

The Vienna Principles:

General principles of collaboration and development in the automation of systematic reviews

1. Systematic reviews involve multiple tasks, each with different issues, but all must be improved.
2. Automation may assist with all tasks, from scoping reviews to identifying research gaps as well protocol development to writing and dissemination of the review.
3. The processes for each task can and should be continuously improved, to be more efficient and more accurate.
4. Automation can and should facilitate the production of systematic reviews that adhere to high standards for the reporting, conduct and updating of rigorous reviews.
5. Developments should also provide for flexibility in combining and using, e.g. subdividing or merging steps and allowances for different users to use different interfaces.
6. Different groups with different expertise are working on different parts of the problem; to improve reviews as a whole will require collaboration between these groups.
7. Every automation technique should be shared, preferably by making code, evaluation data and corpora available for free.
8. All automation techniques and tools should be evaluated using a recommended and replicable method with results and data reported.

Drafted by members of International Collaboration for the Automation of System Reviews (ICASR) at their first meeting, 2 October 2015, Vienna, Austria.