



Technische
Universität
Braunschweig



Strategic Partnerships for New Perspectives on Teaching Information Literacy to Students of Industrial Engineering and Management

Dr. S. Kibler, July 6th, 2015

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Information literacy in Germany

(Commission on the Future of Information Infrastructure 2011, German Rectors' Conference 2013)

- imparting information literacy is one of the central objectives of university libraries
- information literacy should be part of the curriculum nationwide, especially in universities
- modern teaching materials should be used
- involved players should network

Introduction

Standards of information literacy for students (German Library Association 2009, pp. 3-4)

Information literate students should be able to

- identify and articulate their need for information, determine its' type and extent
- efficiently access information
- evaluate information and sources, select them according to their needs
- process retrieved information effectively, convey it tailored to the needs of target group using appropriate technical tools (...) and
- take on responsibility for information use and transmission of information.

Introduction

Situation in Braunschweig

- degree to which university libraries follow these standards varies (Franke 2012)
- University Library Braunschweig adheres to these standards
- teaches full range of information literacy topics
- course content depends on target group (e. g. students, postgraduates, academic staff) and subject of study or research

Now

- project partner of Industrial Engineering and Management to create one part on information literacy of a new module for approximately 250 students
- start in winter semester 2016/17, 2 credit points

Introduction

Content for Braunschweig

- catalogue, database and internet research
- copyright law
- academic writing
- academic publishing
- time management
- best scientific practice
- citing and referencing
- how to identify scientific publications
- reference management tool Citavi

Introduction

Challenges

- no prior experience with realizing lectures for such a high number of students
- creation of an innovative and motivating didactic setting as an alternative to the dated lecture format
- trying something new

Solution

- blended learning

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Gamification

Benefits of blended learning

- activities in person and online (Glazer 2012)
- online sequences support the flexibility of library staff
- reduces the amount of time spent with classroom teaching (saves human and monetary resources)
- time-independent, does not require any room capacities (Born 2008)
- conceptual flexibility: can be combined with other pedagogical approaches (Glazer 2012)

Presently

- combination of gaming elements with blended learning in various German universities
- objective: to make teaching in higher education more interesting and entertaining to students

Gamification

What is gamification? (Bendel 2015, Deterding et al. 2011)

- process of transferring typical gaming elements and procedures into non-game-related contexts
- intention: modifying the behavior and increasing the motivation of users

Examples of typical gaming elements (Bendel 2015)

- descriptions (of goals, participants, rules, possibilities), points, awards and ranking lists

Central characteristics of gamification (Watson 2014)

- competition, sharing knowledge or information, fun and rewards

Gamification

Game-based learning in Germany

- “The Legend of Zyren” (Orszulok et al. 2013)
- students learn how to find appropriate information, to evaluate, to apply and to restructure it
- game as vehicle for the content of the seminar Knowledge Representation

Braunschweig

- game-based seminar “Cooperation in E-Business”
- developed by the Institute of Business Information Systems (Department of Information Management) of the Technical University
- won award voted for by students
- now: development of a blended learning game-based scenario for students of Industrial Engineering and Management

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Technical realization

- Institute of Business Information Systems, Department of Information Management of TU Braunschweig

Further project partners

- Regional proximity?
- Similar subjects of study?
 - University Library Hannover and
 - University Library Clausthal

Project Structure

But: different local structures!

Solution

- experts at each university deliver the content needed for certain parts of the game (Subject Librarians, Assistant of the Dean, experts for academic writing, multimedia expert)

Involvement of students

- are representatives of the target group
- creation of the storyboard, development of ranking criteria for the game
- concepts for all topics and their integration into the gaming environment

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In Braunschweig

- meet the requirements of the Faculty of Mechanical Engineering

In Hannover and Clausthal

- ascertain implementation of information literacy into curricula of Mechanical Engineering Studies (acceleration by proactive offer of an innovative and motivating information literacy study program)

All locations

- bring together expertise in teaching information literacy
- make technical data accessible as an open educational resource
- transform project content into a flexible and modularized structure (easily adaptable to the needs of different study subjects and different institutions)

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