Chapter 10

Standardization Education: Developments and Progress

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ABSTRACT

The purpose of this chapter is to provide insight in recent developments in standardization education. The increasing number of initiatives and activities of the last couple of years indicates that there is a momentum for education on standardization. This chapter provides a structured approach for using this momentum to further develop and implement standardization education. The main topics are: needs for standardization education, audiences and learning objectives, contents of an academic curriculum, and available materials for academic teaching. The authors found an enormous gap between manifest and latent needs for standardization education. The lesson to be learnt from some Asian countries is that this gap can be bridged. First, by a strong national policy which may be part of a regional policy. Secondly, by cooperation between government, industry, national standards body, academia and other educational institutions.

A few years ago, universities in Korea hardly spent any time on standards and standardization. Since a few years, however, standardization courses at Korean universities are attended by thousands of students per year. Korea’s stance is that standards shape the market for products and services. As it wants to increase its influence in the process of developing these standards and help its companies profit from standardization, it indeed understands the need for education.

This chapter presents developments and progress in standardization education and builds on a previous paper in which we reported about the main results of an international workshop on standardization education we organized in 2007 (de Vries & Egyedi, 2007). In this chapter we use the same structure:

1. Overview of standardization education initiatives
2. Need for standardization education
3. Audiences and learning objectives

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4. Contents of a cross-academic course on standardization
5. Inventory of existing educational material

The first three sections address standardization education in the widest sense, whereas the last two sections focus on academic teaching.

OVERVIEW OF STANDARDIZATION EDUCATION INITIATIVES

Korea’s initiatives in standardization education spearheaded a flurry of activity internationally. Since 2003, the number of activities has increased rapidly. A few examples are as follows.

- The first Strategic Standardization Workshop of the Korean Standards Association is held (KSA, 2003).
- Secondary school program on standardization education in Thailand (2003-2006), 2,354 teachers are trained and 444,600 students receive standardization education.
- Asia Link Project on Standardization Education (2004-2006), a cooperation between six universities of two European and four Asian countries (Hesser & Siedersleben, 2008), resulting in a e-learning modules and a book (Hesser, Feilzer & de Vries, 2007).
- An article about the need for standardization education is published in the Japanese Journal for Science and Technology Trends Quarterly Review (Kurokawa, 2005).
- In the framework of the IEC Centennial (International Electrotechnical Commission), two publicly available lecture series are developed: one series for engineers (Purcell, 2005) and one for business schools (Egyedi, 2007).
- The International Cooperation for Education about Standardization (ICES) is founded (2006) and organizes a yearly workshop or conference about standardization education.
- The Hitotsubashi University Project (Japan) on “standardology” starts (2006-2009).
- ITU (International Telecommunication Union) organizes a consultation meeting called Cooperation between ITU-T (ITU Telecommunication Standardization Sector) and Universities in Geneva, January 18 to 19, 2007, followed by conferences for academics and practitioners.
- The International Organization for Standardization (ISO) presents its e-learning modules on international standardization (Gerundino, 2005; 2007).
- Ministers of the member countries of the Asia Pacific Economic Cooperation agree to give priority to education about standards and conformity. They encourage the APEC members to develop reference curricula and materials to address the significance of standards and conformance to trade facilitation in the region (Joint statement issued at the 18th APEC Ministerial Meeting, Ha Noi, Vietnam, 15-16 November 2006) (Choi (ed.), 2008).
- ISO organizes an award to encourage and recognize successful programs for higher education in standardization (ISO Focus, 2007). Winner is China Jiliang University, Hangzhou. Second prizes are won by universities in Egypt, France, Japan, Korea and The Netherlands. The 2009 winner is Rotterdam School of Management, Erasmus University, Rotterdam, The Netherlands. The other finalists were educational institutions from Belarus, Egypt, France, Korea, and Ukraine (ISO Focus, 2010)
- Two European projects, COPRAS (Cooperation Platform for Research and