



Assessing Degrees of Web-2.0-ness

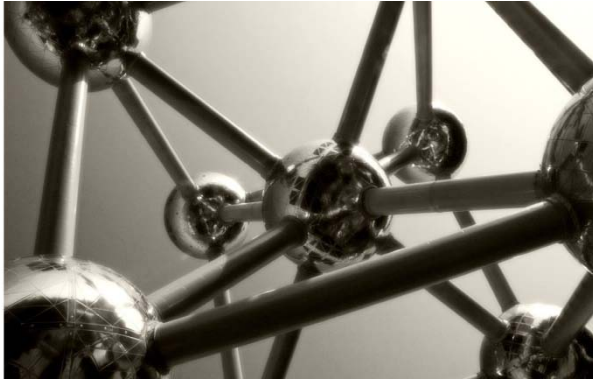
Model and Results for Product Websites in the Pharma-Industry

Prof. Dr. Andrea Back (UniSG) – Christoph Haager (IBM Germany)



Bled eConference, June 14, 2011

Outline



Cite as:

Back, Andrea; Haager, Christoph: Assessing Degrees of Web-2.0-ness for Websites: Model and Results for the Pharmaceutical Industry. In: Proceedings of the 24th Bled eConference: eFuture – Creating Solutions for the Individual, Organisations and Society (June 12-15), p. 321 – 334.

- 1 Context Enterprise 2.0
- 2 Research Question and Sample
- 3 Theoretical Background
- 4 Methodology of Model Development and Application
- 5 Limitations and Further Research
- 6 Discussion and Supplements

Context: Transformation to the Enterprise 2.0

Web 2.0 Principles used internally and in relationships to customers or business partners

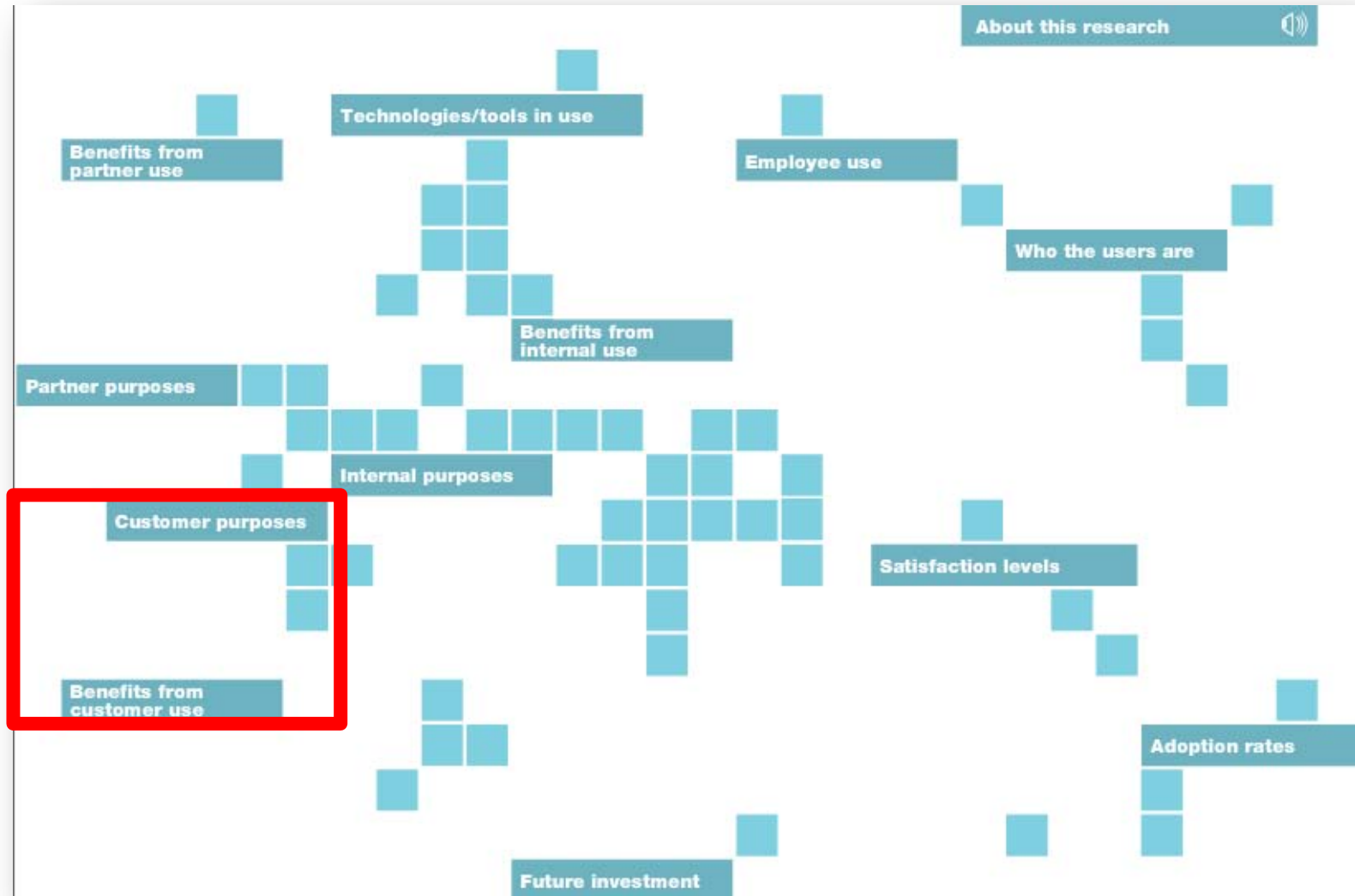


2. Auflage 2009; 3. vollständig
überarbeitete Auflage in 2011/12



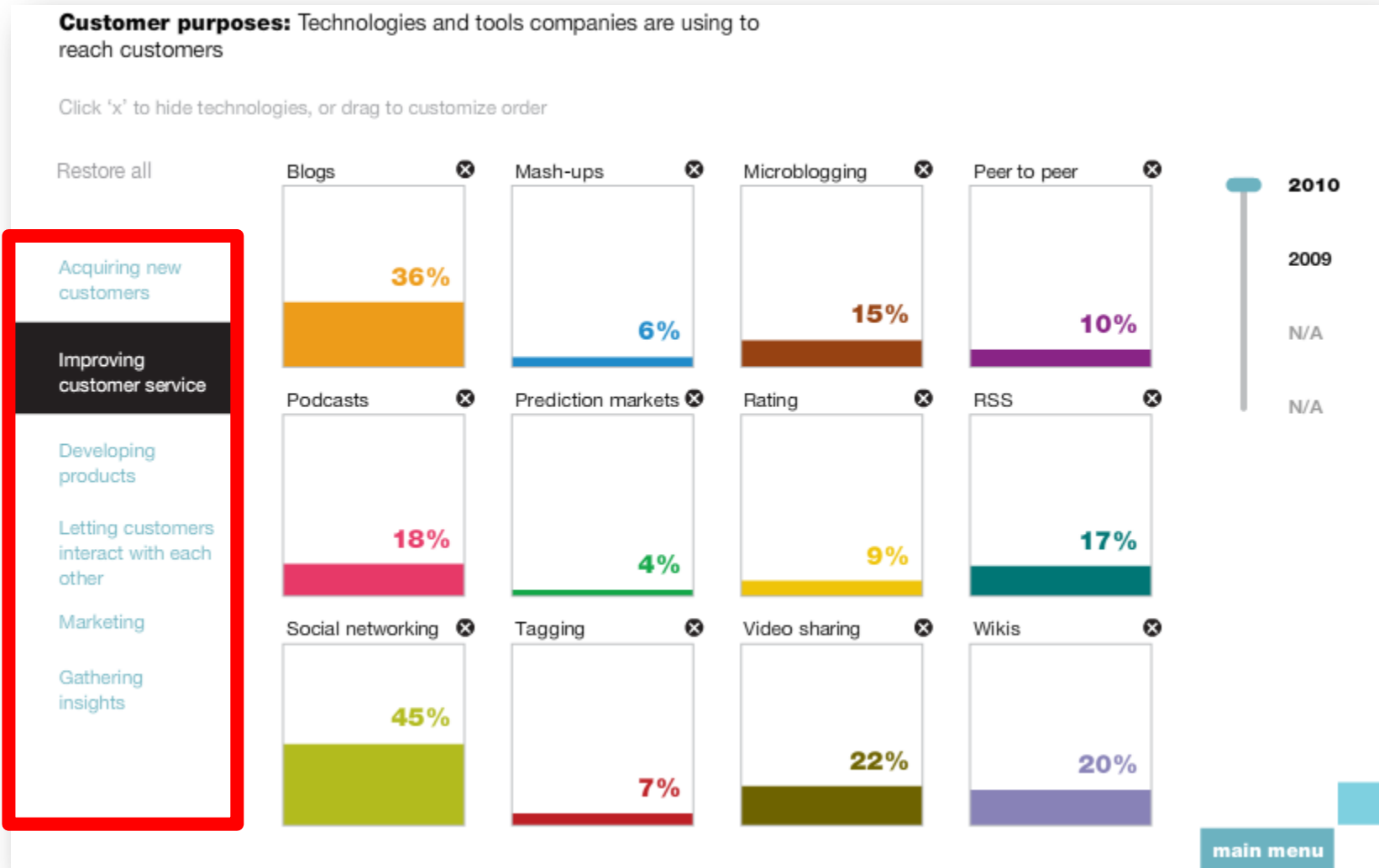
McKinsey Quarterly Survey: Business and Web 2.0

Interactive Feature: Web 2.0 Use in B2C-Processes

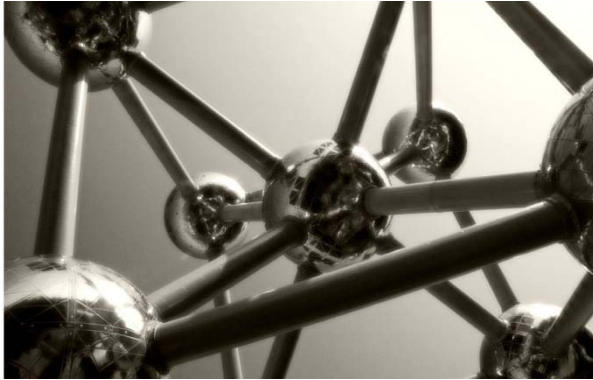


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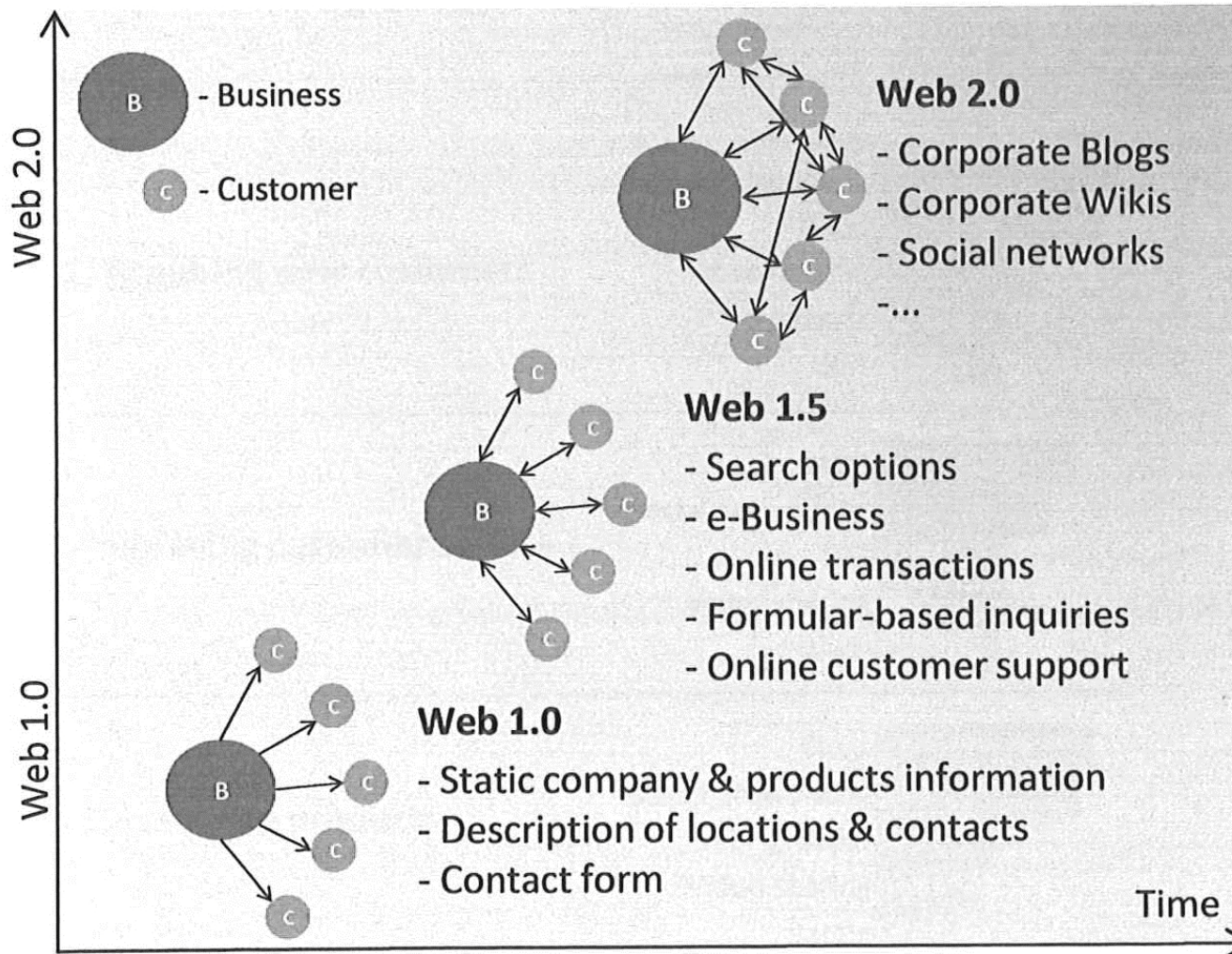
Research Question: How „much“ 2.0 is in this Website?

How to measure 2.0-ness?



Transition of Business Websites from 1.0 to Web 2.0

Similar Research Questions and Concepts – But: What is Proven Theory?



Sample: Pharmaproduct (OTC) Websites

44 Websites of Over-the-Counter Products, German Market



- One Industry
- Pharma (local)
- German Market
- International Companies
- Pharma (Marketing Budgets)
- Pharma (Regulations)
- Over-the-Counter Products
- Publicly Accessible
- Website only

etc.: non-prescription = over-the-counter

Summary: Results of the 2.0-ness Assessment

Executive Summary: 44 Websites, Overt-the-Counter Pharmaceutical Products, Germany

1

Diversity in 2.0-Adoption: Within Industry & Company

2

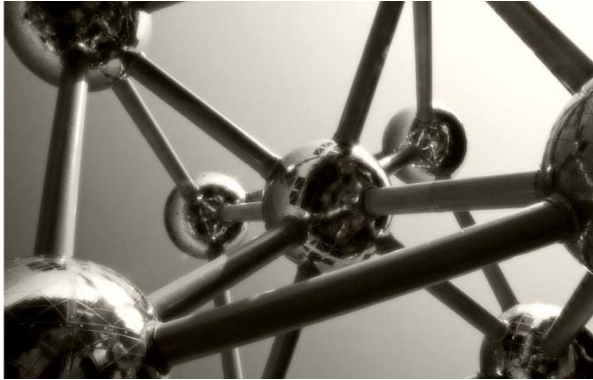
Results Match the Innovation Adoption Life Cycle

3

Companies Upgrade Websites Regarding 2.0-ness

Website	Company	P	PM	PD	K	RU	RM	SUM	Stage
alliprogramm.de	GSK	3	0	3	2	3	2	13	Innovator
nicorette.de	J&J	3	0	2	1	3	3	12	Innovator
aspirin.de	BAY	2	2	0	1	2	3	10	Innovator
fukia.de	BOE	3	1	0	3	0	1	10	Innovator
bepanthen.de	BAY	1	2	0	1	2	3	9	Innovator
aktren.de	BAY	0	2	0	1	2	2	7	Adopter
talcid.de	BAY	1	1	0	1	2	2	7	Adopter
thomapyrin.de	BOE	2	0	1	1	1	2	7	Adopter
buscogast.de	BOE	2	0	0	1	2	2	7	Adopter
Abtei.de	GSK	2	0	0	1	2	2	7	Adopter
mucosval.de	BOE	1	0	0	1	2	2	6	Adopter
allergieratgeber.de ¹	J&J	1	1	1	1	1	1	6	Adopter
dolormin.de	J&J	1	0	0	1	2	2	6	Adopter
voltaren.de	NOV	1	0	0	1	2	2	6	Adopter
grippostat.de	STA	1	0	0	1	2	2	6	Adopter
lefax.de	BAY	0	1	0	1	1	2	5	Adopter
Doppelherz.de	BAY	0	1	0	1	1	2	5	Adopter
Rennie.de	BAY	0	1	0	1	1	2	5	Adopter
dulcolax.de	BOE	1	0	0	1	2	1	5	Adopter
formigran.de	GSK	1	0	0	1	2	1	5	Adopter
femibion.de	MER	2	0	0	1	2	0	5	Adopter
calcium-sandoz.de ²	NOV	1	0	0	1	2	1	5	Adopter

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Theory I: Dot-com Bubble Burst 2000

What did the surviving companies' business models have in common?



10 years ago:
Dotcom-Bubble

Image: <http://www.bigmouthmedia.com/live/images/Social%20bubble.png>

Theory I: What is Common to Surviving Businesses ?

O'Reilly/Musser: Web 2.0 Principles and Patterns



Harnessing Collective Intelligence



Data is the next “Intel Inside”



Innovation in Assembly



Rich user Experience



Software above the level of a Single Device



Perpetual Beta



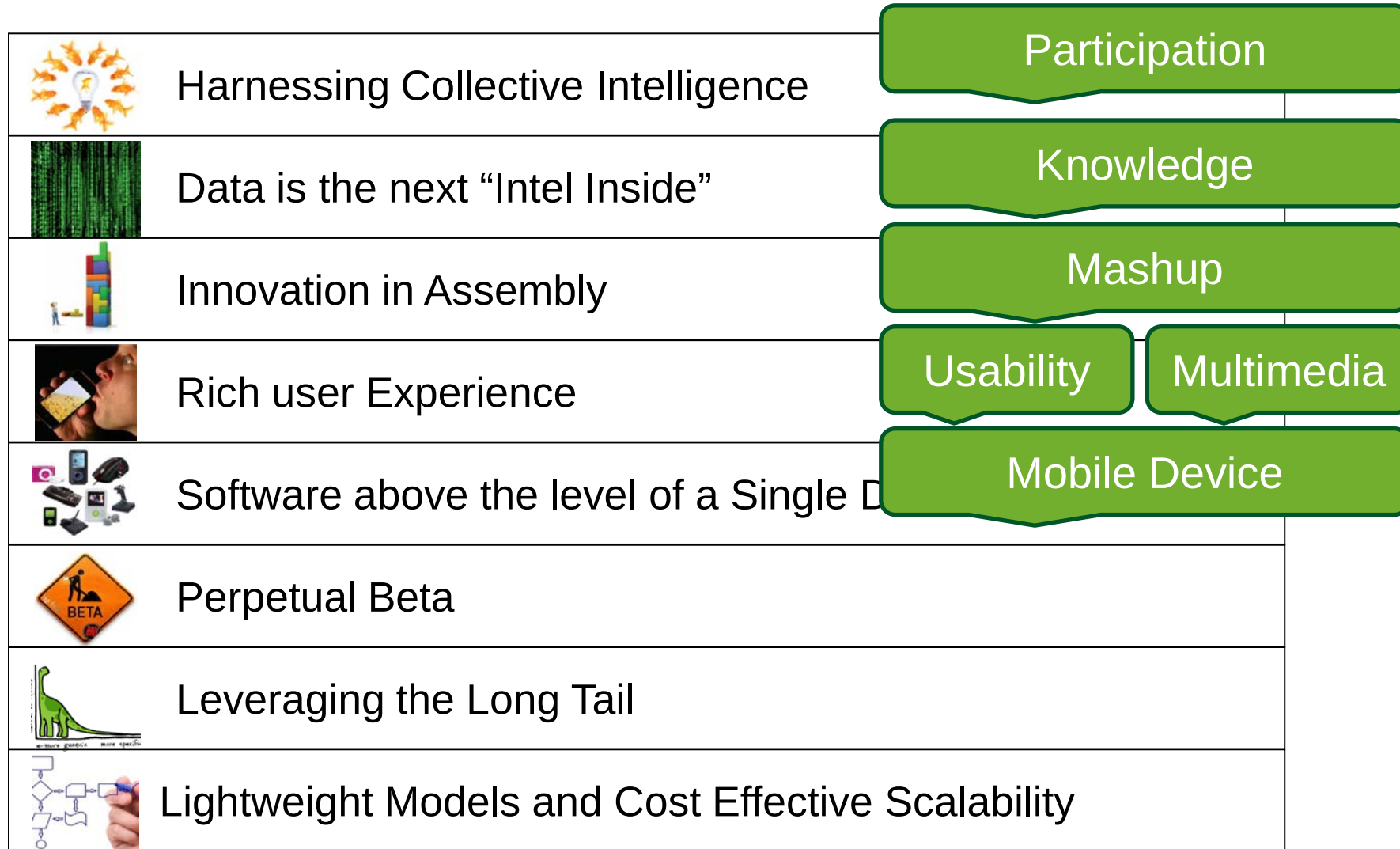
Leveraging the Long Tail



Lightweight Models and Cost Effective Scalability

Theory I: Selection and Adaptation for Websites

Three Principles Do Not Apply – Six Dimensions of the Maturity Model

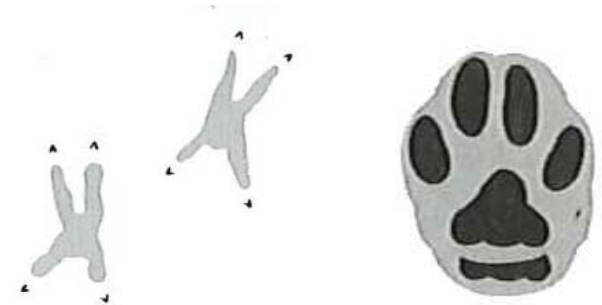


Theory II: Maturity Model or Typology ?

How to Approach the Classification of Websites?



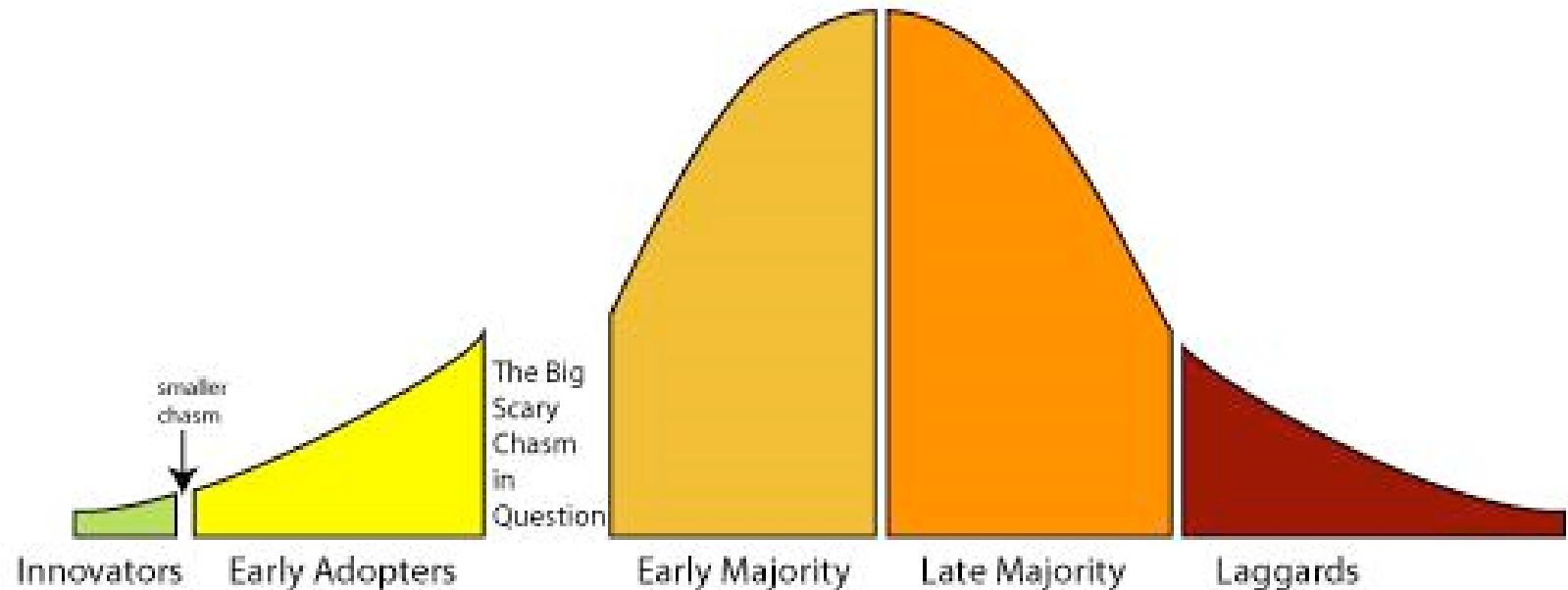
Maturity
(Innovation Adoption)



Typology
(2.0-ness Footprint)

Theory II: Innovation Adoption Life Cycle

Three **Maturity Levels** of Websites regarding 2.0-ness (Maturity-Model-Terminology)



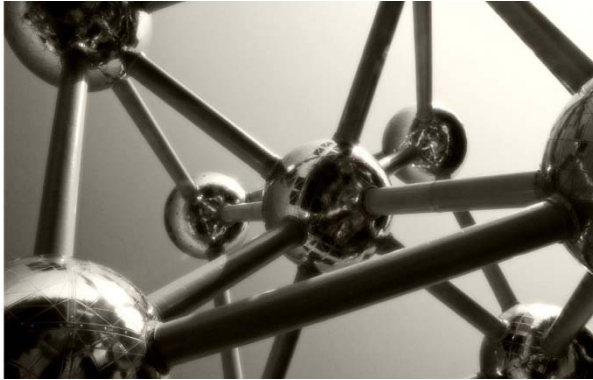
Innovators
(11,36% - 5 out of 44)

Adopters
(70,45% - 31 out of 44)

Laggards
(18,18% - 8 out of 44)

Top Website
13 out of max. 18 points

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Method: Rating Scheme Design and Validation (1)



Rating Scheme Design V0
F2F-Discussion (Thesis-Author/Advisor)



F2F Test-Rating and Discussion
Rating of two Websites (low – high)

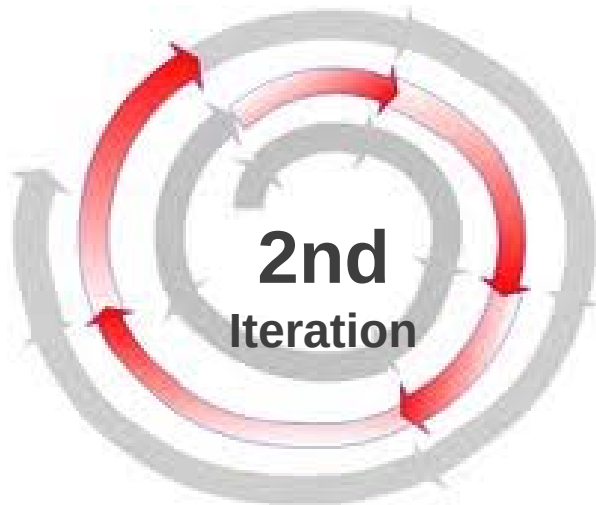
**Hohes C
Website**

**Bad
Dürrheimer
Website**



Rating Scheme Design V1
Common Understanding by two Raters

Method: Rating Scheme Design and Validation (2)



Rating 44 Websites using V1
Independently by two Raters → Deviations



Calculating Interrater Reliability
Cohen's Kappa and Landis (1977)

Error
Correction

**Rating Scheme
Clarification**

**Rating Scheme
Revision D1**



Rating Scheme Design V2
Re-Rating the Sites with Deviations

Definite Rating Reaching Consensus

Rating Scheme for Degrees of 2.0-ness (1)

Grades are „**Capability Levels**“ of the Dimensions (Maturity-Model-Terminology)

Grade	P: Participation	PM: Platform Integration: Mashups	PD: Platform Integration: Devices
0	Contact form only (Web 1.0)	No mashup-like integration of content	Single device (e.g. PC/Notebook)
1	Facebook Like; and/or one or two user activity types, such as 'recommend page via e-mail-form', e-cards, interactive tests, online games, competitions to win a prize	Widget-like elements even if from company's own content base (incl. blog as part of the product website) (e.g. Gesundheitsnavigator and Pollenvorhersage)	One option only: Website optimized for mobile devices, or smartphone app in one app store
2	Three or more of grade 1 interactions or several options of social bookmarking, like, tell-a-friend (similar to Forrester's <i>Collect</i>)	Machup with company external web-content (e.g. Google Maps or allergie.com glossary)	Combination of one app store plus optimized website. Special case: SMS-interaction (e.g. in nicorette)
3	Comments (text), upload of own fotos to e-cards e.g., forums, blog or community as part of the site (similar to Forrester's <i>Critic/Create</i>)	Mashup with a diversity of company external webcontent services	Apps for more than one app store (whether optimized website or not)

Rating Scheme for Degrees of 2.0-ness (2)

Grade	K: Knowledge	RU: Rich User Interface: Usability	RM: Rich User Interface: Multimedia
0	Hardly any valuable information beyond core product information (only via links to other websites)	Design mostly text-oriented and textual hyperlinks	Mostly text-oriented content
1	Diversity and richness of information beyond the product perceivable as <i>added value</i> (servicing and teaching the customer; a reason to revisit).	Uses current technologies, has a functional design. But look-and-feel is not 2.0-style (see grade 2 description)	Uses topic relevant fotos, animated pictures/graphs plus perhaps a singular Video, especially the products TV-spot
2	Collaboratively user generated content or knowledge, openly visible, in 1.0-format, such as discussion forum	Like 1, but look-and-feel is clearly 2.0-style (among other characteristics: minimalistic, simple navigation, header-banner, blog-design-like, visual, similar to e.g. styles of youtube, ning, mixxt.)	Three or more of these: fotoslideshows, animated pictures/graphs, ringtones, audio podcast, singular video/s (esp. TV-spot)
3	Community-like and collaboratively user generated content or knowledge, openly visible, in 2.0-format, such as blog and idea contests with user interaction such as voting and commenting)	Allows personalization (personalization), e.g. including or excluding widgets or customizing other design elements. Often Login required (e.g. interactive migraine diary)	Several elements (on top of an at least RM-grade 1 website): video-podcast beyond TV-spots (e.g. expert interviews or customer statements); video tutorials (CommonCraft-like or similar to web-based trainings), Interactive games, paint apps.



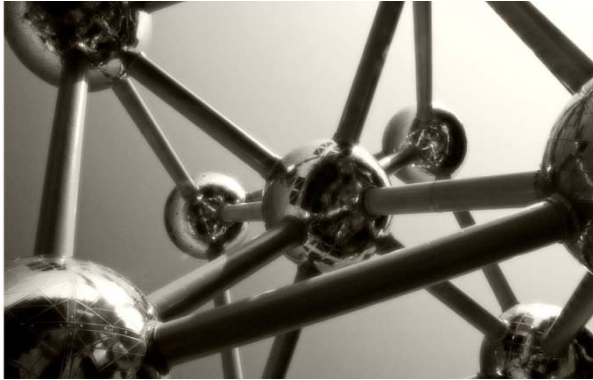
Grading Results: Distribution of 44 Websites' Maturity

Assessment of Dimensions' Degrees based on Websites as of May 1st, 2011

Grade	Participation	P-Mashup	P-Device
0	19	33	40
1	17	7	2
2	5	4	1
3	3	0	1

	Knowledge	RUI-Usability	RUI-Multimedia
0	5	7	11
1	37	16	17
2	1	19	13
3	1	2	3

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Limitations in Interpreting the Results

Strategy of Companies might be a deliberate 1.0-Design-Decision: 2.0 not an End in itself



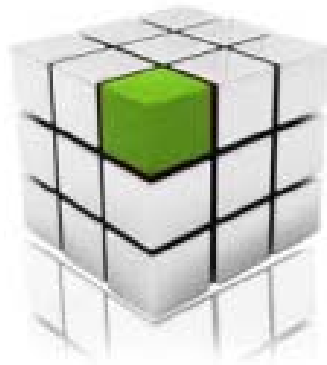
Risk Management
Regulatory Contexts

Customer Focus
Non-2.0-Customers

Performance Impact
Insecurity about Link

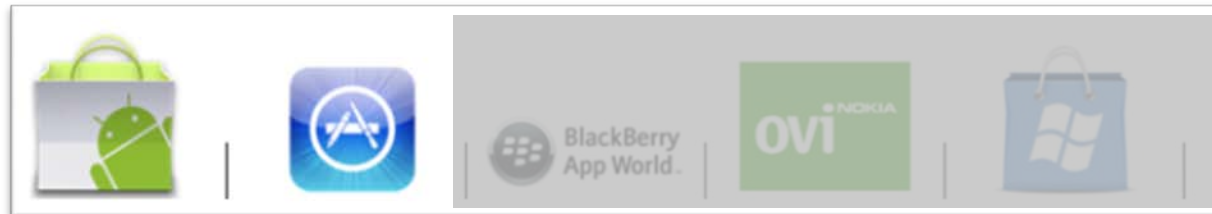
Further Research

Our Current State-of-Research (analysed May 11) - and Work-in-Progress



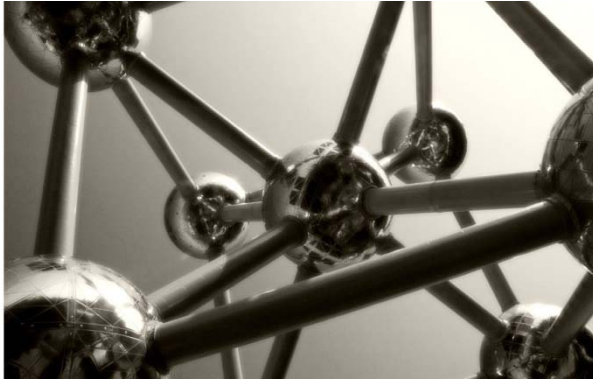
Website-2.0-ness
(published, Bled 11)

**Social Media Presence
& Performance**
(unpublished)



Platform: Mobile Device

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Discussion

Suggested topics

1

Are the 2.0 patterns a theory? What theories to use?

2

Do you know similar research and its terminology?

3

Suggestions for extended research (relevant & rigorous)?



Thank You, and the Reviewers !



Supplement

Presentation on Slideshare

<http://www.slideshare.net/andreackback>

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Contact



Prof. Dr. Andrea Back is full professor and director at the Institute of Information Management (IWI) at the prestigious Swiss University of St. Gallen (HSG) since 1994. Her research focuses on the area of Online Collaboration, Corporate eLearning, and Management in the Digital Economy (Enterprise 2.0/Business 2.0 paradigm) with an emphasis on applicability and knowledge transfer. She has published several books on the subject and publishes collaboratively online with a broad community of corporate and academic followers/contributors (cf. personal vlog at www.business20experts.unisg.ch, finalist in the European E-Learning-Award in 2009; Blog-Carnival www.wissenscarnival.net on Enterprise 2.0, Knowledge Management and eLearning nominated for the D-Elina Innovation Award 2011). She is a regular consultant for international corporations in regard to eLearning, Social Media, mobile services, most recently Swisscom, T-Systems Multimedia, Lufthansa, Bayer, UBS as well as a contributor to management education programs. For a list of consulting and research projects cf.

- <http://www.business20.unisg.ch/index.php?id=11>
- <http://www.learningcenter.unisg.ch/index.php?id=93>

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