DARIAH-DE
Digital Research Infrastructure
for the Arts and Humanities

GEFÖRDERT VOM
Bundesministerium
für Bildung
und Forschung

Wieviel DH brauchen wir im Studium und in der Doktoranden-Ausbildung?

Prof. Dr. Andreas Henrich
Otto-Friedrich-Universität Bamberg
Chair of Media Informatics

Overview

- Digital Humanities
- Curricular Considerations
- A Reference Curriculum?
- Discussion

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Digital Humanities

Digital ???

Fields according to Wikipedia:

- Anthropology
- Classics
- History
- Geography
- Languages
- Law
- Literature
- Performing arts (Music, Theatre, Dance)
- Philosophy
- Religion
- Visual arts

Heterogeneous in many respects:

subject-matter

current use of digital methods

...

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Call for Papers DH 2015 (http://dh2015.org/cfp/)

- Aspect of digital humanities include:
  - humanities research enabled through digital media, data mining, software studies, or information design and modeling;
  - computer applications in literary, linguistic, cultural, and historical studies, including electronic literature, public humanities, and interdisciplinary aspects of modern scholarship;
  - digital arts, architecture, music, film, theatre, new media, digital games, and related areas;
  - creation and curation of humanities digital resources;
  - social, institutional, global, multilingual, and multicultural aspects of digital humanities; and
  - digital humanities in pedagogy and academic curricula.

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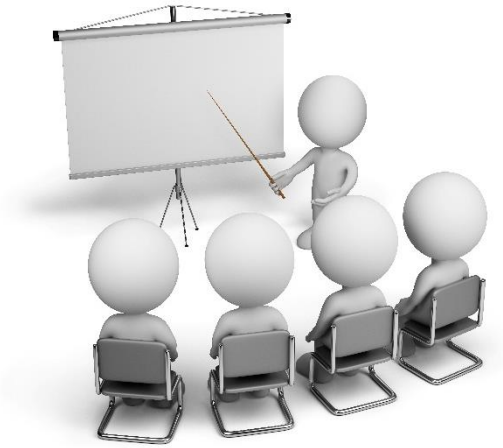
Curricular Considerations



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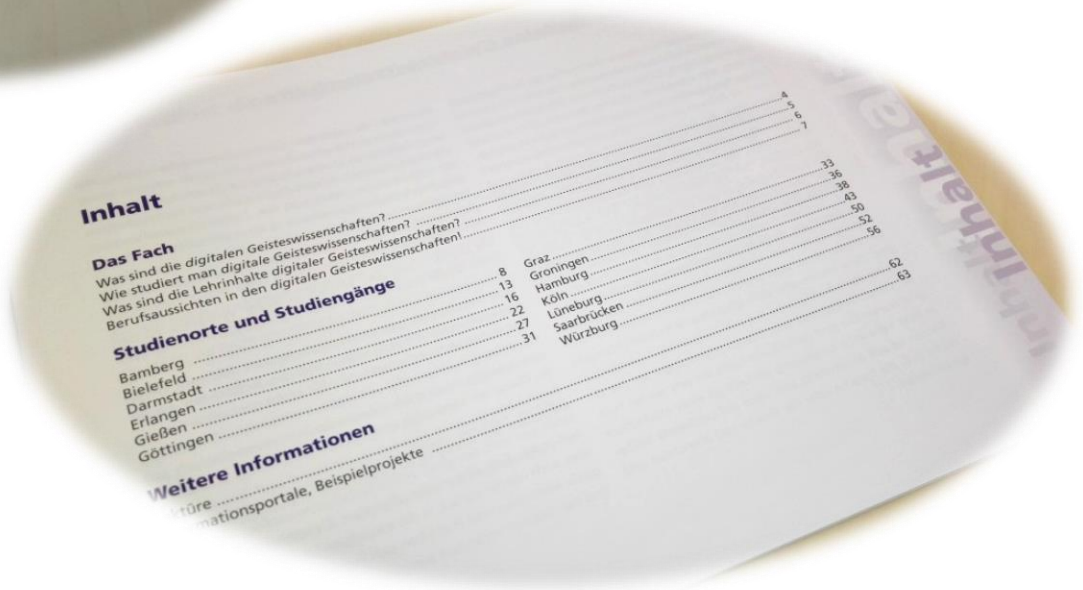

http://www.dig-hum.de/arbeitsgruppe-referenzcurriculum-digital-humanities

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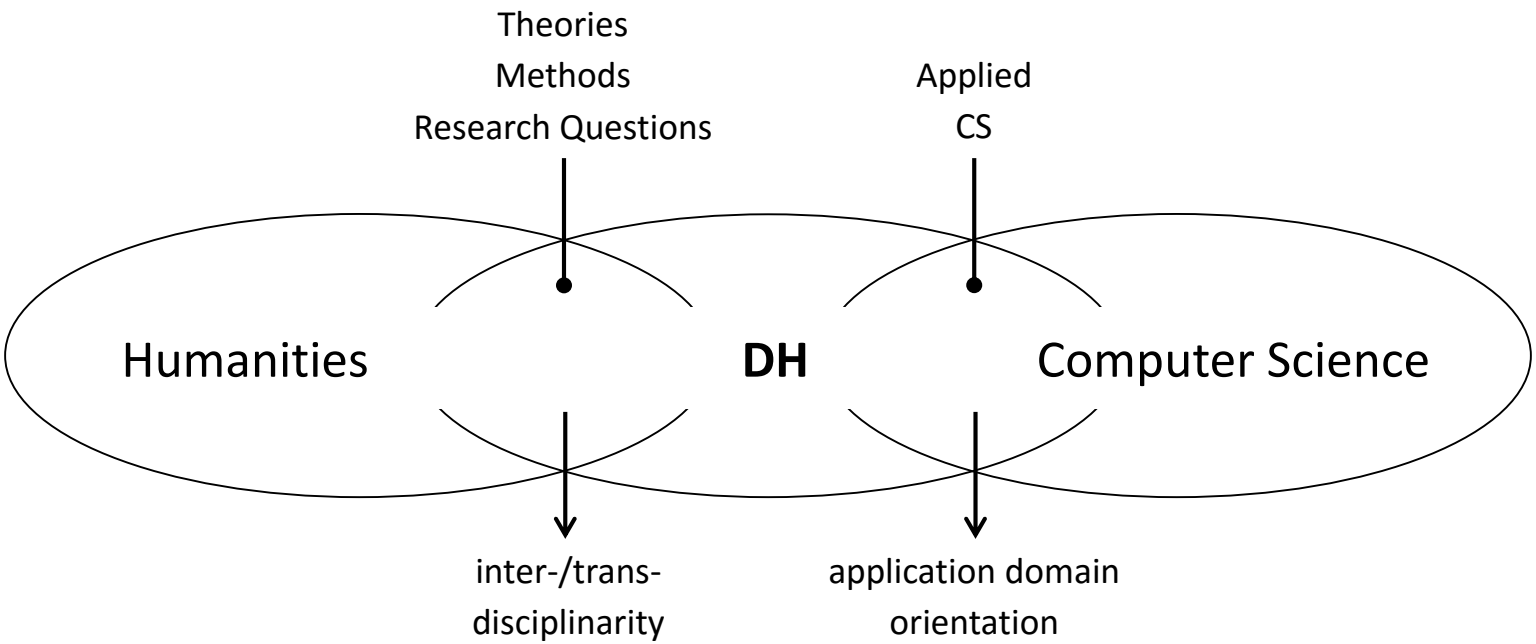
Positioning of Programs



state of the art H-programs

DH-programs

Appl. CS for H

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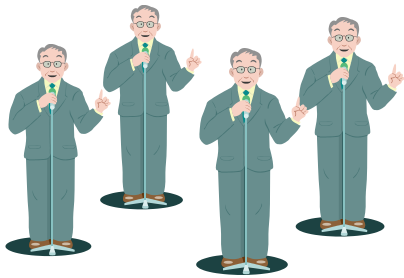
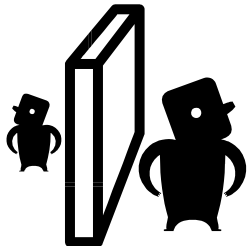
Objectives for a Reference Curriculum



- [obviously: Designing good programs]
- Standardization of programs with centralized exams
  - Example: computer science teachers
- Definition and delimitation
  - What is a computer science degree program? What type?
  - Example: GI guidelines
- Clear identification of contents
  - For positioning
  - For orientation in heterogeneous offers
  - For simple approval of credits, Master access, ...



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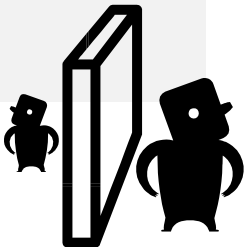
Example: GI guidelines (from 2005)



Bachelorprogramm	**Studiengang Typ 1**		**Studiengang[4] Typ 2**		**Studiengang Typ 3**	
		ECTS		ECTS		ECTS
Bachelorarbeit		15		15		15
Praxisphase[5]		15		15		15
Zwischensumme:		30		30		30
Kategorie	%[6]		%		%	
Informatik	57-63	85-95	40-50	60-75	30-40	45-60
Spezieller Anwendungsbereich (nur Typ 2)			20-30	30-45		
Anteile anderer Fachdisziplinen (nur Typ 3)					30-40	45-60
Mathematische und naturwissenschaftlich-technische Grundlagen	18-21	27-32	10-20	15-30	10-20	15-30
Sonstige fachübergreifende Grundlagen und überfachliche Schlüsselkompetenzen	18-21	27-32	10-20	15-30	10-20	15-30
Summe (in %):	100		100		100	
Summe (in ECTS):		180		180		180

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Example: identification of the modules in an IS-program

- Example module descriptions in VAWi:

Zuordnungen im 3^+-Säulen-Modell

10 %	Wirtschaftswissenschaften
25 %	Informatik
60 %	Kerngebiete der Wirtschaftsinformatik
5 %	allg. Grundlagen & Schlüsselqualifikationen

- Advantages:
  - One can deal well with optional moduls
  - Clear labelling of modules
  - Specifying corridors for a degree program according to students choice
  - Confirmation of shares also possible for individual students (Σ over all testified modules)

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Aspects of Curricular Consideration

- When designing a program:
  - Top-Down ↔ Bottom-Up
  - Depth ↔ Breadth
  - Special modules ↔ Reuse of existing modules
  - Research oriented ?↔ Qualifying for a profession
  - Established model ↔ Unique concept (unique selling proposition)
  - H-Program ↔ DH-Program ↔ CS-Program
  - ...

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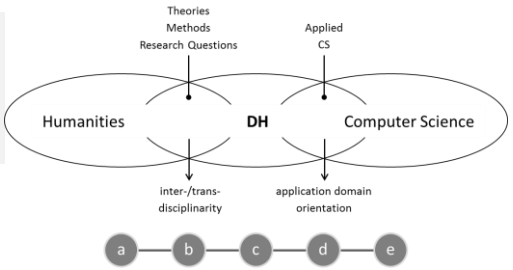
Considerations for d and e



Abstrakte Grundkenntnisse

Lifecycle Management

Algorithmen und Datenstrukturen, insbesondere: Komplexitätsbetrachtung, Sortier- und Suchverfahren, Graphen, algorithmische Prinzipien

Technische Grundlagen: von Neumann Architektur, Grundlagen von Betriebssystemen, Netze

Medienformate

Wahlfreie **Ergänzungen**

Skills / Programmieren

Beherrschung grundlegender **imperativer Prozesse**, **Objektorientierung**. Iteration, Rekursion.

X-Technologien (XSLT, …)

Option 1: **Skriptsprache** (PHP, Python, JavaScript) unter Beachtung obiger Pflicht.
Option 2: **Objektorientierte** Programmiersprache (Java, C++).
Option 3: **Funktionale** und / oder **Logikprogrammierung**.

Modelle und Modellieren

Datenmanagement, einschl. Daten(bank)modelle, Datawarehousing, NRDBM

Markupsprachen: Basistechnologien, ausgewählte Standards z.B. TEI

Modellieren (z. B. mit **UML**)

Inhaltliche Anwendungen

Wahlpflichtkombinationen: **Fachspezifische Anwendungen**, darunter mindestens zwei der folgenden Anwendungsbereiche:

- Bild
- Audio
- Text
- Video
- 3D Modellierung
- Geodaten

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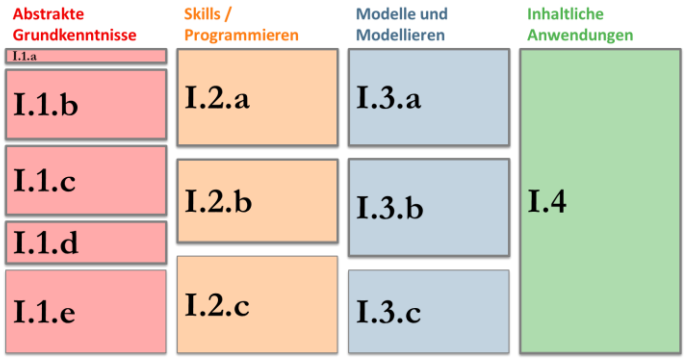
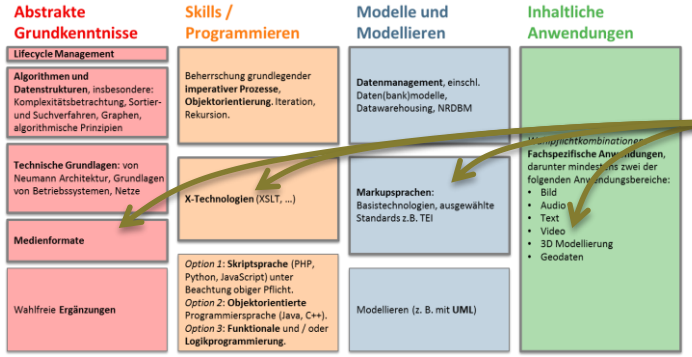
Mapping concrete modules





Module im 30-ECTS NF in BA

ID	Modulbezeichnung	ECTS	SWS	Prüfung
Pflichtbereich: 9 ECTS-Punkte				
KInf-IPKult-E	Informatik und Programmierung für die Kulturwissenschaften	9	2V/4Ü	Hausarbeit 4 Monate und Klausur 60 Minuten
Wahlpflichtbereich: 21 ECTS-Punkte aus dem folgenden Angebot				
DSG-EiAPS-B	Einführung in Algorithmen,	6	2V/2Ü	Klausur 90 Minuten
DSG-EiRBS-B				
KInf-GeoInf-B				
KInf-DigBib-B				
KogSys-KogInf-Psy				
KogSys-IA-B				
KogSys-KogMod-M	Kognitive Modellierung	6	2V/2Ü	mündlich 20 Minuten
MI-EMI-B	Einführung in die Me	6	2V/2Ü	Klausur 90 Minuten
MI-WebT-B				
MI-IR1-M				
HCI-IS-B				
HCI-KS-B				

Remarks:

- Sum can be $< 100\%$
- Level of detail in this example might be too high
- A derivation of values for "contains x% of the recommended dose for DH programs" is easily possible ☺.

Mapping to the DH reference model:

I.1.c:	div. media formats	60 %
I.2.b:	XML, DTD, XSLT	20 %
I.3.b:	DC, TEI	10 %
I.4:	3D modelling	10 %

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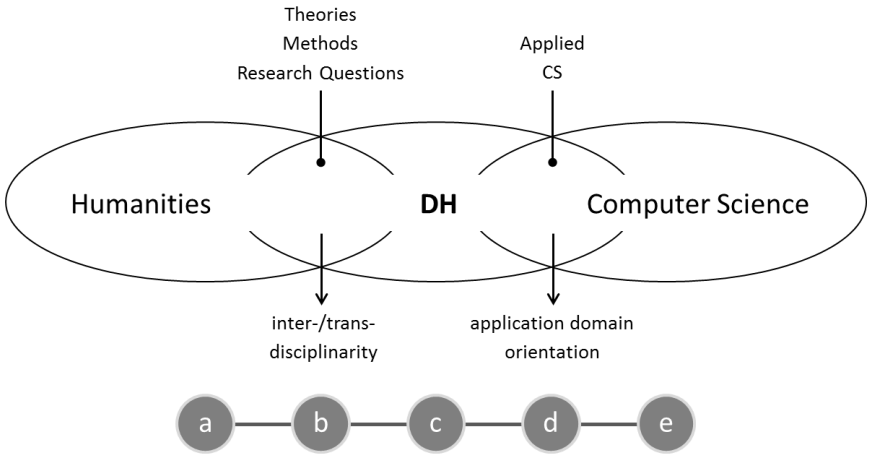
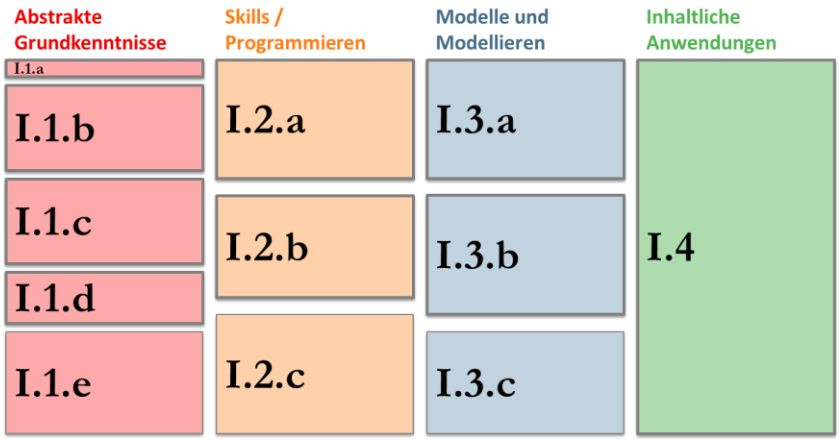
If you plan an program related to DH

- Position your program



- Label your modules



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Thank you – Discussion

- Verband DHd – „Digital Humanities im deutschsprachigen Raum“
  - http://www.dig-hum.de/
- AK „Informatik und Digital Humanities“ in der GI
  - Im FB Informatik und Gesellschaft (IUG)
  - http://fb-iug.gi.de/informatik-und-gesellschaft-iug/ak-informatik-und-digital-humanities.html

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