REALIZINGDIGITALCONVERGENCE

Realizing Digital Convergence

Introduction to the joint course

Professor Yale Braunstein, SIMS
Professor Dietmar Harhoff, CDTM

a course provided by the joint efforts of : sims | CDTM TUM LMU CENTER FOR DIGITAL TECHNOLOGY & MANAGEMENT

supported by: gogolmedien

CDTM & SIMS

- Formal cooperation between SIMS and CDTM for two years
  - CDTM students (six per year for one semester each) as “Visiting Student Researchers” at SIMS. Also take courses, especially in SIMS & MOT program
- Informal visits by faculty & students
- CDTM is located in Munich, Germany and a joint organization of two leading German universities

CDTM Location

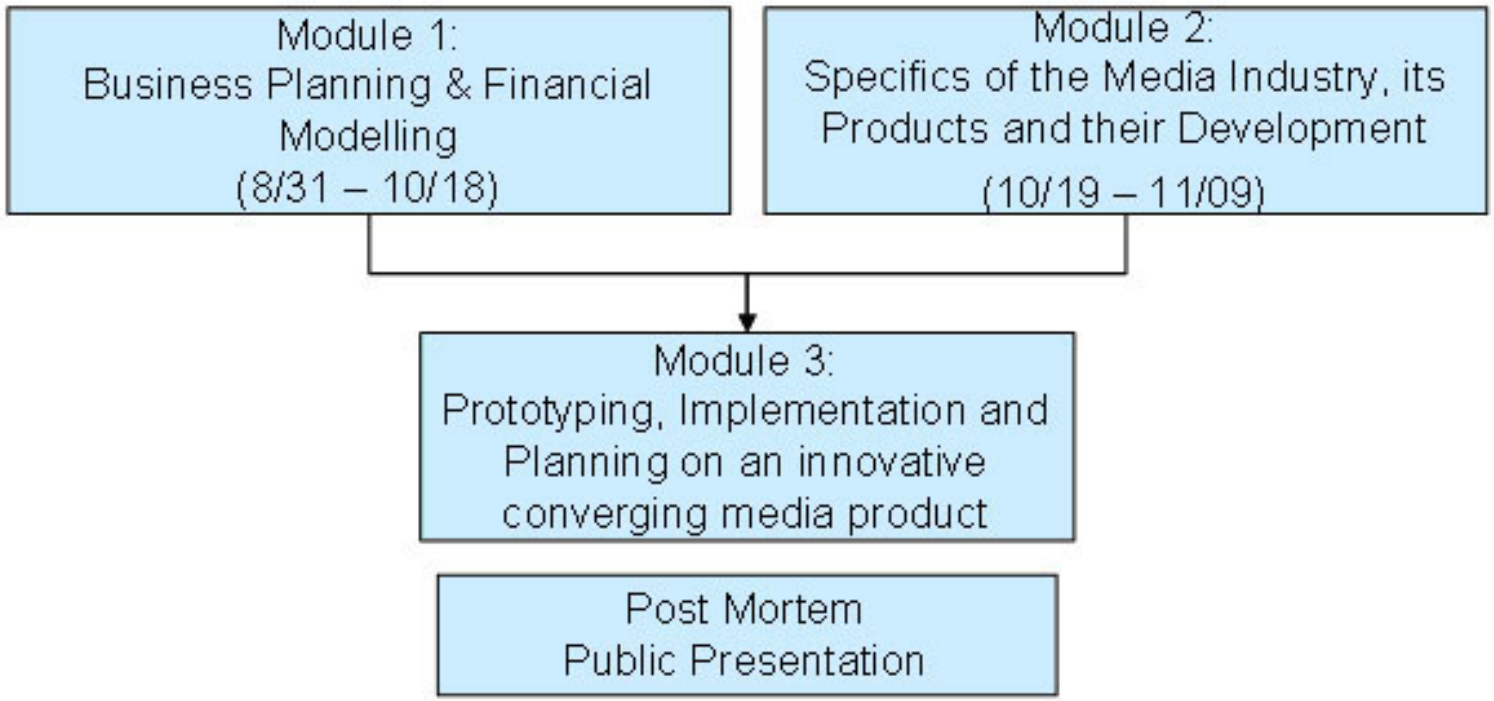
Idea and goals for this course

- Innovation as most important challenge for today's economies
- New course format which picks up an important trend and brings together the particularities of both countries
- It brings together Germany as leading in mobile communications, United States as very big and important telecommunications and media market and leading in software development.
- Applied course which not only provides a theoretical basis but which leads to a converged-media-prototype
- Increase of interaction and cooperation of students from both countries
- Handle the challenges of trans-atlantic cooperation and software-development

Outcome

- A converged mobile multimedia product
  - Print implementation
  - Mobile implementation (SMS, MMS)
  - Web implementation
  - Links between & among all of the above
  - Business plan (with realistic financial model)
  - Documentation

Overall Course Structure



SIMS Preparation

- Core courses include relevant topics
  - Metadata
  - Social & legal issues
  - Data structures
  - Networking
  - Systems analysis & project management
- Course so far (module 1)
  - Introduction to accounting & finance concepts
  - Case studies (mostly mobile)

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Schedule

Date	Topic	Assignments	Speaker
Session 1: Tuesday, 19 October, 8 – 9 am (Ger. 5 - 6- pm)	**Introduction** A) CDTM - SIMS B) Expectations & Goals C) Operational Issues & Course Structure, Team Building D) Topic/ Vision: Introduction to Converging Media	Prepare: Readings	Part A: Dietmar Harhoff Yale Braunstein Part B, C, D: Yale Braunstein (SIMS), Jonathan Landgrebe (CDTM)
Session 2: Thursday, 21 October, 8 – 9 am (Ger. 5 - 6- pm)	Media Economics, Part 1: Economics of periodicals & other advertiser-supported media (both traditional and new delvery systems), Details	Prepare: Readings;	Professor Thomas Hess , Institute for Information Systems and New Media at Munich School of Management]
Session 3: Tuesday, 26 October, 8 – 9 am (Ger. 5 - 6- pm)	Product Platforms for the Media Industry; Details	Prepare: Readings Hand- in: First mock-ups	Professor Thomas Hess , Institute for Information Systems and New Media at Munich School of Management
Session 4: Thursday, 28 October, 8 – 9 am (Ger. 5 - 6- pm)	Student - presentations of product concepts (Mock-Ups) and Discussion	Prepare: Readings; Prepare for presenting your mock-ups	Students; Moderation: Yale Braunstein (SIMS), Martin Huber (CDTM);
Session 5: Tuesday, 2 November, 8 – 9 am (Ger. 5 - 6- pm)	Part A): Case-Study (40 Minutes) Part B): Guest speaker (20 Minutes)	Prepare and hand in: Readings; (Case-Study)	Paul Grabowicz , New Media Program at the UCB Graduate School of Journalism -- Newspaper experiments with the web and multimedia (exact date & title to be confirmed); Moderation: Yale Braunstein (SIMS)
Session 6: Thursday, 4 November, 8 – 9 am (Ger. 5 - 6- pm)	Mock-up presentation (20 minutes) Applied Product Development -Development Platform for converged digital publishing	Hand- in: New mock-ups Prepare: Readings;	Students Peter Dornbusch (CDTM)

Schedule continued

Date	Topic	Assignments	Speaker
Session 7: Tuesday 9 November, , 8 – 9 am (Ger. 5 - 6-pm)	Tutorial Session, Presentation of formal modelling mock-ups, instant in-class feedback F & Q, non-structured session	Prepare: Readings; Hand- in: Formal mock-ups	Martin Huber (CDTM), Peter Dornbusch (CDTM), Patrick Riley (SIMS)
Thursday 11 November	[UC Holiday -- no class]		
Session 8: Thursday,- Sunday, 11-14 Nov. (8 am – 10 pm)	Long development weekend – 1; Applied product development	Rough outline of the days	More information to come
Session 9: Tuesday, 16 November, 8 – 9 am (Ger. 5 - 6-pm)	Part A): Case-Study (40 Minutes) Part B): Guest speaker (20 Minutes): German Media Market Developments	Prepare: Readings; (Case-Study	[Konstantin Urban: CEO of http://www.holtzbrinck-networxs.com/ the New Media subsidiary of Holtzbrinck (one of the five major German Media Players); Moderation Matthias Möller (CDTM)
Thursday – Saturday, 18-20 Nov.	Long development weekend - 2 (if needed)	***Progress reports from all teams***	
Tuesday, 23 November	[optional class]	.	
Tuesday, 30 November, 8 – 9 am (Ger. 5 - 6-pm)	In class presentation with feedback & evaluation, possibly overtime!	.	
TBA	Public demo	.	

Key People

- SIMS
  - Patrick Riley (TA/RA/technology guru)
  - Kevin Heard & staff (behind-the-scenes technology support)
- CDTM
  - Peter Dornbusch: Technology email: peter.dornbusch@cdtm.de
  - Martin Huber: Concept/ Technology: email: Martin.Huber@cdtm.de
  - Jonathan Landgrebe, Matthias Möller: Concept and Planning: email : Jonathan.Landgrebe@cdtm.de; matthias.moeller@cdtm.de
  - Maximilian Zündt: Course Infrastructure email: zuendt@cdtm.de
- gogol medien
  - Gunter Miessbrandt: Technology-Implementation, gunter.miessbrandt@gogol-medien.de

Operational Issues

- Readings available on both sides
- Shared CVS for software development, logins to be handed out later
- Mailing lists:
  - For Organizational issues: sims-cdtm@cdtm.de:
  - For SIMS only: digitalconvergence@sims...
  - During development phase:
    - Mailing list for all students: berkeley_venture@cdtm.de

- Please sign the Non-Disclosure Agreement and hand it to Yale. (This is necessary since you will be using with full access a proprietary software solution (provided by gogol medien) which has to be protected).
- Answer the questionary on your IT competencies *digitally* (=>CVS/General) and send it to sims_cdtm@cdtm.de
- All information available on website or in hand-out

Background of the course: Converging Media

Definitions

Telecommunications in the broader sense:

transmission of any kind of data (text, charts, pictures, audio, video, voice)

Telecommunications in its stricter sense:

Two-way communication between some/few subscribers

Broadcasting:

One-way transmission of contents from a sender to a variety of receivers

Information technology:

all technologies based on digital technology and microelectronics

Source: Zerdick, A.; Picot, A.; Schrape, K . et al (2001)

Definitions: Media companies

Media companies are companies whose

- main purpose is to create, bundle, and supply content
- in accordance with their economic, editorial, and artistic goals
- by utilizing mass media.

•As a subset of these mass media, newspapers, magazines, and books form the print media. They feature text and pictures in a unidirectional communication.

•Print media products are characterized by being consumable without special technical equipment, as opposed to, for example television.

•Other branches of the mass media are data networks, storage media, television, and radio.

The convergence of communications services is closely linked to the internet

change in the meaning of communications services

multimedia options of the Internet

continuous improvement of data quality

increase in transmission capacities

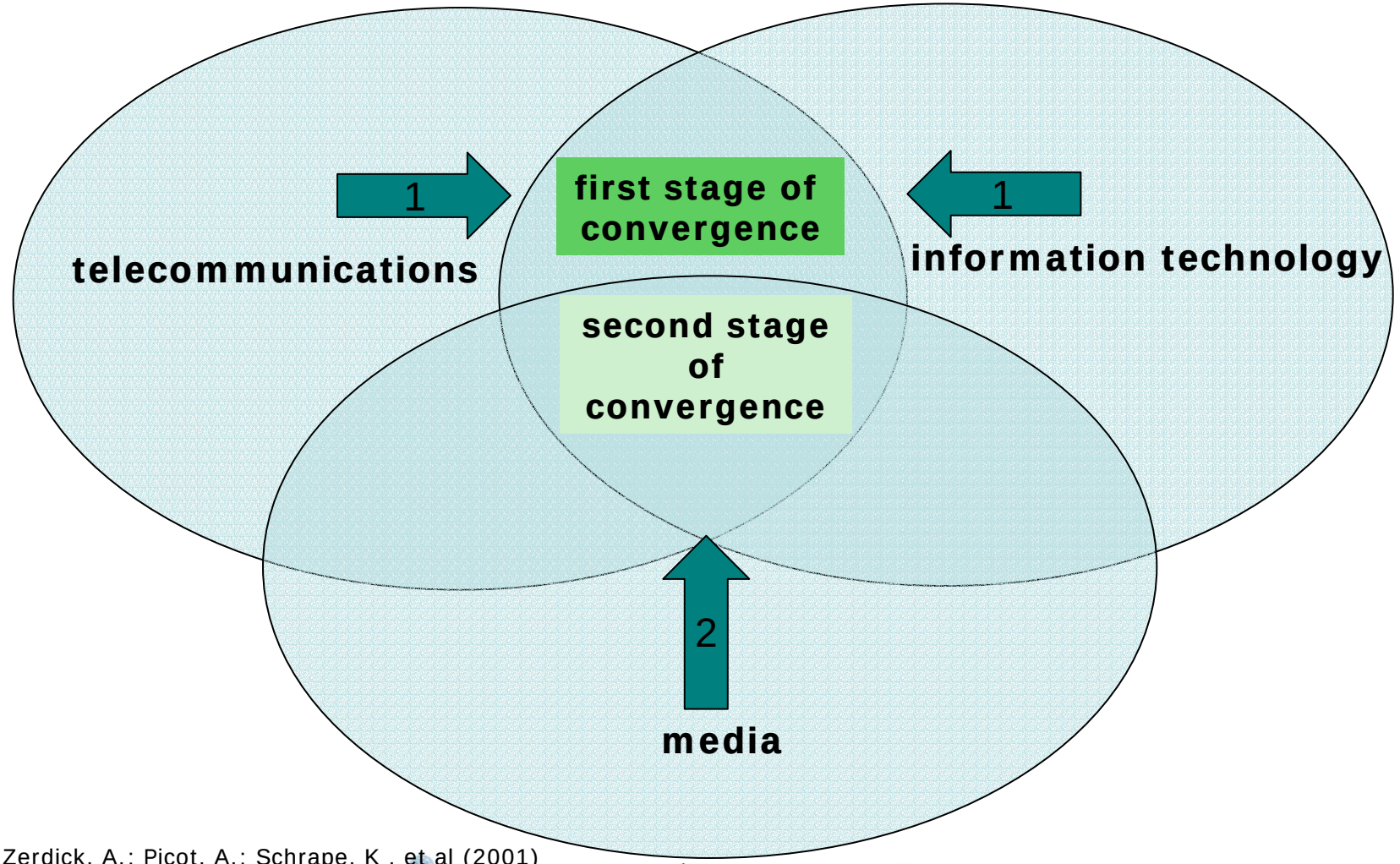
- **Internet & multimedia**
- **Internet telephony**
- **e-commerce**
- **mobile phones**

advantage in costs concerning transmission activities

increase in the number of Internet users

But: **Lack of Internet-based voice phone service**

Convergence in the TC, IT and media sector is a two stage process

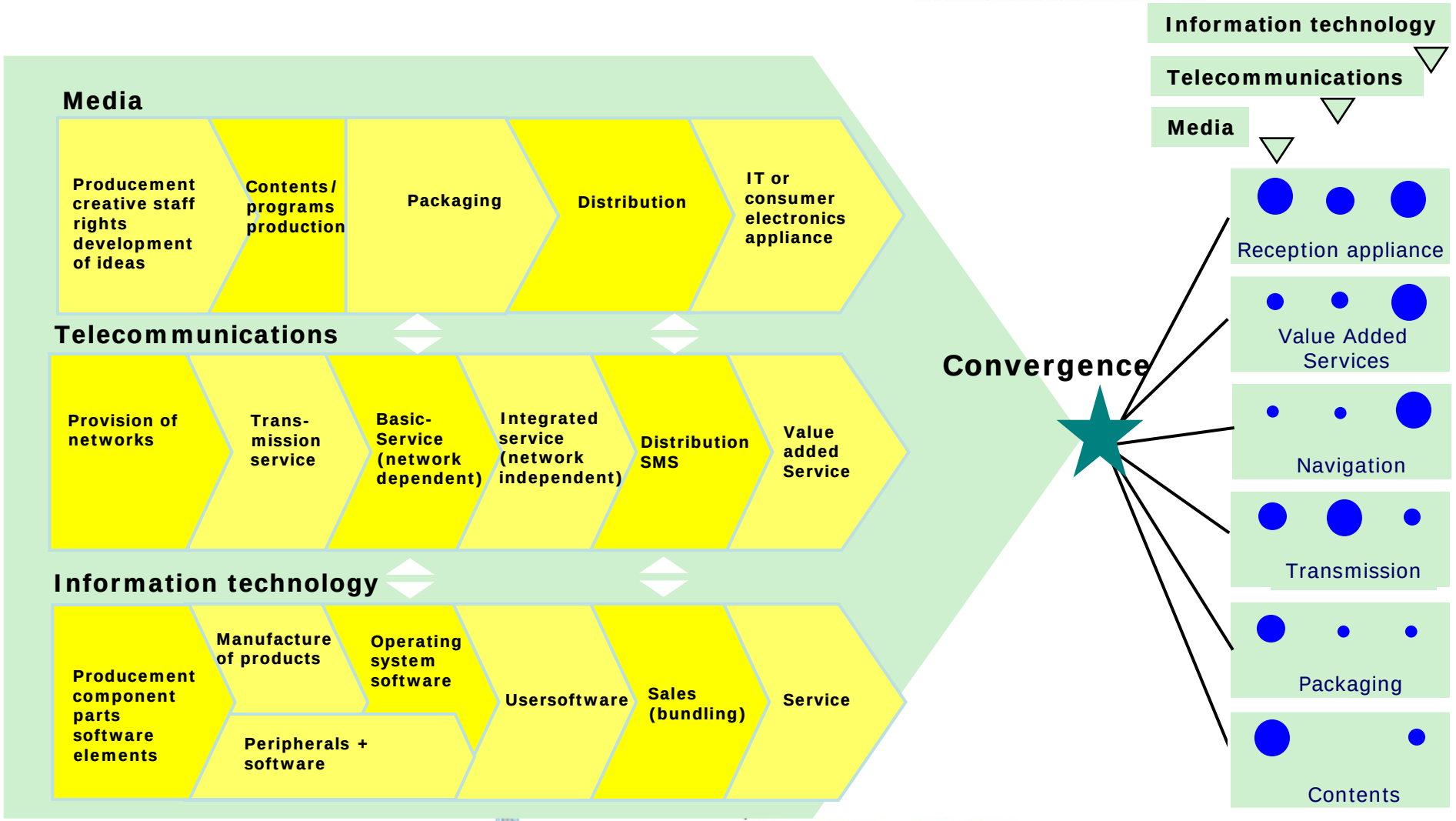


Source: Zerdick, A.; Picot, A.; Schrape, K . et al (2001)

Consequences of convergence

- Convergence as a structural coupling of value chains
- First Stage: IT and telecommunications converge
- Second Stage: Media get into the process
  - Transmission of media content is no longer the exclusive domain of the broadcasting networks
  - New conditions of competition also emerge in the field of reception appliances
- This two stage process of convergence leads to a dissolution of existing system boundaries between the media and communications sectors

Towards a new value added structure



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Convergence changes technologies, applications and markets

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Examples of convergence

Implementation of different services and applications on a single platform

⇨ Example: Convergence of data and voice communications

- Internet telephony -

Convergence of network technologies

⇨ Example: Convergence of fixed and mobile networks

- O2 Genion service – phones for both applications -

Merging of industries into one market

⇨ Example: Convergence of telecommunications, IT and media sectors

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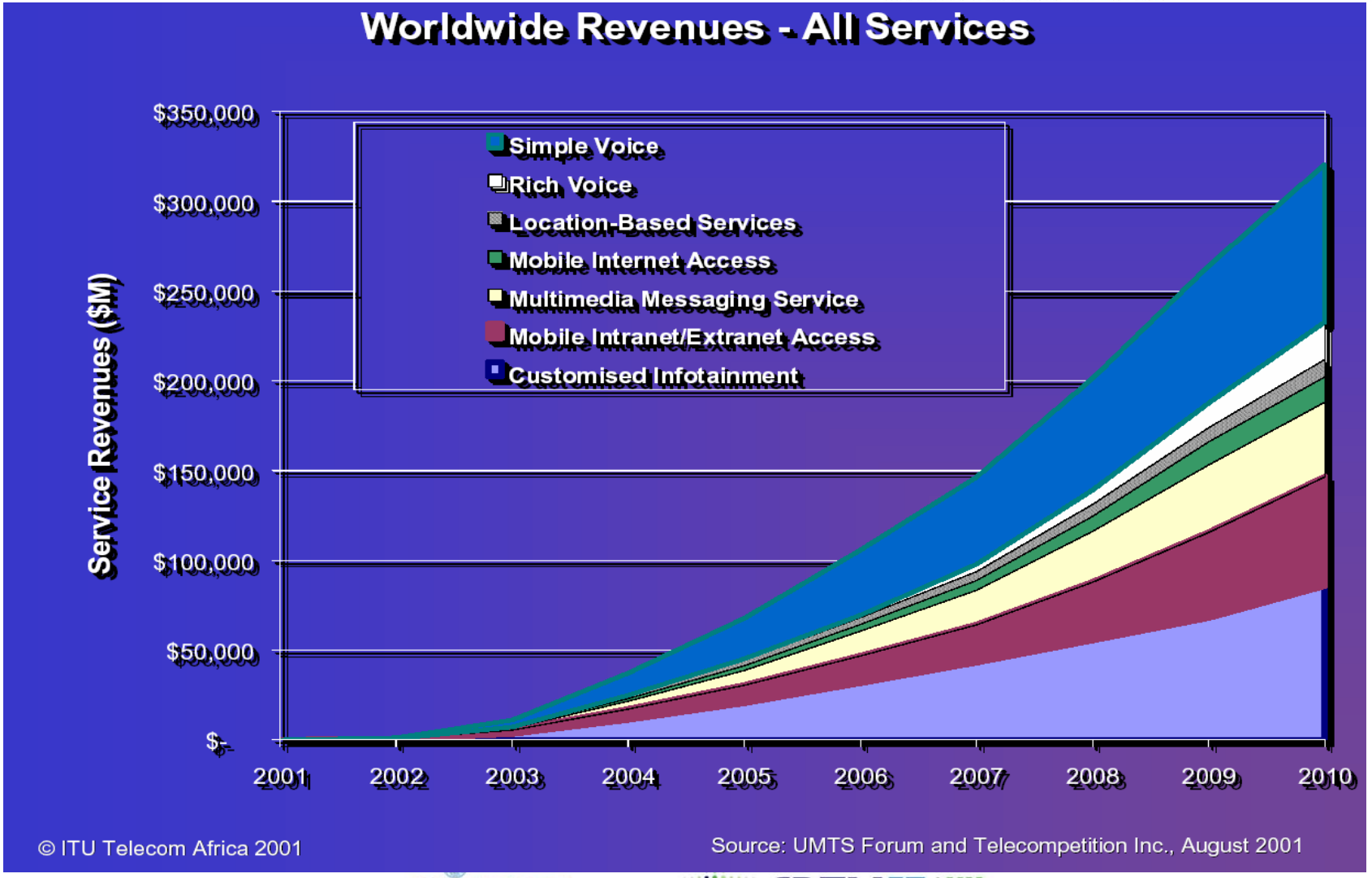
Base for convergence: digitalization and development of the Internet

Trends in Mobile communications

- Rising penetration of mobile Devices
- Increasing bandwidth (UMTS - 384 kBit/s), SMS and MMS makes Data-Services possible
- Powerful Multimedia Devices

- Huge Market for SMS and MMS Services (186 Billion SMS/year in Europe)

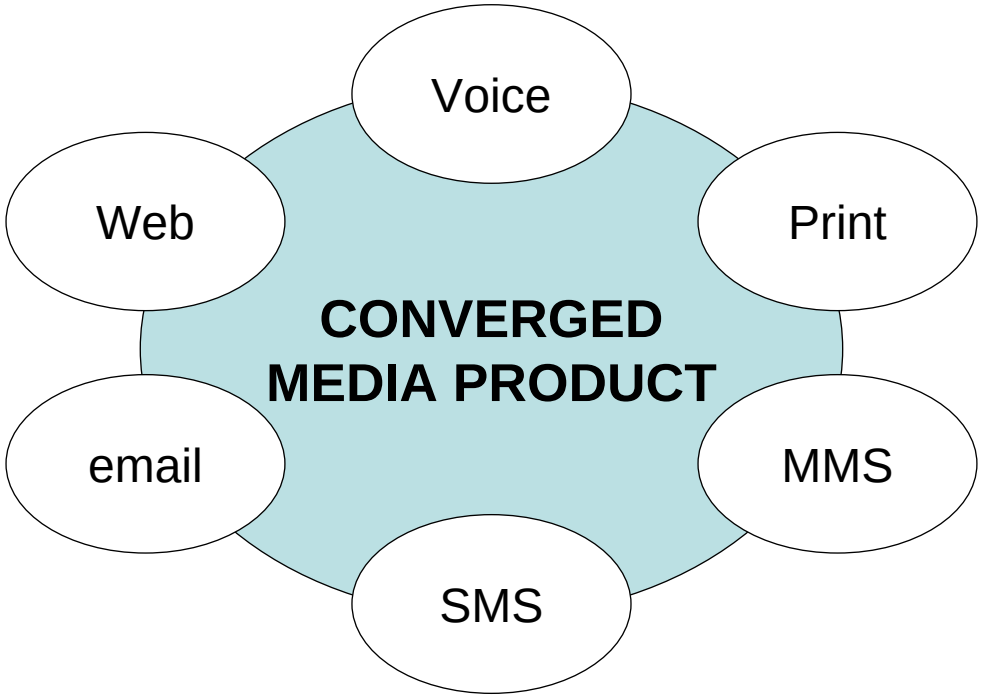
Revenue Projections



Simple mobile value chain

Market Participants	End Device Manufacturers (Motorola, Nokia)	MNO's, MVNO's to some extent (T-Mobil, Vodafone)	Media Firms, Content Provider (FAZ.NET, Jamba!)
Steps	End Devices	Switching Network	Application Environment

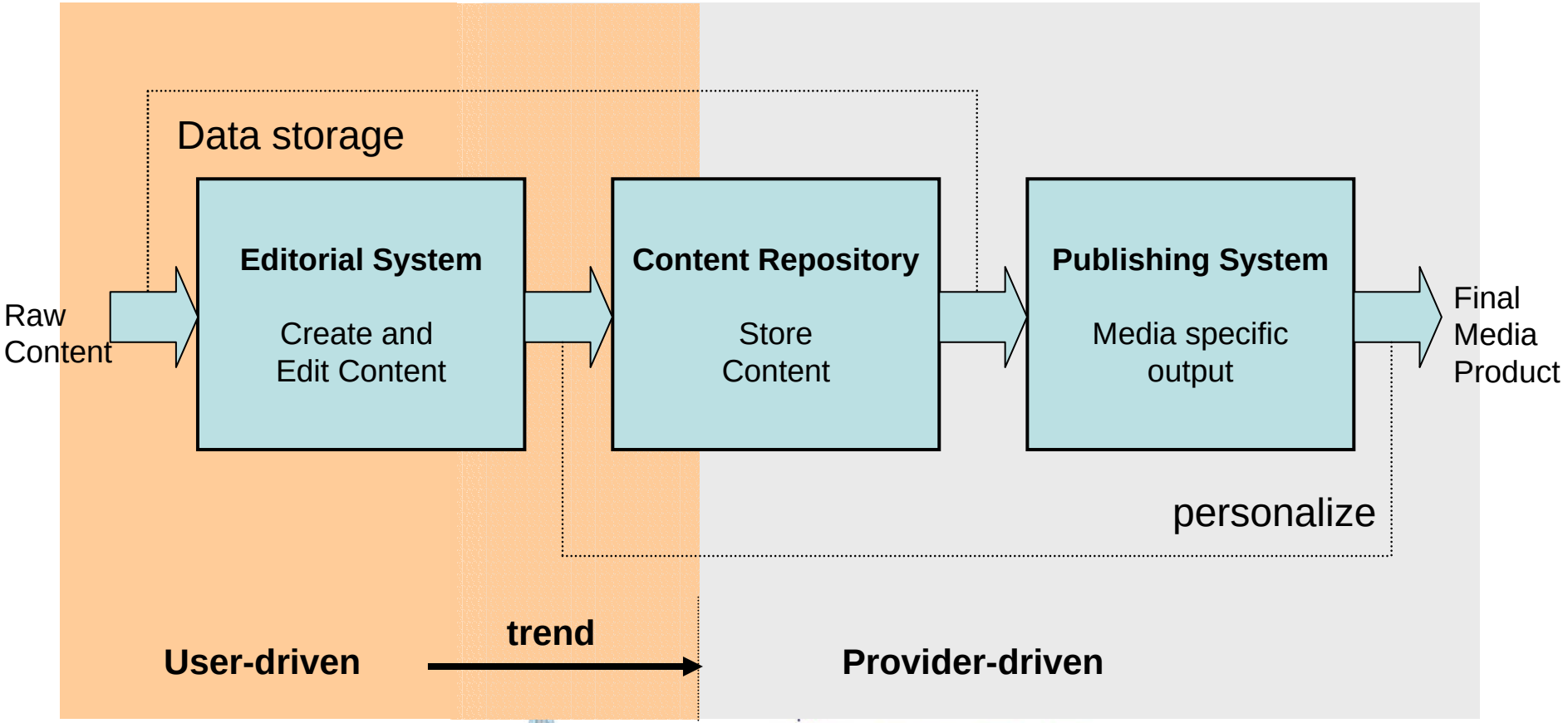
Vision of the course: Changing the print media industry through integration of electronic media



- **The role of the printed magazine:**
  - Provides Context
  - Coordination and instruction
  - Directory
  - Initialization
  - Initial Distributrion
  - Tangibility
- **The role of electronic media:**
  - Enabling user interaction
  - Enabling user generated content
  - Additional content delivery channel
  - New business opportunities

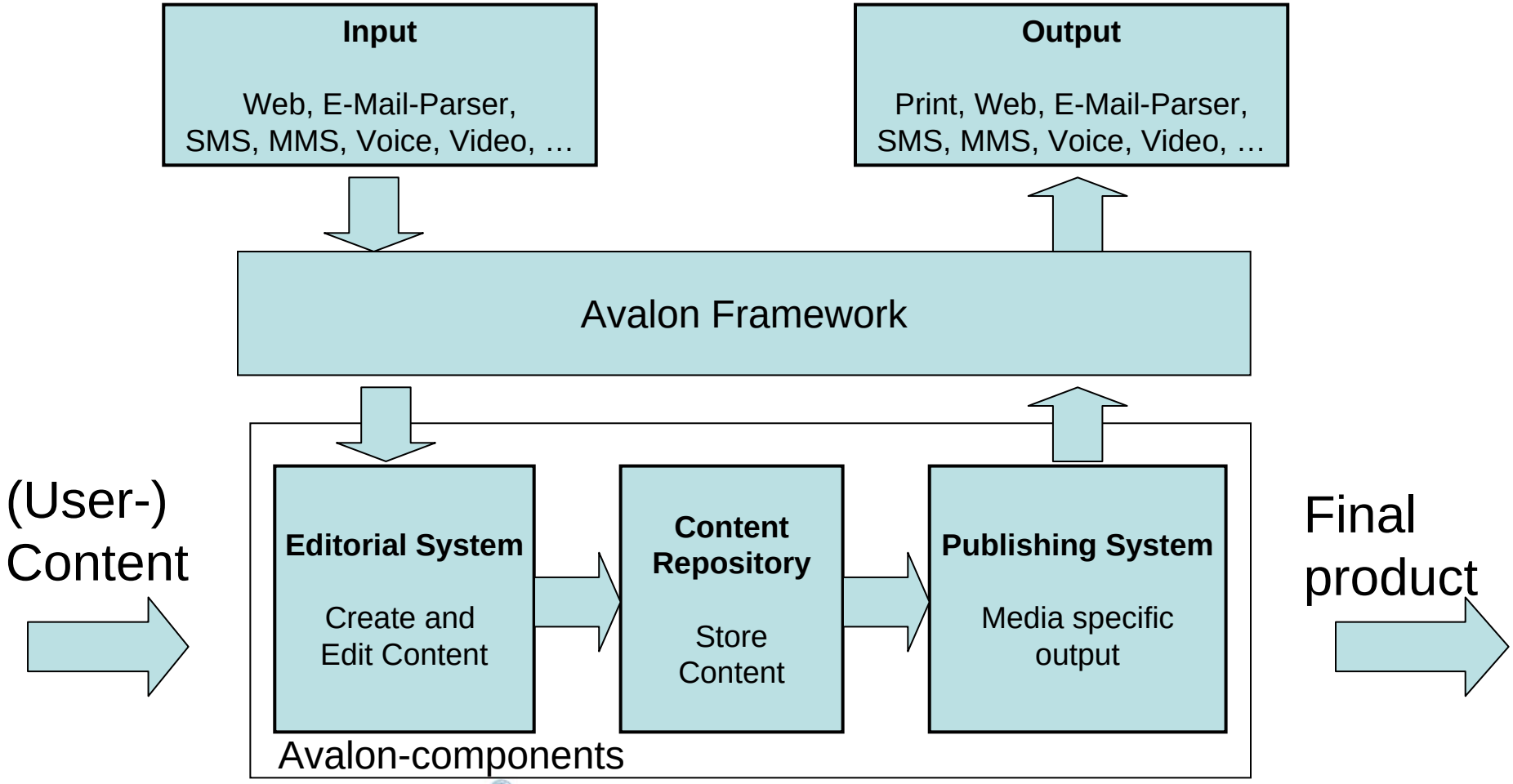
User has one integrated view on the converged media product; he does not buy only a print magazine but all the channels and possibilities of the converged product as a unique experience.

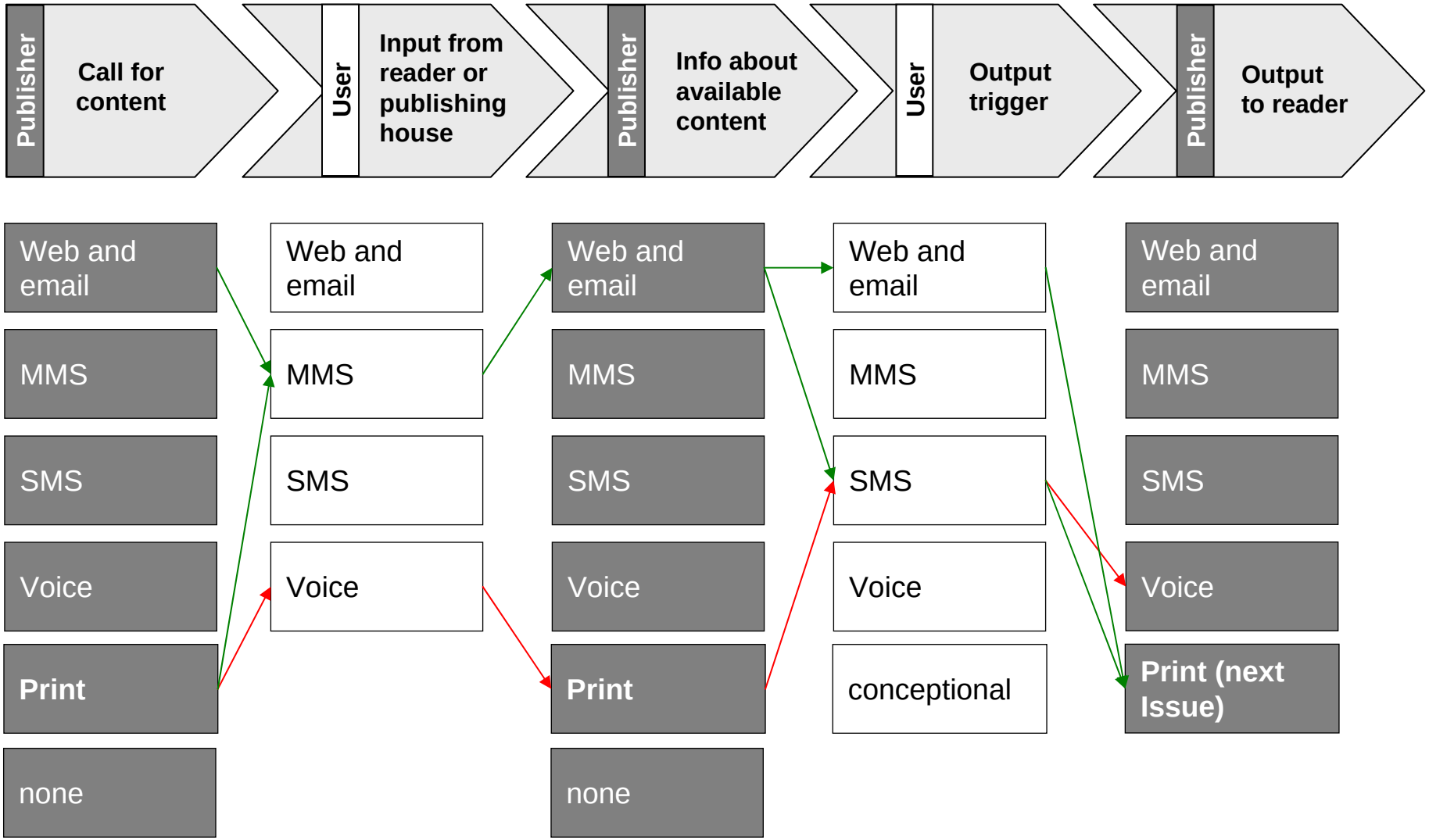
Creation and Management of Content (generic)



Creation and Management of Content

Architecture and components of Content-Management-System





EXAMPLE 1:

Letters to the editor:

Called for in the print version

Submission as voice content from a reader

Requested from other readers by e.g. SMS

Submitted to the reader by phone

EXAMPLE 2: User generated photos:

Call for submission in printed magazine and web

Submission by MMS and web

First Output to reader in the web

Vote for the best photo (SMS and web)

Best photo will be printed in next issue

This case: Implement the vision for a media that offers regional print magazines

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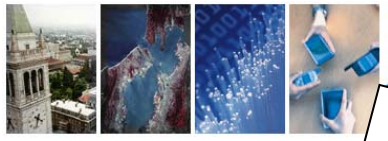
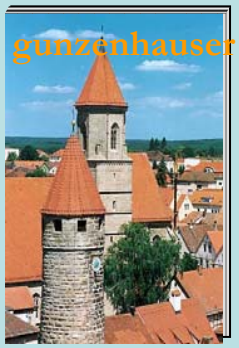
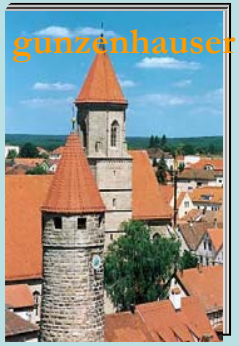
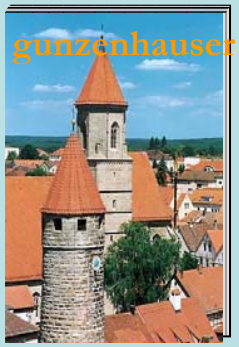


Fallbeispiel

Interactive Voting







Please vote
Which title picure in 2003 did you like best?

Please send answer 1…6 via

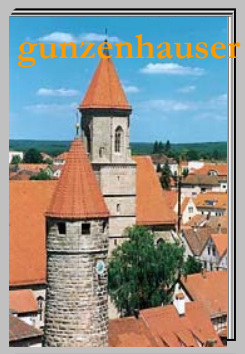
SMS

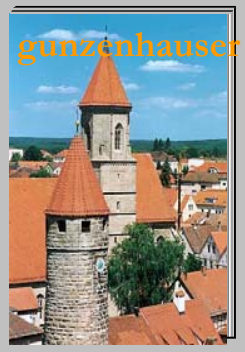
E-Mail

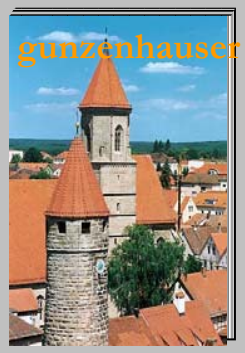
Postkarte

To
…

The results will be published in the next magazine







Stimme Sie ab!
Welches Titelbild aus dem Jahr 2003 hat ihnen am besten gefallen?
Wählen Sie ihren Favoriten!

Ihre Antwort 1, …, 6 einfach per SMS, E-Mail, Postkarte an das „gersthofer“ Stadtmagazin

20%

56%

28%

Die End-Ergebnisse veröffentlichen wir in der nächsten Ausgabe.

Assignments

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- **Hand-in for Session 3:** First draft of product-ideas: (teamwork)

1. Do some internet-based market research and hand in at least 3 media concepts (one slide each) that you find on the (american or german respectively) market that integrate mobile publishing, the internet (and perhaps even print)
2. Design one magazine page of your own converged media idea teamwork

   Presentation, Discussion & Feedback in Session 4 **(6 Minutes presentation per Team)**