

Lecture: Professionalism & Ethics

Agenda

- Professionalism

What is a Profession?

1. a vocation requiring knowledge of some department of learning or science: the profession of teaching.
2. any vocation or business.
3. the body of persons engaged in an occupation or calling: to be respected by the medical profession.
4. the act of professing; avowal; a declaration, whether true or false: professions of dedication. ¹

Profession

- Classically, there were only three professions: Divinity, Medicine, and Law.

Profession

The main milestones which mark an occupation being identified as a profession are:

- It became a full-time occupation;
- The first training school was established;
- The first university school was established;
- The first local association was established;
- The first national association was established;
- The codes of professional ethics were introduced;
- State and provincial licensing laws were established.^[2]

Source: Wikipedia.com

Profession

- With the rise of technology and occupational specialization in the 19th century, other bodies began to claim professional status: Pharmacy, Veterinary Medicine, Nursing, Teaching, Librarianship, Optometry and Social Work, all of which could claim, using these milestones, to be professions by 1900.^[3]

Source: wikipedia.com

Legally recognized professions

- Some professions are legally recognized
 - Governments have passed laws recognizing members
 - In turn, members have a legal responsibility to uphold the interests of society, above other interests
- Others professions are less formal

Legally recognized professions

Professions with practice-restricting licenses in many jurisdictions

- Practice or aspects of practice are limited to license holders
 - Medicine, Veterinary Medicine, Dentistry, Chiropractic, Pharmacy, Law, School Teaching, Engineering (in theory in Canada), Architecture
 - Some licensed professions in Ontario
http://www.settlement.org/sys/faqs_detail.asp?faq_id=4001108
 - Divinity (those licensed can perform marriages, etc), etc.
- Those requiring less education are commonly called 'trades'
 - *Truck Driving, (required training and drivers license)
 - Electricians
 - Auto Mechanics

Legally recognized professions

Professions with signoff-restricting licenses or certifications,

- A licensed/certified person must *approve* certain types of work done, but may delegate most of the work to others
- Anyone may 'do certain of the work', but members have a legal basis to state to others that they are competent
- Engineering (in some places), Financial Analysis (CFA), Chartered Accountancy (CA), Certified Management Accountancy (CMA), certain 'trades' (Electrician, Plumber)
- Veterinary Medicine

Professions with legal standing but where there is no license issued nor legal requirement for signoff of work

- Information Systems Professional (I.S.P.) in Canada

Professions without legal recognition

- Professions with optional certifications that do not have legal weight
 - Software Development (CSDP), Project Management (PMP)
- Professions not generally licensed or certified, but where a degree or diploma provides evidence of competence
 - Scientist (various types), Journalist
- Other professions or trades where an apprenticeship model is typically followed
 - Mechanic, Electrician
- Professions where the limiting factor is simply that you must have sufficient skill or knowledge that someone is willing to pay you enough to do it full time
 - Sport player (Hockey, Golf, Football), Actor, Artist, Musician, etc.

Key attributes of a profession

- Public recognition: Others outside profession understand what a member of the profession does and can do
 - So outsiders know who to consult when they want some service
 - So outsiders can feel confident they are getting work done by someone competent
- To ensure public recognition: There must be
 - A. A defined scope of practice
 - B. A recorded body of knowledge (principles, facts, best practices, required procedures such as the building or plumbing code)
 - C. A code of ethics
 - consequences when it is violated
 - D. Methods to educate/train, accredit education, and ensure continuing education
 - E. Well-understood criteria for membership
 - F. Organizations to establish and administer the above

Specializations / Specialties

- Most professions have well-defined specialties, often with their own certifications and associations
 - Medicine: Board-certified specialties
 - Veterinary Medicine
- IT/Computing:
 - AI - American Association for Artificial Intelligence
 - Project management Professional <http://www.pmi.org>
 - Information security (Certified Information Security Manager) http://www.isaca.org/Template.cfm?Section=CISM_Certification
 - Hacking (Certified Ethical Hacker) <http://www.certifiedethicalhacker.com/>
 - Certified Information Technology Professional
 - Vendor-specific certifications (Microsoft, Oracle)
 - Database administration, UI design
 - etc.

General Professional Associations for Computer Professionals

- CIPS - Canadian Information Processing Society
 - The national society for computing in Canada
 - Affiliated with Réseau Action TI (Québec)
- Two US-based associations with international membership
 - ACM - Association for Computing Machinery
 - IEEE Computer Society

Certification

- An *earned* professional designation which assures qualification as a professional
- Earned through a professional body (society) who sets the criteria for eligibility of the qualification
 - Usually:
 - Course of study in an **accredited program**
 - Proof of professional accomplishments (work experience)
 - Examination

Certification

- Value of certification:
 - Demonstrates commitment to your profession
 - Increases your professional credibility
 - Adhere to the code of ethics
 - Mastery of a BOK (Body of Knowledge)
 - Committed to ongoing education

Certification

- Must be renewed periodically (usually annually)
- Types:
 - Legal (doctors, dentist, lawyers, veterinarians, teachers)
vs: non legal (PMP, apprentices, athlete)
 - Corporate (Sales, Customer Service)
 - Product-Specific (i.e. MCSE, CISCO)
 - Professional-wide (i.e. CGA, CA)

IT Certification

- Vendor specific
 - Cisco
 - IBM
 - Microsoft
 - Red Hat
 - SAP
 -
- Third party
 - CompTIA
 - CISSP
 - ITIL
- General Certification
 - IEEE
 - CITP (BCS)
 - **I.S.P./ITCP (CIPS)**

Some Benefits of Professional Status in Computing

- Social and societal standing
 - Computing professionals have similar responsibilities to society as engineers, doctors, lawyers, accountants, financial analysts, etc.
 - Other professionals, members of the public and the media need to know who to consult
- Legal reasons
 - Judges and lawyers need to know who can be considered an expert witness in a court case involving computing or IT
 - The Chief Information Officer (CIO) of a corporation needs to know who has the expertise to certify that the corporation has adhered to laws and regulations
 - Privacy acts like PIPEDA
 - Corporate regulatory compliance

Credit

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