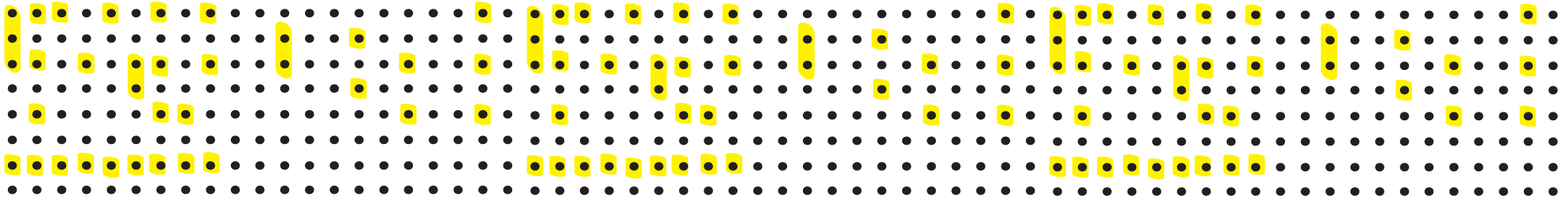
Emotional AI at the border: the case of iBorderCtrl

Datafication technologies, counter-power and resistance at the EU borders
6-7 July, 2021



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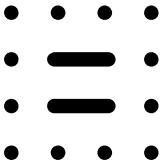
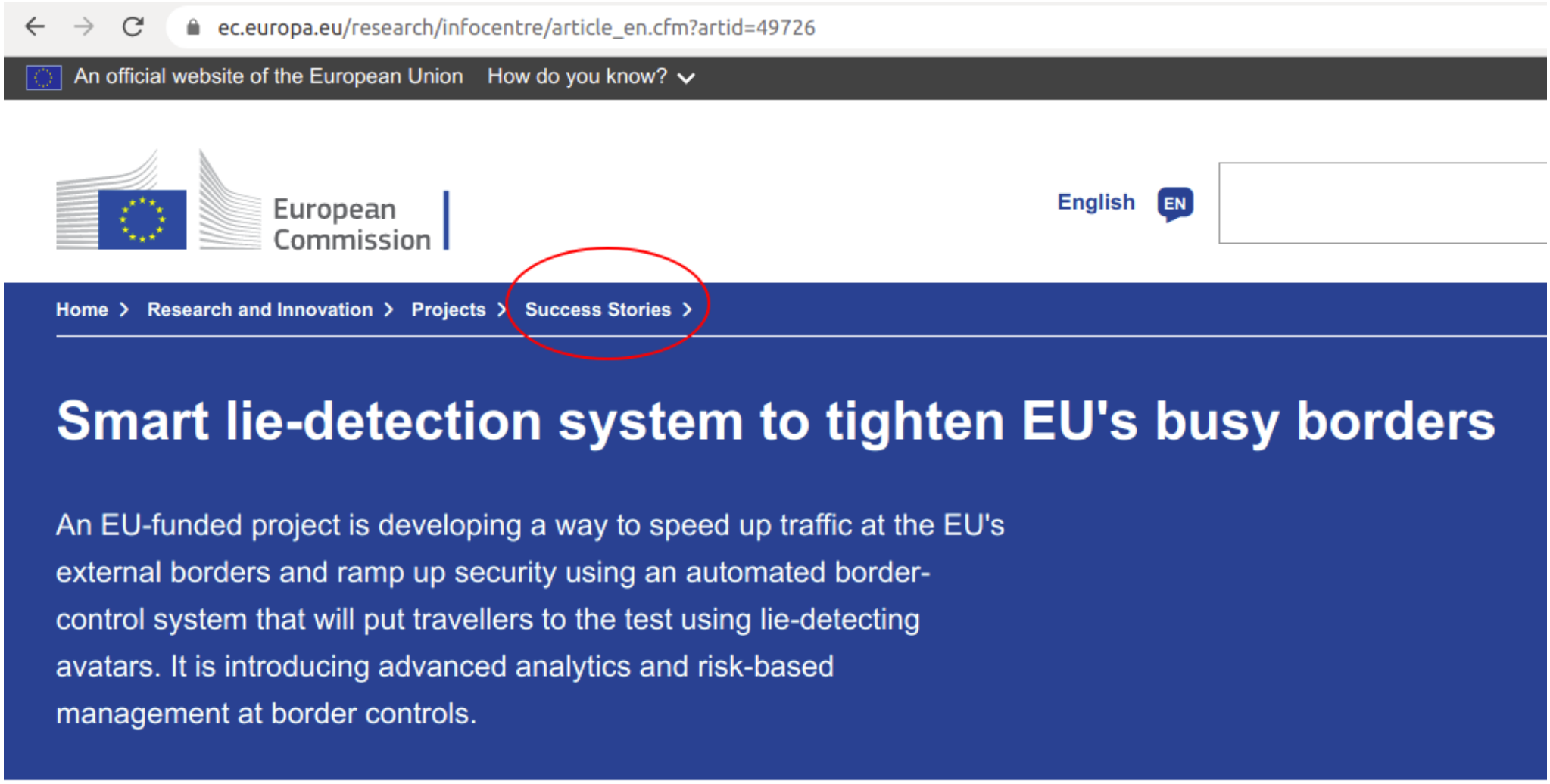
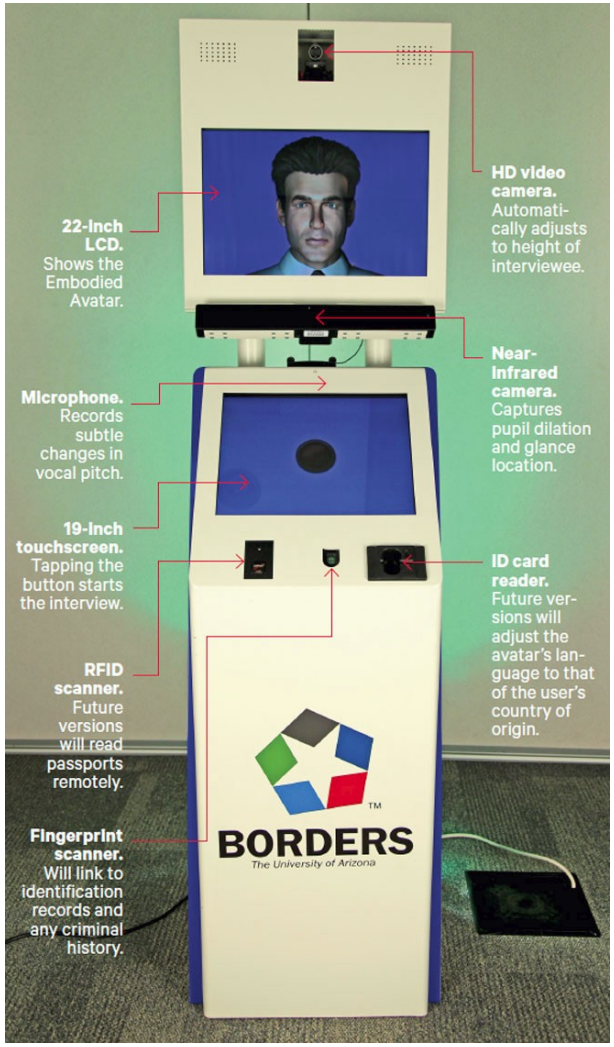


Data
Justice
Lab

A success story



The rise (and fall?) of emotional AI

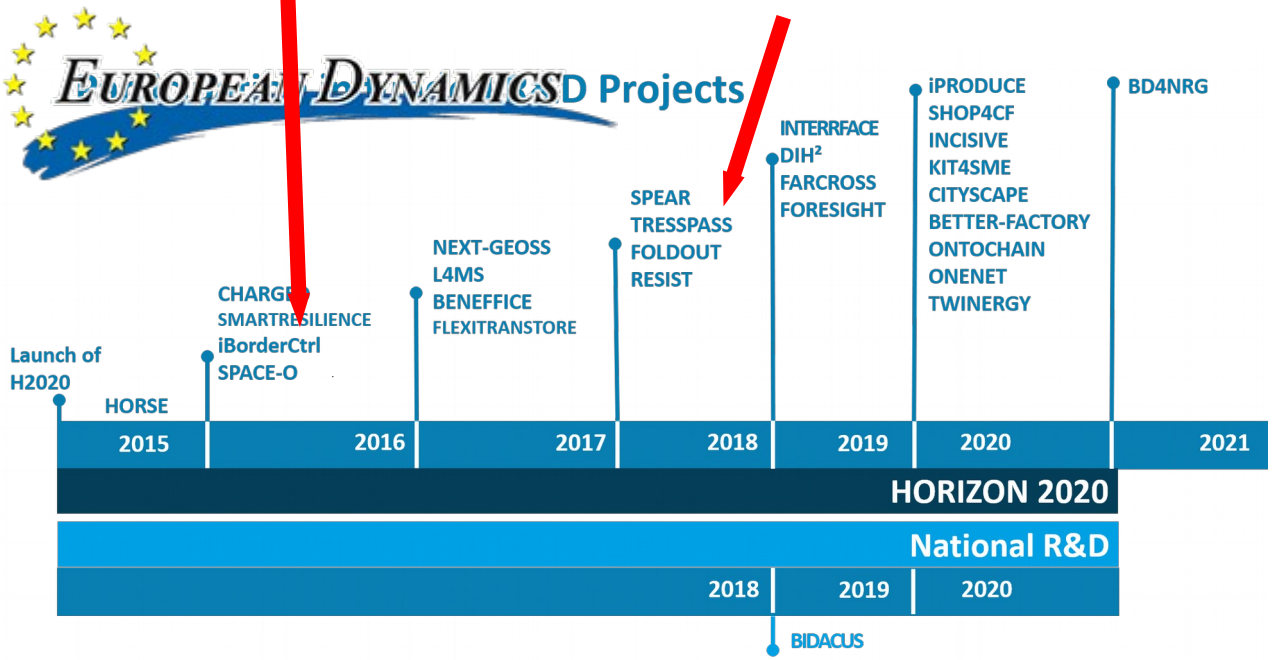


iBORDERCtrl

Deception detection

Behaviour analysis (stress detection); 'abnormal' behaviour score in real-time

EUROPEAN DYNAMICS



iBorderCtrl

iBorderCtrl (Intelligent Portable Control System):

- 'Efficient' control of travellers and migrants
- Funded by H2020 (4.5Me)
- Two-steps procedure for border crossing:
  - Pre-registration from home
  - Automatic interview by a virtual agent at the border
- Automatic "risk" assessment
- Automatic deception detection though facial analysis ('biomarkers of deceit')
- Depending on the risk and deception scoring, the person will be interviewed by a human agent
- Pilots in Hungary, Greece and Latvia in 2018

https://www.iborderctrl.eu

How to interrogate iBorderCtrl?

Multi-disciplinary approach

- **Political economy**: H2020, repurposing of technology, the rise of emotional AI
- **History** of deception detection technologies
- **Assumptions** and **validation**
- **Statistical analysis** to question the foundational premise of massive screening

Lie detectors?

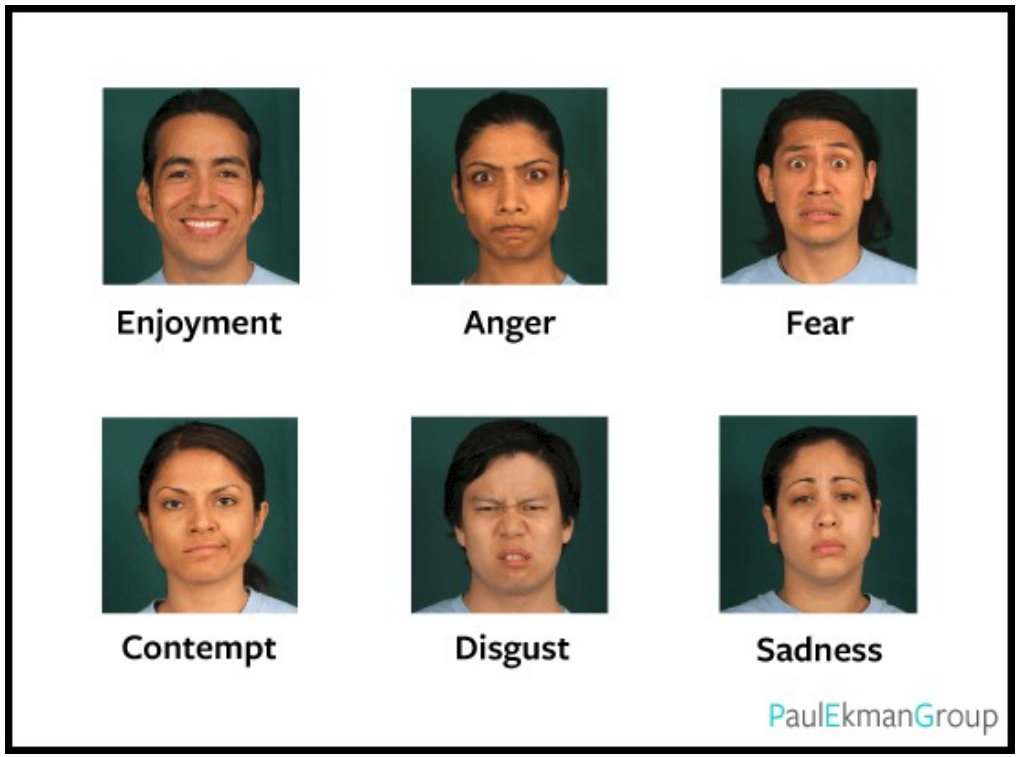
- **Lie detectors have no scientific validity** (National Research Council, 2003)
- The common basis of lie detectors is that there are **universal and involuntary physiological responses** that a person produces as a result of lying.
- iBorderCtrl assumes that [across persons, ethnicity, gender, age, functional diversity, neurodiversity, etc.] there is a universal way of expressing deception through non-verbal 'micro expressions' termed '**biomarkers of deceit**'

Here comes the magic of AI: no micro expression (e.g. right eye blinking) can be connected with deception but an AI can extract meaningful patterns from all of them and discover liars!

How to create a suitable experiment?

The majority of the systems use actors to create the training/validation datasets.

iBorderCtrl used fake liars... (and fake prohibited items)

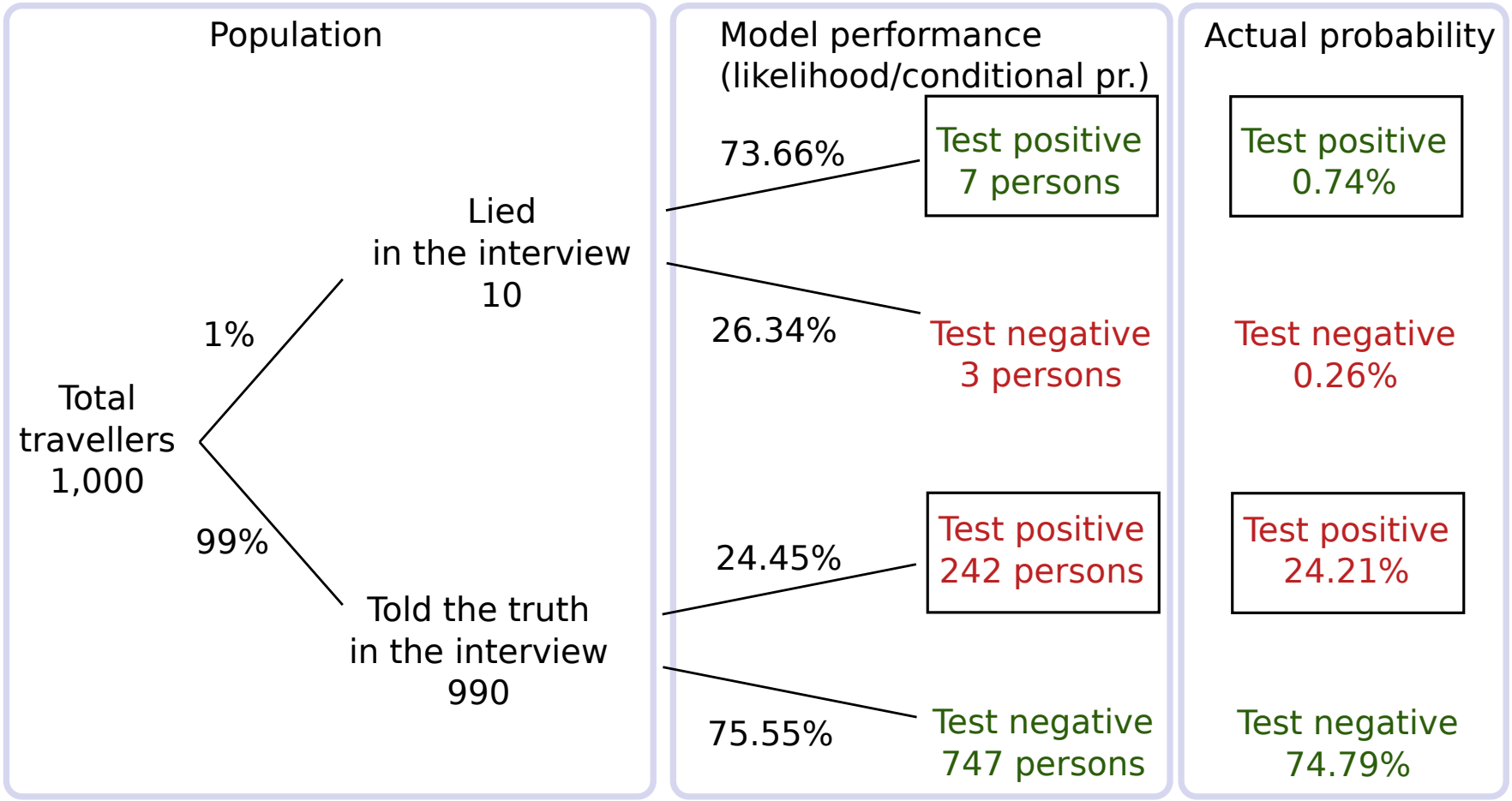


- Participants are stratified into 1 of 4 blocks. These blocks are intended to have different degrees of emotional intensity / deceptive stakes (in decreasing order of intensity).
  - ***S2: Simulated biohazard infectious disease in test tube with informational video about weaponization***
  - ***S3: Simulated biohazard infectious disease in test tube without informational video***
  - ***S4: Simulated Drug package (soap powder in clear packet)***
  - ***S5: Simulated Forbidden agriculture/ food product i.e. seeds.***

O'Shea et. al 2018

Statistical limits of mass screening

What does it mean iBorderCtrl can detect a liar with a mean accuracy of 73.6%?



It doesn’t work, so?

Conclusions

- It is very unlikely that the deception detection system would work in practice
- What function such projects carry out in the creation of subjects and management of populations?
- This function is mainly political and forms part of a model of governance

Sánchez-Monedero, J., & Dencik, L. (2020). The politics of deceptive borders: ‘Biomarkers of deceit’ and the case of iBorderCtrl. Information, Communication & Society, 0(0), 1-18. https://doi.org/10.1080/1369118X.2020.1792530

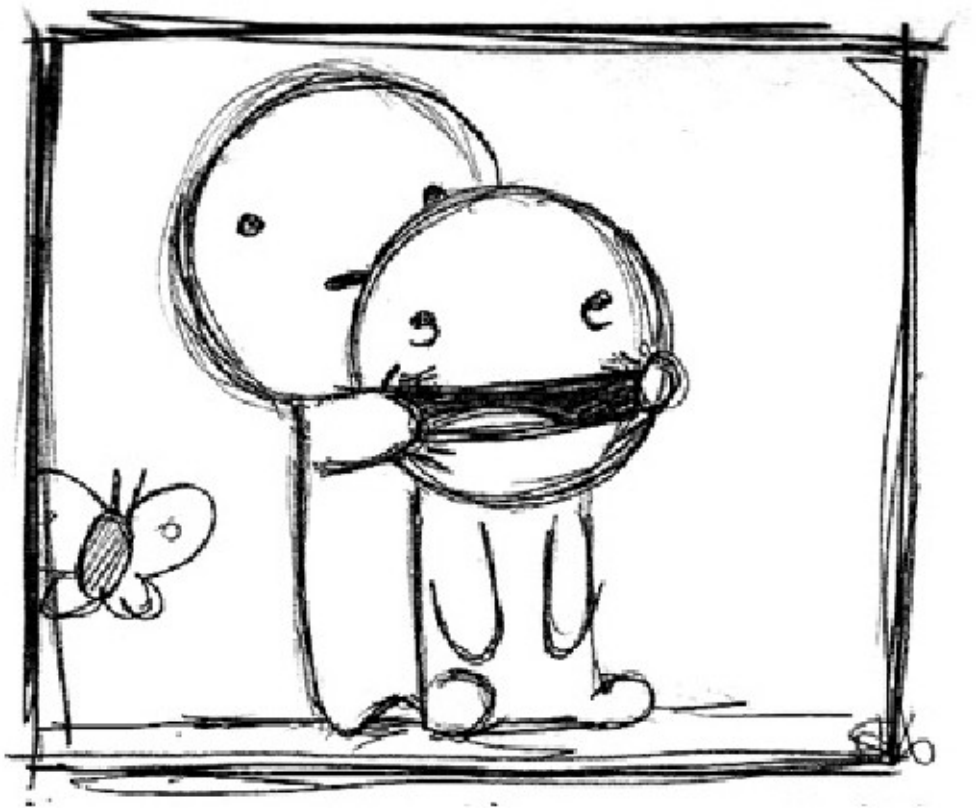
Notes on Emotional AI

General problems of emotional AI (aka affective computing)

- There is a trend in scoring and labelling of multi-modal behaviour and emotions
- Reductionist framework (categories, input and context)
- Risk of creating proxies to link categories with groups
- AI is the perfect tool to bring phrenology back

(Barrett 2019)

Questions?



Thanks!