

*Perspective***Researchers' tools of the trade a LIS perspective**

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Received: 21-Jan-2022, Manuscript No. FLICS-22-51583; Editor assigned: 24-Jan-2022, Pre QC No. FLICS-22-51583 (PQ); Reviewed: 7-Feb-2022, QC No. FLICS-22-51583; Revised: 21-Mar-2022, Manuscript No. FLICS-22-51583 (R); Published: 29-Mar-2022

ABSTRACT

LIS departments engage in a wide range of research activities. Within a single department, many methodologies may be represented, which can be a barrier to discussion between researchers. This problem can be addressed by recognising that all researchers share many 'tools of the mind', and by adopting the kind of 'meta' approach that has led to successful information literacy programmes.

Keywords: Library and information sciences, Phenomenologists, Scientific instruments

INTRODUCTION

Research is an information seeking activity. Any academic working in a department of Library and Information Sciences (LIS) is both a researcher and (through the nature of their expertise) a facilitator of other people's research. However, Information Science is unusual in its diversity: research in a LIS department can span topics ranging from computer science to media studies [1], with the result that researchers within the same department often use very different methodologies, each of which is framed within a different research philosophy.

Tools of the mind

When research methods are taught, it is common to focus on these differences; a practice that often shapes the research identities of novices [2]. It is a practice that can prove divisive, with young researchers placing themselves in epistemological cliques and failing to recognise that researchers of all disciplines, from physicists to phenomenologists, use many of the same tools [3]. Tools of the mind. When we think of tools, we usually think of "extensions of the limbs" [4]. Objects that help us to manipulate elements of our environments with greater force and precision than we could with our un-extended limbs. But, as Gregory goes on to say, tools are not limited to extensions of the limbs, they are also extensions of the senses and extensions of the mind. Tools that extend senses are those most traditionally associated with research. Scientific instruments enhance our ability to detect stimuli, allowing us to gather data relating to phenomena beyond the reach of our unaided perceptions. In the 17th Century for example, Galileo's telescope opened up the solar system for examination [5], while in the current century, the recently launched James Webb telescope [6] promises

to open up distant galaxies [7]. Instruments though, are still artefacts. The tools of value to all researchers, irrespective of their discipline, are intangible "tools of the mind". Among the definitions of tools provided by the Oxford English Dictionary is the statement that a tool is "a means of effecting something". The idea that a tool should be understood in terms of the outcome it enables rather than as an enabling object has been explored by many notable commentators [8,9] for example, discussed tools, not as artefacts, but in relation to objectives. Stated that a tool serves "as the conductor of man's influence on the object of his activity". Similarly, observed that tools are "used as means to consequences"; and for something to be regarded as a tool, "the relationship between it and its consequence [must be] distinguished and retained".

DESCRIPTION**Finding common ground**

Research is a form of exploration and any research project aims either to map out new cognitive territory (exploratory research), or to validate the maps of earlier work (confirmatory research) [10]. Researchers, in the course of their training, acquire the tools they need to achieve the object of their activity, which is to engage in an intellectual excursion. The nature of the terrain they traverse varies according to discipline, but all successful research projects begin with a tool to focus attention (a good research question) and end with a tool to communicate findings (a well-told story) [11,12].

CONCLUSION

The diversity of interests within a LIS department creates challenges, not least of which has been the identification of commonalities within the diversity. One highly successful approach to this type of challenge has been the development of programmes of information literacy that are relevant across the academic spectrum. A similar 'meta' approach to the

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teaching of research has the potential to improve the training of new researchers, to bridge academic divides and to increase inter-disciplinary collaboration.

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