Who’s Afraid of Allan Savory?

Probing the impact of one influential author

Carlisle Kent and Kate Sherren

School for Resource and Environmental Studies, Dalhousie University, Canada

Allan Savory is the founder of Holistic Management (HM), a systems-thinking, adaptive management approach to grazing livestock that is based on goal-setting and careful monitoring, and is often characterized by native rangelands and high-intensity, short-duration rotational grazing. Authors citing his work discuss diverse subjects and perceive his work very differently – he is clearly a polarizing figure. We use a scientometric approach to examine the impact Savory has had on scholarship by performing a detailed analysis on 337 records citing Savory from 1980-2015 found in Web of Science. Savory’s work has different meanings to different disciplines, often being cited as an example of more general ‘adaptive management practices’ by a wide range of fields outside the grazing community. Authors discussing Savory in the context of HM, as opposed to citing Savory for his general adaptive management principles, increasingly make a positive assessment of the practice over time. Maps of similarity in reference lists show polarization between management/social sciences and agriculture (i.e. they cite different work), while production, environmental and natural science papers are spread throughout the citation network suggesting more diverse citation patterns.

Introduction

Holistic management (HM) was developed by Allan Savory. The science around HM is an example of a debate characterized by entrenched positions – scholarship is divided on its utility. Experimental scientists often see no benefits from the constituent practices in controlled experiments, while management-oriented agricultural scientists report benefits at the farm scale.

Bibliometrics

Bibliometrics is an analytical approach from information sciences that examines scholarly influence by using citation and reference patterns. Specialized software and indexing databases are used to gather and measure statistics on sets of records (e.g., published articles, books and chapters, conference proceedings).

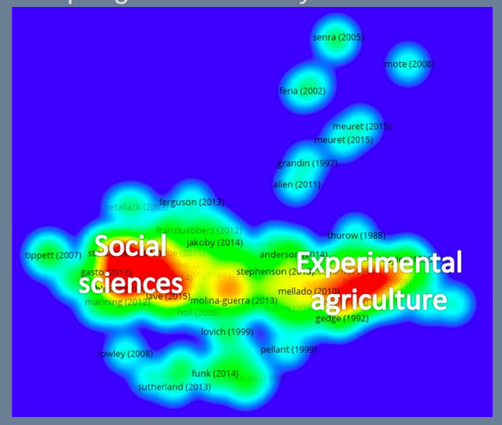
Methods

We used research citing Allan Savory as a proxy for HM scholarship. This was necessary given the diverse and distinct uses of the terms ‘holistic’ and ‘management’ in non-agricultural contexts, and the proliferation of other terms employed to refer to aspects of the practice (e.g., ‘cell grazing’, high-intensity, short-duration ‘grazing’).

We used Web of Science to collect a dataset of 337 records citing Allan Savory since 1980. The dataset was then analyzed for patterns in subject matter and geography as well as temporal trends. Records were classified by hand based on disciplinary orientation and the revealed HM opinion.

We then used the software *VOSviewer* to analyze the bibliometric coupling network. The software’s algorithms place nodes (representing individual records) in relation to other nodes based on the number of individual references they share (van Eck and Waltman 2009). Records with more references in common will be closer together, and records with no or very few records are further apart. Bibliometric coupling networks reveal tendencies in literature searching and research bases, and help to reveal new dimensions of the oft-expressed divide in HM scholarship.

Figure 2. Two hotspots of bibliometric coupling in the density visualization



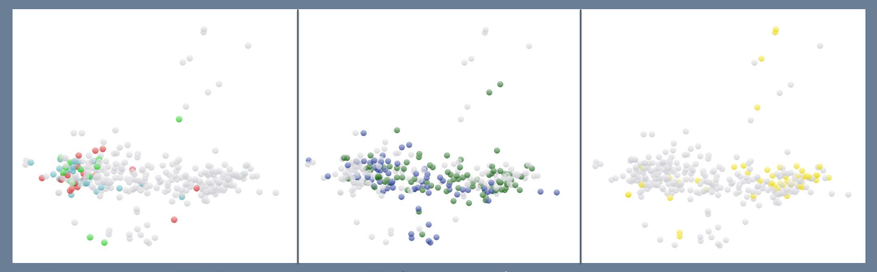
Selected Results

Bibliometric coupling revealed thematic clusters in the dataset, where authors in some disciplines are more likely to cite from a limited body of literature (Fig 1). Notable examples are the dominant opposing themes (management/social sciences versus experimental agriculture). Other themes, for example, environmentally-inclined records, are more likely to occur throughout the network. The polarized clusters are further revealed when examining the density visualization (Fig 2).

Many of the dataset’s records expressed an attitude toward HM. These attitudes (positive, neutral, and negative) echo the clusters revealed by the dominant themes’ nodes (Fig 3). Negative, and to an extent neutral, nodes are more likely to be found in the experimental agriculture ‘hotspot’.

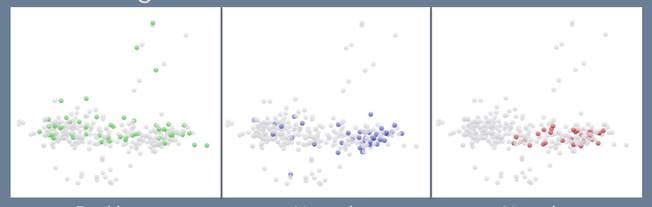
Additionally, it is interesting to note the steady upward trend in positive records over time, accompanied by drastic decline in both neutral and negative records (Fig 4).

Figure 1. Dominant thematic clusters in the bibliometric network



Management, social sciences, and social science perspectives on agriculture | Environment, and environmentally-inclined agriculture | Experimental agriculture

Figure 3. Clusters in attitudes toward holistic management in the bibliometric network



Positive | Neutral | Negative

Discussion

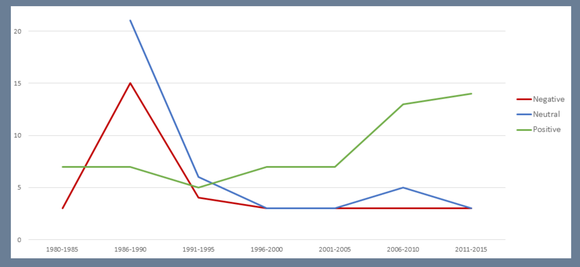
The opposing thematic clusters—management/social sciences versus experimental agriculture—suggest distinct bodies of literature upon which scholars in each cluster base their research (Figs 1 & 2). This is in contrast to environmentally-themed nodes, which are spread throughout the network and likely draw upon a broader body of literature to support their research. Bias can be introduced during literature searching, the results of which are revealed through bibliometric networks, which may influence authors’ conclusions (Kent and Sherren 2015a), including their estimations of HM.

Visualizing the clustering behaviour of records expressing positive, neutral, or negative attitudes toward HM (Fig. 3) suggests that neutral and negative records draw their conclusions from a limited and similar body of literature, while positive records sample more generously across the network and thus scholarly domain.

The general upward trend in positive records over time (Fig 4) mirrors the upward trend found in numbers of environmentally-themed records over time (Kent and Sherren 2015b). Environmentally-themed records were found to be likely to express a positive attitude toward HM (Kent and Sherren 2015b).

The bibliometric network visualized here reveals established referencing habits for the period 1980-2015. Limited sampling from within discipline-specific bodies of literature may be a factor behind the seemingly entrenched positions of scholarship on alternative grazing practices like HM.

Figure 4. Attitudes toward holistic management over time among Savory-citers



DALHOUSIE UNIVERSITY

References

Kent C and Sherren K. 2015a. Understanding polarization in research: lessons from information science. Manuscript in preparation.

Kent C and Sherren K. 2015b. Who’s afraid of Allan Savory? Probing the impact of one influential author. *RHoMPAS Report Series* **1**. Available at https://ReconcilingHM.com

van Eck NJ and Waltman L. 2009. VOSviewer: a computer program for bibliometric mapping. *Research in Management*. Retrieved from http://hdl.handle.net/1765/14841

Funded by: Social Sciences and Humanities Research Council of Canada | Conseil de recherches en sciences humaines du Canada | Canada