

A Phylogenetic Approach to Bibliographic Families and Relationships

D. Grant Campbell

Alex Mayhew

University of Western Ontario

This presentation proposes to apply the principles of phylogenetic classification to the phenomenon of bibliographic relationships in library catalogues. We will argue that while the FRBR paradigm supports hierarchical bibliographic relationships between works and their various expressions and manifestations, we need a different paradigm to support associative bibliographic relationships of the kind detected in previous research. Numerous studies have shown the existence and importance of bibliographic relationships that lie outside that hierarchical FRBR model: particularly the importance of bibliographic families. We would like to suggest phylogenetics as a potential means of gaining access to those more elusive and ephemeral relationships. Phylogenetic analysis does not follow the Platonic conception of an abstract work that gives rise to specific instantiations; rather, it tracks relationships of kinship as they evolve over time. We will use two examples to suggest ways in which phylogenetic trees could be represented in future library catalogues. The novels of Jane Austen will be used to indicate how phylogenetic trees can represent, with greater accuracy, the line of Jane Austen adaptations, ranging from contemporary efforts to complete her unfinished work, through to the more recent efforts to graft horror memes onto the original text. Stanley Kubrick's *2001: A Space Odyssey* will provide an example of charting relationships both backwards and forwards in time, across different media and genres. We will suggest three possible means of applying phylogenetics in the future: enhancement of the relationship designators in RDA, crowdsourcing user tags, and extracting relationship trees through big data analysis.