

Informatics Europe: A European Computer Science Association

SPECIF, Strasbourg, janvier 2008

A prestigious tradition



A prestigious tradition



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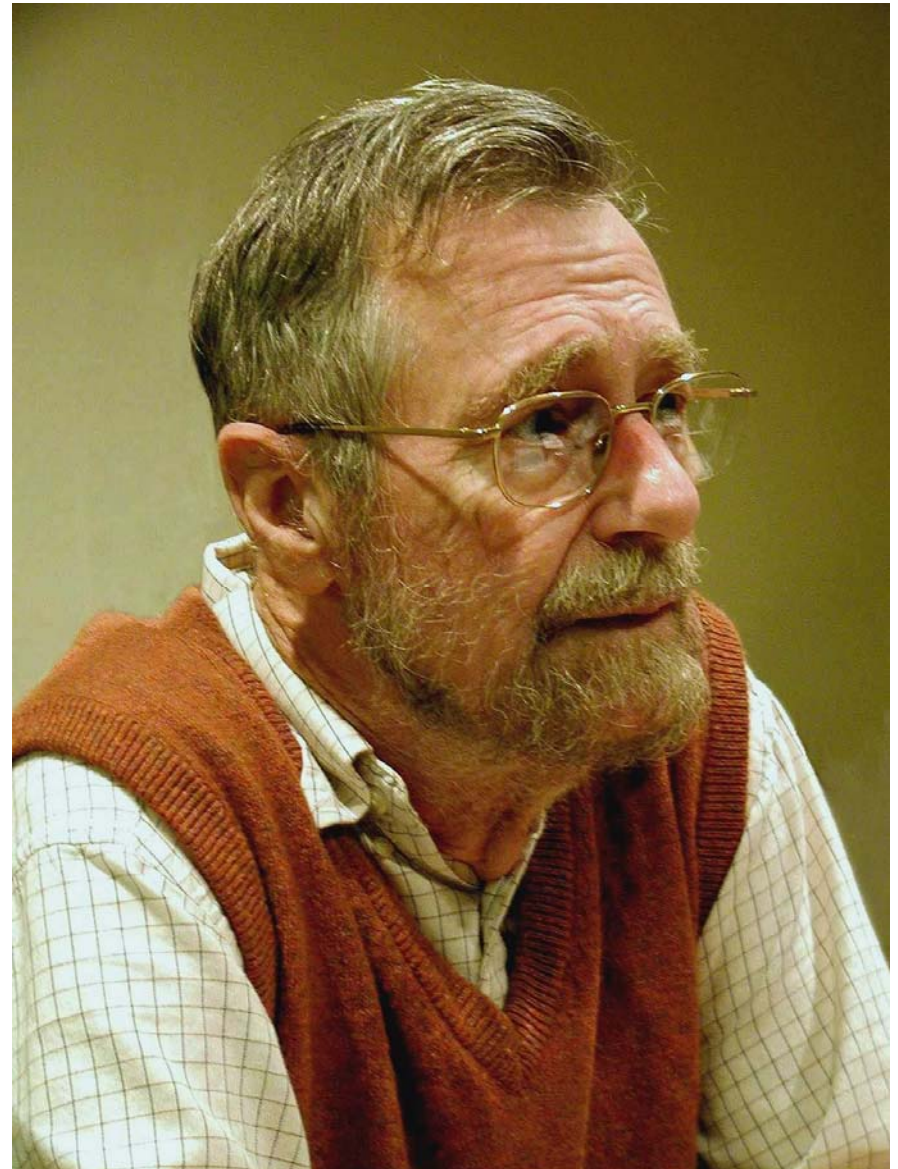
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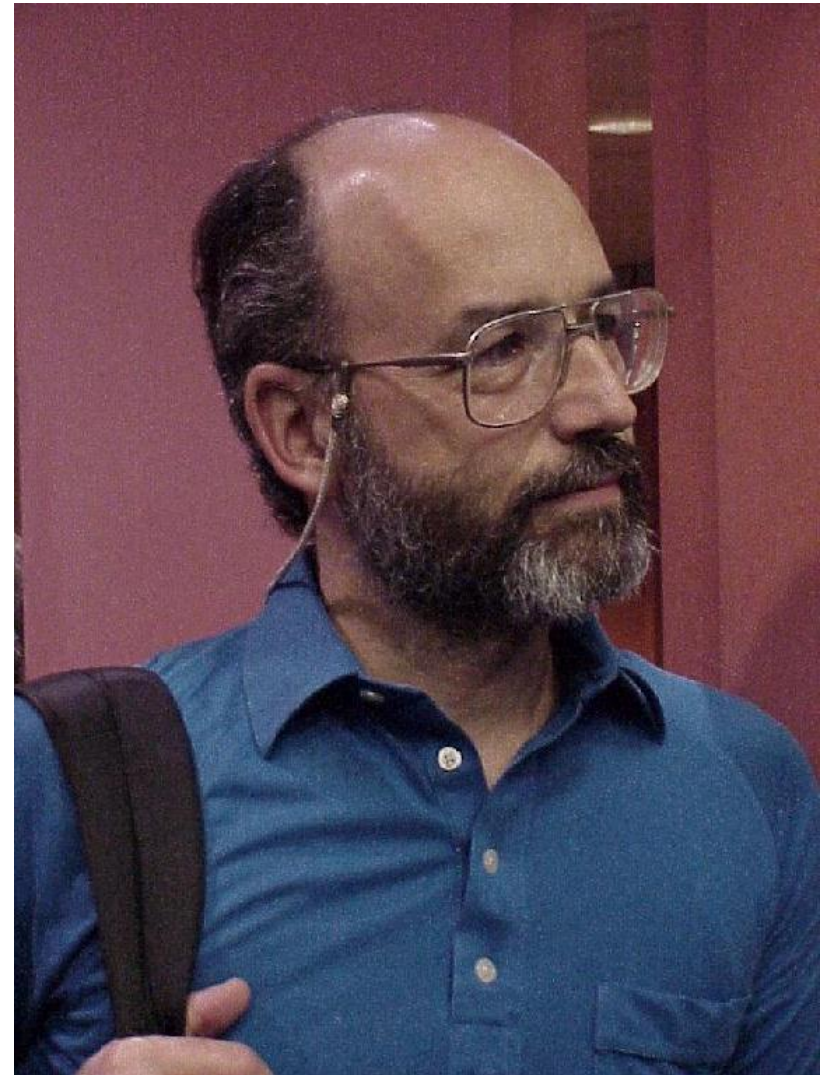
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Programming languages

Algol (largely)

Simula

Pascal, Modula-2, Oberon

Ada

ML

Design & Programming methodology

Structured Programming

O-O (The original)

Guarded commands

Z & many formal methods

Design Patterns (in part)

Concurrency models

Semaphores

Monitors

CSP

CCS

Pi-calculus

Synchronous
languages

Networks, communication

OSI model (in part)

Packet networking

The Web!

Python

Theory

Axiomatic semantics, assertions

Denotational semantics

Model checking (in part)

Abstract interpretation

Systems & software engineering

Graphics

HCI

Proof systems

Software product lines

Applications of formal methods

O-O databases

Operating systems

THE

Linux

Organizational milestones

First IFIP congress, Algol

IFIP

Garmisch-Partenkirchen, 1968

Numerous standards, e.g. ECMA, ISO

National societies

- GI, Fakultätentag (Germany)
- SI, SARIT (Switzerland)
- BCS (UK)
- Specif (previously: AFCET), SEE (France)
- GRIN, GII (Italy)

- Various Europe-wide groups, e.g. ERCIM
- ACM initiatives

Why a Europe-wide organization?

We largely face the same problems

Political authorities and the public largely do not understand computer science

We don't have a common voice

How it started

2004, EPFL and ETH

ECSS (European Computer Science Summit)

- ETH Zurich, October 2005
- ETH Zurich, October 2006
- TU Berlin, October 2007

80 to 100 participants from all over the continent

Keynotes:

- Ed Lazowska (U. Washington / US CRA)
- Michael Ley (DBLP, Trier)
- Robert Constable (Cornell/US CRA)
- Robert Cosnard (INRIA)
- Jeannette Wing (NSF)
- etc.

Informatics Europe officially created at 2006 summit

A sample of issues

Place & image of CS in the roster of sciences

Continuing to attract students, image of the discipline

Diversity of national educational models

Curriculum reform and harmonization, "Bologna" process

European research policy and funding model

Influence we can have on it?

Department ranking?

Egalitarianism vs elitism

Role of department heads

Attracting more women to CS and making sure they succeed

Special issues of emerging countries

Accreditation

Teaching CS to non-CS majors

Research and publication assessment

Relationship to other disciplines ("Computational X")

...

European strengths

Free, publicly funded education

Strong scientific basis in education

Cultural diversity

Contacts with other cultures

Closeness with US community

Long & prestigious history

Strong research organizations, e.g. Max Planck/Fraunhofer, INRIA, CWI

Research centers of international organizations: Microsoft in Cambridge, Google in Zurich...

Roster of world-class departments

Strong industrial base, e.g. SAP, French & UK software houses

Research support: EU, Switzerland, UK, specific countries

Vagaries of US policies, especially immigration

The model: (US) CRA

Computing Research Association

25 years of existence!

Association of PhD-granting universities in North America

Successfully acts as a lobbyist for the CS community, with offices in Washington (together with ACM)

Has been extremely successful in pushing the agenda of computer scientists

An example:

What constitutes a publication & achievement record in computer science, especially in systems?

Nonprofit organization

Temporarily hosted at ETH

Scope: "Europe" (i.e. Council of Europe plus Israel)

<http://www.informatics-europe.org>

Association whose members are institutions (not people):

- Informatics departments of PhD-granting universities ("Informatics" taken in a broad sense, e.g. includes computer engineering, business informatics)
- Not Fachhochschulen or equivalent
- Membership fees

Management structure:

- Executive board, about 12 people, 3-year term renewable once
- Attempt at reasonable balance, but **not** nation-based
- No national quota
- Members of Executive Board must belong to member institution, but represent themselves

Informatics Europe is not a federation of national associations
(such as IFIP)

Structure will keep a place for associated organizations, e.g.

- ACM
- CRA
- Similar organizations elsewhere (Australia, South Africa...)
- National organizations

Executive Board

Christine Choppy (Paris)

Gregor Engels (Paderborn)

Victor Gergel (Nizhny Novgorod)

Ayşe Kiper (Ankara)

Pierre Lescanne (ENS Lyon)

Jan van Leeuwen (Utrecht) (Vice President)

Jeff Magee (Imperial College)

Andrew McGettrick (Strathclyde)

Bertrand Meyer (ETH Zurich) (president)

Manfred Nagl (Aachen)

Jørgen Staunstrup (Copenhagen)

Letizia Tanca (Politecnico di Milano)

Willy Zwaenepoel (EPFL) (Vice President)

Gordon Davies (ACM representative)

Informatics Europe is a non-profit organization devoted to the promotion of research and education in Computer Science and associated technologies ("Informatics") in Europe

Goals are:

- To support the successful development of the field
- To foster quality & ethics in research & education
- To represent the informatics community with governmental & scientific authorities
- To publicize the achievements and challenges of informatics
- To advise the public and government on issues related to informatics

- Services to members (see next)
- Informatics Europe Conference, annual
- Specific conferences, workshops
- Web site
- Reports on specific topics

- Standards of conduct, codes of ethics
- Interaction with public, governments, media, industry to raise and resolve research- & education-related CS issues
- Annual Assembly

The key tasks

1. Gather data
2. Provide immediately tangible services
3. Harmonize Bologna requirements (Bachelor-Master)
4. Establish external links
5. Establish presence, get recognized by governments

Working groups

- Student enrollment and image of the discipline
- Curriculum
- Evaluating research
- Facts & Figures
- Strategy and lobbying

Mailing lists and Wikis

First report: Student enrollment and image of the discipline, ed. Jan van Leeuwen and Letizia Tanca

- Informatics Europe Tech Watch **digest** (weekly, already on)
- **Forums**
- Source of up-to-date **Facts & Figures**: student numbers, PhD numbers, PhD requirements, women enrollment, EU and other funding, tuition, ...
- **Lobbying** with Brussels & other authorities
- **Coordination** regarding curriculum, relation to other disciplines, PhD requirements
- **Representation** to associated organizations
- ...

Informatics Europe Tech Watch Digest

Appears weekly, Friday at 17:00

Concentrate of events in technology and research,
with a European accent

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Output:

Subscribe and publicize

Input:

Send information

Where does the money come from?

Member dues

Make sure your organization subscribes quickly!

At the moment:

Startup funding from ETH Zurich: one position
(Peter Kiowski)

Advantages:

- Participate in working groups
- Get exclusive information
- Reduced rates at ECSS and other events
- Help build informatics in Europe

Registration fees: EUR 2500 (West), 1000 (East)

Next conference

European Computer Science Summit

Zurich, 8-10 October 2008

Program Chair: Jan van Leeuwen (Utrecht)

What you can do

Subscribe to newsletter

Participate in forums

Provide ideas

Publicize Informatics Europe, talk about it

Mention it to your department or institute head

Make sure your organization becomes a member now!

<http://www.informatics-europe.org>