What Constitutes a Good Review Article?

Good review articles facilitate a change of fields among researchers, give managers an overview of developing fields, introduce students to new research opportunities, and generally provide order from what might appear as disparate threads in a developing field of research.

The most significant review papers often bring to the attention of the community areas that are both relatively new (i.e., “cutting-edge”) and considered to be important or at least promising.

Other important points:

1. Review articles summarize progress made in a particular research or development area during a specified period and summarize the current state of the art.
2. Authors must make every attempt to be evenhanded in their treatment of the subject and to include the work of all who have made a significant contribution to the field. Recent major advances should be covered especially well and can be critiqued; significant gaps in research/development can be pointed out. Review articles should not be research papers masquerading under a different name.
3. Readers often search review articles for references. Authors of review articles are thus strongly encouraged to be as comprehensive in their referencing as possible.
4. Some tutorial background is appropriate for a review article, but it should constitute no more than 10% of the paper’s length.
5. Review papers are not necessarily dull. The author can feel free to interject some opinion, so long as it is well considered. (Readers are, of course, offered the opportunity to rebut.)
6. Review articles on new research areas can be understandably short. Papers on long-established research areas may, by design, cover only recent developments (with, it should be hoped, reference to earlier review papers covering former state of the art).
7. Online journals make possible certain features not available for print-only journals, such as animations, color figures at no additional cost, and links to referenced papers. Authors are encouraged to take advantage of these capabilities. Links to most contemporary journal papers can be obtained through http://www.crossref.org/guestquery/. SPIE staff can provide aid in such matters during the publication production process.

The preparation of a good review paper is time consuming, but the rewards for the author can be great: Even if not a widely recognized expert to begin with, the author becomes one, gaining immediate currency and expertise in the area of the review. It is noteworthy that review articles are among the most widely cited of all research-related journal papers.

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