

Social Signal Processing Network: A New Network of Excellence including IM2 and Affective Sciences

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- Part I - What is Social Signal Processing?

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Part I

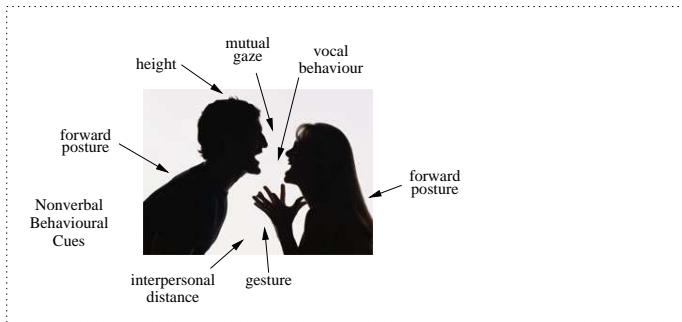
What is Social Signal Processing?

Social Signals and Social Behaviour



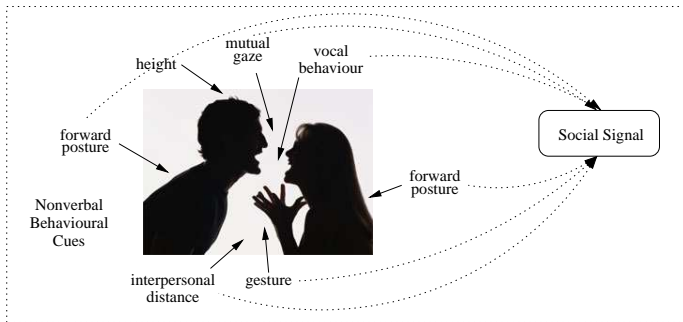
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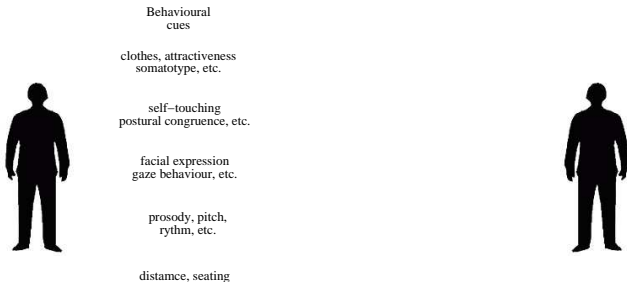
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Nonverbal Communication



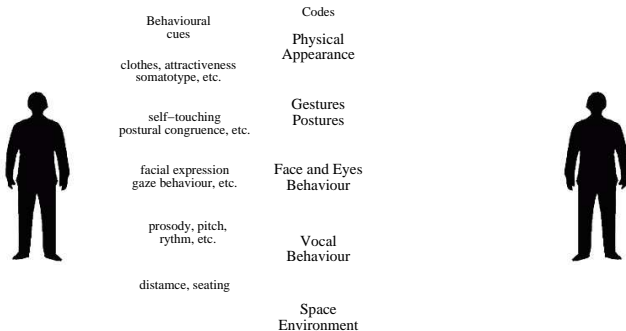
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Nonverbal Communication



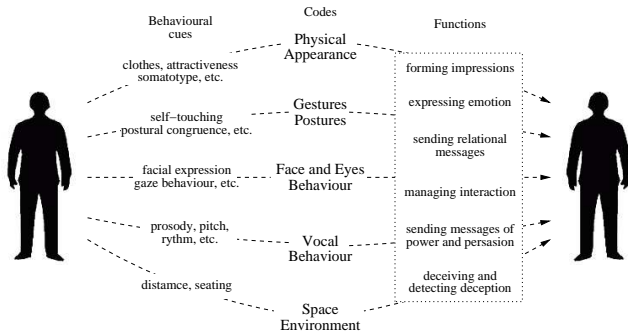
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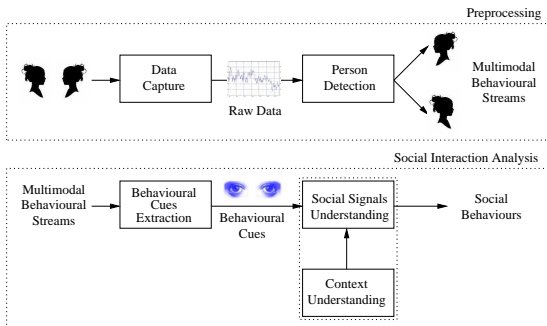
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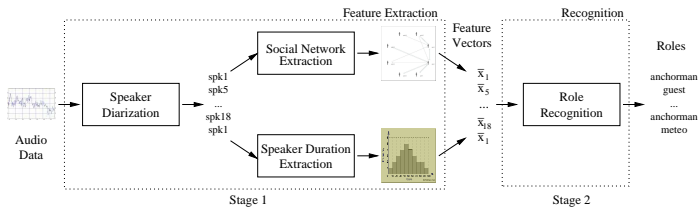
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Social Signal Processing



- A.Pentland, "*Social Signal Processing*", IEEE Signal Processing Magazine, 24(4):108-111, 2007.
- A.Vinciarelli, M.Pantic, H.Boulevard, A.Pentland, "*Social Signal Processing: State-of-the-Art and Future Perspectives of an Emerging Domain*", to be presented at the ACM International Conference on Multimedia, 2008.

Role Recognition



- **Person detection** performed through **speaker diarization**
- **Turn taking** extracted as **behavioural cue**
- **Social networks** as **social behaviour model**
- 80% of the data time correctly labeled in terms of time (experiments performed over 90 hours of material)

Part II

What is a Network of Excellence?

The Networks of Excellence

*The Networks of Excellence (NoE) **funding scheme** is designed for research organisations willing **to combine and functionally integrate a substantial part of their activities and capacities in a given field, with a view to creating in this field a European “virtual centre of research”**.*

[. . .] This goes far beyond the kind of cooperation associated with single projects, in terms of the range of objectives, number of researchers, volume of activities, depth and duration of the cooperation.

From the *Guide for Applicants* of the European Community.

The Virtual Centre of Research

The most tangible aspect of the VCR is the web portal:

<http://www.sspnet.eu>

The first official release is expected for **August 2009**. The portal aims at:

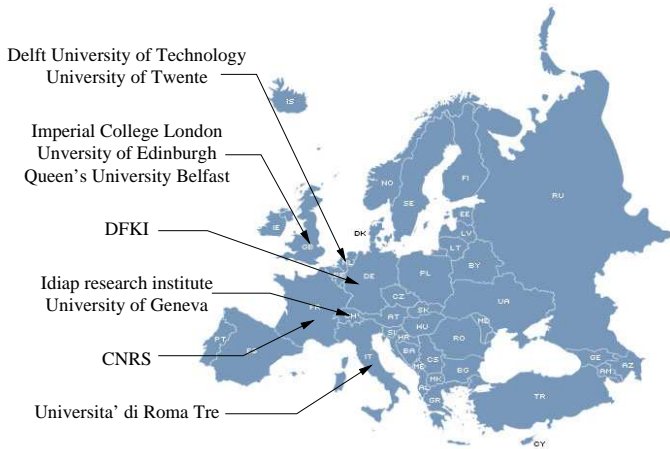
- **lowering the entry barrier** of SSP, i.e. to reduce significantly the effort required to start research in the domain,
- **providing common benchmarks** for rigorous performance assessment and comparison between different approaches,
- **disseminating literature, data and tools** relevant to SSP.

Our ambition is to make of the portal **THE** reference for SSP.

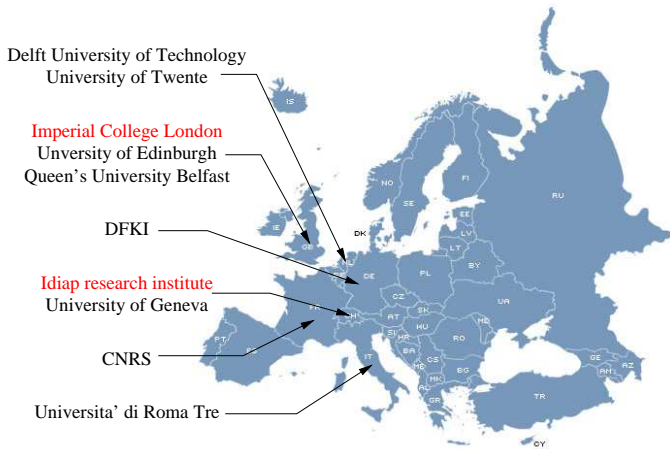
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SSPNet: who, what, when, where.

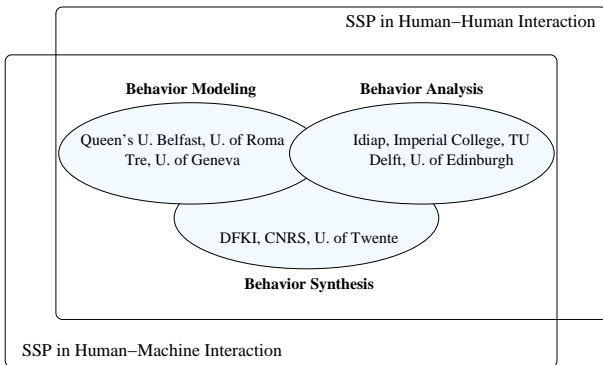
Who and Where



Who and Where



What and When



2 Research Foci: Human-Human and Human-Computer Interaction

3 Scientific Domains: Behavior Modeling, Analysis and Synthesis

5 Years to go: From 2009 to 2014

Research Scenarii

- Social signals in **political debates**. Focusing on behaviours related to **power** and **persuasion** (and maybe **deception** ;-))
- **Politeness** in **Conversational Agents**. Focusing on behaviours aimed at forming impressions.
- **Group interactions**. Focusing on detection and modeling of **social context**.

Thank You!