

AIT-BUDAPEST



AQUINCUM INSTITUTE OF TECHNOLOGY

Creativity in
Computer Science &
Engineering

Aquincum Institute of Technology (AIT): A micro-experiment for EIT

Gabor Bojar, Founder

2012.12.12.



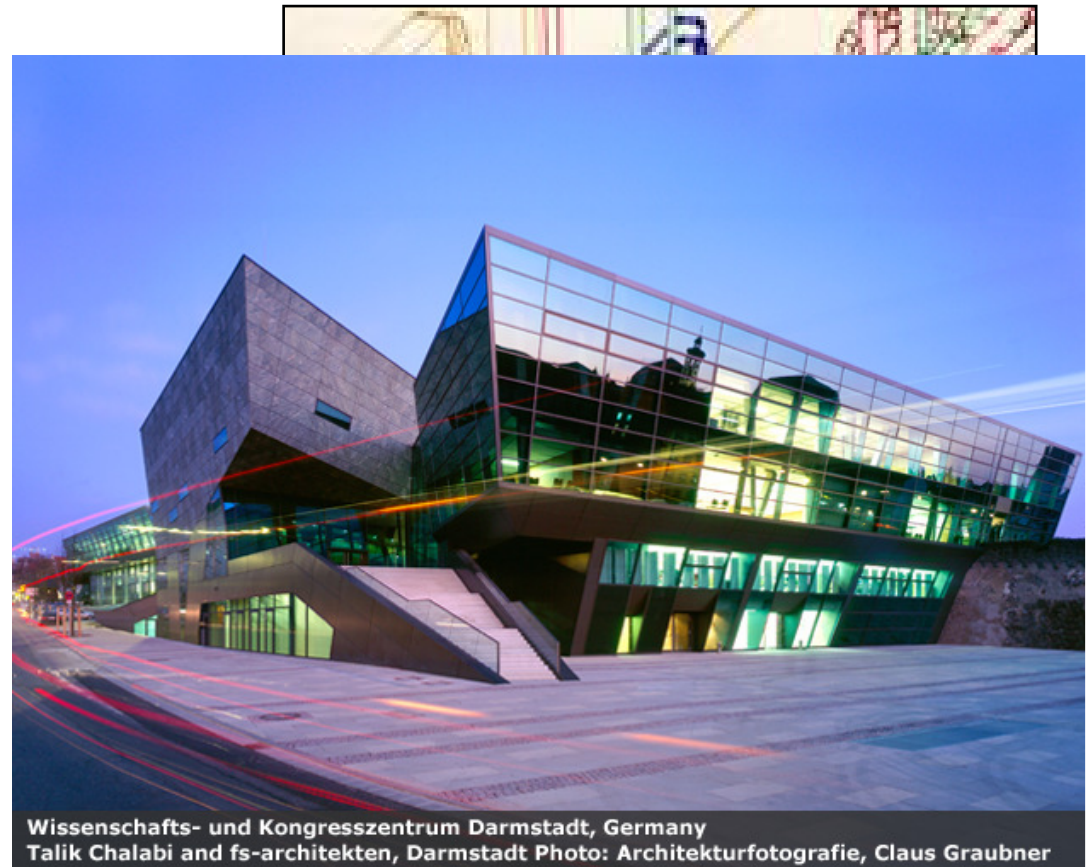
Some words about Graphisoft

- Founded in 1982
- Constraints
 - No access to up-to-date computers
 - No access to capital
 - No access to market
- But access to motivated and talented people !



Some words about Graphisoft

- 1984: First in the world:
3D on PC
- Global leadership in 3D
architectural design sw
- 1998: IPO
- 2007: Sold
- Founding AIT





Why did I start AIT?

- A dinner in SF in 1999
- Education: Largest value of the 21st century
- What can I contribute?
- Knowledge the market of education
- The greatest challenge?
- A Mentality Chasm



The Mentality Chasm

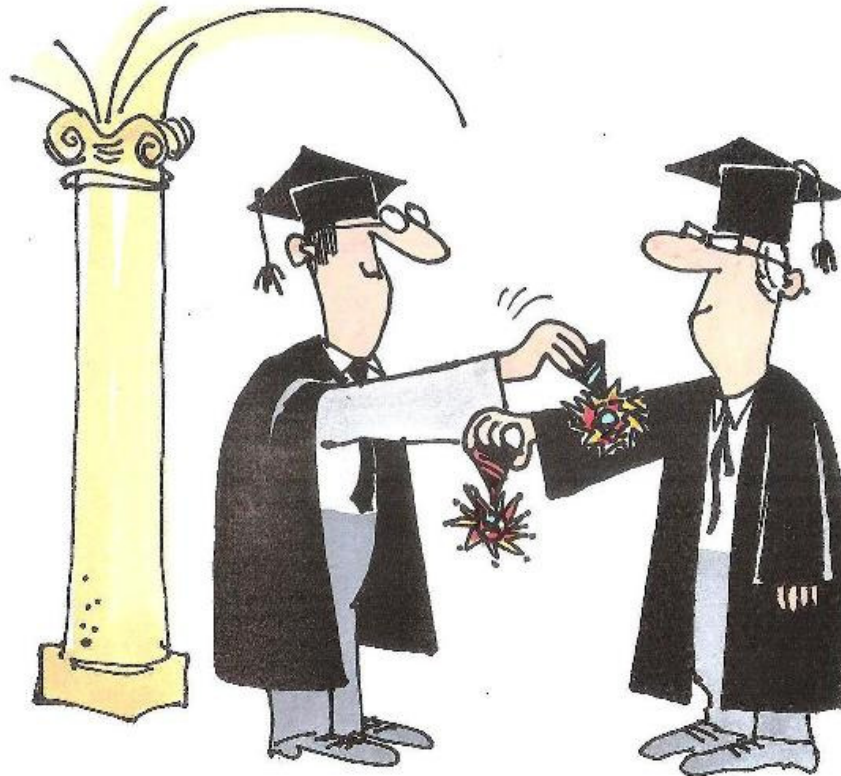
- Do engineers like the users?
- “Idiot proof solutions”





The Mentality Chasm

- Who an engineer wants to impress?
- His/her peers
- KPI in academy
 - Citation factor
- KPI in business
 - Market share



The Mentality Chasm

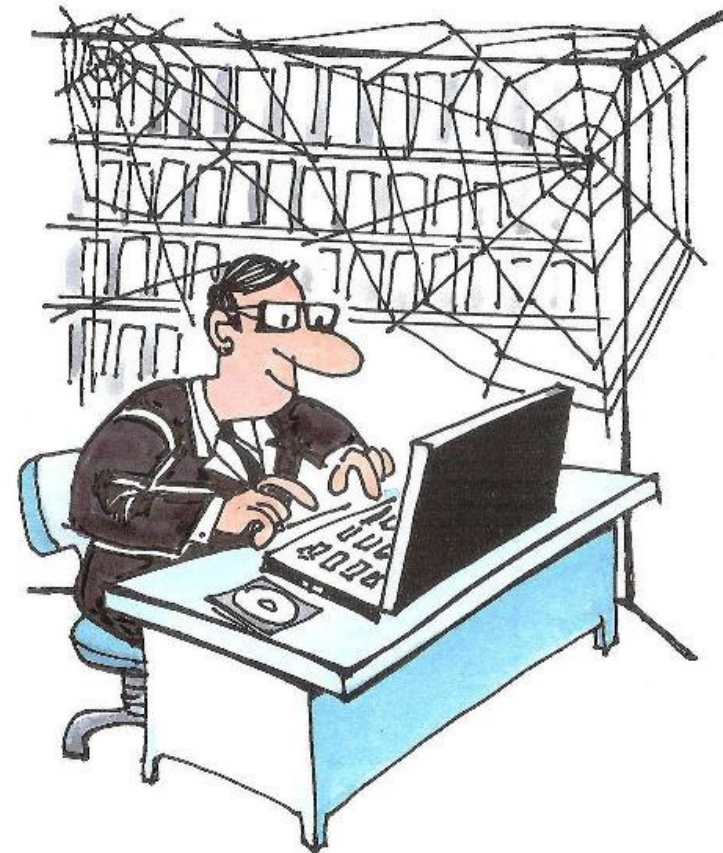
– The elevator example





The Mentality Chasm

- Barely 5-10% of all completed software is used !!!





My next venture

- Investing in education
- Education: Largest value of the 21st century
- What can I contribute?
- Knowledge the market of education
- AIT-Budapest: The right meld of science and business



AIT-Budapest

- IT school founded by IT entrepreneurs
- Study Abroad semester for Computer Science Majors from the best US colleges and universities
- Why for North American students first?
- A good product has two parents:
 - Demanding Author
 - Demanding Customer



Demanding authors

- Laszlo Lovasz
 - (member of Hungarian Academy of Sciences, Wolf Prize, Kyoto Prize)
- Laszlo Barabasi
 - (Scale Free Networks, professor at Northeastern University, Harvard)
- András Falus
 - (Genetics, Immunology, member of Hungarian Academy of Sciences)
- Peter Szeredi
 - (Father of Prolog – Foundations of logic programming)
- Erno Rubik
 - (inventor of the Cube)
- Leaders of the European SW industry
- Speakers from the Hungarian Film and Music World



Demanding customers

AIT students have come from...

Princeton, Harvard, Yale, Williams, Swarthmore,
Harvey Mudd, Pomona, University of Washington,
Skidmore, Smith, Carleton, and many other U.S.
colleges and universities...





The Curriculum

- Math foundations
- Cutting edge applications
- Design, creativity and entrepreneurship
- Humanities



Math Foundations

- Hungary's heritage in math
- Courses, developed in close cooperation with top US schools and tested by a pilot semester:
 - Semantic and Declarative Technologies
 - Graph Theory
 - Combinatorial Optimization
 - Theory of Computing
 - Data Mining
 - Algorithms and Data Structures
 - Computer Graphics



Cutting Edge Applications

- ... relating to Hungary's scientific heritage
- Courses:
 - Computer Vision for Digital Film Production
 - Complex Networks
 - Computational Biology
 - Bioinformatics



Design, creativity & Entrepreneurship

- The right meld of science and business
- Courses:
 - IT Entrepreneurship:
 - Not just for those who want to start their own firm!
 - Software usability:
 - What makes a sw usable and sellable
 - Multicultural SW:
 - How a product should change country by country
 - Rubik's workshop:
 - Virtual space vs. Real Space
 - Enhance creativity and problem solving in 3D



Humanities

- ... relating to Hungary's cultural heritage
- Courses:
 - Hungarian Music in a Central European Context
 - Hungarian Cinema
 - Hungarian Language and Culture



An example for the integration

- Math foundation: pattern recognition
- Application: “Photoshop for movies”
- Business model of Colorfront
- Hungarian Cinema’s contribution to Hollywood

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Campus embedded in a Science Park



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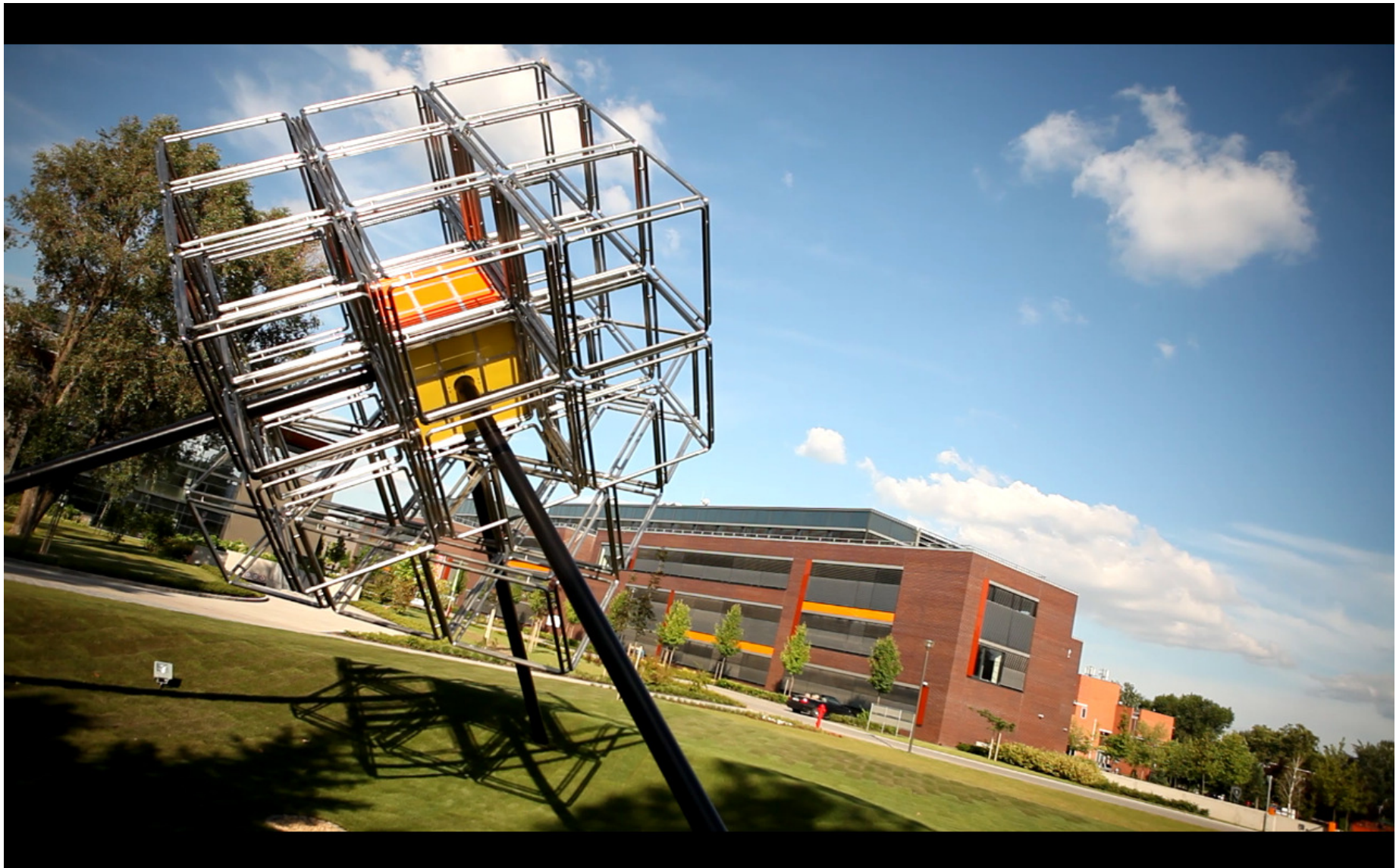
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Creativity in
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Among historic industrial monuments



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Creativity in
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Among historic industrial monuments

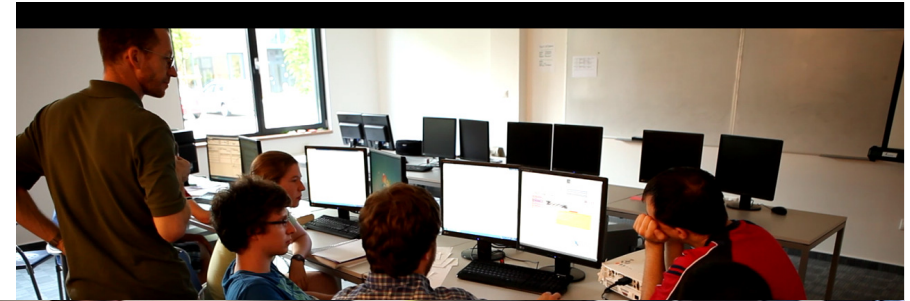


12.12.12



The right meld of science and business

- Small, intimate classes
- Personal mentoring
- Friendly and supportive staff
- Great Hungarian classmates helping explore the wonders of Budapest



Unparalleled industry access

- Guest lecturers from top IT companies
- Access to labs and equipment
- Educational cooperation and research
- Preferential interviews and internships





Campus location



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Thank you for your attention!

www.ait-budapest.com

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