Multi-modality & Trust Conversational Interfaces

06 February, 2018

Botanic

Building Humane Machines

Botanic Technologies, Inc

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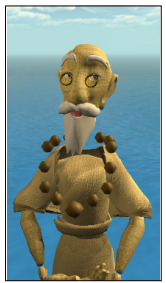
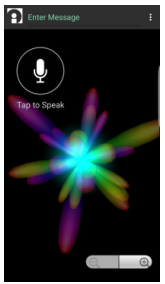
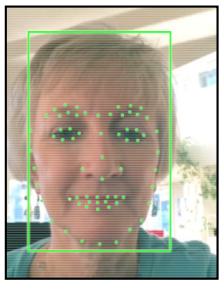
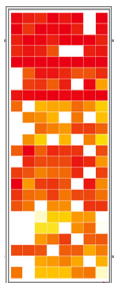
- Bots (a UI for AI) monitor emotion, user state
- This is terrible and great
- They need license plates
- We see new emerging models



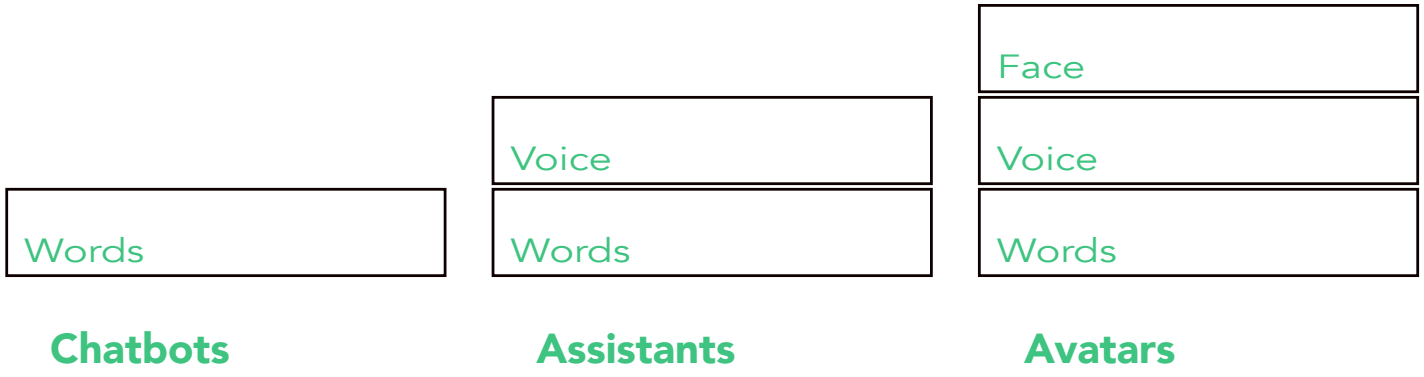







Botanic Technologies provides the tools
to deploy ***trusted, multi-modal*** bots,

"Trusted" means *multi-modal* and *authenticated*.



A Bot is UI to Artificial Intelligence.
It is a conversational user interface (CUI).

Nobody wants to talk with a robotic robot.

But we do.

The art of conversation
is more about listening than talking.

Bots are made for listening.

Early Conversational Interfaces

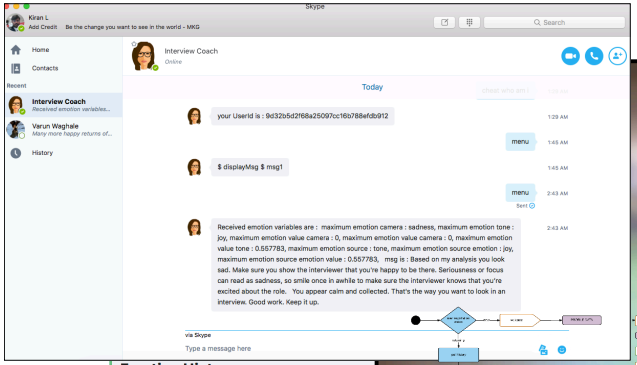
These are chatbots
(some call them ‘audiobots’)
that aggregate APIs.

- voice: ASR+TTS, &c
- services: maps, yelp, &c

User Experience (UX):

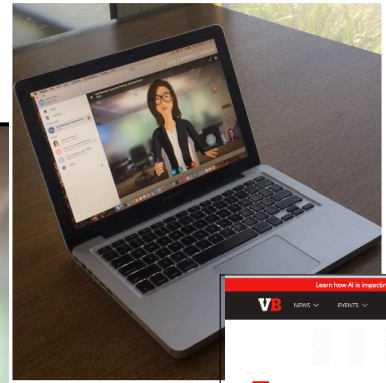
“Ensures the user understands the value of the product and can control the outcome of the interactions.”

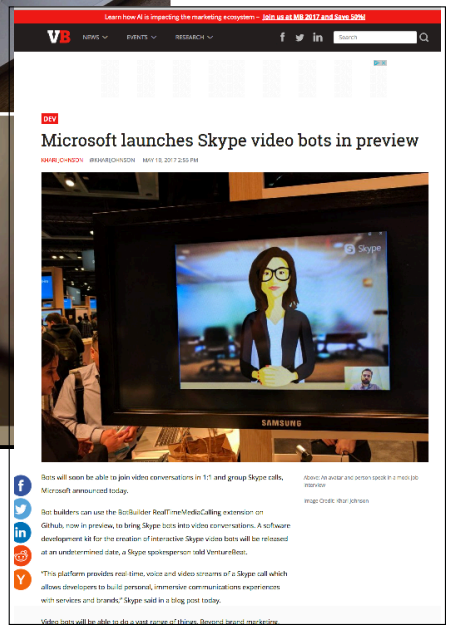
Meet Andi of Skype, a 3rd-generation bot



Emotion History

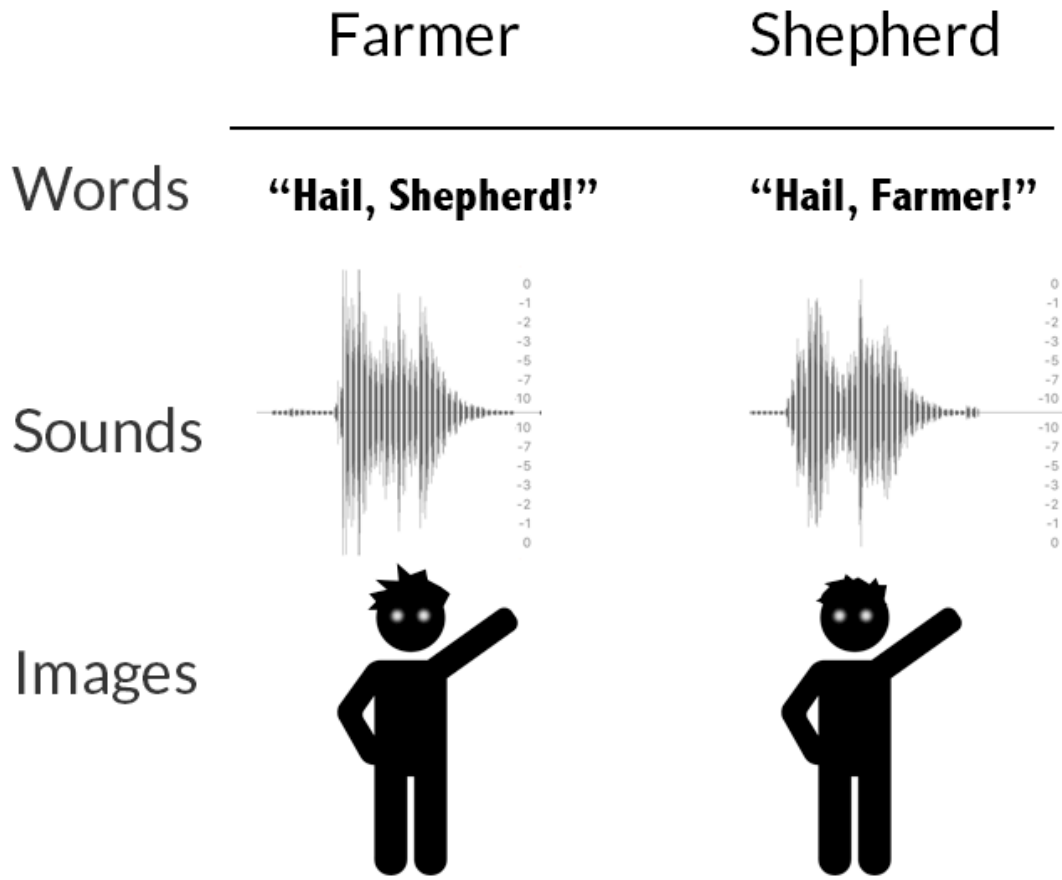
Your emotion history has 10 camera e
and 10 text tone entries.
Camera last entry from Wed, 26 Apr 2
15:40:44 -0700.
Text last entry from Wed, 26 Apr 2017
15:40:52 -0700.
Most recent camera results:
anger: 0.00
contempt: 0.00
disgust: 0.00
fear: 0.00
joy: 0.00
sadness: 0.00
surprise: 0.00
engagement: 0.00
valence: 0.00





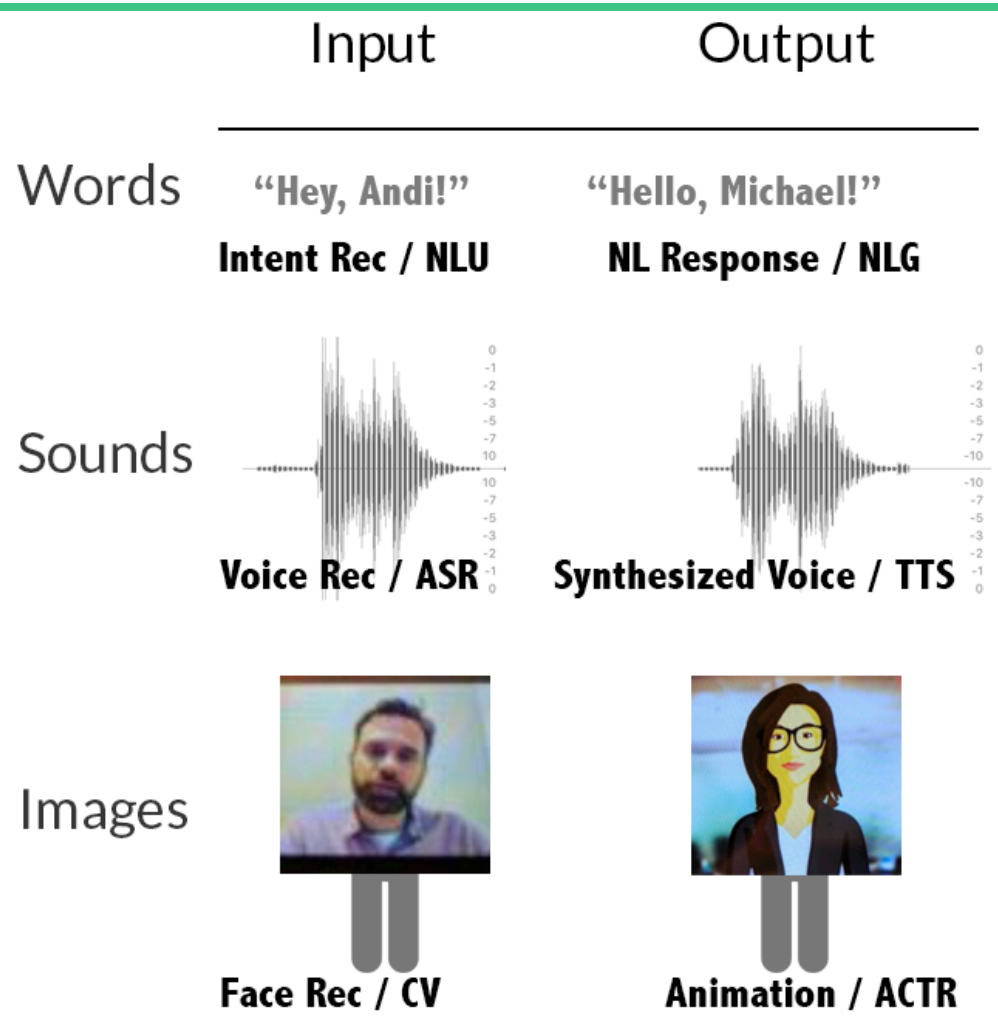
Multimodality

We don’t communicate the way we used to.



Multimodality

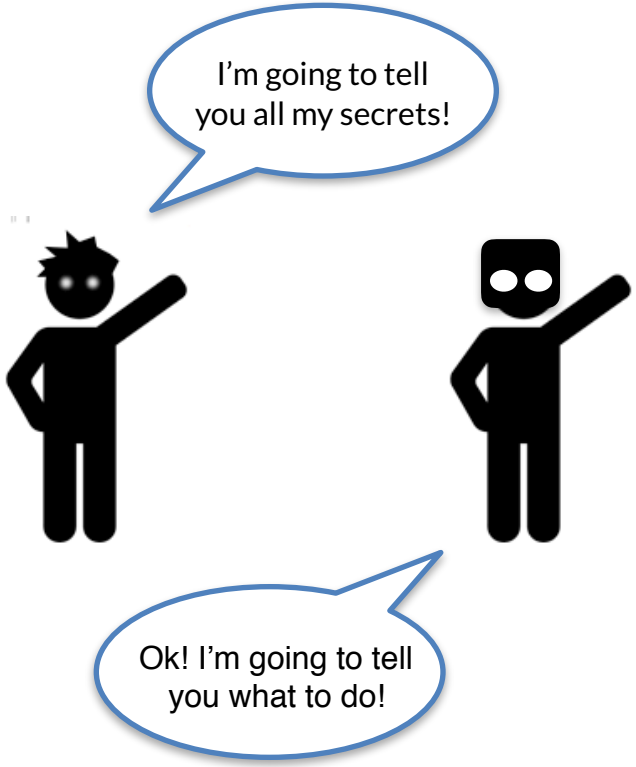
Software today can analyse and measure us.

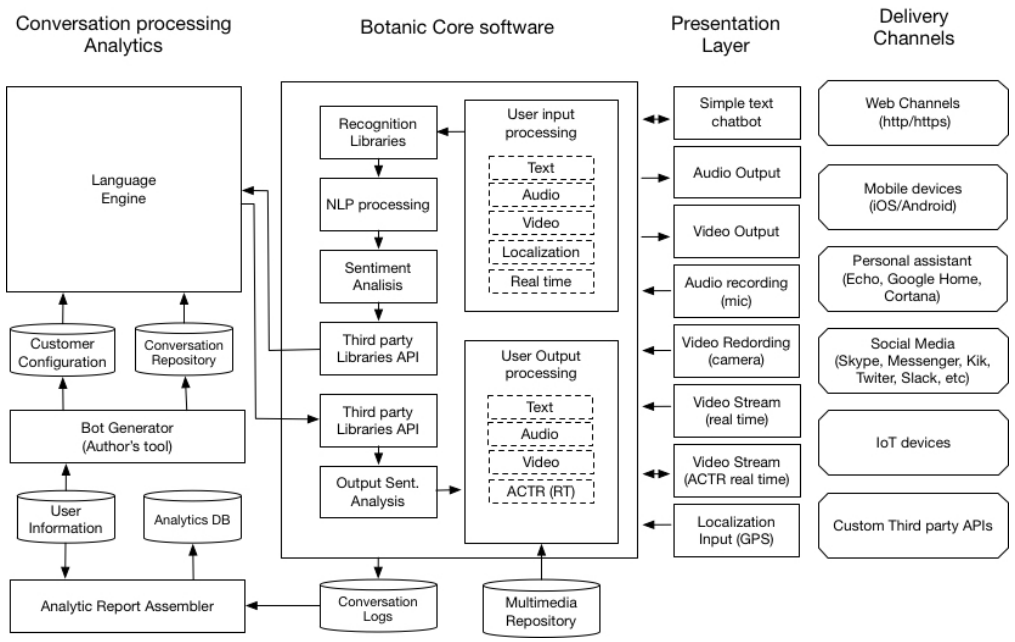


Health care use case:

85% of users would prefer telling secrets to a bot.

82% of users are more likely to follow directions from a bot.

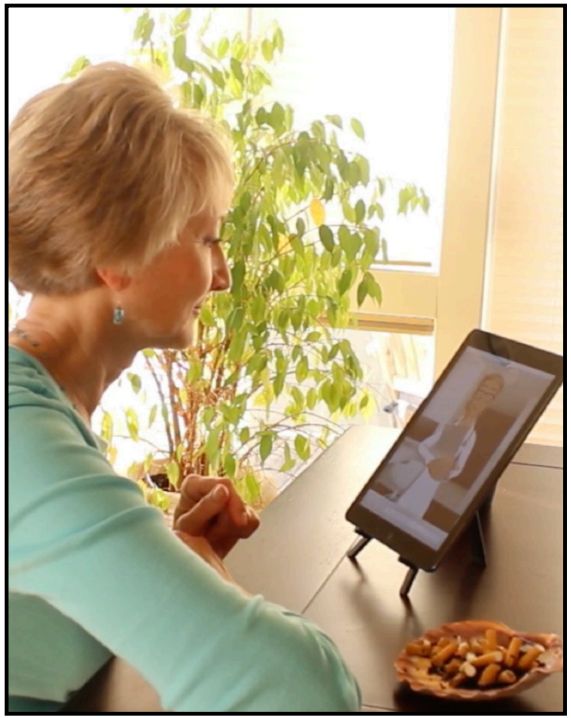


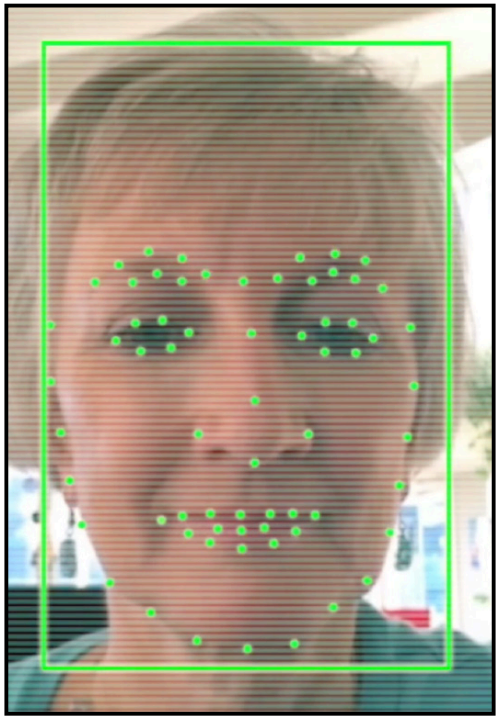


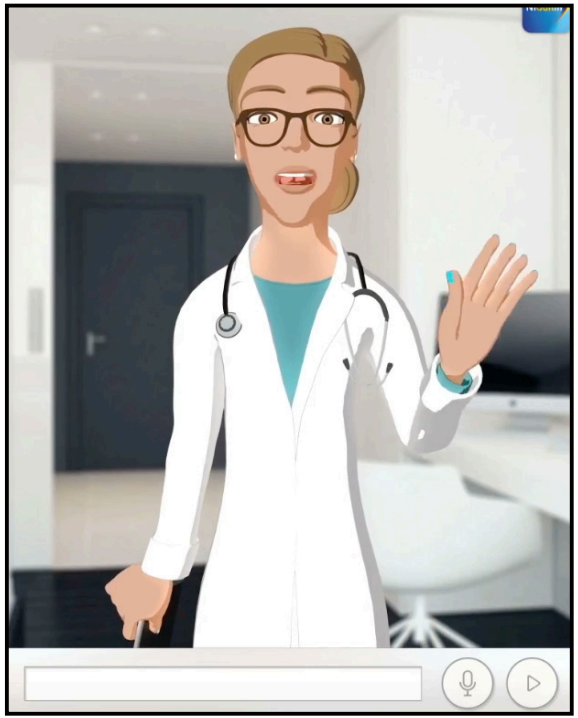
Desktop Operating Systems:

Mobile Operating Systems:

Input < –– > Output







Input < –– > Output

Bots aggregate APIs and collect LOTS of data

- ASR: Collect user vocal data
- NLP: Collect user words & meaning
- CV: Collect image & user facial data
- Analytics: Builds correlative data

This is highly surveillant user state data

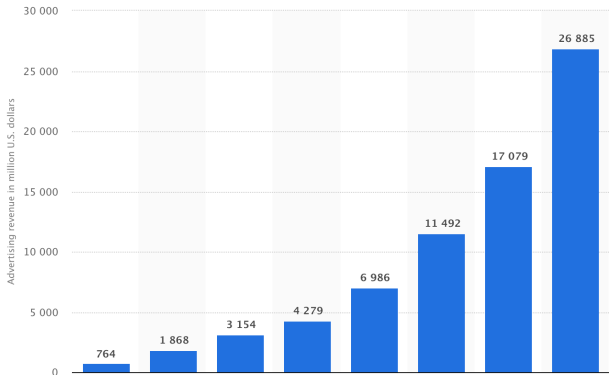
The Money Lives In The Database

User data is
"The most valuable resource in the world." The Economist, May 2017

Our Data = Their Revenues = Their AI

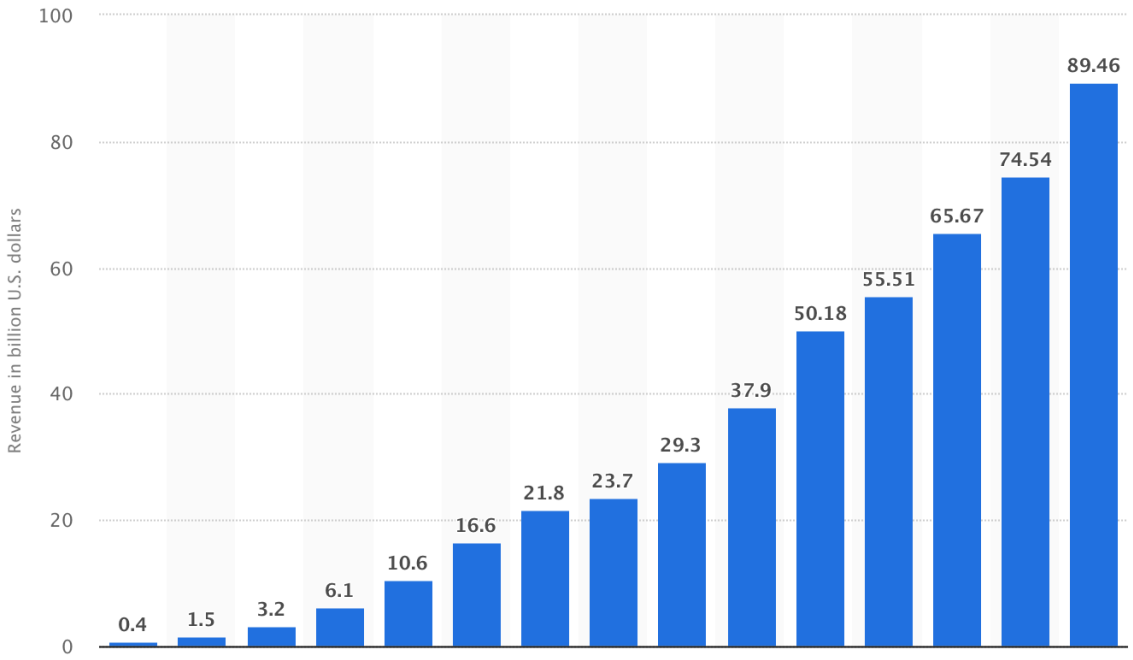
Q: Who's got the best
AI systems on the planet?

$30m



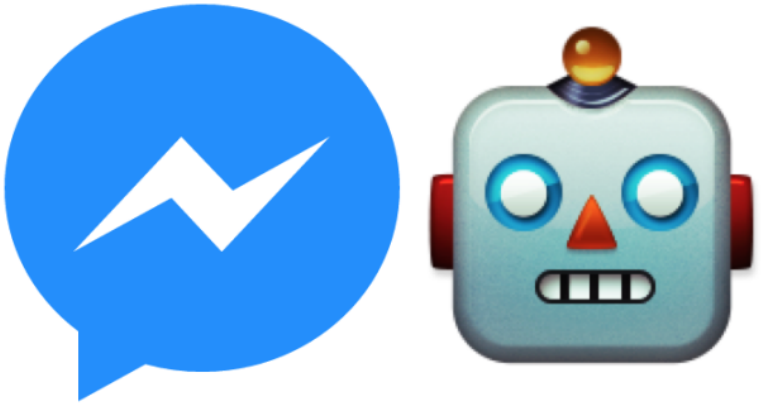
Facebook revenues: 2009-2016

$90b



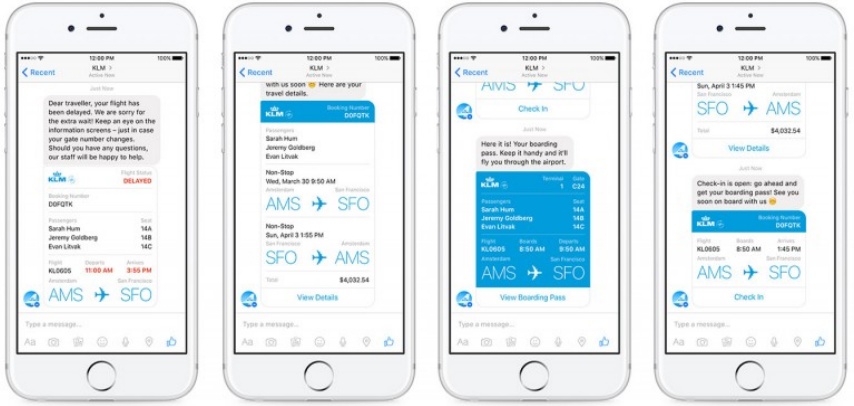
Google revenues: 2002-2016

Bots need license plates



"There are more than 100,000 chatbots on Facebook Messenger"

- Head of Facebook's Messenger, David Marcus)



Bots need license plates - please visit botauth.com

Callbacks to 3rd party services:

- OAuth
- OpenID
- KeyBase.io
- UniquID
- ShoCard
- Blockstack
- Evernym “Self-sovereign”
- &c

Deployment public proof / verification:

- Facebook
- Kik
- Slack
- Twitter
- GitHub
- PGP key
- Blockchain accounts (Coinbase)
- &c

Authentication allows the democratization of AI

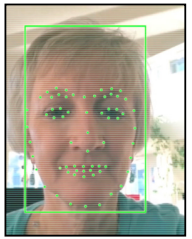
Security Transoms:

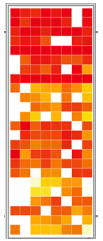
- protects user data
- protect brand identity
- establishes trust
- facilitates dialogue markets

Social Rankings:

- verifies trusted identity
- establishes reputation
- allows error-checking
- allows buy / sell



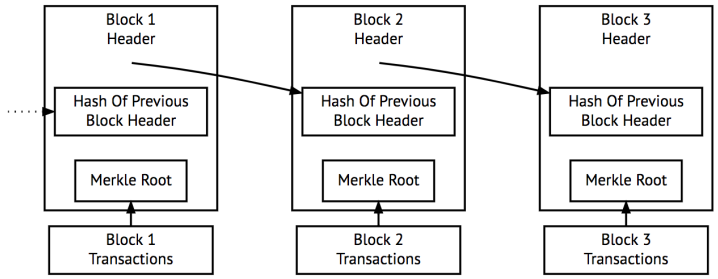





But… blockchain?

Blockchain solves problems AI introduces:

- **Provenance & Ownership**
- **Open Source financial models**
- **Quality & Democratisation of data**
- **Identity, Authentication & Verification**
- **Public remuneration**



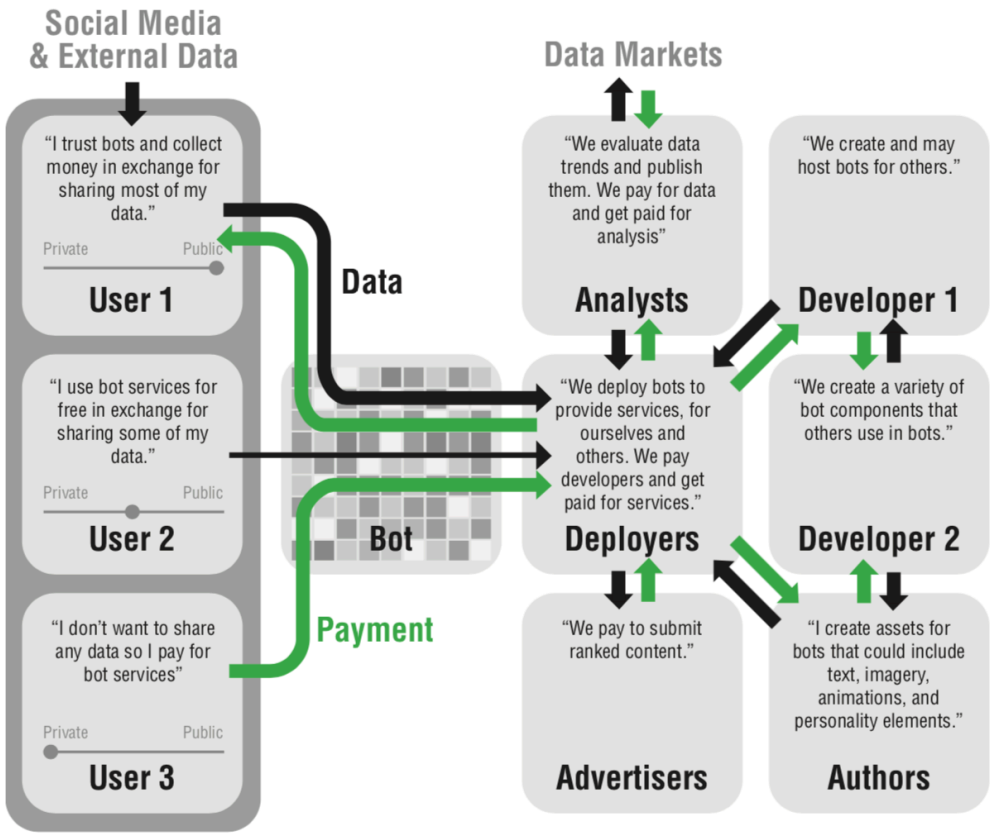
Simplified Bitcoin Block Chain

```
>>> analogy('she : persuasive :: he : _')
[('eloquent', 0.5119104981422424),
 ('cogent', 0.47530755400657654),
 ('forceful', 0.4661991000175476),
 ('compelling', 0.4648658037185669),
 ('persuasiveness', 0.44693121314048767),
 ('astute_tactician', 0.4409894347190857),
 ('astute', 0.4384106397628784),
 ('persuasive_argument', 0.43724218010902405),
 ('persuasively', 0.4368932843208313),
 ('politically_adroit', 0.4337315857410431)]
>>> analogy('he : persuasive :: she : _')
[('unpersuasive', 0.4880642592906952),
 ('seductive', 0.47412118315696716),
 ('motherly', 0.470891535282135),
 ('empathetic', 0.463296502828598),
 ('compelling', 0.4603765606880188),
 ('womanly', 0.45796793699264526),
 ('ditzy', 0.448554664850235),
 ('Renee_Elise_Goldsberry', 0.44458216428756714),
 ('manipulative', 0.4431408643722534),
 ('kittenish', 0.44061100482940674)]
>>>
```

Emerging Business Models

Blockchain solves problems AI introduces.

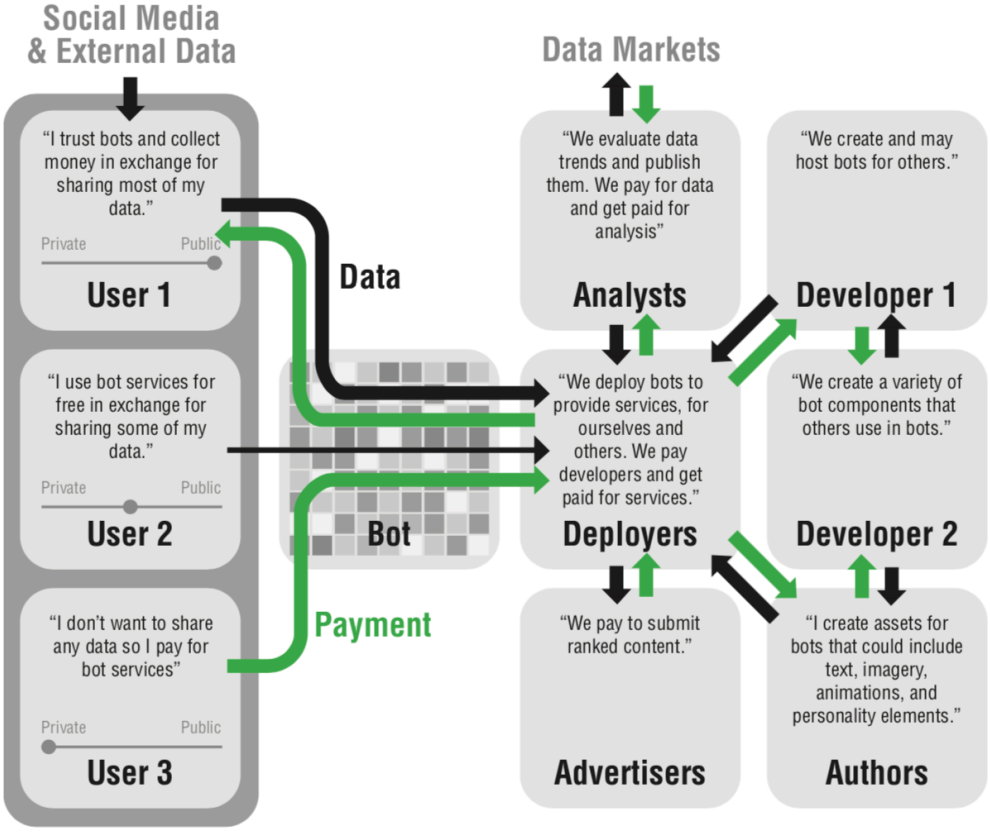
The combination of these systems allow for "*data network effects*" and emerging financial models not only for communities building bots but for companies, individuals, and bots.



Emerging Business Models

Blockchain solves problems AI introduces.

http://seedtoken.io



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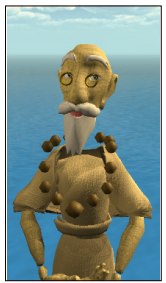
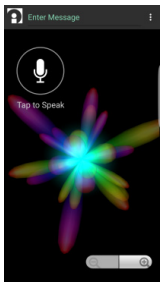

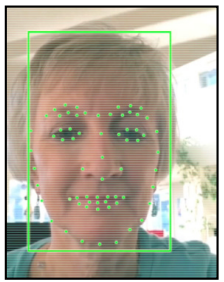

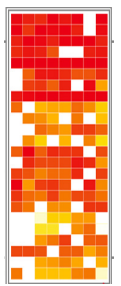

Join us, help us democratize AI and improve publicly-available open source libraries.

Thank you!

http://seedtoken.io

http://botanic.io

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