Online Multimedia
(Multimedia im Netz)

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Winter Term 2018/2019
English

• This course is held in English language.
  – Reason 1: Exchange students looking for English language courses
  – Reason 2: International Master program “Media, Management and Digital Technologies (MMT)”

• Sorry for any inconveniences!
• Questions can also be asked in German language!
• Tutorials are offered in German and English
Target Audience

• Study programs:
  – Master: Informatik, Medieninformatik, Mensch-Computer-Interaktion, MMT
  – Bachelor: **only Nebenfach** Medieninformatik (mainly Kunst und Multimedia)

• *Recommended* previous knowledge:
  – Digitale Medien
  – Rechnernetze und Verteilte Systeme
  – (IT-Sicherheit)

• Einbringung als Studienleistung:
  – Master Medieninformatik, MCI und Informatik: Wahlpflichtfach oder Vertiefendes Thema (6 ECTS-Credits)
  – Bachelor-Nebenfach: Pflichtveranstaltung (6 Credits)
  – Bachelor Informatik und Medieninformatik:
    (Weiterhin) **Nicht anerkannt als “Vertiefendes Thema” im Bachelor**, aber „Ansparen“ für Master möglich
Time and Location of Lecture

• Today:
  – 10:15 (ct), Prof.-Huber-Pl. 2, Lehrturm W201
  – Only Kick-off, rather short

• From Oct 22 onwards (due to a conflict for MMT students):
  – 9:15 (ct) to 11:45
  – Theresienstr. 39, B139

• Guest Talks!
  – Direct contact with practitioners
  – Same time, probably shorter in most cases
  – First guest talk planned for Oct 29, speaker from Google
Looong Lecture!

Official duration
3 times 45 minutes = 135 minutes

Suggestion:
- 60+ mins
- Little break
- another 60+ minutes

Start time: 09:15 am
End time: 11:45 at the latest
Web-Ressources

• *Slides as PDF-Files*
  – Available *before* lecture (in most cases Wednesday night)
  – PDF-Reader (free) needed, e.g. Adobe Acrobat Reader

• *Podcast*
  – Audio recording, synchronised with contents of projection
    » *Screencast* as video
    » Low frame rate, relatively small files
  – Available *after* lecture as QuickTime (MPEG-4) files

• *Online lectures*
  – Few (probably 5) lectures offered **online only**
  – Mainly material specialised for minor subject

• **Please check the announcements made via Web (and Slack) from week to week!**
Organization of Tutorials

• Coordination/Contact: Nadja Terzimehić and Thomas Weber
• Tutorial Organization very different for minor and major subject!
• See following kick-off presentation
What we will cover – and what not

• This lecture does **not** cover:
  – Details on basic networking technologies and protocols (see Networking lectures)

• Focus of the lecture:
  – *Application*-level design of multimedia systems
  – *Content*-related base technologies
  – Limited background information on selected network technologies

• Focus of the tutorials:
  – Practical experience in constructing multimedia services
  – Programming languages:
    » JavaScript
    » *Minor subject*: PHP, mySQL, jQuery
    » *Major subject*: Server-side JavaScript, "MEAN stack" (MongoDB, Express, Angular, Node)
## Outline: Two-Track Course!

<table>
<thead>
<tr>
<th>Major Subject (HF)</th>
<th>Minor Subject (NF)</th>
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<tbody>
<tr>
<td>1. Motivation</td>
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<tr>
<td>2. Basics of Web Apps</td>
<td>2. Intro to PHP</td>
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<td>3. Web Paradigms &amp; Interactivity</td>
<td>3. SQL Database Access</td>
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<td>4. Technology Evolution (Example MEAN)</td>
<td>4. Advanced JavaScript (jQuery)</td>
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<td>5. Communities, the Web, and Multimedia</td>
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<td>6. Digital Rights Management</td>
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<td>7. Multimedia Content Description</td>
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<td>8. Electronic Books and Magazines</td>
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<td>9. Media Streaming Technology</td>
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<td>10. Linear Online Multimedia</td>
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<td>11. Multimedia Conferencing</td>
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<td>12. Signaling Protocols for Multimedia Communication</td>
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(12 not for minor subject)