Chapter 7
A Taxonomy of Generic Skills

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ABSTRACT

- Description of the Taxonomy of Generic Skills
  - Receiving Skills
  - Reproduction Skills
  - Production and creation skills
  - Self-management skills
- Generic Skills in Different Meta-domains
- Towards a Library of Generic Skills Processes
  - A Generic process for Identification
  - A Generic process for Deduction
  - A Generic Process for Building a Taxonomy
  - A Generic Process for Evaluation
  - A Generic Process for Control and Self-adaptation
- Relations between Skills: Specialization and Composition
  - Increasing Order of Complexity
  - Specialization of the Library
- Analysis of Competency Profiles
  - Target Actors for the Profile
  - Target Actor's Tasks and Knowledge
  - Deciding on Generic Skills

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As mentioned in the previous chapter, research in cognitive science, cognitive engineering, and education all support the idea that human skills can be described as generic processes. These processes develop through learning and working situations in various domains where knowledge

is processed. In their relationship to knowledge, generic skills are the active part of human competencies. Depending on the viewpoint we use, generic skills are problem-solving methods, or active meta-knowledge working on other knowledge, or learning objectives to be acquired. The generic skills framework that will be presented here has been built in order to provide a clear view of the relation between knowledge in any application domain and the "intellectual actions" that enable a person to process and build knowledge. When someone has many such opportunities to exercise generic skills, they the re-construction of their own private universe of generic linkages and connections is made possible.

In this chapter, we will develop an integrated taxonomy of generic skills. It will incorporate previous work in cognitive science, software and cognitive engineering, and pedagogical design, some of which was presented in Chapter 6. It is an integrated taxonomy because it can apply to different manifestations of human activity: cognitive, emotional, social, or motor, representing generic skills in the form of process-type knowledge models constituting an operational library that can be used for projects in instructional engineering.

Figure 1. Taxonomy of generic skills