

Janrené Doulin

Lycée Gaspard-Monge, Nantes

Laboratoire interuniversitaire de recherche en éducation scientifique et technologique, Cachan

Graphic Arts and Technical Graphics

Technology has always relied on the use of graphic arts (technical, industrial), and among them industrial drawing is considered as the privileged means of communication between technicians. But today, since various techniques are evolving and overlapping with one another, traditional drawing is little by little ceding its place to graphic arts from other areas: industrial automation, information technology, automation, production management, economics, etc. Moreover, technology is progressively losing its strictly professional status and becoming a general discipline open to all students.

The observation of the evolution of technical graphics and their use, in particular, in this last decade of the 20th century, leads us to ask a two-fold question:

- What does education have to offer in the area of technical, industrial graphics? (Which ones most used, what purpose do they serve, where can they be found, how are they presented and taught?)
- What is the reaction of students to this education? (Where do they find it, how do they use it, how do they obtain it?)

In order to answer these questions, an inventory was taken in 1996 in order to locate the ways of thinking and plans of action specific to bettering technical graphic's instruction and making access to technology easy for everyone.

Two types of procedures are proposed for discussion.

- Should not the learning of technical graphics, as practiced today, evolve progressively towards a methodology of rational and global decoding of the ensemble of technical graphics, constructed as a sort of "technology of technical communication"?
- Along with this necessary evolution, it appears that another process must also be taken into consideration if one wishes to give to this rational learning its true educational dimension, that is, to underscore the strong link between technical graphics considered as symbolic systems of representation of real technical systems, and the modeling operations where these systems are located.