CEPIS Professionalism Taskforce

Characteristics and Benefits of Professionalism in IT

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1 Introduction

The concept of professionalism has been widely accepted as a key issue for all CEPIS member societies. Since 2007, the CEPIS Professionalism Taskforce has been engaged in a range of deliberations, consultations, and meetings to build the foundations for a coherent strategic approach to the topic. This paper aims to outline the foundations of such an approach, through the presentation of a definition of professionalism and an elaboration of the benefits of professionalism. The paper will also offer an opportunity for a critique of the definitions and benefits against a series of discussion questions.

A separate paper will outline a detailed vision and roadmap for promoting professionalism over the coming five years.

2 What is IT Professionalism?

Many distinct and often divergent views on the concept of the IT profession and an IT professional have been previously proposed. Nevertheless, it is clear that there is sufficient convergence of opinion to establish a shared definition.

The following definition of the essential substance of IT, has served as the foundation for further debate:

“IT, or Information Technology, is the study, design, development, implementation, support or management of digital information systems (particularly software applications and computer hardware), and by them solving stakeholders’ problems through the management, manipulation, storage and processing of data and information by technological and methodological means”

An IT Professional, then, is a person whose work is defined as being in the domain of IT, and whose work is exhibited through several characteristics of professionalism.

The Taskforce has developed a description of Professionalism, as being the exhibition of six common characteristics that are required to be demonstrated by an individual if they are to be described as a “Professional”: This definition is specific enough to allow consensual progress toward common goals while broad enough to encompass different emphases that existing across the member societies of Europe.

It is important to highlight the clear distinction between the IT Professional and others who work in IT, referred to as the IT practitioner. A practitioner need only derive his or her living from the sector and may or may not possess other attributes, whereas a professional must draw together all of the common characteristics. It is important that the IT Profession can clearly articulate the benefits of being an IT Professional, and offer suitable opportunities to IT practitioners to gain sufficient appreciation of the common characteristics to allow them, where appropriate, to progress to being someone who meets all the requirements of being IT Professional.

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1 This definition is derived from that of the Information Technology Association of America (now known as TechAmerica) www.itaa.org
A professional is said to be professionally competent if he/she exhibits all of these characteristics. These characteristics are defined in the following way:

- **Knowledge**
  For the IT Profession, there is a common body of knowledge that should be known, which is supplemented by more specific knowledge and skills associated with the Professional’s area(s) of specialism. As it is necessary for knowledge to be continuously maintained and developed, several tools and framework have already been defined to assist in this task, including the European e-Competence Framework, CEPIS’s EUCIP programme, and other national level frameworks such as SFIA (UK), AITTS/APO (Germany) and CIGREF (France).

  The IT Professional demonstrates and develops their knowledge through university education, third party certifications, and continuous professional development and on the job training.

- **Quality**
  Quality in IT can often be measured against pre-defined standards, such as assurances contained within a service level agreement, adherence to a customer service charter, or quality in terms of meeting the requirements of an externally set standard such as ISO, for example in a software development environment. Quality can also contribute to innovation, through continuous improvement of processes and development methods. Quality cannot be considered by the fixed concept, but is relative depending on a range of factors, including budgetary constraints, mission criticality, and customer expectations.

  The IT Professionals’ commitment to quality can be measured by their adherence to quality standards in place in their organisation, through their commitment to offering customer service against agree metrics, or through their adherence to service management criteria, such as those specified in ITIL.

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Ethics
Ethics in the IT Profession frames the boundaries of relationships with customers, colleagues and society. The ethical characteristic can take many forms, including Codes of Conduct to cover integrity, confidentiality and competence; initiatives around the accessibility of IT or promoting Green IT; or aspects such as safeguarding against the spread of software piracy.

The IT Professionals’ commitment to ethics can be displayed by demonstration of ethical professional practice against an agreed code of conduct or by contributing to initiatives to manage the safe use of IT, to minimise energy wastage or maximise accessibility of IT services.

Accountability
The Professional takes personal responsibility for the quality and effectiveness of his or her work, taking care to produce quality output, and taking action to redress deficit and defect. As with the concept of quality, the concept of accountability is relative, and depends on the context. Accountability is both to others (society, customers) and to oneself.

The IT Professional's degree of accountability can be identified and measured through their level of responsibility the professional has for a project or development process. Accountability is seen as being proportional to the level of experience and/or the level of seniority of the Professional.

Experience
A Professional is expected to have practical experience of the competence being exercised. Such practical experience is clearly smaller in the recently qualified Professional, and proportionately greater in the senior Professional. The Professional is expected to leverage this experience to the benefit of the customer, employer and society alike. Since experience is accumulated over time, there must be a proportional relationship between the level of experience of any Professional and the associated level of accountability expected.

The IT Professional's curriculum vitae should clearly outline experience gained over years of practice, which is often linked to increasing levels of accountability. Experience can also be stored as tacit knowledge which may only become known to others when it is applied in a similar work situation as when it was attained.

Earns living
The condition that a significant proportion\(^3\) of one’s work should be based on practice can be used to define the “true” Professional. This differentiates a Professional from someone whose vocational engagement with IT is partial or peripheral. This characteristic should be sufficiently flexible to accommodate instances when a professional is, for example, engaged in activities such as education for a period.

The IT Professional's income should be primarily derived from activities relating to IT.

\(^3\) In the case of the BCS, this proportion is 50%.
3 The Value of IT Professionalism

Promoting this multifaceted definition of Professionalism – and more importantly establishing a recognised body of individuals who possess these characteristics - will have a number of tangible benefits that will accrue to the individual, to organisations, and to society more broadly.

Quality of Service:
Quality is a central defining characteristic of the IT Professional, and everyone benefits from this – the Professional, their customers, and society at large. The cost of IT failure has been enormous, and well publicised. Avoiding failure – and more specifically delivering a service that meets and exceeds the expectations of customers – is not just important for organisations but can be important at a national and international level. The increased quality of service received by customers will also potentially lead to increased customer satisfaction and contribute to higher customer retention for companies.

Mobility of Labour and Services:
The ability of individuals to describe themselves against a common standard and for organisations, large and small, to have clarity about the attributes of potential employees or service providers is essential. A shared and well articulated definition of Professionalism delivers on this. It will assist Professionals to move within organisations, sectors, countries, and internationally to seek employment and to offer services.

Mobility of labour will contribute to reducing potential shortages of IT Professionals across Europe, which was identified as a potential issue for the industry in research conducted by CEPIS, with possible shortages of up to 70,000 IT practitioners per year in Europe, as supply falls short of demand.

Recognition of Value:
Individuals who can credibly describe themselves as being a Professional will be able to clearly differentiate themselves from others who may, to a greater or lesser degree, be able to describe themselves as practitioners. This differentiation will have benefits in terms of monetary and non-monetary recognition that the services that Professionals provide are valuable and, indeed, essential to organisations and to society.

European IT Professionals will be able to harness this recognition of value to continue to win business when competing in the international marketplace. Within Europe, consumers will have greater confidence in the IT Professional and the products and services they provide.

Promotion of Innovation:
Professionals are in a particularly strong position to drive innovation. They combine experience, up-to-date knowledge and appreciation of the potential of technology, and accountability and authority in a way that allows them to be both creative and proactive in problem solving and implementing change. They understand the challenges and potential of their organisations and customers, and therefore will be a key source of both innovative thinking and practical change.

Fostering an IT Professionalism culture across Europe will contribute to Europe reducing innovation gaps against competitors such as the US and Japan, who are both more advanced.

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4 Thinking Ahead on e-skills for the ICT Industry in Europe - http://www.ecdl.org/files/cepis/20090901023457_Thinking%20Ahead%20on%20e-Skills%20in...doc
than Europe in terms of innovation, but to also continue to maintain our higher innovation performance over BRIC countries (Brazil, Russia, India, China)\(^5\).

**A Competitive Advantage for Europe:**

Professionalism, mainly as a result of the impact of the other benefits, can give Europe a clear advantage in the global market for IT services. This global market is highly competitive and highly dispersed. It is clear that Europe is best placed to compete for high-value, high-value services. A European IT sector that is built on a foundation of Professionals with a shared understanding of Professionalism will have a definite advantage in positioning itself as the leading provider of these services.

\(^5\) European Innovation Scoreboard (EIS) 2009 (Section 5) -