

3.4 The Maerlant-project in its broader social context

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Introduction

Today, we witness a process of accelerated diffusion of knowledge. The present-day information and communications technology enables us to contact people from other continents or to gather information on any possible subject in no time. Yet, some critical observations remain to be made. What about that part of the world population which does not have access to the information providers? And what about those who can't find their way in an automated landscape which contains not only quality information, but just as much pulp? The acquisition of knowledge and skills forms an essential prerequisite for being able to cope with the over-supply of information, and it should therefore constitute a crucial part of young people's education. It is this belief that formed the starting point of the Maerlant-project.(i)

The unavoidable transformation of our industrial society into an information society creates new possibilities for history in the classroom. "Today's education system faces the challenge to prepare individuals for the information society in which one of the most important aims is to handle information."(ii) In this, history education can play a crucial role. "Our society, controlled by newsmidia and overwhelmed by an avalanche of information, more than ever creates the need for critical citizens who can handle information material, no matter how it is presented. The transferability of the aims related to the historical use of source material is important and can hardly be overestimated."(iii)

The research project intends to bridge the gap between history science, history instruction and the practice of teaching history. This ambitious goal results from the growing conviction that historical understanding can only be developed when pupils become familiar with the research methods of the historical discipline.

Trends in history instruction

In the Dutch-speaking language area, a consensus finally seems to have been reached on what are the basic principles and the ultimate goals of history education.(iv) History is more than simply gaining factual information about historical events.(v) Studying the past should result in historical insight. To reach this specific type of knowledge, pupils have to become familiar with historical thinking and thus with the underlying structure of the discipline. Each scientific discipline has its own methodology, its own concepts and patterns of reasoning. As far as history is concerned, the following three components can be distinguished. Firstly, history can be viewed as insightful knowledge of the past, as the story of past reality (i.e. as providing information about the content of the past). History can, however, also be interpreted as an enquiry into the past, more particularly into the validity of the story of the past (i.e. procedural information). Finally,

history can be considered in its function of making sense of the past, of looking into both the values and norms of the past and our present-day perspective on them.

Content information and procedural information are represented through historical concepts (for instance, Middle Ages, crusades) and procedural or structural concepts (for instance, source, fact).(vi) In order to make sense of the past, both types of information are used.

The confrontation with historical sources gives pupils the chance to gain insight into the way in which historians give shape to past events that are only partly comprehensible and in order to come to a more accurate examination of sources, the pupils have to gradually refine their domain-specific conceptual apparatus.

It is precisely the domains of procedures and of concept development which allow pupils to train themselves in specific historical skills that are nevertheless transferable to other fields of knowledge. As a result, history education acquires a general educational value, thus contributing to the ultimate goal of secondary education.

The development of educational software: hype and hypertext

“The hype about having access to a mass of information should not create the idea that a virtual trip through the information environment automatically results in effective learning. For that it is necessary that learning environments are created in which the learning process is recalled and interactively supported.”(viii)

De Corte, Verschaffel and Lowyck registered some more mistaken suppositions concerning computers and learning: the assumption that computers will by themselves elicit effective learning and the conception of learning as a rather passive and highly individual process of knowledge absorption and accumulation. The role of the computer in the classroom has to change “from an authoritarian and directive tutor toward a supportive system that is less structured and less directive, that encompasses student-controlled tools for the acquisition of knowledge and skills, and that attempts to integrate both tools and coaching strategies in collaborative learning environments.”(viii)

In accordance with recent developments in history education, in which the research method and the discussion character of the discipline are of great importance, the principles of hypertext and hypermedia create new possibilities. They permit the pupil to search her or his way through a many-sided information environment. Considering the recent social context, the ability to assimilate efficient seek-strategies seems to be of great importance for the learner. “Because of the immediate availability of large amounts of information, the simultaneous offering of already known and new information, the large storage capacity and the

presentation of information in text, image and sound can support the pupil's knowledge construction and organization."(ix)

The Maerlant-project

The main idea behind the project was the construction of a corpus of sources on medieval history to permit pupils in secondary school or students in higher education to practise historical skills. At present, emphasis lies on the design of a product that can be used in secondary schools. This option is connected with the recent introduction of the End Targets of secondary education and learning purposes of history education in which the research dimension is stressed.

The principle of hypertext offers the possibility of non-linear instruction, an educational approach that differs from the traditional textbook. Multi-perspective instruction (learning contents can be related and studied in an unlimited way) and the break-through of the simultaneousness of the class occurrence (the system permits the user to decide for him or herself which strategy to use to reach a preconceived goal) transform the learning process into a personal experience. Yet this individual approach itself can in turn be broadened by offering the pupils an electronic platform to discuss their personal findings in group.

The role of the teacher however remains of great importance, although it will be differently orientated. His or her task is no longer that of a provider of information. He or she has to accompany the process of knowledge development of the learner. The key element in the process of education remains learning how to learn under the guidance of a teacher but the learning process evolves by means of ICT.

The concrete building up of the product is based upon a theoretical analytical scheme to which the source material and the processing methods can be compared. Emphasis is laid upon historical contents (the reality of the past), historical methods (the investigation of the past), representation of the past (to give meaning) and concept development. This offers the designers the opportunity to pursue a maximal variety of sources and study targets.

In a first, experimental phase, two sources, a visual and a written one, are worked out. The approach is attuned to the specific features of each source and can later on be adapted to other material. A pupil can enquire the material offered on different levels. In a first, exploratory phase, the learner has to understand the explicit content of the source as written in the document. On the following levels the historical context can be discovered and the interpretation of the source developed. The pupils can hereby make use of the following tools: at each level of the investigation, the programme permits them, to return to the information on lower levels. A search function simplifies looking up specific information and an index makes it easier to control the route taken. Next to this individual approach,

pupils can consult with each other or with the teacher who can exercise a guiding and evaluative role.

In a second phase, a problem-oriented approach is intended. The learner has to confront different sources (primary and secondary sources are arranged by the standards of typology and multi-perspectivity) with each other to develop a critical view on a specific historical topic. The enquiry will basically correspond with the one concerning the individual source, but the learner has to formulate a personal synthesis which follows out of the investigation. The confrontation between sources from the past and representations in the present forms a crucial part of this concluding insights.

Concluding remarks

The intended programme could be compared with an electronic textbook, rather than with a complete software application. The benefits in comparison with a traditional textbook are that the research materials can be offered in large quantities and in a layered manner, and that they can be interwoven with each other. The levels behind the reading permit help to narrow the gap between the source, the historical reality behind the source and the foreknowledge of the pupils. The layers result from the analytical scheme. The refinement of the scheme has to permit the pupil to improve his/her perception. The skills the learner can develop are easily transferable to other domains because the development of an accurate conceptual background and reading attitude are fundamental in every form of knowledge acquisition. An efficient instructional programme offers unknown possibilities for the practice of historical skills in a personal manner. The learner can explore his or her already attained competencies and add to them new accomplishments according to his or her tempo and abilities.

For more information:

<http://fuzzy.arts.kuleuven.ac.be/maerlant>

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(i) The project is designed by the following team: R. De Keyser, F. Truyen, J. Lowyck, L. Vanmaele, P. Trio, W. Verbeke, R. Bauer, L. Meuris, L. Lamberts, K. Rogiers, J. van Leeuwen and W. Dupon and it is sponsored by the Catholic University of Leuven.

You can read more about the project in the article: R. De Keyser, K. Rogiers and F. Truyen, "Historical skills and ICT", in *Informations. International society for history didactics*, XVIII, nr. 2 (1998).

(ii) Committee On MultiMedia In Teacher Training. Advisory Committee for the Dutch Ministry of Education, Culture and Science, *Teaching and learning for the future*, Den Haag, 1996, p. 7.

- (iii) W. Schuermans, *Geschiedenisonderwijs. Een praktische handleiding voor de leraar geschiedenis*, Oostmalle, 1997, p. 238.
- (iv) On the debate in the Low Countries, see H. Buskop and L. Dalhuisen, *Het kaf en het koren. Geschiedenisonderwijs in discussie: een inventarisatie van misverstanden en (on)mogelijkheden*, in *Geschiedenis in de klas*, 17, 50 (1998).
- (v) See also L. Verschaffel, *Beïnvloeden van leerprocessen*, in J. Lowyck and N. Verloop (ed.), *Onderwijskunde: een kennisbasis voor professionals*, Leuven, 1995, p.153-187.
- (vi) On structural concepts, see L. Dalhuisen, *Structuurbegrippen voor het schoolvak geschiedenis*, in *Geschiedenis in de klas*, 13, 39 (1992) pp. 26-38.
- (vii) G. Kanselaar, *Ontwikkelingen in ICT en het moderne vreemdetalenonderwijs*, in H. G. Weges and L. H. M. Wessels, *Consortium Innovatie Hoger Onderwijs. ICT-gebruik en COO binnen de Letteren en Cultuurwetenschappen. Mogelijkheden tot Innovatie en Samenwerking. Verslag van de Consortiumdag Letteren/Cultuurwetenschappen*, Heerlen, 1997, p. 3.
- (viii) E. De Corte, L. Verschaffel and J. Lowyck, *Computers and Learning*, in T. Husén and T. Neville Postlethwaite (ed.), *The international encyclopedia of education*, Oxford, 1994, pp. 1002-1007.
- (ix) J. Lowyck, *Didactische werkvormen en media*, in *Onderwijskunde: een kennisbasis voor professionals*, Leuven, 1995, pp. 215-247.