Peer Review and Manuscript Management in Scientific Journals

Guidelines for Good Practice

By

Irene Hames

Blackwell Publishing

ALPSP
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Foreword

Henry Oldenburg, the founder of the first English-language research journal (*Philosophical Transactions of the Royal Society*), understood very clearly the importance of peer review – indeed this task was carried out for him by the Council of the Royal Society (not a task any longer expected of society councils!). Despite the challenges to many aspects of journal publication, and despite criticisms of peer review and experiments with alternative approaches, survey after survey shows that authors and readers still place great value on the filtering and improvement provided by the peer-review process, and wish to preserve it regardless of what else may change.

These days, around 1.8 million peer-reviewed articles are published every year; if each is reviewed by at least two reviewers, this means that at least 3.6 million reviewers' reports are produced every year (probably more, as some articles are resubmitted to several journals before finally being accepted). Given the scale of the operation, it is surprising that no one has previously attempted to write a handbook on how the process should be carried out.

The need for this book is obvious – ALPSP is frequently asked where 'the rules' for proper peer review can be found, and until now there has been no satisfactory answer. Fortunately for journal editors and publishers, Irene Hames is ideally qualified for the task. She set up the editorial office of *The Plant Journal* in 1990 and the first issue was published in July 1991; in 2006 it published over 4000 pages, achieved an Impact Factor of 6.97 and worked with over 1000 reviewers. Irene is a knowledgeable and popular speaker at journal publishing meetings, and has also found time to advise others on how to run an editorial office. Her experience of managing the complex processes of peer review and manuscript management is apparent in this highly practical book, which will undoubtedly become the 'bible' of peer review, not only for those working in the sciences but also for those in the arts and humanities. No editor or publisher should be without it.

Robert Campbell, Blackwell Publishing
Sally Morris, Association of Learned and
Professional Society Publishers

Preface

Editors are frequently called the 'gatekeepers' of their journals. They are most certainly this, determining what their journals will publish and what they won't. But their role goes beyond this. They also act as 'midwives', bringing to fruition the labours of researchers – highlighting experimental inadequacies, pointing out misinterpretations of results and offering alternative explanations, improving the presentation of manuscripts, and advising on alternative and perhaps more appropriate venues for the publication of their work. Editors are also the guardians of the scholarly record, with a duty to ensure that this is kept free from corrupting influences and that errors – both genuine and those resulting from fraudulent work or unethical behaviour – are corrected appropriately and as quickly as possible. Editors are given great power when they are appointed, and with this comes enormous responsibility. Suddenly they are entrusted with the work of other researchers, perhaps even that of their competitors, and their decisions determine whether or not that work is published. Because success in job and grant applications, career advancement and public recognition depend to a large degree on publication records, they are therefore indirectly responsible for these.

At the heart of all these roles lies the peer-review process, nowadays oft-maligned, but at its best a very powerful and sophisticated tool. Yet in the great majority of cases, editors come to the job without any specific knowledge about or training in peer review, the decision-making process, or the potential problems and pitfalls. For many it has been difficult to know where to find advice and guidance. My aim in writing this book has been to provide a manual to help editors and their editorial colleagues and staff – both those new to their roles and those who have been in post some time but may be struggling or unhappy with their procedures. I wanted first and foremost to provide practical guidance on all aspects of peer review and create an awareness of the issues involved and the potential problems.

Editors and editorial staff are amongst the most committed and enthusiastic of individuals, frequently becoming passionate about their journals. I have been fortunate in my years with *The Plant Journal* to experience this at first hand, and my sincere thanks go to all the editors and editorial office staff with whom I have had the privilege of working over the past 16 years. My thanks go also to those individuals who provided me with invaluable feedback and constructive comments during the writing of this book – Sally Morris from ALPSP, Bob Campbell and Edward Wates from Blackwell Publishing, Alex Williamson from the *BMJ* Publishing Group, and three anonymous reviewers. The last were clearly people with great experience of journal editorial work and so their positive reactions and comments were a source of

great encouragement and help. But the final responsibility for the content lies with me and I hope that even if there are things with which some readers may disagree, it will make them think about the problems and perhaps reassess their own procedures. The book is not intended to be prescriptive but rather a source of guidance and help. All journals (and the communities they serve) are different, and their editors are the people who are best placed to decide what is most appropriate for them. The book has been four years in the writing and my thanks go to Erica Schwarz for so ably steering it through the production process to become a reality.

Irene Hames

1 Introduction

The practice of reviewing manuscripts for publication has been around for nearly 300 years, since the Royal Societies of Edinburgh* and London started seeking the advice of their members in the early to mid-18th century to help them select articles for publication.[1] Gradually, a number of other scientific and professional societies adopted the practice, but procedures developed in a rather haphazard and ad hoc way. Peer review, the process by which material submitted for publication is critically assessed by external experts (see Box 1.1), was introduced into different journals at different times and in different ways, often dependent on the chief editor at the time. It is only since the middle of the 20th century that it has become generally widespread and reasonably standardized. Excellent accounts of the origins and evolution of editorial peer review can be found in the articles by Kronick[1] and Burnham,[2] respectively.

Two main factors led to the spread of peer review. Firstly, until the relatively recent past, editors frequently had to struggle to find enough material to publish and so did not need to be selective. Over the past 50 years this has changed, to the point where submissions to scientific journals are burgeoning and editors need to be highly selective in what they publish in their journals. Secondly, as scientific areas expanded and became increasingly specialized and sophisticated, editors were no longer able to be experts in all areas. They needed to seek the opinion and advice of others. Today, peer review is used almost universally by scientific journals, and a peer-reviewed journal is generally considered to be 'one that submits most of its published research articles for outside review', i.e. by 'experts who are not part of the editorial staff' (as defined by the International Committee of Medical Journal Editors, ICMJE[3]).

Scholarly publication is the means by which new work is communicated, and peer review is a vitally important part of the publication process. It is the quality-control

Box 1.1 Definition of peer review

'Peer review is the critical assessment of manuscripts submitted to journals by experts who are not part of the editorial staff.'

International Committee of Medical Journal Editors (ICMJE). Uniform Requirements for Manuscripts Submitted to Biomedical Journals.[3]

* The Royal Society of Edinburgh was created in 1783 from its forerunner, the Philosophical Society of Edinburgh. This was originally founded in 1731 as the Society for the Improvement of Medical Knowledge but changed its name in 1737 to reflect broadening interests.

mechanism that determines what is and what is not published, and in most scientific disciplines work will not be considered seriously until it has been validated by peer review. It also acts as a filter for interest and relevance. Publication is of central importance in both academic promotion and the allocation of research funds. It is the means by which scientific discoveries are attributed to individuals. In some areas, this establishment of priority can lead to very significant commercial and financial rewards. Since so much hinges on peer review and it is so central to what and where things are published, it is essential that it is carried out well and professionally, and that it is viewed with confidence and respect. There has, however, been a growing movement, particularly in biomedical publishing, to highlight its shortcomings.[4,5] Critics of peer review cite examples that point to its failure, because of its conservatism, to recognize important and innovative papers; its failure to spot errors; its lack of consistency and objectivity; its poor record in detecting fraud; its openness to abuse and bias; and to it being labour intensive, expensive, and often slow, with resulting delays in publication. These critics of peer review suggest there is little evidence to support the use of peer review as a mechanism to assure the quality of research publications, and frequently state that it is only the lack of an obvious alternative that keeps the process going. There have been calls for funding for large-scale research programmes to look into the effectiveness of peer review and potential alternatives.[6]

Despite all the criticisms and reputed failings of peer review, it is inescapable that it is very extensively used in scholarly publishing. Many editors are, in fact, very pro-peer review and would agree with Laine and Mulrow,[7] who have stated (page 1038), 'We cannot imagine getting along without peer review', and who 'salute' the individuals who review for them. Five surveys carried out between 1999 and 2005 have confirmed the importance with which peer review is viewed and the widespread feeling that the accuracy and quality of material that has not been peer reviewed cannot be trusted.[8–12] The surveys have also, however, brought to light considerable dissatisfaction with reviewing standards and the peer-review process, especially regarding its quality and fairness, and about the delays that can occur.

Peer review is, therefore, extremely important and is likely to be around for quite some time. Various modifications have been suggested and new systems are being tested, but 'traditional' peer review remains the method practised by the great majority of scientific journals. There are clearly, however, concerns about the quality and speed of peer review and there is, therefore, scope for improvement.

What should peer review do?

What should peer review do? Ideally, it should:

- prevent the publication of bad work – filter out studies that have been poorly conceived, designed or executed

- check that the research reported has been carried out well and there are no flaws in the design or methodology
- ensure that the work is reported correctly and unambiguously, with acknowledgement to the existing body of work
- ensure that the results presented have been interpreted correctly and all possible interpretations considered
- ensure that the results are not too preliminary or too speculative, but at the same time not block innovative new research and theories
- select work that will be of the greatest interest to the readership
- provide editors with evidence to make judgements as to whether articles meet the selection criteria for their particular publications
- generally improve the quality and readability of a publication (although this is more a by-product of peer review).

So, fundamentally, peer review maintains standards and ensures reporting is as truthful and accurate as possible. It helps the layperson or non-expert assess what to believe and what to view with scepticism. With the advent of the World Wide Web, arguments abound that everything should be published and be available to everyone for them to make their own evaluations. But how can non-specialists evaluate and make judgements about things they know nothing about? It is difficult enough for scientists outside of their fields of expertise to assess the merits of competing claims, and so almost impossible for the layperson. This has led to the argument that what is needed is more, not less, quality control and the involvement of the best and most expert individuals to ensure there is genuine review by peers.[13]

The peer-review process needs to be handled efficiently and effectively. It must help journals provide the type and quality of material they are aiming to publish for their specific audiences. Reviewers need therefore to understand the quality and scope of the journals they review for. They need to be provided with guidelines on this. Authors need to be 'trained' to recognize the scope and standard of paper that is required for a particular journal. Editors need to select the most appropriate reviewers, taking care not to overload them. Editors are responsible for ensuring the quality of their journals and that what is reported is ethical, accurate and relevant to their readership (see Golden Rule 1).

Golden Rule 1

Editors are responsible for ensuring the quality of their journals and that what is reported is ethical, accurate and relevant to their readership.

What does peer review assume?

The peer-review process depends on trust and requires the goodwill and good behaviour of all the participants, i.e. the authors, reviewers and editor. It assumes certain things. It assumes that authors are submitting original work that has been honestly carried out, evaluated and reported. Journals cannot be expected to detect fraud at the laboratory experimental level – that is not their role. It assumes that reviewers assess submitted papers to the best of their ability in a courteous and expeditious manner, respecting the confidentiality of submitted material and disclosing any potential conflict of interest. And it assumes that editors evaluate all the information available to them and make decisions on whether to publish material or not as fairly and transparently as possible. It is important to remember that it is not the reviewers who decide what will or will not be published. They assess and advise, commenting on quality and suitability and alerting editors to flaws and problems, but it is the responsibility of editors to decide what will be published in their journals. In making these decisions, it may be helpful for them to bear in mind something very wise that Stephen Lock, a former editor of the *BMJ* (*British Medical Journal*), wrote in his seminal book on peer review, 'A Difficult Balance', in 1985 (page 129)[14]:

> Peer review does not, and cannot, ensure perfection: scientific journals are records of work done and not of revealed truth. If they were to insist on absurdly high standards science would suffer more than it would gain, purchasing reliability at the expense of innovative quality.

What is this book trying to achieve?

Given that peer review is used by the vast majority of scientific journals, the fundamental role it plays in scholarly publishing and the great importance with which it is viewed, it should be carried out to the highest possible standards. Peer review is a very powerful tool if used correctly, but as in every area of life, the whole spectrum of quality exists, from very poor to excellent. It is also rather an 'amateur' activity in that there is usually no formal training, with most people learning 'on the job'. My aim is therefore to provide guidelines for good practice that will be useful to journals of all sizes, in many scientific disciplines. Although the book is primarily for people in science, there is much that will be applicable to other scholarly areas, as the general principles and many of the procedures are the same.

Editorial offices range from organizations where one person does everything to those where many people are employed. Some journals, particularly large ones, have central offices that remain through changes of editors and in which a large body of expertise has been built up over time. They are frequently overseen by a managing editor or equivalent. For others, the office moves every time there is a change in editor-in-chief. As editors are usually appointed on the basis of their academic standing and expertise, and frequently for their visionary aims and aspirations for their journals, it is highly likely they may have no direct practical experience of running a peer-review system, and certainly may never have had to set one up from scratch. It is not unusual for assistants appointed to have no or very little idea what to do. Yet, the filing cabinets, computers, and so on may arrive one day at a new location, and the office will be expected to be up and running the next.

This is a basic 'how to' guide for people involved in editorial peer review – journal editors, editorial office staff and publishers; a handbook that can be dipped into as required or read in entirety without too much effort. My hope is that the contents of this book will be of help to the newcomer to peer review, as well as acting as a refresher and useful reference for those with experience but who may have gaps in their knowledge or want to review their current practices. All the practical aspects of peer review are covered: from how to set up and run an efficient peer-review system to dealing with unusual and sensitive situations, from manuscript submission to final decision. Scientific review and publication can get caught up in political, ethical or moral questions. I hope the book will provide help to editors and editorial office staff to make things more straightforward and reduce the impact such issues might have on peer review and decisions on whether or not to publish.

I wanted to avoid swamping readers with references, especially as most editors and editorial office staff are very short of time, so only those that are useful or important are given. Two books have been published which will be of interest to readers wanting to find out more about specific aspects of peer review and the research that has been done and is going on. In her book on editorial peer review, Ann Weller reports the results of a systematic review of published studies on the editorial peer-review process, covering all English language studies published between 1945 and 1997 (she was not able to locate any studies published before 1945).[15] The book on peer review edited by Fiona Godlee and Tom Jefferson goes into many aspects of peer review in the health sciences and is a great source of information.[16] It is also very readable. There have been five International Congresses held on peer review since 1989, where research, rather than opinion, relevant to peer review has been presented. The Congresses were initiated by the *Journal of the American Medical Association* (*JAMA*) following an article by Bailar and Patterson in 1985,[17] in an attempt to bring the rigours of scientific enquiry to peer review. Papers presented at the first four Congresses appeared in *JAMA*.[18–21] Summaries of the presentations given at the latest Congress, held in 2005, can be found on the Congress website.[22] Papers based on the presentations will be published in a number of places.

Chapter 2 starts with the basics – it describes the peer-review process and how to go about setting up a peer-review system from scratch, or how to improve an existing one. It gives some thought to the people involved as well as to the systems and procedures that are needed. The third chapter deals with the first stage of the peer-review process, a pre-review stage really, but crucial to achieving a successful and thorough review – manuscript submission, and the checks and evaluations that need to be carried out to ensure manuscripts are complete and suitable for a journal. If they are and they make it past the initial assessment, they will go into the full review process. This is dealt with in Chapter 4, which covers the whole process: identifying, selecting and contacting reviewers; sending them manuscripts and all other necessary material; monitoring the review process and chasing up reviewers; receiving and checking reviews. This chapter describes the checks that need to be made at each stage and the sorts of problems, or unusual situations, that can arise and how to deal with them. Answering enquiries from authors (and others) is also covered, as this is not always as simple as it seems and there are pitfalls to be avoided. In Chapter 5 we move on to the decision-making step. The organizational structure for this will vary from journal to journal, and will depend partly on journal size and complexity and partly on practical considerations. The various possibilities are discussed, along with the range of editorial decisions that can be made and the factors to take into account when making decisions, including dealing with dual-use research. Communicating decisions to authors is covered and there is consideration of revisions, resubmissions and the final acceptance stage, along with rebuttals and appeals.

Good practice in peer review is system and business-model independent, so the guidelines given throughout this book apply to both paper-based and online systems, and to both subscription and author-side-payment business models. Special considerations that are relevant to either paper or online are given whenever appropriate. Online submission and review is an important and relatively new area. Moving to online working and making a successful transition are covered in Chapter 6. This includes information on how to go about choosing an online system, how to prepare for the move to online working and how to implement a new system. It also describes what journals can expect after the move and the problems that may be encountered, with suggestions on how to deal with them.

Peer review could not survive without reviewers – they are truly a precious resource, and Chapter 7 gives guidance on how they should be treated and offers some suggestions on ways to compensate them for the time and effort they give to journals. Authors, reviewers and editors all have obligations and responsibilities, and ethical standards to which they should adhere. These are described in Chapter 8, along with conflicts of interest and certain moral dilemmas editors may find themselves facing. Chapter 9 covers the various forms of misconduct in scientific research and publishing, many of which, unfortunately, seem to be on the increase. It includes advice on how to handle cases of alleged or suspected misconduct, and on where editors and journals can turn for help. Measures that need to be taken to correct the literature are also described.

I've drawn up a list of 14 basic principles for peer review and called these 'the Golden Rules'. As well as being numbered and highlighted in the text (the first Golden Rule has already appeared, on page 3 of this chapter), they are listed in Appendix I. This appendix also contains the Peer-Review Good Practice Checklist. Here, important information from the book is summarized into Key Points and grouped under various headings. There are three more appendices: examples of various checklists, forms, guidance and editorial letters are given in Appendix II; a list and description of websites of relevance or interest appears in Appendix III; a brief description of alternative models of peer review is provided in Appendix IV, along with details of where to go to find out more about them. Readers are also alerted throughout the book to things that may be problematic or where they should be cautious; these are labelled 'Beware!' and appear in boxes.

As already mentioned, peer review can be a very powerful tool. It is hoped that the guidelines in this book will help editors and others achieve the highest standards of reviewing practice, to the benefit of both their own journals and scholarly publishing in general.

References

1 Kronick, D. A. (1990). Peer review in 18th-century scientific journalism. *JAMA*, **263**, 1321–1322.
2 Burnham, J. C. (1990). The evolution of editorial peer review. *JAMA*, **263**, 1323–1329.
3 International Committee of Medical Journal Editors. Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication. www.icmje.org (updated February 2006; accessed 25 May 2006).
4 Wager, E. and Jefferson, T. (2001). Shortcomings of peer review in biomedical journals. *Learned Publishing*, **14**, 257–263.
5 Smith, R. (2006). Peer review: a flawed process at the heart of science and journals. *Journal of the Royal Society of Medicine*, **99**, 178–182.
6 Jefferson, T. O., Alderson, P., Davidoff, F. and Wager, E. (2003). Editorial peer-review for improving the quality of reports of biomedical studies. *The Cochrane Database of Methodology Reviews* 2001, Issue 3. Art. No.: MR000016. DOI: 10.1002/14651858.MR000016.
7 Laine, C. and Mulrow, C. (2003). Peer review: Integral to science and indispensable to *Annals*. *Annals of Internal Medicine*, **139**, 1038–1040.
8 Key Perspectives Ltd. (1999). What Authors Want: The ALPSP research study on the motivations and concerns of contributors to learned journals. ALPSP. www.alpsp.org/publications/pub1.htm.
9 ALPSP/EASE. (2000). Current Practice in Peer Review: results of a survey conducted during Oct/Nov 2000. www.alpsp.org/publications/peerev.pdf.
10 Key Perspectives Ltd. (2002). Authors and Electronic Publishing: The ALPSP research study on authors' and readers' views of electronic research communication. ALPSP. www.alpsp.org/publications/pub5.htm.
11 Key Perspectives Ltd. (2004). JISC/OSI Journal Authors Survey Report. www.jisc.ac.uk/uploaded_documents/JISCOAreport1.pdf.
12 Rowlands, I. and Nicholas, D. (2005). New Journal Publishing Models: An international survey of senior researchers. CIBER. www.ucl.ac.uk/ciber/ciber_2005_survey_final.pdf (for a summary article see Rowlands, I. and Nicholas, D. (2006). The changing scholarly communication landscape: an international survey of senior researchers. *Learned Publishing*, **19**, 31–55).
13 Gannon, F. (2001). The essential role of peer review. *EMBO Reports*, **2**, 743.
14 Lock, S. (1985). A Difficult Balance. Editorial peer review in medicine. ISI Press, Philadelphia.
15 Weller, A. C. (2001). Editorial Peer Review: Its Strengths and Weaknesses. ASIST Monograph Series, Information Today, Inc. Medford, New Jersey.
16 Godlee, F. and Jefferson, T. (Eds) (2003). Peer Review in Health Sciences (second edition). BMJ Books, London.
17 Bailar, J. C. and Patterson, K. (1985). Journal peer review: the need for a research agenda. *New England Journal of Medicine*, **312**, 654–657.
18 Guarding the guardians: research on editorial peer review. Selected proceedings from the First International Congress on Peer Review in Biomedical Publication. May 10–12, 1989, Chicago, Illinois. (1990). *JAMA*, **263**, 1317–1441.

19 The Second International Congress on Peer Review in Biomedical Publication. September 9–11, 1993, Chicago, Illinois. Selected proceedings. (1994). *JAMA*, **272**, 91–173.
20 The Third International Congress on Peer Review in Biomedical Publication. September 18–20, 1997, Prague, Czech Republic. Selected proceedings. (1998). *JAMA*, **280**, 213–302.
21 The Fourth International Congress on Peer Review in Biomedical Publication. September 14–16, 2001, Barcelona, Spain. Selected proceedings. (2002). *JAMA*, **287**, 2759–2871.
22 The Fifth International Congress on Peer Review and Biomedical Publication. September 16–18, 2005, Chicago, Illinois. Program and abstracts. (2005). www.ama-assn.org/public/peer/program.html.

2 The peer-review process – how to get going

The basic process

Whatever the size of a journal and whatever the infrastructure of its organization, the same basic steps need to be carried out in the peer-review process. Authors submit manuscripts. These need to be logged, checked to ensure they are complete and prepared according to the journal's instructions, and their receipt acknowledged. Each manuscript then needs to be read by an editor, individually or in consultation with other editors (members of the editorial board or equivalent), to assess its suitability for the journal according to guidelines determined by editorial policy. A manuscript might then be rejected without external review for one or more reasons and the author notified. If it is not rejected, it is sent out for review to external reviewers (which is a requirement of peer review; see Golden Rule 2), the number of reviewers being determined by editorial policy, most likely two in normal circumstances (see Chapter 4, page 52). Review by internal staff editors may complement this. The reviewers return their recommendations and reports to be assessed by the editor, who then makes a decision, either on his or her own or in consultation with other editors, on whether to reject the manuscript (either with or without encouragement to resubmit), to accept it pending satisfactory revision, or to accept it as it stands. For manuscripts accepted pending revision, the authors will submit a revised manuscript that will go through all or some of the above stages. Once a manuscript has been revised satisfactorily (more than one revision may or may not be allowed, again according to individual editorial policy) it can be accepted and put into the production process to be prepared for publication. This scheme at its most basic is shown in Figure 2.1. Despite the apparent simplicity of this process, the actual steps may be quite elaborate and involve a number of people and alternative procedures. Complications can arise that require problem solving or troubleshooting, and may lead to unusual steps being taken or different procedures being followed.

The basic scheme described above is system and business-model independent. However, it is very important that if a journal offers authors the option of paying to make their articles available for free access on publication, the financial aspects, including whether or not an author intends to take up the option to pay, are dealt

Golden Rule 2

Peer review must involve assessment by external reviewers.

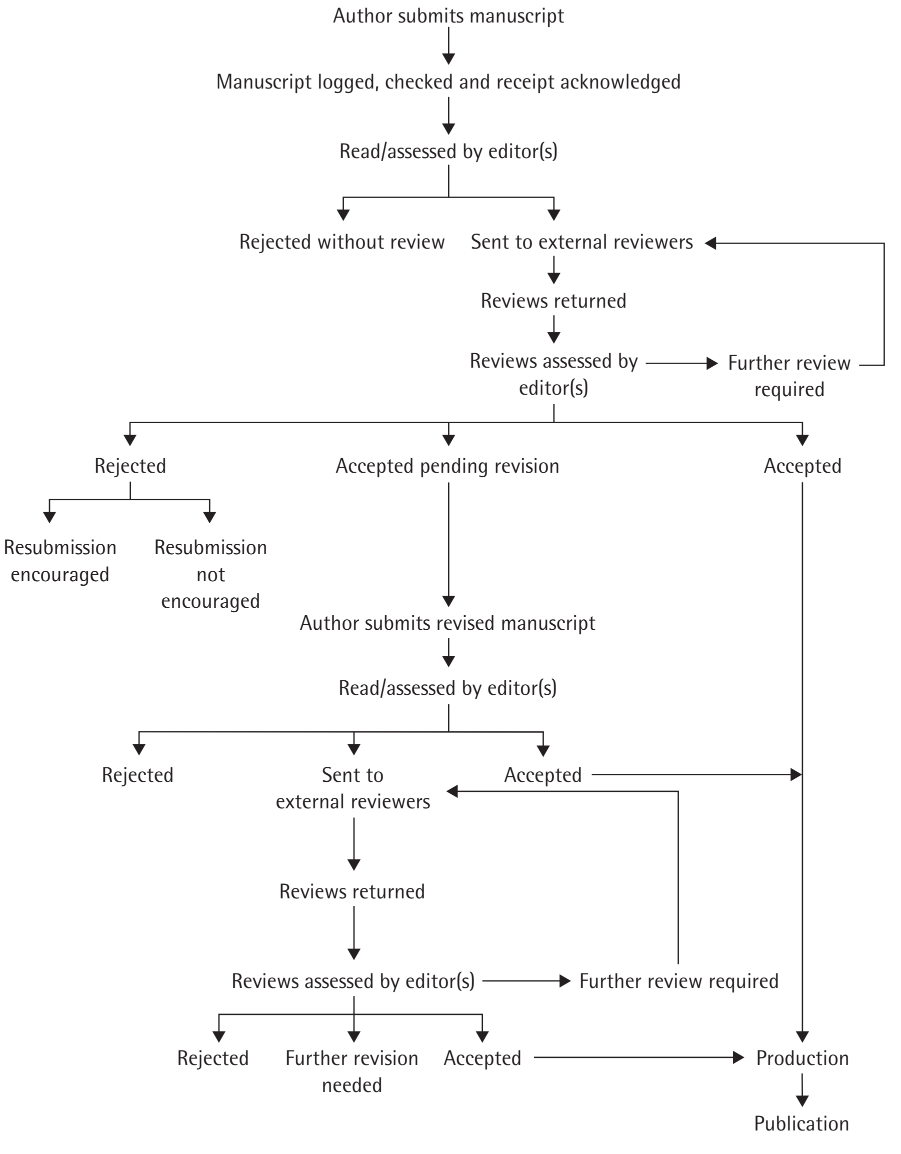

Figure 2.1 The basic peer-review process.

with after the peer-review process has been completed, or these are kept concealed from the peer-review process, so as to avoid any potential bias.

The people involved in running the peer-review process

Who does what will vary from journal to journal. In large journals with high numbers of submissions there will be a team of people involved, some of whom may have dedicated roles, for example the receiving and checking of manuscripts; sending out manuscripts to reviewers, then chasing them for their reviews and co-ordinating their return; or communicating decisions to authors. There may be a team of in-house staff editors who assess manuscripts on receipt. In small journals, all these things, and much more, will probably be done by a single individual. The titles of the people doing the various jobs may also vary from journal to journal and there is a lack of consistency in this. The title 'editor' (with the editor-in-chief or chief editor being the main editor – frequently written as 'Editor') usually refers to an academic editor, or equivalent, who will have a high level of editorial input and involvement in decision making (in this book, the term editor is used in this context). Deputy editor and assistant editor may denote someone similar but with a lower level of responsibility, or these titles may describe someone with no decision-making powers, basically someone who is running the day-to-day mechanics of the peer-review process. In some journals, someone called an editorial assistant may have greater responsibility than an 'editor' of some kind elsewhere. Titles are important, both to the individuals for their own personal satisfaction and self-esteem, and to outsiders so that it helps them understand a person's role. So when starting a new journal or setting up a new editorial office, it's worth putting some thought into what people are going to be called. If you're inheriting a journal, it's also a good idea to take a look at everyone's titles to see if they're appropriate. If you're overseeing a journal that's growing rapidly, consider carefully the titles of new people you appoint, and take the opportunity to assess those that already exist to see if they need to be changed, perhaps to reflect specific areas of responsibility or seniority that have arisen as a result of the journal's growth. Box 2.1 gives some of the common job titles found in journal editorial work. Throughout this book I will use certain titles to denote certain roles (as defined in Box 2.2) but readers should be aware that these roles may be carried out in different journals by people with different titles.

Office organization

How the peer-review process is administered will depend on whether there is one centralized editorial office managed by an editor-in-chief, managing editor or equivalent, with subject or handling editors in different geographical locations, or two or more offices in different locations, possibly dealing with submissions from different geographical areas. In the former case, all information goes through one office, which co-ordinates all activity and is aware of the status of everything that is going on and knows what everyone is doing – it is the nerve centre of the journal (or journals if the office is responsible for more than one journal, for example a group of journals belonging to a society or published by a single publisher). In the latter case, the various offices need to establish excellent communication channels and each needs to be aware of what the others are doing in order to maintain harmony and consistency.

Box 2.1 Some common titles of people involved in journal editorial work

Editor-in-chief
Chief editor
Executive editor
Deputy editor
Senior editor
Co-editor
Associate editor
Regional editor
Section or subject editor
Receiving editor
Handling editor
Specialist editor
Communicating editor
Advisory editor
Editor
Managing editor
Editorial manager
Assistant editor
Manuscript submissions manager
Manuscript submissions co-ordinator
Manuscript manager
Manuscript co-ordinator
Editorial co-ordinator
Editorial administrator
Editorial assistant

With the arrival and increased use of web-based online manuscript submission and review systems (see Chapter 6), physical location has become much less important than it is for paper-based systems. Since all information on manuscripts, reviewers, correspondence, and so on, can be accessed via a computer with an Internet connection, editorial work can be carried out just as efficiently and effectively if individuals are thousands of miles apart as if they are in adjacent offices. Sometimes even more so – many editorial staff will have experienced the elusive local editor who is almost impossible to get hold of, or with whom any communication is difficult because they still don't use email directly and have a secretary to field calls between them and the outside world.

In any journal office, even if certain individuals have specific responsibilities, it's important for the other members of the office to know what the jobs of their colleagues involve, and to be able to provide cover when required. They need to be kept up to date with new developments and refinements to systems and procedures. Whatever the office structure, it is therefore an excellent idea, and good office practice, to develop an office manual that details all procedures and gives step-by-step instructions for each of these. Overall responsibility for the manual is best delegated to one person, but each section should be updated regularly by the person responsible for the procedures in that section. Such a manual is invaluable when cover needs to be provided for someone, to act as a refresher for those processes that are not routine, and as a guidance reference source for new staff. If there is more than one office carrying out the same procedures, it is crucial that the staff liaise to make sure these are being carried out consistently and to the same standards. If there is one main administrative office with handling editors in different locations, either

Box 2.2 Titles and roles of people involved in journal editorial work as used in this book

Title	Role
Editor-in-chief	The main or head editor. Has highest level of editorial input and decision-making powers, directs policy decisions and is responsible for the quality and content of the journal and its future direction and development.
Editor	Has high level of editorial input, is involved in formulating editorial policy with the editor-in-chief and other editors, has decision-making powers, and is accountable to the editor-in-chief.
Handling editor Subject editor Specialist editor	Various terms used to denote 'editor' in the manuscript handling and review process, where the editor is responsible for a sub-group of manuscripts determined by subject matter, geographical area of submission, or some other criterion.
Managing editor	Responsible for managing the editorial office and staff, overseeing the peer-review process, and ensuring all aspects of editorial activity run smoothly. Liaises with all parties involved in manuscript submission, handling, review, publication and promotion (authors, editorial office staff, editors, editor-in-chief, reviewers, readers and all departments at the publishers, for example production, marketing, subscriptions, rights). May or may not have decision-making powers. Oversees implementation and enforcement of editorial policy and journal development.
Editorial assistant	Assists the editor-in-chief, managing editor and editors in all areas of editorial activity from manuscript submission to publication. Interacts with authors and reviewers, providing information and assistance as required. Does not have decision-making powers. May have dedicated role within the editorial office, for example dealing with new submissions or sending manuscripts out for review.
Reviewer	Receives manuscripts for review from the journal or editor. Submits an assessment and opinion based on the quality and presentation of the work and its suitability for the journal. Provides a report for the authors and advises the journal or editor of any problems or special considerations.
Corresponding author	The co-author on a manuscript with whom a journal communicates on all matters related to that manuscript. This author is responsible for ensuring that all author guidelines are followed and that all the co-authors have approved the submission of the manuscript and have agreed to abide by all the journal's policy requirements. This author is also responsible for resolving all inter-author disputes and for dealing with all communications about the published paper.

Golden Rule 3

The submission of a manuscript and all the details associated with it must be kept confidential by the editorial office and all the people involved in the peer-review process.

Golden Rule 4

The identity of the reviewers must be kept confidential unless open peer review is used.

with or without assistants, then the main office should provide the editors and their assistants with the guidelines and operating instructions that are relevant to them, and they should be kept up to date on changes and new developments as these arise.

In each office where editorial work is being carried out, confidentiality and security issues need to be considered. It should be remembered that the *actual submission* of manuscripts is confidential, as well as the content and any information on the review of that manuscript (see Golden Rule 3). The identity of the reviewers must also be kept confidential unless open peer review is used (Golden Rule 4; and see Chapter 4, page 42). Some very simple steps can be taken to help ensure confidentiality. The location of desks needs to be thought about and how easy it would be for people passing or stopping to talk to see what is being done in any detail. Desks should be positioned to avoid, or minimize, this happening. It may be difficult to do this if editorial work is being carried out in an open-plan environment or from a corner in someone else's office, but things can still be done, as described in Box 2.3.

Choice of system and procedures

If you're setting up the peer-review system for a journal from scratch, before you do anything you need to think very carefully about how you want to work and what will be right and appropriate for your journal. Don't launch in regardless in desperation and do things in an ad hoc way. A period of thought and planning will pay off in the long run. As well as having your own ideas, it can be helpful to find out how other journals work – perhaps ones you admire or with whose editorial offices you've been impressed and had good experiences as an author, reviewer or editor. Your publisher, if you have one outside of your own organization, will also be able to advise you on this as they will have journals on their lists whose offices run efficient and much-admired review systems – ask for contact details and an introduction. Visits to other offices can be very useful, not only to find out what works well and results in a well-run office and smooth peer-review process, but also to see what to avoid doing.

Once you've decided on the structure you'd like to put in place, you might want to get feedback from your editors and other potential users. But beware, you might get

Box 2.3 Things that can help maintain confidentiality in an office environment

- Have a screen saver that can be brought up immediately if necessary, or get into the habit of minimizing the screen as a first reaction when someone outside of the editorial team stops by your desk.
- Do the same if you have to leave your desk or office. Log off completely if you're going to be away out of sight of your desk or for any significant time.
- If someone else shares your computer or asks to use it, close down all editorially related programs and files. These should be password controlled so others cannot access them.
- Don't leave paper files open or manuscripts on your desk when you're not there.
- If someone local has submitted a manuscript, take care to keep it and any information on its review well out of sight and not easily accessible.
- If an on-site editor has submitted a manuscript, don't file it where it can be easily come across when the editor may be looking for other manuscripts. Hide it!
- Think carefully about what you say on the phone. If you lack the privacy needed to maintain confidentiality, try to arrange use of a phone somewhere more private for those times you need to make such calls.
- Think carefully also about any confidential conversations you have. Close the door if you're in your office. Avoid such conversations in public places, especially at conferences where many of those attending may have direct knowledge of, or interest in, the things you're talking about.
- If you're in a shared office, don't leave or store editorial material on surfaces or shelves. Keep them in a filing cabinet or cupboard that you can lock when you're out of the office.

completely opposing opinions, and there will always be those whose idiosyncratic requests it would be unsuitable to adopt. There may, however, be certain common elements that will reinforce your own decisions, and also some good ideas may be suggested of which you hadn't thought.

Some readers may be wondering what 'large' and 'small' are in journal terms. There is no absolute definition, and workload may depend not only on the number of manuscripts a journal has to deal with, but also on the subject areas covered by the journal and on other factors such as whether controversial or sensitive issues are involved, whether the research areas are fast moving and competitive, or whether a journal has a high profile and is a leader in its field – all these can bring problems and increase workload per manuscript and demands on time. Decision making may take longer and require the involvement of a number of people because publication may be controversial and have an impact outside of the community served by the journal, for example if public interest is high or publication may affect government economic or health policy. As a general point, systems and procedures often keep working smoothly until a certain number of submissions is reached. Then they can, quite suddenly and quickly, become inadequate or even fail. For this reason, it is crucial that all systems and procedures are regularly evaluated and staffing levels assessed to make sure they are coping well and are not about to go into overload as they approach a critical mass. Where that point is will vary from journal to journal, and will depend on the existing structure and procedures as well as on the numbers of manuscripts and individuals involved.

Record keeping

A key component of any peer-review system is its records, which need to be comprehensive, accurate and up to date. All editors and editorial office staff should make themselves aware of the current data protection and storage requirements of the country in which they are working and ensure compliance with these. In any peer-review system, various records need to be kept and a number of things need to be tracked.

Beware!

Make sure that all activity in your journal complies with the current legal data protection and storage requirements of your country of location.

Manuscripts

Manuscripts need to be tracked from the time of submission until final decision to accept or reject, and their status must be readily and quickly obtainable at any time. A system needs to be developed for regular checking of manuscripts submitted and 'active' in any way, i.e. under preliminary editorial assessment, out for external review, awaiting decision or action, being revised, or subject to a revision or resubmission deadline. No manuscript should ever get lost, be forgotten, or be unduly delayed at any stage because of oversight. Procedures for reminding people and moving manuscripts along at every stage need to be introduced. There may be need to refer back to manuscript records after editorial review has been completed, for example to answer enquiries during production, to sort out post-publication matters, and with respect to future related submissions or resubmissions. So, information needs to be kept for some time (again, subject to legal data protection and storage requirements), and policy on this needs to be developed. Information about pre-submission enquiries (see Chapter 3, page 26) and correspondence and advice from those should ideally be added to a manuscript's records.

Reviewers

A variety of names are used for the people to whom a manuscript is sent for assessment or review, the most common being reviewer, referee, assessor or advisor. It is