctor John, a fully licensed physician.

Those steps cover the first five elements of a profession. John gets his initial professional education from an accredited school. He knows how to get through his first few years of skills development, and he knows how to get his license.

I skipped over certification. Certificates are awarded by an organization to an individual, usually for having met certain professional milestones and for passing a test. Licenses are just like certificates, except it is legally mandated. Doctors are licensed, not certified.

Doctor John practices medicine, but periodically he must learn more about new tools and techniques. He probably joins a medical society like the AMA to help him stay current and to meet other doctors.

When he got his license, he had to agree to work under a code of ethics. That code of ethics is vitally important to him. If he violates it and his medical society discovers the violation, he could loose his license, his ability to practice his profession. Licensing, certification, processional societies, and codes of ethics work together in a tight web.

Doctor John practices medicine and eventually he is Senior Doctor John, head of the local hospital. He commands a staff of licensed physicians. He now must see to it that a medical board certifies the hospital itself.

Compare John to a prospective software engineer and project manager. Their initial education and early skills development are uncertain; I was a U.S. History major and have little formal training in software or project management, yet I am a successful IT project manager! We have many certification programs, like the PMP certificate that I hold, and technology certificates like Microsoft certified engineer. There is only one licensing system I can name; the state of Texas recognizes a licensed software engineer. We have many professional societies, each with a code of ethics. Too few practitioners belong to these societies, though, so there is no group that can effectively police the whole profession. There are organizational certification systems like ISO 9000 and CMM, but few companies use them. My professions have a long way to go to become mature professions. Through my work with ACM, IEEE Computer, and PMI, I hope to make them more mature.

I invite you all to think about your own career, to think about what potential professions you are a part of. Find others like yourself, through a professional society, and get involved in its activities. My career is richer for the experience. I even included the hyperlinks to a few societies on the back of your handout there. If anyone has any questions, or wants help finding a society for them, just pull me aside during the break or after the meeting. I would be glad to help.

Professionalism's Nine Elements

#1 Initial Professional Education

Professionals generally begin their professional lives by completing a university program in their chosen fields – law school, medical school, engineering school, and so on.

#2 Accreditation

University programs are accredited by oversight bodies that determine whether the programs provide adequate education. Accreditation assures that graduates from accredited programs start their professional lives with the knowledge they need to perform effectively. The Accreditation Board for Engineering and Technology (ABET) oversees engineering programs.

#3 Skills Development

For most professions, education alone is not sufficient to develop full professional capabilities. Nascent professionals need practice applying their knowledge before they are prepared to take primary responsibility for performing work in their fields. Physicians have a three-year residency. Certified public accountants (CPAs) must work one year for a board-approved organization before receiving their licenses. Professional engineers must have at least four years of work experience. Requiring some kind of apprenticeship assures that people who enter a profession have practive performing work at a satisfactory level of competence.

#4 Certification

After completion of education and skills development, a professional is required to pass one or more exams that assure the person has attained a minimum level of knowledge. Doctors take board exams. Accountants take CPA exams. Professional engineers take a Fundamentals of Engineering exam at college graduation time and then take an engineering specialty exam about four years later. Some professions require recertification from time to time.

#5 Licensing

Licensing is similar to certification except that it is mandatory instead of voluntary and is administered by a governmental authority. [Only licensed professionals can be found guilty of malpractice, but following generally accepted practices of your profession can be a defense against accusations of malpractice. Non-licensed workers are rarely sued for poor work, except in extreme cases of neglect or intent to harm; usually the company employing the worker is sued if its workers produce defective products. Dissatisfied customers can sue the licensed professional AS AN INDIVIDUAL, in addition to suing their employer. Along with licensing comes malpractice insurance, to allow the licensed professional to practice his or her craft without fear of personal bankruptcy.]

#6 Professional Development

Many professions are required to keep their professional education current. Ongoing professional education maintains or improves workers' knowledge and skills after they begin professional practice. Professional development requirements tend to be strongest in professions where a body of technical knowledge is rapidly changing. Medicine is perhaps the most notable because of the constant improvements in drugs, therapies, medical equipment, and diagnosis and treatment procedures. After a professional's initial education and skills development are complete, this additional education requirement helps to assure a minimum competency throughout the professional's career.

#7 Professional Societies

Professionals see themselves as part of a community of like-minded individuals who put their professional standards above the individual self-interest or their employer's self-interest. When a professional society is just beginning, it usually promotes the exchange of knowledge, and over time its function evolves to include defining certification criteria, managing certification programs, establishing accreditation standards, and defining a code of ethics and disciplinary action for violations of that code.

#8 Code of Ethics

Each profession has a code of ethics to ensure that its practitioners behave responsibly. The code states not just what its practitioners actually do but what they should do. Professionals can be ejected from their professional societies or lose their licenses to practice for violating the code of ethics. Adherence to a recognized code of conduct helps professionals feel they belong to a well-regarded community, and enforcement of ethics standards helps maintain a minimum level of conduct.

#9 Organizational Certification

In many professions, not only must individuals be certified, their organizations must be certified. Accounting firms are peer reviewed. Hospitals are accredited, as are universities. For fields as complex as accounting, education, and medicine, organizational certification is a response to the reality that individual competence is not sufficient to guarantee adequate levels of professional service; organizational characteristics can have as much influence as individuals' characteristics.

From Steve McConnell, <u>After the Gold Rush: Creating a True Profession of Software Engineering</u> (Redmond, WA: Microsoft Press, 1999), pp. 92-95

Steve McConnell cites as his source, Gary Ford and Norman E. Gibbs, "A Mature Profession of Software Engineering," Software Engineering Institute, CMU, Document number CMU/SEI-96-TR-004, January 1996

Relevant Web Sites

Steve McConnell: http://www.construx.com/profession/

Project Management Institute (PMI): http://www.pmi.org/

Association for Computing Machinery (ACM): http://www.acm.org/

Institute of Electrical and Electronics Engineers, Computer Society (IEEE CS): http://www.computer.org/

Institute of Electrical and Electronics Engineers (IEEE): http://www.ieee.org/

American Institute for CPCU/Insurance Institute of America (AICPCU/IIA): http://www.aicpcu.org/

Insurance Data Management Association (IDMA): http://www.idma.org/