

reviewers and reduce the time required to conduct SRs is automation.

With recent advancements in artificial intelligence and machine learning, many tools have been, and are currently being, developed to support different stages of SR process. To date, the range of automated tools available, and their effectiveness, is unclear. To remedy this gap, we have undertaken a methodological systematic review.

The specific objectives of this methodological SR are to:

- Classify existing tools according to the automation approach, the stage of SR supported and the level of automation.
- Compare the available tools according to each stage that they support and identify their strengths and limitations.
- Determine the effectiveness of the tools.
- Present and appraise evaluations of automated tools.

Method This review is based on the Preferred Reporting Items for Systematic review and Meta-Analyses (PRISMA-P) Guidelines.

We reviewed all published articles, grey literature, reports and software manuals that evaluate automated and semi-automated tools that support healthcare-related SRs, from screening to write-up. Only tools that are fully developed were eligible for inclusion.

The systematic review toolbox (SR ToolBox), PubMed, Google and Google were systematically searched. Titles, abstracts and full articles were reviewed for inclusion independently by two reviewers. Data extraction and quality appraisal were undertaken independently by two reviewers, with disagreements resolved by consensus or by arbitration by a third reviewer if necessary.

Tools' characteristics and performance metrics reported in the included studies were extracted and tabulated. To enable comparisons, tools were grouped according to stages of SR they support, and the type of algorithms deployed in them.

Results This review is currently in the data extraction stage and will be completed by the first week of June 2019.

This presentation will focus on the evidence available on automated tools that support the screening, data extraction, quality appraisal and write-up phases of SRs. For each phase, we will present data on the number of tools that have been developed and the number of studies that have evaluated them. We will discuss the strengths and limitations of the methods and standards used to evaluate existing tools, and implications for future research and SR practice.

Conclusions This review constitutes an important step in easing the transition of SR production from a primarily manual process to a semi-automated one. It will inform current collaborative efforts aimed at the development of evidence-informed integrative automated systems for conducting high quality SRs in healthcare research.

Social movements across medicine, research, and publishing, such as EBM Live, Choosing Wisely, and Reducing Research Waste are well-intentioned, but are met with varying degrees of success. We need to learn from recent successful social movements that have reached international circulation and had fundamental impact, such as #MeToo and Black Lives Matter. The EBM manifesto's aim to reduce bias, wastage, error fraud research is driven by a small community of researchers, academics, and publishers, largely from the United Kingdom. What percentage of end users, including researchers, patients, and public, are engaged or even aware of the movement? We must move away from simply raising awareness amongst small communities to co-producing and collaborating with them. Looking at successful social movements within and outside medicine that have generated transformational change and inspired the public, the following themes emerge:

1. Have a clear purpose and vision for the movement. This has to be simple, short, and direct rather than a complicated and detailed plan. This will hook and unify the targeted audience and break down interdisciplinary barriers. (Satell, Harvard Business Review 2016).
2. Use a structured framework to ensure standardisation across the movement. In order to enact change locally, nationally, and internationally, there needs to be clear guidance. For example, the Knowledge-to-Action Cycle, generated by Canadian Institute of Health Research, can be used as a guiding framework to increase the relevance, applicability, and impact of research findings (Field, Implementation Science 2014). This will increase clarity and process within the movement.
3. Training nominated champions will increase uptake of the movement. Nominated champions should undergo sponsored training which will empower them to create a shared vision amongst their teams within hospital, university, or organisation. Formal accreditation, such as the Knowledge Translation Professional Certificate™, or informal opportunities, such as workshops and summer courses run by Evidence Live are a starting point. Cementing awareness can be formalised through the National Institute for Health Research Good Clinical Practice module and local induction for all healthcare and university staff, and not just those involved in research. This will ensure everyone is involved and engaged in the movement.
4. Continuous monitoring and evaluation are necessary for a successful movement. An iterative process will allow strategy review, monitoring of activities, and amendments to be made in line with the movement's values. Sustaining a movement in medicine is difficult. For real change to occur, the whole community needs to be engaged. Evidence Live is an inspiring conference with an ambitious manifesto, ultimately aiming to improve patient care. Unfortunately, we are still failing to reach the majority of the medical community. To do this, we need to learn from other social movements to understand their roadmaps and how to improve ours. This will enable movements like Evidence Live to be successfully implemented into practice.

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SUSTAINING AND DEVELOPING MOVEMENTS, LIKE EVIDENCE LIVE, IN MEDICINE: LESSONS TO BE LEARNT WHEN DOES A CAMPAIGN BECOME A MOVEMENT – AND HOW DO WE IMPLEMENT A MOVEMENT INTO PRACTICE?

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MISREPRESENTED OR UNVERIFIED AFFILIATIONS IN THE LITERATURE SHOULD BE ADDRESSED BY A CONSENSUS ON THE DEFINITION OF AFFILIATION

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Journals require authors to report their current affiliation, and any affiliation relevant to the submitted work. Institutional research productivity is usually associated to increased funding, higher ranking positions and greater admission applications. On the author side, publications are required in the ‘publish or perish’ dictum, and many universities provide extra honoraria for each published article that includes the affiliation. The American Psychological Association states that ‘the institutional affiliation identifies the location where the author or authors were when the research was conducted, which is usually an institution.’ It then goes on to recommend that a dual affiliation may be included ‘only if two institutions contributed substantial support to the study.’ To the best of our knowledge, this is the only known definition of affiliation. Neither the ICMJE nor COPE have issued recommendations or guidelines on what constitutes a properly reported affiliation.

We and others have observed that there are cases of incorrect or false reporting of institutional affiliations that might introduce a systemic bias in the current indicators that are used to rank universities and to rate researcher productivity. To determine the scope of this problem we conducted an exploratory case study in Chile on author affiliation misrepresentation for Scopus-indexed articles in 2016, the protocol of which we published recently.¹ In yet unpublished results from our study, we found that 38% of authors have multiple affiliations in at least one article that was not verifiable, and 40% of articles have at least one author in which it was not possible to verify the reported affiliation to a Chilean university. In 30% of author/article records for the year, we could not corroborate the reported affiliation to a Chilean university. The significant magnitude of the prevalence of unsubstantiated affiliations in this exploratory study underpins the need for a consensus on the definition of affiliation together with recommendations for both authors and journal editors. Aim To develop a consensus statement on the definition of author affiliation that will guide authors during the submission of their manuscripts and journal editors to identify potential breaches of research integrity. Method The development of this recommendation will be based on the Delphi method. We will first identify and define the key concepts of what an affiliation is following a broad literature review. Then we will develop an initial draft of the document that will be sent out for expert consultation and input (eg, ICMJE and COPE). Lastly, an iterative international survey with a broad-ranging roster of participants from the STEM disciplines will be conducted until consensus is reached. The resulting document will be published and disseminated to key stakeholders, including university ranking systems, funders, editors, and research integrity officers.

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‘EVIDENCE BASED MEDICINE’ – A ‘TROJAN HORSE’!!

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The belief that research is being conducted in a coherent, comprehensive and credible manner is presently an illusory *modus operandi*. Meanwhile, physicians navigate clinical realities using

these dogmatic dicta, never thinking that prestigious journals could publish anything but honourable merit. A disheartening study revealed that roughly 85% of research endeavours are wasteful, being of low yield, circumspect validity or forever unpublished.¹ It appears data is being masqueraded as ‘evidence’ but is nothing more than a manipulated narrative to suit agendas. This gives the impression of progress, but rather only contributes to scientific inertia and possible patient maleficence. The dichotomy between the best intentions and malevolent outcome is widening. The £10bn in fines by pharma companies, from 2009-2014 reinforces this viewpoint.² For the practitioner, the surrendering to a maxim of ‘evidence-based medicine’ from the anecdotal, is optimal and professional. However, if the quest of enlightenment and knowledge leads to the acquisition of fallacious metrics and fictional conclusions, then this faithful surrender is nothing more than perilous servitude. The point at which one can no longer distinguish fact from fiction, is a damning diagnosis of delusion. This delusional state, if left unidentified and unfettered, will tend to evermore entropy and at a certain point, ignorant professional practice of pseudo-premises prevails, with perilous outcomes abounding. It is my contention, that the era of ‘publish or perish’ is as injurious to public health as any pathogen. It is extremely pathogenic, most pertinently chronically, with successive mutated forms of evidence accumulating in our ‘sacrosanct’ evidence-based paradigm, similar to our genome. It is imperative therefore, that EBMLive adopt the pillars of a Public Health paradigm, with the end goal of changing behaviour - ‘Risk Awareness, Risk Detection and Risk Communication.’ I recommend the creation of an independent centralised watchdog surveillance centre, where papers/proposals are screened. One funding stream could be subscription fees of researchers/publishers looking to prove quality control standards — akin to the Red Tractor label in the UK. This would place research that had met the certification standard, in better standing with the consumer. Furthermore, the centre could highlight current research that is high risk and perhaps instigate awareness campaigns, comparable to recalls on contaminated food produce. The centralised nature of such a research referee, would enable more optimal data handling, thereby adding capacity for improved systematic global exchange of ideas, with the aim of increasing rates of efficient, high yield innovation. In any treatment plan, the solution has to reflect the problem. As such the motives for sub-optimal data need to be elucidated. More specifically, differentiation between ignorance of scientific methodologies or intentional statistically sanctioned self-sabotage. We need to ensure that the ever-growing body of medicine is akin to controlled cellular replication and not a cancer.

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THE PROBLEM OF TRUTH IN EBM

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The EBM Manifesto has been developed as a response to a growing body of evidence that “suggests that most published