

Learning with Apple Technologies

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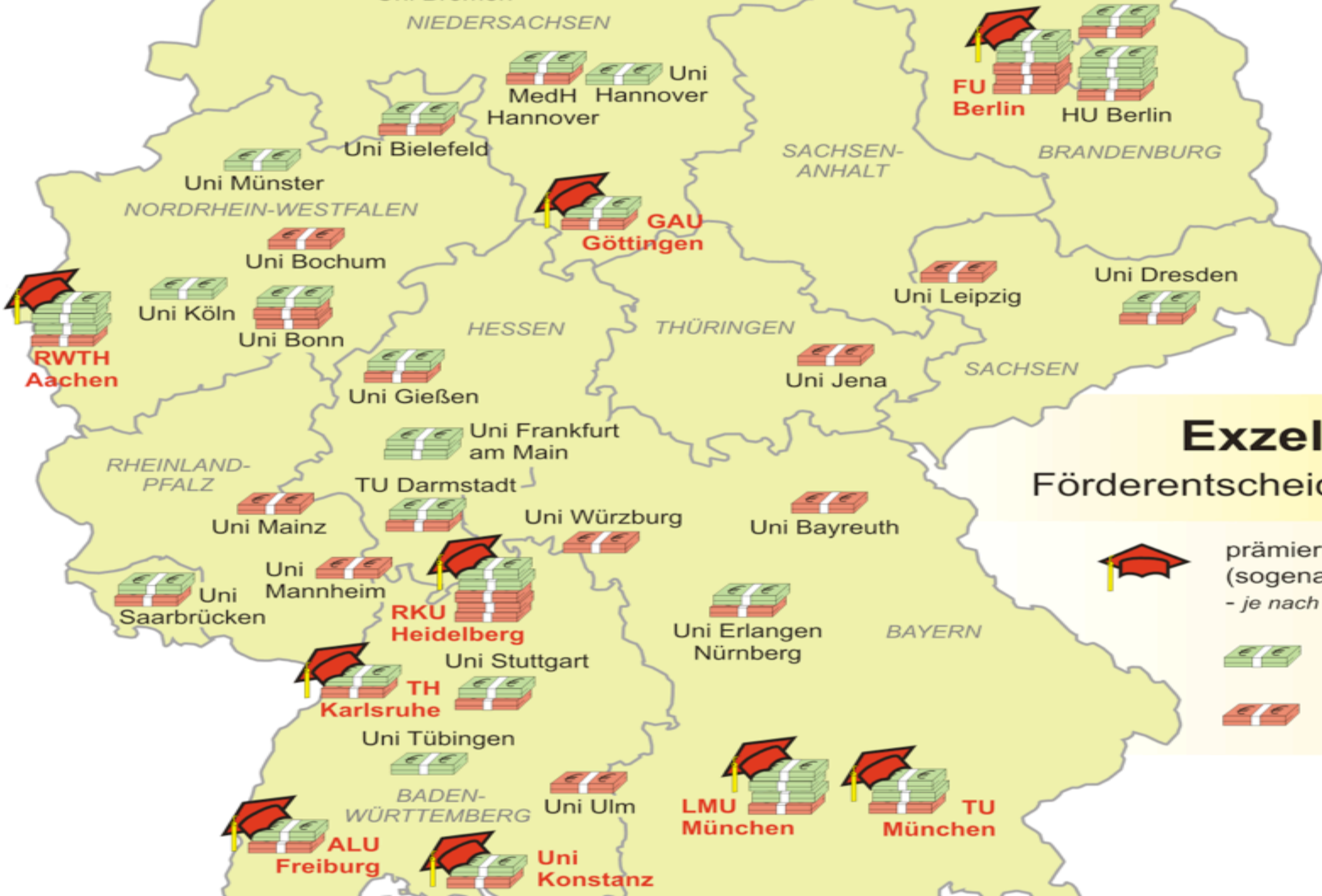
*Apple Education Leadership Series
London • Jan 14, 2010*



RWTH AACHEN UNIVERSITY

- 30.000 students
- One of Germany's 9 Excellence Universities
- Highest research funding from DFG (the German NSF) in the nation
- Technology focus





Exzellenzinitiative Förderentscheidungen 2006/7



prämiert für das Zukunftskorpus
(sogenannte Elite-Universität)
- je nach Antrag ca. 7 bis 14 Mio.



Exzellenzcluster
- 6,5 Mio. €/Jahr



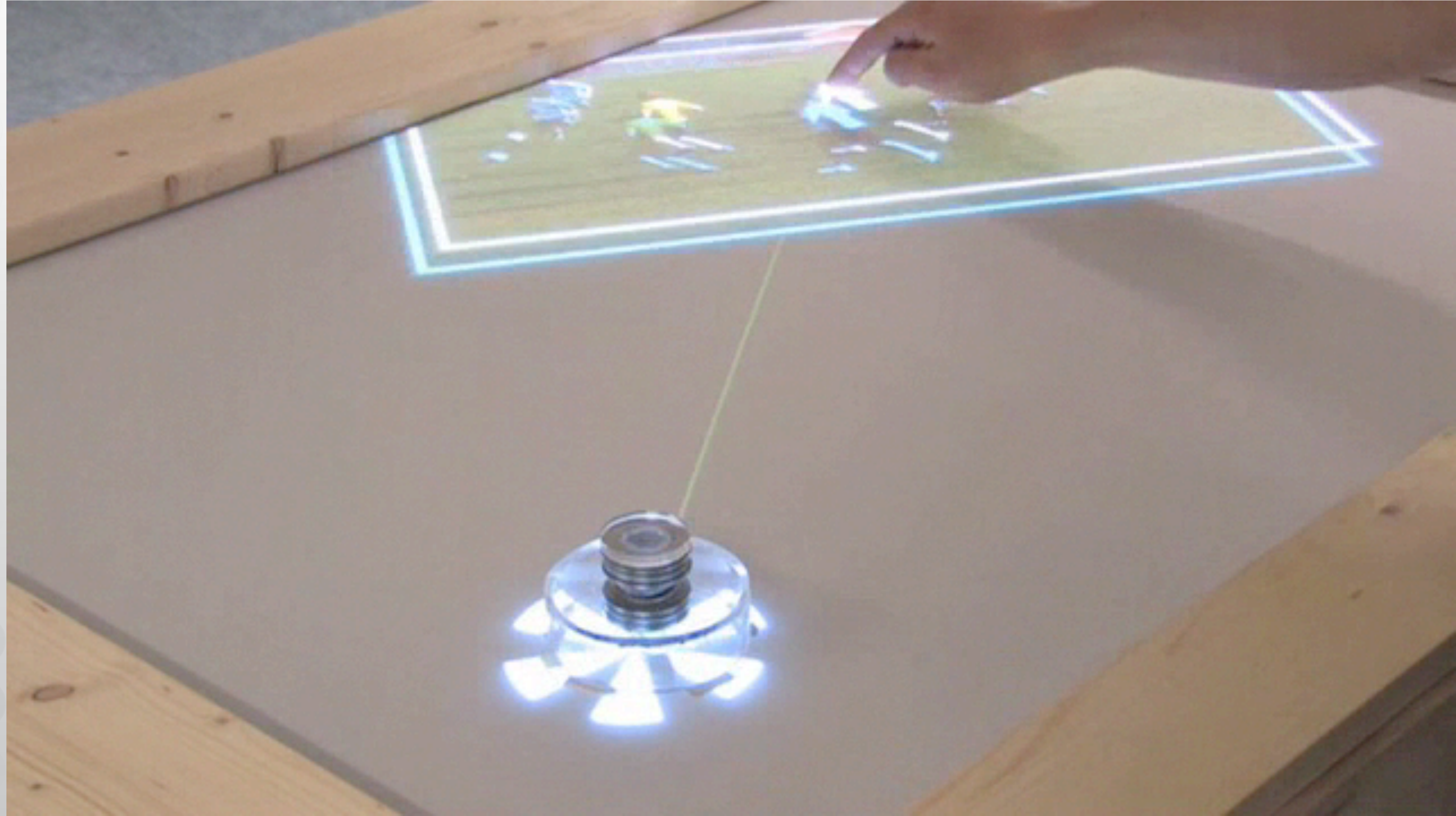
Graduiertenschule
- 1 Mio. €/Jahr

Media Computing Group

- Part of the Computer Science Department
- Our focus: New technologies for Human-Computer Interaction (HCI)
- Apple-based



Media Computing Group: Projects



<http://hci.rwth-aachen.de/videos/i10/projects-2.m4v>



Why Apple: General

- Unix-based OS
 - Robust through small hardware model range
 - Subtle usability advantages (consistency, user-centeredness)
 - If switching is possible
 - Essentially no viruses
 - No client OS software license hassles
- ➔ Low Total Cost of Ownership



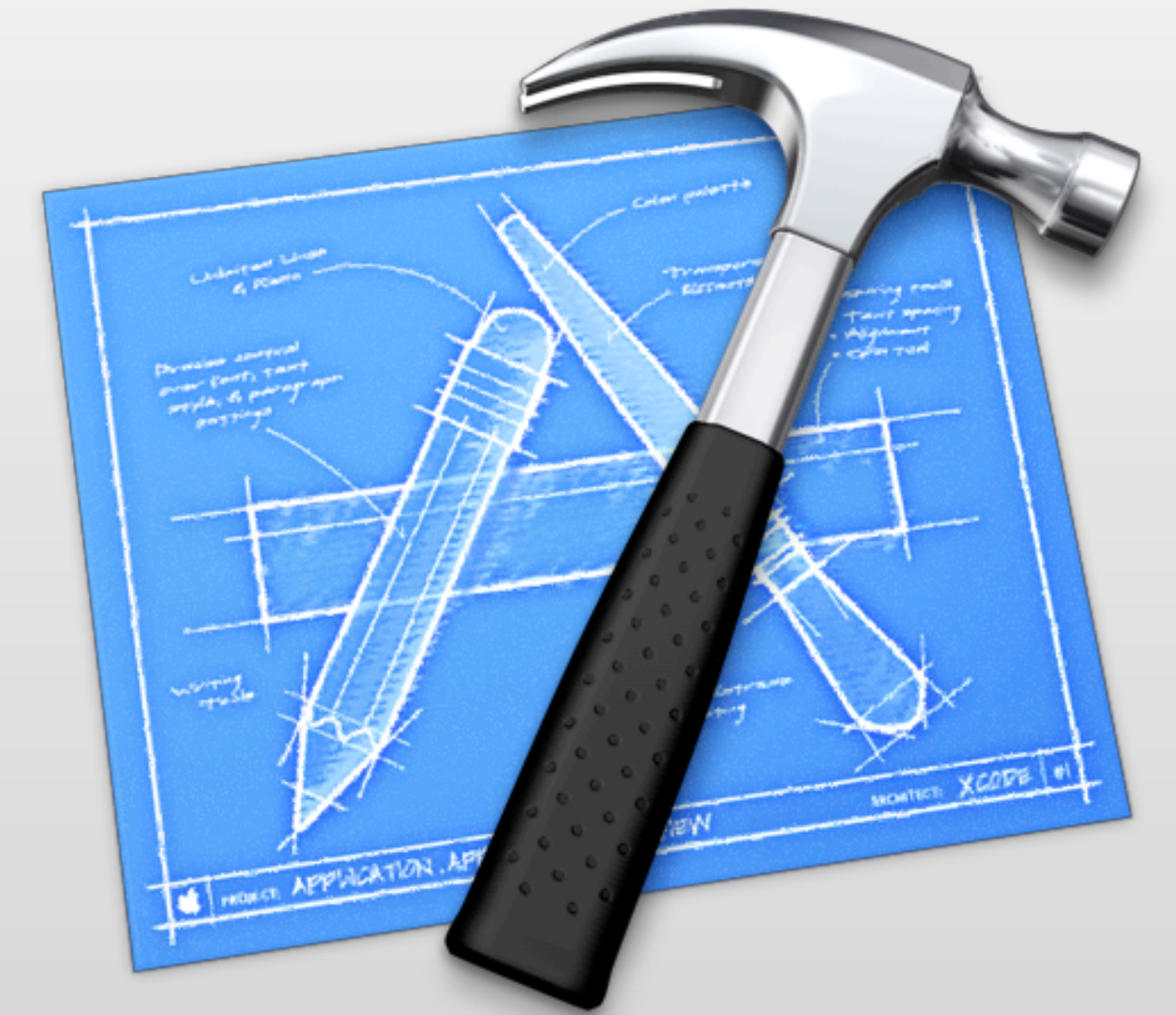
Why Apple: Universities

- No hardware in lowest price segment
 - But higher-end hardware makes more sense for many universities due to re-selling difficulties
- Apple On Campus online store
- Helpful infrastructure: Apple dealers, Apple Education support
- Open-source base OS, open standards support
- eLearning through simple media handling



Why Apple: Computer Science

- Only OS offering both MS Office and Unix shell
- Free, modern IDE (Xcode)
 - But: Microsoft Academic Alliance Program
- Innovative OS features for academic R&D
 - Core Image,...
- Observation: Growing market share among students and faculty



“But Does It Run Windows?!”



Mac-only applications



Mac versions



Virtualization



Bootcamp





Store

Mac

iPod + iTunes

iPhone

Downloads

Support

Education
Apple Store

0800 0003 168

Suche



Willkommen im Apple Store

Hilfe

Ihr Konto

Einkaufswagen

Apple On Campus



Neu im Apple Store

- iMac
- MacBook
- Mac mini
- Apple Magic Mouse
- Apple Remote
- Time Capsule - 1 TB
- AirPort Extreme Basisstation
- iPod nano
- iPod shuffle
- iPod classic
- iPod touch
- iPod nano Armband
- iPod Universal Dock Adapter 3er Pack für den iPod nano (5. Generation)
- Mac OS X 10.6 Snow Leopard

Mac kaufen
iPod kaufen
iPhone kaufen

Mac Zubehör

Mac Software

Mac Spiele

iPod Zubehör

iPhone Zubehör



iPhone 3G



iPhone 3GS



iPod shuffle

Ab
55,00 €



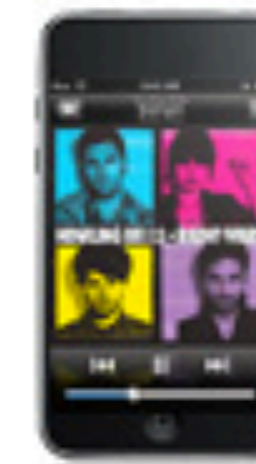
iPod nano

Ab
139,00 €



iPod classic

Nur
229,00 €



iPod touch

Ab
189,00 €



Apple TV

Nur
269,00 €

NEU



MacBook

Nur
791,35 €



MacBook Pro

Ab
1.011,50 €



MacBook Air

Ab
1.231,65 €

NEU



Mac mini

Ab
483,14 €

NEU



iMac

Ab
967,47 €



Mac Pro

Ab
2.023,00 €

Geschenkservices

iTunes Geschenkkarten



Finanzierung



Apple Campus Rep

- Student helping other students understand Apple technologies and make purchase decisions
- Funded through external agency
- Weekly helpdesk hours
- Runs mac.rwth-aachen.de with help for Mac users on campus



Large Project Agreements

- Support through very competitive pricing for equipping major new strategic centres
- Example: HumTec (50 researchers, €300k)



RWTH Aachen University on iTunes U

- 2001/2002: Stanford faculty
- 2006: Stanford iTunes U beta, contacted Apple
- 2008: RWTH selected for iTunes U pilot
- 1/2009: RWTH on iTunes U launch

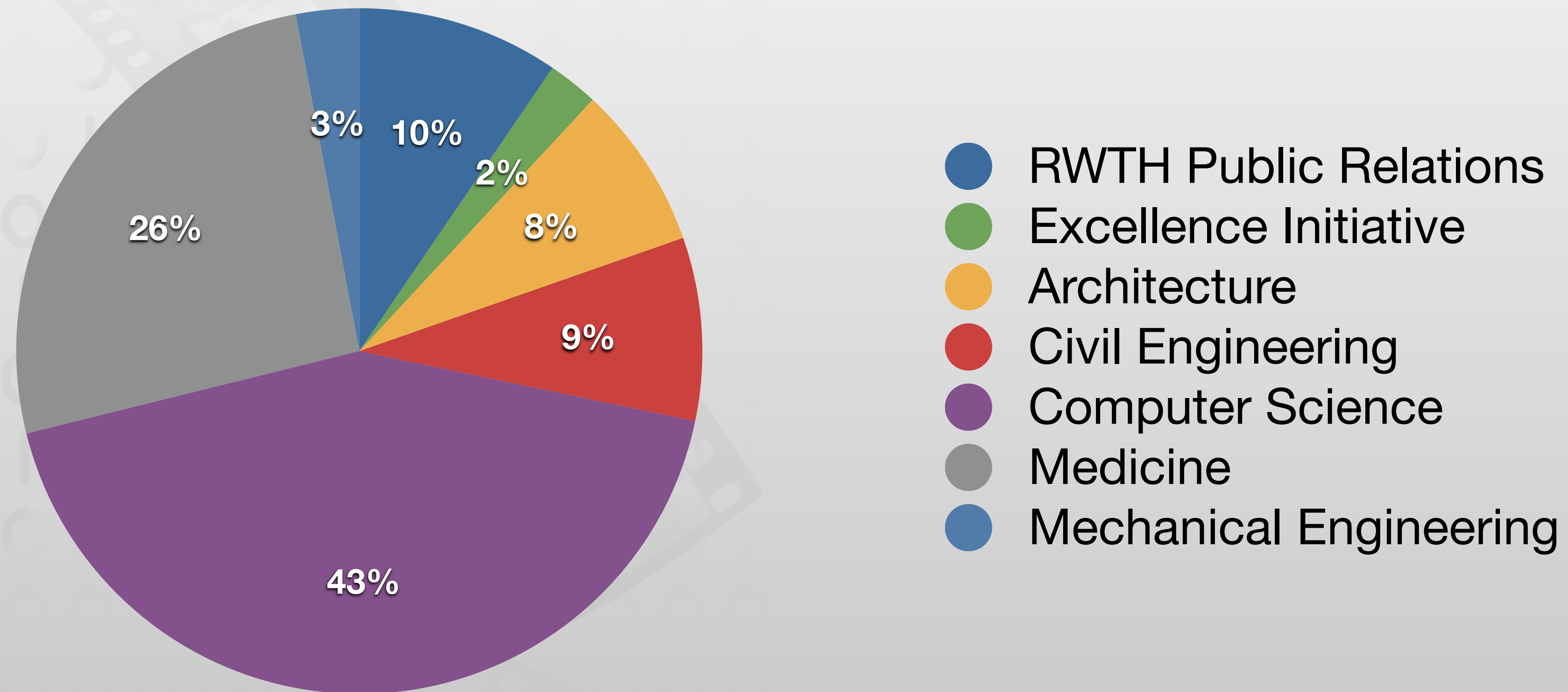


RWTH on iTunes U Today

- Over 11 million downloads (33 TB transferred)
- 10 active faculty from 5 departments
- 336 files (mostly videos) in 36 tracks



Number of Files by Department



AATCe at RWTH

- Apple Authorized Training Center for Education since 2008
- 4 Trainers from 3 departments
 - Mostly administrators
- Certified to hold introductory and advanced IT courses on Mac OS 10.6
- Builds “corporate memory”



AATCe Lab

- Space for 16 students at 8 workstations
- Mac minis, 23" Cinema Displays
- High-speed network
- Projector & speakers



AATCe Seminar Room

- Room for 50 students
- Projector, speakers
- eBeam whiteboard
- Audio/video recording technology



Lecture Video Recording

- Video
 - HD camera with tripod
 - Screen cast for the slides (iShowU)
- Audio
 - Wireless + room microphones
 - Laptop sound
- Setup
 - Test audio and video each recording session
 - Start lecture and recording in sync



Lecture Video Editing

- Hardware
 - Fast machines (Mac Pro)
 - Large screens (30")
 - Headphones
- Software
 - Final Cut Pro
- Training
 - Apple training available



Lecture Video Editing

- Focus on the slides
 - The slides make the content, the speaker the atmosphere
- Cut out...
 - Administrative stuff
 - Long questions or student activities
 - Breaks
 - Mistakes
 - For iTunes U: copyrighted material



Lecture Video Production

- Podcast Producer 2
 - Comes with 10.6 server
 - Automatically encode video into different formats and publish
- One workflow per lecture
 - Workflow defines meta-data (i.e. where to publish, format)
 - Can be edited by hand



Apple Technology In Our Group

- 3 student labs, 1 video editing lab
 - 8 Mac minis, 10 Mac Pros, 6 Power Macs
 - 23"/30" Cinema Displays
- Media Space
 - 4 MacBook Pros with 40" SmartBoard Displays
- 5 Xserves, 12TB Promise Raid
- Personal MacBook Pros+30"+iPhones
- Mobile classroom



The Aachen Media Space

- **3 Main Functions:**
 - Testbed for our research
 - Everyday meetings and presentations
 - Showcase for visitors
- **Part of flexible floor concept for entire group**
 - Electronic whiteboards
 - Disappearing computers
 - Completely reconfigurable
 - Mobile walls and furniture



Aachen Media Space



iPhone Development Class


- 11 lectures, weekly assignments, final project
- Students expected to know OO programming
- Covers 3.1
- Faster pace and additional topics compared to Stanford class (databases, networking, audio,...)
- 21 students
- hci.rwth-aachen.de/iphone









TOP DOWNLOADS



⊕ Seite 3 von 4 ⊕


- 61.  **Getting Started with an iPod Touch**
Miami Dade College
Miami Dade College
Kostenlos [FILM LADEN](#)



62.  **Florida Folk Music: Baby I Am Georgia B...**
Red & Murphy Henry with Tuck Tucker
Florida Department of Education
Kostenlos [TRACK LADEN](#)


63.  **The Myth of Psyche**
Todd Daniel
Missouri State University
Kostenlos [TRACK LADEN](#)
- 64.  **Developing characters**
Open University
Open University
Kostenlos [TRACK LADEN](#)



65.  **Bejeweled**
Dinkinish O'Connor
Miami Dade College
Kostenlos [TRACK LADEN](#)


66.  **All change - crisis as opportunity**
Professor Jaideep Prabhu
Cambridge University
Kostenlos [TRACK LADEN](#)
- 67.  **Developing the Idea**
Open University
Open University
Kostenlos [TRACK LADEN](#)


68.  **What's Hot in Jet Engines**
John Eaton
Stanford
Kostenlos [TRACK LADEN](#)

69.  **Objective-C, COCOA**
Prof. Dr. Jan Borchers
RWTH Aachen University
Kostenlos [FILM LADEN](#)
- 70.  **Lecture 01: Introduction to Brain-behavi...**
Gerald Schneider
MIT
Kostenlos [TRACK LADEN](#)

71.  **Bones of the Hand**
Dr. Allan Forsman
East Tennessee State University
Kostenlos [FILM LADEN](#)

72.  **Rumi the Poet: Self-Portrayal, Dialogue ...**
Ahmad Karimi-Hakkak
Stanford
Kostenlos [TRACK LADEN](#)
- 73.  **01 - Introduction**
John Merriman

74.  **Google Mobile App**
ITSCO

75.  **Starbucks Reinvents the International C...**
Dennis Macray

Cocoa Heads



- Monthly informal get-togethers
- Short talks by participants on current Cocoa technologies
 - iPhone SDK programming (May'08),
Apple Mail plugin development, ...
- First German chapter (cocoaheads.de)



Summary: Puzzle Pieces

- Why Apple?
- Apple On Campus online store
- Apple Campus Representative
- Agreements for large projects
- iTunes U
- AATCe training center
- iPhone development classes
- Cocoa Heads

