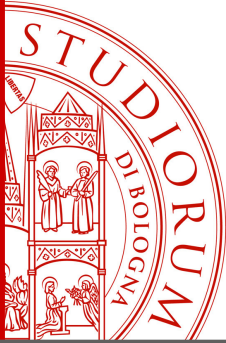




CIRSFID

Monica Palmirani
CIRSFID and Faculty of Law
University of Bologna



CIRSFID

- Interdepartmental Research Centre in Legal History, Legal Philosophy and Sociology and Computer Science and Law of the University of Bologna
- Founded in 1986 by Enrico Pattaro
- Very active in European research projects, national research projects, international initiatives
- Very active in the standardisation technical committees like NormeInRete, Akoma Ntoso, CEN Metalex, OASIS
- Two Doctorates (ICT Law and Bioethics) and one Master on ICT Law of the University of Bologna
- Staff of about 70 people: professors, researchers, research associates, Ph.D. students, ICT support staff, administrative support staff



CIRSFID's activities

Since

- 1989 - **Two Doctorates:** ICT Law and Bioethics

ICT LAW

- European Projects: **ALIVE, TRIAS, LEFIS, ALFEBIITE, ESTRELLA, ALIS, LEGAL-IST e SEAL**, in coordination with EULISP (*European Legal Informatics Study Programme*)
- LEFIS – *LEgal Framework for the Information Society*
- Computer Forensics initiatives: EECTF, IISFA

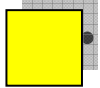
Bioethics

- Ethics and the legal issues connected with: genetics, nano-medicine, environment
- 2002 - **Master's course of Legal Informatics and ICT Law** at the Bologna University School of Law, in coordination with EULISP
- 2006 – **Summer School in Legislative XML** – Ravenna
- 2012 – **Summer School in Law and Logic** – Fiesole, EUI, Florence

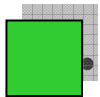


CIRSFID's areas of activity

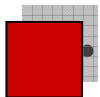
Cirsfid is active in the following areas:



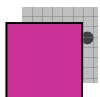
Philosophy and Sociology of Law



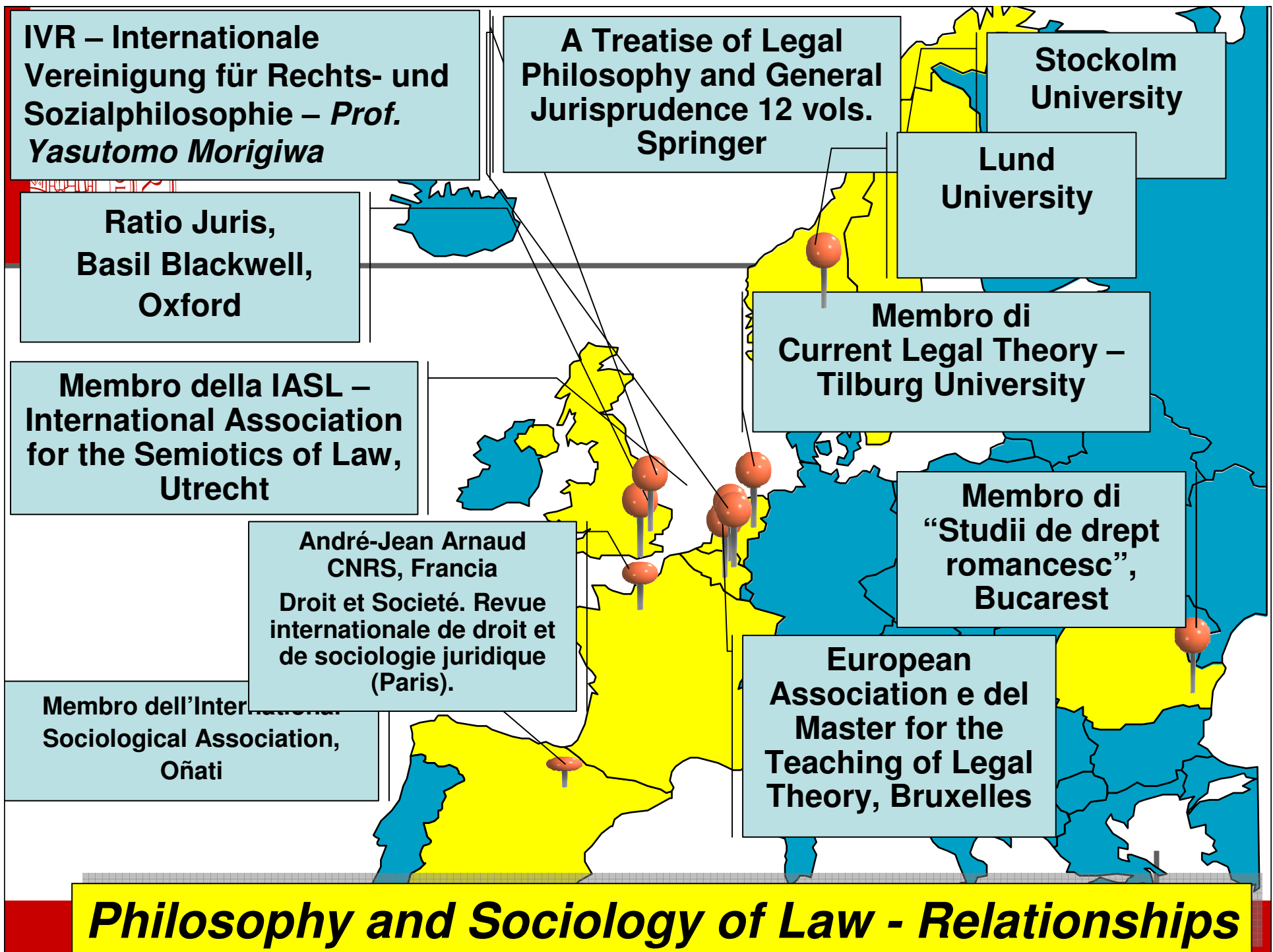
ICT LAW and Legal Informatics



Bioethics and Law



History of Law





Philosophy of Law in America

- International **Statutory Interpretation Project**, Cornell University
- Member of **Center for Semiotic Research in Law Government and Economics**, Pennsylvania State University
- **Archivos Latinoamericanos de Metodología y Filosofía del Derecho**, Universidad de Carabobo, Venezuela
- **Anuario de Filosofía Jurídica y Social**, Valparaíso, Chile



**Department of Computing -
Imperial College (London):
*Professor Marek Sergot***

**Dep. Of Computer
Science – Liverpool
University:
*Professor Trevor
Bench-Capon***

**Katholieke
Universiteit Leuven,
Belgio – *Professor
Jos Dumortier***

**Università di
Saragozza:
*Professor Fernando
Galindo***

**Università Autonoma di
Barcelona: *Professor
Pompeu Casanovas***

**Leibniz Center
for Law -
University of
Amsterdam:
*Professor Tom
van Engers***

**Norwegian Research
Center for Computers and
Law, University of Oslo:
*Professor Jonh Bing***

**Faculty of Law,
University of
Groningen: *Professor
Harry Prakken***

**Fraunhofer, Berlin:
*Professor Thomas
Gordon***

**Koblenz University-
*Professor Maria Wimmer***

**CNRS CERSA, University
of Paris 2: *Professor
Daniel Bourcier***

Computer Science and Law – EU research projects



ICT LAW and Legal Informatics in Europe

- Faculty of Law, University of Groningen: *Professor Hanry Prakken*
- Leibniz Center for Law - University of Amsterdam: *Professor Tom van Engers*
- Norwegian Research Center for Computers and Law, University of Oslo: *Professor Jonh Bing*
- Department of Computing - Imperial College (London): *Professor Marek Sergot*
- Department of Computer Science – Liverpool University: *Professor Trevor Bench-Capon*
- Corvinus University of Budapest – Department of Computer Science
- Fraunhofer, Berlin: *Professor Thomas Gordon*
- Koblenz University: *Professor Maria Wimmer*
- Katholieke Universiteit Leuven, Belgio: *Professor Jos Dumortier*
- CNRS CERSA, University of Paris 2: *Professor Daniel Bourcier*
- Università Autonoma di Barcelona: *Professor Pompeu Casanovas*
- Università di Saragozza: *Professor Fernando Galindo*



ICT LAW and Legal Informatics in America

- Cooperation with:
 - Stanford University, School of Law – *Prof. Michael Genesereth*
 - College of Computer and Information Science, Northeastern University – *Prof. Carole D. Hafner*
 - University of Pittsburgh, School of Law – *Prof. Kevin D. Ashley*
 - Cornell University, Legal Information Institute, Law School – *Thomas R. Bruce*
 - University of Montevideo, School of Law



**King's College (London) –
School of Law and Centre of
Medical Law and Ethics:
*Prof. Penney Lewis***

**Oxford Uehiro
Centre for Practical
Ethics – Oxford
University:
*Prof. Julian
Savulescu***

**University of
Manchester –
School of Law:
*Prof. John Harris***

**Observatori de
Bioetica, Universitat
de Barcelona:
*Prof.ssa Maria
Casado***

**Stockholm Bioethics Centre
- Department of Philosophy:
*Prof. Torbjörn Tännsjö***

**Faculty of Law -
University of Groningen,
the Netherlands:
*Prof. John Griffiths***

**Università della Sorbona
di Parigi - Centre de
Recherche en
Epistémologie Appliquée
(CREA) of École
polytechnique:
*Prof. Michel Bitbol***

Bioethics and BioLaw – Partnerships



Bioethics in Europe

- Oxford Uehiro Centre for Practical Ethics – Oxford University: *Professor Julian Savulescu*
- University of Manchester – School of Law: *Professor John Harris*
- King's College (London) – School of Law and Centre of Medical Law and Ethics: *Professor Penney Lewis*
- Observatori de Bioetica, Universitat de Barcelona: *Prof.ssa Maria Casado*
- Sorbone Paris - Centre de Recherche en Epistémologie Appliquée (CREA) of École polytechnique: *Prof. Michel Bitbol*
- Faculty of Law - University of Groningen, the Netherlands: *Professor John Griffiths*
- Stockholm Bioethics Centre - Department of Philosophy: *Professor Torbjörn Tännsjö*



Bioethics in the United States

- Hunter College of The City University of New York- Political Science Department : *Prof.ssa Joan Tronto*
- Boston College: *Prof. Charles Baron*
- Harvard School of Public Health and Department of the History of Science: *Prof.ssa Sheila Jasanoff*
- Stanford Center for Law and the Biosciences - Stanford University: *Prof. Hank Greely*

**University of Aberdeen,
School of Law :
*Prof. Gero Dolezalek***

**University of
Amsterdam - F.P.W.
Soetermeer**

**Univ. Panthéon-Assas
Paris II - Anne Lefebvre
Teillard**

**Université de Montpellier,
Faculté de Droit - Prof.
Yvis Mausen**

**Universit  de La Coru a
- Prof. Emma Montanos
Ferr n**

**Instituto de Derecho Can nico
de San D maso (Madrid) -
Nicol s  lvarez de las Asturias**

**Istituto Storico Germanico,
Prof. Martin Bertram**

**Universit  di Augsburg,
prof. Hans Schlosser**

**Fachbereich
Rechtswissenschaft
Institut f r Deutsche
und Rheinische
Rechtsgeschichte -
Prof. Dr. Mathias
Schmoeckel**

**Universit  Catholique,
Louvain – Prof. A. Wijffels
E.C. Coppens**

**Universit  Cattolica di
Budapest – prof. P ter
Erd **

History of Western Legal Tradition



History of Law in America

- The Catholic University of America, Washington D.C - *Prof. Kenneth Pennington*
- Bronx University - *Prof. Wolfgang P. Mueller*
- Harvard School of Law - *Prof. Charles Donahue*
- International School of IUS Comune of ERICE



ICT and Law Group

The group includes both lawyers and experts coming from the schools engineering, mathematics, physics, business, philosophy, and information science

- It has taken part in several Italian and European projects since its inception in 1986
- Among the most recent ones are SEAL, ESTRELLA, ALIS, LEGAL-IST, LEFIS, and TRIAS-TELEMATICA, ALFEBIITE, and ALIVE
- The activities may be considered divided in two sectors:
 - ICT LAW
 - LEGAL INFORMATICS and LEGAL KNOWLEDGE MODELLING
 - ARTIFICIAL INTELLIGENCE & LAW
 - FORENSIC INFORMATICS



ICT LAW and ARTIFICIAL INTELLIGENCE & LAW

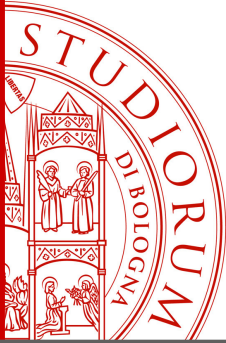
This group specialises in the legal issues connected with the development and use of new technologies and with the legal challenges posed by artificial intelligence. Its focus areas have been or are:

- 1. Intellectual Property Rights in the Information Society**
- 2. Electronic signatures and documents**
- 3. Electronic commerce**
- 4. Privacy and data protection**
- 5. Legal aspects involving intelligent agents and multi-agent systems**
- 7. Expert systems**
- 8. Security and trust in open systems**
- 9. Virtual Organisations**
- 10. Virtual and electronic institutions**



LEGAL INFORMATICS and LEGAL KNOWLEDGE MODELLING

- This interdisciplinary group studies the application of informatics in law, and works on issues pertaining to organizations such as law firms, courts, and parliaments, focussing in particular on e-Government, ICT architecture and the related legal issues. Its focus areas have been or are:
- **ICT Legal Sources Modelling**
 - modelling legal resources with legal XML and Semantic Web
 - legal information systems applications using XML technologies & NLP
 - e-Legislation, e-Parliament and e-Participation for modelling the document management flow
 - legal ontologies and reasoning
 - XML project in Parliament (European Parliament, Pan-African Parliament, Latin American Parliament)
 - XML legal knowledge modelling of law and judgment for legal reasoning with non-monotonic and non-deductive logic.
- **e-Government**
- **e-Content**; high-resolution images of rare law books from the 10th, 12th, and 13th centuries



Legal Rules Modelling and Legal Reasoning

- Active members in RuleML
 - NICTA cooperation with Brisbane branch
- Editor-in-Chief of AI&LAW
- Member of IAAL
- ICAIL International Conference on ARTIFICIAL INTELLIGENCE and LAW
- Best paper ECAI 2011
- RuleML2012 Challenge Winner
- Doctoral Consortium Best paper in RuleML2012





Legal XML and Semantic Web

- **Africa**

- Guidelines for Legislative Drafting for Pan-African Parliament
- AKOMA NTOSO Parliament XML standard – United Nations
- Kenya and South Africa



AKOMA NTOSO

Architecture for Knowledge-Oriented Management of African
Normative Texts using Open Standards and Ontologies

- **Latin America**

- Senate of Uruguay for modelling bill lifecycle in XML
- IABD Interamerican Bank for Development:
Legal XML for all the Latin American Parliaments



- **USA**

- LegalXML – OASIS
 - eCourt filing standard for courts
 - Transformational Government Framework
- Stanford University – Open Gov Initiative



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



ISTITUTO POLIGRAFICO
E ZECCA DELLO STATO

- **CH** Federal Chancellery of Switzerland
for managing the publication of the official collection in XML
- **Official Gazzette of Italy** – XML and Semantic web annotation



eLaw and eJustice

- **ICT4LAW** in cooperation with the University of Turin for developing tools in eLegislation area
- “**Fill the Gap**” research project for modelling legal document and rules using XML and OWL techniques
- **Akoma Ntoso** and **LegalRuleML** XML standardisation projects in OASIS
- UN/DESA, EU Parliament, Senate of Italy cooperation for developing legal drafting tools in **open source platform**
- Graph visualization of the legal document
- Consultant in the European project **eCodex** in the eJustice domain
- eJustice projects at the National level with the Court of Cassation, Tribunal of Bologna and Ravenna



eGov and eHealth

- **Digital signature** techniques in the eGov online services
- Consultant of the Government Agency for ICT in the Public Administration Agenda
- **Open data** juridical evaluation: Report for the Emilia Romagna Region
- **Cloud Computing** in the Public Administration: A report for the Municipality of Ravenna
- eHealth project for managing privacy by design in the **Electronic Health Record**
- **Biobank** for medical sector



Legal digital library

- Irnerio project: 165.000 images of the medioeval era on Accursio and Irnerio work
- Mosaico project: Authenticum manuscripts annotated in XML
- Multimedia repository for archiving terrorism judiciary acts semantically annotated



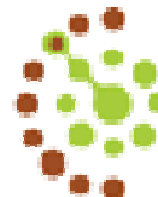
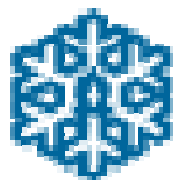
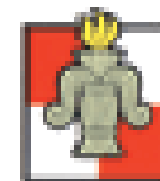
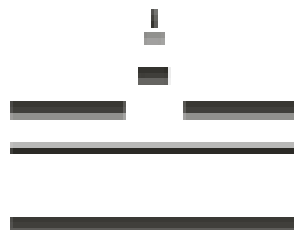
LEFIS

LEgal Framework for the Information Society

- Socrates Thematic Network
- **Tuning** reference in the topics object of LEFIS:
Juridical Thematic Network
- **ELFA** - European Law Faculties Association:
Tuning reference in the subject Law
- 130 Universities and institutions



LAW&ICT Shared Virtual Campus



ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

IL PRESENTE MATERIALE È RISERVATO AL PERSONALE DELL'UNIVERSITÀ DI BOLOGNA E NON PUÒ ESSERE UTILIZZATO AI TERMINI DI LEGGE DA ALTRE PERSONE O PER FINI NON ISTITUZIONALI



ICT forensics

- Exam of evidences during enforcement and court trial either from the technical view point and from the legal one
- Topics include: cyber crime; methods to investigate cyber crime, focusing on requirements for collection and reporting of evidence for possible use in criminal cases
- Overview of the forensic relevance of encryption; the examination of digital evidence for clues, and the most effective way to present evidence and conclusions in a court of law; investigative tools and techniques used in computer forensics
- Data acquisition and digital evidence preservation, according to the standards required for presentation in an (Italian) trial
- Investigation on electronic mail; investigative reporting



BIOETHICS and BIOLAW

This interdisciplinary group focuses mainly on ethics and the legal issues connected with:

- **1. Genetics;** recent developments in medical genetics, with a view to offering genetic counselling and working out the scientific, technical, ethical, and legal implications involved in applying technology
- **2. Nanomedicine;** the impact that nanotechnologies have on diagnostic, therapeutic, and regenerative medicine, paying attention to the tools and strategies for risk management and analysis
- **3. Environmental ethics;** ethics concerned with the environment, the human species, and relations among humans and environment



Conclusions

- Twenty-five years of pioneering, application-oriented and systematic activities in ICT Law and Legal informatics
- Wide experience in international research activities, with strong European participation in projects, initiatives and excellence networks
- Trustable and committed researchers