

Professionals and Professionalism in Surveying and Spatial Information

Essential, Desirable or Superfluous?

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Presented at FIG2007, Hong Kong, May, 2007



It is essential that the words we
use to describe ourselves are
used correctly and
appropriately.



Presented at FIG2007, Hong Kong, May, 2007



It is essential that the words we use to describe
ourselves are used correctly and appropriately.

If we fail to do this, we expose
ourselves to criticism, censure
and even ridicule.



Presented at FIG2007, Hong Kong, May, 2007



We are all familiar with the so-
called “universities” that grant
degrees – even PhD’s - to
those who send them a
sufficient and specified sum of
money.



Presented at FIG2007, Hong Kong, May, 2007



We are aware of

1) the value the general public places
upon those degrees



Presented at FIG2007, Hong Kong, May, 2007



We are equally aware of

- 1) the value the general public places
upon those degrees, and
- 2) the value the general public places
upon the bodies which offer them.



Presented at FIG2007, Hong Kong, May, 2007



We need to be very careful about the appropriate use of terms to define educational qualifications



Presented at FIG2007, Hong Kong, May, 2007



We need to be very careful about the appropriate use of terms to define grades of education or levels of membership within societies purporting to represent the professions.



Presented at FIG2007, Hong Kong, May, 2007



To be loose in their use or application only serves to downgrade, and even degrade, both the qualifications offered, AND the body offering them.



Presented at FIG2007, Hong Kong, May, 2007



Membership to the Spatial Sciences Institute of Australia is (Sept., 2005 to present) has two levels, as defined as below.



Presented at FIG2007, Hong Kong, May, 2007



SSIAust. Certification

General – Certified **Professional**, Spatial Sciences Institute (*Cert. Prof. SSI*), & Specialist – Certified Practitioner (Specialisation), Spatial Sciences Institute (*Cert. Prac. (Specialisation) SSI*)

- Recertification every two years
- Don't need General to achieve Specialist
- Achievement of Specialist replaces General



Presented at FIG2007, Hong Kong, May, 2007



Spatial Sciences Institute of Australia – Certified Professional

Note: the base level of entry is called a

“Certified Professional”

We should now visit what criteria were set to achieve this status



Presented at FIG2007, Hong Kong, May, 2007



Educational achievement & required work experience for entry level membership;
General Certification – *Professional* Certification

- 3 or 4 year Degree accompanied by postgraduate studies in a spatial science discipline or speciality - 1 year, or
- 4 year Degree - 1 year work experience, or
- 3 year Degree - 2.5 years work experience
- OR



Presented at FIG2007, Hong Kong, May, 2007



Educational achievement & required work experience for General Certification –
Professional Certification

- 3 or 4 year Degree accompanied by postgraduate studies in a spatial science discipline or speciality - 1 year
- 4 year Degree - 1 year work experience
- 3 year Degree - 2.5 years work experience OR
- **Advanced Diploma (3 years) - 4 years work**
- **Diploma (2 years) - 4.5 years work**
- **Certificate (1 year) – 6 years work**
- **Long Term Practice Provision - 10 years work**



Presented at FIG2007, Hong Kong, May, 2007



Certified Professional of the SSI

- **In other words, qualifications range from**
 - 4 year degree plus 1 years experience, thru to
 - 2 year diploma plus 6 years experience and
 - zero tertiary education plus 10 years.



Presented at FIG2007, Hong Kong, May, 2007



Certified Professional of the SSI

- In other words, qualifications range from
 - 4 year degree plus 1.5 years experience, thru to
 - 2 year diploma plus 6 years experience and
 - zero tertiary education plus 10 years experience.
- **This implies that after 10 YEARS POST-High SCHOOL; a**
 - four year University graduate with 6 years experience, is deemed equivalent to
 - A high school leaver with 10 years experience but **NO FORMAL TERTIARY EDUCATION.**



Presented at FIG2007, Hong Kong, May, 2007



Spatial Sciences Institute of Australia – Certified Professional

It is obvious, given the above range and disparate requirements above used by the SSI, that we must revisit our what we mean by a “Professional”

I detail these concerns below, as well as propose alternatives which satisfy these concerns and satisfy the objectives of SSI membership.



Presented at FIG2007, Hong Kong, May, 2007



Membership to the Spatial Sciences Institute of Australia was (Sept., 2005 to ?) defined as below.

In fairness to SSI (Aust), this definition is currently undergoing review, as a result of representations from the Land Surveying Commission of SSI. The arguments however are still current to SSIAust, and to the Professional bodies in many countries, and indeed to the FIG itself!



Presented at FIG2007, Hong Kong, May, 2007



What is the **definition** of Professional, and who has the right to call themselves “a professional”???

Many people use this term - but inappropriately, so let us first decide what and who is NOT a professional



Presented at FIG2007, Hong Kong, May, 2007



Can someone who charges a fee for service justifiably call themselves a professional ???



Presented at FIG2007, Hong Kong, May, 2007



Many call themselves “professional” because they earn their living by that activity. We have “Professional musicians” “Professional Sportsmen and Women”, indeed “Professional Gangsters”, “Professional Street Walkers”, “professional dog-handlers; gardeners”, and so on



Presented at FIG2007, Hong Kong, May, 2007



All the above are earning a living by performing some kind of service. These have varying levels of formal, systematic education in their fields. So, can someone who charges a fee for service justifiably call themselves a professional ???

- Clearly, in the context in which we use the term “Profession”, earning money by performing a service is not in itself sufficient to justify use of the term

Is the term defined by the **quality** of the service provided?



Presented at FIG2007, Hong Kong, May, 2007



We all know the value of tradespeople who are punctual, trustworthy, and whose work is good quality.

All these qualities are those we would expect to find in a “professional”.

But they are not, in themselves, sufficient to define what it means to be a professional?

Obviously NOT!

Presented at FIG2007, Hong Kong, May, 2007



In the context in which we are using the term Professional,
we are really referring to those bodies who are classified as “the **learned** professions”



Presented at FIG2007, Hong Kong, May, 2007



Such **LEARNED** professions include Medical Practitioners and Dentists, Lawyers, Engineers, Teachers, as well as Surveyors and Spatial Information Scientists.

As inferred by the word “LEARNED”, all require an advanced (i. e. tertiary) level of fundamental knowledge, which provides the basics to gain the applied knowledge used in their respective discipline



Presented at FIG2007, Hong Kong, May, 2007



Membership Criteria for Institution of Engineers Australia

Professional	Member	4 Yr degree program completed with 3 years experience	Grad
Technologist	Graduate	3 Yr degree program completed	N/a
Associate	Member	2 Yr degree program completed with 3 years experience	Grad

(N.B.: Clear paths of articulation are provided between grades)

Similar grades exist for the Royal Australian Inst. of Architects



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional (Professions Australia, 2005)

- "... a disciplined group of individuals
- who adhere to ethical standards and
- who hold themselves out as, and
- are accepted by the public as
- **possessing special knowledge and skills in a widely recognised body of learning derived from research, education and training at a high level** and
- who are prepared to apply this knowledge and exercise these skills in the interest of others."



Presented at FIG2007, Hong Kong, May, 2007



FIG Definition of a Professional Surveyor

(Enemark and Higgins, 2006)

- “A surveyor is a person with the **academic qualifications and technical expertise** to conduct one, or more, of the following activities:
- To determine, measure and represent land, three dimensional objects, point-fields and trajectories;
- to assemble and interpret land and geographically related information,
- to use that information for planning and efficient administration of land, the sea and any structures thereon; and,
- to conduct research into the above practices and to develop them.”



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FIG Definition of a Professional Surveyor

(Plimmer, 2007)

- Indeed, in the paper given yesterday on Mutual Recognition between jurisdictions, the foundation requirement was
 - Degree level (baccalaureate + 3 years degree minimum)



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Definition of a Professional

- Clearly, from the above (and all) definitions of the term, there are **three criteria** to be satisfied before one can claim the title of “a professional”.



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Definition of a Professional

- a) a certain defined body of ***Fundamental Knowledge*** (scientific in the case of the science and engineering-based professions)



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Definition of a Professional

- The individual should have achieved three things -
 - a) a certain defined body of ***Fundamental Knowledge*** (scientific in the case of the science and engineering-based professions)
 - b) a body of ***Applied Knowledge*** based upon a), and a demonstrated capacity to apply this knowledge in practice, and



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional

- a) a certain defined body of ***Fundamental Knowledge*** (scientific in the case of the science and engineering-based professions)
- b) a body of ***Applied Knowledge*** based upon a), and a demonstrated capacity to apply this knowledge in practice, and
- c) a high level of ***Responsibility*** for their personal actions and opinions (including ethics and public service).



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional

- ✓ ***Fundamental Knowledge***
- ***usually, 1.5 to 2 years of basic maths and science at tertiary (University) level accredited by the professional body***



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional

- ✓ ***Fundamental Knowledge***
- ✓ ***Applied Knowledge***
- ***usually, 1.5 to 2 years of applied studies at tertiary (University) level accredited by the professional body, augmented by professional practice in the industry***



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional

- ✓ *Fundamental Knowledge*
- ✓ *Applied Knowledge*
- ✓ *Social Responsibility* "... a disciplined group of individuals
- who adhere to ethical standards ..."

The question of Ethics and Service is fundamental, and it is the function of the body which represents the Profession to judge this.

The Universities are not equipped to do so, nor indeed is it their function.



Presented at FIG2007, Hong Kong, May, 2007



Definition of a Professional

- ✓ *Fundamental Knowledge*
- ✓ *Applied Knowledge*
- ✓ *Social Responsibility*
- ***The three boxes must be ticked. Only in the most exceptional circumstances, where equivalence is established, should these requirements be waived.***



Presented at FIG2007, Hong Kong, May, 2007



Educational achievement & required work experience for SSI General Certification – *Professional* Certification

- 3 or 4 year Degree accompanied by postgraduate studies in a spatial science discipline or speciality - 1 year
 - 4 year Degree - 1 year work experience
 - 3 year Degree - 2.5 years work experience OR
- **Advanced Diploma (3 years) - 4 years work**
 - **Diploma (2 years) - 4.5 years work**
 - **Certificate (1 year) – 6 years work**
 - **Long Term Practice Provision - 10 years work**



Presented at FIG2007, Hong Kong, May, 2007



Clearly by these criteria SSI (Aust) is *not* meeting the standards required for professional bodies.

They are in danger of descending to the level of "PROFESSIONALS", and allowing *image to triumph over substance*



Presented at FIG2007, Hong Kong, May, 2007



The undesirable consequences which follow, by using the term "Professional" for the general (ie entry level) grade of membership are

Undesirable consequences (1)

SSI is down-grading the entire SI profession, and itself as its representative body



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Undesirable consequences (2)

SSI is also downgrading the existing University degree programs



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Undesirable consequences (3)

SSI is also downgrading the learning and education of the university graduates



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Undesirable consequences (4)

SSI is also downgrading the Surveying/ Spatial Profession relative to all those professions with whom we like to compare ourselves



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Undesirable consequences (5)

SSI is also moving out of step with our kindred international associations



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The Original Question

We are now in a position to answer the question posed in the title with absolute certainty.

At every level, International and National, State and Local, the

Surveying and Spatial Information industries **require** people of Professional status, and would like too be considered such.

This status is neither superfluous or desirable, but essential! However, it must be deserved



Presented at FIG2007, Hong Kong, May, 2007



The Original Question

The Surveying and Spatial Information industries **require** people of Professional status; such status is neither superfluous or desirable, but essential!

(Certainly, graduates of UNSW are eligible for membership of the Institution of Engineers Australia – see above)



Presented at FIG2007, Hong Kong, May, 2007



The Original Question

Unfortunately the SSI (Aust) is using the term inappropriately, and is consequently in danger of losing credibility as a Professional organisation.

It is becoming a body which has professionals as members, but, as it currently stands, has disqualified itself from being a truly professional society.

(If everyone is somebody, then no-one's anybody; G&S, Pirates of Penzance?, 1880s?)



Presented at FIG2007, Hong Kong, May, 2007



The Solution

- 1) Change the naming of the **entry** level of membership to a true reflection of its status – and call it, for example **General**, Associate or similar
- 2) **Use the term “Professional” to define the specialisation**, & ensure professional requirements are met
- 3) *Define clear paths of articulation* between grades of membership



Presented at FIG2007, Hong Kong, May, 2007



The Solution

In this way we give membership status
at the appropriate level, and
maintain credibility
with the public,
our fellow professions, both national
and international, and
give proper weight to the meaning of
Membership to
“a LEARNED” society



Presented at FIG2007, Hong Kong, May, 2007



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