

Assignment 3

Information and Capacity - Philosophical and Technical Considerations

Mandatory Paper: The quantitative theory of information. P. Harremoës, F. Topsøe 2008

<https://ir.cwi.nl/pub/13851/13851B.pdf>

We have spent considerable time considering specific technical aspects of the scaling and scalability of data and systems. In the previous two assignments you focused on narrow technical aspects and lessons from the different papers you all reviewed.

For assignment three, the focus will be somewhat different – you will go back in time and all review a single paper that is considered by some to be one of the more accessible and integrational works in the conceptual information theory domain. It was published in 2008 in a “Handbook on the Philosophy of Information”(!), and touches on many of the key notions and approaches that we still work with and employ today.

As with the previous assignments, I’d like each of you to

- i) summarise your key technical take-aways, AND your key learnings on a single side of A4 paper (same formatting, etc. requirements as before).

I’d then like each of you to take any **ONE** of the key domains and concepts addressed in the paper and, on a second single side of A4 paper,

- ii) document your insights and thinking as to how and where this ONE area has moved to today, AND
- iii) document your insights and thinking as to how and where this ONE area will have moved to in five (5) years time.

You will need to do some research and identify your own authoritative papers and literature sources for parts ii and iii). Please remember that your focus should not overly drift from the information theory/capacity at scale aspect of the activity.

Submission will be via Blackboard as usual, with Turnitin set to allow the usual three checks. Due date will be per Blackboard.

Impact slide: Please complete an Impact Slide to the same format and constraints as for Assignments 1 and 2.

Those of you who have not yet completed the Impact Slide presentation will do so on this activity.