

**The European Academy for Standardization
13th EURAS Conference
Skövde, Sweden, 16 – 18 June 2008**

Some Remarks on Recent Activities and Developments in Standards Education

Wilfried Hesser & Axel Czaya

Department of Standardization and Technical Drawing

Helmut-Schmidt-Universität / Universität der Bundeswehr Hamburg

- 1. Why the focus on standards education?**
- 2. Notable recent developments in Standards Education**
- 3. The state of things in Germany – summary of a survey**
- 4. Some thoughts and questions on standards education**

Why the focus on standards education?

- Standardization has profound technological and socioeconomic impact.
- Modern society is inconceivable without standards/standardization
- Relevant actors (*regulatory authorities, standards developing organizations, companies, consumers, users and other interest groups*) need sufficient awareness/expertise/knowledge/human resources to master the challenges of standardization.
- The development of awareness, skills and human resources is a matter of standards education.

Why the focus on standards education? (cont.)

Some trends:

- Socioeconomic and technological integration will continue in the long term.
- Integration crucially depends on the availability of adequate standards and the capability to develop such standards.
- Political actors increasingly rely on standardization as a regulative instrument.
- Standards are a prerequisite for advanced technologies such as nanotechnology to enter markets on a large scale.
- (Esp. advanced) standards are becoming increasingly complex/abstract.
 - Preparation of adv. standards is increasingly demanding.
- Adequate standards education is a prerequisite to master the full spectrum of the “standards keyboard”.

Notable developments in Standards Education

Asian countries such as Korea and Japan are presently at the forefront of standards education. E.g. Korea:

- Complete & coherent approach to standards education.
- Based on “Five-year National Standards Master Plans”
- Encompasses all educational institutions/levels from elementary school to universities.
- University Education Programme on Standardization: Introduces multidisciplinary one-semester courses on standardization.
- One textbook on standardization for all universities.
- Japan’s approach is similarly advanced.

Regional approaches to standards education

- Asia once again at the forefront.
- E.g. Korea, Japan and China are exploring the scope for regional cooperation.
- *Asia-Pacific Economic Cooperation Subcommittee on Standards and Conformance* increasingly active in the field of standards education.

Notable developments in Standards Education (cont.)

- Remarkable variety of different approaches to standards education.
- Modern didactical instruments are increasingly employed (e.g. e-Learning platforms).
- E.g. ISO e-learning programme “Expert in International Standardization Management” → play-based, fun-oriented.
- ICES initiative.

The state of things in Germany – summary of a survey

- Presently no coherent long-term approach to or strategy in standards education exists in Germany.
- Only comparatively few German scholars work in the field of standardization.
- Scholars come across and enter the field of standardization by chance.
- Scholars work different, rather fragmented subfields of standardization.
- Research – yes, teaching – no: of those scholars conducting research in the field of standardization only a fraction are engaged in standards education.

An “erratic” three-stage string of thoughts:

1. Strategic considerations.
2. Introspection.
3. “Inner cleansing” by ethical thoughts.

Strategic considerations:

- Is it necessary to follow the Asian example and to adopt a similarly complete national/regional approach to standards education?
- Should there be a coherent European standards education policy?
- Should/can there be an standards education system analogous to the national/regional/international standardization system?
- A modularized curriculum would be helpful to accomplish this.

From strategic considerations to introspection

- Self-referential question: To which extent should curricula on standardization be standardized?
- “Standard elements” are fundamental insights, true statements and common knowledge that standardization has generated as a scientific discipline.
- One is prompted to introspect:
 - What has Standardization research accomplished so far?
 - Standardization research a distinguished “school of thought”, equal to other well-established disciplines?
 - A scientific discipline *sui generis* which features distinct assumptions, methods, perspectives?

From introspection to ethical considerations:

- Standardization issues cut across a large range of scientific disciplines → reintroduction of elements of a “studium generale”.
- What are the ethical foundations of standards education?
- E.g. Basic principles of standardization
 - High ethical value.
 - Corresponds well to Habermas’ “ideal speech situation”/‘discourse ethics’.
 - Form of social interaction to solve disputes overcome differences of opinion in a consensus-oriented fashion.
 - Highly evolved form of social interaction the standards community can “teach” society.
 - Nothing less than a cultural asset.

A last remark:

- Good standards education is only a prerequisite, a necessary condition for good standardization.
- It also takes *creativity* to design good standards.

Thank you.