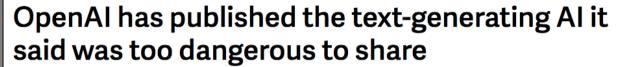
## Nissenbaum, 2004, p.143



"In this era of rapid transformations due to computing and information technologies, changes are thrust upon people and societies frequently without the possibility of careful deliberation over potential harms and benefits, over whether we want or need them. Practices shift almost imperceptibly but, over time, quite dramatically, and in turn bring about shifts in conventional expectations."

TECH ARTIFICIAL INTELLIGENCE





The lab says it's seen 'no strong evidence of misuse so far'

By James Vincent | Nov 7, 2019, 7:24am EST

### GPT-2 Software - <a href="https://talktotransformer.com/">https://talktotransformer.com/</a>

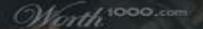
GPT-2 was only trained to predict the next word in a text, it surprisingly learned basic competence in some tasks like translating between languages and answering questions. That's without ever being told that it would be evaluated on those tasks.

Presentation at the Department of Language and Linguistics Learning and Teaching Forum. 10th December, 2019.



RETHINKING ASSESSMENT & ACADEMIC INTEGRITY IN THE AGE OF DIGITAL TOOLS AND CONTRACT CHEATING.

Dr Stephen Gow (stephen.gow@york.ac.uk)



## **Academic Integrity and technology**



- Research result of massification, internationalisation, marketisation and the internet
- Scholarship/Research: Issues of trust & responsibility
- Assessment: Issues of fairness in competition
- Tensions between elite and massified HE
- Concerns raised
- Policy implications
- cultural implications

If integrity is defined by how you act when nobody is watching...

### **Preview**



- 1. Artificial intelligence and machine learning becoming increasingly sophisticated (translation and authorship).
- 1. The issue faced with technology in terms of language learning are just the start of the impact in higher education are our policies and practices fit for purpose?
- 1. The changes we make to assessment formats, tasks and marking criteria have an impact on students ethical approach and their motivation to learn.
- 1. What is good for detecting academic misconduct is not necessarily what is best for academic integrity.

# **Key questions**



• What are we assessing?

How are the digital tools being used?

 If we are to ban certain tools, how do we detect and enforce this?

• If we change assessments and criteria, what are the implications?

### **Google Translate & Other Tools**





### Groves & Mundt (2016, p. 387)

- 1. Misunderstood as a remedy for lack of writer language proficiency
- 2. Clash with academic misconduct policies
- Increasingly advanced (Stapleton & Leung Ka Kin, 2019)
- Problems for ab initio students
- Problems for EMI and EAP (Groves & Mundt, 2016)
- Increasing the gap between high and low performing students (Lacore-Martin, 2019)
- Simplicity of use aids translingual plagiarism (Sousa-Silva, 2013/2017)
- Google is NOT free we are training it with our intellectual property
  (Zuboff, 2018)

# **UoY Policy**



**2019/20 York Academic Misconduct Policy** - (a)**Breach** and/or (b) **Cheating** failure to comply with the rules of an assessments e.g. unauthorised access to materials in a closed assessment/use of software in open assessment which has been specifically prohibited in the assessment specifications.

# Whose work are we assessing?



- Author(s)
- Other authors/researchers (reference/citation)
- Supervisor
- Editor
- Proofreader
- Digital/Al Tools Translation/Grammar
- Other authors, researchers, friends (acknowledgement)

Suggested reading: <a href="https://www.sciencemag.org/careers/2001/03/ethics-authorship-feature-overview-how-should-authorship-be-decided">https://www.sciencemag.org/careers/2001/03/ethics-authorship-feature-overview-how-should-authorship-be-decided</a>

### **Contract Cheating**

adapted from original slide by Cees Portman, Turnitin, 2019

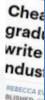
Essay mill websites must warn students about risks of submitting fake work,



Universities detecting <1%



Research suggests >6% are cheating via outsourcing to a third party, most likely current students, former students, friends, and family (Bretag et al., 2018)



Training staff leads to higher detection but also more false positives (Dawson & Sutherland-Smith, 2019) Authorship



Creating a climate of distrust

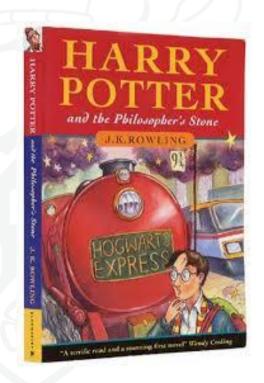
ism in higher education

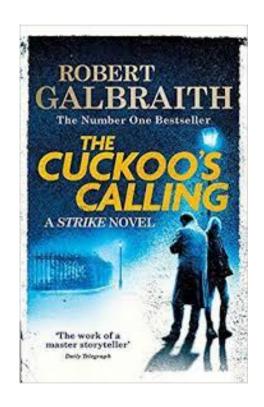


Investigate

## Forensic Stylometry - Patrick Juola (2015)







#### The Future?

### **Learning Analytics**

- Forensic Analysis of writing
- BYOD exams
- Lock down browsers
- Al Attendance monitoring
- Monitoring student engagement and performance



#### **Dangers**

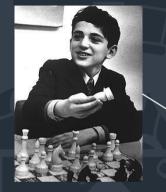
- Externalising ethics and motivation
- Data colonisation (Couldry & Mejías, 2019)
- Loss of agency/independence
- Policy detached from reality of practice

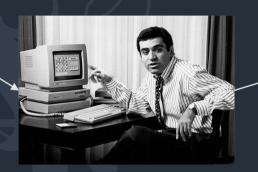




### Lessons from chess













Few people in the world know better than I do what it's like to have your life's work threatened by a machine... **We need better humans not less technology.** Kasparov, 2019.

# **Proposals**



 Staff-student departmental research into the use of the tools in different contexts (Edu/Lang & Ling/Comp Sci)

 Staff-student interdepartmental group to judiciously consider further policy and assessment changes (SCA)

 Guidance for students and staff on using digital tools and managing digital distraction - providing initiatives for writing groups



# ANY QUESTIONS?

### References

Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., ... & van Haeringen, K. (2018). Contract cheating: A survey of Australian university students. *Studies in Higher Education*, 1-20.

Couldry, N., & Mejías, U. A. (2019). The costs of connection: How data is colonizing human life and appropriating it for capitalism. Stanford University Press.

Crossley, S. A. (2018). Technological disruption in foreign language teaching: The rise of simultaneous machine translation. *Language Teaching*, 51(4), 541-552.

Grammarly (May 2019). How to Choose the Right Document Type for Everything You Write | Grammarly Spotlight. Grammarly.

Guardian (July 2019). Chess grandmaster admits to cheating with phone on toilet during tournament. *The Guardian*.

Hartmann, J. (2012). Garry Kasparov is a cyborg, or What ChessBase teaches us about technology. in B, Hale (Ed.). *Philosophy looks at chess.* p. 39. Open court.

Juola, P. (2015). The Rowling case: A proposed standard analytic protocol for authorship questions. *Digital Scholarship in the Humanities*, 30(suppl 1), i100-i113.

Kasparov, G. (2019) Garry Kasparov: We need better humans not less technology. *Verdict.* <a href="https://verdict-ai.nridigital.com/verdict-ai.nrid

Lacore-Martin, E. (2019). The elephant in the room: Rethinking language assessment in the times of Google Translate. Translation Technology in Education — Facilitator or Risk? Conference July, 2019. University of

### References



Mundt, K., & Groves, M. (2016). A double-edged sword: the merits and the policy implications of Google Translate in higher education. *European Journal of Higher Education*, 6(4), 387-401.

Organ, A. (2019). L'éléphant dans la salle / la pièce / le salon? Student use of Google Translate for L2 production: student and staff attitudes, and implications for university policy. Translation Technology in Education - Facilitator or Risk? Conference July, 2019. University of Nottingham

Pollan, M. (2006). The vegetable-industrial complex. The New York Times Magazine, 17.

Regan, N. & Sadler, M. (Feb 2019) DeepMind's superhuman AI is rewriting how we play chess AlphaZero doesn't play chess like a machine – it plays it like a human grandmaster, but better. *Wired*. https://www.wired.co.uk/article/deepmind-ai-chess

Sousa-Silva, R. (2017). Detecting translingual plagiarism and the backlash against translation plagiarists. *Linguagem e Direito*, 1(1).

Stapleton, P. and Kin, B.L.K., 2019. Assessing the accuracy and teachers' impressions of Google Translate: A study of primary L2 writers in Hong Kong. English for Specific Purposes, 56, pp.18-34.

Vincent, J. (2019). OpenAI has published the text-generating AI it said was too dangerous to share. *The Verge*. <a href="https://www.theverge.com/2019/11/7/20953040/openai-text-generation-ai-gpt-2-full-model-release-1-5b-parameters">https://www.theverge.com/2019/11/7/20953040/openai-text-generation-ai-gpt-2-full-model-release-1-5b-parameters</a>

Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power. Profile Books.

# Images



- Garry Kasparov and Chessbase <a href="https://en.chessbase.com/post/garry-kasparov-on-how-it-all-started">https://en.chessbase.com/post/garry-kasparov-on-how-it-all-started</a>
- Copyright 2007, S.M.S.I., Inc. Owen Williams, The Kasparov Agency. <a href="http://www.kasparovagent.com/photo-gallery.php">https://creativecommons.org/licenses/by-sa/3.0/</a>
- Sistene chapel adapted Creation of Adam with Laptop: **Typicus by Razieluk pinterest:** https://www.pinterest.ph/pin/360780620125824038/#
- Typicus by Razieluk pinterest: <a href="https://www.pinterest.ph/pin/360780620125824038/#">https://www.pinterest.ph/pin/360780620125824038/#</a>
- https://www.abebooks.co.uk/docs/harry-potter/hp-collecting-guide.shtml
- Harry Potter and the Philosophers Stone by J. K. Rowling (1st Ed.) cover <a href="https://www.pinterest.ph/pin/360780620125824038/#">https://www.pinterest.ph/pin/360780620125824038/#</a>
- https://www.amazon.com/Cuckoos-Calling-Robert-Galbraith/dp/0751549258
- May 11, 1997, Spectators watch a broadcast of the final, decisive game in the rematch between Garry Kasparov and the IBM computer Deep Blue. IMAGE: STAN HONDA/AFP/GETTY IMAGES <a href="https://mashable.com/2016/02/10/kasparov-deep-blue/?europe=true">https://mashable.com/2016/02/10/kasparov-deep-blue/?europe=true</a>
- Chess Grandmaster Cheating: Screenshot from <a href="https://www.youtube.com/watch?v=9n2IzwzLpD0&feature=emb\_title">https://www.chess.com/forum/view/general/chess-grandmaster-caught-with-phone-on-toilet</a>
- Chinese surveillance Andy Wong AP Images available at <a href="https://www.theguardian.com/cities/2019/dec/02/big-brother-is-watching-chinese-city-with-26m-cameras-is-worlds-most-heavily-surveilled">https://www.theguardian.com/cities/2019/dec/02/big-brother-is-watching-chinese-city-with-26m-cameras-is-worlds-most-heavily-surveilled</a>
- Solent University Attendance Monitoring: <a href="https://portal.solent.ac.uk/campus/campus/campus-cards/ca