CSV company profile

Amnim, center for scientific visualization (CSV), Ljubljana produces scientific and educational software projects containing animations in virtual reality about the structure and function of the cell, tissue, human body and other topics from the field of biology or medicine. The company has a single employed person – Tomaz Amon (myself). I started with my own company five years ago because I have been convinced that modern educational software has great future. I have been always interested for both biology and computer science. I finished the study of biology and made my Ph.D. in electrophysiology. At the same time I was engaged in computer programming and I programmed in the computer language C the Neuro Event Manager (1986-1996) – a computer program for the analysis of the electrophysiological data which has 1MB source code and more than 200 batch commands. It is still used in the laboratory of Prof. Valentincic, Ljubljana, and constantly updated. So it was possible and very attractive for me to enter the field of visualization of biological structures and functions in 1996. I produced several projects, the most important being the software package “Cell-Tissue-Human Body” which the Ministry of Education of Slovenia recognized as an official educational tool in slovene schools. Its english version can be seen on my site www.bioanim.com It has been selected for inclusion in the Awesome Library, a collection of the top 5% of sites in the field of K-12 education and nominated for the Stockholm challenge award. I am able to produce a complete biological educational software package from the text and »classical« illustrations (which can also be published in form of a book) to the dynamic HTML and virtual reality web3D site.

CSV produces scientific or educational software enhancing the understanding of topics difficult to learn from the textbooks only. As we are running our projects in schools and on the web we see that in fact we are acting in a new branch of educational science. There is obviously a need for teams of researchers, educators and managers to be established and develop this new branch of education. Therefore we see our future to join the projects, which produce educational software and so help to form also the expert teams on this field

Some of CSV projects and important events:

1986-1996 Design and programming of the Neuro Event Manager – a computer program for the analysis of the electrophysiological data (1MB source code, more than 200 batch commands).

1996-2000 Design and programming of the computer visualizations of the biological structures and functions

1996-97 Multimedial software package “Electrical phenomena in the living cell” supported by Ministry of Education of Slovenia and acknowledged as an official educational tool in slovene schools.

1998 Sense organs – educational software package. Supported by Ministry of Education of Slovenia and acknowledged as an official educational tool in slovene schools

1999 Systems of Organs I. and Cell-Tissue-Human Body. Both Educational software packages were supported by Ministry of Education of Slovenia and acknowledged as an official educational tool in slovene schools.

1999 Tomaz Amon is invited to join the IST project Web-based Standard Educational Tools(WebSET, IST-1999-10632)as a member of the UMA team. The goal of the WebSET project is to develop and use advanced Web-based technologies to implement innovative cost-effective learning tools that can be run on any workstation platform including a standard PC of average capacity and ensure the adoption of WebSET surgical applications with major European learning centers e.g. Royal College of Surgeons of England and the Royal Belgian College of Surgeons.

2000 The software package “Cell-Tissue-Human Body” has been selected for inclusion in the Awesome Library, a collection of the top 5% of sites in the field of K-12 education.

2002 CSV becomes a partner in the IST project (IST-2001-34204) named School LABoratory anticipating FUTURE needs of European Youth (LAB@FUTURE). LAB@FUTURE will experiment Social Constructivism, in combination and dialogue with activity theory, focusing on expansive learning, within a mixed and augmented realities set-up, enabling mobile eLearning. Experiments will involve laboratory teaching for the disciplines of Science (Fluid Dynamics),

Mathematics (Geometry: developing spatial skills), and Arts & Humanities (Environmental awareness, Educational walks, visits and seminars). LAB@FUTURE will use real and virtualized objects for educational purposes. These objects will be interfaced, using mechanotronic systems, mobile technologies tracking and 3D multi user environments. There will be real objects that the teacher or student will be able to interact with, using special interface devices, in order to specify or carry out an experiment.

2003 Tomaz Amon becomes a member in the research group *LMSE* - Laboratory of Microsensor Structures and Electronics, Faculty of Electrical Engineering, University of Ljubljana

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