

Rethinking Self-directed Learning for Information Managers



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Short resume: Gerrit Wucherpfennig

Since 2019

Research assistant for media didactics at the University of Applied Sciences and Arts Hannover, Faculty III - Media, Information and Design, Department of Information and Communication within QpLuS IM project:
Making competence development possible through self-directed learning in digital learning scenarios – Komm' Se digital lernen

2016 - 2019

Master studies at the Otto-von-Guericke University Magdeburg in the course of *Medienbildung: Audiovisuelle Kultur und Kommunikation* (english = Media education: Audiovisual Culture and Communication) , thesis topic: *The Representation of Authoritarian Structures in Film* , degree: Master of Arts

2012 - 2016

Bachelor studies at the University of Applied Sciences Offenburg in the course of *medien.gestaltung und production* (english = media.design and production), thesis topic: *The Social Benefit of Film in relation to Empathy and Solidarity: The Social Impact of Film*, degree:
Bachelor of Arts



Current projects

QpLuS IM project:

Making competence development possible through self-directed learning in digital learning scenarios

- Supplementing and optimizing digital teaching in the Information Management and Information Management extra-occupational programs



Rethinking Self-directed Learning for Information Managers: Why this topic?

- Self-directed learning is an essential basis for lifelong learning
- Information overload, dealing with complexity and focus, motivation to learn, self-control or psychological well-being are current challenges that we take up
- Example: Our interactive video “How do search engines work?”



Reduction and Complexity /A Media-didactic Concept for Information Management Students

- Complexity as an ambivalent construct
- New challenges for traditional teaching and learning concepts
- A media didactic concept for dealing with opportunities and risks of: Information handling in digital (social) media
- Creation of innovative learning settings
- (contentual) focus and (formal) reduction as a basis



State of Research

- Self-directed learning: goal-oriented; multidimensional (J. Dyrna and J. Riedel)
- Connecting factors in the established Constructive Alignment Model: Assessment, Teaching and learning activities and learning outcomes
- Consider correlations and interaction between motivation, self-regulation, social development and well-being (R.Ryan and E.Deci)



Process model for learning assests (three dimensions)

- **Mediality** (interactivity, multimodality, design) degree of modality/mediality and interactivity
- **Complexity** of content and subject (reduction of focus, information density), degree of complexity of the content (basic knowledge, further resources, prerequisites required, ...)
- **Cognitive / psychological** dimension (self-control/motivation/wellbeing), degree of self-control



Four levels of complexity

A. Social Media compatible information for getting started, e.g., IM Glossary at Instagram.

B. Multimedia learning assets for teaching basic knowledge, e.g., educational films, screencasts with Camtasia and OBS lecture recordings, explanatory videos, podcasts, animations, lecture with audio.

C. A, B or other Open Educational Resources (OER) with indepth information and interaction (self-active and thinking along, exploration) e.g., via H5P, quizzes, tutorials, autonomous creation and publication of media content for the IM curriculums

D. Branching learning offers (remix, exploration, self-active, thinking along, knowledge transfer), with personalized learning path e.g., via H5P.



Digital Focusing and Reduction

- Avoid problems and excessive demands through information overload and multitasking (see statements by G. Mark or study by C. Nass)
- In this context: Production of focused and reduced digital learning resources



Interactive video: How do search engines work?

- Idea: Explain basic functions and mechanisms of search engines via interactive video
- Prototype for new media didactic possibilities



Interactive video: Setting

- Innovative setting: Duplo figures as elements of search engines



Figure: Setting with Duplo



Interactive video: Pop-Up Information

- Focus and reduction in the user interface
- Maximum one interactive element in the image

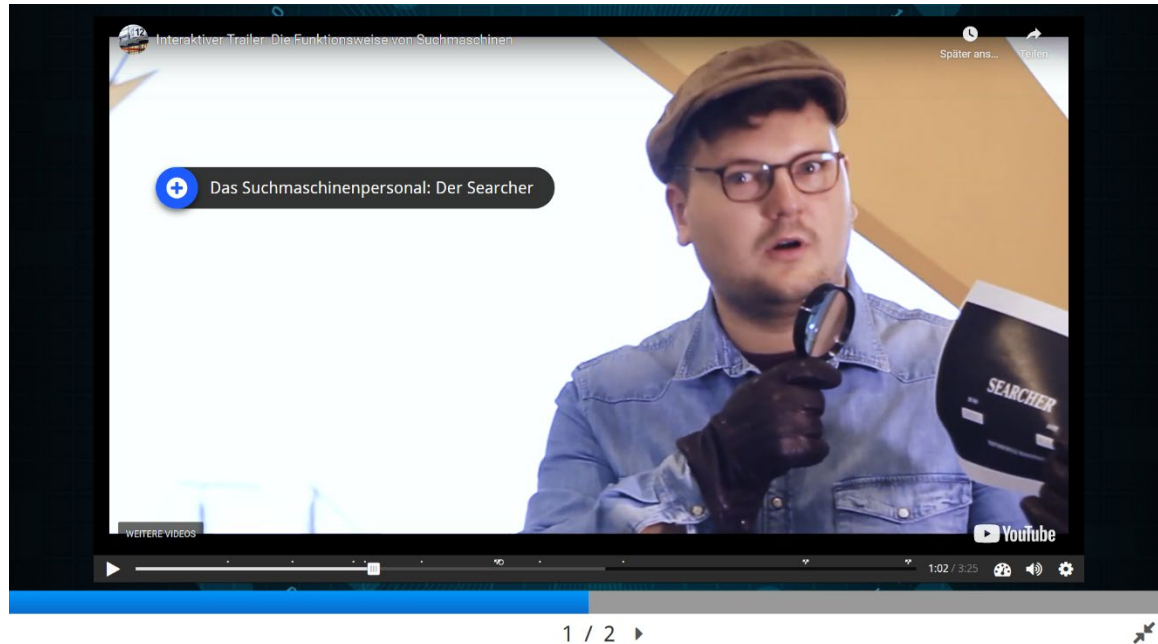


Figure: Information Pop-Up: Searcher



Interactive video: Quiz

➤ Quiz via Pop-Up

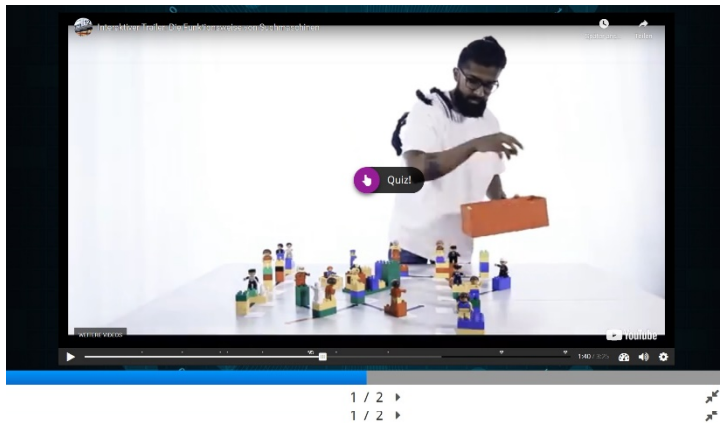


Figure: Quiz Pop-Up symbol

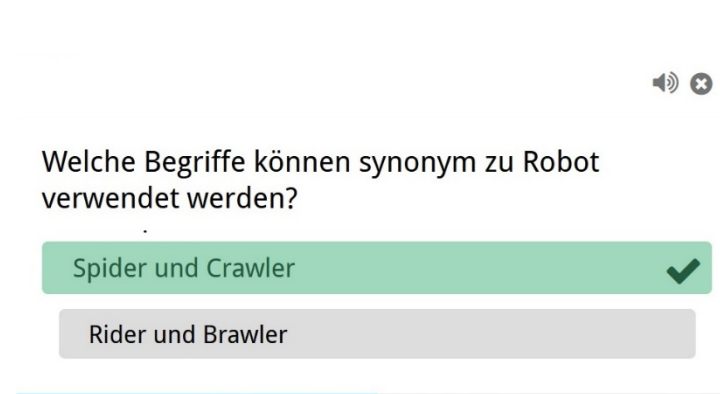


Figure: Quiz userface after clicking the right answer



Interactive video: Branching Scenario

- Branching Scenario: two possible paths of action with two different consequences

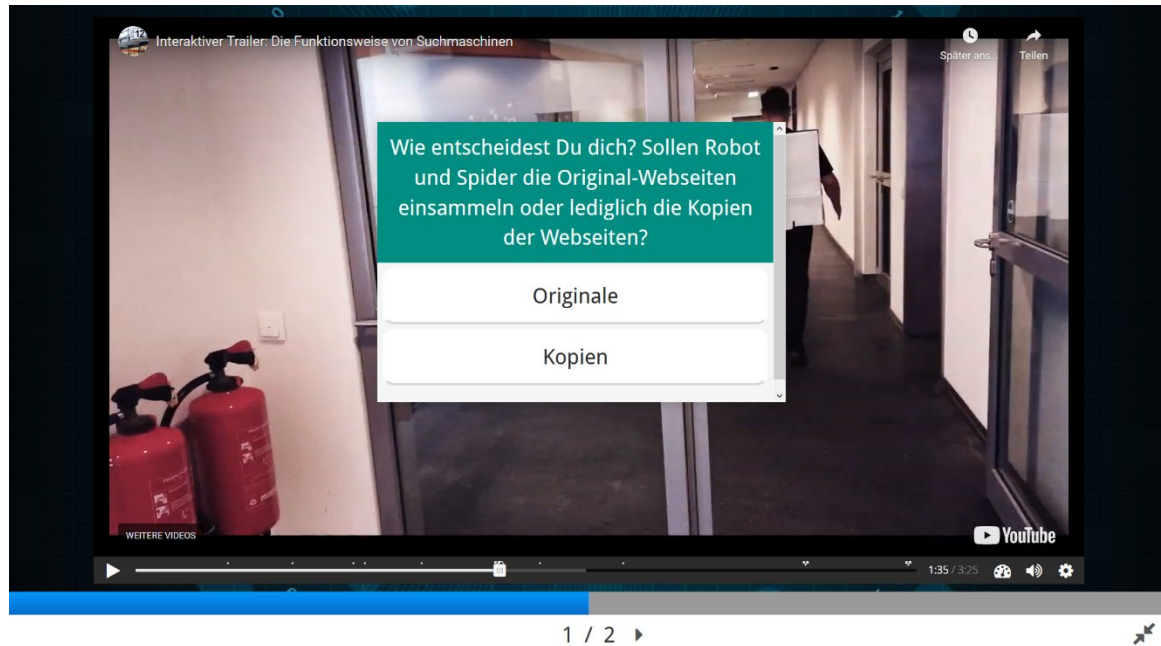


Figure: Branching Scenario



Conclusion

Long-term goal:

- Establishment of a **modern, intuitive, consistent and sustainable network** (for example based on e-portfolios) of (preferably free) **digital self-learning resources** for information management
- Key elements: **Focus, reduction** and confident handling of **complexity**
- Supporting instruments to achieve the goal: **Process model for learning assets / four levels of complexity** and **evaluations** and frequent requests for **feedback**



References

J. Dyrna, J. Riedel and S. Schulze-Achatz, “When is learning with digital media (really) self-directed? Approaches to enable and promote self-direction in technology-supported learning processes [Wann ist Lernen mit digitalen Medien (wirklich) selbstgesteuert? Ansätze zur Ermöglichung und Förderung von Selbststeuerung in technologieunterstützten Lernprozessen],“2018. [Online]. Available from: <https://nbn-resolving.org/urn:nbn:de:bsz:14-qucosa2-338278> [retrieved 10.2020]

R. Ryan and E. Deci, “Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. The American psychologist,” pp. 68-78, 2000. [Online] Available from: https://www.researchgate.net/publication/11946306_Self-Determination_Theory_and_the_Facilitation_of_Intrinsic_Motivation_Social_Development_and_Well-Being [retrieved 10.2020]

G. Mark, Interview partner in, “Hyperconnected, the brain in overload [Hyperconnectés, le cerveau en surcharge],” Documentary, TV report, Broadcast: Arte, 2016.

E. Ophir, C. Nass and A.D. Wagner, “Cognitive control in media multitaskers,” PNAS. September 15, 2009. Vol. 106. No. 37, pp. 1-3 [Online]. Available from: <https://www.pnas.org/content/pnas/106/37/15583.full.pdf> [retrieved 10.2020]

