IFIP WG 3.4, Professional Standards, and Best Practices

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IFIP WG 3.4 - Professional and Vocational Education in Information Technology

Working Group 3.4 is "focused on the area of professional and vocational education rather than on specific computing curricula in primary, secondary or tertiary educational institutions."

WG 3.4 Areas of Interest

The group's four areas of interest are:

1. The integration of IT knowledge and practice with other vocational and professional education

2. The on-going professional development of IT practitioners

WG 3.4 Areas of Interest

The group's four areas of interest are:

3. The provision of initial and on-going IT training and education for non-IT professionals to enable them to use and contribute to the development of IT systems

4. The use of computer-based training methods in the delivery of education

Specific Work on Professional Standards

WG3. 4 has responsibility for the development of an IFIP document entitled:

"Harmonization of Professional Standards"

This was released in 1999 and it attempts to define an international standard for professionals in the field of Information Technology Engineering

The Harmonization Document Addresses Six Areas:

- Ethics of professional practice,
- Established body of knowledge,
- Education and training,
- Professional experience,
- Best practice and proven methodologies, and
- Maintenance of competence.

IFIP Defines Professionals as those who:

• publicly ascribe to a published code of ethics

•are aware of and have access to a well-documented current body of knowledge relevant to the domain of practice.

• have a mastery of the body of knowledge at the baccalaureate level.

•have a minimum of the equivalent of two years supervised experience before operating unsupervised.

IFIP Defines Professionals as those who:

• are familiar with current best practice and relevant proven methodologies.

• are able to provide evidence of their maintenance of competence

(and of course a professional should be a member of an appropriate professional body)

Evaluation of IFIP's Proposals

A significant number of activities were undertaken in 2000/2001/2002 to publicise and appraise the proposals within the harmonization document and in particular consider their applicability to Software Engineering.

The results of this work were reported in a paper presented at IFIP's 2005 World Conference on Computers in Education.

Particular Results of Evaluations

That the IFIP document is in fact defining a "Meta Model" for professionalism, that it is a positive step, and that it can be used as a framework for Software Engineering professionalism. However, more work needs to be done on it at a detailed level.

Particular Results of Evaluations

In particular more work is needed in the areas of:

- **Best Practice and Proven Methodologies.** (this area was seen as very problematic).

- **Maintenance of Competence.**

WG 3.4 Current Direction

At the Group's AGM held on 9th December 2004, at Victoria University, Melbourne the area of "Best Practice" as highlighted in the IFIP Harmonization document was identified as one of the areas that the group should concentrate on in the future.

A Source of Support

In September 2005 Prof. J. B. Thompson was awarded a National Teaching Fellowship (NTF) from the UK Higher Education Academy.

This provides funding to undertake a three year project "**Enhancing the Education that Supports IT Professionals**"

NTF Project

Overall aim is to develop guidelines and recommendations regarding:

(i) the identification and incorporation of proven industry-related best practices into both undergraduate and post-graduate computing curricula (including curricula that relate to maintenance of competence for existing professionals), and

NTF Project

Overall aim is to develop guidelines and recommendations regarding:

(ii) best practice mechanisms for the delivery of such enhanced curricula in a variety of contexts (e.g. remote distance learning).

NTF Supported Activities in 2006

Three workshops addressing the interface between industry and academia have been held. These were at:

(i) 19th Conference on Software Engineering Education and Training (CSEE&T 2006) in Hawaii in April

NTF Supported Activities in 2006

(ii) 28th International Conference on Software Engineering (ICSE 2006) in Shanghai, in May

(iii) 19th World Computer Congress (WCC 2006) in Santiago, in August

NTF Supported Activities for 2007

IFIP Working Conference

"Education, Training and Life Long Learning for IT Professionals"

To be held at Dublin City University

9th to 13th July 2007

Finally - A Major Role for IFIP?

From IFIP's 2006 Strategy Discussion Document:

Become the custodian of "Best Practices" and standards