



Hypothesis

Creating Universal Annotation Layers Across All Scholarship

Heather Ruland Staines, Director of Partnerships
STM Innovations
London, December 6, 2017



The Research Lifecycle... stinks.





What if I told you about a tool...

Through the research lifecycle

Access all the digital notes you've made

Across the web — private, public, in groups

Filter, Search, and Explore

Create, Submit, Revise, Collaborate, Link



Welcome to Open Standards-based Annotation

Create a free account today

Embed for free on your platform today

Customize to create branded and moderated
annotation layers



user: heatherstaines x tag: AI x Search...

heatherstaines Groups ⌵ ⚙️

176 Matching Annotations

Nov 2017

www.wired.com **Ray Kurzweil on Turing Tests, Brain Extenders, and AI Ethics** 1

futurism.com **For the first time, a robot passed a medical licensing exam** 1

heatherstaines

21 Nov 2017

in **Public** 🔒

Chinese AI-powered robot Xiaoyi took the country's medical licensing examinations and passed, according to local reports.

AI and medicine

AI history of medicine

➤ Visit annotations in context

🏷️ Tags
AI
history of medicine

👤 Annotators
heatherstaines

🔗 URL
futurism.com/first-time-robot-passed-medical-licensing-exam/

↑ Collapse view

medium.com **What will motivate us in the age of AI – The Startup – Medium** 1

www.slate.com **What Exactly Does It Mean to Give a Robot Citizenship?** 1

heatherstaines

Heather is Director Business Development for Hypothesis. She enjoys exploring the nexus between technology, scholarly communications, and teaching and learning.

Annotations: 24090
Joined: November, 2016
ORCID: 0000-0003-3876-1182

[Edit profile](#)

Top tags 50

- AI 171 communities 9 Charleston 8
- Google 8 machine learning 7
- robots 7 fake news 6
- Machine learning 5 facebook 5
- peer review 5 Alexa 4 Elon Musk 4
- automation 3 not AI 3 singularity 3
- Go 2 VR 2 agriculture 2
- deep learning 2 economics 2
- education 2 privacy 2 science 2
- AI Definition 1 AR 1 Algorithms 1



1288 Matching Annotations

Last 7 days

medium.com What Is Public? – The Message – Medium 1

vidooly.com Most watched Indian Web series on YouTube. 1

timothyrobbins.pressbooks.com "Bartleby, the Scrivener: A Story of Wall Street" | openamlitGU 1

jennapitstick

27 Nov 2017

in Public

In this very attitude did I sit when I called to him, rapidly stating what it was I wanted him to do—namely, to examine a small paper with me. Imagine my surprise, nay, my consternation, when without moving from his privacy, Bartleby in a singularly mild, firm voice, replied, "I would prefer not to." 21 I sat awhile in perfect silence, rallying my stunned faculties. Immediately it occurred to me that my ears had deceived me, or Bartleby had entirely misunderstood my meaning. I repeated my request in the clearest tone I could assume. But in quite as clear a one came the previous reply, "I would prefer not to." 22

First time Bartleby says "prefer not to." Importance in the fact that this is an odd reply to a boss from a subordinate. Later it turns worse, him refusing even kindness, such as money, a place to live, help finding a better job, etc. Turning point is here. (Could discuss temperaments of characters, setup for why narrator is kind, setup for Bartleby's character etc.) Keywords: "mild, firm voice"



Visit annotations in context

Annotators

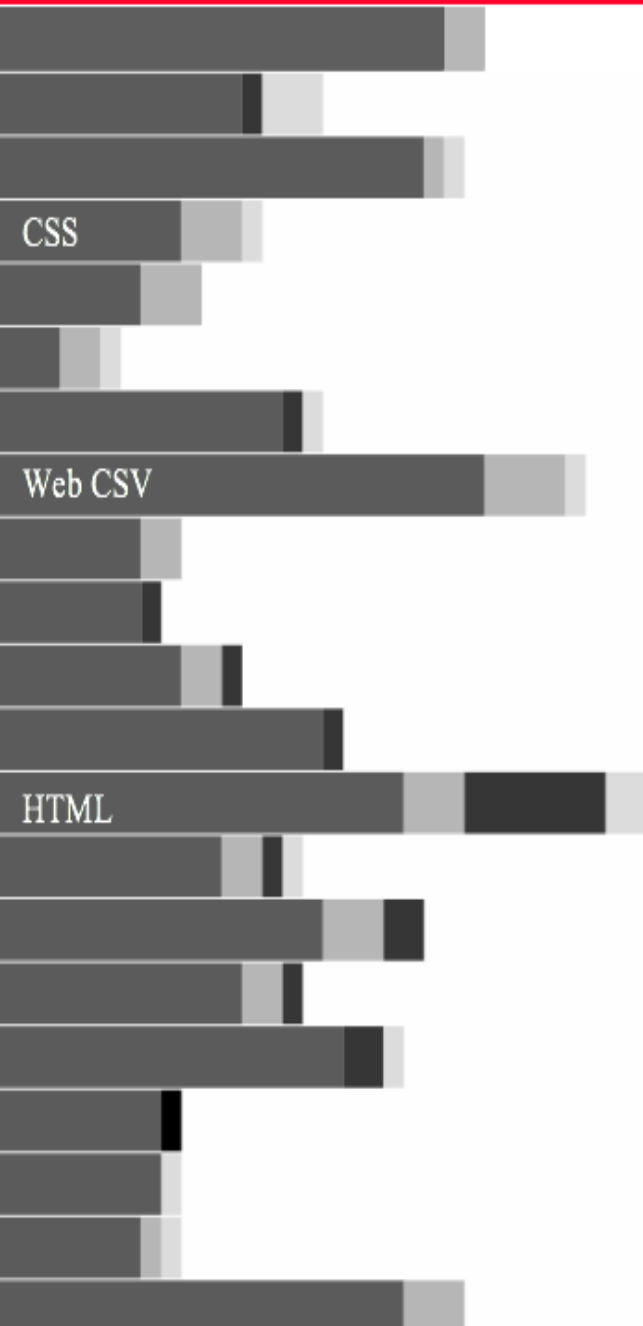
jennapitstick

URL

timothyrobbins.pressbooks.com/chapter/bartleby-the-scrivener-a-story-of-wall-street/

Collapse view

poseidon01.ssrn.com mind and body lecture 5 1



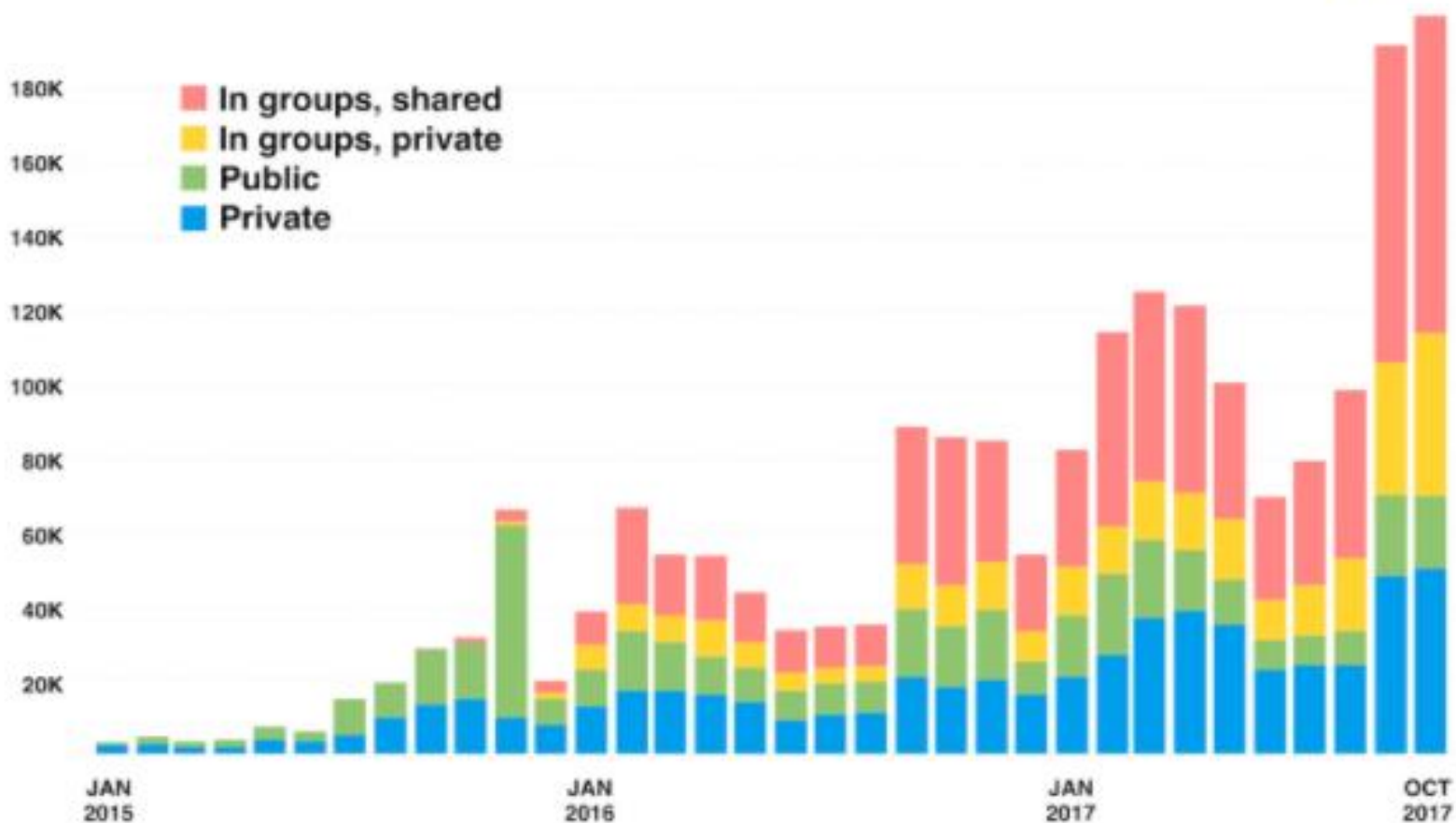
Web Standard

On Feb 23, 2017 the W3C formally standardized Web Annotations with unanimous ratification by members.

w3.org/annotation

38 Active Working Group Members

2.3M Annotations and Growing!



Annotation in the Research Lifecycle



Peer Review

Using a combination of group features, permissions models and copy-editing workflows, a high-fidelity peer-review capability can be enabled.

Hypothesis has conducted a first integration with eJournalPress.

The screenshot shows the peer review interface for the Journal of Geophysical Research (JGR) Space Physics. The top navigation bar includes links for Journal Home, GEMS Desktop, Author Instructions, Reviewer Instructions, Contact, and Change Journal. The user is identified as Matthew Alvarado/S. A table displays the reviewer's overall assessment details:

Associate Editor	Arif Abubakar
Date Due	2015-02-03
Manuscript #	2015JQA15557
Title	Megan Hypothesis Testing 3 1/29/2015
Corresponding Author	Anthony P. Jones
Contributing Author	N/A

Below the table, there is a 'Merged PDF' button and a text input field for 'Other Annotations'. A table with columns 'Page', 'By', 'Context', and 'Comment' is present. The 'Recommendation' section includes a dropdown menu set to 'Publish in present form'. A question asks if the reviewer agrees to be identified to the author if the paper is accepted, with a 'No' dropdown selected. Another question asks if the reviewer is returning an annotated manuscript or other information that cannot be clearly conveyed on this form, also with a 'No' dropdown selected. Contact information for the Associate Editor is provided at the bottom.

Post-Publication Discussion

Advances in organic thermoelectric materials research: Looking back and moving forward

View annotations 86

[Redacted text with yellow highlights]

General Discussion

BIOPUB

General Discussion 24

Author's Notes 43

Reviews 19

Show replies (1)

Jha P Just now

Acyl-CoA binding domain-containing 7 (Acbd7) is a paralog gene of the diacylglycerol-binding inhibitor (Acyl-CoA)

Durabitur ut orci dolor. Quisque laeula lobortis tortor id condimentum. Aliquam tortor elit, dapibus ut velit a, congue auctor mauris. Cras ultricies nisi quis trincidunt vehicula. Vestibulum ullamcorper nisi eget nunc ultricies vehicula.

janedoe 3 hrs

In this report, we provide converging evidence indicating that a splice variant isoform of the Acbd7 mRNA

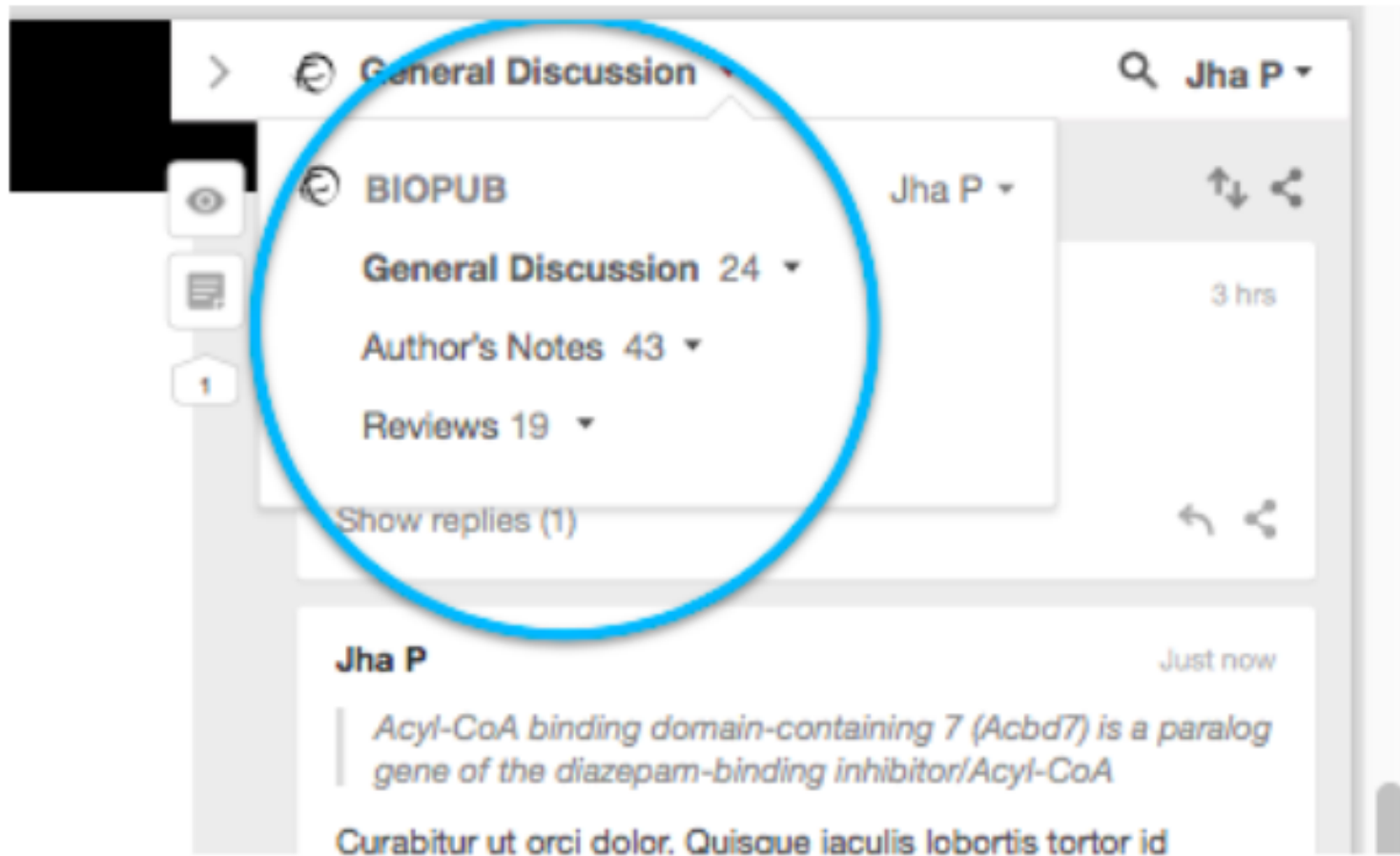
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Durabitur ut orci dolor. Quisque laeula lobortis tortor id condimentum. Aliquam tortor elit, dapibus ut velit a, congue auctor mauris. Cras ultricies nisi quis trincidunt vehicula. Vestibulum ullamcorper nisi eget nunc ultricies vehicula.

MarlettaM 3 hrs

demonstrated that the ARC ACBD7 isoform

Nam tempus lorem non eleifend commodo. Integer vehicula, metus vitae faucibus laoreet, felis orci euismod urna, consequat semper quam odio id ex. Aliquam dapibus laeula mauris, in scelerisque mi interdum ut. Aliquam erat volutpat.

Enable Multiple Defined Layers



The screenshot displays a forum interface. At the top, there is a search bar with the text 'Jha P' and a dropdown arrow. Below the search bar, a user profile for 'Jha P' is visible, including a dropdown arrow and icons for up/down arrows and a share icon. The main content area shows a post by 'Jha P' with the text 'Acyl-CoA binding domain-containing 7 (Acbd7) is a paralog gene of the diazepam-binding inhibitor/Acyl-CoA' and a timestamp of 'Just now'. Below the post, there is a text snippet: 'Curabitur ut orci dolor. Quisque iaculis lobortis tortor id'. A blue circle highlights a dropdown menu for 'General Discussion' which is open, showing a list of categories: 'General Discussion 24', 'Author's Notes 43', and 'Reviews 19'. A 'Show replies (1)' link is also visible below the menu. The interface includes a sidebar with icons for eye, list, and a house icon with the number '1'.

Explore Annotations across Books, Journals, Subject Areas or Domains



group: General Discussion Search...

Groups - Jha P

708 Matching Annotations

Last 7 days

www.elsevier.com	Elsevier launches ScienceDirect Topics to help researchers quickly build their knowledge and save valuable time searching	1
www.techdirt.com	Elsevier Launching Rival To Wikipedia By Extracting Scientific Definitions Automatically From Authors' Texts	2

Sep 2017

jonudell.net	Untitled document	8
slack-files.com	casey_escola_everyday_activities.pdf	2
developer.mozilla.org	HTTP access control (CORS)	1
doc-08-78-docs.googleusercontent.com	pone.0115253 1..39	1
blog.mozilla.org	Mozilla and the Washington Post Are Reinventing Online Comments - The Mozilla Blog	1

General Discussion

Shared annotations: 989
Created: October, 2015

Top tags 50

ocr:yes 19 earnedincome 17
ACTION 16 HasCard 10 ocr:no 9
data 7 scan:fair 7 Numbers 6
privacy 6 scan:good 6 scan:poor 6
source:unknown 6 space 6 AI 5
TOSs 6 communities 6 elife 6
hypothesis:education 5
hypothesis:funding 5 pages:4 5
FERPA 4 identify contact 4
Schedule followup 4 call 4
edu-publisher-learning-environment 4



The global voice of scholarly publishing

Living Research

Why should the paper remain fixed in time after publication when it can be a living document instead?

Neuroscientist Elissa Chesler annotates her own paper to provide updates and additional information.

The screenshot shows a bioRxiv article page. The article title is "Functional genomics" and the author is "Elissa J. Chesler²", which is circled in red. A red arrow points from this author name to a comment in the thread below. The comment, posted 25 days ago by "echesler", reads: "powered by the Ontological Discovery Environment". Below this, there is a paragraph of text: "This is how we tried to maintain continuity when we changed the name of our web resource to GeneWeaver. Creating a community resource for data-driven ontology of behavior and other biological phenomena has been our goal since the inception of this project." The comment has "Reply" and "Link" options. Below this is another comment from "echesler" posted 4 days ago, which says: "48 000 gene sets consisting of over 80 000 genes from seven species". This comment also has "Reply" and "Link" options. A third comment from "echesler" posted 4 days ago says: "All users have access to numerous tutorials, including videos, How To guides and our standards documentation". This comment also has "Reply" and "Link" options. The page includes a sidebar with "Formats" (Article, Preprint), "Share" (Facebook), "Save items" (Add to), and "Similar articles" (Performing i GeneWeave, Ontological phenotype a Atlas - a dat, Cross speci, Disease ger). The top right shows "Public" and search icons.

Automated Annotation of Entities

Automated systems can tag elements such as RRIDs and other scholarly identifiers or entities, allowing navigation to background information and powerful search queries through other papers mentioning the same entity.

CHEMICAL GENOMICS, CHEMICAL GENOMICS

Laminocentrin, San Diego, CA, USA), & RUCR 1/2 inhibitor, or CUA-17444 (27-3347-0032, ChemDiv, San Diego, CA, USA), were added to CGNs in culture [DMEM (Invitrogen) supplemented with 2% B27 (Invitrogen), and 1% penicillin/streptomycin (Invitrogen)]. Cells were fixed in 3.7% formaldehyde post inhibitor addition. Cells were stained with anti-GFP primary antibody [Molecular Probes (Invitrogen) Cat# [A11122](#) RRID:AB_221569] followed by detection w/ Fluor 488 goat anti-rabbit (Life Technologies Cat# [A11034](#) RRID:AB_105627).

Measurement of neurite length

Photographs of GFP-positive neurons were imaged with a digital camera; the length of the longest neurite per cell (50 μm or greater, $\sim 3\times$ the cell body) was measured using the polyline function in [MicroSuite Special Edition imaging software](#). For assessment of neurite length inhibition by Nog66, neurites less than 50 μm were also measured. At least 100 neurons per condition per experiment were quantitated for neurite length in three independent experiments.

Authors' contributions

HMD developed and implemented the high throughput screen and initial compound library in neurons. AW carried out the RNAi studies in neurons. AR assisted in developing the ELISA. MAY carried out the modeling experiments. ABV conceived of the study and participated in its design and analysis. All authors read and approved the final manuscript.

Acknowledgements

We thank the Center for Chemical Genomics, Martha Larsen, Paul Kirchoff, and Stacey Swaney, for their expertise and technical assistance in developing and carrying out the high-throughput screen, and Nivine El-Hor for assistance with site directed mutagenesis. This work was supported by the National Institutes of Health Grant R21AG034264 and by the National Center for Advancing Translational Science of the National Institutes of Health under Award Number UL1TR000433.

Public

Show all annotations (0)

scbet

AB_221569

Protein Citation: (Molecular Probes Cat# A11122, RRID:AB_221569)

Antibody ID: [AB_221569](#)

Cat Num: A11122

Clonality: polyclonal antibody

Comments: manufacture recommendations: Secondary Detection; Fluorescent Proteins; Anti-GFP Antibodies other, green fluorescent protein

Host Organism: rabbit

Protein Citation: (Molecular Probes Cat# A11122, RRID:AB_221569)

Reference: PMID:18998034

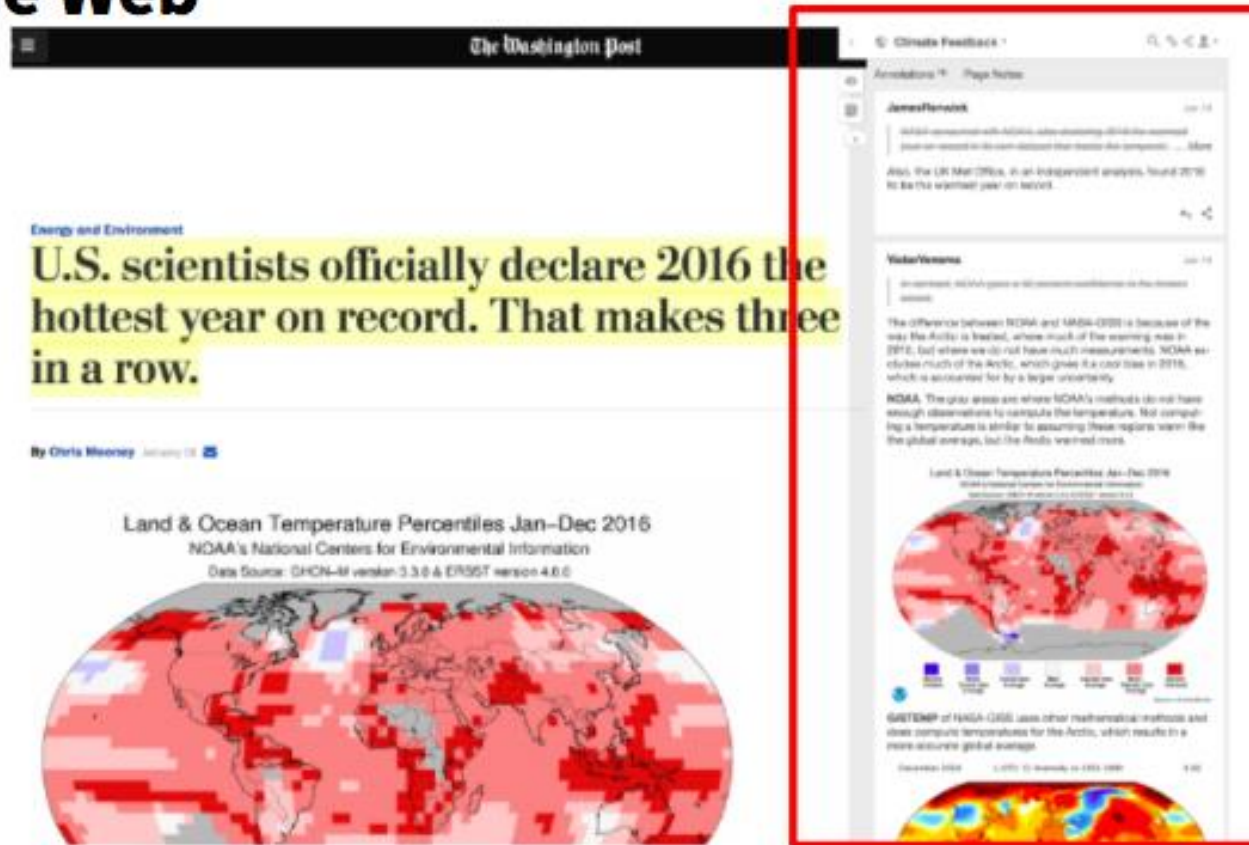
Target Antigen: Green Fluorescent Protein (GFP)

Vendor: Molecular Probes

viewer lookup

RRID:AB_221569

Expert Annotations Connect Relevant Resources Across the Web



The image shows a screenshot of a Washington Post article titled "U.S. scientists officially declare 2016 the hottest year on record. That makes three in a row." The article is by Chris Mooney, dated January 12, 2017. Below the title is a world map titled "Land & Ocean Temperature Percentiles Jan–Dec 2016" from NOAA's National Centers for Environmental Information. The map shows a global distribution of temperature anomalies, with significant red areas indicating above-normal temperatures. A red-bordered box highlights an expert annotation from "Climate Feedback" on the right side of the page. The annotation, by James Hansen, discusses the difference between NOAA and NASA-GISS temperature records, noting that NOAA excludes much of the Arctic, which gives it a cooler bias in 2016. The annotation also mentions that NOAA's method is similar to assuming these regions were the global average, but the Arctic warmed more. Below the text is another map titled "Land & Ocean Temperature Percentiles Apr–Dec 2016" showing a similar global distribution of temperature anomalies.

The Washington Post

Energy and Environment

U.S. scientists officially declare 2016 the hottest year on record. That makes three in a row.

By Chris Mooney January 12

Land & Ocean Temperature Percentiles Jan–Dec 2016
NOAA's National Centers for Environmental Information
Data Source: CHCN-M version 3.3.0 & ERSST version 4.0.0

Climate Feedback

Annotations Page Notes

James Hansen Jan 14

Added annotation with title, user identity and the content you're annotating on the page. You can edit or delete your annotation at any time.

Also, the UK Met Office, in an independent analysis, found 2016 to be the warmest year on record.

Victor Venema Jan 14

An annotation with a page or full-screen view of the annotated content.

The difference between NOAA and NASA-GISS is because of the way the Arctic is treated, where much of the warming was in 2016, but where we do not have much measurements. NOAA excludes much of the Arctic, which gives it a cool bias in 2016, which is accounted for by a larger uncertainty.

NOAA: The gray areas are where NOAA's method's do not have enough observations to calculate the temperature. Not computing a temperature is similar to assuming these regions were the global average, but the Arctic warmed more.

Land & Ocean Temperature Percentiles Apr–Dec 2016
NOAA's National Centers for Environmental Information
Data Source: CHCN-M version 3.3.0 & ERSST version 4.0.0

NOAA-GISTEMP of NASA-GISS uses other mathematical methods and does compute temperatures for the Arctic, which results in a more accurate global average.

November 2016 1,000 0 1000 2000

The Classroom

Annotation is perfect for blended learning environments.

Primary source historical documents annotated in an online course.

MARBURY V. MADISON

SUPREME COURT OF THE UNITED STATES

5 U.S. 137 (1803)

(As edited in Epstein and Walker, *Constitutional Law for a Changing America: A Short Course*, 6th edition)

Afterwards, on the 24th of February the following opinion of the court was delivered by the chief justice....

The peculiar delicacy of this case, the novelty of some of its circumstances, the real difficulty attending the points which occur in it, require a complete exposition of the principles, on which the opinion to be given by the court, is founded....

In the order in which the court has viewed this subject, the following questions have been considered and decided.

1st. Has the applicant a right to the commission he demands?

2dly. If he has a right, and that right has been violated, do the laws of his country afford him a remedy?

3dly. If they do afford him a remedy, is it a mandamus issuing from this court?

The screenshot shows a social media thread with the following content:

- Public** (1 month ago)
 - nmcr** (1 month ago)
 - the following opinion of the court was delivered by the chief justice
 - Remember that prior to Marshall's arrival on the Court, most cases were decided "seriatim" — meaning all the justices wrote their own individual opinions, making it very difficult to know what the Court's decision really meant.
 - 1 reply
 - asheufelt** (1 month ago)
 - 3dly. If they do afford him a remedy, is it a mandamus issuing from this court?
 - Marshall makes it seem like the answer to the first 2 questions favor Marbury, but the 3rd does not. I couldn't quite figure out why the issuing of a writ of mandamus doesn't apply here or support Marbury. Can someone explain it?
 - 1 reply
 - joshringarink** (1 month ago)
 - It is...decidedly the opinion of the court, that when a commission has been signed by the President, the appointment is made; and that the commission is complete, when the seal of the United States is affixed thereto.
 - I am confused on this part because it sounds like Marshall and the court sided with Marbury but in the end they didn't. So what exactly is Marshall saying? Is saying he had the right to the position but for a different reason didn't get post?
 - 2 replies
 - halley_molenaar** (1 month ago)



Non-profit

Maintains an independent voice

Not beholden to shareholders but to partners

Cannot be acquired by the competition



The global voice of scholarly publishing

The Exploded Web

The image shows a collage of various web pages, including a 'LEARNING LENS' sidebar, an 'ABSTRACT' section, a French language exercise, and a table. A large red-bordered box is superimposed over the center, with red arrows pointing outwards from its corners and sides, symbolizing the 'Exploded Web'.

LEARNING LENS

- Classics
- Research and
- Additional resources
- Research and resources
- Web accessibility
- Learned from my research
- Advanced activities

ABSTRACT

The most fundamental unit of analysis in the study of language is the word. This paper examines the role of the word in the study of language and the implications for the study of language and the implications for the study of language.

French Exercise

Après avoir travaillé sur les annotations à droite de la leçon "Star Out" pour faire un test basé sur les exercices.

Quand vous serez bien sûr, au soir à la chaudière, Aidez-vous de la fin, **Cherchez et trouvez**, Dans, cherchez-vous, vous **trouvez**.

Choisissez les phrases dans lesquelles le verbe "trouver" est utilisé correctement en français.

Deux sœurs ou couples d'une grande et d'une petite famille.

Il n'est pas le sort, après avoir le naufrage par un coup de chance exceptionnel.

Target	Target	Target	Percent	Percent
Value	Value	Value	Value	Value
100	100	100	100.0	100.0
90	90	90	90.0	90.0
80	80	80	80.0	80.0
70	70	70	70.0	70.0
60	60	60	60.0	60.0
50	50	50	50.0	50.0
40	40	40	40.0	40.0
30	30	30	30.0	30.0
20	20	20	20.0	20.0
10	10	10	10.0	10.0
0	0	0	0.0	0.0

Time's Up!

About your speaker:

Name: Heather Ruland Staines

Company: Hypothesis

Tel: +1-203-400-1716

Email: Heather@Hypothes.is

**Social Media: [@heatherstaines](https://twitter.com/heatherstaines)
[@hypothes_is](https://twitter.com/hypothes_is)**