

Web-learning: a powerful model for learning in a knowledge-based society

At the Lisbon summit, the European Council decided that Europe must become the most dynamic and competitive region in the world. The Netherlands voiced its ambition to play a lead role in Europe. Knowledge is a key element in fulfilling this ambition. In this process, information and communications technology has an important role to play.

In the summer of 2002, the then Minister of Education, Culture and Sciences published a discussion document entitled *ICT after 2002, Networks in Education*. This document outlines the future direction of ICT education policy. It is against the background of this document that in a letter of 21 October 2002 the Minister asked the Education Council to provide advice on the educational possibilities afforded by e-learning. Given the expected internet technology developments and in view of new insights into learning and learning environments, the Council was asked to give particular focus to the consequences for the parties involved, notably the learners and teachers, and to the role of the government.

This report provides advice on web-learning. Web-learning is part of a wider concept: ICT in education. The Council uses the term web-learning to mean exactly the same as e-learning. The term e-learning is, however, also used to refer to stand-alone computer-based learning and to learning that takes place in world-wide communities of interest, practice or expertise. To avoid misunderstandings the Council has decided to use the term web-learning. Web-learning is internet-mediated learning that puts the learner centre stage. Using the Web and the available learning materials, the learner chooses his own learning path, learning method and pace, and decides on the features of the learning environment.

In its advisory report, the Council adopts a broad and future-oriented perspective and addresses the advisory question within the context of the contribution that web-learning can make to the learning possibilities within the school and vice versa: the contribution that the school can make to the possibilities offered by web-learning. This perspective corresponds with the one adopted in the exploratory report *Learning in a Knowledge-Based Society*, which the Council released concurrently with this report. The exploratory report states that societal changes and concomitant changes in competency needs (knowledge, skills and attitudes) impact education (and the education system). The exploratory report also looks at other learning settings, such as non-school-based learning contexts and their relationships to school-based learning situations.

The Council's advisory report limits itself to a discussion of IT-based learning. It particularly focuses on the possibilities offered by web-learning such as the introduction of non-school-based elements into the school context and the development of linkages between schools (people). The Council is in favour of expanding web-based learning possibilities.

Two sub-questions emerge:

- What contribution can web-learning make to the learning possibilities within schools?
- What contribution can schools make to the possibilities afforded by web-learning?

The Council answers these two sub-questions against the background of the following aspects: freedom of choice, quality, efficiency, equal access, and social cohesion. The Council's report focuses primarily on the primary and secondary education sectors. Developments in the vocational, adult and basic education sector and the higher

education sector tend to be in a different stage than those in the primary and secondary sectors.

On the basis of its analysis the Council formulates a set of recommendations, which are shaped by the criterion of expansion of (web-)learning possibilities. The Council is well aware that in view of the rapid developments in web-learning and internet technology its recommendations are not or cannot be exhaustive. They may, however, serve to promote greater use of existing but underused resources and raise awareness of the importance of web-learning as a means of expanding learning possibilities within the school and as an opportunity for the school to contribute to the expansion of web-learning possibilities. The Council's recommendations primarily relate to extending the competencies of learners, teachers and teacher educators; to forging and developing partnerships regarding (non)-school-based learning; and to ensuring that prior requirements are met.

The Council is of the opinion that the Web offers a framework for the conceptualisation of new learning and teaching processes, which require a wide array of new skills including handling complex information; discovery learning; synthesising information; and experimental learning.

The teacher education programmes and the so-called training schools will play an important role in the development of web competencies. The Council holds the view that the qualification requirements for staff need to be changed and that schools should hire external expertise to address their staff development needs. In addition, communities of practice for teachers and school managers within the school or between schools may make a vital contribution to the development of web competencies. Valuable web skills include dealing with equipment; understanding, assessing and selecting information; and using information in the learner's personal context. Another important skill is the ability to distinguish useless from useful information, facts from speculations. This is why learners should be equipped with information filtering skills: metaskills that enable them to handle huge amounts of confusing, complex and new data of greatly varying quality.

In addition, the Council advocates the establishment of partnerships that address issues related to school-based and non-school-based learning. An electronic learning environment may serve as a platform for developing efficient, and time and place independent internet connections. Public-private arrangements and the establishment of alliances between different parties such as publishers, school boards, entrepreneurs and higher education institutions should be promoted and/or expanded. These partnerships should aim not only to undertake joint development of products and services but also to share and create knowledge, notably in the field of programme innovation, through the use of ICT. They may help develop new methodological concepts and implementation strategies, and address issues such as change management, costs and technological choices. Knowledge Net (*Kennisnet*) could have a valuable role to play in this process.

The introduction of web-learning also means that schools / institutions will have to invest significantly in ICT infrastructure (networks, laptops, etc.) and in replacing old computers. Schools that wait too long to replace old equipment will face operational consequences. In addition, schools will have to explore the possibilities for high-quality internet connections, broadband, and/or wireless applications. The starting point must be that all schools in the Netherlands, have equal and affordable access to the Web. In other words, schools should not be allowed to compete against each other over the issue of internet connectivity. The implementation of web-learning may thus have consequences for participants' financial contributions. Having agreed to equal access to the Web, the Council holds the view that increased costs must not be an obstacle to

equal access. An adequate ICT infrastructure, both quantitatively and qualitatively, is a basic requirement.

The Council endorses the view that schools must be given more room to set up internet facilities. They must be able to have a say in the development of internet-based learning packages or in the selection of providers. It goes without saying that the continuity of service must be assured.

The Council regards the Web as a tool that provides a context for new types of learning, both inside and outside the school. The Council presents recommendations that may contribute to an expansion of the school's learning possibilities as well as to the implementation of the possibilities offered by web-learning. These recommendations may also enhance the contributions that schools can make to expanding these possibilities.