Privacy: Speech meets Legal Experts, a Concept Workshop

Andreas Nautsch
## Agenda

### Session 1 - Chair: Isabel Trancoso

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker/Title</th>
<th>Topic</th>
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<tbody>
<tr>
<td>09:00-09:15</td>
<td></td>
<td>Opening words (Andreas Nautsch)</td>
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<td>09:15-10:00</td>
<td>Birgit Brüggemeler (Fraunhofer IIS)</td>
<td>&quot;SPEAKER — privacy preserving speech assistance made in Germany&quot;</td>
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<td>10:00-10:45</td>
<td>Korbinian Riedhammer (TH Nürnberg)</td>
<td>&quot;Patient and audio data in clinical speech therapy&quot;</td>
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<td>10:45-11:45</td>
<td>Thomas Zerdick (EDPS Head IT policy)</td>
<td>&quot;Views of the EDPS on speech and data protection&quot;</td>
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<td>11:45-12:30</td>
<td>Catherine Jasserand (University of Groningen)</td>
<td>&quot;Speech data and the GDPR: First reflections from a legal perspective&quot;</td>
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### Lunch

### Session 2 - Chair: Els Kindt

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tr>
<td>13:30-15:00</td>
<td>Open discussion (moderated by Catherine Jasserand and Andreas Nautsch)</td>
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<tr>
<td>15:00-15:30</td>
<td>Coffee break</td>
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<td>15:30-16:00</td>
<td>Discussion: outstanding legal and technical issues as seen from the technical and legal communities for future collaboration and convergence</td>
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<tr>
<td>16:30-17:00</td>
<td>Wrap-up &amp; Conclusion</td>
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On Fundamental Needs: WiFi, Toilets & Lunch

- WiFi SSID: Uranus
  - SSID: Uranus
  - SMS Register

- Toilets

Booked tables, separated bills (15-20 €)

Budget friendly food corner (5-10 €)
Why today’s workshop?

- Technical & Legal experts at 1 table
  - to talk, but also with another
    - Need for better designed products & services
    - Need for technology-agnostic legislation

- Pre-event to Shonan Meeting
  - 28 Crypto, Legal & Speech experts
  - Outcome: research roadmap for 2020-2030

Privacy, Ethics, and Legislation for Speech Communication

Shonan Village Center
March 23 - 27, 2020 (Check-in: March 22, 2020)
10 Years of ISCA security & privacy research

- 1999, 1st paper speech attack
- Manas Pathak, 2012
- ‘05, ‘07, ‘08 privacy papers
- Jose Portelo, 2015
- Abelino Jimenez, 2019
- VoiceGuard & Patient Privacy (2018)
- "Privacy Issues in Speech Data Collection and Usage"
- "Privacy in Speech and Audio Interfaces"

ASVspoof & Forensics Sessions
- 2013
- 2015
- 2017
- 2019

ASV spoof

Spoofing & Binary Embeddings

Privacy in Diarization

ISCA events

Privacy PhD theses

SpLC SIG
Open issues

- User-centric
- Data storage
- Speech capture
- Speech processing
- Safeguards
- Involved entities
- Case studies
- Information types

Quantitative research

Qualitative research

- consensual (in-good-faith use of ISCA)
- unwittingly (potential ISCA abuse)
Understanding the Nature of SPSC

Security: free from threat or danger
Privacy: free from public attention

Research Areas

- Speech Communication
- Ethics & Study of the Law
- HCI with Speech as Medium
- Cybersecurity

Understanding Security & Privacy

- Methodology
- Terminology
- Taxonomies & Ontologies
- Interchange

Dissemination

- Qualitative Research
- Popular Science
- Quantitative Research

Popular Science

Qualitative Research

Research Areas

Security: free from threat or danger
Privacy: free from public attention
Opening words: why is speech data sensitive?

“Speech is a medium in communication to impart or exchange information.”

- Characteristics
  - Behavioural
  - Physiological
  - What we say

- Data types
  - Audio
  - Text
  - Video
  - Brainwaves
  - ...

https://www.eslfast.com/robot/audio/dailylife/dailylife1901.mp3
Nautsch et al.: The GDPR & Speech Data, Interspeech 2019
Enjoy the workshop