Science is already a wiki if you look at it a certain way. It's just a highly inefficient one — the incremental edits are made in papers instead of wiki space, and significant effort is expended to recapitulate existing knowledge in a paper in order to support the one to three new assertions made in any one paper. — John Wilbanks

Illustration: papers and wiki space

Wikis as platforms for scholarly publishing

Daniel Mietchen (2010)
COASPedia 2(23):1159

doi:10.6141/COASPedia.2.23.1159

Session on Editorial Innovation in OA Publishing at COASPedia, August 23, 2010, Prague
This talk is best viewed on-wiki:

Magnetic resonance imaging: physical principles and sequence design

Characterization of the peri-infarct zone by contrast-enhanced cardiac magnetic resonance imaging is a powerful predictor of post-myocardial infarction mortality

The accuracy of selective magnetic resonance imaging compared with the findings of arthroscopy of the knee

Noninvasive detection of myocardial fibrosis in arrhythmogenic right ventricular cardiomyopathy using delayed-enhancement magnetic resonance imaging
Magnetic resonance imaging

Curator: Dr. Joan Dawson, University of Illinois at Urbana-Champaign, IL USA
Curator: Dr. Paul C. Lauterbur, University of Illinois Urbana-Champaign, IL

Magnetic Resonance Imaging, or MRI, is a method of imaging the interior of structures noninvasively. An MRI device consists of a magnet, magnetic gradient coils, an RF (radio frequency) transmitter and receiver, and a computer that controls the acquisition of signals and computes the MR images. The full name, Nuclear Magnetic Resonance Imaging, usually shortened to MRI, describes the technique. If an atomic Nucleus is exposed to a static Magnetic field, it Resonates when a varying electromagnetic field is applied at the proper frequency. An image is computed from the resonance signals of which the frequency and phase (timing) contain space information. MRI is important because it is noninvasive, safe, and yields information that cannot be obtained with any other techniques. Its most common use by far is in diagnostic medicine but MRI has other applications, particularly in the oil and food industries.

Contents

1 Basic principles
2 A new concept in physics
3 MRI equipment
   3.1 The magnet
   3.2 Gradients
   3.3 RF system
4 Image acquisition and computation
5 Image contrast
6 Physiological MR imaging
   6.1 Magnetic resonance angiography
   6.2 Functional imaging
   6.3 Diffusion imaging
   6.4 Spectroscopic Imaging
7 References
8 See also

Basic principles

Figure 1: http://nobelprize.org/nobel_prizes/medicine/laureates/2003/lpres/Diagram of an MRI system.
Science is already a wiki if you look at it a certain way. It's just a highly inefficient one — the incremental edits are made in papers instead of workspace, and significant effort is expended to recapitulate existing knowledge in a paper in order to support the one or three new assertions made in any one paper. — John Wilbanks

Illustration: paper & workspace.

Whenever danger exists of unnecessarily duplicating efforts to solve problems, ought not scientists to try to discover whether the experiments have been performed elsewhere? Ought not all scientists be concerned about rapid publication and wide distribution of results, and even of experiments under way, so as to avoid waste? When a scientist in one field discovers evidence of methods which he cannot use but which may be useful in other fields, ought he not inform others about it? If a new and better technique has been discovered in one field, ought not scientists in other fields investigate its workability, or adaptability, in their fields? When a newly confirmed discovery in one field implies need for revising assumptions or conclusions in another field, do not scientists in the one field have a duty to publicize it and scientists in the other field a duty to hasten to inform themselves about it? — Archie J. Bahm

I want publishers to publish my workflows. — Phillip E. Bourne

What I wonder is why professors don’t curate [pages on] Wikipedia and add course materials and open access sections of textbooks, much of which they post online anyways. We aren’t really seeing the potential that you would hope for with all of the Web 2.0 tools out there. We aren’t seeing the academic community take advantage of them as much as other subsets of the community. — David Upton

Wikipedia is probably the most robust Patri dish we have for actually studying the process of words and contributions, because it is auditable. — Peter Frishaufer

So, we had the idea that you do your systematic review before you do your research; you do your research, and then if you haven’t changed much, you haven’t really made a big impact, whereas if you’ve actually shifted things one way or the other and made it more precise then you have. — Elizabeth Wager

Better still, if you assert something said in another paper, sod the citation, transclude the relevant text, with a full electronic citation allowing you to verify it. — Christopher Gutteridge

What if everyone in the world were in your lab – a ‘hive mind’ of sorts, but composed of countless creative intellects rather than mindless worker ants, and one in which resources, reagents and effort could be shared, along with ideas, in a manner not dictated by institutional and geographic constraints? — Chris Patil and Vivian Siegel

The Internet represents an opportunity to change this system, one which has created a 300-year-old, collective long-term memory, into something now and more efficient, perhaps adding in a current, collective short-term working memory at the same time. With new online tools, scientists could begin to share techniques, data and ideas online to the benefit of all parties, and the public at large. — Robert J. Simpson, paraphrasing Michael Nielsen
research in context  [edit]

- For technical reasons, publishing was historically a separate step, performed about once per iteration of the research cycle.
- Publishing every relevant bit of information immediately at each step is technically feasible now, and the remaining hurdles are cultural ones.
- Wikis allow for systematic linking and thus enhanced contextualization (side note: some have argued that links are distracting; this can be solved via user preferences).
- Dear Scientists, Stop Duplicating Work
Wikis as platforms for science communication in general [edit]

- Wikis can be used, in principle, for any aspect of scholarly communication, as detailed in this comparison of wiki- and paper-based communication systems [link] and the related blog post [link].

- Examples exist for all steps of the research cycle, except successful applications to major funders (see this overview for some attempts).

- Benchmark: English Wikipedia [link]
  Top 10 Reasons Why Academics Should Edit Wikipedia [link]
The idea is not new: *Somewhere at the fringe of science, someone will start using wiki publishing for science publishing.* — John Schmidt (2006)

Because for practical purposes we can define publishing to include, along with page design and typesetting, the functions of editing, manufacturing, advertising, selling, warehousing, shipping, billing, collection, and other aspects of "valued added" and "Who will keep the gates? How? To what end? — Jack G. Goellner (1988; 2010 wiki version)

Apparently, people are realizing that a much more open post-publication peer review process, where anyone can take part, is a lot more effective — Mike Masnick (August 2010)

---

**Wikis as platforms for OA publishing** [edit]

- Open Access by default (non-open licenses are possible)
  - Fine-grained configurability of user rights, thereby allowing for any peer review model (and any business model).
- In comparison to paper-based scholarly communication:
  - Web-native: Basically anything on the web can be embedded or otherwise directly linked to
  - Contextual links are the central pillar
  - Version control built in (along with time stamps, naturally), thus allowing stable releases
<table>
<thead>
<tr>
<th>Wiki journals</th>
<th>Wiki encyclopedias</th>
<th>Traditional journals with wiki elements</th>
<th>Other scholarly uses of wikis</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>A few exist</strong>, but most of them barely so.</td>
<td><strong>Wikipedia</strong>, <strong>Citizendium</strong>, <strong>Encyclopedia of Earth</strong></td>
<td><strong>RNA Biology Guidelines for authors</strong> (progress report)</td>
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<td></td>
<td>The most notable one is <strong>Scholarpedia</strong>, exclusively publishing review articles, typically by the experts in the field.</td>
<td><strong>Similar</strong>:</td>
<td><strong>Lab notebooks, e.g. OpenWetWare</strong></td>
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<td></td>
<td>An idea floating around: <strong>Wikipedia Journal</strong></td>
<td><strong>Encyclopedia of Life</strong>, <strong>Stanford Encyclopedia of Philosophy</strong>, <strong>Knol</strong> shares some aspects with wikis and blogs and is already in use for PLoS Currents.</td>
<td><strong>Lab reports: Lab reports</strong></td>
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<td></td>
<td><strong>Conferences:</strong> Stand-alone site / contextualized schedule / talks, contextualized talks and Posters (possibly also as clickable imagemaps, like here), presentations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Research papers:</strong> Accompanied by wiki article, contextualized on-wiki, links to wikis amongst other sources, integrated</td>
</tr>
</tbody>
</table>

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*Note: The table is cut off and only partial details are visible.*
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Electronic Proceedings in Theoretical Computer Science
a peer-reviewed proceedings series implemented as an arXiv overlay

Rob van Glabbeek
NICTA, Sydney, Australia
University of New South Wales, Sydney, Australia

23rd August 2010
For some kinds of media, several possibilities exist to display them (shown here with their default settings):

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### Extension: Widget

**Burn the Boats/Books, part 2**

From DWRL

---

### Extension: EmbedVideo

**Burn the Boats/Books, part 2**

From DWRL

---

(CC-BY-NC-SA) Video: Dave Parry — view on Vimeo

---

### Widget: AcaWiki

Commented out for the time being. If you want to test it, please use preview mode.

---

### Widget: OpenWetWare

User: Carl Boettiger/Notebook/Comparative Phylogenetics
New Approaches for Comparative Phylogenetics with Continuous Traits

Abstract

Phylogenetically based comparative methods are an established and rapidly expanding area of research in macroevolution. Existing approaches may produce misleading results when the traits under consideration reflect different niche specialization across the taxa in question. I propose a method that addresses these difficulties and extends our ability to ask new questions using phylogenetic comparative data, such as the inferred number of niches represented in the data and rates of evolutionary transitions between niches.

Notes

- If you’re new to OpenWetWare Lab Notebooks, you can find my entries by clicking on the appropriate day on the calendar above. The first entry in this notebook starts on February 3rd, 2010. Of course you can also search the notebook.
- You can follow my bibliography of the relevant literature through my public collection on Monday.
- This project is being conducted at the University of California, Davis, in collaboration with the Wainwright Lab. Professors Graham Coop, Brian Moore, Michael Turelli, and Dr. Peter Ralph continue to provide helpful guidance.
- If you’re interested in this work don’t hesitate to contact me. Potential exists for collaborating on software development, software testing, or suggesting potential datasets for analysis, as well as general feedback on structure of the project and the notebook itself.

Project Milestones
Phylogenetic_Comparative_Methods

A collection of papers on Phylogenetic Comparative Methods, such as independent contrasts, discrete trait and continuous trait (such as BM and OU) models.

Created by Carl Boettiger
View this collection on Mendeley

Phylogenetic Constraints Do Not Explain the Rarity of Nitrogen-Fixing Trees in Late-Successional Temperate Forests
Duncan N. L. Menge, Jeannie L. DeNoye, Jeremy W. Lichtstein (2010)
PLoS ONE 5 (8) p. e12556
http://dx.plos.org/10.1371/journal.pone.0012556

Evolution of Gene Regulatory Networks by Fluctuating Selection and Intrinsic Constraints
Masaki E. Tsuchida, Masakado Kawata (2010)
PLoS Computational Biology 6 (8) p. e1000873
http://dx.plos.org/10.1371/journal.pcbi.1000873

Download PDF version of this Notebook

This functionality is still being tested as a notebook backup measure.

This selection of articles can be downloaded as a PDF book for local offline reading.
Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
3,388,295 articles in English

Today's featured article

Edmund Evans (1826–1905) was a prominent English wood engraver and colour printer during the Victorian era. Evans specialized in full-colour printing, which became popular in the mid-19th century. He employed and collaborated with illustrators such as Walter Crane, Randolph Caldecott, Kate Greenaway, and Richard Doyle to produce what are now considered to be classic children's books. Although little is known about his life, he wrote a short autobiography before his death in 1905 in which he described his life as a printer in Victorian London. After finishing an apprenticeship, Evans went into business for himself. By the early 1850s, he had made a reputation as a printer of covers for cheap novels known as yellow-backs. In the early 1860s, Evans began to print children's toy books and picture books in association with the printing house Routledge and Warne. His intention was to produce books for children that were beautiful and inexpensive. For three decades he produced multiple volumes each year, first illustrated by Crane, and later by Caldecott and Greenaway. (more...)

Did you know...

From Wikipedia's newest articles:

- ... that in the Cathedral of Mayegüez (pictured), Segundo Ruiz Betancourt and Ramón Emerico Belances bought, baptized, and emancipated thousands of black slave children?
- ... that Charlie Abbey became the first person from Nebraska to play in Major League Baseball after making his debut in 1893?
- ... that Exercice Verity, a 1949 multilateral exercise involving over 60 warships, was described by a German newspaper as involving "the greatest assembly of warships since the Battle of Jutland"?
- ... that Hugh Candidus (c.1095 – c.1160), a Benedictine monk, wrote a history of Peterborough Abbey from its founding as Medeshamstede in the mid 7th century up to the 12th century?

In the news

- Bolivia declares a state of emergency as forest fires rage across more than 1,500,000 hectares (3,700,000 acres).
- At least seven people are killed and fourteen others wounded in a bomb attack in Aksu, Xinjiang, northwestern China.
- Elton Linzenstrauss, Ngô Bảo Châu, Stanislav Smírnov, and Cécile Villani are awarded the Fields Medal (pictured) for their work in mathematics.
- A bombing outside an Iraqi Army recruitment centre in Baghdad kills more than sixty people.
- German golfer Martin Kaymer wins the 2010 PGA Championship at Whistling Straits.
- The 2010 Summer Youth Olympics, the first Youth Olympic Games, begins in Singapore with 3,531 athletes from 204 National Olympic Committees.
- Agricultural Bank of China completes the world’s largest initial public offering, raising US$22.1 billion.

On this day...

August 21: Ninoy Aquino Day in the Philippines

- 1772 – A bloody coup d'etat led by Gustav III was completed with the adoption of a new Swedish Constitution.
- 1831 – Nat Turner led a slave revolt in Southampton County, Virginia, US, but it was suppressed about 48 hours later.
- 1959 – Under the terms of the Hawaii Admission Act and a subsequent plebiscite, the Territory of Hawaii was officially admitted as the 50th U.S. state.
Welcome to the Gene Wiki portal. This portal is dedicated to the goal of applying community intelligence to the annotation of gene and protein function. The Gene Wiki is an informal collection of pages on human genes and proteins, and this effort to develop these pages is tightly coordinated with the Molecular and Cellular Biology WikiProject. Our specific aims are summarized as follows:

- To provide a well written and informative Wikipedia article for every notable human gene
- To invite participation by interested lay editors, students, professionals, and academicians from around the world
- To integrate Gene Wiki articles with existing Wikipedia content through the use of internal wiki links increasing the value of both

Please browse around the Gene Wiki, make an edit to your favorite gene page, and feel free to ask questions!
Cryptography

The term cryptography comes from Greek κρυπτός "hidden," and γράφω "to write." In the simplest case, the sender hides (encrypts) a message by converting it to an unreadable jumble of apparently random symbols. The process involves a key, a secret value that controls some of the operations. The intended receiver knows the key, so he can recover the original text (decrypt the message). Someone who intercepts the message sees only apparently random symbols; without the key he cannot read it.

Various techniques for concealing messages have been in use by the military, by spies, and by diplomats for several millennia and in commerce at least since the Renaissance; see History of cryptography.

Contents

1 Cryptography is difficult
2 Principles and terms
   2.1 Codes versus ciphers
   2.2 Keying
3 Basic mechanisms
   3.1 Secret key systems
      3.1.1 Types of modern symmetric ciphers

Deepwater Horizon oil spill

Lead Author: Cutler J. Cleveland (other articles)
Welcome to Cit zendium

An encyclopedia project—and more—that is on the move!

- We currently have 14,486 articles at different stages of collaborative development, of which 149 are export-approved.
- We are about to vote on a Charter to provide a solid framework for further development of the project.
- Eduzendium students are enrolled in formal higher education degree programs and work on wiki articles as part of their coursework assignments.
- Please let us know what you think — we welcome any feedback you might have.

Write at the Cit zendium—share your knowledge with the world!

- We welcome everyone who has knowledge, broad or narrow, about any of the world’s innumerable subjects.
- Our knowledge-sharing community is both collegial and congenial; everyone writes under his or her real name. Even this page, our home page, can be edited by any Citizen.
- Sign up—we need both Authors and Editors (you might be both).
- Get started: How to collaborate! CZ.Quick Start! Wikipedians are very welcome!

Our central learning source

This is the central learning source for all the pages about the project. From here, you can get started, get technical help, read about content policy, explore our articles and organization, and much more.

Try also our new help system (under development)

About us

- Our Cit zendium article I Why Cit zendium? I About I FAQ I For the press
- Myths and Facts: Cit zendium may be different from what you think!
- Follow us on our blog or on Friendfeed or Twitter (new drafts or general news)
Cryptography

The term cryptography comes from Greek κρυπτός kryptós "hidden," and γράφειν grafein "to write". In the simplest case, the sender hides (encrypts) a message by converting it to an unreadable jumble of apparently random symbols. The process involves a key, a secret value that controls some of the operations. The intended receiver knows the key, so he can recover the original text (decrypt the message).

Someone who intercepts the message sees only apparently random symbols; without the key he cannot read it.

Contents [hide]

1 Cryptography is difficult
2 Principles and terms
   2.1 Codes versus ciphers
   2.2 Keying
3 Basic mechanisms
   3.1 Secret key systems
      3.1.1 Types of modern symmetric cipher
      3.1.2 Key management
   3.2 Public key systems
   3.3 Cryptographic hash algorithms
3.4 Random numbers
The Panton Principles for Open Data in Science (usually shortened to Panton Principles, sometimes abbreviated as PP) are a set of recommendations for scientists on a simple standard notification to be attached to scientific data that are released to the public. The notification states, in effect, that other scientists can use and re-use these data without infringing copyrights. The idea is to promote sharing of scientific data, with the implied hope to accelerate and improve scientific research, stressing the principles of transparency and reproducibility. The Panton Principles apply once the decision to make the data public has been reached.

**Background**

Large and ever increasing amounts of scientific data are generated in the framework of scientific research projects, and scientific data in this narrow sense are the target of the Panton Principles, particularly if the underlying research has been funded from public sources. No clear standards existed, however, for how to label data for reuse, and this is the gap that the Panton Principles are meant to fill.

Once some scientific data were released into the Public Domain, any reuse or modifications are permitted. With legal claims to the source being waved to the maximal extent possible, community norms are invoked for usage guidance, the most essential ones within the scientific community being proper attribution as well as documentation of any further processing.

The name Panton Principles is derived from the Panton Arms pub in Cambridge, UK, which was the location where the principles were originally drafted, starting in June 2009, primarily by Peter Murray-Rust, Cameron Neylon, Rufus Pollock and John Wilbanks. The Panton Principles were officially released for public signatures in February 2010.

**References**

1. † Reaching Agreement On The Public Domain For Science — blog post by John Wilbanks on the public launch of the principles, February 19, 2010
2. † Panton Principles — Principles for Open Data in Science (Homepage)
Curator: Dr. Eugene M. Izhikevich, Editor-in-Chief of Scholarpedia, the peer-reviewed open-access encyclopedia.

Welcome to Scholarpedia, the peer-reviewed open-access encyclopedia written by scholars from all around the world.

Scholarpedia feels and looks like Wikipedia -- the free encyclopedia that anyone can edit. Indeed, both are powered by the same program -- MediaWiki. Both allow visitors to review and modify articles simply by clicking on the edit this article link.

However, Scholarpedia differs from Wikipedia in some very important ways:

- Each article is written by an expert (elected by the public or invited by Scholarpedia editors).
- Each article is anonymously peer reviewed to ensure accurate and reliable information.
- Each article has a curator -- typically its author -- who is responsible for its content.
- Any modification of the article needs to be approved by the curator before it appears in the final, approved version.

Herein also lies the greatest difference between Scholarpedia and traditional print media: although the initial authorship and review are similar to a print journal so that Scholarpedia articles could be cited, articles are not frozen and outdated, but dynamic, subject to ongoing processes of improvement moderated by their curators. This allows Scholarpedia to be up-to-date, yet maintain the highest quality of content.

Contents

1. Aims and policy
2. Curatorship
3. Scholar Index
4. Authorship
   4.1 How to cite Scholarpedia articles
5. Current status
6. Editorial board

Aims and policy

Scholarpedia is a peer-reviewed encyclopedia written by the leading experts in their respective fields. It does not publish "research" or "position" papers, but rather "living reviews" that will be maintained by the future generation of authors in the areas of research. The hallmark strength of Scholarpedia is the ability to have independent and cohesive articles, written and reviewed by the leading experts in various fields. Scholarpedia allows the authors to maintain their own original content, and to update their articles as needed.

Featured Author: Steve Smale

Dr. Stephen Smale (b. July 15, 1930) was born in Flint, Michigan (USA), attending the University of Michigan for both his Bachelor's and PhD degrees. After research appointments to the University of Chicago (1956-58) and the Princeton Institute for Advanced Study (1958-60), he joined the Faculty of Mathematics at UC Berkeley in 1962, becoming Full Professor in 1964. In 1994 he joined the City University of Hong Kong as a Distinguished University Professor.

Smale was awarded the Fields Medal in 1966. In recognition for his lifelong contribution to mathematics, he was awarded the National Medal of Science (USA) in 1996, and the 2006/2007 Wolf Prize for Mathematics.

Smale is perhaps best known for three major contributions. He proved the round sphere. He proved the existence of sphere expansion. He proved the Poincare conjecture for dimensions of five or greater, and generalized this result with his proof of the $h$-cobordism theorem. His development of the Smale horseshoe helped start a new line of research in dynamical systems.
Elections of authors

Authors of Scholarpedia are either invited by curators or elected by public vote. Your vote is anonymous. You need to login as 'Mitchel' to modify your vote later. Your weight in each election will be multiplied by your Scholar Index at the time the polls are closed. Currently, your Scholar Index is 11.1. A soft-max (probabilistic) procedure will be used to choose the author based on the number of votes received.

Instructions to initiate election for an article.

List of previously elected authors.

Articles in bold do not have your vote yet. Articles in italic got new nominees since the time you voted.

Articles with open polls:

- (voted: 51) Combustion
- (voted: 77) Neurobiology of birdsong
- (voted: 66) Julia sets
- (voted: 27) Tomography
- (voted: 83) Bayesian decoding of neural signals
- (voted: 67) Population vector
- (voted: 37) Turbulent reactive flows
- (voted: 37) Rayleigh-Bénard Convection
- (voted: 36) Vocal learning
- (voted: 46) Ant-based clustering
- (voted: 63) Cryptography
- (voted: 10) Indian buffet process (statistics)
- (voted: 17) Nonlinear dimensionality reduction
- (voted: 25) Memetic algorithms
- (voted: 35) Permafrost
- (voted: 7) Photo acoustic tomography
- (voted: 6) Forensic Lucid
- (voted: 43) Level sets
- (voted: 53) Turbulence: Two-Dimensional
- (voted: 77) Rici flow
- (voted: 63) Causality
- (voted: 37) Lempel-Ziv coding
- (voted: 44) Chinese restaurant process (statistics)
- (voted: 55) Impact factor
- (voted: 16) Soliton gas
- (voted: 9) Mobile membranes
- (voted: 66) C (programming language)
A neuron is said to fire a burst of spikes when it fires more action potentials followed by a period of quiescence. A burst of two spikes is called a doublet, of three spikes a triplet, four - quadruplet, etc.
Invited by: Dr. Eugene M. Izhikevich, Editor-in-Chief of Scholarpedia, the peer-reviewed open-access encyclopedia
Action Dr. Eugene M. Izhikevich, Editor-in-Chief of Scholarpedia, the editor: peer-reviewed open-access encyclopedia

(Your contributions to this article are anonymous. If you wish, you may use your real name in this article.)

Categories: Neuroimaging | Neuroscience
Scholarpedia: Scholar Index

This page is not peer reviewed. Contributors to this page are not anonymous. Only authors can modify it.

Each user has a Scholar Index that measures his/her overall impact on Scholarpedia and confers the user with certain privileges.

<table>
<thead>
<tr>
<th>User status / Scholar Index</th>
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<th>nominate authors</th>
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<td>registered / 0</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Registered user with scholar index ≥ 0 becomes a scholar

- Scholar / ≥ 1: + elect authors + edit articles + nominate authors + create new articles + initiate election - author articles - review articles - curate articles
- Scholar / ≥ 25: + elect authors + edit articles + nominate authors + create new articles + initiate election (i) temp. disabled - author articles - review articles - curate articles
- Scholar / ≥ 50: + elect authors + edit articles + nominate authors + create new articles + initiate election (i) temp. disabled + author articles - review articles - curate articles

Scholar with index ≥ 100 becomes a Curator of Scholarpedia

Curator: + elect authors + edit articles + nominate authors + create new articles + initiate election + author articles + review articles + curate articles

Curators can also invite other scientists to become curators of Scholarpedia.

An elected author becomes a Curator of Scholarpedia when his/her article is peer reviewed and accepted.

Scholar Index is set to 0 for newly registered users. It is incremented by 1 when users are invited to become scholars or Curators. It is also affected by the following activities:

- +0.1. Vote for the candidate who eventually accepts the responsibility to write the article, i.e., becomes its author. The Scholar index of all supporters of the author is increased by 0.1, so that these voters have stronger voice in future elections.
- +1. Nomination of the candidate who eventually accepts the responsibility to write the article.
- +2. Initiation of a successful elections of authors for an article.
- +5. Reviewing of an article submitted to the Peer Review Forum.
- From -10 to +10. Revision of an article. All revisions of articles are evaluated by their curators on the scale from mostly wrong (-10) to irrelevant (-1) to improvement (+1) to major improvement (+4) to major contribution (+10). These are aimed to discourage spammers and reward useful contributors.

Thus, the higher the Scholar Index, the more contribution this user has made, hence the more important the voice of this person is in deciding the future of Scholarpedia (see list of top scholars).
Special pages

Special pages for all users

- Special:Editorsassist
- All articles
- Book sources
- Broken Redirects
- Categories
- Copyright
- Create an account or log in
- Dead-end pages
- Disambiguation pages
- Double redirects
- Elected authors
- Elections of authors
- Journal
- Long pages
- Most linked to pages
- My watchlist
- New pages
- Oldest pages
- Orphaned pages
- PDF generated
- Popular pages
- Preferences
- Random article
- Recent changes
- Short pages
- Statistics
- Top scholars
- Uncategorized categories
- Uncategorized pages
- Unused categories
- Upload file
George Burba

George Burba is a Senior Scientist in Advanced Research and Development.

Division of Li-COR Biosciences, and an Assistant Professor Adjunct within the Graduate Faculty of the School of Natural Resources at the University of Nebraska-Lincoln.

Noise pollution

Noise pollution is unwanted or harmful sound that intrudes upon human or other faunal activity. Noise pollution is almost entirely human generated, whether by machine sources or amplified sound of human creation. Approximately ninety percent of all such intrusive sound arises from such transport devices as motor vehicles, aircraft and rail activities. Noise pollution gives rise to an assortment of adverse human health effects as well as clarration of faunal activity. Regulation of noise pollution began in a systematic way in the United States with enactment of the Noise Control Act of 1972. Within the
20 August 2010

- (diff) (hist) m Habitat fragmentation; 18:12 (+78) Arielle.conti (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 04:49 (-44) Michael.hogan (Talk | contribs)
- (diff) (hist) m Arctostaphylos densiflora; 04:48 (+43) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 04:46 (+200) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 04:41 (+48) Michael.hogan (Talk | contribs) (add links)
- (diff) (hist) Arctostaphylos densiflora; 04:33 (+516) Michael.hogan (Talk | contribs)
- (diff) (hist) m Microclimate; 04:15 (+4) Michael.hogan (Talk | contribs)
- (diff) (hist) m N Microclimate; 03:54 (+13,251) Michael.hogan (Talk | contribs) (Started new article entitled "Microclimate" with all original content of c michael hogan)
- (diff) (hist) m Arctostaphylos densiflora; 02:55 (+4) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 02:54 (+339) Michael.hogan (Talk | contribs) (expand on early history)
- (diff) (hist) Arctostaphylos densiflora; 02:49 (+157) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 02:30 (+572) Michael.hogan (Talk | contribs) (expand and add new source)

19 August 2010

- (diff) (hist) Arctostaphylos densiflora; 19:43 (+186) Michael.hogan (Talk | contribs) (add a new source)
- (diff) (hist) Arctostaphylos densiflora; 19:40 (+140) Michael.hogan (Talk | contribs) (start a conservation section)
- (diff) (hist) Arctostaphylos densiflora; 19:34 (+36) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 18:48 (+31) Michael.hogan (Talk | contribs)
- (diff) (hist) m Arctostaphylos densiflora; 18:48 (+41) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 18:45 (+155) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 18:40 (+63) Michael.hogan (Talk | contribs)
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- (diff) (hist) Arctostaphylos densiflora; 18:01 (+85) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 17:55 (+257) Michael.hogan (Talk | contribs) (expand and add a new source )
- (diff) (hist) Arctostaphylos densiflora; 17:46 (+185) Michael.hogan (Talk | contribs) (beginning of a new section on the history of research)
- (diff) (hist) m Arctostaphylos densiflora; 17:43 (-6) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 17:42 (+2) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 17:36 (-312) Michael.hogan (Talk | contribs)
- (diff) (hist) m Arctostaphylos densiflora; 17:33 (+41) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 17:32 (+706) Michael.hogan (Talk | contribs) (begin a section on habitat and ecology)
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- (diff) (hist) Arctostaphylos densiflora; 17:18 (+259) Michael.hogan (Talk | contribs) (cleanup)
- (diff) (hist) Arctostaphylos densiflora; 14:50 (+223) Michael.hogan (Talk | contribs) (clean up)
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- (diff) (hist) Arctostaphylos densiflora; 04:21 (+1,074) Michael.hogan (Talk | contribs)
- (diff) (hist) Arctostaphylos densiflora; 04:02 (+370) Michael.hogan (Talk | contribs) (expand on morphology)
Deepwater Horizon oil spill

Lead Author: Cutter J. Cleveland (other articles)
Article Topics: Pollution, Marine ecology, Fisheries and Oceans
This article has been reviewed and approved by the following Topic Editors: C Michael Hogan (other articles) and Peter Saundry (other articles)
Last Updated: August 11, 2010

Overview
Revised 11 August 2010; 12:02 PM EDT

The Deepwater Horizon oil spill (also known as the Gulf of Mexico Oil Spill or the BP Oil Spill) is the largest marine oil spill in history, and was caused by an explosion on the Deepwater Horizon offshore oil platform about 50 miles southeast of the Mississippi River delta on April 20, 2010 (28.74°N, 88.39°W). Most of the 126 workers on the platform were safely evacuated, and a search and rescue operation began for 11 missing workers. The Deepwater Horizon sank in about 5,000 feet (1,500 m) of water on April 22, 2010. On April 23 the U.S. Coast Guard suspended the search for missing workers who are presumed dead. After a series of failed efforts to plug the leak, BP said on July 15 that it had capped the well, stopping the flow of oil into the Gulf of Mexico for the first time in 86 days.

BP was principal developer of the Macondo Prospect oil field where the accident occurred. The Deepwater Horizon, owned by Transocean Ltd., was under a contract with BP to drill an exploratory well. BP was the lessee and principal developer of the Macondo Prospect oil field in which the rig was operating. At the time of the explosion, BP and Transocean were in the process of closing the well in anticipation of later production.
Deepwater Horizon oil spill

Workflow Metadata [hide]

Metadata

- **Topic Editor:** C Michael Hogan (other articles) and Peter Saundry (other articles)
- **Lead Author:** Cutler J. Cleveland (other articles)
- **Contributing Author:** None Listed
- **Content Partner:** None Listed
- **Content Source:** None Listed
- **Copyeditor:** None Listed
- **Article Topic Areas:** Pollution, Marine ecology, Fisheries and Oceans
- **Authoring Info Last Updated:** May 28, 2010 4:26 PM

Edit this information

Article Status

- **Status:** Newer Version of a Published Article
- **View currently published article**
- **Difference between published and latest Public View of this Revision**

Publishing Controls

- **Do not display in:**
  - Article listing: checked
  - Search results
- **Publish this Version**
- **Unpublish this Article**

Workflow History

- **August 11, 2010 12:02 PM:** Cutler J. Cleveland unpublished revision
- **August 11, 2010 10:39 AM:** Arielle M. Conti unpublished revision
- **August 11, 2010 10:21 AM:** Cutler J. Cleveland unpublished revision
- **June 23, 2010 3:25 PM:** Peter Saundry unpublished revision

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2. Deepwater Horizon
3. Explosion and fire
4. Casualties and rescue efforts
5. BP Investigation
6. Magnitude of the spill
   6.1 Government assessment of the leak
7. Geographic extent of the spill
   7.1 Extent of surface oil
   7.2 Extent of oil in the water column
8. Fate of the oil
9. The "spillcam" phenomenon
10. The Spill in Context
    10.1 Natural seeps
    10.2 History of the oil spill
<table>
<thead>
<tr>
<th>Open Access</th>
<th>Peer review</th>
<th>Magnetic Resonance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>what people say about open access</strong></td>
<td><strong>what people say about peer review</strong></td>
<td><strong>what people say about Magnetic Resonance</strong></td>
</tr>
<tr>
<td>zabread Broadband in Joe's world...</td>
<td>PseudoSuicide yeah! I got my Plan of study, &amp; Week3 milligan done! Now I just have to do peer review and hopefully my PMS! Then done all for my one class yesterday</td>
<td>ubeautyportal #beauty: Magnetic Resonance Imaging <a href="http://ubeautyportal.com">http://ubeautyportal.com</a>... 2 days ago</td>
</tr>
<tr>
<td>(Lecco, Puglia): open access to historical palaces' internal courtyards <a href="http://bit.ly/biqSQt">http://bit.ly/biqSQt</a> 13 hours ago</td>
<td>antalan @ChristiBowman Ah, but /the/ report is back on my desk again; I need to address peer review &amp; (ugh) methodology review... next: vendor review yesterday</td>
<td>Surgery JC Researchers Assess Severity of Prostate Cancers Using Magnetic Resonance Imaging. <a href="http://bit.ly/911FCx">http://bit.ly/911FCx</a> yesterday</td>
</tr>
</tbody>
</table>

*Commented out for the time being. If you want to test it, please use preview mode.*
While scientists have gloried in the disruptive effect that the Web is having on publishers and libraries, with many fields strongly pushing open publication models, we are much more resistant to letting it be a disruptive force in the practice of our disciplines. — James Hendler

Obstacles to using wikis in scholarly publishing [edit]

Technical [edit]

- Few, e.g. integration with reference managers, particularly for items not available online

Social [edit]

Habits [edit]

- Scholars are used to type their manuscripts in Word processors for an end product designed for print
- Publishers have an opportunity to initiate change here

Attitudes [edit]

- recognition problem by funders, tenure committees and scientists in general
- similar problems affected online publications, open data and open access long before, and their initial adoption heavily depended on model projects
- scholars not ready to have their writings peer-edited
Interwiki communication [edit]

If you assert something said in another paper, sod the citation, transclude the relevant text, with a full electronic citation allowing you to verify it.

— Christopher Gutteridge

- Interwiki links
- MediaWiki Extensions, e.g. for Widgets

Wiki-like environments [edit]

- Overview of the evolution of wikis and wiki-like environments
  - MediaWiki plugin for Wordpress
  - Etherpad
  - Google Docs
  - ScribTeX
  - Buddypress
  - GitHub
  - OOo Document Converter
Boy, wouldn't it be cool if there was an easy way to translate a PubMed search into a wordle of the abstracts?

yesterday - Comment - Like - Share

Björn Brembs, Cameron Neylon and Heather Piwowar liked this

you could ask on BioStar, maybe someone will bite ;-) - Michael Kuhn

5 more comments

Okay, every once in a while I have to convince myself that I can program. So check it out: http://pubmed2wordle.appspot.com. (Only works on small queries < 100 due to GAE timeout issues, I think. Executing on my localhost works fine...) - Andrew Su

Anyone have a ballpark guess as to the number of working molecular/cellular biologists in the world? (Trying to establish the upper bound of effort that can be harnessed for the Gene Wiki...)

17 hours ago - Comment - Like - Share

I would guess a few hundred thousand. But I think this number might be tough to come by. - John Hogenesch

X = (A*C/B); A = Total number of "gene" or "molecular" papers in PubMed (e.g. over recent five years); B = Total number of papers in PubMed during that same period; C = Total number of people in BioMedExperts (1.8 mio). - You (edit | delete)

Data from 2004 to 2008. A = 3651316, B ("molecular" OR "gene") = 801882, X = 395306 - John Hogenesch
I want publishers to publish my workflows. — Philip E. Bourne

Wikis as platforms for scholarly publishing

Daniel Mietchen (2010)
COASPedia 2(23):1159

Possible functionalities associated with content pages of a scholarly wiki.
<table>
<thead>
<tr>
<th>Function</th>
<th>Role traditionally played by (highlighted if directly relevant to OA publishing)</th>
<th>Existing examples</th>
<th>Role</th>
<th>History</th>
<th>Metadata</th>
<th>Community</th>
<th>Events</th>
<th>Jobs</th>
<th>Related articles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encyclopaedic knowledge pertaining to the topic of the article; stable versions (like print) but updateable according to rules set by the relevant community; threat to publishers?</td>
<td>Basically all wikis (e.g., OpenWetWare)</td>
<td>Discourse</td>
<td>Gaps identified in encyclopaedic knowledge, including current and planned research projects; opportunities for funders; potential business model.</td>
<td>The edit history of this article, plus links to archives.</td>
<td>The metadata for this article, readable for both humans and machines, plus two-way citation information.</td>
<td>Links to communities (scientific or otherwise) related to the topic.</td>
<td>Events related to the topic; a unique way to advertise events in context — potential business model.</td>
<td>Jobs related to the topic; a unique way to place job ads in context — potential business model.</td>
</tr>
<tr>
<td></td>
<td>Research articles, perspectives, correspondence, pre-publication peer review, posters</td>
<td>Expendable, textbooks, and review articles</td>
<td>Open questions</td>
<td>Grant applicants</td>
<td>Scholarly societies, interest groups, Citizen science groups</td>
<td>Scholarly magazines</td>
<td>Local conferences, workshops, courses</td>
<td>Scholarly magazines</td>
<td>Keywords</td>
</tr>
</tbody>
</table>

See also this list of features desirable for scholarly wikis.
What if everyone in the world were in your lab – a ‘hive mind’ of sorts, but composed of countless creative intellects rather than mindless worker ants, and one in which resources, reagents and effort could be shared, along with ideas, in a manner not dictated by institutional and geographical constraints? — Chris Patil and Vivian Siegel

Wikis

- provide the opportunity to structure digitally published items more contextually than stand-alone articles (particularly print-based ones) allow for
- are compatible with any mode of peer review tested so far
- can be integrated with every step of the research cycle, so as to highlight research as a process and improve reproducibility