

European Computer Science Summit 2020

National Associations Workshop Welcome and Introduction

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Agenda

- **Session 1 – Research**

Chair - Gerald Steinhardt, *Informatik Austria*

- **Session 2 – Education**

Chair: Bart Demoen, *i22n - Forum voor Informaticawetenschappen*

- **Session 3 – Large-scale Trends**

Chair: Paolo Atzeni, *GII - Gruppo Ingegneria Informatica*

- **Session 4 – Societal Aspects**

Chair: Martin Glinz, *SIRA - Swiss Informatics Research Association*

- **Conclusions and the Way Ahead**

Session 1 – Research

Chair: Gerald Steinhardt, *Informatik Austria*

Thesis:

Interdisciplinary research: Largely wished-for, BUT widely not esteemed and not sufficiently supported

Informatics Europe Report

The Wide Role of Informatics at Universities, 2019:

<https://www.informatics-europe.org/component/phocadownload/category/10-reports.html?download=122:wide-role-informatics-universities>

Role of interdisciplinarity in research

Session 1 – Research

Chair: Gerald Steinhardt, *Informatik Austria*

Exaggerated:

- Widespread claim for interdisciplinary research, BUT OFTEN
- Largely ‘theoretical’
- Little (or no) funding
- Held in low esteem
- Evaluation by discipline specific criteria
*esp. wrt funding decisions: interdisciplinary proposals
largely fall between the cracks*
- lack of strategic planning

Session 1 – Research

Chair: Gerald Steinhardt, *Informatik Austria*

Concerns:

- Forming of “predatory alliances” (to secure funding without substantial interdisciplinary cooperation)
- Informatics as ancillary discipline in interdisciplinary research (= little or no impact on the scientific progress in Informatics)
- Proposals of lower quality could be accepted (because of the “hype” about interdisciplinary research)
- A significant increase of interdisciplinary research in Informatics could weaken Informatics as a scientific discipline

Session 1 – Research

Chair: Gerald Steinhardt, Informatik Austria

- Question 1:

How should interdisciplinary research be carried out so that Informatics benefits most from it?

Focus: Informatics between ancillary discipline and enabling science in interdisciplinary research

Or does a significant increase of interdisciplinary research in Informatics weaken Informatics as a scientific discipline?

Session 1 – Research

Chair: Gerald Steinhardt, *Informatik Austria*

- Question 2:

What structures and actions are suited best for advancing interdisciplinarity in Informatics research?

- Regarding research collaborations within universities: What are their opportunities/challenges, and what are the best ways to institutionalise interdisciplinary collaborations in research?
- How can the assessment of interdisciplinary research proposals be improved to ensure equitable treatment of discipline-specific and interdisciplinary proposals regarding funding decisions?
- How can we best include the outcomes of interdisciplinary research and assess them appropriately, when it comes to assessing the research achievements of an Informatics department/faculty or to making decisions on hiring and promotion within Informatics departments/faculties?

incl. best
practice
examples etc.

Session 2 – Education

Chair: Bart Demoen, *i22n - Forum voor Informaticawetenschappen*

- Question 1:

Interdisciplinary teaching is not a goal in itself, it must serve a goal worth pursuing, or solve a (possibly general) problem. What are the worthy goals of including Informatics in interdisciplinary teaching? What problems does it solve?

- Question 2:

Which topics of Informatics should be included in an interdisciplinary curriculum (e.g. BioInformatics)? Should these topics be taught by and from the point of view of a computer scientist, or rather as independent interdisciplinary topics? Concerning Informatics, is it a matter of depth versus breadth?

Session 2 – Education

Chair: Bart Demoen, *i22n - Forum voor Informaticawetenschappen*

- Question 3:

What are best practices for interdisciplinary teaching including Informatics? Is it by team teaching, does it involve mainly problem-based or project-based didactics? What are the showcases showing a substantial benefit of Informatics in interdisciplinary teaching?

Session 3 – Large-scale Trends

Chair: Paolo Atzeni, *GII - Gruppo Ingegneria Informatica*

- Question 1:

Do we need interdisciplinary people or multidisciplinary teams or something in between?

- Question 2:

How should our Informatics background be tuned to allow our people to participate in multidisciplinary teams?

Session 3 – Large-scale Trends

Chair: Paolo Atzeni, *GII - Gruppo Ingegneria Informatica*

- Question 3:

Do we need specialization to prepare people with an Informatics background for multidisciplinary teams? Or is the only thing needed the attitude to listen?

- Question 4:

When does multidisciplinary give birth to new disciplines?

Do interdisciplinary people need to have their “center of gravity” in a discipline or could they really have it at the border?

Session 4 – Societal Aspects

Chair: Martin Glinz, *SIRA - Swiss Informatics Research Association*

- Question 1:

What is the role of Informatics in a digital society and what can universities contribute?

- Experiences to report?
- Ideas/Needs/Topics for interdisciplinary research and teaching toward a digital society?
- Shall Informatics be a driver of change, an enabler of change or just an auxiliary discipline with other disciplines in the driver's seat?

- Question 2:

How can/does Informatics contribute to today's societal grand challenges?

- Climate change, aging society, sustainable living, ...

Session 4 – Societal Aspects

Chair: Martin Glinz, *SIRA - Swiss Informatics Research Association*

- Question 3:

What are potential contributions of Informatics as a discipline to the needs of a digital society? For example:

- Developing and maintaining dependable and explainable systems
- Mastering adaptive, autonomous systems
- Dealing with safety, security and privacy
- Serving stakeholders, not enslaving them
- Responsibility & ethics (for example, dealing with algorithmic bias, deep fakes, information monopolies or information bubbles)

- Question 4:

How much Digital does society actually want?

- What is the added value of digitalization/digital transformation for humans and society?
- Will *Analog* be the new *Organic* and *Back to Nature*?

Conclusions and the Way Ahead

- Summary and documentation of discussions
- Further actions on specific topics, e.g.:
 - Data and best practices compilation?
 - Planning workshops?
 - Community-wide recommendations?
- Ideas welcome!