

# Chapter 5

## On Quality Assessment of Learning Technology Specifications

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### ABSTRACT

*Specifications can be considered “hidden” technology: they are deployed in tools and applications without being directly visible. This poses a challenge regarding quality assessment of this type of technology. This chapter describes a framework for quality assessment of learning technology specifications and how it was used to evaluate and improve a case in point: the Learning Path Specification. However, although the importance of raising the quality of a specification is beyond question, this in itself is no guarantee for its (wider) adoption. The final section of this chapter discusses how quality assessment of the Learning Path Specification at best informs us on its chances of gaining adoption, but by no means suffices to establish it. For this discussion, the authors draw on Rogers’s work regarding five perceived characteristics of innovations influencing their diffusion: relative advantage, compatibility, complexity, triability, and observability.*

### INTRODUCTION

Considerable efforts are directed towards the development of specifications and standards to enable reuse and exchange of particular solutions (Hodgins, et al., 2003; McClelland, 2003; Sloep, 2004). The impact of this ‘hidden’ technology

is far less tangible than that of a concrete tool. Moody (2005) makes a similar observation regarding the evaluation of conceptual models, stating that a finished product can be easily evaluated against initial requirements, while evaluation of a conceptual model involves tacit needs, desires and expectations as well.

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The Learning Path Specification (Janssen, Hermans, Berlanga, & Koper, 2008) is a case in point: rather than a “finished product,” it is a model to describe learning paths: sets of one or more learning actions that help attain a particular learning goal. Development of the Learning Path Specification was inspired by the question ‘How can we support lifelong learners in finding learning actions and learning paths that best meet their needs?’ Efficient and effective lifelong learning requires that learners can make well-informed decisions regarding the selection of a learning path and the best way to proceed along a chosen path. In order to support these processes a Learning Path Specification was developed, which enables transparent descriptions of possible ways to attain a particular learning goal, so that:

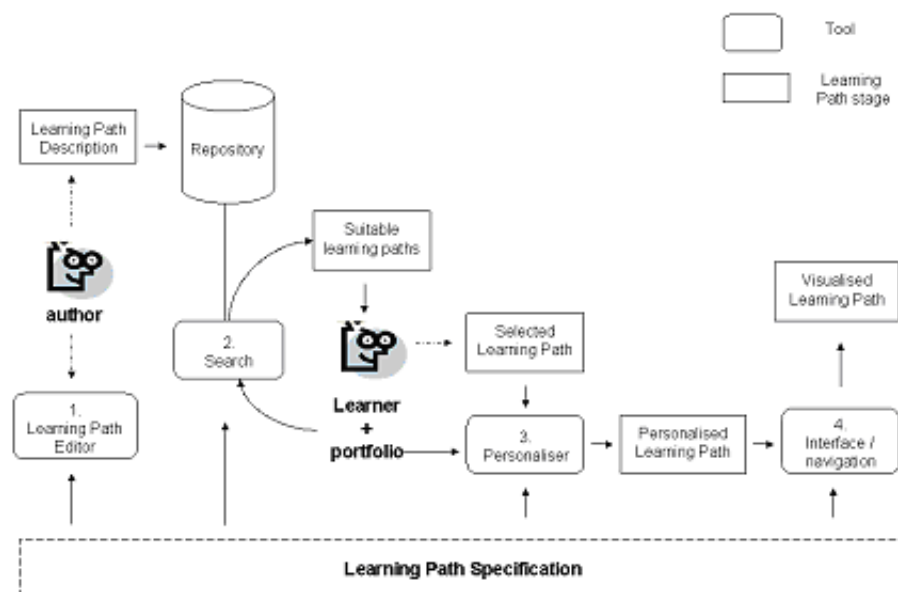
1. It becomes easier for learners to compare and select learning paths;
2. It becomes possible to automate navigation support for a chosen learning path;

3. It becomes easier to see which parts of a learning path (i.e. which learning actions) can be substituted by other learning actions (e.g. prior learning).

Figure 1 describes various tools that are envisaged to deploy the Learning Path Specification.

The Learning Path Specification is meant to support way finding in formal, non-formal, and informal learning. The benefits of using the specification would augment if the Learning Path Specification became more widely adopted, as this would offer the added value of exchange of learning paths between institutions and systems. Discussing ways forward for lifelong learning, Colardyn (2002) states that not only the visibility but also the portability and transferability of any form of learning should be ensured to further the European lifelong learning agenda. The Learning Path Specification could support this agenda if it became widely used, i.e. if it were to develop into a standard.

*Figure 1. Tools building on the learning path specification*



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