

INTRODUCTION TO DISCUSSION OF “COAUTHORSHIP AND CITATION NETWORKS FOR STATISTICIANS”

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It was extremely interesting to read this paper and to hear its presentation at the Joint Statistical Meetings. I would like to thank the Editors for the invitation to contribute some introductory thoughts.

In recent decades, especially, there have been two pressures towards closer scrutiny of the quality of scientific research. First, science is a victim of its own success. There is much more of it than there used to be. Even in our own subject, gone are the days when I knew virtually every researcher in statistics in the UK, and many of those in the US and across the world, when statistics was quite a tight-knit community. And then there are whole disciplines which hardly existed at all not all that many years ago, spurred on by the vast increases in computing power, genetics and genomics, and so on. Second, the expenditure of both public and private money is the subject of much closer scrutiny. Transparency is an important part of all funding decisions, and rightly so. The Royal Society of London’s Latin motto *Nullius in verba* has been translated to “Don’t take anybody’s word for it” and interpreted on the Society’s website as “. . . an expression of the determination of Fellows to withstand the domination of authority and to verify all statements by an appeal to facts determined by experiment.” So it is also with funding decisions: simple “authority” is not sufficient, but decisions need to be supportable by facts. To the above two reasons, I would add a third: research is much more collaborative than it used to be, and so it is no longer easy to judge work by considering individual authors.

Many scientists are very uneasy about formulaic approaches to funding decisions, believing, rightly or wrongly, that they do not adequately reflect true quality, and, more insidiously, that they distort research behaviour in dangerous ways, for example, encouraging a “Publish (a lot in high impact factor journals) or perish” mentality over genuine originality and impact. I do not want to take sides in this argument, but rather to reflect on the relevance of analyses like those in the present paper may have.

Like it or not, quantitative approaches are likely to play an increasing role in rating researchers and institutions, allocating funding between and within fields, setting targets, and so on. The current authors have given a number of approaches that complement simple citation counting, giving a more in-depth view of the complex interactive system that underpins most research nowadays. I am sure that this