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Einstein in the office; is information really necessary ?

Summary

The work of Albert Einstein illustrates a paradoxical relationship between use of literature and scientific creativity

Keywords

Scientific information; information and creativity; Einstein, Albert

The articles in this issue of *Journal of Documentation*, as always, tend to uphold and develop the standard assumptions of the information sciences. Information, knowledge, communication - call it what you will - is essential for scientific, academic, economic, social and personal development. The task of the information sciences is to support and promote the development, improvement and use of systems (in the widest sense) for communicating information and knowledge.

Against this commonly held, and - in documentation circles, at least - rarely questioned viewpoint, stands, or rather sits, the iconic figure of the scientist, Albert Einstein. In Abraham Pais' definitive biography (1982, 2005), Einstein is photographed in 1905, seated at his desk in the patent office in Bern. He is pictured in his 'miraculous year' (Stachel 1998), in which he published five scientific papers - on special relativity, Brownian motion, molecular statistics, and the wave/particle dual nature of light - which influenced developments in all fields of physics for the next century.

Pais reminds us of the truly remarkable situation of Einstein, at this most creative point of his career. He has had a solid, though by no means outstanding, university education, and has never held an academic or research post. His job at the patent office - technical expert, third class - is a relatively lowly post, and his superiors, noting that he has studied only physics, want him to familiarise himself with mechanical engineering, before he can be considered for promotion. He finds his work interesting, but by no means demanding, and (crucially) he has time to think. Of particular interest to our theme, he does not have access to good library facilities, and is not part of the community of physical research. Indeed, Pais emphasises that this 'apartness' is a fundamental part of Einstein's intellectual make-up for all of his life.

Einstein, therefore, breaks the mould of the scientist/academic, who is supposed to require both personal contacts for knowledge exchange, and access to the written record of their discipline, in order to be productive. The question that needs to be addressed is to what extent we may simply label Einstein a maverick; so untypical, that his story need not concern us. It is true that Einstein's relations with the literature of his subject were somewhat unusual throughout his career; not what was usual at the time, still less today. He wrote in one of his papers that he had not carried out a survey of the literature, as it would have been a trouble to him, but that no doubt others would do it. On another occasion, when a leading journal to which he had submitted an article had the temerity to send to a referee for comment, he withdrew it in indignation, and never dealt with the journal again.

So far, so unique genius. Yet there are repeated, and perhaps troubling, indications that creativity and innovation - in a far less dramatic context than (arguably) the greatest scientist of the last century - have less explicit and clear connection to access to information and knowledge than we might like to think. The relations between information provision and creativity are subtle, and far from fully worked out (see, for example, Bawden 1986 and Ford 1999). More studies are needed, to consider the innovative thinker, with their characteristic of Einstein's 'apartness', in the context of information behaviour and information seeking.

David Bawden

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