Manifesto on Algorithmic Humanitarianism - Dr. Dan McQuillan

d.mcquillan@gold.ac.uk | @danmcquillan on twitter

intro

1. humanitarian organisations will adopt ai because it seems able to answer questions at the heart of humanitarianism
2. such as 'who should we save?' and 'how can we be effective at scale?'
3. it resonates strongly with existing modes of humanitarian thinking and doing
4. in particular the principles of neutrality and universality
5. the way machine learning consumes big data and produces predictions
6. suggests it can both grasp the enormity of the humanitarian challenge and provide a data-driven response
7. but the nature of machine learning operations mean they will actually deepen some humanitarian problematics
8. and introduce new ones of their own
9. thinking about how to avoid this raises wider questions about emancipatory technics
10. and what else needs to be in place to produce machine learning for the people

maths

1. there is no intelligence in artificial intelligence
2. nor does it really learn, even though it's technical name is machine learning
3. it is simply mathematical minimisation
4. like at school, fitting a straight line to a set of points
5. you pick the line that minimises the differences overall
6. machine learning does the same for complex patterns
7. it fits input features to known outcomes by minimising a cost function

8. the fit is a model that can be applied to new data to predict the outcome

9. the most influential class of machine learning algorithms are neural networks

10. which is what startups call 'deep learning'

11. they use backpropagation: a minimisation algorithm that produces weights in different layers of neurons

12. anything that can be reduced to numbers and tagged with an outcome can be used to train a model

13. the equations don't know or care if the numbers represent amazon sales or earthquake victims

14. this banality of machine learning is also it's power

15. it's a generalised numerical compression of questions that matter

16. there is no comprehensions within the computation

17. the patterns are correlation not causation

18. the only intelligence comes in the same sense as military intelligence; that is, targeting

19. but models produced by machine learning can be hard to reverse into human reasoning

20. why did it pick this person as a bad parole risk? what does that pattern of weights in the 3rd layer represent? we can't necessarily say.

reasoning

1. machine learning doesn't just make decisions without giving reasons, it modifies our very idea of reason

2. that is, it changes what is knowable and what is understood as real

3. it operationalises the two-world metaphysics of neoplatonism

4. that behind the world of the sensible is the world of the form or the idea.

5. a belief in hidden layer of reality which is ontologically superior,

6. expressed mathematically and apprehended by going against direct experience.

7. machine learning is not just a method but a machinic philosophy

8. what might this mean for the future field of humanitarian ai?

9. it makes machine learning prone to what miranda fricker calls epistemic injustice

10. she meant the social prejudice that undermines a speaker's word

11. but in this case it's the calculations of data science that can end up counting more than testimony

12. the production of opaque predictions with calculative authority

13. will deepen the self-referential nature of the humanitarian field

14. while providing a gloss of grounded and testable interventions

15. testing against unused data will produce hard numbers for accuracy and error

16. while making the reasoning behind them inaccessible to debate or questioning

17. using neural networks will align with the output driven focus of the logframe

18. while deepening the disconnect between outputs and wider values

19. hannah arendt said many years ago that cycles of social reproduction have the character of automatism.

20. the general threat of ai, in humanitarianism and elsewhere, is not the substitution of humans by machines but the computational extension of existing social automatism

production

1. of course the humanitarian field is not naive about the perils of datafication

2. we all know machine learning could propagate discrimination because it learns from social data

3. humanitarian institutions will be more careful than most to ensure all possible safeguards against biased training data

4. but the deeper effect of machine learning is to produce new subjects and to act on them

5. machine learning is performative, in the sense that reiterative statements produce the phenomena they regulate

6. humanitarian ai will optimise the impact of limited resources applied to nearly limitless need

7. by constructing populations that fit the needs of humanitarian organisations

8. this is machine learning as biopower

9. it's predictive power will hold out the promise of saving lives

10. producing a shift to preemption

11. but this is effect without cause

12. the foreclosure of futures on the basis of correlation rather than causation

13. it constructs risk in the same way that twitter determines trending topics

14. the result will be algorithmic states of exception

15. according to agamben, the signature of a state of exception is 'force-of'

16. actions that have the force of law even when not of the law

17. logistic regression and neural networks generate mathematical boundaries

18. but cybernetic exclusions will have effective force by allocating and witholding resources

19. a process that can't be humanised by having a humanitarian-in-the-loop

20. because it is already a technics, a co-constituting of the human and the technical

decolonial

1. the capture, model and preempt cycle of machine learning will amplify the colonial aspects of humanitarianism

2. unless we can develop a decolonial approach to its assertions of objectivity, neutrality and universality

3. we can look to standpoint theory, a feminist and post-colonial approach to science

4. which suggests that positions of social and political disadvantage can become sites of analytical advantage

5. this is where our thinking about machine learning & ai should start from

6. but i don't mean by soliciting feedback from humanitarian beneficiaries

7. participation and feedback is already a form of socialising subjects

8. and with algorithmic humanitarianism every client interaction will be subsumed into training data

9. they used to say 'if the product is free, you are the product'

10. but now, if the product is free, you are the training data

11. training for humanitarian ai and for the wider cybernetic governance of resilient populations

12. machine learning can break out of this spiral through situated knowledge

13. as proposed by donna haraway as a counterweight to the scientific 'view from nowhere',

14. a situated approach that is not optional in its commitment to a particular context

15. how does machine learning look from the standpoint of Haiti's post-earthquake rubble or from an IDP camp

16. no refugee in a freezing factory near the serbian border with croatia is going to be signing up for andrew ng's mooc on machine learning any time soon

17. how can democratic technics be grounded in the humanitarian context?

people's councils

1. it may seem obvious that if machine learning can optimise ocado deliveries then it can help with humanitarian aid

2. but the politics of machine learning are processes operating at the level of the pre-social

3. one way to counter this is through popular assemblies and people's councils

4. bottom-up, confederated structures that implement direct democracy

5. replacing the absence of a subject in the algorithms with face-to-face presence

6. contesting the opacity of parallel computation with open argument

7. and the environmentality of algorithms with direct action

8. the role of people's councils is not to debate for its own sake

9. but the creation of alternative structures, in the spirit of gustav landauer's structural renewal

10. an emancipatory technics is one that co-constitutes active agents and their infrastructures

11. as Landauer said, people must 'grow into a framework, a sense of belonging, a body with countless organs and sections'

12. as evidenced in calais, where people collectively organised wharehouse space, van deliveries and cauldrons to cook for 100s, while regularly tasting tear gas

13. i suggest that solidarity is an ontological category prior to subject formation

14. collective activity is the line of flight from a technological capture that extends market relations to our intentions

15. it is a politics of becoming - a means without end to counter ai's effect without cause

close

1. in conclusion

2. as things stand, machine learning and so-called ai will not be any kind of salvation for humanitarianism

3. but will deepen the neocolonial and neoliberal dynamics of humanitarian institutions

4. but no apparatus is a closed teleological system; the impact of machine learning is contingent and can be changed

5. it's not a question people versus machines but of a humanitarian technics of mutual aid

6. in my opinion this requires a rupture with current instantiations of machine learning

7. a break with the established order of things of the kind that badiou refers to as an event

8. the unpredictable point of excess that makes a new truth discernible

9. and constitutes the subjects that can pursue that new truth procedure

10. the prerequisites will be to have a standpoint, to be situated, and to be committed

11. it will be as different to the operations of google as the balkan aid convoys of the 1990s were to the work of the icrc

12. on the other hand, if an alternative technics is not mobilised,

13. the next generation of humanitarian scandals will be driven by ai