

Business Informatics 2 (PWIN)
WS 2019/20

Introduction & Course Organisation

Prof. Dr. Kai Rannenber

Chair of Mobile Business & Multilateral Security
Johann Wolfgang Goethe University Frankfurt a. M.

- Introduction of the Chair
- Course Organisation
- Scope and Outline of the Course
- Introduction to Information & Communication Systems

Business Informatics @ Goethe University Frankfurt

<p>E-Finance</p> <p>Prof. Dr. Peter Gomber</p>	<p>Business Informatics (Informatics)</p> <p>Prof. Dr. Mirjam Minor</p>	<p>Information Systems Engineering</p> <p>Prof. Dr. Roland Holten</p>
<p>Business Education (associated)</p> <p>Prof. Dr. Gerhard Minnameier</p>	<p>Mobile Business & Multilateral Security</p> <p>Prof. Dr. Kai Rannenber</p>	<p>Business Education (associated)</p> <p>Prof. Dr. Eveline Wuttke</p>
<p>Information Systems & Information Management</p> <p>Prof. Dr. Wolfgang König</p>	<p>Business Informatics & Microeconomics</p> <p>Prof. Dr. Lukas Wiewiorra</p>	<p>Business Informatics & Information Management</p> <p>Prof. Dr. Oliver Hinz</p>

Chair of Business Administration, especially Business Informatics, Mobile Business and Multilateral Security

Chair of Mobile Business & Multilateral Security

Theodor-W.-Adorno-Platz 4
Campus Westend
RuW, 2nd Floor

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Fax: +49 69 798 35004
eMail: info@m-chair.de

www.m-chair.de



Vita of Prof. Dr. Kai Rannenberg

Einbeck, Göttingen, Eystrup, Wolfsburg, ...
TU Berlin (Dipl.-Inform.)
Uni Freiburg (Dr. rer. pol.)

Dissertation on “**Kriterien und Zertifizierung mehrseitiger IT-Sicherheit**“
Standardization at ISO/IEC JTC 1/SC 27 and DIN NI-27

Kolleg “Sicherheit in der Kommunikationstechnik”
Gottlieb Daimler- and Karl Benz-Foundation

Multilateral Security:
“Empowering Users, Enabling Applications“, 1993 - 1999

Recent History

1999-09 till 2002-08

Microsoft Research Cambridge UK

www.research.microsoft.com

Responsible for “Personal Security Devices and Privacy Technologies“

2001-10 Call for this chair

2001-12 till 2002-07 Stand-in for the chair

Since 2002-07 Professor





Kai
Rannenberg



Sebastian
Pape



Narges
Arastouei



Welderufael
Tesfay



Ahmed
Yesuf



Christopher
Schmitz



Majid
Hatamian



David
Harborth



Peter
Hamm



Ann-Kristin
Lieberknecht



Frédéric
Tronnier



Ahad
Niknia

Research Fellows & External PhD Students



Markus
Tschersich



Jetzabel
Serna-
Olvera



Mike
Radmacher



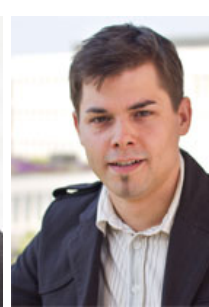
Andreas
Albers



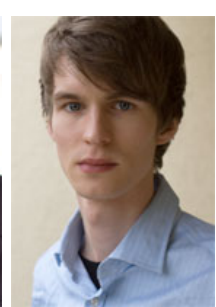
Stefan
Weiss



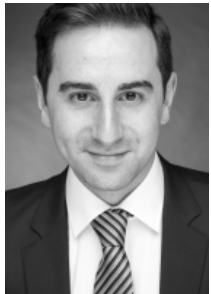
Shuzhe
Yang



André
Deuker



Christian
Kahl



Gökhan
Bal



Ahmad
Sabouri



Fatbardh
Veseli



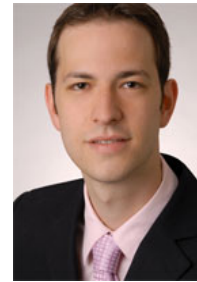
Tim
Schiller



Niels
Johannsen



Stephan
Heim



Marvin
Hegen



Michael
Schmid

Office:

Elvira Koch

Email: elvira.koch@m-chair.de

Office Hours: On appointment



Mobile Business and Multilateral Security in a Mobile Market Context

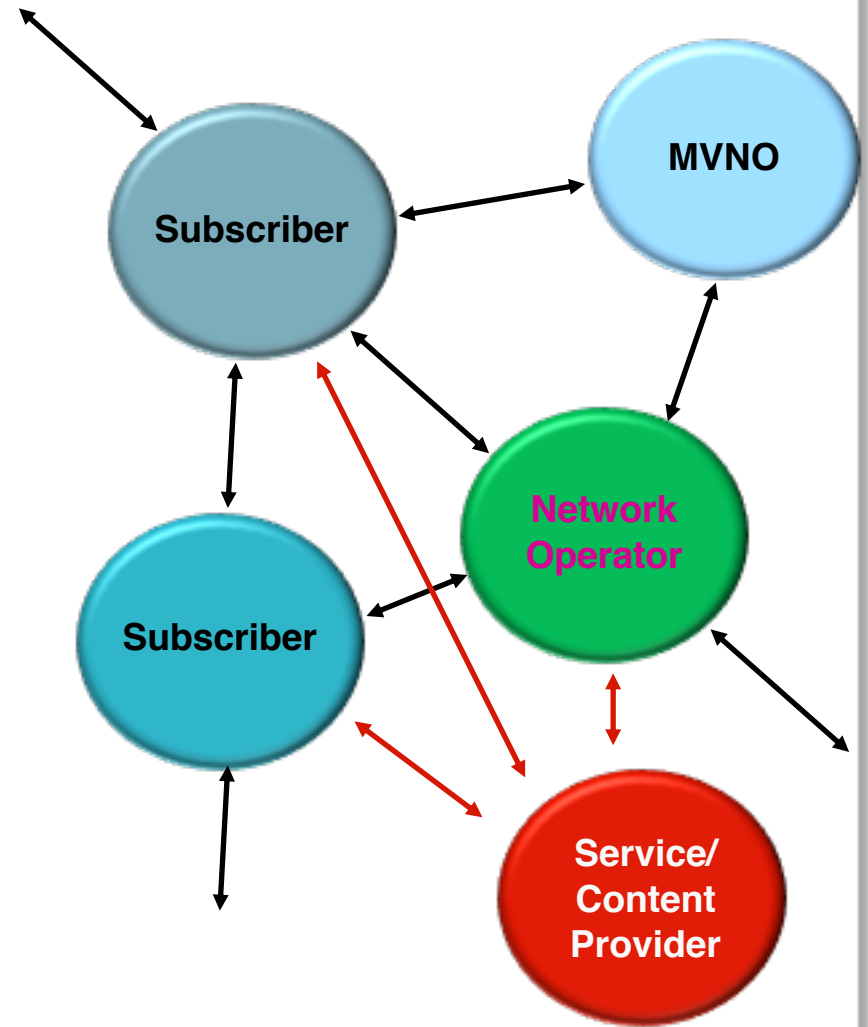
Different Parties with different Interests

- Customers/Merchants
- Communication partners
- Citizens/Administration



... in a world of consortia

- more partners
- more complex relations

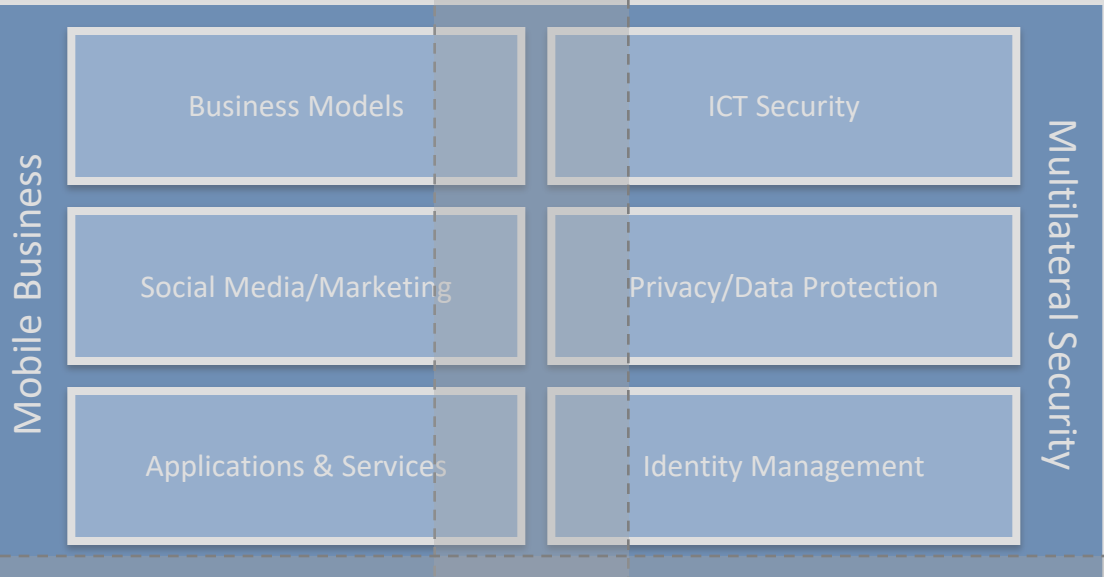


Chair of
Mobile Business & Multilateral Security

Standardization & Regulation

M *Mobile Business II*

M *Mobile Business I*



M *Information & Communication Security*

Online/Mobile Economy

Information & Communication Technology

B Bachelor
M Master

B *Wirtschaftsinformatik 2 (Business Informatics 2)*

	WS 2019/20	SS 2020
Bachelor	<p><i>Course</i> Business Informatics 2 (PWIN)</p>	
Master	<p><i>Course</i> Mobile Business I: Technology, Markets, Platforms and Business Models</p> <p><i>Seminar</i> Cryptocurrencies and Blockchain: Promise and Challenges</p>	<p><i>Course</i> Mobile Business II: Application Design, Applications, Infrastructures and Security</p> <p><i>Course</i> Information & Communication Security: Infrastructures, Technologies and Business Models</p> <p><i>Course</i> Privacy vs. Data: Business Models in the digital, mobile Economy</p> <p><i>Seminar</i> tbd</p>

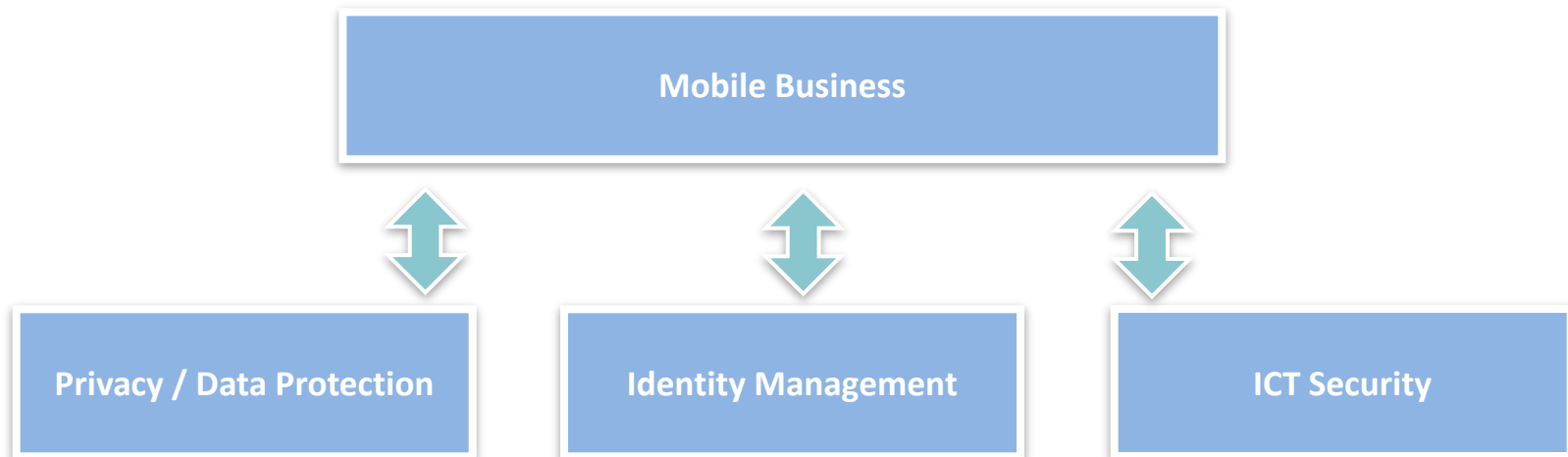
- **Master of Science in Betriebswirtschaftslehre**

<http://www.wiwi.uni-frankfurt.de/?id=96>

- **Master in Wirtschaftsinformatik**

<http://www.informatik.uni-frankfurt.de/index.php/de/studierende-studiengaenge/studierende-studiengaenge-master-wirtschaftsinformatik.html>

Advancing *Mobile Business* while enabling individuals to be in control of their personal data by providing *Identity Management*, *Privacy Protection*, and *ICT Security* within the Digital Economy



Chair of
Mobile Business & Multilateral
Security

PANELFIT

Privacy
& Us

Sioc

Standardization & Regulation

SIDATE

AN.ON
NEXT GENERATION

Business Models

ICT Security

TRESPASS

CREDENTIAL

free ZONES
Enjoy free mobile services

Mobile Business

Social Media/Marketing

Privacy / Data Protection

ABC TRUST

PrimeLife

Premium*

Applications & Services

Identity Management

PICOS

Cyber
Security
for Europe

LOC

Online/Mobile Economy

Information & Communication Technology

PRIME
Privacy and Identity Management for Europe

European & national-funded Projects

Industry Co-operations

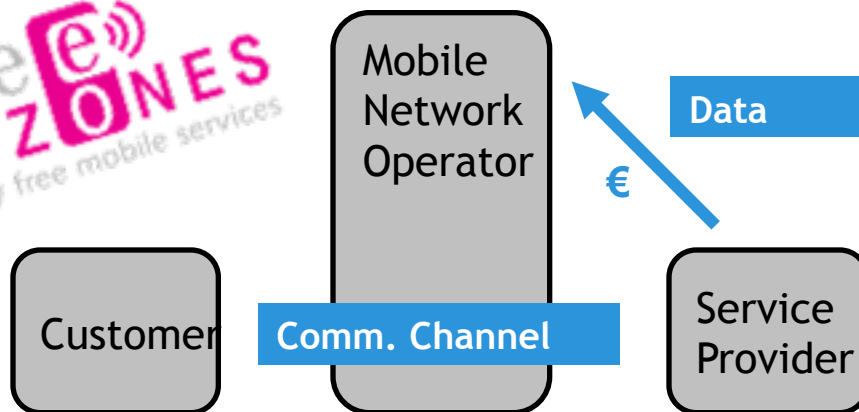
PhD Projects

Sedis

PREMIUM Project (Completed in 2007)

- **Potential:** Mobile network operators have a customer relation with most of the German population!
- **Offering:** Mobile network operators are providing service providers with a communication channel to potential customers.
- **Motivation:** Service providers gain higher, mobile initiated revenues in their business.
- **Objective:** Eliminating data costs for customers while making them marketing costs for service providers.

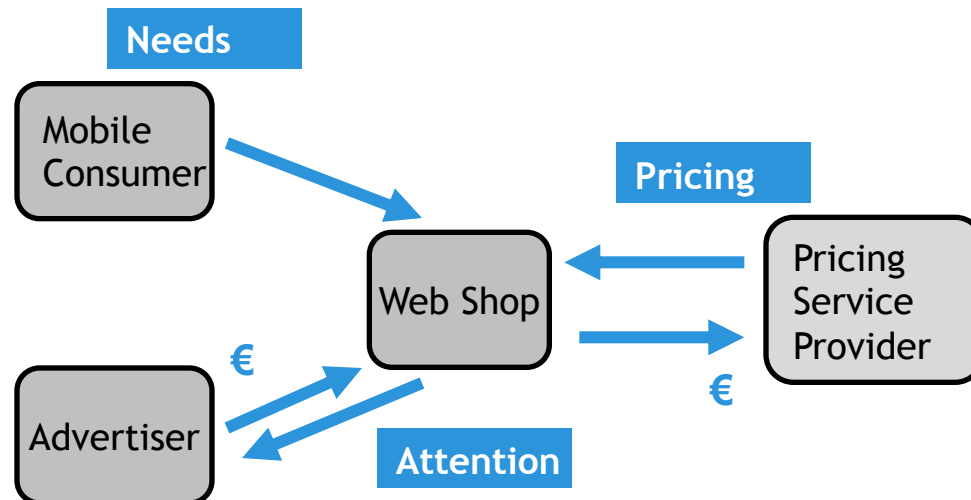
free
ZONES
Enjoy free mobile services



PREMIUM Services Project (Completed in 2011)

Research on Pricing Mechanisms for Context-sensitive Mobile Consumer Contacts offered to Mobile Advertisers

- Design of dynamic, interactive pricing mechanism to address the unique characteristics of Context-sensitive Mobile Consumer Contacts
- Development of an Evaluation Tool for Advertisers in order to determine the value of mobile consumers in their current usage situation
- Implementation of Pricing Service Platform for the webservice-based provision of Pricing Mechanisms to SMEs (e.g. Online Webshops)



Premium|Services



- EU FP7 Challenge “Secure, dependable and trusted Infrastructures”



- Integrated Project
- Planned for 3 years from 2008-03 (extended till 2011-06): Summit event at IFIP Sec 2011 Lucerne
- EC contribution : ~€ 10 Mio
- Partners
 - IBM, Microsoft, SAP, Giesecke & Devrient, W3C, and more...



Giesecke & Devrient
security at work.



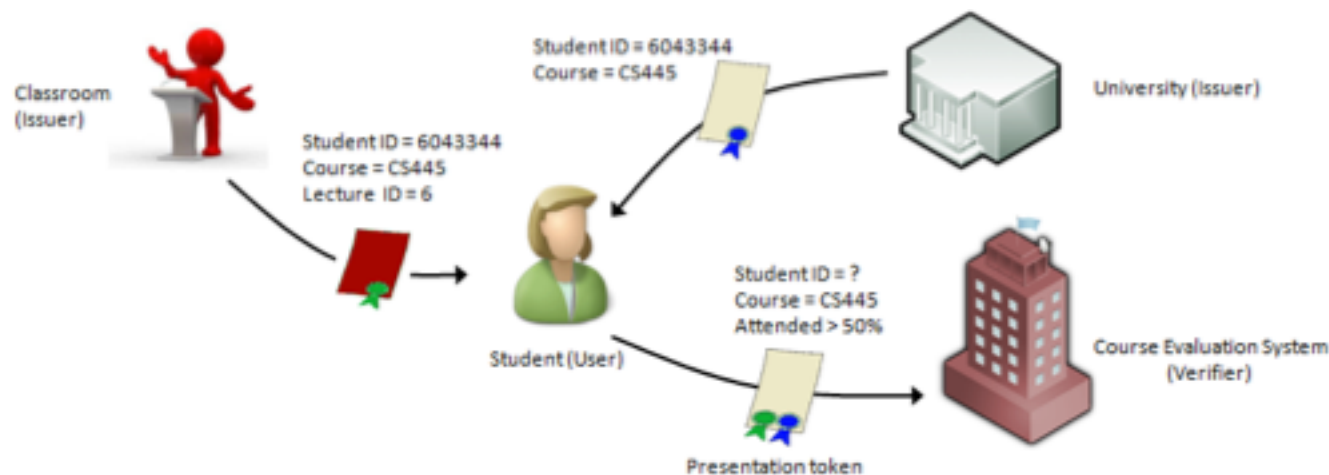
- Providing Privacy *throughout Life*: Prime***Life***!
 - ... digital footprints left over lifetime
 - ... in emerging Internet applications
 - ... user-centric and configurable
 - Making Privacy Real: Prime***Life***!
 - Making results of PRIME (FP6) and PrimeLife widely usable and deployed
 - Cooperating with other projects for transferring PRIME and PrimeLife technologies and concepts
 - Advancing State-of-the-Art in Technology supporting Privacy and Identity Management
 - Mechanisms, HCI, Policies, Infrastructure
- ... Building on results and expertise of PRIME



- Attribute-based Credentials for Trust (ABC4Trust)
- Nov. 2010 - Feb. 2015
- Objectives:
 - Abstraction of concepts of privacy-ABCs & unification of features
 - A common unified architecture
 - Independent from the specific technologies
 - Enabling the federation of privacy-ABC Systems based on different technologies
 - Enabling interoperability between different privacy-ABC technologies
- Avoid lock-in into one specific system
- Raise trust in privacy-ABC technologies



- **1st Pilot - Privacy in Online Evaluation and Feedback Systems**
 - Deployment: Patras University, Greece
 - Scenario: Students evaluate anonymously the courses they attended
- **2nd Pilot - Privacy in social communication fora**
 - Deployment: Söderhamn Secondary School, Sweden
 - Scenario: Pupils communicate using pseudonyms on the school communication system
- **Benefits of Privacy-ABCs**
 - Privacy-ABCs are by default untraceable (no user-tracking)
 - Enable minimal disclosure (user reveals only the necessary information)
 - User can chose to stay anonymous or generate (unlimited number of) pseudonyms
 - Advanced security (no sharing of credentials, device-binding for extra protection)



ABC4Trust Architecture goals

Reference implementation with ABC functionality

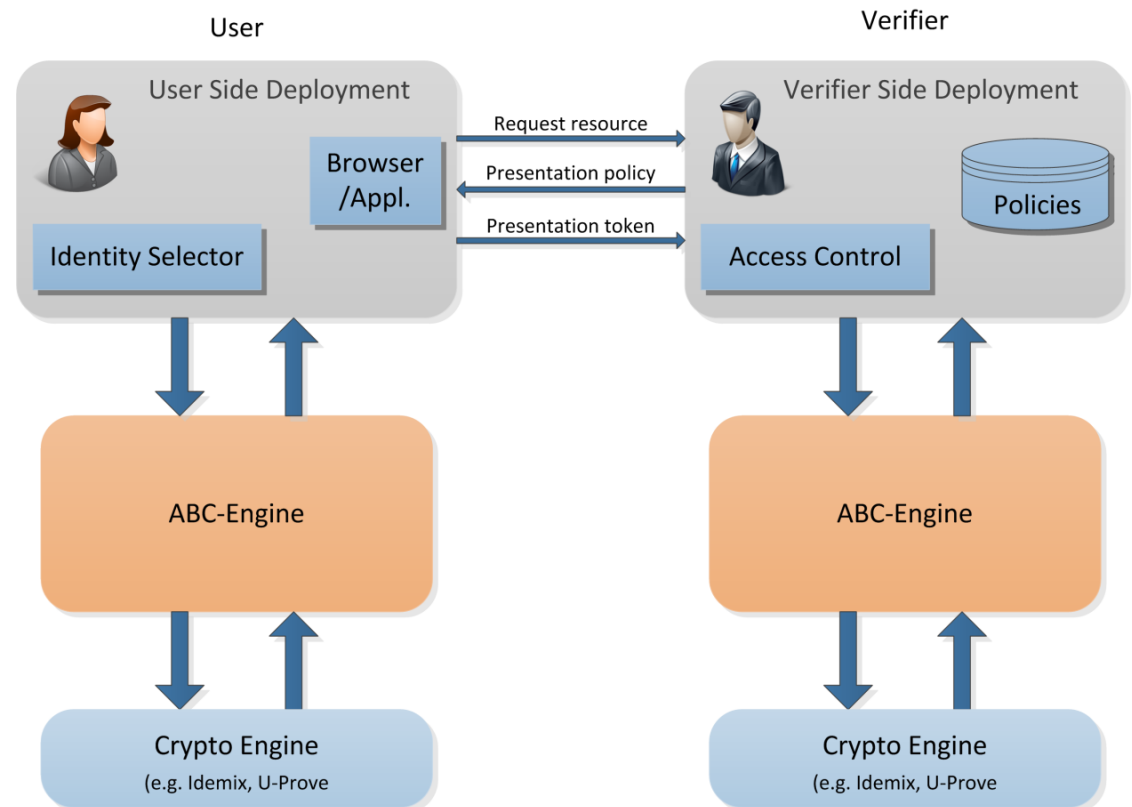
- coded in the ABC-Engine,
- exposed to the application layer as web-services,
- as open source

For developers

- Easier application development
- Cryptographic operations are abstracted away from

For users

- Only need to install a browser plug-in



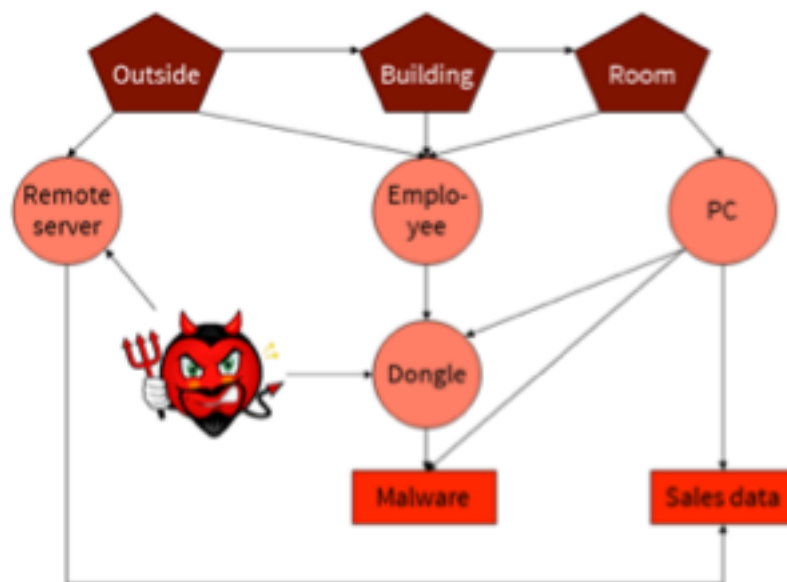
(Completed in 2016)

- There is a constant increase of costs due to cyber attacks (hacking, industrial espionage, exploitation of loopholes).
- How to combine technical sciences, social sciences and state-of-the-art industry processes and tools to
 - predict complex attack scenarios spanning digital, physical, and social engineering aspects,
 - enable informed decisions on security investments,
 - reduce security incidents, and
 - increase resilience?



■ Project aims

- tool support for investments into cyber security controls
- models and processes to analyse and visualize possible attacks
- an attack navigator to systematically predict, prioritise, and prevent complex attacks



- Privacy and Usability (Privacy & Us)
- Dec. 2015 until Nov. 2019
- Objectives:
 - Develop ways to minimize the negative impact of personal information disclosure
 - Create awareness of the possible negative consequences of uncontrolled personal data disclosure
 - Develop and evaluate methods to assess risks and make informed decisions

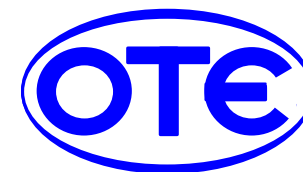




CREDENTIAL

Overview and Vision

- Oct 2015 - Sep 2018
- **Vision:** develop, test, and showcase innovative cloud-based services for storing, managing, and sharing **digital identity information** and other highly critical **personal data** with a demonstrably **higher level of security** than other current solutions.
 - Secure, user-friendly, cloud-based identity management solution
 - Open, portable and broadly interoperable architecture
- Piloting in different domains
 - e-government,
 - e-health, and
 - e-business



LOMBARDIA INFORMATICA

- **Duration:** 08/2015 - 12/2018
- **Aim:** Protection of communication networks of small and medium sized energy providers.
- **Focus:** Balance between security and usability. Enable non-experts to detect and overview security risks.
- **Research I:** Development of security metrics and corresponding measuring methods.
- **Research II:** Creation of a cross-organisational knowledge-database for small and medium sized energy providers to improve availability and integrity of critical infrastructures against attackers.



- **Duration:** 01/2016 - 06/2019
- **Aim:** Create and integrate privacy-enhancing technologies into the internet infrastructure
- **Focus:** Establish PET in the mass market
 - Develop new or adapt existing business models
 - Standardize technologies
 - User study: How do users understand tariff and pricing models?
 - User study: What is the perceived relationship of service feature and accepted prices?
 - How can existing value creation architectures and operational models be adapted?



Business Model



Privacy



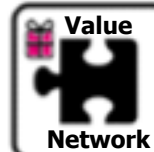
Usability



Revenues



Costs



Value
Network



Risk
Assessment



Value
Proposition



Distribution
Channels



Tariff
Model



Customers



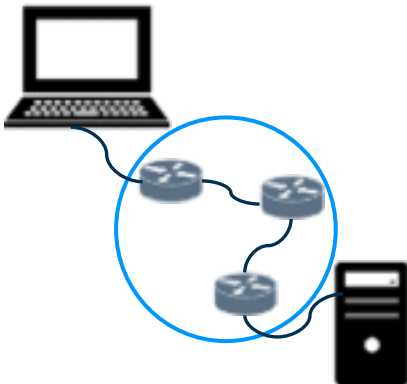
Provider



Requirements

Privacy Enhancing Technologies

Conditions



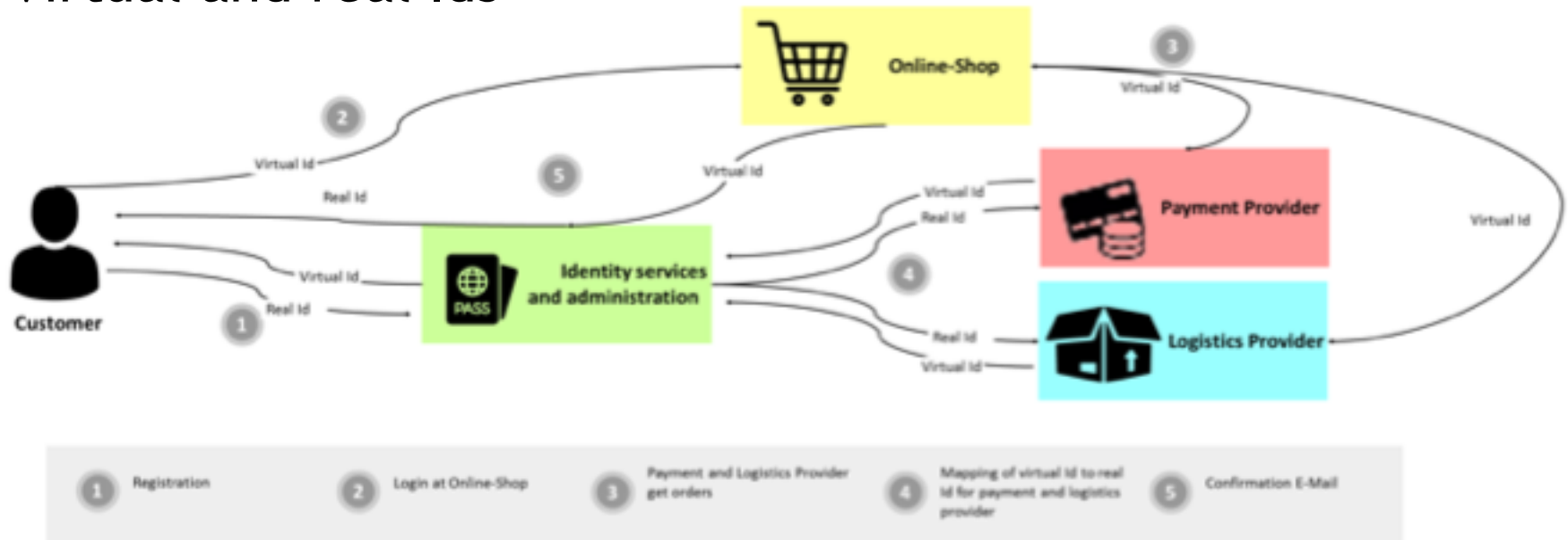
- **Selbstdatenschutz im Online Commerce**
- **Duration:** 04/2016 - 06/2019
- **Aim:** Enhance Privacy for Online Shopping
- **Focus:** Develop an online commerce solution with an architecture that enables pseudonymous online shopping, while respecting the interests of all stakeholders.
 - Modelling business processes
 - Considering especially the requirements of the web shop providers since they are crucial for mass-market penetration
 - User studies concerning usability and business model development

Hochschule
Zittau/Görlitz
UNIVERSITY OF APPLIED SCIENCES

Commodity chain



Virtual and real Ids



- Participatory Approaches to a New Ethical and Legal Framework for ICT
- Website: www.panelfit.eu
- Duration: 36 months, from November 2018
- Aim: Help researchers and innovators in conducting ethical and legally compliant research
- Focus: Conduct issues and gap analysis and develop guidelines for researchers and innovators on:
 - Informed Consent
 - Data Commercialization
 - Cybersecurity





Goethe University co-ordinates mega-project on cybersecurity and data protection

📅 28. Februar 2019



An extensive research project on cybersecurity and data protection in Europe will be launched this week. Goethe University Frankfurt has assumed the leadership and co-ordination of the 43 total consortium partners from science, business, industry and society.

📌 This is the news channel for the latest information from science and research at Goethe University.

Podcast: [Click here](#)

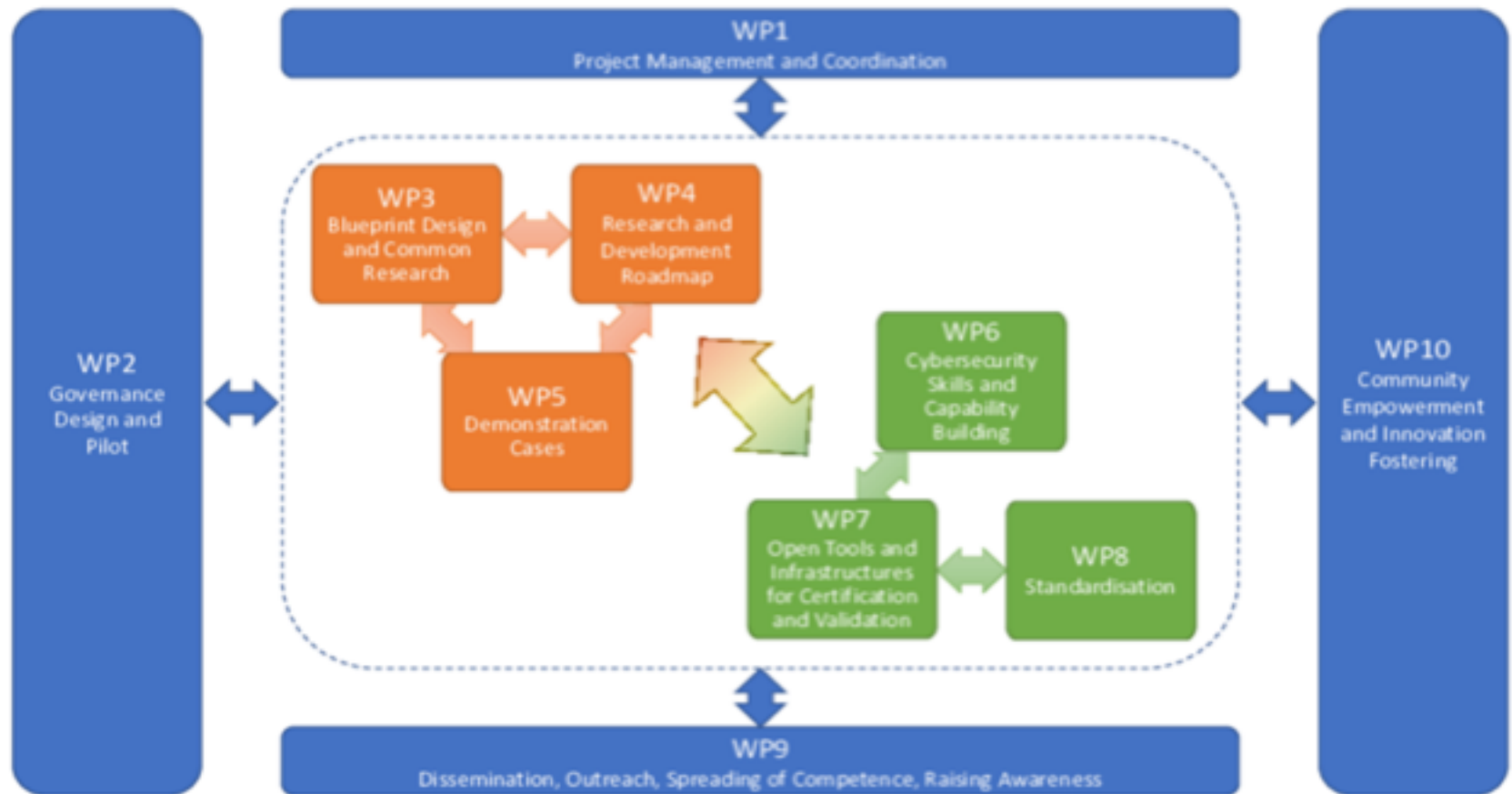
<https://aktuelles.uni-frankfurt.de/englisch/goethe-university-co-ordinates-mega-project-on-cybersecurity-and-data-protection/>

- 22 Countries
- 43 Project partners
- 40 Support letters (global)
- 26 ESCO members
- 6 ECSO Working Groups
- Existing networks (ECSO, TDL, EOS, CEPIS)
- Experience from 100+ cybersecurity projects in 14 key areas
- With 11 technology/application elements and
- Coverage of 9 vertical sectors
- CyberSec4Europe is: Centres of Excellence / Universities / Research Centres / SMEs!
- www.Cybersec4europe.eu

CALL TOPIC (SU-ICT-03-2018):

Each proposal should bring together cybersecurity R&D&I centres in Europe (e.g. university labs/public or private non-profit research centres) to create synergies and scale up existing competences and demonstrated strengths to the European level.

Proposals should take into consideration relevant active digital ecosystems and public-private cooperation models and focus on solving technological and industrial challenges.



- Multilateral Security, Privacy, and Identity Management in
 - IT Security Evaluation
 - Criteria (IS 15408, Common Criteria)
 - Certification
 - Standardisation (in ISO/IEC JTC 1/SC 27)
 - WG 3: IT Security Evaluation Criteria
 - WG 5: Identity Management and Privacy Technologies

- Standardisation and regulation (EU ENISA Management Board, ...)

Partners of the Chair



- Introduction of the Chair
- Course Organisation
- Scope and Outline of the Course
- Introduction to Information & Communication Systems



Christopher Schmitz
M.Sc.

**Please write to:
win2@m-chair.de**



Ann-Kristin Lieberknecht
M.Sc.



Frédéric Tronnier
M.Sc.

- **Course Slides**
 - Slides of the course can be downloaded from the website of the Chair at www.m-chair.de

- **Online News**
 - News about the course (e.g. room changes, announcements, etc.)
 - Available via website of Chair, RSS feed or Twitter

www.m-chair.de | twitter @mchair | Imprint | Sitemap




Chair of Mobile Business & Multilateral Security

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- Team
- Teaching
- Chair
- Research
- Links
- Contact

■ **Wirtschaftsinformatik II (PWIN)**

■ **Basic Information**

Type of Lecture: Lecture
Course: Bachelor
Hours/Week: 3
Credit Points: 6
Language: German
Term: Summer 2019

Lecturers:

- Prof. Dr. Kai Rannenberg
- Christopher Schmitz M.Sc.
- Ann-Kristin Lieberknecht MSc.

Email: win2@m-chair.de

🔗 **Content of the Course**

Description: Basierend auf der Vorlesung "Wirtschaftsinformatik 1" (OWIN) vermittelt dieser Kurs die Grundlagen von Informations- und Kommunikationssystemen (IuK-Systeme) und behandelt u.a. deren Entwicklung und Einführung in Unternehmen. Die Veranstaltung lässt sich grob in folgende vier Teile gliedern:
 Im ersten Teil werden Bedeutung und Charakteristika von IuK-Systemen in Unternehmen rekapituliert und eine kurze Einführung in die Unternehmensmodellierung gegeben.
 Der zweite Teil geht mehr ins Detail und widmet sich der Architektur und Funktionalität von IuK-Systemen. Es werden ferner die beiden miteinander verwandten Konzepte "Informationssysteme" (IS) und "Kommunikationssysteme" definiert und voneinander abgegrenzt. Dieser Abgrenzung folgend, werden IS-Architekturen und entsprechende IS-Modelle diskutiert und schichtenbasierte Kommunikation und Netzwerktechnologien für Kommunikationssysteme vorgestellt.

Latest News

- MOB1 Exam Review
- Evaluation for MOB1 will happen on the 15th of January, 2019
- Next INKO course on Monday
- INKO guest lecture replaced by an exercise
- The deadline for Post-doctoral job application is extended

Quick Links

- Courses
- Theses
- FAQ (Teaching)
- Job Offers
- How to find us

mchair @ twitter

twitter: @mchair

Contents of Exercises and „Mentorien“

- Exercises
 - Presentation and discussion of exercise results
 - Addressing of open questions from the lectures
 - Preparation for final written exam

- „Mentorium“
 - Preparation, presentation and discussion of exercises in smaller groups of students

- All materials are going to be made available on the website of the Chair in advance and should be prepared by the students.

Written Final Exam

- Duration: 90 minutes
- 6 Credit Points
- Date of written exam is going to be posted on the examination office's website
- Exam language: German
- All lecture and exercise content is relevant unless it is explicitly excluded
- Previous written exams can be found at www.m-chair.de

Equivalence of prior Academic Achievements to this course

- Acceptance of verified achievements of universities or universities of applied sciences and arts (located in Germany or foreign countries) is possible.
- Achievements from schools generally rejected:
 - Apprenticeships of grammar schools, secondary schools, technical colleges, etc.
 - Apprenticeships of vocational schools

Equivalence of Academic Achievements prior to this Course

- Acceptance will be granted if it is verified that at least 75% of the contents of this course (incl. exercises) was covered and studied at a former university.
- In addition, the weekly number of hours of the course at the former university must be higher or equal to the hours of this course (2L+1E) in order to be accepted .
- The application documents have to consist of an outline of the passed course from the former university, a corresponding certificate and a table of the contents, which shows the overlap with this course (***structured by the outline of this course!***).



ENZYKLOPÄDIE DER WIRTSCHAFTSINFORMATIK ONLINE-LEXIKON

Hrsg.: Norbert Gronau, Jörg Becker, Elmar J. Sinz, Leena Suhl, Jan Marco Leimeister

[Startseite](#) |

[Lexikon](#) |

[Autoren](#) |

[Herausgeber](#) |

[Benutzungshinweise](#) |

[Hitliste](#) |

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[Informationsmanagement](#)

[Repository](#)

[Compliance](#)

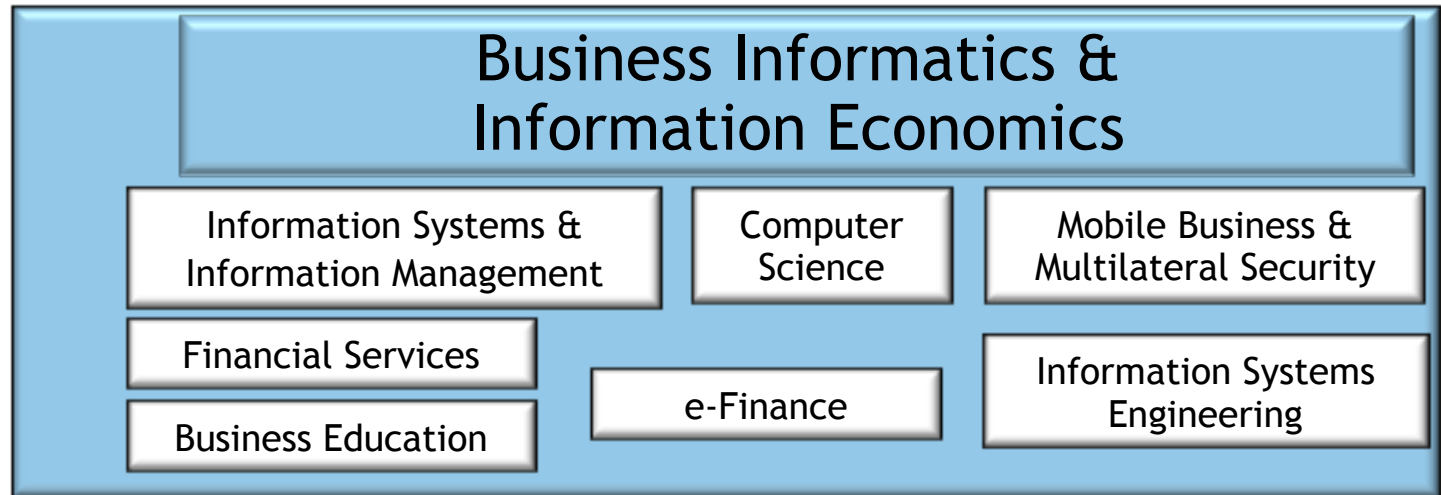
[Software-](#)

www.enzyklopaedie-der-wirtschaftsinformatik.de

- Introduction of the Chair
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Integration of the Course into the Teaching of Business Informatics

Focus Phase



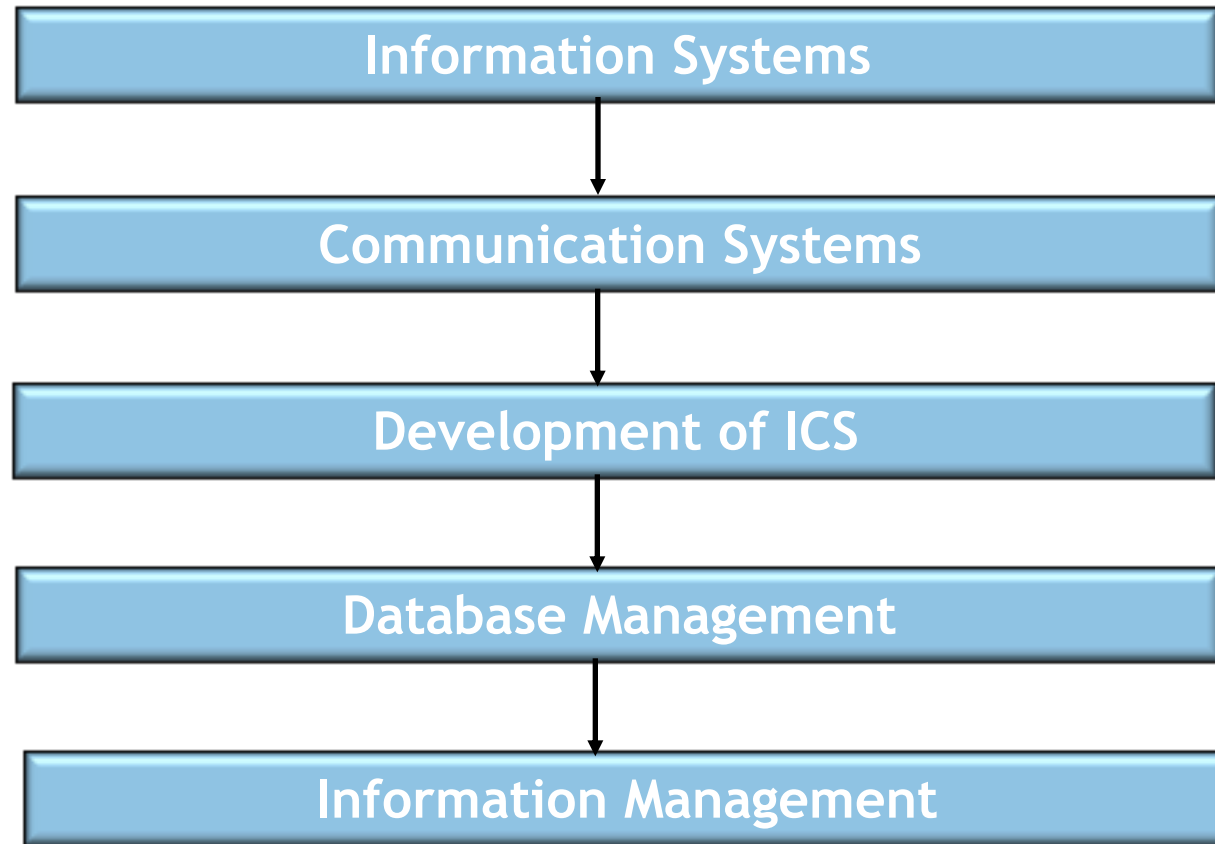
Advanced Phase



Orientation Phase



Components of the Course Business Informatics II (PWIN)



Components of the Course Business Informatics II (PWIN)

Information Systems

Purpose of and Research on Information Systems

Enterprise Modelling

Architectures of Information Systems

Mobile Information Systems

Components of the Course Business Informatics II (PWIN)

Communication Systems

Introduction to layer-based Communications

Fixed Networks

Wireless Networks

After NSA-gate the Internet will not be what it used to be

The screenshot shows a Firefox browser window displaying a Guardian article. The browser's address bar shows the article title. The Guardian website header includes the logo, navigation links (Edition: UK, US, AU, Sign in, Mobile, About us), a cookie notice, and a search bar. The article title is "The US government has betrayed the internet. We need to take it back" by Bruce Schneier. The sub-headline reads: "The NSA has undermined a fundamental social contract. We engineers built the internet – and now we have to fix it". A blue button says "Comment is free". Social sharing buttons for Facebook (14174), Twitter (5,690), Google+ (3k), Pinterest (28), and LinkedIn (454) are visible. An "Email" button is also present. Below the article, there is a "Jump to comments (720)" link and a "World news" section with links to "NSA · United States · Surveillance · The NSA files · US national security".

[Schneier 2013]

Components of the Course Business Informatics II (PWIN)

Development of ICS

Management of IT-Projects

Software Engineering

Object Orientation & UML

Markup Languages

Components of the Course Business Informatics II (PWIN)

Database Management

Databases

SQL

Information Management

Business Process Reengineering

Business Process Modeling

Woche	Datum	Zeit	Raum	Veranstaltung	Thema/Bemerkung
KW 42	Di, 15.10.2019	08:00 bis 10:00	HZ 4	Vorlesung	Informationssysteme I
	Di, 15.10.2019	10:00 bis 12:00	HZ 4	Vorlesung	Informationssysteme I
KW 43	Di, 22.10.2019	10:00 bis 12:00	HZ 4	Übung	VL1, VL2
	Di, 22.10.2019	14:00 bis 16:00	H5	Mentorium	
	Do, 24.10.2019	10:00 bis 12:00	SH 1.106	Mentorium	
	Do, 24.10.2019	14:00 bis 16:00	HZ 4	Mentorium	
KW 44	Di, 29.10.2019	08:00 bis 10:00	HZ 4	Vorlesung	Informationssysteme II - Modelle und Architekturen
	Di, 29.10.2019	10:00 bis 12:00	HZ 4	Vorlesung	Informationssysteme III - Mobile Systeme
KW 45	Di, 05.11.2019	10:00 bis 12:00	HZ 4	Übung	VL3, VL4
	Di, 05.11.2019	14:00 bis 16:00	H5	Mentorium	
	Do, 07.11.2019	10:00 bis 12:00	SH 1.106	Mentorium	
	Do, 07.11.2019	14:00 bis 16:00	HZ 4	Mentorium	
KW 46	Di, 12.11.2019	10:00 bis 12:00	HZ 4	Gastvorlesung	Tbd
KW 47	Di, 19.11.2019	10:00 bis 12:00	HZ 4	Gastvorlesung	Tbd
KW 48	Di, 26.11.2019	08:00 bis 10:00	HZ 4	Vorlesung	Kommunikationssysteme I - Schichtenbasierte K.
	Di, 26.11.2019	10:00 bis 12:00	HZ 4	Vorlesung	Kommunikationssysteme II - Kabelgeb. U. drahtlose K.
KW 49	Di, 03.12.2019	10:00 bis 12:00	HZ 4	Übung	VL5, VL6
	Di, 03.12.2019	14:00 bis 16:00	SH 2.109	Mentorium	
	Do, 5.12.2019	10:00 bis 12:00	SH 1.106	Mentorium	
	Do, 5.12.2019	14:00 bis 16:00	HZ4	Mentorium	

Woche	Datum	Zeit	Raum	Veranstaltung	Thema/Bemerkung
KW 50	Di, 10.12.2019	08:00 bis 10:00	HZ 4	Vorlesung	Management von IT Projekten
	Di, 10.12.2019	10:00 bis 12:00	HZ 4	Vorlesung	Entwicklung von IS I - Software Engineering
KW 51	Di, 17.12.2019	10:00 bis 12:00	HZ 4	Übung	VL7, VL8
	Di, 17.12.2019	14:00 bis 16:00	SH 2.109	Mentorium	
	Do, 19.12.2019	10:00 bis 12:00	SH 1.106	Mentorium	
	Do, 19.12.2019	14:00 bis 16:00	HZ4	Mentorium	
KW 3	Di, 14.01.2020	10:00 bis 12:00	HZ 4	Vorlesung	Entwicklung von IS II - Objektorientierung & UML
KW 4	Di, 21.01.2020	08:00 bis 10:00	HZ 4	Vorlesung	Entwicklung von IS III - Markup Languages Datenbankansatz & Datenorientierte Modellierung
	Di, 21.01.2020	10:00 bis 12:00	HZ4	Vorlesung	
	Di, 21.01.2020	14:00 bis 16:00	SH 2.109	Mentorium	
	Do, 23.01.2020	10:00 bis 12:00	HoF E22	Mentorium	
	Do, 23.01.2020	14:00 bis 16:00	SH 0.109	Mentorium	
KW 5	Di, 28.01.2020	10:00 bis 12:00	HZ 4	Vorlesung	SQL
KW 6	Di, 04.02.2020	08:00 bis 10:00	HZ 4	Übung	VL9, VL10 VL11, VL12
	Di, 04.02.2020	10:00 bis 12:00	HZ 4	Übung	
	Di, 04.02.2020	14:00 bis 16:00	SH 2.109	Mentorium	
	Do, 06.02.2020	10:00 bis 12:00	HoF E22	Mentorium	
	Do, 06.02.2020	14:00 bis 16:00	SH 0.109	Mentorium	
KW 7	Di, 11.02.2020	10:00 bis 12:00	HZ 4	Vorlesung	Q&A

- Introduction of the Chair
- Course Organisation
- Scope and Outline of the Course
- Introduction to Information & Communication Systems

What is an Information System?

“[...] a set of interrelated components that collect (or retrieve), process, store, and distribute information to support decision making, coordinating and control in an organization.”

Source: Laudon, Laudon (2013), p. 35

Information System and Application System

- **Information System (IS):**

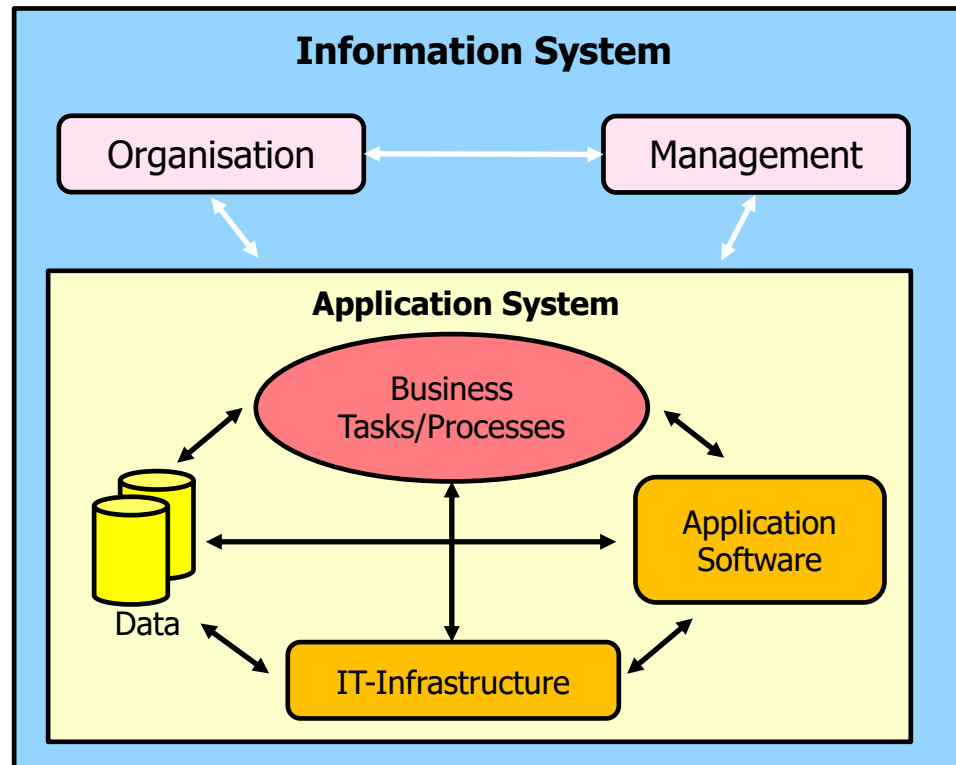
A system which was built to be used as part of an enterprise. It contains all relevant application systems and is embedded into the organisation and management of an enterprise.

- **Application System (AS):**

A system which consists of business tasks and processes it supports, the underlying IT-infrastructure, the application software and the data it required in order to accomplish its objectives.

Information System Structure and Components

Source: Laudon, K.C., Laudon, J.P., Schoder, D. (2010), p. 18.

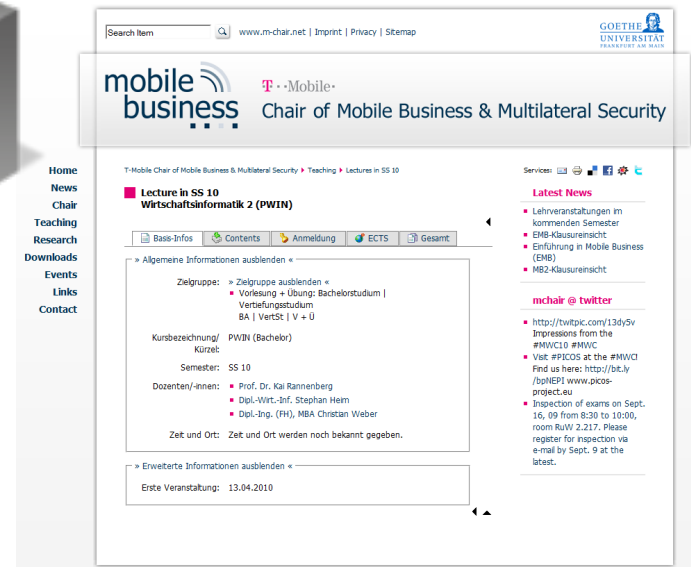


- A communication system is a collection of to each other compatible
 - Hardware (terminals, physical network components),
 - Software (operation systems, network protocols, application systems), and
 - Transmission protocols,

which allow an exchange of information – for example between different sites of an enterprise.



Information

The screenshot shows a web browser displaying the website for the mobile business chair. The page title is 'Lecture in SS 10 Wirtschaftsinformatik 2 (PWIN)'. The content includes a navigation menu with options like 'Home', 'News', 'Chair', 'Teaching', 'Research', 'Downloads', 'Events', 'Links', and 'Contact'. The main content area is titled 'Allgemeine Informationen ausblenden' and lists details for the course, including the target group (Zielgruppe), course title (Kursbezeichnung), semester (Semester), and lecturers (Dozenten/-innen). The lecturers listed are Prof. Dr. Kai Rannenberg, Dipl.-Wirt.-Inf. Stephan Heim, and Dipl.-Ing. (FH), MBA Christian Weber. The page also features a sidebar with 'Latest News' and social media links for 'mchair @ twitter'.

Interplay of Information and Communication Systems

- Information Systems (organisational orientation)
 - Designed for a specific operational area of responsibility
 - Considers organisational and basic personal requirements
 - Supports decision making, coordination, controlling and monitoring in enterprises, but even more aids managers and employees to analyse problems, understand complex business cases and develop new products.
- Communication Systems (technical orientation)
 - Physical networking
 - Transmission media
 - Hardware and software

- Laudon, K.C., Laudon, J.P., Schoder, D. (2010) „Wirtschaftsinformatik - Eine Einführung“, Pearson Studium, München.
- Laudon, K. C.; Laudon, J. P. (2013): *Essentials of Management Information Systems*. 10th Edition, Pearson Education Limited, Kendallville.
- Schneier, Bruce (2013): *The US government has betrayed the internet. We need to take it back.*
www.theguardian.com/commentisfree/2013/sep/05/government-betrayed-internet-nsa-spying

