Course and curriculum development for Creative Technology

Title: NM2: Interactive Visualization Date: 25/4/08	Author: A. Eliëns Version: 1.0

Course name	NM2: Interactive Visualization
Study load	*6*
Semester	*2*
Contents	*The course will address the development of rich media applications using current web-based media technology, with a special focus on animation and interactive visualization(s) of dynamic complex systems.* *The platform used will be Adobe flex / as3.* *Recommeded literature:* Foundation Actionscript 3.0 Animation: Making Things Move! by Keith Peters *Online reference(s): http://livedocs.adobe.com/flex/3*
Prerequisites	*CA1, CS1, NM1, MA1*
Goals and attainment targets	*During the course students are expected to learn the skills to create moderately complex media applications.* *After following the course, students are expected to have* - *awareness of issues in information visualisation* - *familiarity with XML-based data and program configuration* - *fluency in scripting (actionscript) and the use of lfex.* - *full literacy in developing simple physics based animations* *Students are expected to have an explorative attitude, and will be stimulated in developing aesthetically interesting animations and dynamical visualisations.*

Course and curriculum development for Creative Technology (continued)

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Place in curriculum	*NM2 is meant to be an intermediate course, required for both ST and NM students. The course will enable students to apply their knowledge of dynamic systems and mathematics in a (media-rich) context, as a preparation for more advanced projects in virtual enbironments and game development.).. In relation to DE-courses, the focus of NM-courses Is primarily on technical issues and programmatic authoring.)..*
Application area, motivating examples	*Physics based animation is an effective means of visualizing complex information structurs. Effective information visualization morever depends on intuitive ways of interaction to support exploration. Interactive information visualization is increasingly being used in web 2.0 applications, for giving access to huge amounts of user-contributed data such as blogs and video.*
Teaching methods	*The course will be organized around lectures in which both technical and conceptual issues, related to animation and visualization, are dealt with. The assignments will consist of a series of basic exercises and a final exercise In which the students are required to develop a moderately complex dynamic web application. Regular feedback will be given in classroom sessions where students present their work as well as via online comments or email. Grading will be based on basic assignments, the final assignment project with documentation, as well as an essay in which a topic of choice, either technical or in relation to issues of animation and information visualisation, is discussed in more depth.*
Nr of participants	
Special facilities	*computer lab & presentation facilities, installation of flex 3 SDK.*