

Inadvertent Algorithms

written by Jeremy Huggett | 27/12/2014

As the end of 2014 approaches, Facebook has unleashed its new “Year in Review” app, purporting to show the highlights of your year. In my case, it did little other than demonstrate a more or less complete lack of Facebook activity on my part other than some conference photos a colleague had posted to my wall; in Eric Meyer’s case, it presented him with a picture of his daughter who had died earlier in the year. In a thoughtful and thought-provoking piece, he describes this as ‘Inadvertent Algorithmic Cruelty’: it wasn’t deliberate on the part of Facebook (who have now apologised), and for many people it worked well as evidenced by the numbers who opted to include it on their timelines, but it lacked an opt-in facility and there was an absence of what Meyer calls ‘empathetic design’. Om Malik picks up on this, pointing to the way Facebook now has an ‘Empathy Team’ apparently intended to make designers understand what it is like to be a user (sorry, a person), although Facebook’s ability to highlight what people see as important is driven by crude data such as the number of ‘likes’ and comments without any understanding of the underlying meanings which are present.

Meyer observes:

“Algorithms are essentially thoughtless. They model certain decision flows, but once you run them, no more thought occurs.”

This is a timely reminder as we construct the semantic structures to model archaeological information in order to enhance the location, retrieval, and use of data. These semantic ontologies sit behind the automatic extraction, processing, and transformation of archaeological data which give rise to the tools we use to access archaeological data in the future. As I’ve discussed elsewhere, these algorithmic approaches are based initially on archaeological judgement calls which are themselves far from transparent, and reduce data to tokens to be shunted around, reshaped and reformulated in a manner which is largely invisible to the ultimate recipients (Huggett 2012, in press). This is not an atheoretical process: a variety of norms, assumptions, and conjectures will be embedded within the algorithms that are designed to structure and guide our approach to the data. In this context, the initial design may not be inadvertent but the consequences are – after all, one of the driving forces behind big data is the anticipation of serendipity, the discovery of pattern where none was previously visible, the revelation of insights derived through access to vast bodies of data. In a sense, therefore, inadvertence is the name of the game.

Malik’s response to Meyer’s remark is to improve the algorithms, ultimately through artificial intelligence but initially at least through the inclusion of anthropologists within the design team, alongside the engineers and product managers, whose job is to ask the human questions. In digital archaeology, we should arguably be able to fulfil this role ourselves but at the moment it can seem as if we are either caught up in the excitement of the creation of the new technological approaches, or powerless in the face of them. A more ‘empathetic’ approach to archaeological digital data sees

the data for what they are: not simply as raw materials to drive inadvertent algorithms but as contemporary observations about attributes we consider to have some value in understanding past human activities.

References

Meyer, E. 2014 'Inadvertent Algorithmic Cruelty',
<http://meyerweb.com/eric/thoughts/2014/12/24/inadvertent-algorithmic-cruelty/>

Malik, O. 2014 'Empathy isn't a corporate slogan',
<http://om.co/2014/12/26/empathy-is-not-a-corporate-slogan/>

Huggett, J. 2012 'Lost in information? Ways of knowing and modes of representation in e-archaeology'. *World Archaeology*, 44 (4). pp. 538-552.

Huggett, J. (in press) 'Digital haystacks: open data and the transformation of archaeological knowledge'. In: Edwards, B. and Wilson, A. (eds.) *Open Source Archaeology: Ethics and Practice*. Versita Sp.