

Technology as a means for inclusion



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{CODEMOTION}

Online Tech Conference #!

#! - Italian edition -

23-24-25 Marzo, 2021



~~Carneade~~Andrea, chi era costui?

- CTO @ Managed Designs - <https://www.manageddesigns.it/>
- Contract Professor @ MIP Politecnico di Milano
- Founder UGIdotNET - <https://www.ugidotnet.org/>
- Depeche Mode uberfan



Hearing aid



Bone conduction glasses

Gigs

- Aug 18, 2020: **Premiata Forneria Marconi**, Arena della Regina, Cattolica, Italy
- Feb 11, 2020: **Editors**, Alcatraz, Milan, Italy
- Jul 13, 2019: **Ritmo tribale**, Parco Tittoni, Desio, Italy
- Apr 14, 2019: **Manuel Agnelli**, Teatro Dal Verme, Milan, Italy
- Feb 23, 2019: **Tears for Fears**, Mediolanum Forum di Assago, Assago, Italy
- Feb 23, 2019: **Justin Jesso**, Mediolanum Forum di Assago, Assago, Italy
- Nov 14, 2018: **CHVRCHES**, Fabrique, Milan, Italy
- Oct 20, 2018: **Marlene Kuntz**, Magazzini Generali, Milan, Italy
- Sep 21, 2018: **Marlene Kuntz**, Parco delle Memorie Industriali, Milan, Italy
- Jul 25, 2018: **Depeche Mode**, Waldbühne, Berlin, Germany
- Jul 25, 2018: **Deutsch Amerikanische Freundschaft**, Waldbühne, Berlin, Germany
- Jul 23, 2018: **Depeche Mode**, Waldbühne, Berlin, Germany
- Jul 23, 2018: **Deutsch Amerikanische Freundschaft**, Waldbühne, Berlin, Germany
- Jul 2, 2018: **Depeche Mode**, Collisioni Festival 2018
- Jul 2, 2018: **Marlene Kuntz**, Collisioni Festival 2018
- Jun 11, 2018: **Bad Religion**, Circolo Magnolia, Segrate, Italy
- Jun 2, 2018: **Gem Boy feat. Cristina D'Avena**, Parco Tittoni, Desio, Italy
- Apr 22, 2018: **Editors**, Mediolanum Forum di Assago, Assago, Italy
- Apr 22, 2018: **October Drift**, Mediolanum Forum di Assago, Assago, Italy
- Jan 29, 2018: **Depeche Mode**, Mediolanum Forum di Assago, Assago, Italy
- Jan 29, 2018: **EMA**, Mediolanum Forum di Assago, Assago, Italy
- Jan 27, 2018: **Depeche Mode**, Mediolanum Forum di Assago, Assago, Italy
- Jan 27, 2018: **EMA**, Mediolanum Forum di Assago, Assago, Italy

More gigs

- Dec 19, 2017: **Elio e le Storie Tese**, Mediolanum Forum di Assago, Assago, Italy
- Dec 17, 2017: **Alison Moyet**, Fabrique, Milan, Italy
- Dec 13, 2017: **Pumarosa**, Unipol Arena, Casalecchio di Reno, Italy
- Dec 13, 2017: **Depeche Mode**, Unipol Arena, Casalecchio di Reno, Italy
- Dec 11, 2017: **Depeche Mode**, Pala Alpitour, Turin, Italy
- Dec 11, 2017: **Pumarosa**, Pala Alpitour, Turin, Italy
- Dec 9, 2017: **Depeche Mode**, Pala Alpitour, Turin, Italy
- Dec 9, 2017: **Pumarosa**, Pala Alpitour, Turin, Italy
- Nov 17, 2017: **Depeche Mode**, Manchester Arena, Manchester, England
- Nov 17, 2017: **Re-TROS**, Manchester Arena, Manchester, England
- Sep 14, 2017: **Ritmo tribale**, Circolo Magnolia, Segrate, Italy
- Jul 23, 2017: **Depeche Mode**, Cluj Arena, Cluj-Napoca, Romania
- Jul 23, 2017: **Maya Jane Coles**, Cluj Arena, Cluj-Napoca, Romania
- Jun 29, 2017: **Depeche Mode**, Stadio Renato Dall'Ara, Bologna, Italy
- Jun 29, 2017: **Algiers**, Stadio Renato Dall'Ara, Bologna, Italy
- Jun 27, 2017: **Depeche Mode**, Stadio San Siro, Milan, Italy
- Jun 27, 2017: **Algiers**, Stadio San Siro, Milan, Italy
- Jun 25, 2017: **Depeche Mode**, Stadio Olimpico, Rome, Italy
- Jun 25, 2017: **Algiers**, Stadio Olimpico, Rome, Italy
- Mar 28, 2017: **Afterhours**, Alcatraz, Milan, Italy

[\[https://www.setlist.fm/user/andysal\]](https://www.setlist.fm/user/andysal)

Seeing AI

<https://www.microsoft.com/en-us/ai/seeing-ai>

A free iOS app that narrates the world around you. It's available in Dutch, German, French, Italian, Japanese, Spanish and Turkish.

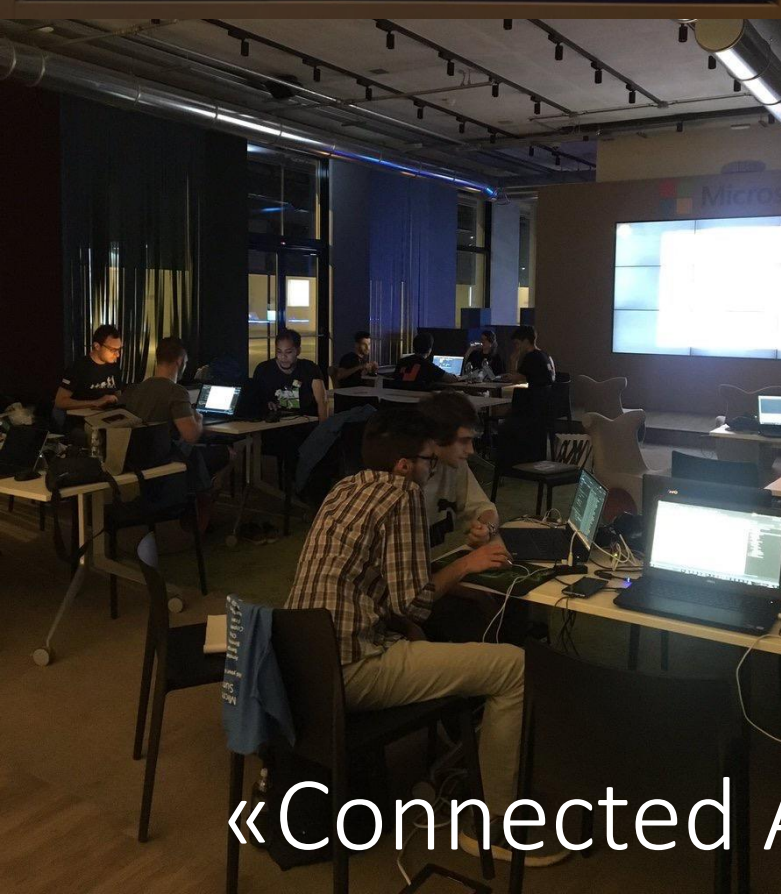




«Adesso fa' qualcosa che serva»

<https://accessibilitydays.it>

ACCESSIBILITY DAYS



«Connected Ability 2017» hackathon

Connected Ability...-ish

My one-weekend-long take at producing a **Seeing AI** clone using Microsoft's technology:

- **.NET Core** for application logic
- **UWP SDK** (a UI toolkit)
- **Azure Cognitive Services** (domain-specific, pre-trained machine learning models)

This, with no prior knowledge about **UWP** and little about **Cognitive Services**

“Hai paura del buio?”

Enter Rossy

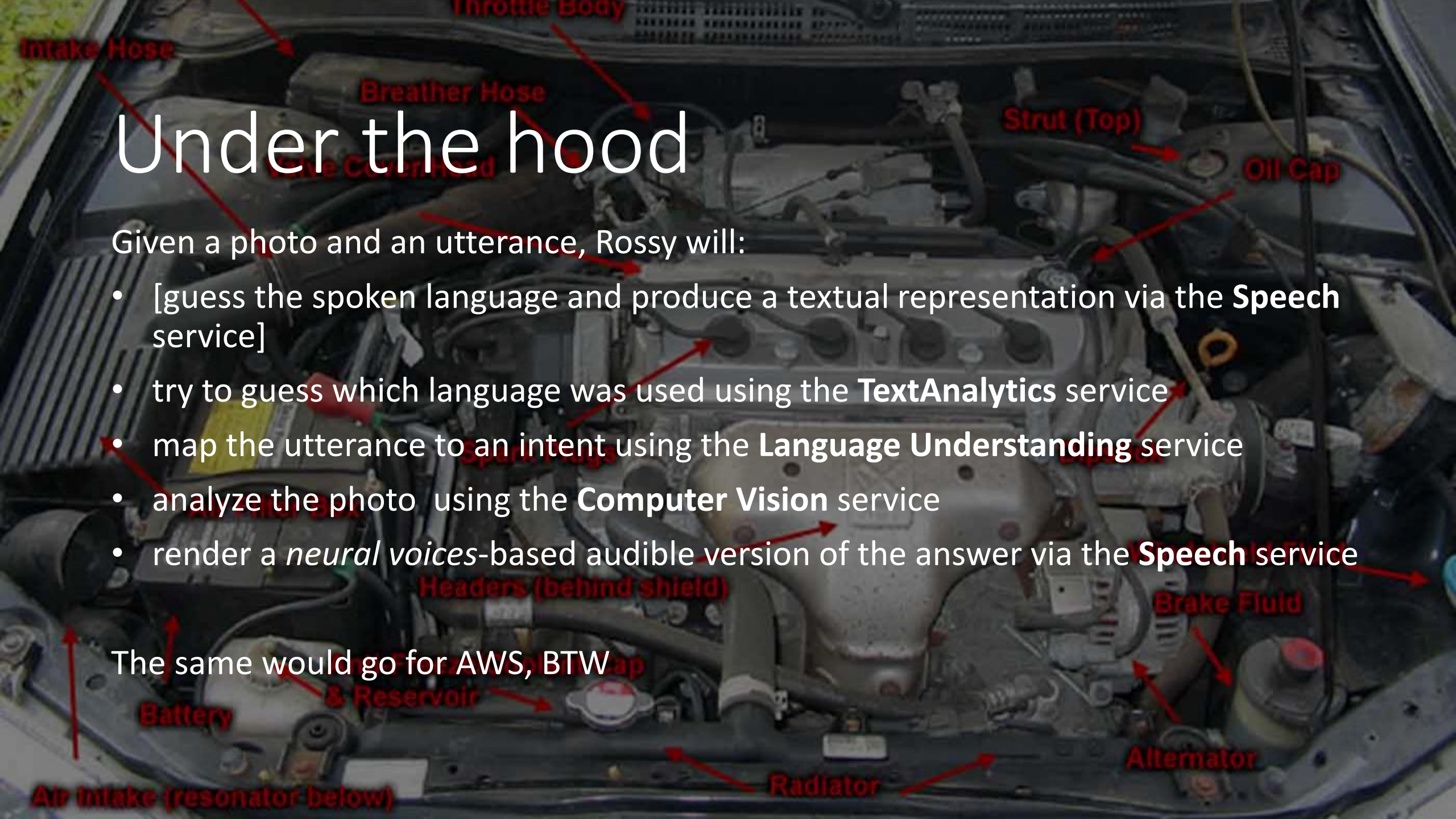
<https://github.com/andysal/Rossy>

Under the hood

Given a photo and an utterance, Rossy will:

- [guess the spoken language and produce a textual representation via the **Speech** service]
- try to guess which language was used using the **TextAnalytics** service
- map the utterance to an intent using the **Language Understanding** service
- analyze the photo using the **Computer Vision** service
- render a *neural voices*-based audible version of the answer via the **Speech** service

The same would go for AWS, BTW





10:15 on a ~~Sat~~... Sunday night

48 hours (of which 22.5 spent coding) later, I had:

- Localized utterances
- Localized answers
- Lots of fun

Speech-to-text and image rendering took a couple more hours

A person's arm and hand are visible on the right side of the frame, wearing a light-colored, short-sleeved button-down shirt. They are holding a large, silver, cylindrical metal bucket and pouring a stream of US dollar bills into a massive, sprawling pile of cash that dominates the left and center of the image. The bills are mostly one-dollar bills, with some green and blue bills visible. The background is a solid, dark color, making the money and the person's arm stand out. The text "Sel custa? (How much is it?)" is overlaid in white, sans-serif font across the middle of the image, positioned over the pile of money and the bucket.

Sel custa? (How much is it?)

There's no
service as a
free service

- Speech to Text: 5 hours per month
- Computer Vision: 20 calls/m, 5K calls/M
- Language detection: 5K T/30 days
- LUIS: 5 T/s, 10K T/M
- Text to Speech (Neural voice): 500K ch/M

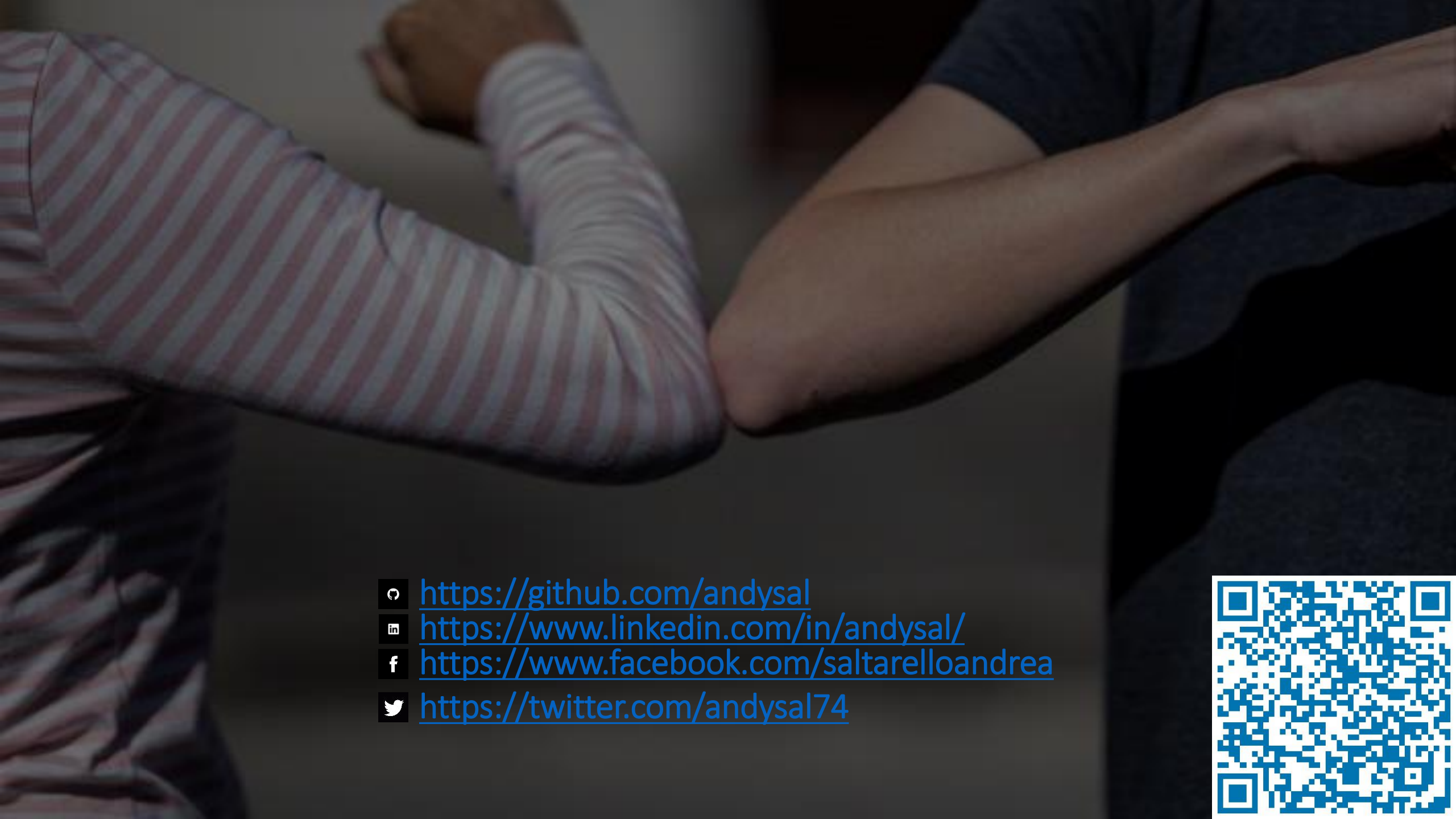
Again, the same goes for AWS





It's a long way to the ~~top~~ Store

Rossy is far from complete:

- Too few intents (e.g.: objects)
- Sentiment Analysis might be of help (e.g.: anxiety)
- Better training (e.g. Susanna tutta panna)
- Custom Vision on top of Computer Vision (e.g.: pre-classification)
- Better use of analysis result (e.g. Erich Gamma, wedding)
- A useful, x-plat front-end (WASM?)
- Models could be run client-side



A close-up photograph of two people bumping their elbows. The person on the left is wearing a long-sleeved shirt with thin, horizontal red and white stripes. The person on the right is wearing a dark blue t-shirt. The background is a plain, light-colored wall.

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