

Courses Interfaculty Maastricht
WS 2007/2008

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1 Social Use Modules

1.1 Community Building

Lecturers

K. Hendriks – N. Vaes

Module Description

How do you achieve a feeling of wellness? How do you make sure your employees interact with each other? How do you keep your knowledge up to date? Where do you find best bargains, product information, specialised information? Where do you find fellow hobbyists? How do you participate in fan sites? What makes a game fun to play? Whenever people have a common question or need, they will form communities.

This module will guide you through the community landscape from different points of view. It won't offer you a straightforward answer: it will raise a lot of questions that will be linked to concepts on planning, building, maintaining and moderating virtual communities. It will raise questions about virtual identity, social capital, third places, participation and governance. Furthermore, we will discuss possible content input, the relevance of vertical topics, threads of discussions and the balance between information (you supply the content) and social support (virtual discussion, your customers are content suppliers). Each time it will be up to the students to decide how he is going to design his community.

Course outlines:

We use the problem based learning-method (PBL). "PBL demand[s] from the learner acquisition of critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills. The process replicates the commonly used systemic approach to resolving problems or meeting challenges that are encountered in life and career"

- introductory course on the community-centered methodology
- Trendspotting: the social web
- Identity & Membership
- Virtual Community Time
- Virtual Place
- Participation/Lurking
- Leadership & Governance in communities
- Community Marketing

Literature



- Community Building on the Web : Secret Strategies for Successful Online Communities by Amy Jo Kim
- Net Gain by Hagel, John ISBN 0875847595 (Harvard Business School Press)
- A reader compiling useful chapters (online articles)

1.2 Digital Divide

Lecturers

R. Demuyck , V.Tassinari; J. van Sintfiet, R. Weldam

Short discription

The module "Digital Divide" involves you as a student in the impact technology has on culture, society and organisations. The title of the module 'Digital Divide' refers to the societal split between those who have access to the information society and those who don't.

This division enlarges the traditional gap between "poor and rich" or "North and South" or causes perhaps a new gap between the "first and the fourth" world. But the information society also offers global regions opportunities and possibilities to recover quickly from historical backwardness . What is the influence of new technologies on social behaviour , on our philosophical way of thinking, on your personal way of life and your self perception in this context. What are the visions on the future, what is information and how reliable is it?

Philosophical question: is it ethical allowed to use new technologies especially in the field of multimedia to manipulate certain developments. New items as "embedded journalism" and the role of 'self fulfilling prophecy' of future scenarios in company planning will be discussed.

Information and Society are the two key items. 'Social presence' will be different in an ICT driven society. What do multi media contribute to the development of society?. Which possibilities are there to influence these developments? How can political and ideological organisations as anti-globalists use the internet on a global scale to spread their ideology?

What happens with local culture and borders in a digital global network-culture?

Literature:

Castells, Manuel. (1998). End of Millenium. The Information Age. Oxford

Negroponte, Nicolas. (1995). Digitaal Leven (vertaling Being Digital,1995). Amsterdam

Naisbitt, John and Patricia Aburdene. (1991). Megatrends 2000. New York

Postman, Neil. (1993). Technopoly. The surrender of culture to Technology. New York

Castells, Manuel. (1998). End of Millenium. The Information Age. Oxford

1.3 Integrated Business Communication

Lecturer

C. Mayer

Description of content:

Please see pdf-file.

2 Technology Modules

2.1 Multimedia Databases & Web Services

Lecturers

J. de Serière, K. Cardinaels

Short description

Ever since the eighties of the previous century technological evolutions have influenced our daily life. Information and communication technology changed the way we communicate, work, live, entertain, and so on. Our interest goes to the way we gather and manage information and the type of information, which becomes more and more multimedial. Information architecture and technological approaches becomes more sophisticated in order to make it possible to handle the different types of data in a way that finally suites the user.

In this module we pay attention to trends, design and practical applications of multimedia databases dealing with audio, video, text and image data. Service Oriented Architecture is a an architecture that uses loosely coupled services to support the requirements of business processes and userstechnology for delivering information called web services. Webservices is one of the possibilities to enrich internet applications. Service oriented architectures a big research topic in different areas, such as e-learning and handheld computing. Theoretical and practical concepts will be dealt with, including excersises on the topics. The theoretical background about multimedia databases and webservices provides topics like, e.g. multimedia data types, content analysis, histograms, soa, soap, applications. The course will be a mix of theoretical and practical excersises and lectures. The module will be evaluated by a written exam and a teamwork project.

Profile

This module is more technology-oriented (not that heavy to put anyone off) and interesting for students more interested in development of (web)applications and in architectural skills and knowledge. Some basic knowledge of scripting technology and databases, SQL will be recommended.

Literature

- L. Dunckley, Multimedia Databases, An Object-Relational Approach, Addison-Wesley, ISBN 0-201-78899-3, 2003; about \$ 40 (amazon.com)
- Reader Webservices & MultimediaDatabases 2008 (to be delivered at the start of the module in september 2008, about euro 5,-)

2.2 Media Services - Conferencing and Streaming

Lecturer

J. Lohr

Purpose

The aim of this module is to focus on some applications of video and audio-technologies in a business field. The communication process is presented in both synchrony and asynchrony cooperation of the important content: audio and videoconferencing for two-way communication and streaming for one-way communication. We will discuss these modern technologies in combination with computer- technology: chat, file sharing, white board.

There are some different between the technologies: individual communication, transport mechanism, loss of information packages. Over the technology-layer in the application-layer we find some important differences: usage, customer, business field, production process, end-device, costs and end-user-application.

The module has two parts: lecture and tutorial/projects. In the lectures we will discuss technological and application process. In the tutorial/projects we will discuss a short application: take an idea from conception and implement a short scenario. Some aspects of the short application are: overview of the technology (function, architecture, basic technology), basic-products, some scenarios of these type of application, one special scenario for more details (Customer, market, costs, USP, short SWOT-Analyse). All students will work in teams to define, contain and describe details of the application. Each group demonstrate their application using technologiey that can be found on campus: webcam, cameras, headset, web-conferencing tool "Net Meeting", "CU-See-Me", "Skype", streaming tool "Real Producer/ Helix-Server".

Type of audio- and video-application

- audio conferencing
- video conferencing
- audio streaming
- video streaming
- multipoint-conferencing

Lecture:

- Application
 - examples of application conferencing and streaming: consulting, teamwork, product presentation
- Basic technology: network/internet, av-compression, usage of av-equipment
- Conferencing Technology:

- network and protocols (ISDN, IP)
- compression of picture /audio/ video and transport (H.26X , H32X)
- standards for documents and data conferencing: T.120
- multipoint-teleconferencing, MCU
- Streaming Technology:
 - network and protocols (IP)
 - transport technology
 - audio- and video-streaming compression and basics
 - process: encoder, server, distribution
 - multicast, minicast

2.3 User Centred Development Techniques

Lecturer

T. Ritz

Scenario:

Running successful multi media projects is extremely difficult. Mainly two challenges have to be coped with:

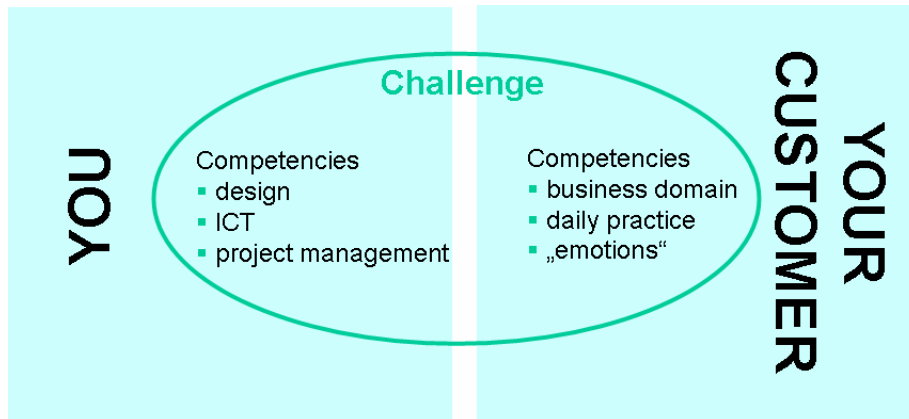
- Satisfying the customer
- Planning and managing available and required resources.

In “good old times” we followed a straight forward approach starting with a requirements analysis phase (result: paper) followed by a specification phase (result paper), followed by a development phase (result: software) and finally we tested and evaluated the solution together with the customer (result: complaints of the customer ☺). This approach is not suitable for highly innovative media applications, because:

- At the start of a project the customer is not aware of the possibilities of latest media technology. As a result he can not formulate his demands towards the media application and accordingly he cannot give the required input to the requirements analysis (Example: Someone never used a PDA, cannot articulate the demands for a mobile sales application)

- Even if the consultant/developer gathered the user requirements the customer is not even in the position to evaluate the outcomes of the analysis and specification phase, cause they are mainly paper documents written in technical manner (Example: "In order to offer security, the mobile sales application will make use of SSL encryption and a VPN tunnel" - this is not easy to understand for a customer who is not a technician).

This problems are resulting mainly from the fact, that the c-md developer/consultant and the customer have a tremendous different background of knowledge:



So a project management approach is needed which tries to take advantage out of these challenges and where we thoroughly care about the user requirements. The method should work iteratively and has to deal with early prototypes, which puts the user in the position to test the aimed media application at a very early stage of the development process and to give feedback to evolve the prototype to a market ready product.

Approach:

The course user centered development techniques will deal with a methodological approach to end up in a "User Centred Solution". Therefore the course will combine methodologies and tools from:

1. Software Engineering
2. Usability Engineering
3. Project Management

The practical sessions of the lecture will cover a complete project cycle and will employ the "Extreme Programming Paradigm" (which is a method not a technology!!) and the "Usability Engineering Lifecycle". Thus the students experience to work in short iteration cycles in very close co-operation with customers. Methods to get feedback from the customer will be shown and employed. The course is NOT a course on programming technologies (like php, ASP.NET, ...). It focuses on methodological approaches to successfully conduct media projects. An inter-/intranet solution will be developed making use of the method presented, but the students can choose a development technology (php, asp, flash, flex, ruby ...) they are used to.

Basic Literature for the Course:

- Joe Aufgang et. al: Extreme Programming for Web projects, Addison-Wesley Professional, 2002
- Mary B. Rosson, John M. Carroll: Usability Engineering, Morgan Kaufmann Publishers, 2001
- Chromatic: Extreme Programming Pocket Guide, O'Reilly 2003

Further Readings:

- Ian Sommerville: Software Engineering, 7th Ed., Addison Wesley, 2004
- Jeff Raskin: The Human Interface, Addison Wesley, 2000
- Jakob Nielsen: Usability Engineering, Morgan Kaufmann Publishers, 1994

2.4 The Semantic Web

Lecturer

P. Slaat, F. Engelen

Short description

Berners-Lee's early remarks focused on his development of the Web. "Making the Web was really simple because there was already this morass of things being developed on the Internet," including protocols such as TCP/IP and other standards. "All I had to do on top of that to create the Web was to create a single global space, which some people said was rather arrogant.... HTTP was a new scheme for the Web... and the idea was that it would minimally constraining." And HTML, the language he created to drive the Web, would be "the cloth on which a tapestry would be made – the jewels, the colors..."

Based on this fast-growing morass of websites and the interactions between them, what's come out of it? Dot-com companies that have come and gone, new ways of thinking – and more recently, wikis and blogs. "The original thing I wanted to do was make it a collaborative medium, a place where we can all meet and read and write.... Collaborative things are exciting, and the fact people are doing wikis and blogs shows they're [embracing] its creative side."

But from the very beginning of the Web, Berners-Lee had hoped that he would be able to incorporate descriptive information into the Web's fundamental design, but for various reasons it didn't make the cut. "One thing I wanted to put in the original design was the 'typing' of links," he said. For example, let's say you link your website to another site. At the moment, the hyperlink connecting them contains very little

information: just an address to get to the other website's content. But Berners-Lee's idea was to include "metadata" with each hyperlink to describe the relationship between the two sites. For example: do the people linking their two websites know each other personally, professionally, or not at all? If they're colleagues, how are they working together, and in what fields? Where are they working? "When we put one link to another, a human being knows what that link may mean, but a machine doesn't," he said. But this idea of embedding large amounts of machine-readable metadata into HTML didn't make it into the original Web standard. Now, he's trying to change that, with an initiative called the Semantic Web.

"The Semantic Web looks at integrating data across the Web," Berners-Lee said. As the World Wide Web Consortium explains, "The Web can reach its full potential only if it becomes a place where data can be shared and processed by automated tools as well as by people. For the Web to scale, tomorrow's programs must be able to share and process data even when these programs have been designed totally independently. The Semantic Web is a vision: the idea of having data on the web defined and linked in a way that it can be used by machines not just for display purposes, but for automation, integration and reuse of data across various applications."

For the Semantic Web to function properly, websites would be designed in ways fundamentally different to traditional HTML. For example, in traditional HTML, if I wanted to assign a page a particular color, I would simply include a bit of code stating exactly what that color should be. `Color=Red`, basically.

But with the Semantic Web, you wouldn't do this. Rather, you'd tell the website to go to a URL that defines a universal standard of what that color looks like. So instead of coding a webpage to say "`Color=Red`," you'd say something like "`Color=http://internationalcolorstandardsite.org/colors/red/v2`" and your website would know to connect to this site to identify the color. This would hold true for all data you include in your website: color, people, zipcodes, images, etc. Data would all be connected to URLs containing descriptive information about that data. Information would not be static or absolute; instead it's "an abstract concept" that gets sucked up from another website explaining exactly how to define it.

In this module "The semantic web" we will develop a semantic prototype where data will all be connected to uniform resource identifiers (uri's) containing descriptive information about that data. We will start the course talking about the concept XML. The metalanguage XML and uniform resource identifiers (uri's) are the backbone of the semantic web. You will develop your own xml-files and rdf-files to discover the aim of these languages. After that you will develop a real semantic prototype based upon ontologies. Ontology theory, exercises and methodologies are provided among others by Stanford university (<http://protege.stanford.edu/>, <http://challenge.semanticweb.org>)

Literature

- <http://protege.stanford.edu>
- (see user documentation => tutorial: [ontology101.pdf](#)
=> [ProtegeOWLTutorial.pdf](#))
- several articles

3 Management Modules

3.1 Multimediamanagement

Lecturers

J. van Sintfiet, R. Weldam, M. Henckaerts

Description

In order to be able to successfully operate within the multimedia industry, you need to understand the business side of the industry. This module is intended to prepare you for doing business in the world of film, television, video and new media. You will be introduced to marketing, distribution, planning, production, financing, and budgeting with regard to audiovisual and other types of productions in the field of new media.

By acquiring the necessary knowledge regarding these topics, you will be in a much stronger position - when it comes to managing business processes - once you become involved in a multimedia production yourself, whether as a conceptual initiator, an independent producer or a freelancer. In addition to its creative and conceptual context, the multimedia world also has a business context. Creative and conceptual aspects are not the only factors determining success. If the business side of the equation is not dealt with properly, the chance of failure increases dramatically.

Conceiving, financing, budgeting and organising multimedia projects and products are facets that CMD graduates will definitely have to deal with later on in their professional careers. This module aims to introduce the student to the business aspects of multimedia management.

Literature

Addison Wesley Managing Multimedia: Project Management for Web and Convergent Media 3/e: Book 1 People and Processes: 3/e; © 2002 | ISBN: 0201728982; Elaine England & Andy Finney

3.2 Entrepreneurship & Innovation

Lecturers:

Jan Louis de Bruyn, NN

Description

Are you born an entrepreneur or can you be made one? That is the very starting point of this module in which we provide and work on a framework which allows your entrepreneurial behaviour & thinking to be tested and sharpened. Several subjects are

offered which make substantial part of business activities and which interconnect with each other. This combination will result in a stable entre-preneurial approach for any kind of challenge and is written down in an integrated business plan.

By addressing these subjects we create an overall module program which provides insights, knowledge, practice, behaviour, success factors, bottleneck insights, ... in the environment and existence of entrepreneurship. With the support of case studies and selected guest speakers, this module offers a toolkit for any kind of student to experience and learn more about entrepreneurship and a more business like approach of projects & activities.

We also provide sufficient participation in the subjects we address in this module. Each student team will select a topic during the first weeks and will make part of the lecture themselves to create a real learning community. This module does not guarantee business success but will trigger you for realising business ideas and getting more grip on managing your own business.

We also follow the trajectory of the Belgian Bizidee contest. With our gradual approach in this module we try to provide you with sufficient knowledge and logic thinking for creating a business plan. Like last year some ideas were definitely relevant for participating in this contest. For this we have the participation of the chairman and a business advisor.

Students also get a chance of looking from a critical viewpoint to entrepreneurship and to a commercial approach. With a suitable assignment students will have to present a research subject and discuss this.

Assessment method:

This module will be evaluated on the basis of:

- The level of participation in the theoretical and practical sessions
- The level of participation in the periodical assignments
- The development of the general case assignment (business plan)
- The presentation and jury of the general case assignment

Literature:

- Course material based on student's class notes
- Powerpoint presentations
- Case studies and best practices
- Industry literature
- Journals, general press, trade press, ...
- Invited speakers
- **Innovative Entrepreneurship**, Mulder R. & ten Cate R., Pearson Education
- **Business2Business Marketing**
- **Professionals & Acquisition; How to successfully acquire projects in a business service environment**, Kwakman F., Academic Service

4 Design Modules

4.1 The Narrative

Lecturers

R. Delsing, B. Geerts

Contents

During the past few years there has been a lively discussion about the question whether it is possible to create compelling interactive stories. Of course, say the pro's, and point towards the numerous games which are often based on existing stories and make use of storytelling structures.

The con's say, games are not stories. And the lack of important "interactive storytelling" works of art makes them say that it is not possible, at least for now.

And what do you think?!

Stories are an important component of culture. Stories are the vehicles by which cultural knowledge is communicated from one generation to the next. They grab your attention and are used in all kinds of media to get the message across.

So it is important for us to know how storytelling techniques can be use in an interactive environment. In this module "The Narrative" we will try to find that out. Apart from that you will learn about storytelling techniques in other media like film and comics.

Part 1

In the first part of the module where are going to discuss a few theoretical concepts about interactive storytelling. We are also going to look at storytelling techniques in other media.

Part 2

In the second part of the module you are going to build an interactive story, based on an existing film or book.

Tools: Photoshop, Flash MX 2004

4.2 The Interface

Lecturers

R. Delsing, J. de Serière, M. Henckaerts



Short description

The module deals with several theoretical and conceptual approaches concerning the development, design, realisation and evaluation of interfaces from the metaconcept of user-interface-content-context (human computer interface). Interfaces are in use for communication and they are dealing with rich content information to be used during the interaction for certain purposes depending on the needs and choices of the user.

The meta concept of user-interface-content-context contains the theoretical, practical and visionary concepts as shortly mentioned below:

- Context: field of application: e.g. business, public domain, home, entertainment, cultural domain and the added value of it .
- Interface: design concepts like Ishizaki's Improvisational Design, design principles and methods used in Interface design (f.e. interaction design)
- User: Creating personas, questionnaires, user analysis and description, design technique allowing designers to focus design efforts on the intended users of a product helping to clarify the product's target audience; to be used in the initial discovery phase
- Content: Which (multimedia) data can be used to produce in a fluent way rich (new) and 'meaningful' content in order to improve the interaction between users in various situations and so empowering the application? Which technology is available to make it possible: Rich Internet Applications, Web 2.0 (social software).

The theoretical concepts are illustrated and elaborated on the basis of practical examples, exercises and assignments. The course is a mix of theoretical and practical work, guidance by the lecturers and feedback sessions. The module will be evaluated by a written exam and a final assignment .

Literature

- Suguru Ishizaki: *'Improvisational Design, Continuous Responsive Digital Communication'*, MIT Press, Cambridge, 2003, ISBN 0-262-09035-X, chapter 1, (2), 3, 4, 5, 6 (pp. 1 – 115); optional
- Lev Manovich: *'The Language of new Media'*, MIT Press, Cambridge, 2002, ISBN 0-262-632551, chapter 1, 2 (pp 18-115);
- Reader Interface 2008 (to be delivered at the start of the module in september 2008, about euro 10,-)
- Handouts lectures
- Assignments and Others: to be announced/published on BB Handouts, dictates and so on from lectures (Blackboard);
- Flash (& other tools).

4.3 eLearning: from blackboard to Electronic Learning Environments

Lecturers

M. van Vuel, NN

Contents:

In the design of new learning methods, technologies and materials the multimedia designer is playing a larger role than ever. Today's learners are increasingly immersed in media based messages and the learning content has already started to follow this trend. What do multimedia designers of today need to work in an eLearning design team? While edutainment and infotainment will not be ignored, the focus of the module will be on the learning and teaching through the use of advanced media, in all its aspects.

The proposed module will start from a solid theoretical background but will move also into more practical applications quickly.

Suggested parts (non exhaustive):

- A brief history of technology in support of learning and teaching
- Basic pedagogical models and theories and how they are translated in technology supported teaching and learning
- Present models and technologies of eLearning (from telepresence via LCMS to ambient and mobile learning) and the related design challenges
- Designing for specific groups of learners, teachers, an introduction in instructional design
- Different models of content distribution
- The business side of eLearning