

Neue Technologien und innovative Lehrmethoden im Dienste der interprofessionellen Lehre

Jan P. Ehlers

Passender Referent?



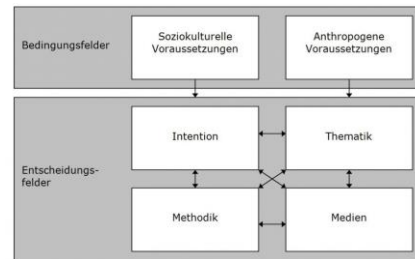
Neue Technologien?

Der Begriff **Neue Medien** wird verwendet für **zeitbezogene** neue Medientechniken.

Anfänglich wurde damit das **Radio** bezeichnet, in den Anfängen des **Fernsehens** wurde der Begriff dafür gebraucht, und mit dem Aufkommen von **Videotext** und **BTX** wurden diese als Neue Medien ausgezeichnet. Seit Mitte der 1990er Jahre ist er für alle **elektronischen, digitalen, interaktiven Medien** und im Kontext **Multimedia** und **Netzpublikation** gebräuchlich.



Technologien können die Antwort sein, nicht die Frage.



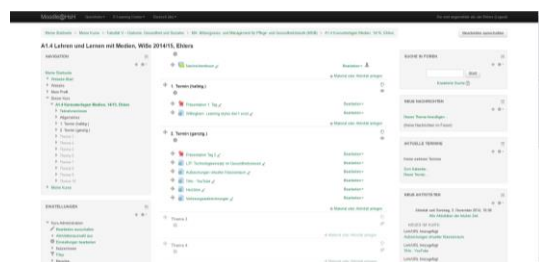
Strukturanalyse nach dem Berliner Modell

(Heimann P, Otto G, Schulz W (1965): „Unterricht – Analyse und Planung“, Schroedel, Hannover zitiert nach Quast J (2013): Medien in den didaktischen Modellen, <http://www.jan-quast.de>)

Mögliche Vorteile

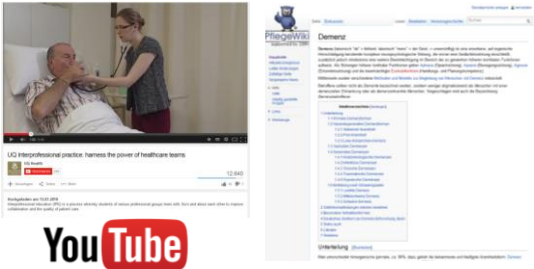
Unabhängiges Lernen	Einsatz von Multimedia	Keine Vertretung
Eigene Geschwindigkeit	Lernerfolgskontrollen	Keine Reisekosten
Vernetztes Lernen	Gemeinsames Lernen	Keine Reisezeiten
Interaktive Kurse	Parallel zur Arbeit	Zeit für Familie/Hobby
Flexible Lernwege	Leichte Aktualisierung	CME-Anerkennung

Lern-Management-Systeme (LMS)



Mott J (2010): Envisioning the post-LMS era: the Open Learning Network. *Educause Quarterly*, 33(1), 1-9.

Web2.0 Tools



Schaper E, Ehlers JP, Dilly M, Crowther E, Baillie S (2014): Using YouTube to share teaching resources (Letter to the Editor), JAVMA 245/4, 372-373

Soziale Netzwerke I



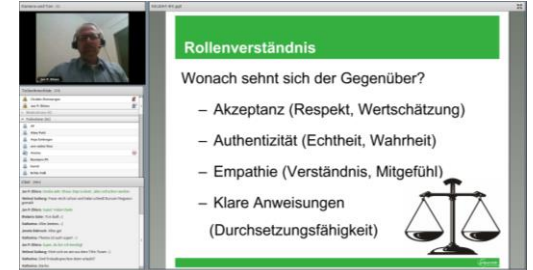
Tenhaven C, Tipold A, Fischer MR, Ehlers JP (2013): Is there a "net generation" in veterinary medicine? A comparative study on the use of the Internet and Web 2.0 by students and the veterinary profession. GMS Z Med Ausbild 30(1).Doc7

Soziale Netzwerke II



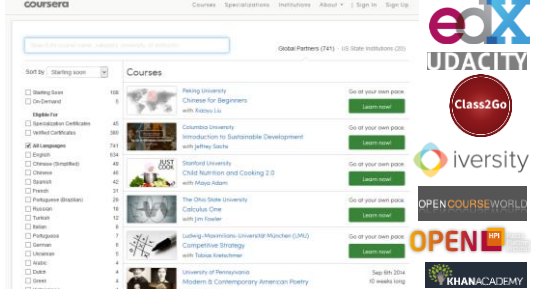
Baillie S, Kinnison T, Forrest N, Dale VHM, Ehlers JP, Koch M, Mandoki M, Ciabotaru E, De Groot E, Boerboom TBB, Van Beukelen P (2011): Developing an Online Professional Network for Veterinary Education: The NOVICE Project. JVME 38/4, 395-403

Virtuelle Klassenräume



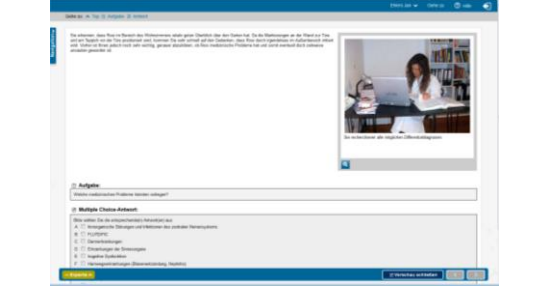
Koch M, Fischer MR, Tipold A, Ehlers JP: Can Online Conference Systems Improve Veterinary Education? A Study about the Capability of Online Conferencing and its Acceptance. JVME 39/3, 283-296

MOOCs



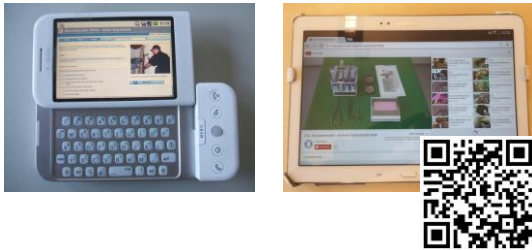
Schulmeister R (2013): MOOCs Massive open Online Courses – Offene Bildung oder Geschäftsmodell? Waxmann, Münster

Virtuelle Patienten



Ehlers JP: Peer-to-Peer-Learning in der tiermedizinischen Lehre : Am Beispiel von CASUS-Fällen. Diplomica Verlag : Bremen

Mobile Learning



Thukral A, Joshi M, Joshi P, Prakash V, Adkoli BV, Deorari AK (2014): Apps for management of sick newborn: Evaluation of impact on health care professionals. J Trop Pediatr. doi: 10.1093/tropej/tmu032



Serious Games



CliniSpace by Innovation in Learning Inc.

Graafland M, Dankbaar M, Mert A, Lagro J, De Wit-Zuurendonk L, Schuit S, Schaafstal A, Schijnen M (2014): How to Systematically Assess Serious Games Applied to Health Care. JMIR Serious Games 2014; 2(2):e11



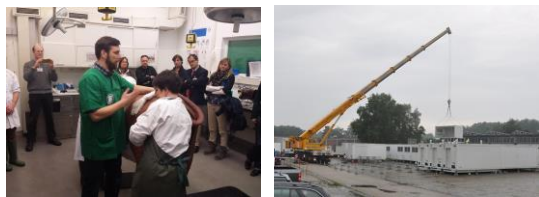
Simulationen



Bunim J (2011): Teaching and Learning Center Embraces Interprofessional Education as Future for Health Care. UCSF. <http://www.ucsf.edu/news/2011/01/8393/teaching-and-learning-center-embraces-interprofessional-education-future-health>



Simulationen



TiHo Clinical Skills Lab

Mobiles Bekämpfungszentrum

Rösch T, Schaper E, Tiplod A, Fischer MR, Ehlers JP (2013): Qualitative Study of the acceptance and the requirements of a clinical skills lab at a university of veterinary medicine. BMTW 11/2013; 127(3), 10-19



Voraussetzungen

P21	En Garage	ATCS	NETS / IRE	EF	OECD
Learning and innovation skills	<ol style="list-style-type: none"> 1. Analytical thinking, problem solving, critical thinking and decision making. 2. Creative, innovative and problem solving. 3. Communication and collaboration. 	<ol style="list-style-type: none"> 1. Analytical thinking 2. Creativity and innovation 3. Critical thinking, problem solving, decision making 4. Higher order thinking and sound reasoning. 	<ol style="list-style-type: none"> 1. Creativity and innovation 2. Critical thinking, problem solving, decision making, and research products and processes using technology. 	<ol style="list-style-type: none"> 1. Communication 2. Communication in working groups 3. Communication in therapy, language 	
Information, media and technology skills	<ol style="list-style-type: none"> 1. Effective communication 2. Teamwork, collaboration and responsibility 3. Personal, social and civic responsibility 4. Entrepreneur communication 	<ol style="list-style-type: none"> 1. Teamwork 2. Communication 3. Collaboration (teamwork) 	<ol style="list-style-type: none"> 1. Communication and collaboration 2. Students use digital media and assessments to communicate and work collaboratively 	<ol style="list-style-type: none"> 1. Communication in working groups 2. Communication in therapy, language 	<ol style="list-style-type: none"> 1. Interacting in heterogeneous groups 2. Being well to others 3. Engaging, work in teams 4. Managing and using conflicts, language
Life and career skills	<ol style="list-style-type: none"> 1. Digital age literacy 2. Basic, scientific, economic and technology literacy 3. Information literacy 4. Media literacy 5. Multicultural literacy and global awareness 	<ol style="list-style-type: none"> 1. Basic, scientific, economic and technology literacy 2. Global and information literacy 3. Multicultural literacy and global awareness 	<ol style="list-style-type: none"> 1. Technology readiness and concepts 2. Basic understanding of technology concepts, systems and operations 	<ol style="list-style-type: none"> 1. Digital competence 	<ol style="list-style-type: none"> 1. Using health technologies 2. Use language, symbols and visual communication 3. Use knowledge and information technologies 4. Use technology entrepreneur
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Vogt J and Roblin NP (2010): 21st Century Skills – Discussion Paper. University of Twente



Innovative Lehrmethoden?

Um die qualitativen und quantitativen Herausforderungen in der Lehre zu bewältigen, entwickeln und erproben viele Hochschulen unterschiedliche didaktische Ansätze. So trägt die verstärkte Einführung von **E-Learning** und **Blended Learning** dem Trend zu **individualisiertem Lernen** Rechnung; gleichzeitig wird die **Wissens- und Kompetenzvermittlung** auf die **Lernfähigkeit** des einzelnen Studierenden abgestimmt.

Durch die Stärkung der Kompetenzvermittlung haben Lehr- und Lernformen – mit teilweise **veränderten Rollenmodellen** – an Bedeutung gewonnen, die sich den **Zielen des Studiums und des jeweiligen Moduls anpassen**; damit einher geht vielfach ein entsprechendes **Prüfungswesen**.



Bundesministerium für Bildung und Forschung

(Qualitätspakt Lehre, 2013)



Paradigmenwechsel

„Shift from teaching to learning“

Barr RB and Tagg J (1995): From Teaching to Learning – A New Paradigm for Undergraduate Education. Change; The magazine of higher learning 27.6, 12-26

Gunter Dueck



„Wir müssen uns Gedanken machen über den Menschen, der nach der Digitalisierung gebraucht wird.“

„Der neue Mensch muss jetzt mehr können: verkaufen, überzeugen, Projekte leiten, mehr Didaktik...“

„Menschen werden nie mehr gut bezahlt für etwas, was Computer selbst können.“ (z.B. Bankberatung, **Krankheitsdiagnostik**)

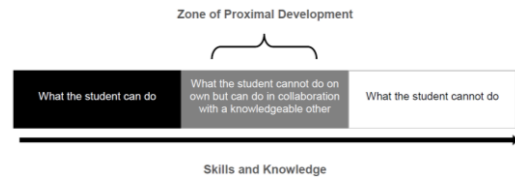
„international vernetzte Projekte, interkulturell, verhandeln, interprofessionell, Empathie, Sinn für Erfolg, motivieren...“

Innovative (soziale) Methoden

- Peer-Teaching
- Forschendes Lernen
- Service Learning
- Lebenslanges Lernen



Zone of proximal development



Vygotsky LS (1978): Mind and society: The development of higher mental processes. Cambridge, MA: Harvard University Press.
Griffin P, Woods K, Mountain R, Scouler C (2013): Using a Developmental Model to Assess Student Learning - Developmental learning frameworks. ACTS21

Zone of proximal development

Criterion Referencing Framework (R. Glaser)

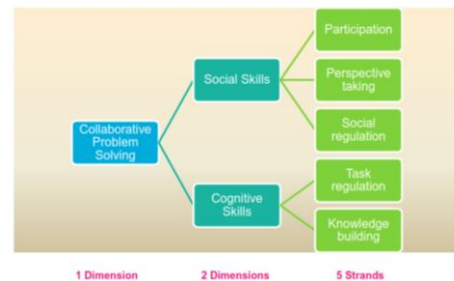
Variable Map (G. Rasch)



Betreuung in 5 Gruppen

Glaser R (1963): Instructional technology and the measurement of learning outcomes. American Psychologist 18 (8), 519-522
Rasch G (1960): Probabilistic models for some intelligence and attainment tests. Copenhagen: Danish Institute for Educational Research.

Collaborative Problemsolving



ATC21s.org (2014): Collaborative Problem Solving: Empirical Progressions

Beispiel

1. E-Prüfung -> ZPD
2. POL Gruppeneinteilung
3. Virtuelle interprofessionelle Patienten
4. Collaborative Problemsolving



Zusammenfassung

Innovative Medien und Methoden können die interprofessionelle Ausbildung unterstützen.

Sie sind Mittel, nicht Zweck!

Lehrende und Lernende benötigen die Kompetenzen für einen gewinnbringenden Einsatz!

Vielen Dank für Ihre Aufmerksamkeit!

Kontakt:

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