Specialisation, systematisation and the vocational curriculum

Jim Hordern

Specialisation, systematisation and the vocational curriculum

- What is specialised knowledge and practice?
- What is systematic knowledge?
- Systematic revisability
- What does this mean for the vocational curriculum?

Key argument: The current and future vocational curriculum needs to consider changing patterns of specialisation and systematisation. And to consider the practices that these give rise to.

Background

- The focus on SK emerged from a discussion in the London Review of Education about Powerful Knowledge. John White (2019) advocates an end to powerful knowledge (PK) and recommends instead a focus on specialised knowledge (SK), acknowledging a suggestion made by Hordern (2019, 34) that ‘related ideas such as specialised knowledge’ could be further discussed.
- What counts as SK in the economy is constantly changing, whatever our position on the 4th Industrial Revolution.

Specialisation and social change

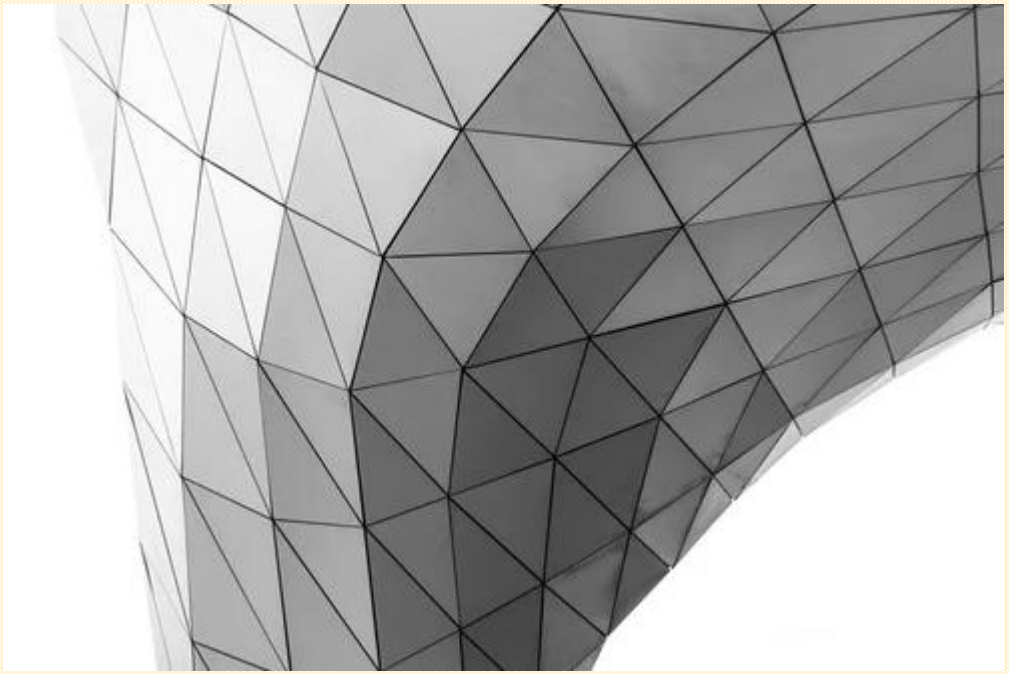
- Social bonds, social memory and notions of collective identity are generated through the development of the ‘sacred’ or symbolic forms
- All societies require the symbolic for a sense of the collective and the development of solidarity – whether those societies are undifferentiated or have a more specialised division of labour.
- Control of symbolic forms or ‘collective representations’ may be challenged as a consequence of new ideas or technologies that start to affect the lives of community members. The solidarity is disrupted, and new forms of differentiation and specialisation may emerge as a challenge to the established order

Growth and circulation of specialised practical knowledge

- Forms of specialisation develop within many societies over the premodern and early modern periods as a consequence of an impetus for new technology, attempts to improve the quality of life, or the development of novel strategies for executing tasks (Burke, 2000; Valleriani, 2017).
- The defence of a homeland or the attempt to acquire new property through conflict provided further impetus (Moodie 2020), and through forms of trade and exchange, the innovations of different social groups intermingled.
- Specialisation resulted in new categorizations of knowledge and new processes by which that knowledge was recorded and circulated (Valleriani, 2017).

Johannes Hevelius observing with one of his telescopes (1647).

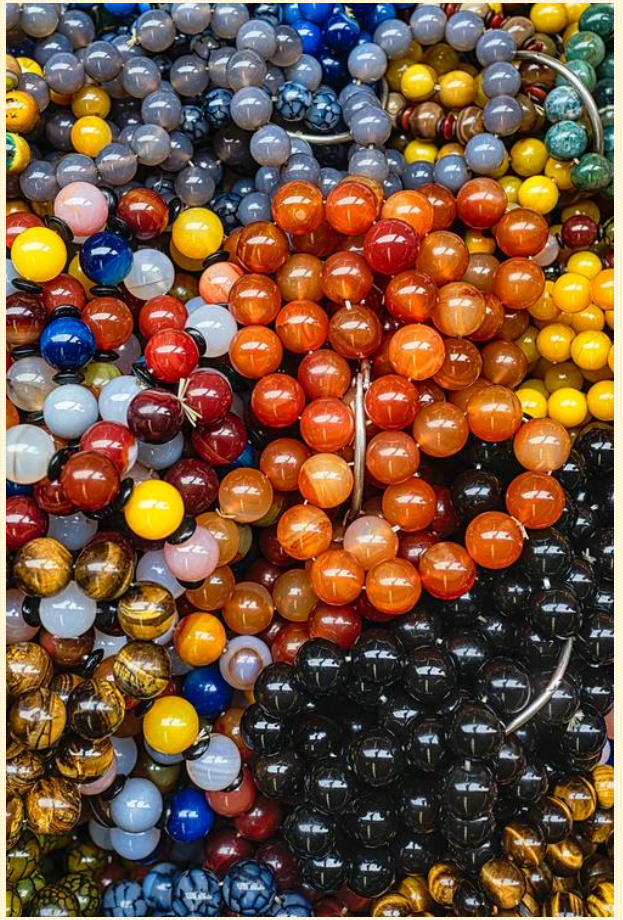
Two principal kinds of specialised knowledge



- Young and Muller (2014: 8) identify ‘two principal kinds of specialised knowledge’ which have integrated ever further from the Enlightenment onwards, at least in the industrialized world. They suggest that there is: (1) ‘knowledge specialised to develop conceptually’, which aims to ‘extend the generality and conceptuality; and (2) ‘knowledge specialised to a contextual purpose’, which seeks to ‘arrive at a more elegant or efficient solution to a technical problem’ (Young and Muller, 2014: 8–9).

The breadth of specialised knowledge

- There have been multiple forms of specialisation in historical societal contexts, as Collins (2000) demonstrates through intricate analysis of the development of metaphysical systems in China and the richness of Indian philosophical creativity.
- Many forms of specialised knowledge are considered subversive and remain on the margins of societies, while challenging accepted practices and understandings.
- Are emerging forms of specialised vocational knowledge adequately recognised?



Specialised knowledge and pedagogic relations

- Some form of pedagogic relations usually necessary for induction into specialised knowledge (including in workplaces)
- those with sufficient initiation into specialised knowledge are able to read the meaning of acts and judgements that have significance for occupations and society.

We are all making use of specialised knowledge

- While it may take considerable time to develop understanding of any specialised knowledge, and to be able to infer the significance of any proposition in terms of its relation to other propositions (and, thus, more fully to 'know' the knowledge),
- Nevertheless, we are all acquainted with or make use of various forms of specialised knowledge in our daily lives.
- **A 'qualified', 'competent' or 'expert' practitioner is better able to make judgements about the use of this specialised knowledge**

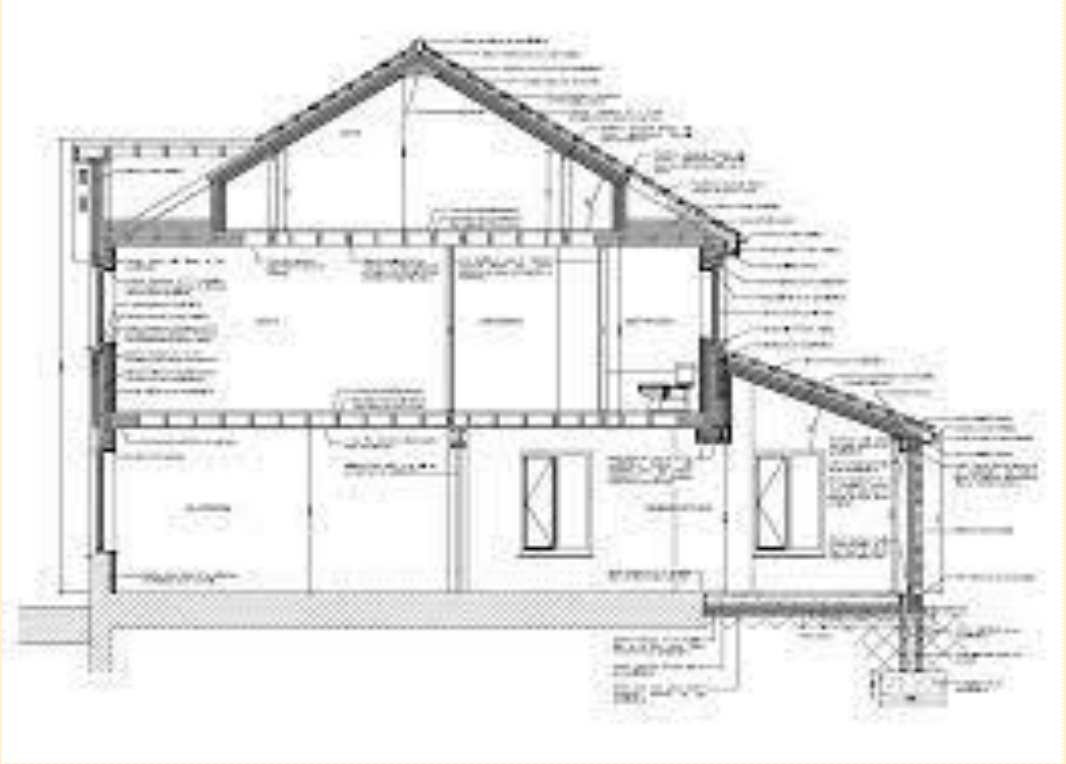
What is systematic knowledge? At least two interpretations

#1. The systematic arrangement of webs of propositions, held together by inferential relations which make each proposition meaningful in the context of other propositions (Derry 2008; Winch 2010).

New insights may transform the existing web of inferential relations, reconfiguring them into a new arrangement

#2. Systematisation of knowledge can also **making it more explicit through some form of codification, multiplying the potential usages of the knowledge**

With ongoing technological development it has been possible to codify and endlessly (re) categorise and organise data in ways that would have been previously unimaginable. **However, this systematisation process does not necessarily result in greater specialisation, although it may serve to reinforce it**



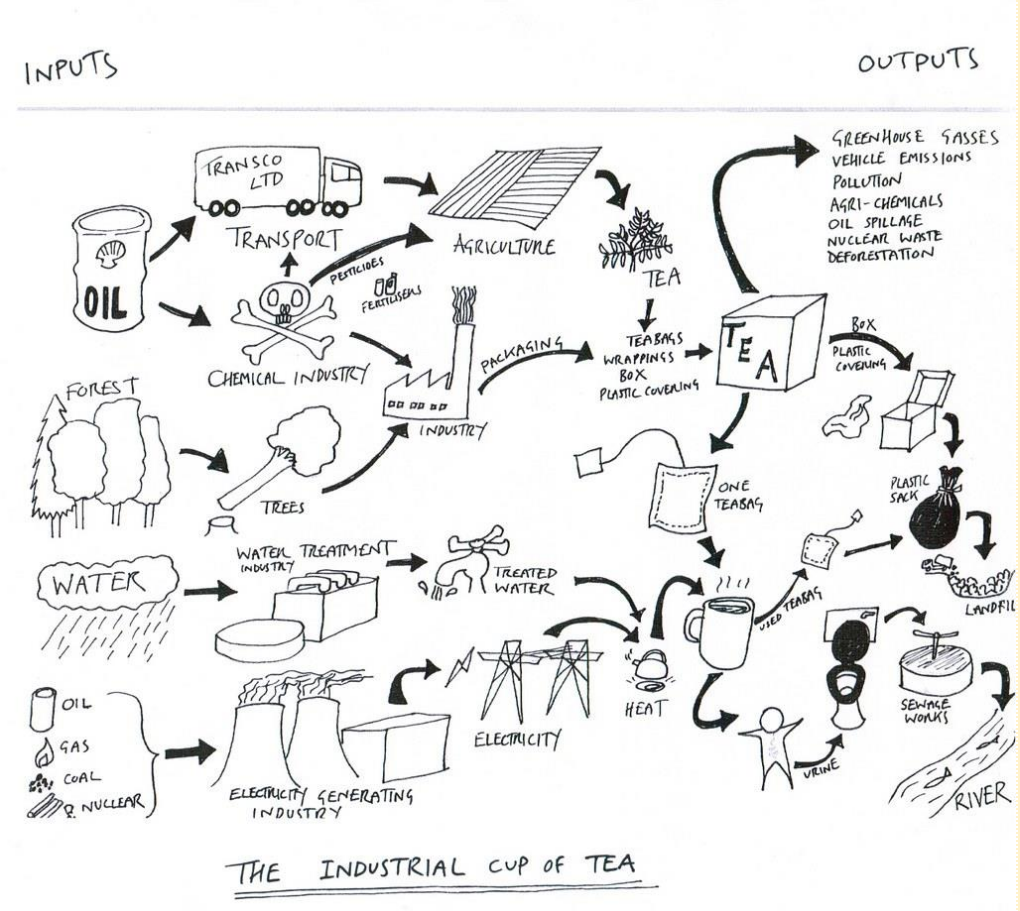
Systematicity and specialised practice

- These developments in systematicity may lead to specialised practices which enable the evaluation of the suitability of new knowledge for inclusion in the existing body of systematic specialised knowledge (Winch 2010).
- Those who acquire a degree of procedural ‘know how’ are equipped to apply procedures judiciously – to make reasonable judgements about whether a new claim to knowledge can be admitted into the existing knowledge base.

The development of systematic revisability

- This may lead to a continual iterative evaluation, and therefore ‘systematic revisability’ (Young and Muller 2013, 236).
- But procedures and criteria may be more or less judiciously applied at any point in time and in any context.
- What counts as ‘revision’ or ‘systematic’ in the context of any ‘specialised community’ must be open to scrutiny. An important aspect of the process of ‘systematic revisability’ is the process by which any knowledge is considered ‘redundant’ and the efficacy with which redundant knowledge is discarded
- **Is this happening in groups responsible for developing the vocational curriculum**?

Openness of systems



- Useful to make distinction between closed and open, recursive systems in ‘semiotic systems’ (Biesta 2010, 496) such as education.
- Whereas a closed system operates ‘deterministically’, open or recursive systems operate ‘probabilistically’ and iterate as a ‘result of a combination of external factors and internal dynamics’ (ibid.)
- A closed socio-epistemic system suggests insularity and a refusal to accommodate novelty, or to include new contributors to processes of revision. However, a more open or iterative system suggests that processes are prepared to adapt to change: to listen to novel, radical claims that could transform understandings, and to include contributors who will challenge existing perspectives (Hordern 2019b).
- There is a risk in such arrangements of co-option or tokenism, but these are not inevitable

What does this mean for the curriculum?

- Encouraging those concerned with the vocational curriculum to reflect on the changing nature of specialisation and systematisation, and the practice of systematic revisability in their fields (and who and what is included in those processes)
- An open mind towards the ‘non-systematic’ and a critical eye on the already systematised (in curriculum documents and standards)