

Green, Blue, Yellow, White & Gold

A brief guide to the open access rainbow.

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Part One -- The Basic Picture

In looking at the options that are available for the open access dissemination of research outputs, authors are faced with various colour terms. These have been developed over time to deal with different options and models within the open access world, but can be quite confusing when first encountered. This document briefly summarises the colour terminology of open access as it affects authors.

There are two main routes that an author can follow to make their research articles available as open access. These two routes are open access *journals* and open access *repositories*.

Open access journals

Open access journals are available to their readers free of charge. These journals are mainly electronic journals and material held within them is openly accessible across the internet. The journals are financed by payments being made for the article to be published, not by payment being made to access the article through subscriptions. This system is sometimes referred to by the misleading term "*author-pays publishing*". In fact, it is very rare for the author to pay the publication fee and this is generally paid from a research grant or similar, as part of the cost of doing research. This is called the "gold" route to open access. Journals that are published in this way are sometimes called "gold journals" and published by "gold publishers".

Although there is much debate about open access publishing and it may seem a revolutionary change, as a journal system of publication this is very similar to what has always existed. The significant difference is just the business model that is used to recover the costs of publication.

Open access repositories

The other route to open access takes a very different approach. This is to use online repositories to store digital duplicates of published research outputs and make these "eprints" freely and openly available across the internet. Note that this is not a replacement for traditional publication, or for open access publication, but exists alongside publication as a supplementary form of dissemination.

As part of the traditional publication process, publishers are often asked for the complete transfer of copyright from the author to the publisher. Although it is strictly unnecessary to completely transfer copyright, this has grown to be a common business practice. This can mean that unless various rights are granted back to the authors, the authors themselves are left with no rights in the article and they are unable to photocopy it, use it in their teaching, or put it on the internet.

The rights that a publisher gives to its authors are crucial to the ability of the authors to archive their work online. This is where the other colour categories are applied to describe the different classes of rights which the author is assigned or retains.

Those publishers which refuse to grant their authors any rights to archive their work online are termed "white" publishers. By extension, the journals they produce are termed "white journals".

Some publishers have strict rules as to whether they will publish any material which has been posted on the internet in a draft form -- perhaps as a working paper. Other publishers take a different view and will publish papers that have been archived online in their draft state. If publishers allow their authors to archive their preprints -- draft, uncorrected papers -- but not their postprints, then they are termed "yellow" publishers.

Once an article has gone through the peer-review process and has been amended by its author in line with peer review comments and other editorial changes, then it has reached the stage at which it is accepted for publication by the journal publisher. As the author will make no more changes to the article, this can be seen as the "author's final version" and its content should be the same as that published in the journal.

Once it has been published then it will also exist in the form that appears in the journal -- with the particular typeface, layout, header and footer etc that is used in the journal. This form is typically a PDF produced by the publisher. Both of these forms of the article -- the author's final version and the publisher's PDF -- are termed "postprints".

Some publishers will not allow preprints to be archived but will allow postprints to be archived; either the author's final version, or the publisher's PDF version of the article. Both of these are the same in terms of substantive content. In such cases they are termed a "blue" publisher.

Where a publisher allows both the preprint and the postprint to be archived, they are termed a "green" publisher, producing, by extension, green journals. Note that many publishers will allow the author's final version to be archived but not the publisher's PDF. Such publishers are still "green" as they allow a postprint to be archived which has the same substantive content as the published version.

Why have colours?

The colours are simply a way of trying to describe the often complex, sometimes confusing and sometimes even contradictory terms and arrangements that are found in this field. Terminology, business practice and attitudes are rarely consistent between publishers, and can vary between journals produced by the same publisher.

The original colour code was established by the JISC-funded RoMEO project in 2003 and has been continued by the RoMEO service (www.sherpa.ac.uk/romeo) as a way of presenting a standardised approach to the different rights, permissions, and restrictions that are imposed by different publishers. Precise and specific details of each publisher's permissions can be found within the publishing contracts which each author signs. What the RoMEO colours are for is to summarise these conditions and give a general picture of the rights that are retained by authors.

Therefore, in summary:

Publishing colour

Gold	open access publishing
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Archiving colours

Green	can archive pre-print and post-print
Blue	can archive post-print (ie final draft post-refereeing)
Yellow	can archive pre-print (ie pre-refereeing)
White	archiving not formally supported

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Part Two -- Oddities & Complications

Gold is Green?

Gold and Green, etc, apply to two different models of Open Access and so overlap, rather than one being a development of the other. Open access repositories are a supplementary form of communication that exists alongside the traditional and open access publishing models. Therefore the green, blue, yellow and white colour categories are independent of the business model that a particular journal may follow. Material published in an open access journal can be freely re-used by its author and archived, so all "gold" publishers are actually "green" for the purposes of archiving!

Open Access Options

An increasing number of traditional publishers have started to offer so-called "open access" options as part of their publishing service. Typically this involves paying an additional fee (even though the publishing cost of the journal is already covered by subscriptions), and in return the author receives the right to archive the material online. This additional fee can be quite substantial -- typically around \$3000.

Sometimes these options can place restrictions on the use that can be made of the article and where it can be archived -- for example, only archived in a particular subject-based repository. These options typically run on top of the existing business model as an addition and not a replacement for a subscription-based service. There is active debate in the community as to whether these options truly represent a "gold" option or not.

Embargoes

During 2006 a number of major publishers introduced embargoes into their archiving rights, restricting the ability of authors to put their material on the internet for 6, 12, 18, 24 months or even longer. These embargoes represented a change to publishers' previous attitudes and are generally seen as a reaction against publishers' uncertainty as to what possible effect archiving might have on their business.

Since an embargo effectively removes the right of an author to archive their work, even if temporarily, the publisher cannot be categorised as green or blue or yellow. The RoMEO service notes any rights that the author retains to archive their work after an embargo period but does not assign a colour.

Funders policies requiring archiving

During 2006 a number of major research funders introduced policies which require their grant recipients to archive their work or otherwise make it available through open access. This introduces another dimension to the categorisation of publishers and journals, because of the particular rights that publishers assign to their authors.

For example, a publisher can be "green" and allow an author to archive their postprint and yet not comply with the funder's particular requirement for the author to archive their postprint. At first sight this seems contradictory. However, it is often the case that a publisher will allow an author to archive their work in their institution's repository but they will not allow the author to archive their work in a third party repository. A number of funders' policies actually require that the author archives their work in a particular subject-based repository, which is run by an independent organisation -- a third party repository.

In a similar way a publisher can be "white" - not allowing archiving at all -- and yet comply with a funder's policy on archiving. This can be because the individual funder has negotiated with the publisher to allow an exception for their funded authors. Therefore while the publisher is generally "white", an author funded by a particular body may be allowed to archive their work.

The RoMEO service attempts to make sense of this situation by categorising publishers according to colour and then also giving a tick or cross against each research funder's policy according to whether the publisher is compliant.

Summary

The rights and permissions for open access archiving and publishing have increased in complexity over the last two years. The colour categorisation and the system of ticks and crosses in RoMEO is an attempt to summarise this complexity to allow authors a clearer picture of their rights and abilities to gain the benefit of open access dissemination for their research.

For further information on these issues or to search for journals or publishers details, then see the RoMEO service -- www.sherpa.ac.uk/romeo

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