

INTRODUCTION

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A core problem in the Philosophy of Information (PI) – when the latter is understood as the critical investigation of the conceptual nature and basic principles of information (Floridi, 2002) – is the elaboration of a formal theory of information. This broad question, explicitly listed by Floridi (2004) as one of the main open problems in PI, invites the careful investigation of the role of formal logic in such a theory.

Although the research area concerning the relations between logic and information has been very lively for many years, several key issues remain unexplored. On the one hand, investigations in the conceptual nature of information, conducted mainly by philosophers (e.g. Dretske), have focused on topics such as truthfulness, meaning, perception and the relations between information and knowledge. On the other hand, the so-called dynamical turn in logic has put information high on logicians' and computer scientists' agenda, but runs the risk of reducing its scope to its communicational and epistemic features.

Recent work in relating the several notions of information – as highlighted, for example, by *The Blackwell Guide to the Philosophy of Computing and Information* (Floridi, 2003) and by JoLLI's special issue on *Connecting the Different Faces of Information* (Van Benthem and van Rooy, 2003) – has begun to address the need of bridging the gap between philosophers' and logicians' interests in information. Certainly, there is a need for a better understanding of the connections between different approaches to information (quantitative vs. qualitative; semantic vs. probabilistic vs. algorithmic and so forth), a project central to Van Benthem and Adriaans (forthcoming).

Most importantly, there is also a need for a more intense dialogue between the philosophy of logic and the philosophy of information – a process to which the present volume aims to contribute.

Within all topics treated by the contributors to this volume, issues regarding the traditional possible worlds analysis of information indisputably take a dominant position. Both Jago and Sequoiah-Grayson are concerned with problems clearly related to that of logical omniscience. Jago rejects any solution attempting to weaken the underlying logic, and seeks to provide a

genuine account of epistemic possibility instead. Sequoiah-Grayson takes up the philosophical challenge, posed by the Routley-Meyer semantics for relevance logic, and provides an independent argument regarding its adequacy as a model for Carnap and Bar-Hillel's intended notion of psychological information. Equally related to relevant logic is Mares' contribution. His formulation of a relevant conditional probability calculus both generalises and challenges traditional probabilities, and thus provides a useful account of informational connections which are not fully reliable. Again, this represents a departure from the possible worlds tradition.

While also investigating a consequence of the classical connection between logic and information, the contribution of Frápolli and Camós adopts a different strategy. Leaving the underlying classical logic as it is, they propose to distinguish several kinds of necessary truths, and argue in favour of a qualification of the standard claim that necessary truths are informationally empty.

Finally, the papers by Floridi and by Allo (if we may be allowed to speak in a third person) provide two distinct logical approaches to the notion of "being informed". Floridi does so by showing that the modal logic KTB exhibits all relevant properties required for such a logic; his conclusion is that there is an information logic independent of standard epistemic and doxastic logic. By choosing a semantic viewpoint, Allo presents an alternative to Floridi's axiomatic approach. The result is a combination of insights drawn from adaptive logics on the one hand, and a *semantics first* view on modal logic on the other hand. This, one could argue, provides independent support to Floridi's claim of the relative independence of an information logic. Interestingly, the two papers turn out to be mutually compatible, and complementary to Mares' work.

REFERENCES

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