



Editorial

This issue is less ambitious than the last – no film, no review essays, no book reviews, just research papers. But what research papers! These are papers that fully support the determination of *Prometheus* always to be a critical journal. *Prometheus* publishes papers that do not simply echo mainstream thought. This means that its authors make a decision that probably does nothing to further an academic career. Most journals welcome papers that follow the mainstream, that cite conventional sources, that are supportive of just about everything. Such papers are much more likely than critical papers to be published and to be cited. The journal's impact factor rises, as does the author's h-index and the publisher's profits. Everyone wins and collateral damage to academic integrity is easily ignored.

Mariano Zukerfeld examines conventional typologies of knowledge and finds them wanting. After considering the merits of the typologies common in the economics of innovation, and in organizational and management studies, he takes aim at a few of the godheads of the knowledge field (Machlup! Mokyr! Lundvall!). Zukerfeld then introduces his own typology of knowledge, based on cognitive materialism. Sub-types spring forth from a fertile field.

Olof Hallonsten writes about those parts of national research and development that are left in the shade when the spotlight is cast on the R&D of universities and private sector firms. Academics – and others – are guilty of overlooking relatively obscure research institutes. Hollonston argues that this neglect has distorted our understanding of national systems of R&D. The example of three Nordic research institutes illustrates just what the 'third sector' of R&D actually does.

Artificial intelligence occupies the attention of Louis Sanzogni, Gustavo Guzman and Peter Busch. They are particularly interested in the relationship between artificial intelligence and knowledge management. Beyond this – and most intriguingly – is the role that tacit knowledge plays. The authors suggest that tacit knowledge supports both artificial intelligence and knowledge management, but they go further: supporting tacit knowledge, they declare, is wisdom itself.

John Elliott, from Japan, looks more closely than we are customarily invited to look at the world rankings of universities. His interest, of course, is not in the rankings themselves (he argues that these show nothing much anyway), but in the system of ranking universities, inaugurated in the Academic Ranking of World Universities by Shanghai Jiao Tong University in 2003. Ambition to score highly in these international audits causes the audit system itself to fail, inviting universities to take advantage of what is too broken to stop them. Institutions also game furiously to overcome the inherent advantage of other institutions that have already done well, the Matthew effect that seems to pervade all academic ranking systems. Failure here fuels demand for alternative ranking systems that will yield more favourable outcomes, a demand that encourages a thriving international rankings industry. As that relatively wise creature, the Dodo, declared in a world no less mad, "everybody has won, and all must have prizes."

A related matter is the subject of the paper by Jason Potts, John Hartley, Lucy Montgomery, Cameron Neylon and Ellie Rennie. They start with the notion that the traditional academic publishing model is broken, a notion accepted by just about everyone involved in academic publishing these days – except academic publishers, who profit hugely from the free labour of academics and the coincidence that an increase in journal impact factors increases the value

of the academic publishers' property. Potts *et al.* find value in a new economic model, one that applies club theory. Once again, there are shades of Robert Merton and the Matthew effect with most benefits going to those who are already established club members, be they authors, publishers or readers. The implications arising from regarding the academic journal as a knowledge club are explored. The authors stop short of examining how journal ranking systems look in this new light. Presumably more outrageous than ever.

Stuart Macdonald
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