Informatics Europe

The European Voice of Informatics Research and Education

Members Special Session – October 23, 2023

Prof. Dr. Enrico Nardelli – IE President
Nuria Anguera – IE Executive Director
Intro round
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**IE Executive Director**, Zurich
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Members Introductions

In < 1 minute...

1. Who are you
2. Questions to be answered during this session
Mission & Structure
The departments of computer science at EPF Lausanne and ETH Zurich are taking the initiative of a first meeting of heads of departments in Europe.

Until now there hadn’t been any effort, comparable to the Computing Research Association in the US with its annual "Snowbird" conference, to provide a forum where they could discuss strategic and managerial matters of the discipline and coordinate their efforts. We feel it’s time to start.”

1st ECSS (European CS Summit) call, 2005
IE today is a **community of European leaders** in Informatics R&E

- We are a **non-profit membership association**.
- We represent the **public and private research community on informatics**\* in Europe and neighbouring countries.
- We focus on top-level international dialogues on **strategic, managerial and policy issues** related with Education, Research, and the Social Impact of informatics.
- Our members are **institutions** (departments, institutes, faculties, research labs and companies). Membership extends to **all faculty** of member institutions **and researchers** of their labs.
- **We exist because some achievements are only possible when acting as a community.**

\* Informatics is the preferred term in Europe for what is known as Computing or Computer Science in other parts of the world.
IE represents ~ 50K researchers across Europe

Over 170 Institutions from > 30 Countries

Avg. growth rate of 14%

The more we are the louder our voice is!

Full member’s list and statistics on our website

*Assuming an average of 7 pp/research group and 10, 20 resp. 50 research groups per small, medium resp. large institution.
Our Strength: leverage variety to shape a concerted European Informatics future

Find concerted positions and act on shared priorities in Education, Research, and the Social Impact of informatics, by fostering unity in the variety of its member institutions and promoting pan-European collaboration.

In particular, we aim to empower our members to:

- Create opportunities for joint initiatives and knowledge exchange
- Advocate for Informatics in European policy discussions.
- Promote quality standards and best practices
- Foster ethical and responsible Informatics teaching and research.
- Nurture talent, assuring a pipeline of diverse leaders with broad understanding of the discipline.
Steered by Scientists at the service of the Informatics community - Our Board

Enrico Nardelli
Università di Roma 'Tor Vergata'
IE President Education

Jean-Marc Jézéquel
IRISA/University of Rennes
IE Vice President Policy recommendations

Elisabetta Di Nitto
Politecnico di Milano
IE Vice President Diversity

Gregor Engels
Paderborn University
IE Treasurer

Marco Aiello
University of Stuttgart
Green ICT

Lenuta Alboae
Alexandru Ioan Cuza University of Iași
Industry Engagement

Přemek Brada
University of West Bohemia
Data Analysis & Reporting

Dick Bulterman
CWI/VU Amsterdam
Webinars

Manuel Carro
Technical University of Madrid / IMDEA
Open Science

Gordana Dodig-Crnkovic
Chalmers University of Technology
Ethics

Harald Gall
University of Zurich
Department Evaluations

Dimka Karastoyanova
University of Groningen
Early Career Researchers

Kim Mens
Université catholique de Louvain
Membership

Viorel Negru
West University of Timisoara
Membership

Pekka Orponen
Aalto University
NIA relations

Nuria Anguera
IE Executive Director

BoD Webpage link
Informatics Europe Office is hosted by the Department of Informatics of the University of Zurich, Switzerland
Activities in a nutshell
Working Groups channel community contribution

Currently 7 active ones

• **Education Research** (39 people, from 29 institutions)
• **Ethics** (19 people, from 12 institutions)
• **WIRE ⇒ Diversity & Inclusion** (16 people, from 13 institutions)
• **Data Analysis & reporting** (12 people, from 10 institutions)
• **Policy Recommendations** (6 people, incl. repr. of 5 NIAs)
• **Green ICT** (13 people, from 11 institutions)
• **Open Science** (19 people, from 17 institutions)
Leading to joint pan-European activities...

Including EU funded projects & partnerships
... Policy Recommendations ...

At European, national and institutional level

- With the collaboration of our member **National Informatics Associations**

- On issues that relate to any of the goals of the organisation, **at the European level**

- Aiming at **empowering**
  - IE member **institutions**
  - **National policies**
  - **European Commission** decisions

- Outcomes: statements, positions, reports, ... but also open **calls to action**
... and Community empowerment through IE Services & WGs’ Outcomes

Knowledge Exchange

European Visibility

Development Opportunities (for Departments and Individuals)

Job Portal
Free posting for members

Department Evaluation
Special fees for IE members

ECSS 2023
INFORMATICS: SHAPING THE FUTURE

Click on the pictures to follow the links
Call to Action - Community engagement
IE membership brings tangible benefits to you and your organization

- Access to Resources & Insights
- International Recognition and Visibility
- Bring forward your institution's interest in top-level international dialogues on strategic management and policy issues.
- Expanded talent pool
- Special fees on services, for all faculty members
- Networking and collaboration
You & your organization are key for IE
IE will get as far as we collectively want to take it

Be IE ambassador in your institution and networks!

- Lead and participate in IE activities
  Working Groups, Board of directors, Webinar, Surveys, joining/hosting ECSS
- Use and promote IE services
- Follow and share us ([LinkedIn](https://www.linkedin.com) / [twitter](https://twitter.com) / [IE bulletin](https://iebulletin.com))
Active Participation

1. How do you see your participation / our collaboration going forward?
2. Any other ideas?
3. Questions?

if you want to go fast, go alone; if you want to go far, go together.
Let’s enjoy ECSS!
Annex: Further exploring some IE activities and services
IE publications: policy recommendations, reports, best practice booklets, articles

Public Consultation on European Digital Principles

Feedback provided by Informatics Europe to the European Commission for public consultation on the formulation of a set of principles to promote and uphold EU values in the digital space.

Submitted to the European Commission on 2 Sep 2021.

  - File Size: 117.49 kB
  - Date: 02 September 2021

Bridging the Digital Talent Gap: Towards Successful Industry-University Partnerships

This report presents the results of the discussions held during the workshop Bridging the Digital Talent Gap: Towards Successful Industry-University Partnerships organized by Informatics Europe and the European Commission’s Directorate-General for Communications Networks, Content and Technology (DG CONNECT) in Rome on October 2019.

- Bridging-digital-talent-gap-report.pdf
  - File Size: 673.44 kB
  - Date: 02 April 2020


Feedback provided by Informatics Europe on the Draft Report of the Computing Curricula 2020 (CC2020) task force. CC2020 is a joint project launched by professional computing societies to examine the current curricular guidelines for academic degree programs in Computing and provide a vision for the future of Computing.

Submitted to the CC2020 Steering Committee on 15 June 2020.

- IE-comments-CC-2020.pdf
  - File Size: 134.96 kB
  - Date: 18 June 2020

Informatics as a Fundamental Discipline for the 21st Century

The article published in the "Communication of the ACM" journal describes the current state of the Informatics education at the European scene, outlines main statements, actions and outcomes of the informatics for All initiative and explains main challenges related to the realization of the Informatics for All Strategy across Europe.

- CACM_Informatics_All.pdf
  - File Size: 6.22 MB
  - Date: 04 April 2019

European Values for Ethics in Digital Technology

The research report on European Values for Ethics in Technology is the first Intellectual Output of the Ethics4EU project. Digital Ethics deals with the impact of digital Information and Communication Technologies (ICT) on our societies and the environment at large. It covers a wide spectrum of societal impacts including issues such as data governance, privacy and personal data, Artificial Intelligence (AI), algorithmic decision-making and pervasive technologies.

- European-Values-for-Ethics-in-Digital-Technology.pdf
  - File Size: 1.42 MB
  - Date: 08 April 2021

Informatics Research Evaluation

Report on Informatics Research Evaluation prepared by the Informatics Europe Research Evaluation Working Group. The report focuses mainly on the main principles and criteria that should be followed when individual researchers are evaluated for their research activity in the field of Informatics, addressing the specifics of this area. It confirms the findings of the 2006 report on Research Evaluation for Computer Sciences, while incorporating recent developments concerning the growing emphasis on collaborative, transparent, reproducible and accessible research.

A summary is openly accessible by following this link. Logged in IE members can download the full report using the link below:

  - File Size: 1.03 MB
  - Date: 22 March 2018

Webpage link
Informatics in Schools activities

Fostering high-quality education in Informatics is one of the pillars of Informatics Europe. We are committed to promoting informatics education as one of the fundamentals in modern education across Europe. Here are some of our activity and achievement highlights:

CECE’s Map of Informatics in European Schools, in partnership with ACM Europe

Establishment of Informatics for All initiative, workshops & position paper

Informatics Reference Framework for School

IE at EU Commission Expert Group on AI and Data in Education and Training

We also run petitions to advocate informatics for all at the European level, and support national associations in doing the same at their local level. Take action and sign them!

- Rome Declaration: join us to make Informatics accessible to all, throughout Europe.
- Joint manifesto "Por la Informática en España", supporting our member institutions SCIE and CODDI to promote the extension of informatics education at all levels of the educational system in Spain.
Recent outcomes of the I4All coalition

Designing and Implementing a Concrete Informatics Curriculum for School

This document focuses on pedagogical issues and related concerns that should be considered when using the Informatics Reference Framework for School for the development of concrete curricula.

It is, in fact, of utmost importance to have have concrete curricula designed to take into account particular situations and needs in each country, as well as accommodating age and appropriate stages of development of pupils. An informatics curriculum should be designed for all pupils; equality, diversity and inclusion issues are crucial, including the important issue of gender balance.

Informatics Reference Framework for School

The Reference Framework was published in February 2022 as a report to support the advancement of Informatics as a fundamental discipline for the 21st century. It is a publication of the Informatics for All coalition, of which Informatics Europe is one of the founding members since 2018.

This Reference Framework has been presented to European Commission and further discussed at a stakeholder consultation meeting, on 8th April in Brussels, in preparation for a Council Recommendation on improving the provision of digital skills in education and training.
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IE Higher Education Data Portal and Data Analysis & Reporting WG

Higher Education Data Portal

The Informatics Higher Education Data Portal is a project of Informatics Europe created with the goal of providing our members, the Informatics academic community, policymakers, industry and other stakeholders a complete and reliable picture of the state of Informatics (Computer Science, Computing, IT, ICT) higher education in Europe. Informatics Europe empowers our community by providing the precise and objective information that is indispensable for understanding the field and making informed, effective policy decisions in Europe.

What is Available?

This portal presents a wealth of fundamental data including:

- Statistics of students enrolled and degrees awarded at Bachelor's, Master's and PhD level, including gender distribution in absolute numbers and percentages, both at Research Universities and Universities of Applied Sciences.
- Academic salaries reported at the level of PhD Candidate, Postdoctoral Researcher and several Professor ranks in selected countries (available only to Informatics Europe members).

Beyond the statistics, a range of qualitative data that supplements and complements the statistics is presented, including:

- Subjects (Study Programmes): list of terms identifying Informatics study programmes in each country.
- Institutions: list of universities and academic units offering Informatics higher education in each country, including University names, Department/Faculty/School/Institute names and direct hyperlinks to their websites.
- Higher Education Systems: description of the higher education system in each country.
- Academic Positions & Titles: comparative analysis of some key academic positions - PhD Candidate, Postdoctoral Researcher and Professor – and corresponding employment details in selected countries.

Statistics

Subjects

Institutions & Academic Units

Higher Education Systems

Academic Positions & Titles

Academic Salaries

Download Data (Only For Members)

Webpage link
Ethics Activities

Ethics Working Group

Long-term Goals

- Create a sustainable European Community of Practice in Informatics ethics
- Ensure that the importance of teaching ethics in Informatics degree courses is recognized
- Increase literacy on ethics among Informatics lecturers
- Increase literacy on ethics among decision-makers (CEOs, policymakers and political organizations)

WG Operation

- Chair: Dymphna O'Sullivan, TU Dublin, Ireland
- Secretary: Gordana Dodig-Crnkovic, Chalmers University of Technology, Sweden
- Next meetings: TBA

2022 - 2023 Objectives and Related Activities

- Identify gaps in Informatics lecturers’ knowledge of ethics
- Better understand the European landscape in relation to teaching practices for Ethics in Informatics and related disciplines
- Raise awareness about the importance of teaching Ethics to students in Informatics and related disciplines
- Disseminate best practices in teaching Ethics to Informatics students

Activity 1: Survey - Teaching Practices for Ethics in Informatics

Activity 2: Community of Practice - Instruction of Ethics

Activity 3: Best Practice Repository (April 2023 – September 2023)
Diversity & Inclusion Activities

Diversity and Inclusion Working Group

Long-term Goals

- Contribute to designing software systems that behave respecting diversity.
- Ensure the diversity dimension is considered in the education process of Informatics Europe members.
- Defining best practices to cope with diversity through inclusion in informatics.

WG Operation

- Chair: Simona Motogna, Babeș-Bolyai University, Romania.
- Secretary: Claire Matti, Haute école pédagogique du canton de Vaud, Switzerland.
- Next meeting: May 2nd

2022 - 2023 Objectives and Activities

- Creating awareness about the problems, challenges, and values of diversity.
- Acting as a collector of European initiatives on diversity and inclusion in Informatics Research and Education.
- Start a network of interested parties.

Activity 1: Mapping of current initiatives – November 2022 – April 2023

Activity 2: Best Practices booklet – April 2023 – July 2023

Activity 3: Repository creation – December 2022 – July 2023

Webpage link
Open Science Activities

IE Open Science Working Group

As part of its mission to give unbiased information and to agglutinate and balance diverse opinions, Informatics Europe formed in 2021 an Open Science Working Group, in an attempt to clarify the main actors and trends behind Open Science. This Working Group inherits ideas and aims from the Leaders Workshop session that took place during ECSS 2021 in Madrid, and where some very interesting opinions were presented. It currently consists of the following Task Forces:

- Open Science and Data Research Management
- Open Access
- Conference Maturity Model
- Open Code Repositories
- Open Citations Initiative

Outcome

Open Access: Status and Recommendations

This document summarizes the evolution of scientific publication models towards providing open access to research results and makes recommendations from an academic standpoint on future action paths.
Department Evaluation Service
Charting a Sustainable Success Path for Your Department

- Expert-Led Assessment
- Peer-Review Excellence
- Transparency and Neutrality
- IE quality guarantee
- Comprehensive Insights
- Beyond Research Results
Academic Leadership Courses
For, with, by Computer Scientists

Evidence-based leadership practices to create positive academic cultures

In which people can thrive together and do great work in research, education & impact on society

"[The course] really changed the way I think about my work. It cannot be said enough: this course was the best course I have ever taken."

[Online course participant]