APPIA: The Portuguese approach to AI

PAULO NOVAIS

www.appia.pt

The European AI Landscape workshop 2018
The Portuguese approach to AI

• APPIA: Portuguese Association for AI founded on July 31, 1984;
• Oldest and most active “association of science” in Portugal;
• Association's objective is to promote research, teaching and dissemination of AI as a scientific domain;
• In order to achieve these goals, the Association intends to develop activities leading to the recognition and enhancement of AI as an area of scientific research and practical application in the most varied fields of human activity.
Main Activities:
• EPIA Conference on AI (since 1983 with Springer proceedings);
• Doctoral Symposium on AI;
• EAIA – Advanced School on AI (related to a certain technological topic).

• Award for Best PhD thesis in Artificial Intelligence;
• Talks on Artificial Intelligence (related to a certain subject).

New Project:
• School on general AI (joint collaboration between the Portuguese and Spanish association).
In Portuguese higher education systems we have basically **universities** and **polytechnic institutes**.

The university education is guided by a constant perspective of investigation and creation of the knowledge.

Polytechnic education is guided by a constant perspective of applied research and development aimed at understanding and solving concrete problems.

Big difference: only universities can offer doctoral programs.

We are in the bologna system...

Universidade de Lisboa
Universidade do Porto
Universidade do Minho
Universidade de Coimbra
Universidade Nova de Lisboa
Universidade de Aveiro
Universidade da Beira Interior
Universidade de Évora
Universidade Católica Portuguesa (private)
Universidade do Algarve
Universidade de Trás os Montes e Alto Douro
Universidade dos Açores
Universidade da Madeira
ISCTE Instituto Universitário de Lisboa

Instituto Politécnico do Porto
Instituto Politécnico de Lisboa
Instituto Politécnico de Bragança etc.
The Portuguese approach to AI

Portuguese research groups

- ADETTI-IUL/ISCTE-IUL
- ALGORITMI/UM
- BioISI
- CAPS/IST/UTL
- CEOT/UAAlg
- CTS/UNINOVA/FCT/UNL
- CISUC – FCT/UC
- GECAD/ISEP/P.Porto
- IEETA/UA
- INESC Coimbra - FCT/UC
- INESC ID – Lisboa
- INESC Porto
- ISR – Coimbra
- ISR Porto/FE/UP
- IT
- LabMAG/FFC/FC/UL
- LIACC/UP
- LARSyS
- NOVA LINCS
- SESUL

Few more, in groups located in the inland and islands, but most them are connected to the great centers of the country.
### Portuguese research groups

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<th>Agents and Systems Multi-Agent</th>
<th>Computational Creativity</th>
<th>Extraction of Knowledge and Data Mining</th>
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The Portuguese community is perfectly stable and recognized in the world.
The Portuguese approach to AI

- Portugal's economy is one of the 50th largest in the world (if we consider its nominal Gross Domestic Product (nominal GDP))
- After a strong financial crisis in recent years, we are now growing and recovering
- Primary sector: 12%
- Secondary sector: 28%
- Tertiary sector: 60%

- 72% of companies in Portugal are in the tertiary sector

Ranking of ITC company
- First Software Portuguese company appear (after the IBM company etc)
  - Position 33 We do Consulting
  - Position 34 ALTRAN

and
- Position 38 FARFETCH (online fashion retail platform)
The Portuguese approach to AI

As elsewhere in Europe we have the big and traditional companies and a set of new emerging startups. A common point: AI technology the new big thing.
APPIA is a preferential partner between the community and the national authorities.

Some recent initiatives:
- Administrative modernization together with Portuguese government.
- Creation of a collaborative laboratory linking all major AI centers.

- Fundação Calouste Gulbenkian
  - Scholarship Program “New Talents in Artificial Intelligence”;
  - Scholarship Program “New Talents in Quantum Technology”.
The Portuguese approach to AI

Funding source

• H2020
  • FEDER

• PORTUGAL 2020
  ◦ COMPETE
  ◦ REGIONAL (NORTH, CENTER, SOUTH, etc.)

Agencies promoting R&D programs

• FCT (the Portuguese national funding agency for science, research and technology)
• ANI (National agency for Innovation)
• CCDR(REGIONAL)(Regional Coordination and Development Commission for each region)
• IAPMEI (Agency for Competitiveness and Innovation)

• Private funding opportunity
• In recent years AI has been at the forefront;
• The summer of AI also reached the media:
  • Growing interest in generalist newspapers and radios on the subject:
  • TV programs have emerged addressing the different visions of AI.

• More than talking about the benefits of technology, focus on:
  • Apocalyptic scenarios like “Terminator” and “Matrix”;
  • Privacy and Data Protection (The EU General Data Protection Regulation).
Fears of mass unemployment;
Agents against people;
Standards of living might get worse;
Lose aspects of our humanity;
Technology may create worse problems than it solves.
Strong and active AI community in Portugal;
APPIA: links together all main researchers and laboratories since 1993;
EPIA and EAIA since 1983 gather the community together with International researchers;
Large number of new projects and initiatives started in the last years.
APPIA: The Portuguese approach to AI

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