B163 A Bibliometric Review of the Impact of the National Academy of Sciences (NAS) Report on the Friction Ridge Discipline

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After attending this presentation, attendees will better understand the transition friction ridge research made after the National Research Council on the 2009 NAS Report, Strengthening Forensic Science in the United States: A Path Forward, was published.

This presentation will impact the forensic science community by comparing research trends in the friction ridge discipline both pre-NAS Report and post-NAS Report. A bibliometric review will be contrasted against an informal review of the literature considered important by Subject Matter Experts (SMEs) in the friction ridge discipline.

The impact of the NAS Report on friction ridge literature was measured in a bibliometric review by using an online literature indexing tool, Web of Science™, and focusing on the five years before and after the NAS Report. This bibliometric review showed an increase in the number of friction ridge articles indexed in Web of Science™ from an average of 22.6 articles per year between 2005 and 2009 and an average of 41 articles per year between 2010 and 2014. The predominant funding agencies also changed: the National Institute of Justice, Federal Bureau of Investigation, and the Home Office (United Kingdom) became the top three contributors post-NAS Report, but none of them were in the top three pre-NAS reports. Four of the five most prolific authors remained in the top five between both time frames, and all five countries remained in the top five.

A search of common terms associated with fingerprints produced an overwhelming amount of unassociated articles since the term "fingerprint" is used outside the friction ridge discipline. Web of Science™ lacks a specific forensic science category, so several categories were selected to focus on the appropriate articles; however, this lack of specificity required an additional manual screening process to remove articles that were visibly not associated with the friction ridge discipline. Sensitivity of a bibliometric review is reduced due to limiting the search on specific categories, as well as not containing journals that are not indexed.

Using bibliometric tools to review literature has its limitations, such as relying heavily on key words, a lack of a specific forensic science category, and partial lists of indexed journals. The methods, though, are objective, and the results can be quantified. This broad, calculated, and repeatable approach of a bibliometric review was contrasted to a more concise, influential, but subjective list of articles that was organically produced by the friction ridge discipline in response to the NAS Report.

Reference(s):

1. National Research Council on the National Academy of Sciences, Strengthening Forensic Science in the United States: A Path Forward. Washington, DC: National Academies Press, 2009.

NAS Report, Bibliometric Review, Friction Ridge

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