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Clockwork Automata, Artificial Intelligence and Why the Body of the Author Matters

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On 9 June 1949, Geoffrey Jefferson, Professor of Neurosurgery at the University of Manchester, marked his receipt of the prestigious Lister Medal from the Royal College of Surgeons by addressing the College’s members on the topic of ‘The Mind of Mechanical Man’. Jefferson summarized his assessment of the prospects for mechanical consciousness with these words:

Not until a machine can write a sonnet or compose a concerto because of thoughts and emotions felt, and not by the chance fall of symbols, could we agree that machine equals brain – that is, not only write it but know that it had written it. No mechanism could feel (and not merely artificially signal, an easy contrivance) pleasure at its successes, grief when its valves fuse, be warmed by flattery, be made miserable by its mistakes, be charmed by sex, be angry or depressed when it cannot get what it wants.1

This passage articulates a set of principles that would come to guide much of the research in the fields that we now know as artificial intelligence (AI) and artificial life (AL): that there is a fundamental difference between the mere rote processing of data and the self-conscious awareness and understanding of what is being processed; that authentic consciousness is coloured by shifting emotional, affective and libidinal states; and that this rich psychic reality finds its privileged expression in acts of artistic creation. This essay explores how these conceptions have been channelled into attempts to design computer programmes capable of producing original works of literature. It does so, however, by drawing parallels between recent research by computer scientists into the possibility of constructing artificial authors and the elaborate
clockwork writing automata produced by European craftsmen in the late eighteenth to mid-nineteenth centuries. Building on the work of Jessica Riskin and others, I suggest that for all their comparative lack of sophistication, the clockwork writers of the eighteenth and nineteenth centuries anticipate – by virtue of their embodiment in articulated, humanoid form – an emerging paradigm in the field of artificial intelligence that presents tantalizing possibilities for the development of machine creativity. This new research agenda has, in turn, surprising and profound consequences for literary criticism and theory today.

**Writing automata and romantic authorship**

Between 1768 and 1844, the Swiss watchmakers Pierre and Henri-Louis Jaquet-Droz and Jean-Frédéric Leschot, the Jaquet-Drozes’ protégé Henri Maillardet, and the French illusionist Jean-Eugène Robert-Houdin constructed a series of startlingly lifelike writer-figures (figures 5–8).

Seated at their desks and equipped with quills, they astounded viewers by inscribing documents set before them with signatures or short poems.

*Figure 5: ‘The Draftsman’, ‘The Musician’ and ‘The Writer’, constructed 1768–1774, by Pierre and Henri-Louise Jaquet-Droz and Jean-Frédéric Leschot*