Informatics Europe

Setting the Pace for Informatics Research and Education in Europe

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President

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Software is Eating the World

- Software is the fabric of our society
  - most aspects of society are facilitated or mediated by software
- Software is a key transformation and enabling technology
  - *"every large company is now a software company"*
- Software boosts scientific progress in many domains
  - AI, data science, medicine, engineering…
- Software is vital for our infrastructure as it underlies critical systems
  - power, telecom, aerospace, automotive, finance, health
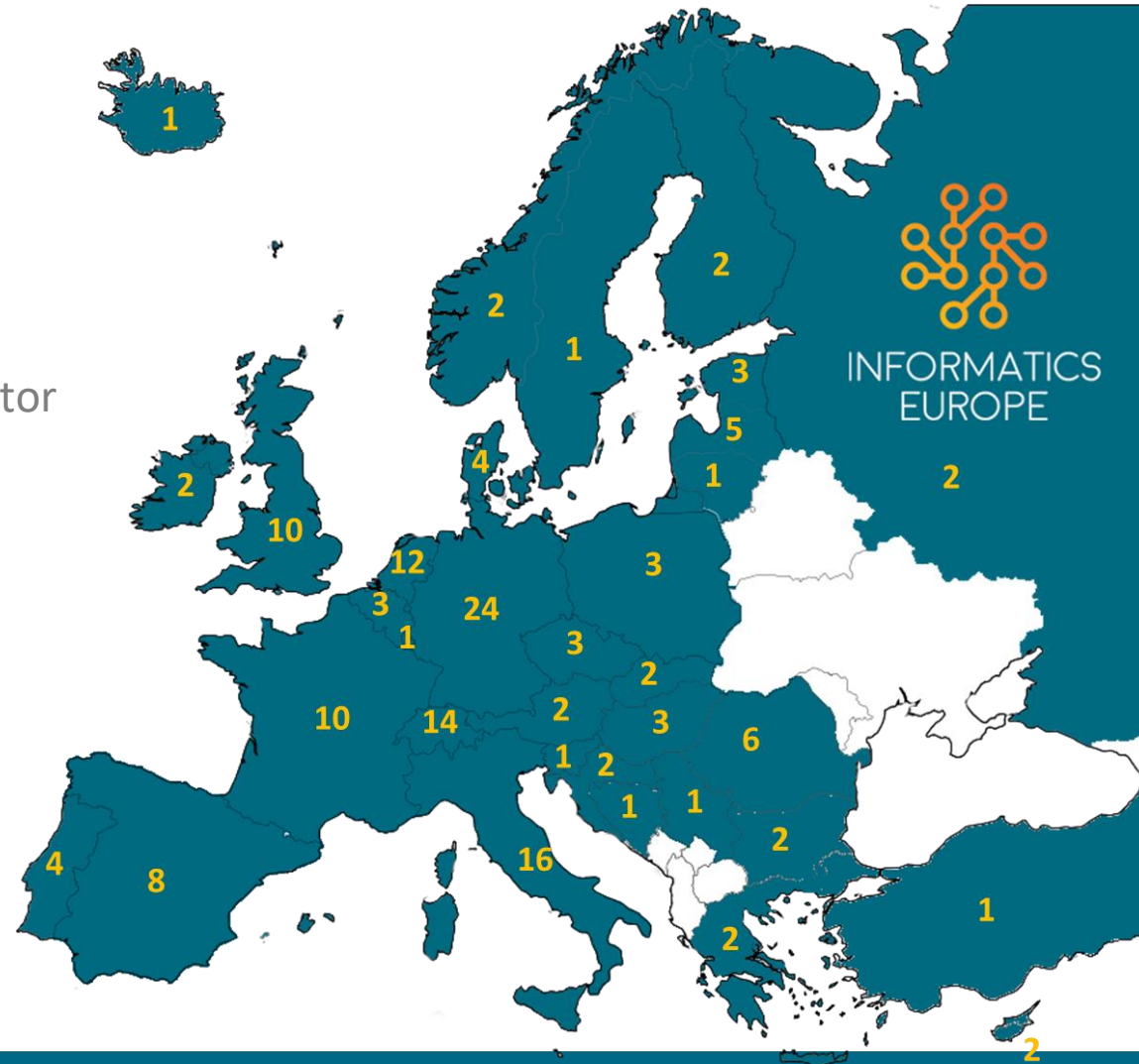
Informatics Europe

- We represent the **public and private research community** of informatics in Europe and neighbouring countries

- We create a strong common voice to safeguard and shape quality **research and education in informatics** in Europe.

- We promote concerted positions and acts on shared priorities in the areas of **Education, Research, Knowledge Transfer and Social Impact** of informatics.

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Our current Members

170 Institutions

Departments, Faculties,
Schools, Institutes &
Research Labs from the public and private sector

34 Countries!

Our goals

- Foster **quality of research and education** in Informatics.

- Promote pan-European **knowledge transfer & collaboration** between academia and industry and society, including government and public institutions.

- **Engage with society** on the nature and impact of Informatics.

- Promote **quality standards and best practices** in research, education, and knowledge transfer.

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Our Activities

- Mainly performed by scientist volunteers

- Through permanent working groups in the areas of:
  - ✓ Education (eg Informatics4ALL)
  - ✓ Open science
  - ✓ Diversity
  - ✓ Social Impact
  - ✓ Policy Recommendations
  - ✓ Data Analysis & Reporting
  - ✓ Members empowerment (academic leadership, knowledge sharing and networking)

- Awards: Best PhD, Minerva on D&I, Education

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Some Achievements

- A quick selection…

IE Higher Education Data Portal and Data Analysis & Reporting

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 →

Informatics Education in School
in collaboration with ACM Europe

- (2012-2017) Committee on European Computing Education (CECE)

  - Informatics Education: Europe cannot afford to miss the boat

  - Informatics Education in Europe: Are We All in the Same Boat?

  - online map cece-map.informatics-europe.org

- (2017- Present) Informatics for All coalition

  - Informatics for All: The Strategy and I4All Action Plan

  - Position Paper on the renovation of EC Digital Education Action Plan

  - Rome Declaration

  - Informatics Reference Framework for School – **considered in the Nov. 2023 EC Recommendation**

  - Designing and Implementing a Concrete Informatics Curriculum for School

  - Informatics education at school in Europe

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Informatics Higher Education

- (2008) Student Enrollment and Image of the Informatics Discipline report

- (2011 – 2022) [Best Practice in Education Award](#)

- (2013 - 2019) Key data on Informatics Higher Education yearly published

- (2019 -) [Informatics Europe Higher Education Data Portal](#), recognized by the ACM journal (2023) and Stanford University (IE selected as Analytics and Research partner for the European chapters of its Artificial Intelligence Index Report 2024)

- (2018 -) Permanent member of the ITiCSE steering Committee

- (2022) International Mobility Survey and Report

- (2024) Pioneering European training school on Informatics Education Research

- (2024) Erasmus+ project on Data Literacy submitted for approval

AI in Education and Training

- (2021-2022) IE at EU Commission Expert Group on AI and Data in Education and Training
  - [Ethical guidelines on the use of artificial intelligence and data in teaching and learning for educators](#).
- (2023) AI and the Future of Informatics Education Workshop
- (2023) Recommendations on the Use of AI in Informatics Education
- (2024) AI in Informatics Education ("lessons from 1 year of ChatGPT"; broad view) Workshop
- (2024) Socio-political aspects of AI Workshop

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Ethics in Informatics Higher Education

- (2018) When Computers Decide: Recommendations on Machine-Learned Automated Decision Making

- (2019) Ethical/Social Impact of Informatics as a Study Subject in Informatics University Degree Programs

- (2019 – 2023) Ethical CS Education for Europe (Ethics4EU) Erasmus+
    - (2020) Existing Competencies in the Teaching of Ethics in Computer Science Faculties
    - (2021) European Values for Ethics in Digital Technology
    - (2021) Online Event "Dealing with the Complexities of Teaching Ethics to Future Computing Professionals"

- (2021 – 2022) Contribution to the Ethical guidelines on the use of artificial intelligence and data in teaching and learning for educators prepared by the EU Commission Expert Group on AI and Data in Education and Training

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Diversity and Inclusion

- (2016) "More Women in Informatics Research and Education", best practice booklet

- (2019 -) Minerva Award

- (2020) [Gender Issues in Computer Science Lessons Learnt and Reflections for the Future](#)

- (2020 – 2024) EUGAIN COST Action – European Network for Gender Balance in Informatics

    - (2022) [Best Practices From PhD to Professors](#)

    - (2023) [Best Practices from School to University](#)

    - [...](#)

    - (2022 -2023) [Gender Equality in Informatics webinar series](#),

    - (2024) Policy Recommendations for Gender Balance in Informatics

- (2024) Survey about Diversity and Inclusion Initiatives, by the D&I WG

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IE publications: policy recommendations, reports, best practice booklets, articles

Statement on Cyber Resilience Act: Impact on Research and Education in Informatics

Policy statement prepared by the Board of Directors of Informatics Europe regarding the Cyber Resilience Act (CRA), a European regulatory initiative, aiming at increasing the quality and security standards of IT products.

🔖 IE-Statement-on-Cyber-Resilience-Act.pdf [Details] [Download]

File Size: 71.61 kB
Date: 03 October 2023

Recommendations on the Use of AI in Informatics Education

There is a pressing need for guidelines and best practices for how to manage the impending transition and benefit from disruptive generative AI systems, such as the OpenAI tools ChatGPT and GitHub Copilot. With endorsement by our national informatics association members, IE offers in this short publication the analysis and recommendations to the informatics academic community in the area of informatics education.

[Details] [Download]
🔖 Recommendations-use-of-AI-in-Informatics-Education.pdf

File Size: 544.24 kB

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. This document has been endorsed by the National Informatics Associations that are members of Informatics Europe at the time of publishing it.

🔖 open-access-status-and-recommendations.pdf [Details] [Download]

File Size: 1.94 MB
Date: 08 May 2023

Informatics Higher Education in Europe: A Data Portal and Case Study

The article published in the "Communication of the ACM" journal presents the Informatics Europe Higher Education Data Portal and offers - by way of case-study research - a data-driven perspective over how Informatics education can be studied and improved in a data driven-fashion.

[Details] [Download]
🔖 Informatics-Higher-Education-in-Europe-Data-Portal-and-Case-Study.pdf

File Size: 802.50 kB
Date: 23 October 2023

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 [Details] [Download]

File Size: 1.42 MB
Date: 08 April 2021

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 specificities of this area. It confirms the findings of the 2008 report on Research Evaluation for Computer Science, 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.

🔖 Informatics-Research-Evaluation-2018.pdf [Details] [Download]

File Size: 1.03 MB
Date: 22 March 2018

Webpage link →

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Our Next Event Highlights

- European Computer Science Summit

  - **ECSS 2024: Oct 26-29 in Malta**

- Summer School on Informatics Education Research

  - In coop with IBM, 2-6 Sept. 2024, Zurich

- Opening of our CV repository for your students

More events & activities on **www.informatics-europe.org**

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