

ETSI Seminar 2023

Understanding ICT Standardization

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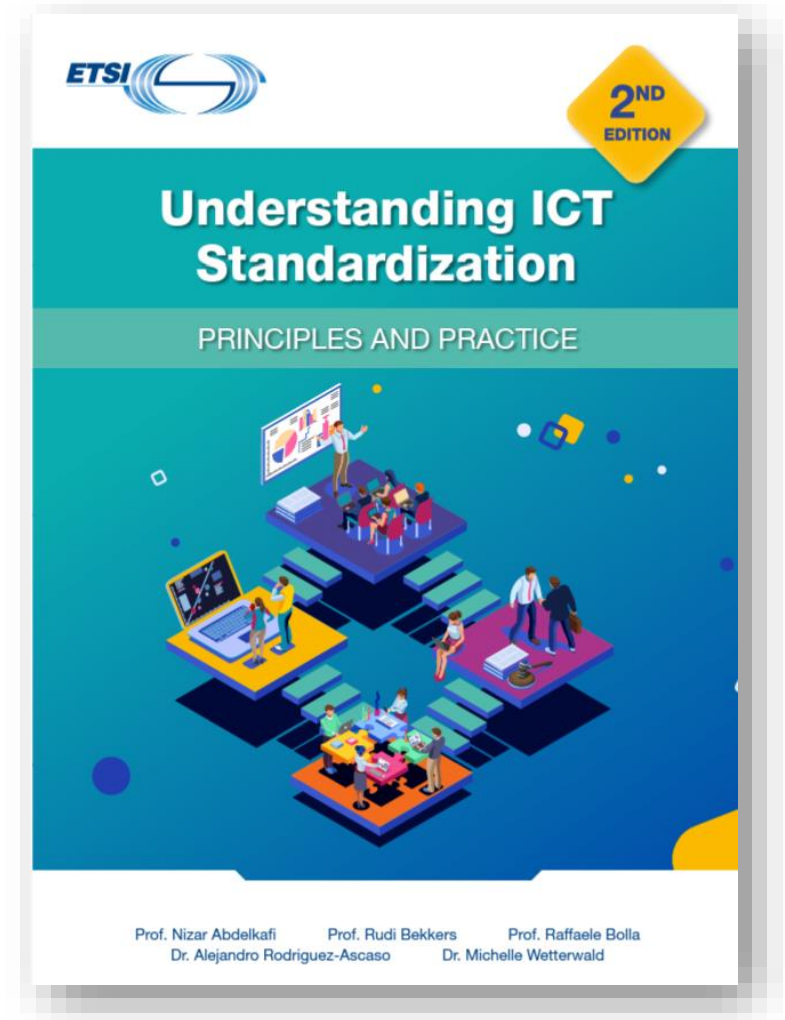
20/06/2023



Development of Teaching Materials for Education on Standardization with a Focus on ICT



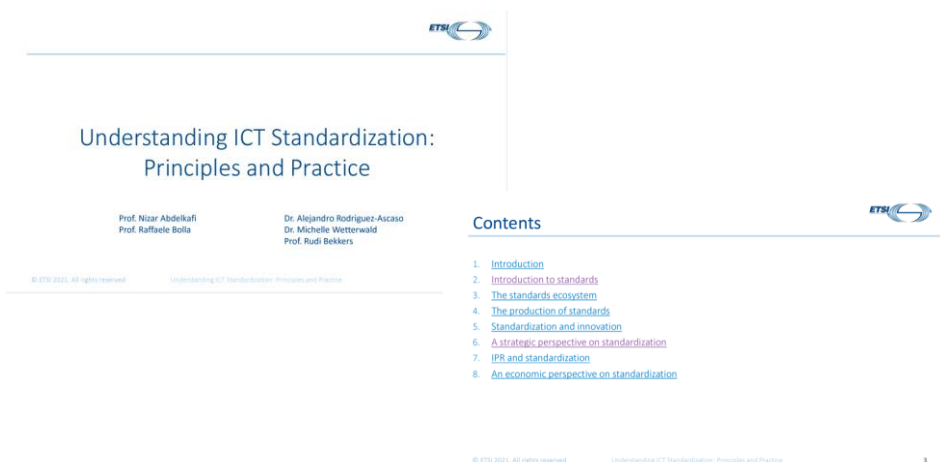
- Education about standardization has been supported by ETSI since 2018 with the publication of 2 editions of our textbook (Understanding ICT Standardization – Principles and Practice) and other teaching materials.
- A team of five educational experts in standardization research and practice developed the latest edition of this comprehensive book on ICT standardization.
- Main Objective: improve the employability of future graduates in the area of ICT standardization by ensuring they understand the importance of standards & standardization.
- The EC is strongly promoting education about standardization in its latest standardization strategy and clearly states that standardization relies on involving the best experts.



Development of Teaching Materials for Education on Standardization with a Focus on ICT



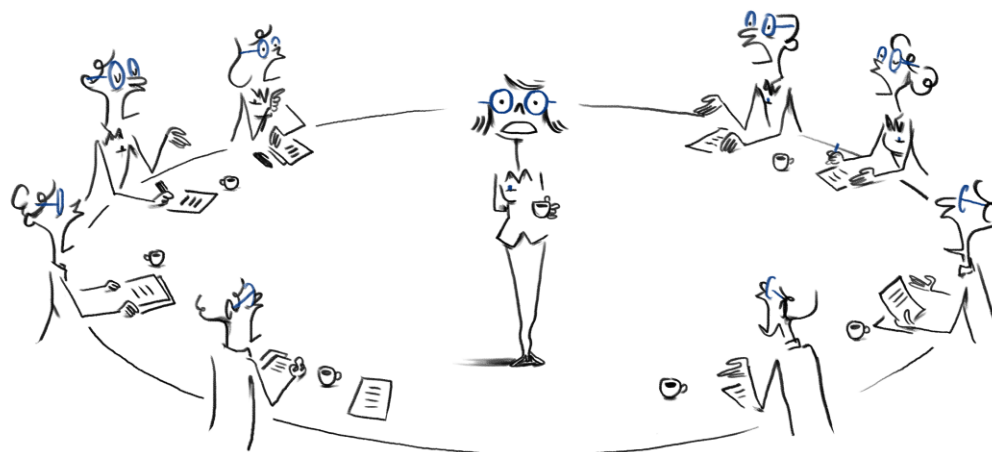
- Identification of optimal teaching methods and topics via inputs from many experts
- Development of teaching materials, Edition 2 comprises:
 - Set of 349 slides
 - Accompanying 265-page textbook “Understanding ICT Standardization: Principles and Practice”
 - Case studies and other materials, e.g., quizzes, examples and visualizations to increase the attractiveness of the overall topic for teachers and students
 - Note that Edition 1 is also still available for download
- Modular design to suit different higher education levels and different study programs
- All teaching materials are available for free from the ETSI website:
<https://www.etsi.org/education/teaching-material>



A closer look at the teaching materials

MAIN GOALS

- To facilitate education on ICT standardization among lecturers and students
- To provide informational details to diverse audiences
- To foster the position of ICT standardization in educational programs, trainings and academic curricula
- To enhance the employability of future graduates in the area of standardization



Teaching Materials for Education on Standardization with a Focus on ICT - overview



The curriculum of the teaching materials covers the following topics:

- Introduction to standards
- The standards ecosystem
- The production of standards
- Standardization and innovation
- A strategic perspective on standardization
- Intellectual Property Rights (IPR) and standardization
- An economic perspective on standardization and public procurement

Teaching materials – Textbook Structure

✓ Contents/Chapter structure:

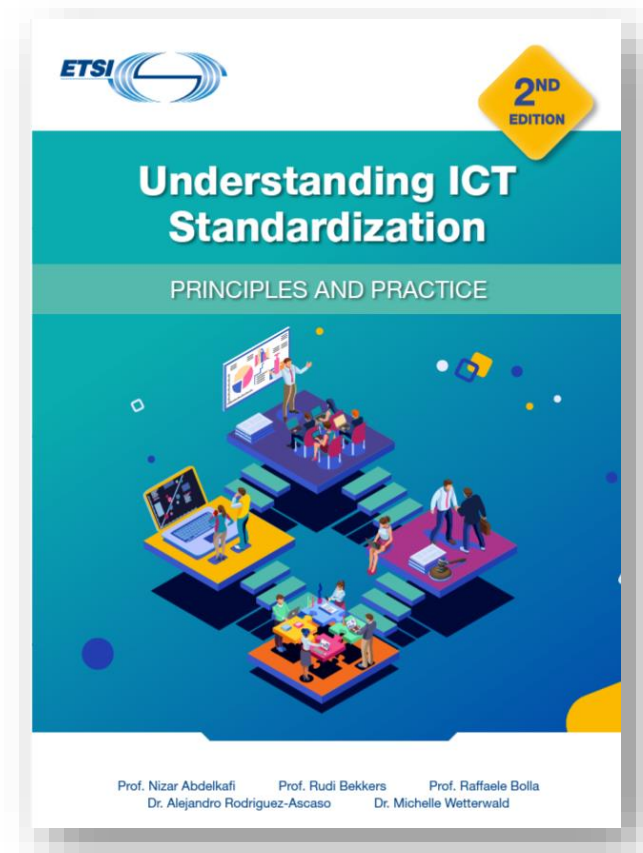
1. Introduction
 2. Introduction to standards
 3. The standards ecosystem
 4. The production of standards
-
5. Standardization and innovation
 6. A strategic perspective on standardization
 7. IPR and standardization
 8. An economic perspective on standardization and public procurement
 9. Conclusion

Key concepts

More advanced topics

✓ Each textbook chapter includes

- ✓ Learning objectives and key messages
- ✓ Quiz, Glossary, list of abbreviations, useful reference list



Material available for each chapter

- ✓ Following example taken from Chapter 2 (applies to all chapters)
- ✓ **Main Table of Contents** allows to identify easily what is covered

2 INTRODUCTION TO STANDARDS	5
2.1 BASICS OF STANDARDIZATION	5
2.1.1 INTRODUCTION	5
2.1.2 STANDARDS IN EVERYDAY LIFE	8
2.1.3 FORMAL STANDARDIZATION, SDO STANDARDS, AND REGULATION	12
2.2 BENEFITS AND RISKS OF STANDARDIZATION	15
2.2.1 BENEFITS	15
2.2.2 RISKS	20
2.3 ICT STANDARDIZATION LANDSCAPE	22
2.4 THE STANDARDIZATION PROCESS AT A GLANCE	33
2.4.1 STANDARD-DEVELOPMENT PROCESS	33
2.4.2 MAIN CHARACTERISTICS OF A STANDARD	37
2.5 USING STANDARDS	39
2.5.1 SELECTING RELEVANT SDOS	39
2.5.2 IDENTIFYING SDO DOCUMENTS	41
2.5.3 UNDERSTANDING STRUCTURE AND FORMALISM OF THE STANDARDS	42
2.6 SUMMARY	46
2.7 QUIZ	47
2.8 GLOSSARY	50
2.9 LIST OF ABBREVIATIONS	51
2.10 REFERENCES	52

Target audience : students and teachers

● Students

- **Future professionals still in higher education**, such as Polytechnics and Universities
 - Master and PhD engineering students
 - MBA/management/economics/law students

Can be extended to **any group of persons** interested in **the mechanisms, the benefits and the economics of standardization**, in particular concerning ICT

● Teachers (**teach the teachers**)

- Lecturers willing to include ICT standardization in an existing curriculum or offer a new full curriculum on ICT standardization

With or without **previous knowledge** of standardization (Key concepts / advanced topics for critical understanding)

Note: the material is also used by our members for training their staff

Obtaining the material

- All teaching materials are available for free from the ETSI website: <https://www.etsi.org/education>
- The slides are also available in Microsoft PowerPoint format: *ETSI grants licenses for academic users (teachers, lecturers, etc.) to integrate some or all of these slides in their own course work upon request to legal@etsi.org*
- **Forming the Next Generation of ICT Standards People: A Day of Teaching Standardization - 6 October 2022:** <https://www.etsi.org/events/2042-etsi-easworkshop>
- Webinar recorded on 24th September 2020: <https://www.etsi.org/events/past-events/1820-2020-09-education-about-ict-standardization>
- Other related events: <https://www.etsi.org/education/related-events>



Educational Videos

ETSI has produced a series of short videos aiming at educating a wider audience on the added value of standards.

Our videos explain the technologies we standardize in a simple and fun way!

Go to: <https://www.etsi.org/education/videos>



Feedback very much appreciated

- ✔ We would be very pleased to get your feedback on the use of these teaching materials
- ✔ Feedback form: <https://www.surveymonkey.com/r/JHQL2HW>





Thank you for your attention

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