

# Communicating Science in the Classroom: Textbooks and Educational Publishing

## Overview

From a very young age, our initial exposure to science often occurs in the classroom through teachers and textbooks. For many people, these science textbooks (covering mathematics, biology, chemistry, or physics) may be their only encounter with formal science education. Therefore, it is essential for science communicators to understand the landscape of scientific educational publishing, its structure, function, and key players. This seminar introduces students to the Italian scientific educational publishing sector, a relatively less well-known area within the broader publishing industry. It will examine the characteristics of the school market, the main stakeholders involved, and the design stages of scientific textbooks in both print and digital formats. Moreover, it will explore how science communication experts can contribute to these products, shaping effective and engaging educational materials.

The seminar aims to help students explore the diverse roles within educational publishing, understanding editorial work from planning to pre-printing. Following an introduction to the Italian educational publishing sector, its market dynamics, and key stakeholders (publishing houses, promoters, teachers, families, students), we will delve into textbook production stages, encompassing both traditional/printed and digital formats. We will analyze how science communication principles can be applied to create clear, accurate, and compelling textbooks that resonate with the readers.

Through examples, students will gain insights into educational publishing, its products, and the roles of professionals in editorial work, from comprehensive text revision (considering editorial and graphic design and target audience) to writing supporting materials and conducting iconographic research. Furthermore, we will examine the design and production of digital teaching resources (videos, podcasts, interactive simulations) for both offline and online learning, ensuring these resources align with effective science communication strategies.

The Seminar will cover the following:

- Exploring the educational publishing sector (focus on Italy);
- Analyzing different science textbooks;
- Examining digital teaching/studying resources;
- Understanding professional roles in editorial work;
- Applying science communication principles to textbooks.

By the end of the seminar, the participants will:

- Know the fundamental characteristics of the school market and the main stakeholders involved;
- Understand the design stages of science textbooks in print and digital formats;
- Develop ideas on how to create and improve educational resources;
- Ensure accuracy, clarity, engagement, and effective delivery of scientific content to students.

## Instructor

### **Sara Urbani**

*Senior science editor, writer and podcaster*

Sara Urbani has cultivated a long career in scientific publishing, fueled by a deep-seated passion for science communication and education. For two decades, she has been at the forefront of science textbook creation for the educational landscape. Formerly an integral member of the editorial team at [Zanichelli](#) publisher, she contributed to educational texts in both print and digital formats, catering to secondary schools and universities. As a freelance science editor, she collaborates with various educational publishers (including Mondadori, Rizzoli, Loescher, and Zanichelli), overseeing the development of diverse educational products.

Beyond textbooks, she is a science writer, contributing articles on science and society to various online magazines (such as [Il Bo Live](#), [La ricerca](#), [Meridiano 13](#), [La Falla](#), etc.); she also collaborates with the scientific communication agency [formicablu](#). Additionally, she authors [tourist guides](#) and produces independent [podcasts](#), expanding her reach beyond science communication.

She earned a Master's degree in Science Communication from [SISSA](#), complementing her Bachelor's degree in Natural Sciences from the University of Trieste.