

Digitally Empowered Education in SSH

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was trained to imitate humans. The second model is fixed, because the researchers found that updating the parameters of both agents led to divergence from human language [as the agents developed their own language for negotiating](#). At the end of every dialog, the agent is given a



Daniel Gross
@danielgross



When you let AI negotiate with itself, it realizes there are better options than English. A sign of what's to come. code.facebook.com/posts/16866720...

5:29 AM - Jun 15, 2017

♡ 232 💬 144 people are talking about this

Facebook's AI accidentally created its own language



by **BRYAN CLARK** — 10 months ago in **ARTIFICIAL INTELLIGENCE**

'Terminator' Come To Life? – Facebook Shuts Down Artificial Intelligence After It Developed Its Own Language

Facebook AI Invents Language That Humans Can't Understand: System Shut Down Before It Evolves Into Skynet

30 July 2017, 9:45 pm EDT By **Aaron Mamit** Tech Times

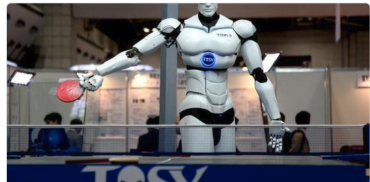


Edward Grefenstette
@egrefen



What f***ing trashy excuse of a journalist writes this sh***y sensationalist s***? DO YOU GUYS NOT HAVE EDITORS?? digitaljournal.com/tech-and-scienc...

8:20 PM - Jul 29, 2017

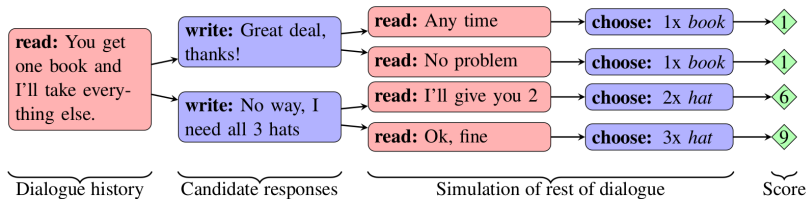


Researchers shut down AI that invented its own language

An artificial intelligence system being developed at Facebook has created its own language. It developed a system of code words to digitaljournal.com

♡ 183 💬 85 people are talking about this





I'd like the books and the hats

I will take the books and hats

I really need the books and at least one other object

Ok, you can have one book and one ball

If I can have all the books, I can leave you the rest

Deal

You can have the ball if I can have everything else

No can't do that the ball is not going to give me anything

I need the hats and you can have the rest

Deal

Great! Thank you!

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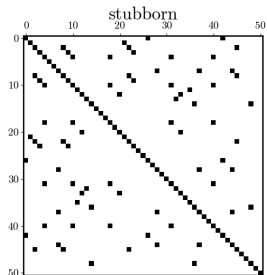
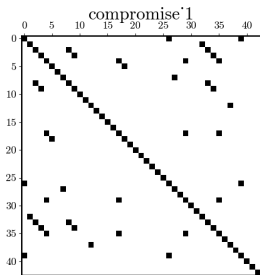
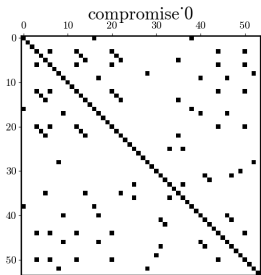
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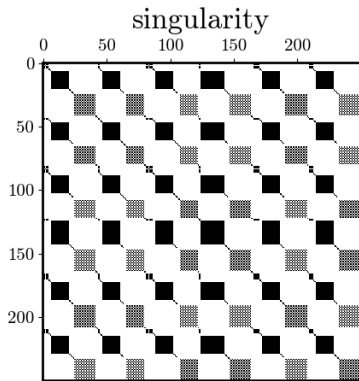
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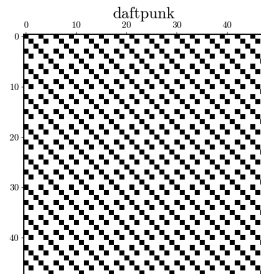
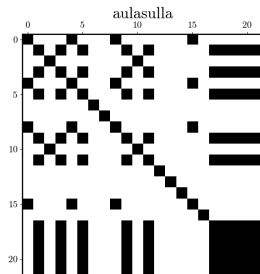
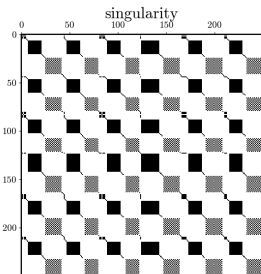
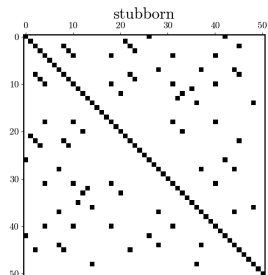
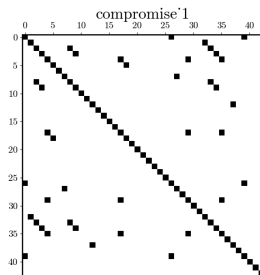
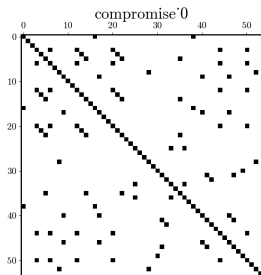
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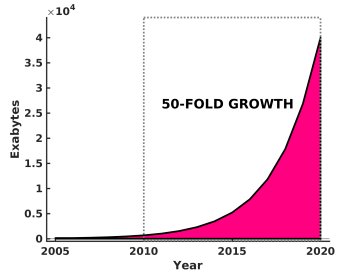
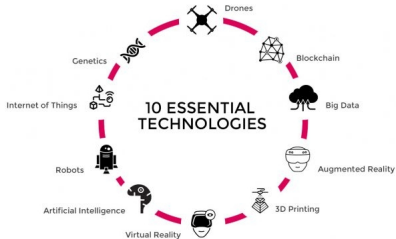




Core observations

- impossible without **digitization**
- cultural data require **culture analytics**
- **qual-quant** distinction is no longer valid
- scaling requires **automation**
- there is no way around basic **programming**

humanities research and education need a define our human-centered informatics

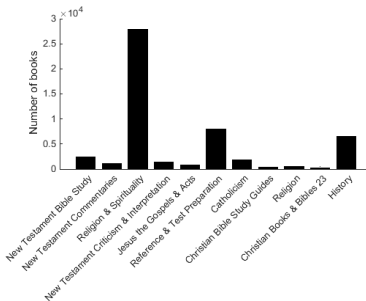


– the data deluge is transforming knowledge discovery and understanding in every domain of human inquiry

– knowledge discovery depends critically on advanced computing capabilities

a large part of these data are soft and unstructured

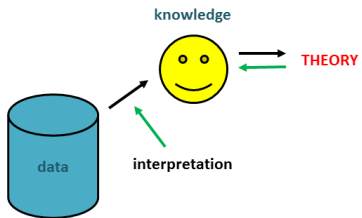
– to get additional value from these data, faculties of humanities must become computationally and data literate

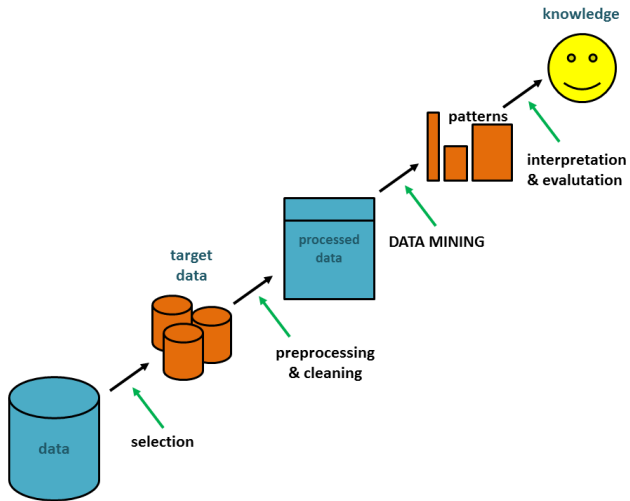


– number of research publications alone makes computational literacy a necessity for the humanities scholar

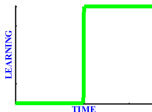
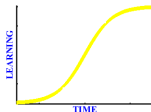
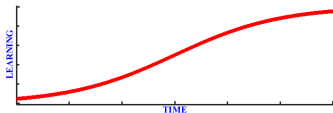
– publications related to Gospel of Marc (KJV) > 50K, ~ 16,500 words in 16 chp. on 11 p.

– plus a massive increase in digitized cultural heritage databases (libraries, archives, museums)





Computational Literacy|Programming & Analytics



-
- every knowledge intensive organization has to break the learning curve, but certain sectors are more challenged
 - co-develop with the eScience Center and other resources @ SDU
 - promote a common language and import best practice from software development

Computational Literacy|Programming & Analytics

GUI → CLI

- novice-friendly visual approach to computer interaction w. a fast learning curve **ERROR**
 - expert-friendly text-based approach to computer interaction w. ++freedom **VALID**
 - **CONFLICT** break the learning curve through training intensive, non-intuitive, and specialized tools
- in research, we try to solve this conflict by establishing small, semi-autonomous eScience units that intervene in (humanities) research
-

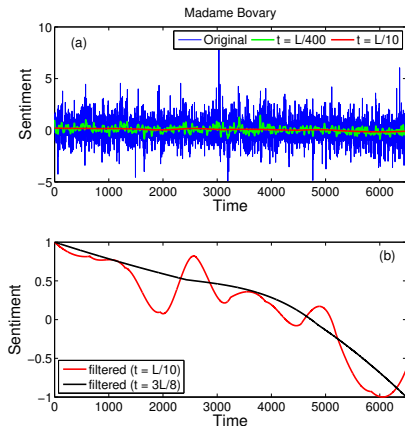
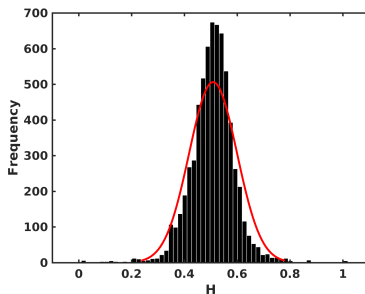
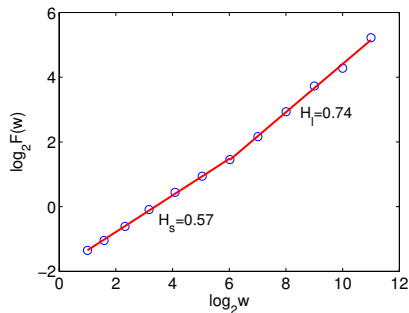
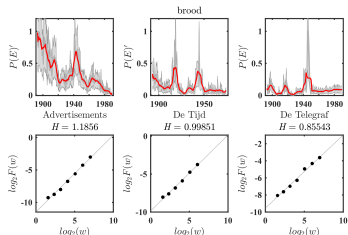
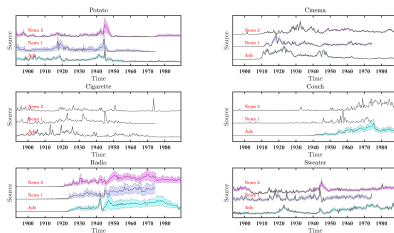


Figure: sentiment analysis and adaptive filtering reconstructs narrative vectors that reflect the reader experience. Particular fractal scaling-range, $0.6 < H \leq 0.8$, indicates literary optimality.



History|Predictive Causality & Slow Decay



- historians and media researchers theorize about the causal dependencies between public discourse and advertisement
- time series analysis of keyword frequencies (from seedlists) indicated that for some categories ‘ads shape society’, while other categories merely ‘reflect’
- advertisements show a faster decay (on-off intermittent behavior) than public discourse (long-range dependencies)

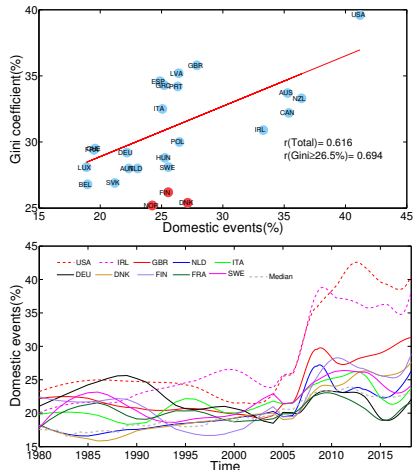
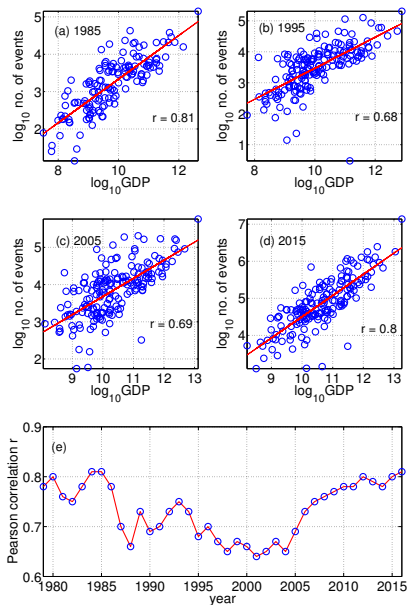
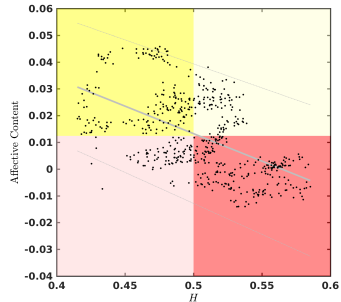
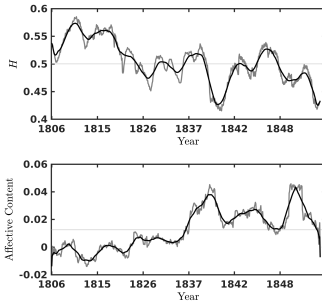


Figure: Event counts in the GDELT database reflect economic and political dynamics



EMOTION|Grundtvig

- early phase: negative affective tone
- late phase: positive affective tone
- inverse relation → state incongruent writer
- emotional state Granger-causes creative state → dostoyevskian trope

THANK YOU

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& credits to

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