Subtitling the Chaos Communication Congress: An Experience Report

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@c3subtitles
https://c3subtitles.de
irc://hackint.org/#subtitles
Chaos Communication Congress (Q516804)

- annual “hacker” gathering, between Christmas & New Year’s Eve
- started in 1984 (of course)
- Hamburg, Berlin, now: Leipzig (17,000 visitors)
- lectures, workshops, art, and more
- custom DECT/GSM/UMTS/ethernet networks
- mostly self-organised, volunteer (“angel”)-based
Realtime captions

- **Goal**: Provide captions for people in the room
- ...with minimal delay
- ...while the speaker is speaking
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- **Problem**: fast speakers reach 200 Words / 1200 Strokes per Minute (WPM/SPM)
- \(\sim\) Speech is 3–4 times faster than typing

Broadcasting uses respeaking (i.e., speech recognition)

Court reporting uses stenography: chorded keyboards allow for 300 WPM

Commercial captioning providers for tech conferences exist! (e.g., @stenoknight)

...but only for English
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Realtime captions: Our solution

- If one typist is too slow . . .
- . . . just use four
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- ...just use four

- L2S2 (https://github.com/c3subtitles/L2S2): etherpad-like captioning interface
- requires incredible coordination among typists
- ↝ extremely tiring; need lots of angels; mistakes will happen
Off-line Subtitles

- **Goal**: High-quality captions for recorded video material
- can be translated into different languages
- can make video material **searchable**
- Since 2017 (first year in Leipzig), we have focused exclusively on off-line subtitles
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**Workflow:**

- Generate a rough transcript using speech recognition software (Youtube, Trint, ...)
- Angels turn that into a proper transcript
- Align transcript & audio using Youtube
- Angels do “quality control”: fix spelling & correct alignment on https://amara.org
- Export subtitles as SRT to https://mirror.selfnet.de/c3subtitles/congress/
Offline Subtitles: Organisation

- every talk gets a unique token
- whoever works on a talk acquires the token
- “free” talks go back on the board
- after congress, we track progress on https://c3subtitles.de
Statistics from the 35C3 Infrastructure Review

During 35C3
- 106 angels
- 381 hours worked
- 79 hours material
- 16 releases

In progress
- 49 hours transcribed
- 27 hours aligned
- 17 hours controlled

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