Institut für Wirtschaftsinformatik

Universität St.Gallen

E-Learning quo vadis?

Innovationsrichtungen veranschaulicht am St. Galler E-Learning Referenzmodell

Prof. Dr. Andrea Back



Institut für Wirtschaftsinformatik

Universität St.Gallen

Platz 17 für Deutschland

The 2003 e-learning readiness rankings

A white paper from the Economist Intelligence Unit

150 Messgrössen:



	Score (of 10)	Rank (of 60)
Sweden	8.42	1
Canada	8.40	2
US	8.37	3
Finland	8.25	4
South Korea	8.24	5
Singapore	8.00	6
Denmark	7.98	7
UK	7.93	8
Norway	7.91	9
Switzerland	7.72	10
Australia	7.71	11
Ireland	7.60	12
Netherlands	7.59	13
France	7.51	14
Austria	7.49	15
Taiwan	7.47	16
Germany	7.45	17
New Zealand	7.37	18
Hong Kong	7.34	19
Belgium	7.19	20

Rangzahlen in den Kategorien

Germany	7.80	16	6.48	24	9.07	11	7.44	11	7.45	17

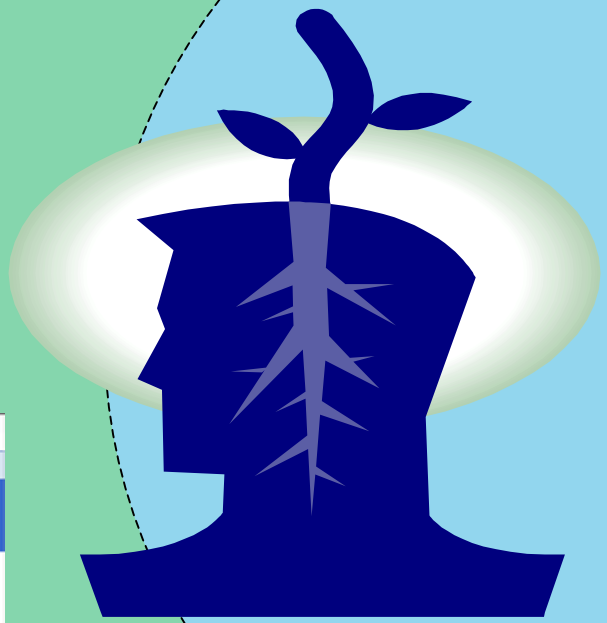
	Educatn. score (of 10)	Educatn. rank (of 60)	Industry score (of 10)	Industry rank (of 60)	Govmnt. score (of 10)	Govmnt. rank (of 60)	Society score (of 10)	Society rank (of 60)	Overall score (of 10)	Overall rank (of 60)
Weight in overall score	20%		40%		20%		20%			
Sweden	8.17	6	8.26	4	9.67	1	7.76	2 (tie)	8.42	1
Canada	8.83	2	8.35	3	8.80	14 (tie)	7.67	6	8.40	2
US	8.90	1	8.39	1 (tie)	8.27	22	7.92	1	8.37	3
Finland	8.00	9	7.97	5 (tie)	9.60	2	7.69	5	8.25	4
South Korea	8.32	4	8.39	1 (tie)	8.73	16 (tie)	7.36	12	8.24	5
Singapore	7.98	11 (tie)	7.84	7	8.60	19	7.74	4	8.00	6

Mein Gebiet: Wissensarbeit/er in der Informationsgesellschaft und e-Productivity

Lernen

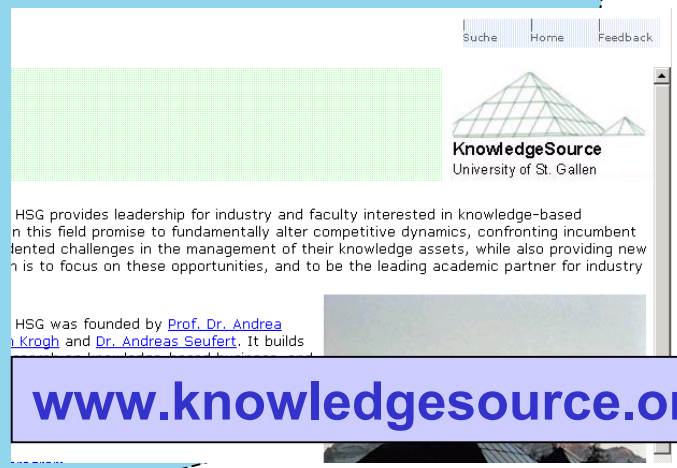


www.learningcenter.unisg.ch



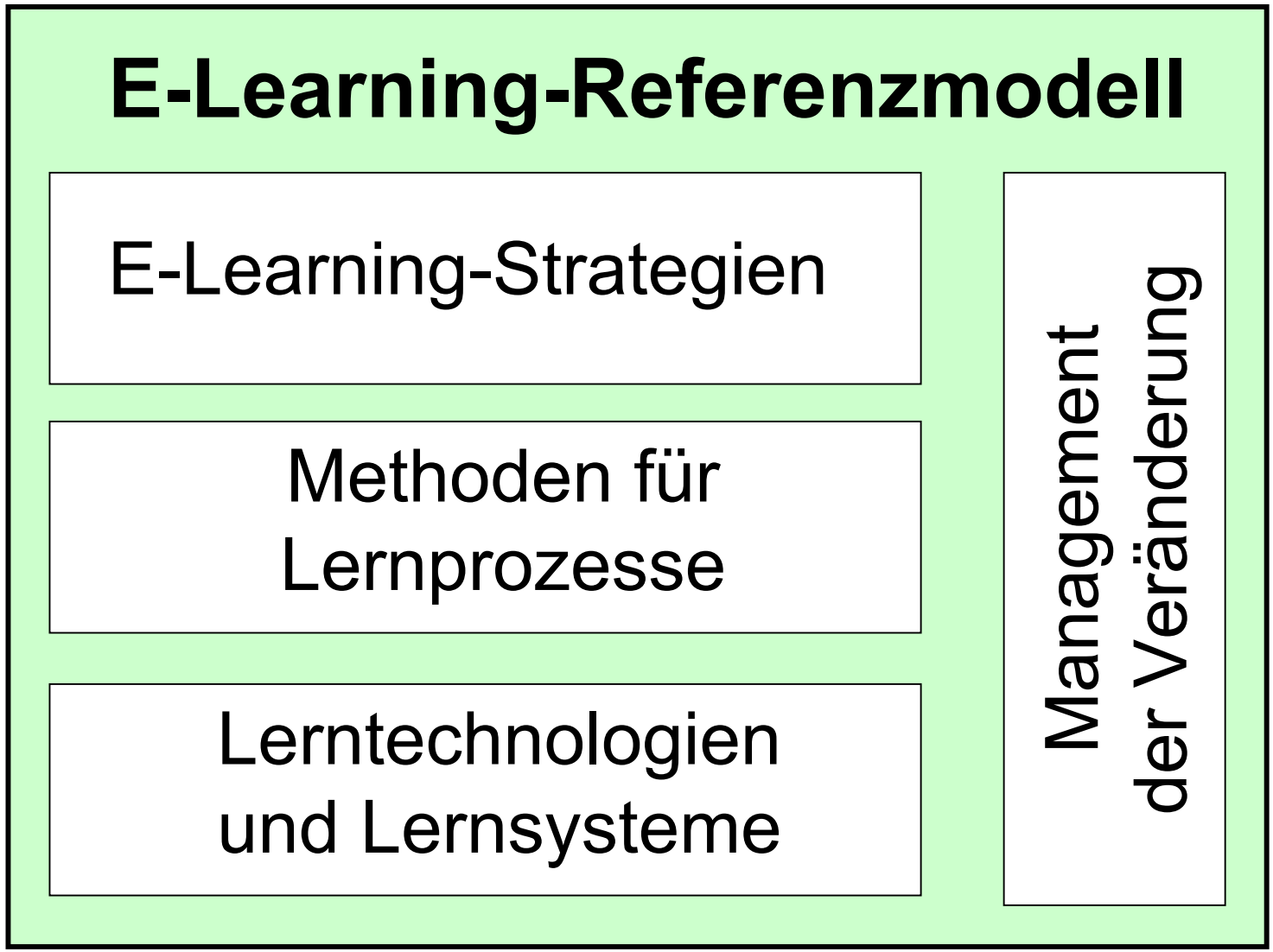
im Unternehmen

Wissen



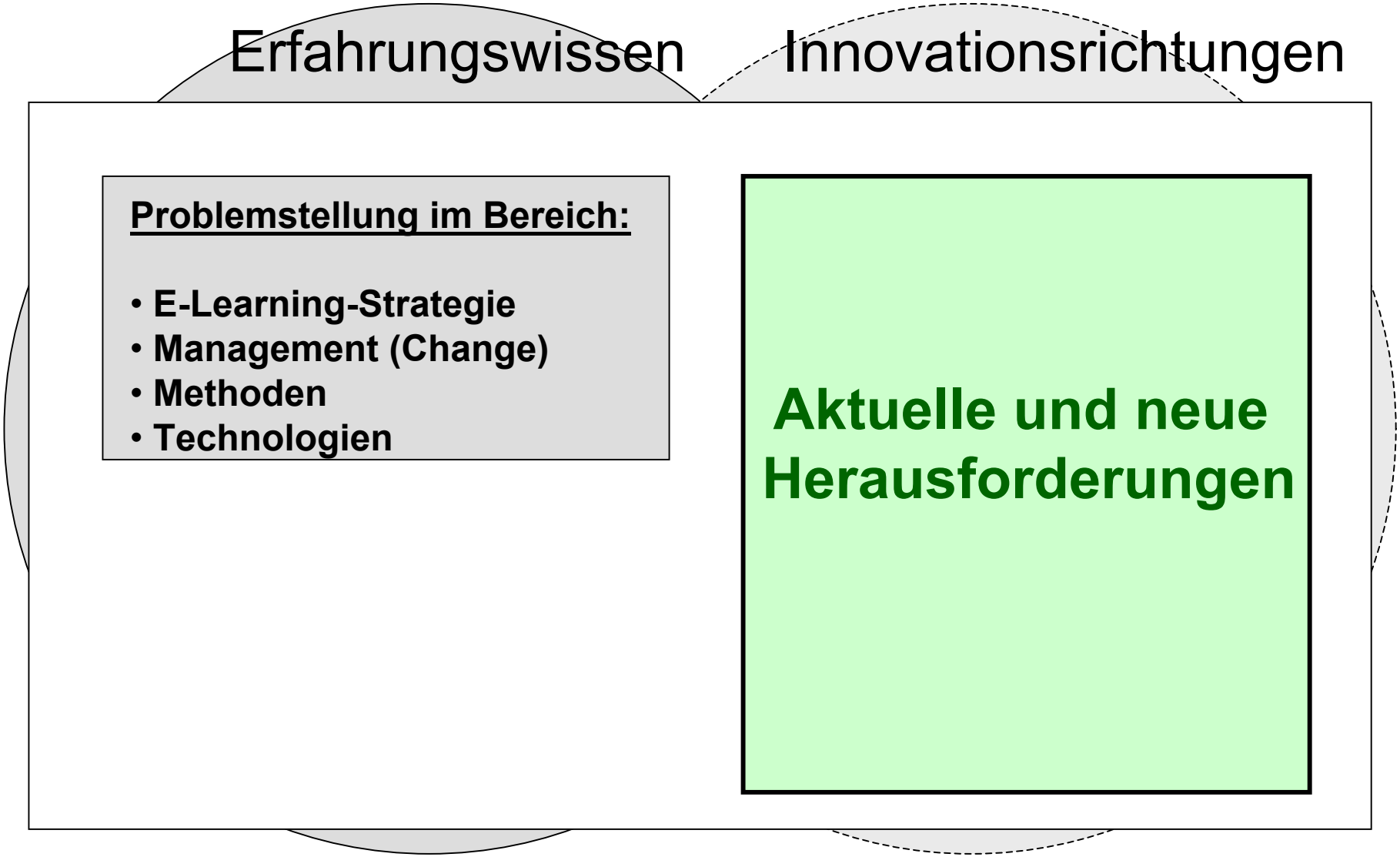
www.knowledgesource.org

E-Learning als Business Engineering



E-Learning ist nicht auf die IKT-Ebene beschränkt.

Überblick


Erfahrungswissen
Innovationsrichtungen
Problemstellung im Bereich:
• E-Learning-Strategie
• Management (Change)
• Methoden
• Technologien
Aktuelle und neue Herausforderungen

Themenliste

- Blended Learning Architekturen
- Web-Conferencing
- JIT-E-Learning, Workplace Learning
- Simulationen und Spiele

- Learning Objects
- Open Source
- Personalisierung
- Mobile Learning, Devices
- Pädagogische Agenten
- 3D Virtual Reality
- System-/Prozessintegration

- EduCommerce
- Business Cases
- E-Learning Strategie

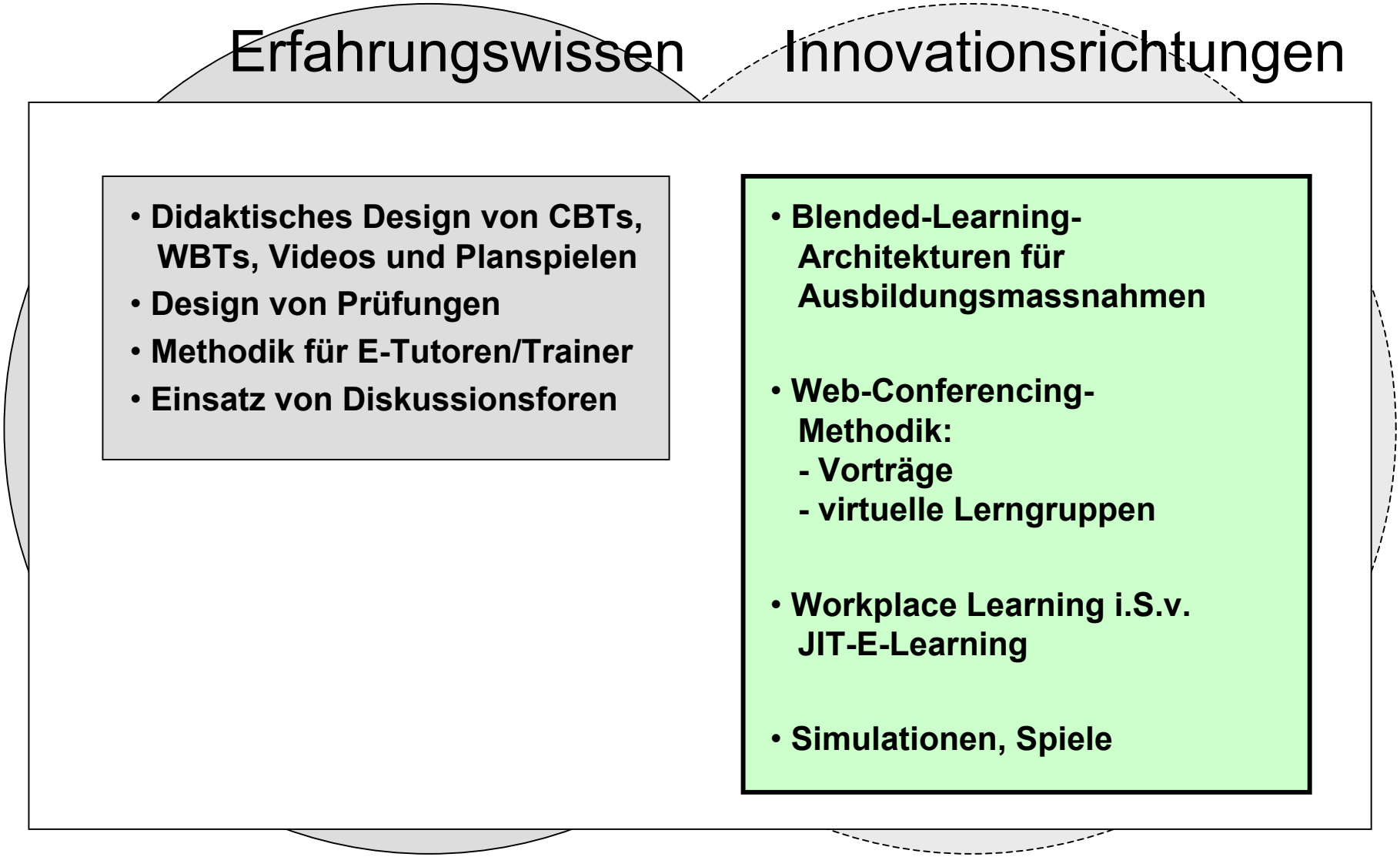
- E-Learning Readyness
- eSkills
- Kommunikation
- Team „Match-Making“: HR, IT, OE, WM
- Angebots- und Anreizstrukturen
- „Scalability“ (kulturelle Barrieren)
- Offshore Outsourcing
- Usability Testing

Demo-Links

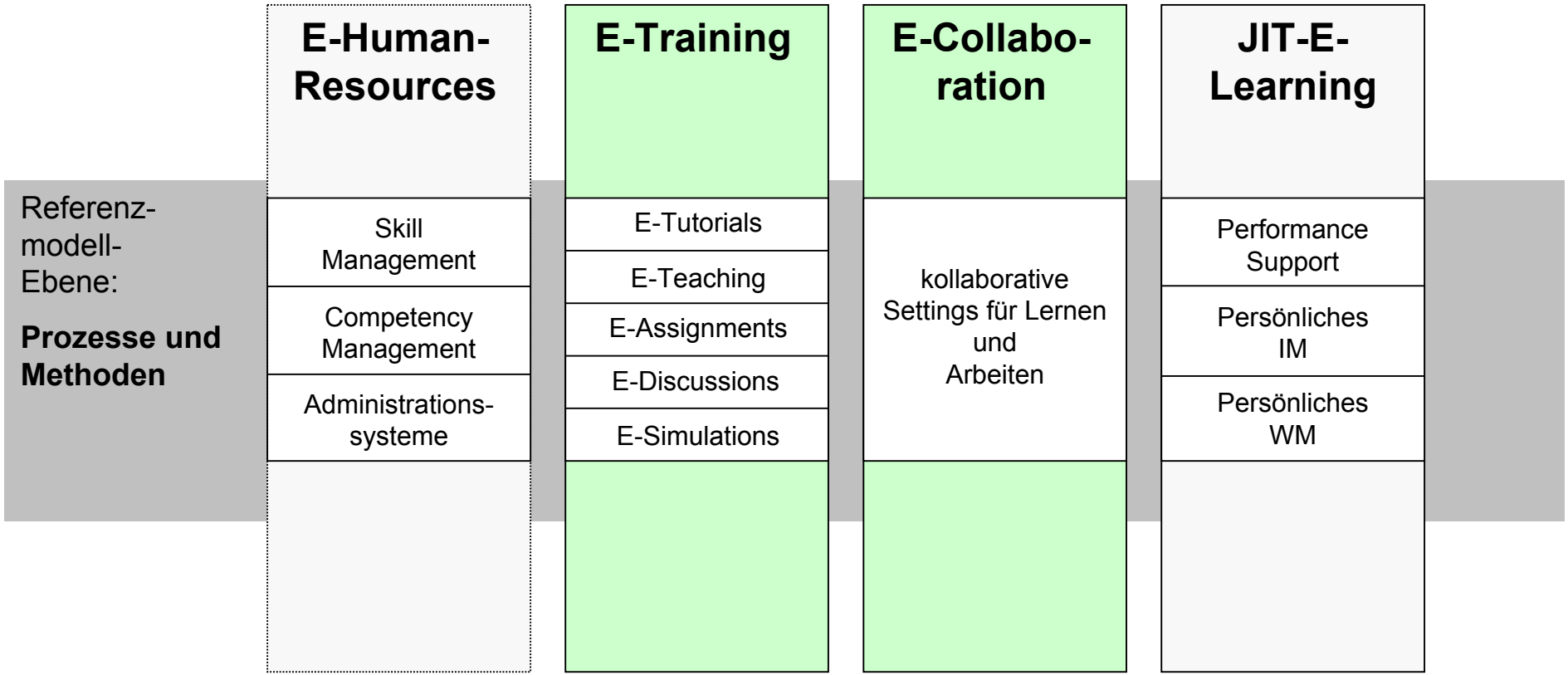
Elliot Masie Aufzeichnung:
http://www.scil.ch/congress-2003/videos-en.html

Simulation Anatomie:
http://www.froguts.com/flash_content/demo/frog.html

Methoden für Lernprozesse

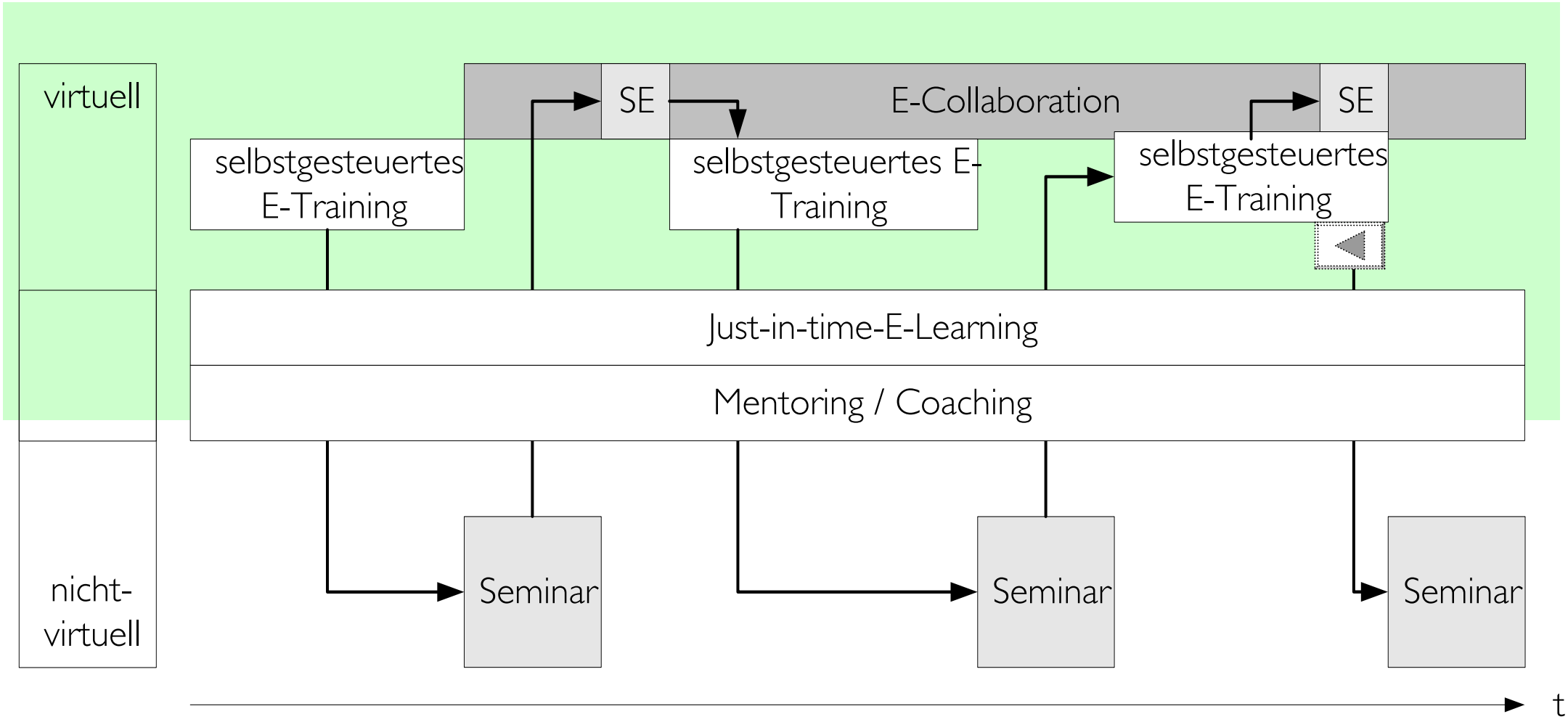


Methoden für Lernprozesse



IM: Informationsmangement
WM: Wissensmanagement

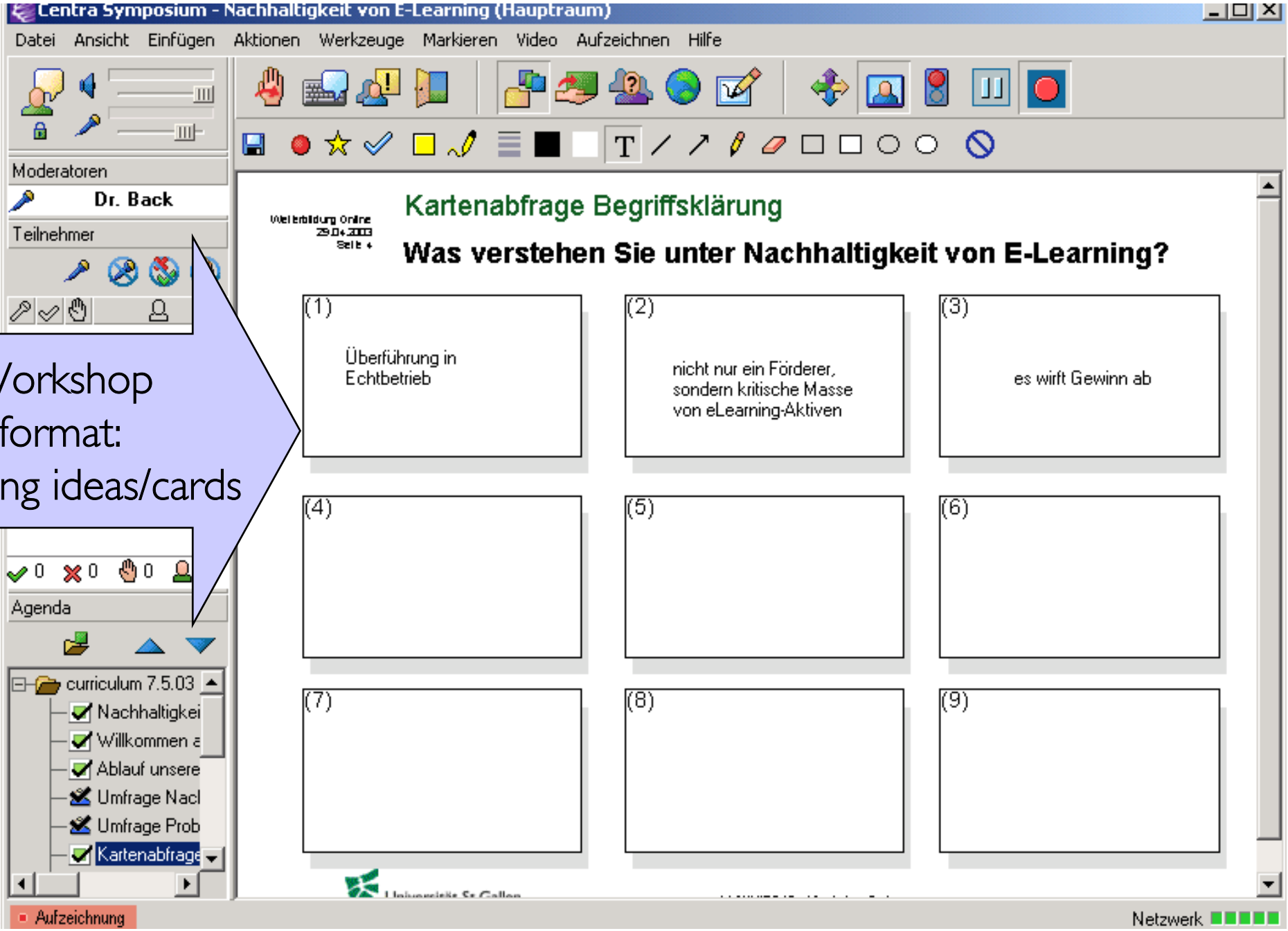
Blended-Learning-Architektur



SE: Synchroner Event

Quelle: Back/Bendel/Stoller-Schai, S. 175

Collaborative Interaction: From my eMeeting practices



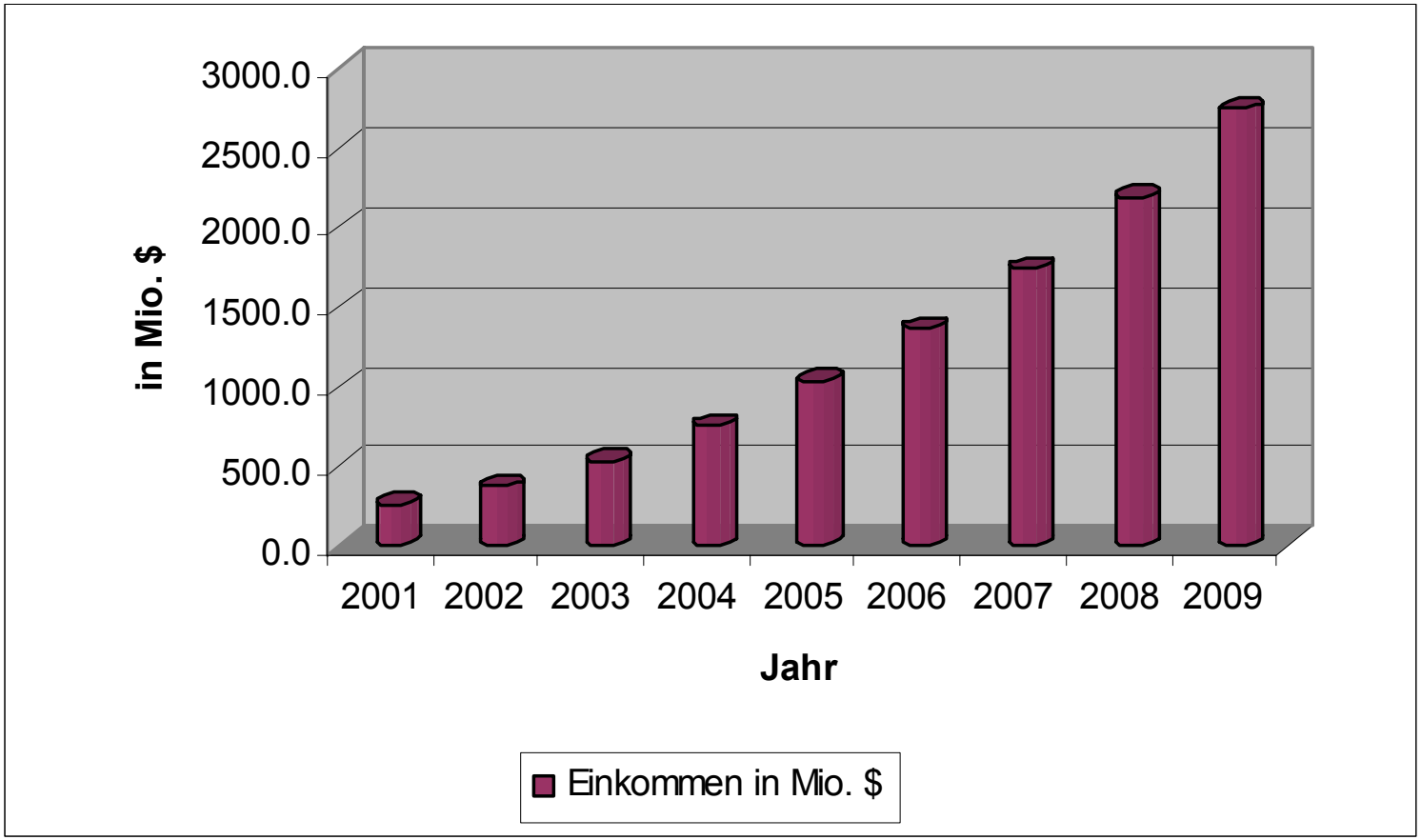
Workshop format: collecting ideas/cards

Erzwungene Bewährung von Web-Conferencing



Prognosen zur Marktentwicklung von Web-Conferencing

- World Market Development (Revenue)



Quelle: Frost & Sullivan, 2003: World Web Conferencing Market

Learning Center Study: Part 1: Evaluation Scheme

- Ziel - Entwicklung eines Zielsystems zur Evaluierung von Web-Conferencing Tools
  - Worauf kommt es bei Web-Conferencing Tools an?
  - Welche Funktionen werden typischerweise angeboten?
  - Wie werden diese Funktionen angeboten, und wie können sie bewertet werden?
- Eckdaten
  - Umfangreiches Evaluationsraster mit ca. 70 Messgrössen
  - Detaillierte Beschreibung von Funktionalitäten
  - Anleitung zur Evaluierung und beispielhafte Anwendung an drei Produkten (Centra, WebEx, PlaceWare)
  - Erscheinungsdatum: 22. März 2004
  - Aufwandentschädigung: SFr. 95.-- (~ 65.-- Euro) zzgl. Versand
  - Bestellung unter: http://www.learningcenter.unisg.ch

Evaluationsraster für Web-Conferencing Tools

- Evaluation Criteria (Levels 1-2 von 4)

Criteria Level 1 - 2
1. Functionality
1.1 Event Management (Planning, scheduling, invitation)
1.2. Communication (Presentation, Audio/Video, Chat, Polling)
1.3. Collaboration (Application Sharing, Files, Whiteboard, Co-browsing,
1.4. Content (agenda, re-use, media formats)
1.5. Control (Participants list, status, feedback)
1.6. Recording & Playback (recording, editing, playback)
2. Technology
2.1 System Requirements (Req. bandwidth, plug-in, client, platform, browser, …)
2.2 Security (Firewall Friendliness, Encryption, …)
3. User-Friendliness
3.1 General (access, help, personalization)
3.2 User interface & software ergonomics
4. General Conditions
4.1. Customer Support (FAQ, helpdesk, forum, online documentation)
4.2. Licensing (models, pricing)
4.3. Demo and trials
4.4. Provider (strategic partners, local distributors, training)

Quelle: Mayrhofer, Hubschmid, Back: Software-Tools for E-Collaboration: Evaluating Web-Conferencing Software Tools. Submitted to: I-KNOW 2004.

Teil 1: Evaluation von Web-Conferencing (scheme tested based on three products)

- Results
  - Centra: 371.3 Pkt.
  - Web-Ex: 338.5 Pkt.
  - PlaceWare: 276.6 Pkt.

- Details:

	Centra	Web-Ex	PlaceWare
Functionality	**217.7**	178.7	120.1
Technology	38.0	**39.5**	33.3
User friendliness	69.2	75.1	**87.1**
General conditions	**46.4**	45.2	36.1
Overall rating	**371.3**	338.5	276.6

Erscheinungsdatum: 15. März 2004
Aufwandentschädigung: SFr. 95.-- (~ 65.-- Euro) zzgl. Versand
Bestellung unter: http://www.learningcenter.unisg.ch

Instant Messaging als Arbeitswerkzeug des Information und Knoweldge Worker

Robert

Robert: I need to know when to release the announcement

Dilbert : I'm talking to Joyce now

Robert: We need to get approval from Legal on the brochures

Dilbert : Hold on - I'll ask her

Robert: OK, I'll be right here

qw

Joyce

Dilbert: How soon can we get the marketing brochures?

Joyce : They'll be ready on Wednesday

Dilbert: Has Legal approved all the language?

Joyce : Yes, they reviewed it yesterday

Dilbert: OK, I'll tell Robert to give the go-ahead

OK, I'll tell Robert to give the go-ahead

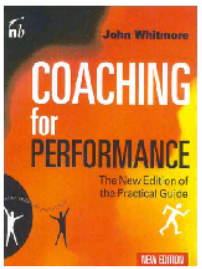
Enterprise Instant Messaging Features
(missing from consumer products)

- **LDAP integration**
- **Expanded presence**
- **Strong security**
- **Local hosting**
- **Server archiving**
- **Persistence**
- **Integration with e-mail**
- **Integration with folder-based collaboration tools**

Gartner 2004: Lundy, J.: Emerging Realtime Collaboration Technologies – Where to Invest, Barcelona,

Ad-hoc workplace learning: Examples for JIT-E-Learning

getAbstract
compressed knowledge



Coaching for Performance

Growing People, Performance and Purpose

by John Whitmore
Nicholas Brealey © 2002 (Third Edition)
180 pages

Focus

Leadership
Strategy
Sales & Marketing
Corporate Finance
Human Resources
Technology
Production & Logistics
Small Business
Economics & Politics
Industries & Regions
Career Development
Personal Finance
Self Improvement
Ideas & Trends

Take-Aways

- The main barriers to optimal performance are fear, lack of self-confidence, self-doubt and low self-esteem.
- A coach's job is to make the client believe that he or she can accomplish any goal.
- Coaches must create a supportive relationship with their coachees.
- Your goal is to help the coachee find the right answers within himself.
- Encourage the coachee to develop a sense of awareness and responsibility.
- The only way to accept responsibility is to choose responsibility, so coaches must let their clients choose.
- Coaches must ask targeted questions to enable the coachee to recognize the correct path.
- Ask questions that begin with what, when, who, how much, and how many; avoid "why" questions.
- Follow the GROW formula: goal setting, reality checking, options and "W" questions.
- Conclude coaching sessions with "will" questions: What will the coachee do now?

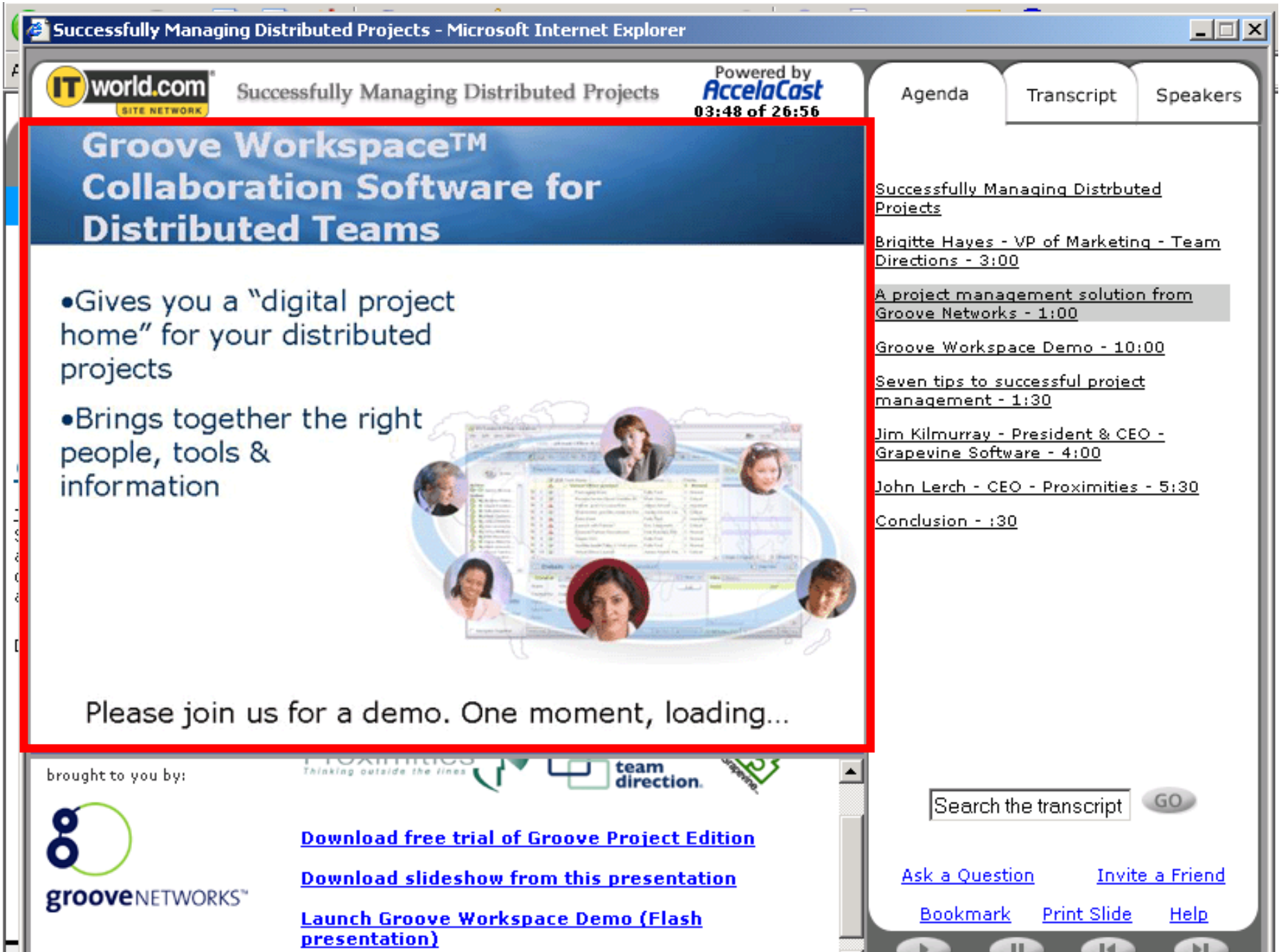
Rating (10 is best)

Overall	Applicability	Innovation	Style
9	10	8	8

ASK IOWA
&
HARVARD ManageMentor
An online resource for managers in a hurry

Topics e.g.:
- Budgeting
- Coaching
- Delegating
- etc.

WebCast
www.itworld.com/itwebcast/...



Simulationen in verschiedenen Anwendungsfeldern





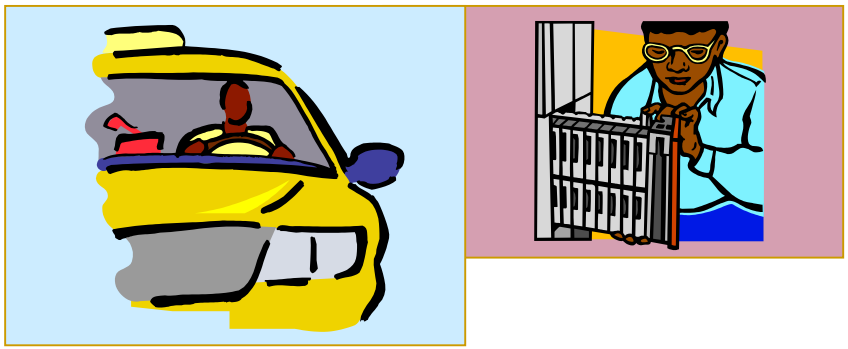
Verkauf



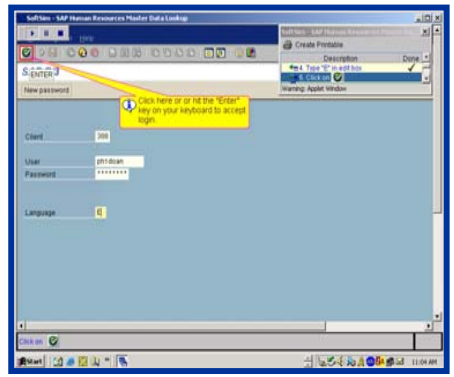
Management



Call Center



Maschinenbedienung und –konfigurtion (Server)



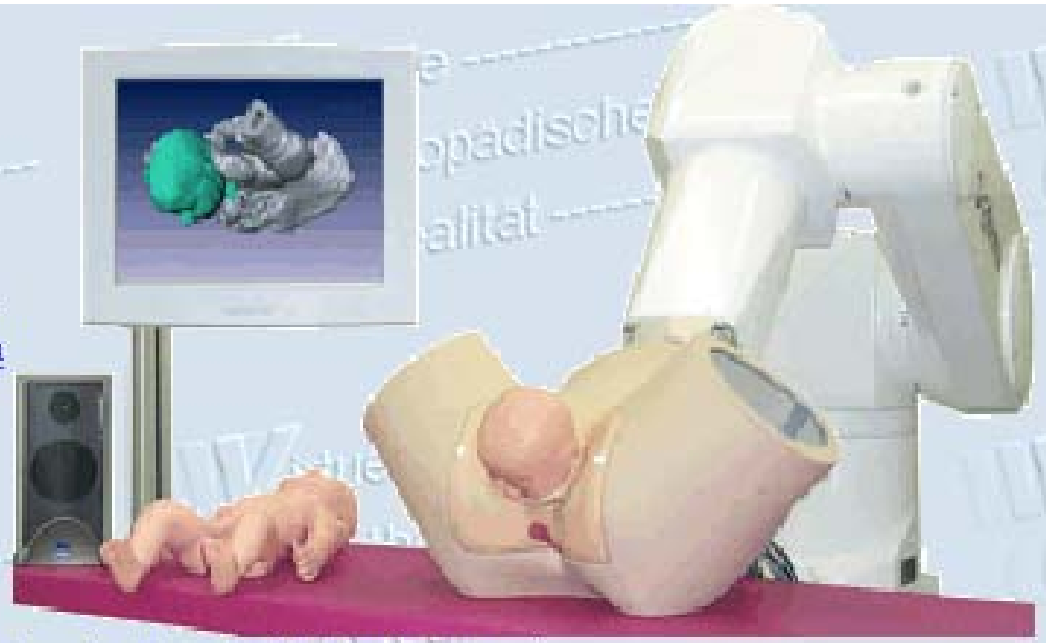
Bedienungssimulation von Anwendungs-software

Gartner 2004: Lundy, J. u.a.: Knowledge Manage-ment: Top 10 Technologies to watch, Barcelona,

Training: Simulator www.vr-med.com

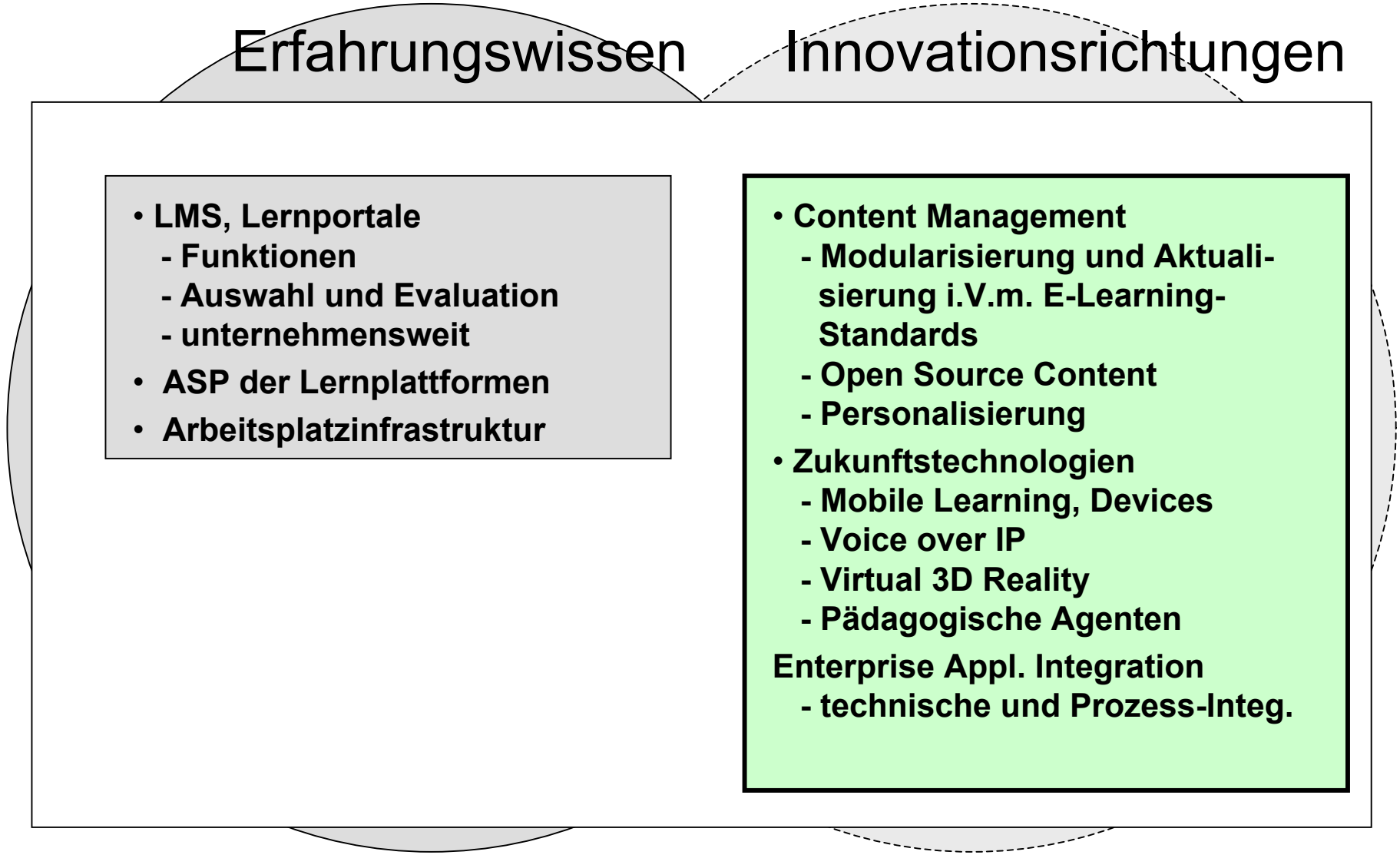
Hauptbeteiligte in diesem Projekt sind

- der Lehrstuhl für Steuerungs- und Regelungstechnik der Technischen Universität München,
- die Klinik für Orthopädie und Sportorthopädie des Klinikum Rechts der Isar, Technische Universität München,
- die Frauenklinik des Klinikum Rechts der Isar, TU München und
- die Firma S. Merzendorfer Orthopädietechnik.

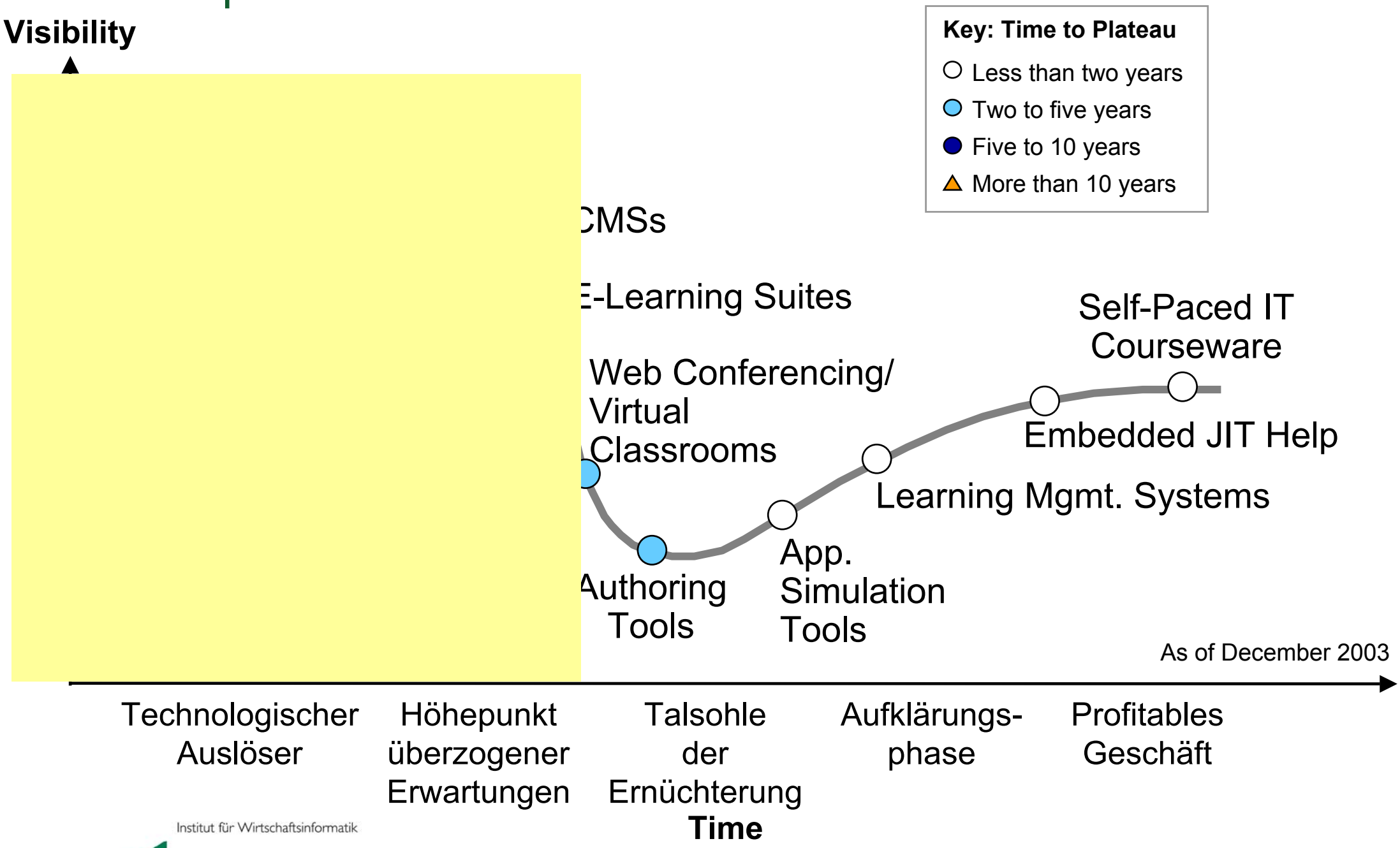


Jeder Pilot lernt vor seinem ersten Flug am Flugsimulator, wie das Fliegen überhaupt geht. Das haben sich die Gynäkologen in ihrem Bereich zum Vorbild gemacht und einen Geburtensimulator entwickelt. Dieses interaktive Programm ermöglicht es den angehenden Ärzten und Hebammen zum ersten Mal, eine Geburt am virtuellen Modell zu üben. Eine unglaublicher Erleichterung für alle Beteiligten:
Denn bisher übten die angehenden Ärzte tatsächlich an der gebärenden Frau ...

Lerntechnologien und Lernsysteme

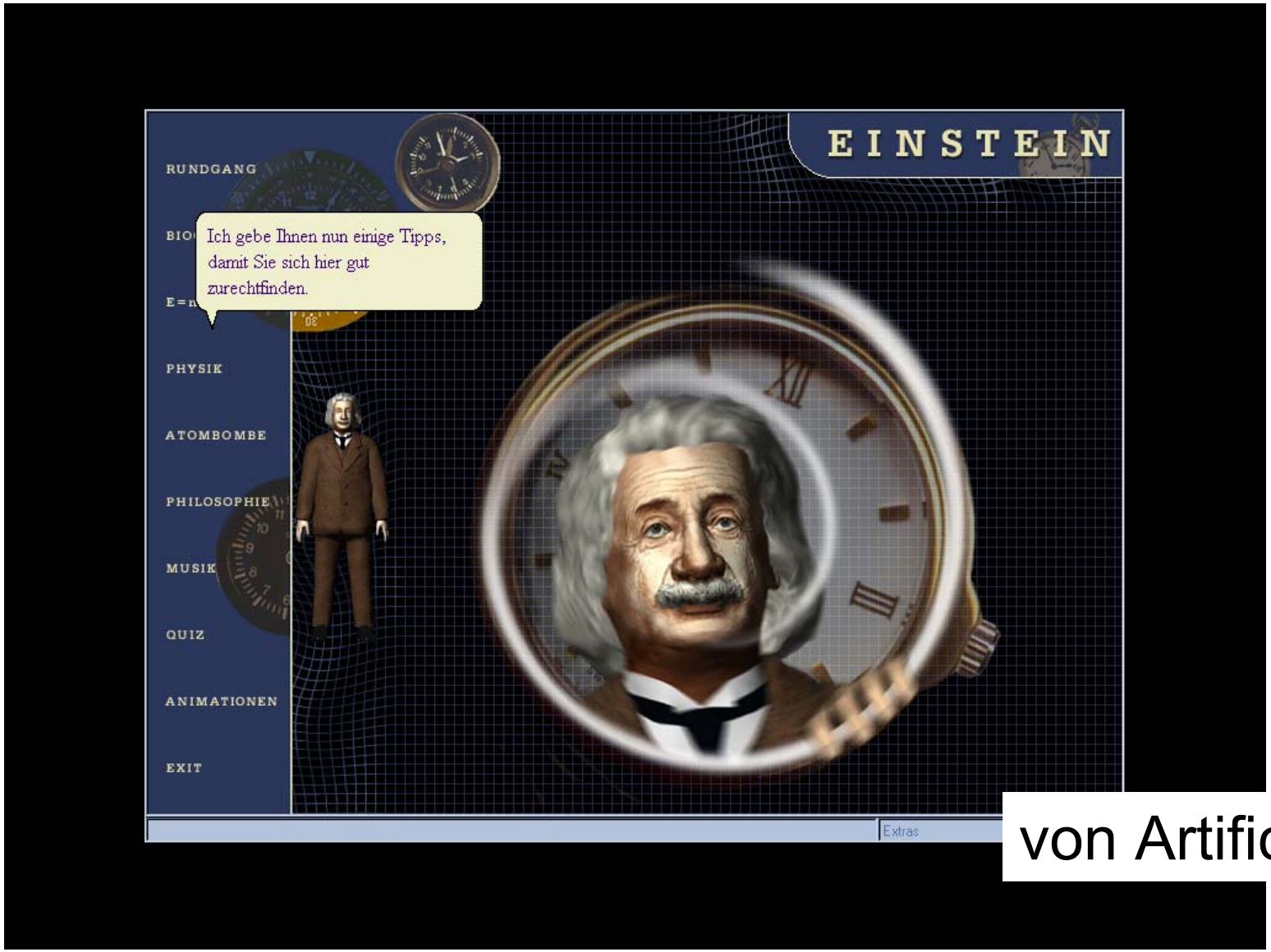


Corporate Learning Hype Cycle in 2004: Growing Up



Gartner 2004: Lundy, J. u.a.: Knowledge Management: Top 10 Technologies to watch, Barcelona,

Pädagogische Agenten: Lernprogramm Einstein



von Artificial Life

Einfühlsame virtuelle Agenten (Affective Computing) Prof. Dr. Rosalind Picard, MIT



Affective Tutor – the Learning Companion:

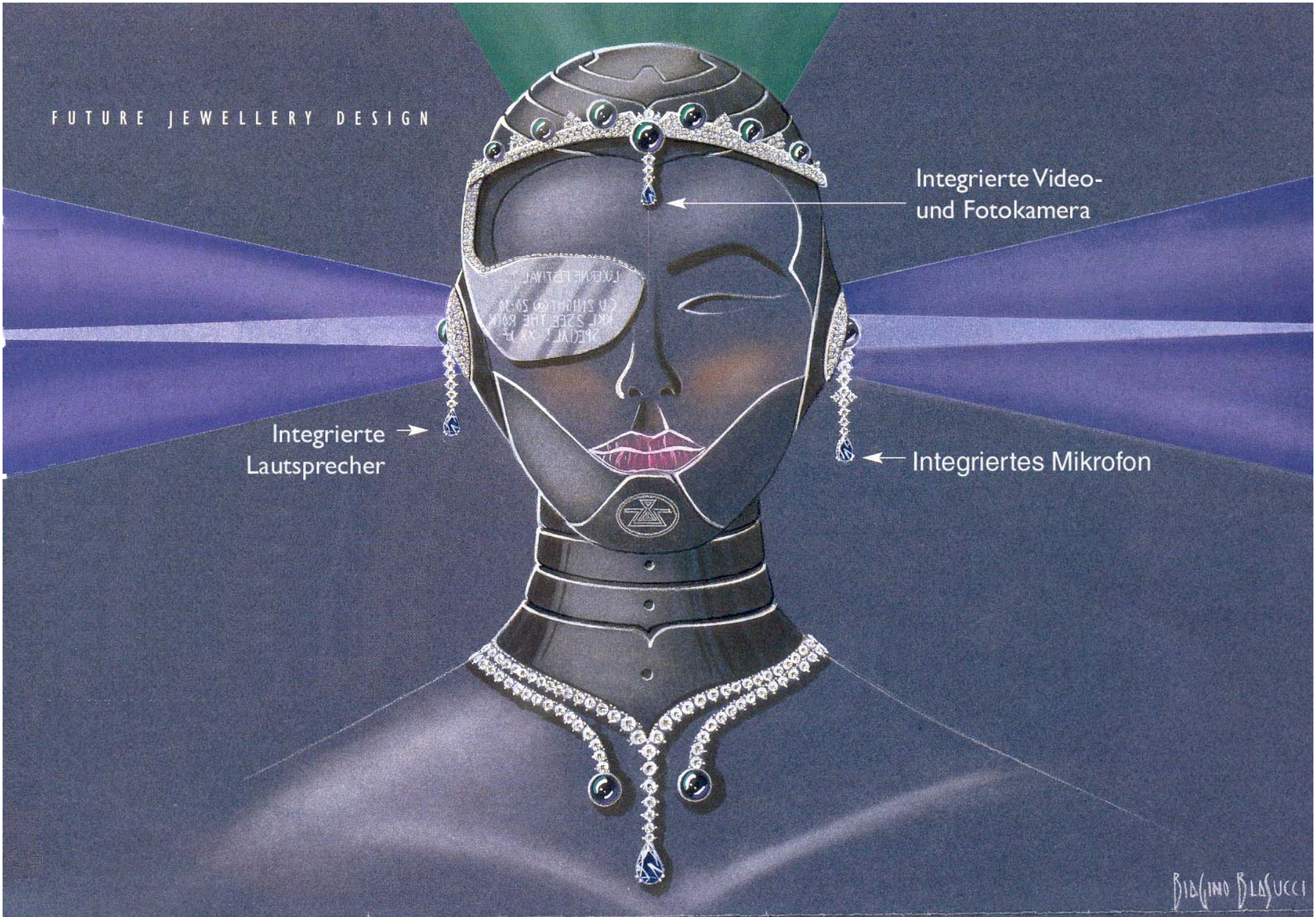
We are interested in constructing an agent that senses affective states like boredom, anxiety, and engagement, and adjusts its response to the user in accord with the user's state.

Wearable Device: Der Handschuh „Galvactivator“





Devices


FUTURE JEWELLERY DESIGN
Integrierte Video- und Fotokamera
Integrierte Lautsprecher
Integriertes Mikrofon
BIAGINO BLASUCCI

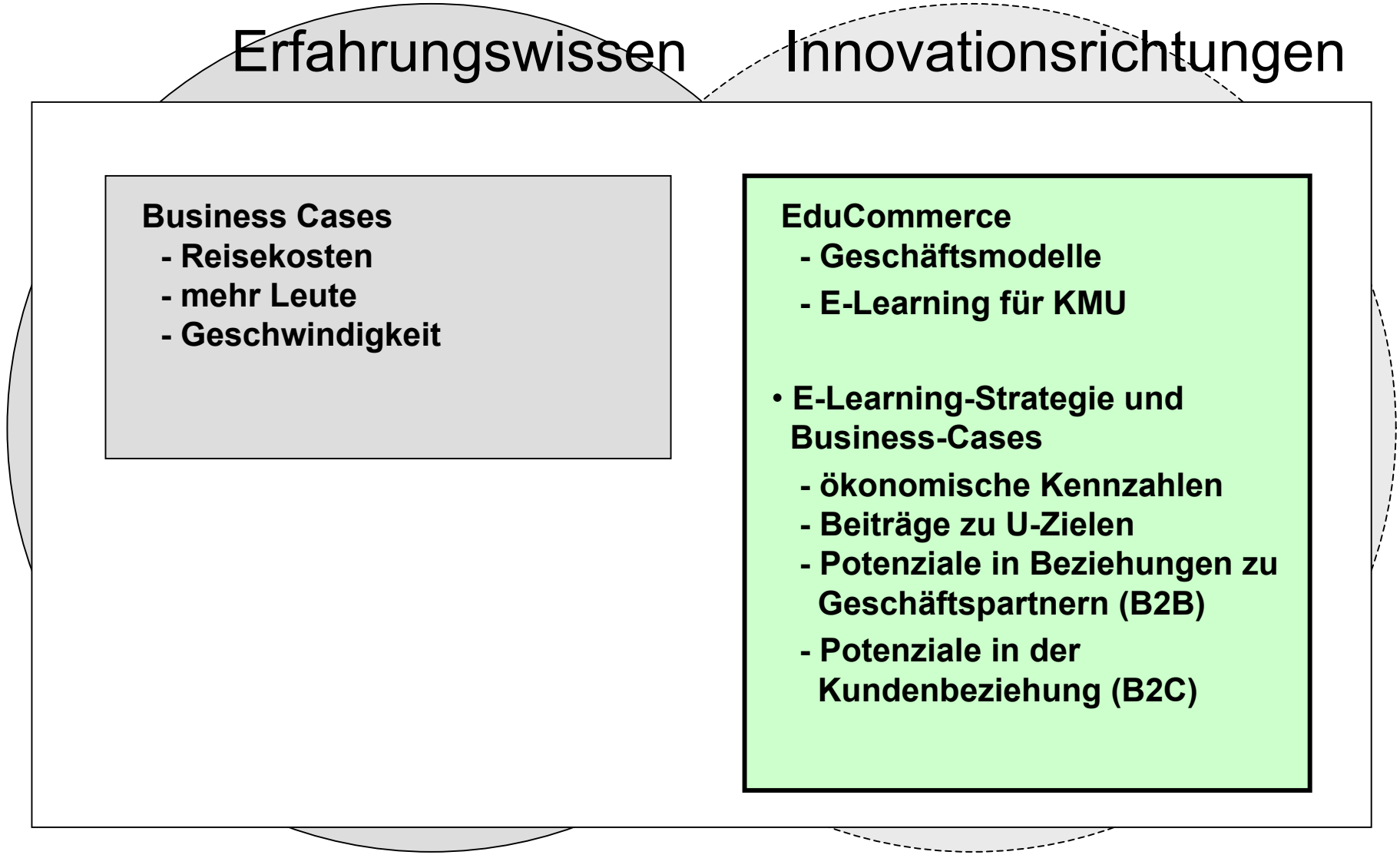
Beschleunigungs-Werkzeug für digitale Vorlesungs-Aufzeichnungen

Digital Time Compression, z.B. enounce.com

EDUCATION	ENTERPRISE
Make your professor talk faster! The Enounce® Education Initiative (EEI) gives students the opportunity to use 2xAV to increase their overall learning speed while eliminating the need to repeat or review those parts of lectures they already know. More	**Speed up boring on-line presentations and save time!** Enounce 2xAV productivity tools make On-Line Training, E-Learning, Streaming Media and CD-ROM Media more compelling and more efficient than live presentations. Speeding through masses of streaming media can eliminate thousands of wasted hours of effort, saving companies millions annually. More

- Stanford Medical School
- BYU Paper (PDF)
- Student Quotes

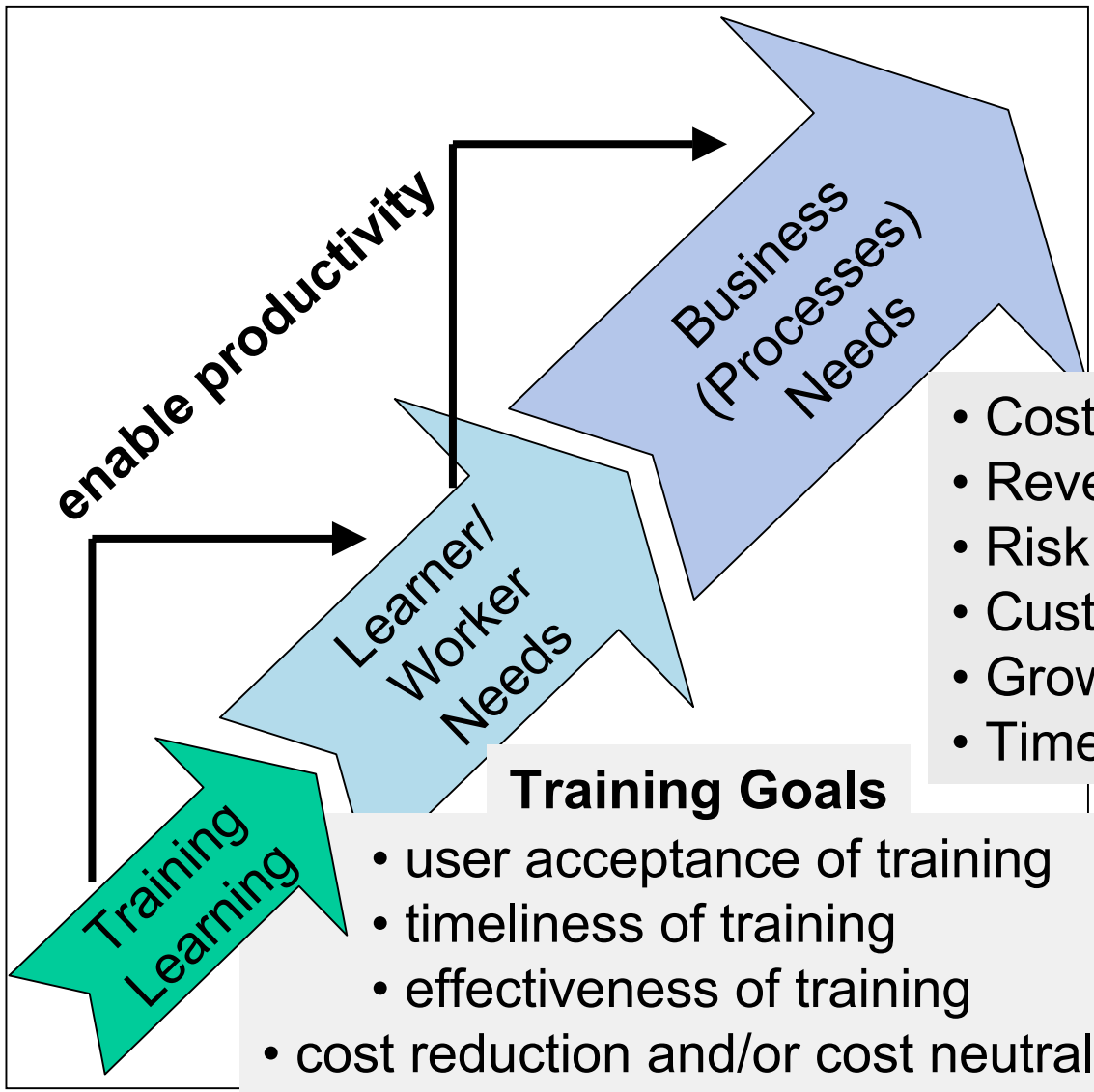
E-Learning-Strategie



Beiträge zu Unternehmenszielen

high

Total Value of Opportunity



Business Goals

- Cost reduction
- Revenue increase
- Risk reduction
- Customer intimacy/relation
- Growth (scaling, merging)
- Time (realtime enterprise)

Training Goals

- user acceptance of training
- timeliness of training
- effectiveness of training
- cost reduction and/or cost neutral growth of …
- revenue increase of training

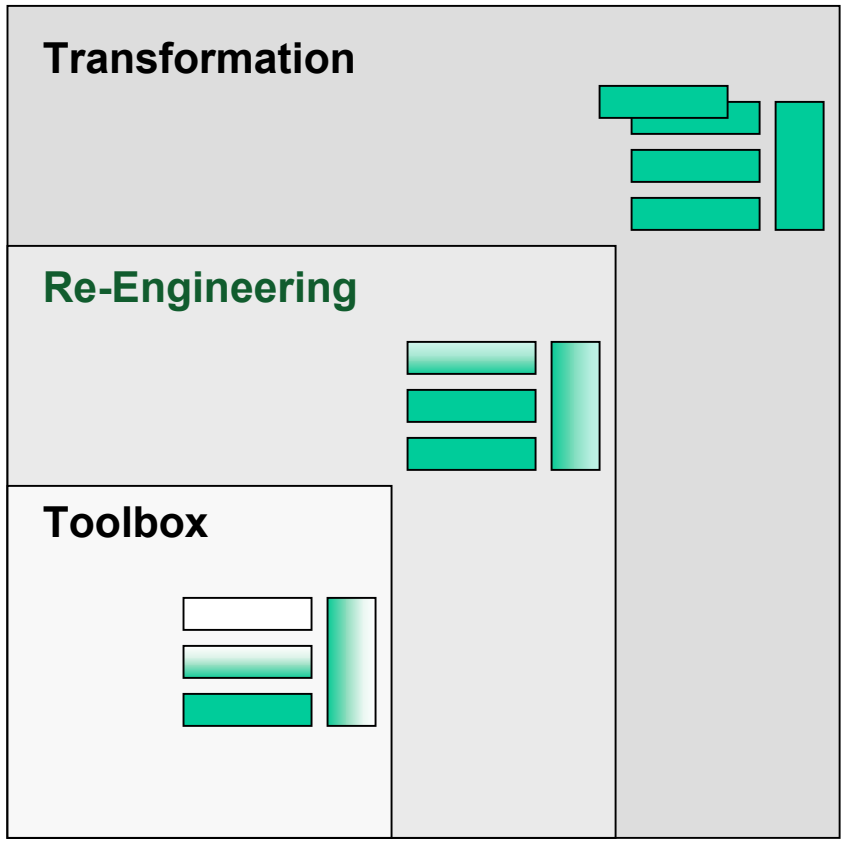
low *high*

Business Alignment

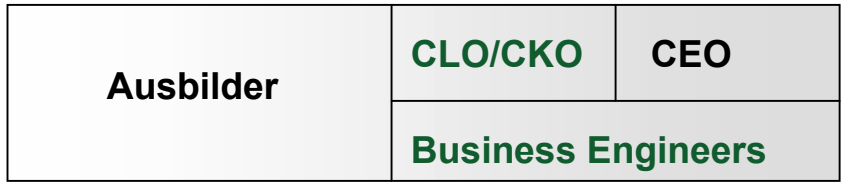
E-Learning auf der nächsten Stufe

Fokus auf:

- Strategischer Wandel: E-Economy
- Geschäfts-prozesse und Methoden
- Technolo-gien und Systeme

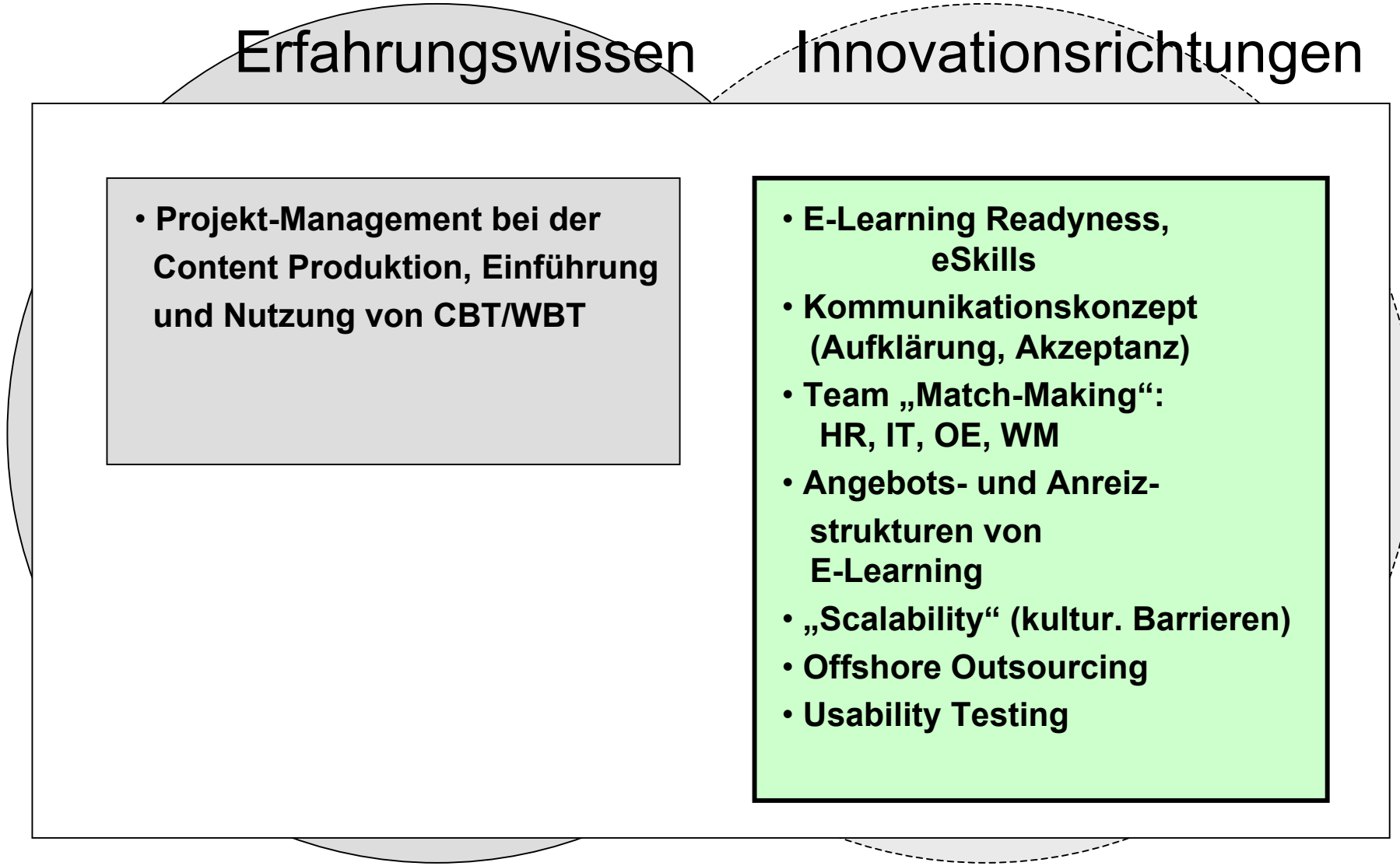


Anliegen von:

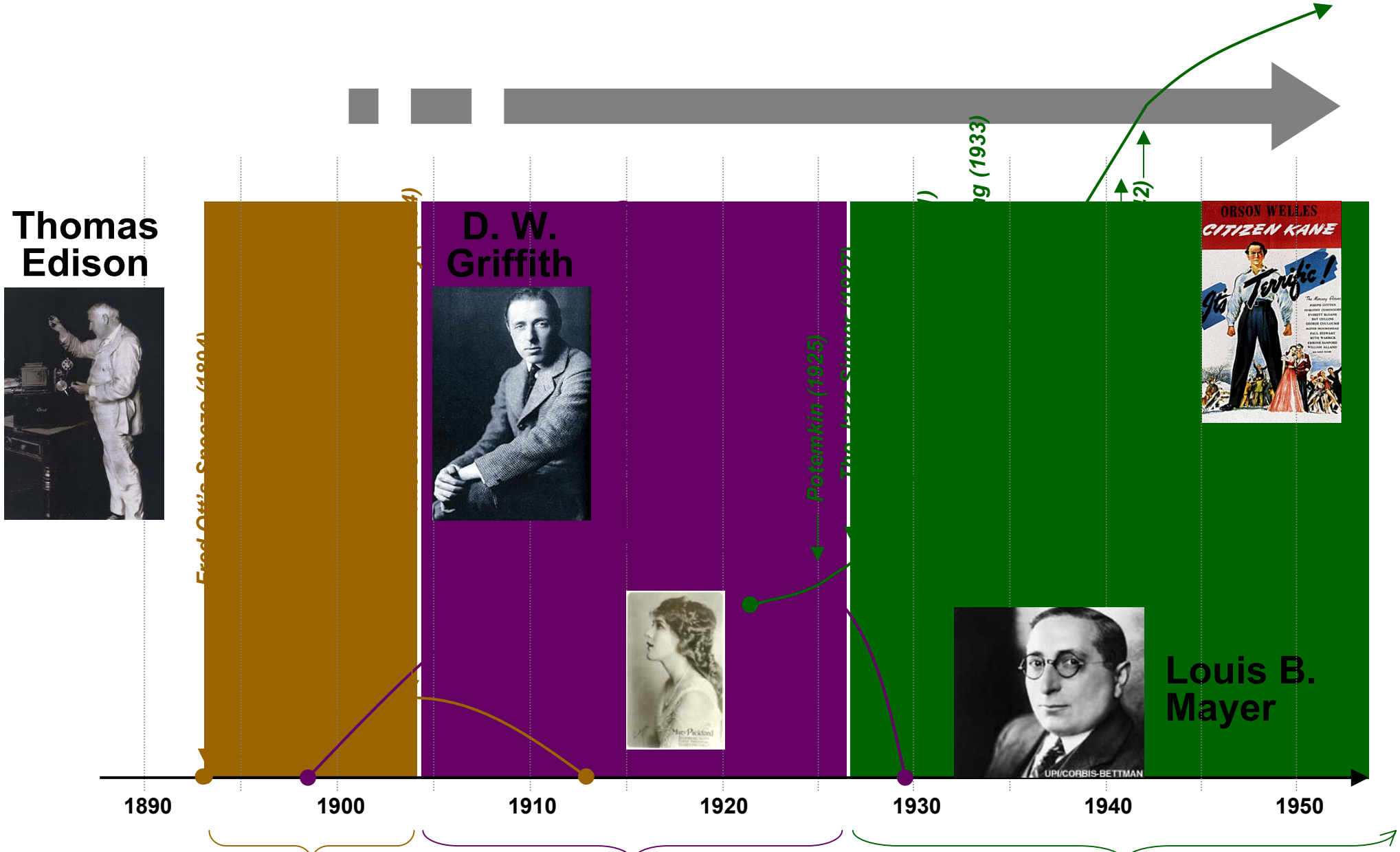


Quelle: Andrea Back, Oliver Bendel, Daniel Stoller-Schai: E-Learning im Unternehmen: Grundlagen - Strategien - Methoden - Technologien. Zürich 2001.

Management der Veränderung



Lessons from Earlier Media



Quelle: J. Menon 2003, Guest Lecture HSG