Sestavljanje e-gradiv iz računalništva
E-learning content composition in informatics

Alen Orbanić
Univerza v Ljubljani, Fakulteta za matematiko in fiziko
Jadranska 19, 1000 Ljubljana
alen.orbanic@fmf.uni-lj.si

Boris Horvat
Univerza v Ljubljani, Fakulteta za matematiko in fiziko
Jadranska 19, 1000 Ljubljana
boris.horvat@fmf.uni-lj.si

Iztok Kavkler
Univerza v Ljubljani, Fakulteta za matematiko in fiziko
Jadranska 19, 1000 Ljubljana
iztok.kavkler@fmf.uni-lj.si

Matija Lokar
Univerza v Ljubljani, Fakulteta za matematiko in fiziko
Jadranska 19, 1000 Ljubljana
matija.lokar@fmf.uni-lj.si

Povzetek
Zakaj ne bi tudi pri pripravi učnih gradiv s področja računalništva uporabljali podobnih načel, kot jih pri pisanju programske kode? Tam stremimo k temu, da imamo možnost enostavnega kombiniranja in prilagajanja vnaprej pripravljenih gradnikov. Zakaj torej ne bi bila tudi učna e-gradiva "fleksibilna"? Na ta način bi učitelju računalništva omogočili, da bi s pripravo gradiv lažje sledil tako pogosto izpostavljeni zahtevi po individualnem pristopu k učencu. Prikazane bodo učne enote gradiv iz računalništva in informatike: animacije reševanja problemov v program-skem jeziku Python, gradiva o uporabi programske opreme podjetja Microsoft – predvsem programov Word in Excel ter gradiva o operacijskih sistemih Windows, Linux in Mac OS X. Prikazane bodo tudi zbirke interaktiv-nih kvizov, ki bodo služili preverjanju razumevanja predstavljenih vsebin, ter naloge, ki bodo vsebovale struk-turirane namige in bodo glede na znanje učečih spodbujale k razmišljanju tako pri pouku kot pri samoučenju. Izdelavo e-gradiv lahko primerjamo z znanimi LEGO kockami; avtorji e-gradiv na uporabo ponudijo: osnovne gradnike, izdelane modele, ki jih je mogoče popraviti, in navodila za izdelavo novih – zahtevnejših modelov.

Abstract
Why should not we use, in the process of preparation of e-learning materials in informatics, similar principles as those that are used when writing a computer program? There, we tend to have a possibility of a simple combi-nation and adaptation of pre-prepared building blocks. So why would not be the e-learning content also "flex-ible"? With this approach the computer science teacher would be able to adapt the content creation to the indi-vidual needs of the learner and the current didactic situation in the classroom. The following units of e-learning content from computer science will be presented: animations on how to program in programming language Python, the material on how to use Microsoft software - in particular Word and Excel and materials on Windows, Linux and Mac OS X operating systems. The collections of interactive quizzes, which are designed to test the understanding of presented materials will be shown, together with the exercises which include structured hits that encourage learner to think, regardless of if the e-learning material is used in classes or for self-learning. Composition of e-learning content can be compared with known LEGO blocks; authors of e-learning con-tent should offer: the basic building blocks, the pre-designed models, which can be later reconstructed and the instructions for creating new - more complex models.

E-MATERIALS / SHORT PRESENTATIONS