

## THE HIEROGLYPHICS INITIATIVE: AN OPEN SOURCE DIGITAL PLATFORM FOR EGYPTOLOGY

A joint event of the Digital Humanities Colloquium and the long-term project "Structure and Transformation in the Vocabulary of the Egyptian Language: Texts and Knowledge in the Culture of Ancient Egypt", member of the Research Centre for Primary Sources of the Ancient World of the Berlin-Brandenburg Academy of Sciences and Humanities

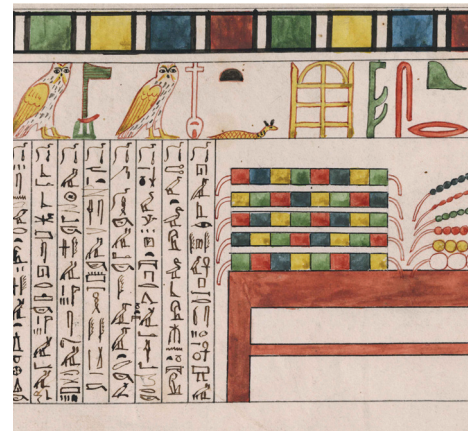
**Thursday, 14 February 2019, 6 pm**  
Academy Building – Gendarmenmarkt  
Einstein Hall, Jägerstraße 22–23, 10117 Berlin

**Please register until 7.2.2019: [www.bbaw.de/hieroglyphic](http://www.bbaw.de/hieroglyphic)**

Can we train a machine to translate Egyptian hieroglyphs? This is the question the independent production company Psycle explored in a Ubisoft research project. Taking the facsimiles created by Egyptologists as our starting point, we created a processing pipeline that begins with photographs of hieroglyphs in situ, and ends with possible translations in a modern language. The pipeline uses computer vision techniques to find candidate glyphs and glyph groups in an automatically generated facsimile. Next, neural nets are used to recognise the candidate glyphs and, finally, sequences of glyphs are compared to dictionaries of glyph words in order to find possible translations.

The lecture discusses not only the technical challenges of the project, but also highlights the limitations of machine learning, and the critical importance of the amount and consistency of data for enterprises of this type. The engagement and support of the academic community, which was crucial in giving direction and substance to the project, is also discussed.

The project has generated a research and teaching tool for Egyptologists, an open-source repository of code, and several avenues for further research and collaboration.



© Coffin of Ipi-ankhu (Dynasty 12, Saqqara), watercolor and graphite drawing, Max and Ernst Weidenbach, March 1843, BBAW, Altägyptisches Wörterbuch, Archive Z. 399

**Introduction**  
**Maxim Kupreyev**  
BBAW

**Lecture**  
**Alex Fry**  
Psycle  
Hieroglyphics Initiative

**Roy Gardner**  
Psycle  
Hieroglyphics Initiative

**Admission free.**  
**Registration required.**

### Weitere Informationen

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### Anfahrt

S-Bahn bis Friedrichstraße / U2 bis Hausvogteiplatz oder Stadtmitte / U6 bis Französische Straße oder Stadtmitte. Bei Anfahrt mit dem eigenen PKW empfehlen wir die Nutzung der umliegenden Parkhäuser.