

Overview

Jörg Cassens

SoSe 2018

Contextualized Computing and Ambient Intelligent Systems



medieninformatik

IMAI – Institut für
Mathematik und
Angewandte Informatik

Outline

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

1 Welcome

2 Rules & Regulations

3 Websites

4 Literature

5 Final Remarks

■ Jörg Cassens

- Institut für Mathematik und Angewandte Informatik
- ✉ cassens@cs.uni-hildesheim.de
- +49 (5121) 883-40182
- Building Samelsonplatz, Office A 115

■ My Background

■ Deutsch oder English

- German: Du oder Sie

■ Office Hours

- Mondays, 16:00-17:00

■ Jörg Cassens

- Institut für Mathematik und Angewandte Informatik
- ✉ cassens@cs.uni-hildesheim.de
- +49 (5121) 883-40182
- Building Samelsonplatz, Office A 115

■ My Background

- Media Informatics = Human-Centred Computing + Human-Computer Interaction + Artificial Intelligence + Digital Media + Transdisciplinarity + ...

■ Deutsch oder English

- German: Du oder Sie

■ Office Hours

- Mondays, 16:00-17:00

- Who am I?
- What do I study?
 - Study programme (WI, IMIT, AI, DA, LA Inf., other)
 - Version of “Prüfungsordnung” (WI/IMIT)
 - Master or Bachelor
- Where did I obtain my Bachelor’s degree?
- Which courses in Media Informatics have I taken so far?
- Why am I here?
- What do I expect from the course?

Outline

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

1 Welcome

2 Rules & Regulations

- Workload
- Course Format
- Learning Outcomes
- Credits

3 Websites

4 Literature

5 Final Remarks

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

Workload

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

- 3 SWS
 - 2 hours lecture
 - 1 hour tutorial
- 5 ECTS
- 125 hours
 - 45 hours lectures and tutorials
 - 80 hours self-study
- Written exam

Course Meetings

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

- *Monday, 13:30-16:00 lecture/tutorial (incl. short break)*
 - Expect changes because of scheduling conflicts, updates will be given as a learnweb posting.
- Samelsonplatz A 102
- No course on several days
 - 21.05.: Whit Monday/project week)
 - 09.07.: (Leave of absence)
- Exam dates
 - First exam: Wednesday, 25.07., 14:00-16:00 *or*
 - First exam: Wednesday, 01.08., 14:00-16:00
 - Second exam: Wednesday, 27.09., 14:00-16:00

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

Course Format

Course Format

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

- The proportion of lectures and tutorials & question times will be 2 to 1 over the course of the semester
- However, that does not mean there will be a strict division
- Tutorials will be done when it fits the course
- I am not the only one to talk during lectures
- At the same time, I would like to talk during tutorials, too
- There will be required readings
 - Announced in lecture and learnweb
 - Available in learnweb
 - Discussed in tutorials
- This course is structured around attendance of the course

Course Format

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

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 - Announced in lecture and learnweb
 - Available in learnweb
 - Discussed in tutorials
- This course is structured around attendance of the course
- However, I do not have attendance lists

Agility

This is the first time this course will be given. Expect hiccups. Constant feedback is explicitly welcomed. Tell me what you like or dislike, and which topics you are particularly interested in. I might be able to devote more time to those. You never have as much influence on course development than when a course is given for the first time.

Just quitting the course does help neither you nor me, therefore, I ask you to tell me about any problems with the course immediately (if needed anonymously).

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

Learning Outcomes

Aus dem **Modulhandbuch**:

Die Studierenden lernen in diesem Modul verschiedene *Prinzipien, Methoden und Verfahren* für die Entwicklung kontextualisierter und ambient intelligenter Systeme kennen. *Kontextualisierte* Anwendungssysteme nehmen Kontextparameter wie den Ort, die Zeit, anwesende Personen und ähnliches in Betracht. *Ambient intelligente Systeme* treten in den Hintergrund und werden Teil der Umgebung. Aufbauend auf psychologischen und semiotischen Grundlagen wird erläutert, wie Kontextparameter analysiert und modelliert werden können. Verschiedene Methoden und Verfahren der Verarbeitung von Kontextparametern werden vorgestellt. Weiterhin werden Herausforderungen bei der Entwicklung ambienter Systeme sowie Verfahren und Technologien zu deren Realisierung dargestellt.

Aus dem **Modulhandbuch**:

- Psychologische Grundlagen
- Semiotische Grundlagen
- Erfassung von Kontextparametern
- Modellierung von Kontextparametern
- Reasoning mit und über Kontext
- Herausforderungen ambienter Systeme
- Architekturen ambient intelligenter Systeme

Learning Outcomes

From the **course catalog**:

In this module, students learn to know different *principles, methods, and processes* for the development of contextualized and ambient intelligent systems. *Contextualized applications* take context parameters, such as location, time, persons present, into account. *Ambient intelligent systems* are ubiquitous and pervasive and become part of the environment. Starting from cognitive and semiotic principles, it is discussed how contextual parameters can be analyzed and modeled. Different methods and tools for context reasoning are examined. Furthermore, challenges for the development of ambient systems are outlined and technologies for their implementation presented.

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

From the **course catalog**:

- Cognitive foundations
- Semiotic foundations
- Elicitation of context parameters
- Modeling context parameters
- Reasoning with and about context
- Challenges for ambient systems
- Architectures for ambient intelligent systems

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

Credits

- **WINF ($PO \leq 2011$):** Veranstaltungen Master, entweder
 - Gebiete der Informatik, Gebiet Algorithmen
 - Wahlbereich, Gebiet Medieninformatik
- **WINF ($PO \geq 2014$):** Veranstaltungen Master
 - Spezialisierungs- und Vertiefungsmodule – Business Intelligence
- **IMIT ($PO \leq 2011$):** Veranstaltungen Master
 - Gebiete der Informatik – Gebiet Medieninformatik
 - Gebiete der Informatik – Gebiet Algorithmen
- **IMIT, AI ($PO \geq 2014$):** Veranstaltungen Master
 - Wahlmodule – Informatik – Gebiet Medieninformatik
- **Data Analytics:**
 - Elective – Application – Media Systems
- **Andere:** Maßgabe des zuständigen Prüfungsausschusses

- **Passing the final exam**
- There will be two exams, one at the beginning of autumn break and one at the end
 - See course announcements and LSF for exact dates
- Content of exam
 - Lecture content as covered in the slides and handouts
 - Lecture content as covered in the required reading
 - Tutorial content as covered in the assignments

Assignments

Welcome

Rules &
Regulations

Workload

Course Format

Learning Outcomes

Credits

Websites

Literature

Final Remarks

- There will be no compulsory assignments
 - Content of assignments relevant for exam
- However, you might want to submit some assignments
 - Submitted via the learnweb or presented in class
- Learnweb-submissions are usually to be in PDF-format
 - txt is OK for text only or code
 - SVG, PNG and JPG is OK for images
 - mp3, wav and ogg is OK for audio
 - mp4 is OK for video
 - No files from word processors or graphic programs, please (doc, docx, odt) – those will not be marked
 - You can deliver zip, gz, bz2, xz or rar archives

Outline

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

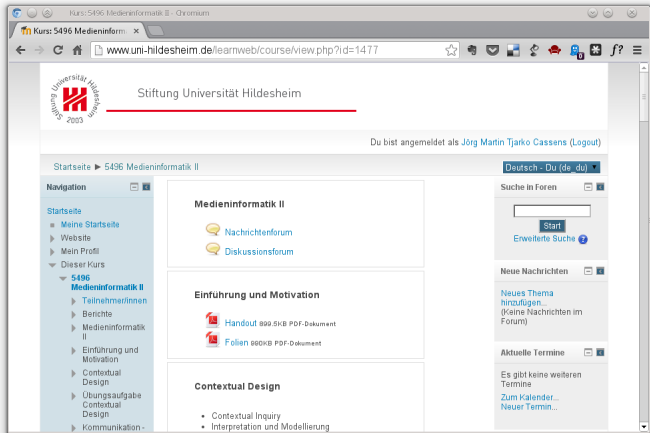
1 Welcome

2 Rules & Regulations

3 Websites

4 Literature

5 Final Remarks



Kurs: 5496 Medieninformatik II - Chromium

www.uni-hildesheim.de/learnweb/course/view.php?id=1477

Stiftung Universität Hildesheim

Du bist angemeldet als Jörg Martin Tjarko Cassens (Logout)

Startseite ▶ 5496 Medieninformatik II

Deutsch - Du (de-de)

Navigation

- Startseite
 - Meine Startseite
 - Website
 - Mein Profil
- Dieser Kurs
 - 5496 Medieninformatik II
 - TeilnehmerInnen
 - Berichte
 - Medieninformatik II
 - Einführung und Motivation
 - Contextual Design
 - Übungsaufgabe Contextual Design
 - Kommunikation -

Medieninformatik II

- Nachrichtenforum
- Diskussionsforum

Einführung und Motivation

- Handout 899.5KB PDF-Dokument
- Folien 660KB PDF-Dokument

Contextual Design

- Contextual Inquiry
- Interpretation und Modellierung

Suche in Foren

Start

Erweiterte Suche

Neue Nachrichten

Neues Thema hinzufügen... (Keine Nachrichten im Forum)

Aktuelle Termine

Es gibt keine weiteren Termine

Zum Kalender... Neuer Termin...

🖱️ learnweb.uni-hildesheim.de

course: So18_5499_VI-CCAmI, password: Course Number



 learnweb.uni-hildesheim.de

course: So18_5499_VI-CCAmI, password: Course Number

- Vorlesung mit Übung: Medieninformatik I Universität Hildesheim - Chromium

- Vorlesung mit Übung: M: x

<https://lsf.uni-hildesheim.de/qisserver/rds?state=verpubli>

Medieninformatik I - Einzelansicht

[Zurück](#)

Funktionen (Veranstaltung): [PDF](#) [PPT](#) [PPTX](#) [PPTM](#) [PPTX](#) Funktionen (Teilnehmer): [\(ext.\)](#)

[\(int.\)](#) [\(P-Amt.\)](#) [Stud. Arbeiten](#)

Seiteninhalt: [Grunddaten](#) | [Termine](#) | [Zugeordnete Person](#) | [Studiengänge](#) | [Einrichtungen](#) | [Strukturbaum](#)

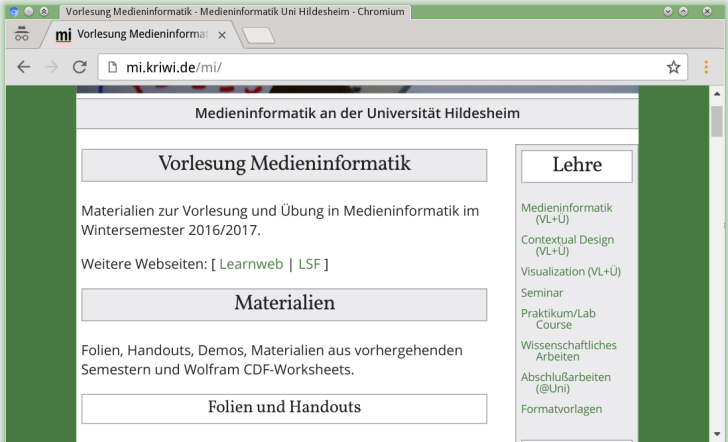
Grunddaten

Veranstaltungsart	Vorlesung mit Übung	Co-finanziert aus Studienbeiträgen	
Veranstaltungsnummer	5495	Kurztext	
Semester	WiSe 2012/13	SWS	5
Erwartete Teilnehmer	20	Max. Teilnehmer	
Rhythmus	i. d. R. jedes 2. Semester	Studienjahr / Zielgruppe	
Credits		Anmeldung	Anmeldepflicht, Vergabe: Manuell (?)

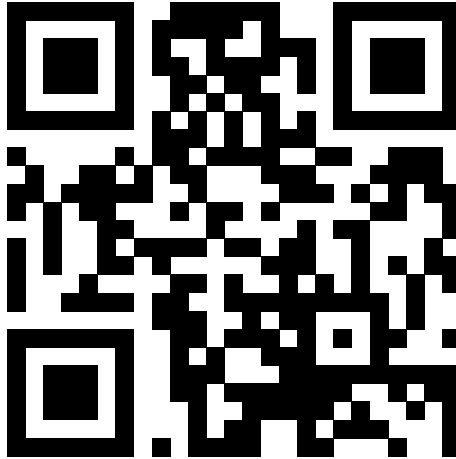
 lsf.uni-hildesheim.de



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 mi.kriwi.de/ami

Outline

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

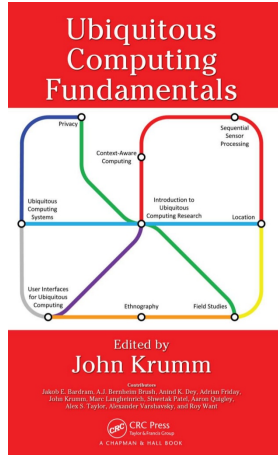
1 Welcome

2 Rules & Regulations

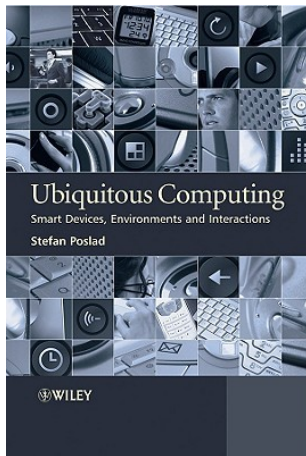
3 Websites

4 Literature

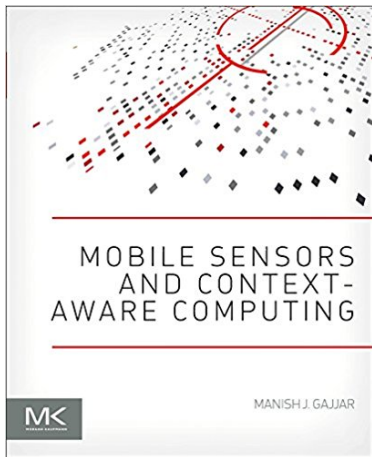
5 Final Remarks



Krumm, John (Ed.). Ubiquitous computing fundamentals. CRC Press, 2010.



Poslad, Stefan. Ubiquitous Computing: Smart Devices, Environments and Interactions. Wiley, 2009.



Gajjar, Manish J. Mobile Sensors and Context-aware Computing. Morgan Kaufmann, 2017.

Transdisciplinary Issues I

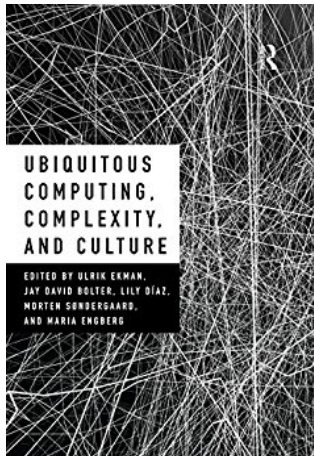
Welcome

Rules &
Regulations

Websites

Literature

Final Remarks



Ekman, Ulrik, Jay David Bolter, Lily Díaz, Morten Søndergaard, and Maria Engberg, eds. Ubiquitous computing, complexity and culture. Routledge, 2016.

Transdisciplinary Issues II

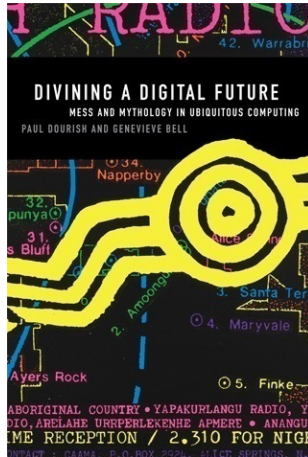
Welcome

Rules &
Regulations

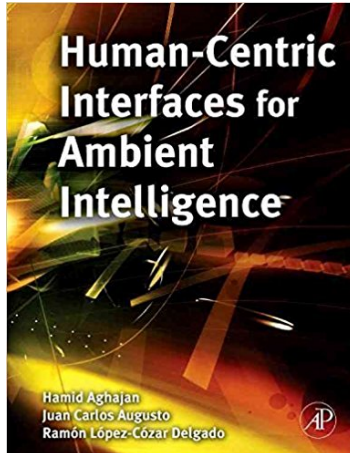
Websites

Literature

Final Remarks



Dourish, Paul, and Genevieve Bell. *Divining a digital future: Mess and mythology in ubiquitous computing*. Mit Press, 2011.



Aghajan, Hamid, Juan Carlos Augusto, and Ramón López-Cózar Delgado, eds. Human-centric interfaces for ambient intelligence. Academic Press, 2010.

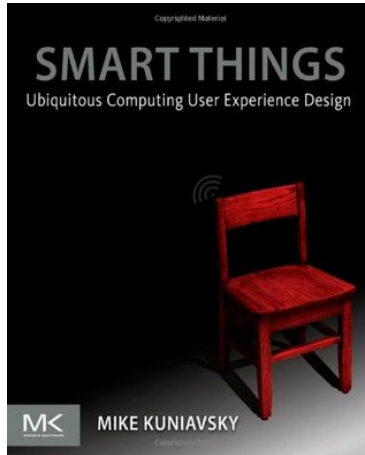
Welcome

Rules &
Regulations

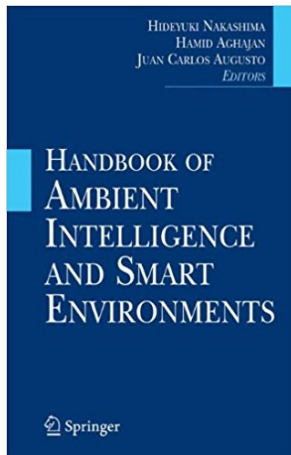
Websites

Literature

Final Remarks



Kuniavsky, Mike. Smart things: ubiquitous computing user experience design. Elsevier, 2010.



Nakashima, Hideyuki, Hamid Aghajan, and Juan Carlos Augusto, eds. Handbook of ambient intelligence and smart environments. Springer Science & Business Media, 2010.

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks



Einführung und Motivation

Jörg Cassens

Institut für Mathematik und Angewandte

Medieninformatik
WS 2016/2017



Introduction

Updated: 6. April 2017

Jörg Cassens

Lab Course Media Informatics
SoSe 2017



Inhaltsverzeichnis

1	Welcome	1
2	Rules & Regulations	2
2.1	Workload	2
2.2	Credits	3
2.3	Learning Outcomes	3
2.4	Course Format	4
2.5	Regulations	4
2.6	Evaluation Criteria	5
3	Dates & Times	5
4	Websites	7
5	Projects	9
5.1	Storyboard	9
5.2	Learning and Teaching Strategies	11
5.3	Linguistic Tools	13
5.4	Portfolio	14
5.5	Behavioral Interactions	16
5.6	CAKE	17
5.7	BYU	19
6	Discussion & Attendance	19

1 Welcome

Me

• Jörg Cassens

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- www.imi.uni-hildesheim.de
- +49 (5121) 863-40342
- Building Samelsonplatz, Office A 115

• My Background

- Deutsch oder English
- German: Du oder Sie

Handouts & Slides

Outline

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

1 Welcome

2 Rules & Regulations

3 Websites

4 Literature

5 Final Remarks

Courses in Media Informatics

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

■ Winter term

■ Media Informatics (Lec + Tut)

■ German only

■ Seminar Media Informatics (Se)

■ Summer term

■ Lab Course Media Informatics (Pr)

■ You can still join, helpful to have passed some courses in Media Informatics before

■ First meeting: Wed, 12-14, A 102 Spl

■ Alternating:

■ Contextualized Computing and Ambient Intelligent Systems (Lec + Tut)

■ *Contextual Design of Interactive Systems (Lec + Tut)*

Next: SoSe 2019

■ *Data and Process Visualization (Lec + Tut)*

Next: SoSe 2020

■ Data and Process Visualization

- First exam: Wednesday, 25.07., 14:00-16:00 *or*
- First exam: Wednesday, 01.08., 14:00-16:00
- Second exam: Wednesday, 27.09., 14:00-16:00

- Data and Process Visualization
 - First exam: Wednesday, 25.07., 14:00-16:00 *or*
 - First exam: Wednesday, 01.08., 14:00-16:00
 - Second exam: Wednesday, 27.09., 14:00-16:00
- Contextual Design of Interactive Systems
(Medieninformatik II)
 - This year's exam: Wednesday, 13.06., 14:00-16:00
 - Mandatory registration by 05.06. in POS for this term
 - POS registration is opening in early May.
 - Next exam: summer term 2019

■ Data and Process Visualization

- First exam: Wednesday, 25.07., 14:00-16:00 *or*
- First exam: Wednesday, 01.08., 14:00-16:00
- Second exam: Wednesday, 27.09., 14:00-16:00

■ Contextual Design of Interactive Systems (Medieninformatik II)

- This year's exam: Wednesday, 13.06., 14:00-16:00
 - Mandatory registration by 05.06. in POS for this term
 - POS registration is opening in early May.
- Next exam: summer term 2019

■ Data and Process Visualization

- This year's exam: Wednesday, 13.06., 16:00-18:00
 - Mandatory registration by 05.06. in POS for this term
 - POS registration is opening in early May.
- Next exam: summer term 2019

Hackathon

Welcome

Rules &
Regulations

Websites

Literature

Final Remarks

- The Fachschaft Informatik (student council for IT studies) in co-operation with the Software Engineering Research Group organizes a Hackathon
 - Start: Fri, 27.04.18, 16:00
 - End: Sat, 28.04.18, 13:00
- Idea: develop an “Alltagshelfer mit Gamification” (everyday helper app with gamification)
- More info/applications
 - 📖 Learnweb 2018, course “Fachschaft Informatik”
 - 📖 www.facebook.com/FsWinfHi
 - 📖 fs_winf@uni-hildesheim.de
- Application deadline: 20.04.18



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■ Office Hours

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- **Important:** Register in Learnweb for email updates

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