
The SfN Wikipedia Neuroscience Initiative Content Contributor Guide

Contents:

1. About the SfN Wikipedia Neuroscience Initiative
2. Introduction to Wikipedia
3. How to Edit and Contribute Content on Wikipedia
4. Overview of the Wikipedia Neuroscience Page
5. Getting Started – Working Independently and Working with Facilitators
6. Resources for Science Writing

1. About the SfN Wikipedia Neuroscience Initiative

In pursuit of its mission to promote public education about neuroscience, the Society for Neuroscience has been looking at current sources of neuroscience-related information available through the Internet. One of the major sources of information used by the public for all varieties of subjects is Wikipedia, a collaborative global effort to create an online encyclopedia covering all knowledge areas in all major languages. The English-language version of Wikipedia ranks in the top ten among all Web sites rated by traffic. According to a report from the Pew Internet and American Life Project, more than one-third of online adults in the U.S. consult Wikipedia, and at the time of their survey (winter 2007), eight percent of online adults visited Wikipedia on an average day. Because Wikipedia has become such a significant source of information for the general public, SfN wants to take advantage of this reach as part of its public education activities.

As this initiative is kicking off in April 2009, the sections of Wikipedia dealing with neuroscience are of widely inconsistent quality. After reviewing the main Wikipedia Neuroscience page and each of the ten branches of neuroscience included there, SfN's Public Education and Communication Committee found many sections empty or incomplete, while others are inaccessible to a lay audience.

It is SfN's goal to try to improve the content on the Wikipedia Neuroscience pages by encouraging its members to become involved in contributing to the development and editing of these pages. This document provides some general information about how Wikipedia works as well as guidelines on how SfN members can get involved and start contributing new content.

For the most current information and other resources related to the SfN Wikipedia Neuroscience Initiative, please visit:

<http://www.sfn.org/Wikipedia>

2. Introduction to Wikipedia

What is a wiki?

A *wiki* is a collaborative website that allows anyone who accesses it to contribute or modify content. Wikis are primarily designed to be tools for collaboration and content management. Users can access wiki content just like any other web page, and then simply by clicking on an “edit” button, they can make changes to that content. Some wikis allow any user to change content, while others require users to register and receive authorization from an administrator.

The general philosophy behind most wiki sites is that it should be easy to correct mistakes rather than trying to prevent them. Thus, people are allowed to make edits and add new content without having it checked or approved by someone else. In this way, wikis have been able to encourage participation and the contribution of new content among broad groups of users.

Most content pages developed on a wiki site will have a “history” page where all previous versions of the content of that page are listed chronologically, indicating the author and the nature of the revision. If someone comes in and makes edits that are inappropriate or which others in the community do not agree with, someone else can very easily revert to a previous iteration of the page. The wiki software provides a standardized, though somewhat flexible structure for organizing content in any topical area.

How Wikipedia works

Wikipedia has become the most well-known and popularly-used example of a wiki. Started in 2001, Wikipedia is a multilingual, Web-based, free-content encyclopedia project that is supported by over 75,000 volunteer contributors. According to the site, every day hundreds of thousands of these volunteers make tens of thousands of edits and create thousands of new articles.

A typical topic entry on Wikipedia will include the following general structure:

- A lead section, ranging anywhere from 1-4 paragraphs, which provides a brief overview/definition of the topic and summarizes the material that follows in the rest of the article
- Table of Contents which outlines the subtopics
- The Content – laid out according to the subtopics outlined in the table of contents
- Notes and References – giving citations for statements made in the main body of the article
- Related links

The structure of each page is flexible, however, and many pages will include different components. Depending on how large the overall topic is, the text included for each of the subtopics may all be included on one page or the authors may choose instead to link each subtopic to its own separate main topic page.

As with a traditional encyclopedia, the content in Wikipedia is generally meant to be written for the lay reader, but it becomes denser as the reader delves deeper into the branches and sub-pages. The Wikipedia software allows content contributors to create their own structured outlines, thus providing the flexibility to create hierarchical menus and pages.

Wikipedia has an elaborate system for maintaining and evaluating its content. Wikipedia prefers, though does not require, that content contributors register with the site. Since contributions are made on a voluntary basis, the Wikipedia community has developed a system of guidelines and policies for contributing and reviewing content. There is, however, no editor-in-chief. The community of contributors polices itself. In situations where there are problems with malicious contributors (referred to as “vandals”), Wikipedia administrators (experienced contributors) are available to step in and block users. Wikipedia also has an arbitration committee to deal with exceptional cases (e.g., as a last-resort source of dispute resolution).

3. How to Edit and Contribute Content on Wikipedia

Wikipedia itself provides a very rich set of content and resources that will help you learn how to work with the site. This section of the guide will simply walk you through some of the key steps to getting started with Wikipedia, highlighting some of the most useful resources along the way.

Registering on Wikipedia

The first step is to create an account on Wikipedia. Registering is easy (only requiring you to provide a login name, password, and valid e-mail address). You can technically edit content on Wikipedia without registering though your IP address will still be logged as the author of any content you contribute and everyone who contributes content is generally encouraged to register.

To create a new account, go to the following page:

<http://en.wikipedia.org/w/index.php?title=Special:UserLogin&type=signup>

Tutorials and Guides

Wikipedia provides many resources to help first-time and inexperienced contributors get started. You will need to become familiar with (1) the mechanics of editing and adding content on the site, (2) Wikipedia content policies and guidelines, and (3) guidelines and best practices for developing high-quality Wikipedia content.

The best place to start is with their **quick tutorial**. The tutorial takes you through the basics of:

- the Wikipedia page structure
- editing
- formatting
- creating links and citations
- engaging in discussions with other users about plans for developing content
- editorial policies

<http://en.wikipedia.org/wiki/Wikipedia:Tutorial>

Editing content on Wikipedia is relatively straightforward, but not exactly the same as editing text in a word processor. For certain formatting features (e.g., bold, indent), there are a few standards you need to learn. In addition to the Tutorial, which walks you through many of these standards, the following two resources provide useful reference guides for editing and formatting.

- **Overview of editing** pages on Wikipedia
http://en.wikipedia.org/wiki/Wikipedia:How_to_edit_a_page
- Editing/formatting **Cheatsheet**
<http://en.wikipedia.org/wiki/Wikipedia:Cheatsheet>

For practice, Wikipedia provides a “**Sandbox**” where you can test different page editing and formatting features.

<http://en.wikipedia.org/wiki/Wikipedia:Sandbox>

Content Guidelines

As you begin to work on developing content for Wikipedia, you should keep Wikipedia’s three fundamental content guidelines in mind. The first of these is **neutral point of view**, which stipulates that Wikipedia articles should be written representing as fairly as possible all significant viewpoints that have been published by reliable sources. The second cornerstone principle is **verifiability**, which requires that quotations and challengeable content should be attributed to a published source using an inline citation. Finally, Wikipedia has a **no original research** policy against publishing original research and thought/opinion.

- **Citations** should be included to ensure that the content can be verified as well as to help readers find additional information about a topic. Guidelines for when and how to cite sources can be found here:
http://en.wikipedia.org/wiki/Wikipedia:Citing_sources
- Wikipedia has its own **Manual of Style**, which covers grammar, punctuation, and other general principles to follow when writing content for Wikipedia.
http://en.wikipedia.org/wiki/Wikipedia:Manual_of_Style

Before you begin writing and editing content, you will also want to read two short articles that talk about the **development of articles** on Wikipedia.

- The first of these talks about how Wikipedia articles typically evolve and provides specific advice for how you can help to improve and develop an article.
http://en.wikipedia.org/wiki/Wikipedia:Article_development
- The second provides a list of criteria that Wikipedia editors use to identify the best examples of articles that users have developed. You should try to adhere to these guiding principles as you plan the structure of the articles you develop.
http://en.wikipedia.org/wiki/Wikipedia:What_is_a_featured_article

Wikipedia pages are very flexible in terms of format, but the introductory or “lead” section will usually be the section that is the most heavily scrutinized by other editors. For this reason, you may want to look at Wikipedia’s own guidelines from its Manual of Style:

http://en.wikipedia.org/wiki/Wikipedia:Lead_section

Wikipedia is full of resources and forums for support, so it should not be difficult to find answers to any additional questions that come up as you begin working. The following **help page** for new contributors can be a good place to start looking for answers.

http://en.wikipedia.org/wiki/Wikipedia:New_contributors%27_help_page

Create a bio

After you register, you can create a page about yourself, providing a sentence, a paragraph, or more about who you are. To do this, you can click on your login name in the upper right-hand side of the page. This takes you to a notice that your page does not yet exist and you can then click on a tab to create the page. Creating at least a brief bio will help SfN members working on this initiative to more easily identify and communicate with each other.

First Steps

In summary, here is a quick rundown of what you need to do to get started.

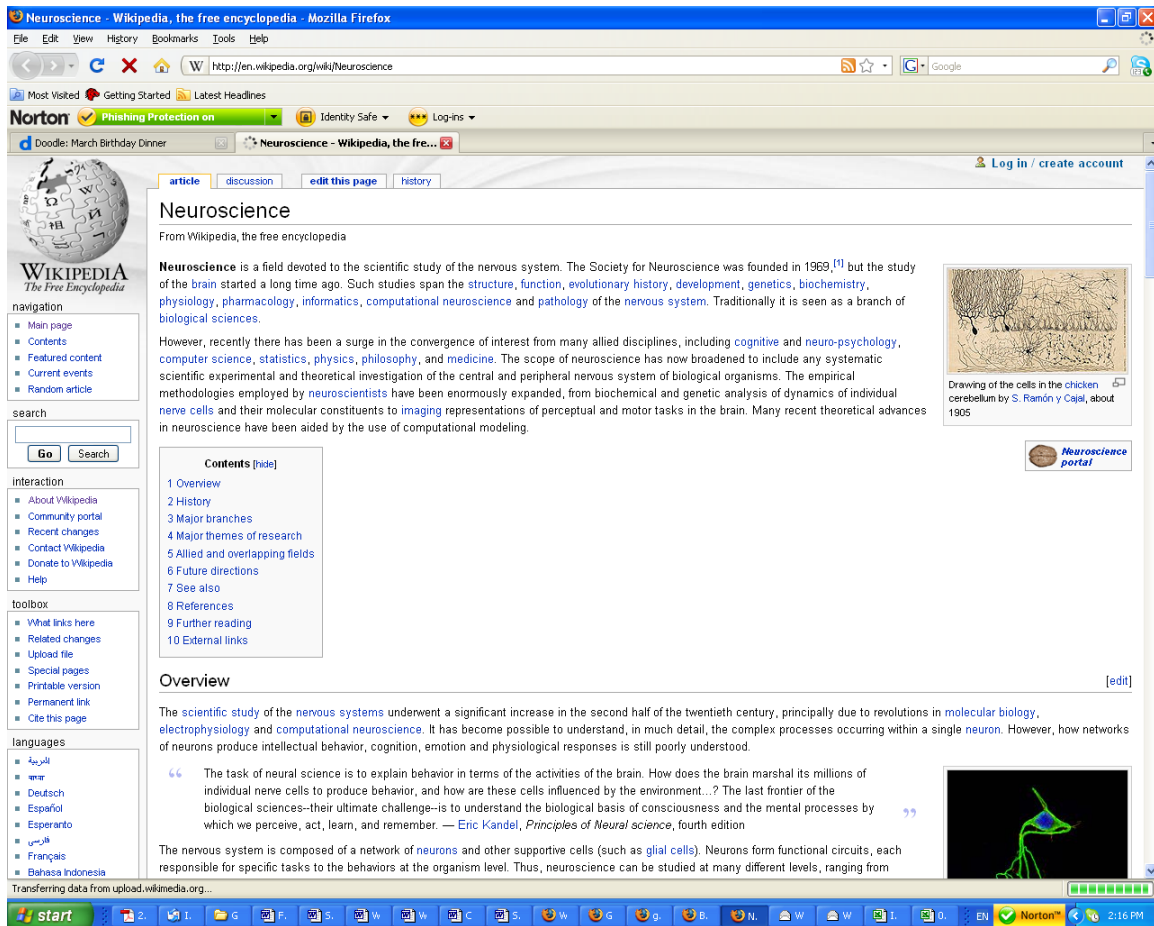
1. Register by creating a login ID on Wikipedia
2. Take the Wikipedia Tutorial
3. Practice editing pages in the Wikipedia Sandbox
4. Review the Wikipedia content policies and guidelines as well as the two articles on Wikipedia article development cited above
5. Create a short bio for yourself
6. Start contributing content (see section 5 below)

4. Overview of the Wikipedia Neuroscience Page

The first iteration of the Neuroscience page on Wikipedia (<http://en.wikipedia.org/wiki/Neuroscience>) appeared in September 2001 shortly after the initial launch of Wikipedia, and since that time there have been edits made approximately once each week on the main page. Edits are made by a wide range of contributors, many of whom are anonymous, identified only by the Internet (IP) address for the computer from which they are accessing the site. There also appears to be a significant number of undergraduate and graduate students contributing content and monitoring the editing activity that occurs on this site.

The main page is organized into the following content sections:

- **overview** (approximately one page)
- **history** (a cursory history going back to ancient Egypt)
- a table breaking down neuroscience into 10 **major branches** (e.g., behavioral, cognitive, molecular) as well as the major topic areas within each branch. Each branch and topic area links to its own page, which leads to its own new page, providing more in-depth information (overview, history, content articles, links, and references).
- a listing of **major themes of research** – most of which have links to their own separate pages
- a listing of **allied and overlapping fields** – with links to those pages
- **references and links** – including citations for content included on this page, a list of key textbooks and key resources (available in print and/or online)



The developers of the Wikipedia Neuroscience main page currently divide the field of neuroscience into ten major branches, outlined in the table below. There is no current standard format or structure for the content included under each of these branches, and some of them contain very little content. The ten major branches are listed on the Wikipedia Neuroscience page as a table, and each branch includes a list of “Major topics” and “Experimental and theoretical methods,” most of which are individually linked to separate Wikipedia pages as well. For the ten major branch categories, some of these currently include only a brief definition with links to related topics. Others link to more robust content including sections on history, research methods, and/or a more detailed description of the topic and various subtopics within that branch as well as relevant images and diagrams.

	Major Branches	Current level of content development on Wikipedia site	
1	(1) Molecular and (2) Cellular Neuroscience	(1) Weak, (2) Weak	(1) Molecular neuroscience currently links only to a definition and then a directory of links to related topics. (2) Cellular neuroscience links to the Wikipedia page for “Cell (biology)”

2	Behavioral Neuroscience	Medium	Links to the Wikipedia page for “Biological Psychology” (aka “Biopsychology, Psychobiology, or Behavioral Neuroscience”). Has a fairly robust structure with content on history, research methods, topic areas.
3	Systems Neuroscience	Weak	Includes only a definition with links to related topics.
4	Developmental Neuroscience	Strong (?)	Links to “Neural Development” page, which includes content on “Formation of the spinal cord,” “Formation of brain parts,” “Patterning of the nervous system,” “Neuronal migration,” “Support and selection of neurons,” and “Neural development in the adult nervous system.”
5	Cognitive Neuroscience	Medium	Includes brief definition as well as content on “Scientific Roots,” “Foundation of the Science,” and links to related topics and methods.
6	Theoretical and Computational Neuroscience	Medium	Links to page for Computational Neuroscience which includes a general definition and brief description of seven major related topics (e.g., single-neuron modeling and sensory processing)
7	Diseases and Aging	Weak	Does not link to a separate page. Only the major topics and methods link to separate pages.
8	Neural Engineering	Weak	Includes short definition and a very brief overview and history, with a few (4) links to related topics.
9	Neurolinguistics	Medium/ Strong ?	Includes a description of the topic, a history, and a more detailed description of the topic and various subtopics (brain imaging and experimental design) as well as relevant images and diagrams.
10	Neuroscience Studies	Weak	Does not link to a separate page. Only the major topics and methods link to separate pages.

Since neuroscience is such a broad topic, the main neuroscience page really serves to provide a basic introduction to the general subject and then directs readers to get more information about one of the ten major branches or one of the major themes of research or one of the allied and overlapping fields. However, several of these branches, research themes, and related fields currently have no links or are listed with a red link, indicating that the page for this section has not yet been created. There are also several sections that are flagged with the notation that citations or expert review of the content is needed.

5. Getting Started – Working Independently and Working with Facilitators

Jumping In

Through this initiative, SfN is working to encourage its members to become involved in contributing and editing content on Wikipedia in their own areas of specialization. Members should feel free to start contributing content right away and without coordinating with anyone at SfN. Please note, however, that by contributing content, members will become engaged with the community of individuals who are already working on editing articles in this section of the site. Therefore, new edits and contributions may spark some discussions and coordination within this community.

Content Facilitators

In addition to the independent Wikipedia work of individual members, SfN is soliciting the active involvement of members to serve as **content facilitators**. These individuals will be individuals who have experience working with Wikipedia or similar sites as well as experts in one of the following twelve topic areas (corresponding to each of the ten main branch areas currently on the Wikipedia Neuroscience page as well as “History of Neuroscience” and the main overview page).

1. Molecular and Cellular Neuroscience
2. Behavioral Neuroscience
3. Systems Neuroscience
4. Developmental Neuroscience
5. Cognitive Neuroscience
6. Theoretical and Computational Neuroscience
7. Diseases and Aging
8. Neural Engineering
9. Neurolinguistics
10. Neuroscience Studies
11. History of Neuroscience
12. General Neuroscience

They will work with other facilitators and contributors to coordinate the overall development of the content for their branch area, including efforts to use standard terminologies and content outlines, where appropriate. Content facilitators will also serve as a source of guidance and support to other SfN members who are contributing content to the site.

SfN is hosting a discussion forum for content facilitators in order to help them coordinate with each other.

A sign-up form for content facilitators as well as a directory of these facilitators can be found on the SfN Web site at:

<http://www.sfn.org/Wikipedia>

Standardized Terminologies - NeuroLex

One of the references that both contributors and facilitators should find useful as they work on various sections of the Wikipedia Neuroscience page is *NeuroLex, the Neuroscience Lexicon*, a project of the Neuroscience Information Framework (NIF).

http://neurolex.org/wiki/Main_Page

NeuroLex aims to standardize the terminology used by neuroscientists in order to promote more effective communication and support greater data integration. The NeuroLex resource is also organized as a wiki and currently includes over, 7,300 neuroscience concepts. As much as possible, contributors should refer to this resource to ensure they are using terminology consistent with the NeuroLex database.

Other Neuroscience-related Parts of Wikipedia - WikiPortal: Neuroscience and WikiProject: Neuroscience

<http://en.wikipedia.org/wiki/Portal:Neuroscience>

http://en.wikipedia.org/wiki/Wikipedia:WikiProject_Neuroscience

In addition to the main Neuroscience page, Wikipedia also features a Wikipedia Portal on neuroscience. Within Wikipedia, portals are intended to complement the main encyclopedic page for a topic by bringing together featured articles, news items, and other resources related to the subject area.

The contents of the Neuroscience Portal include:

- a featured article
- a listing of “neuroscience news” pulled from published articles from science journals and newspapers
- a featured image
- a directory of main categories within neuroscience (which differs somewhat from the list of branches given on the main Wikipedia neuroscience page)

The group working on the Neuroscience portal is associated with the “WikiProject” on Neuroscience. A WikiProject is a collection of pages devoted to the management of content related to a specific topic. WikiProject pages usually include things such as a listing of who is currently working on developing content for which sections of a Wikipedia topic area. They may also include a list of content areas that need to be developed.

The stated aim of the Neuroscience WikiProject is “to create and improve all Wikimedia neuroscience and brain-related resources.” ensure that all neuroscience-related articles on

Wikipedia are clear, well-referenced, and include proper use of media.” The group seeks to produce “articles with in-depth, qualitative information that are accessible enough to be encyclopedia articles but well-referenced enough for academic use.” According to the Neuroscience WikiProject pages, there are currently 47 individuals listed as contributors.

SfN is encouraging members to focus on improving the main Wikipedia neuroscience page, but members may choose to get involved in the WikiProject and/or the WikiPortal as well.

6. Resources for Science Writing

The following resources provide useful tips and strategies for writing scientific information for a lay audience as well as reference materials related to science writing. For a style guide, you should also refer to the Wikipedia Manual of Style reference in section 3 above.

- “The Science of Science Writing” – an article by George Gopen and Judith Swan, published in 1990 in *American Scientist*, features lots of practical examples and useful guidelines and tips.
<http://www.americanscientist.org/issues/feature/the-science-of-scientific-writing/1>
- *The Mayfield Handbook of Technical & Scientific Writing* – an online textbook by Leslie C. Perelman, James Paradis, and Edward Barrett. This book provides a comprehensive style guide, including specific guidance for writing for a lay audience.
<http://www.mhhe.com/mayfieldpub/tsw/home.htm>
- “Writing in the Sciences” – a handout from the University of North Carolina, provides basic guidelines covering topics such as word choice, sentence structure, and clarity.
<http://www.unc.edu/depts/wcweb/handouts/sciences.html>