

**crossref**

# Content

# Negotiation

The Robot Uprising

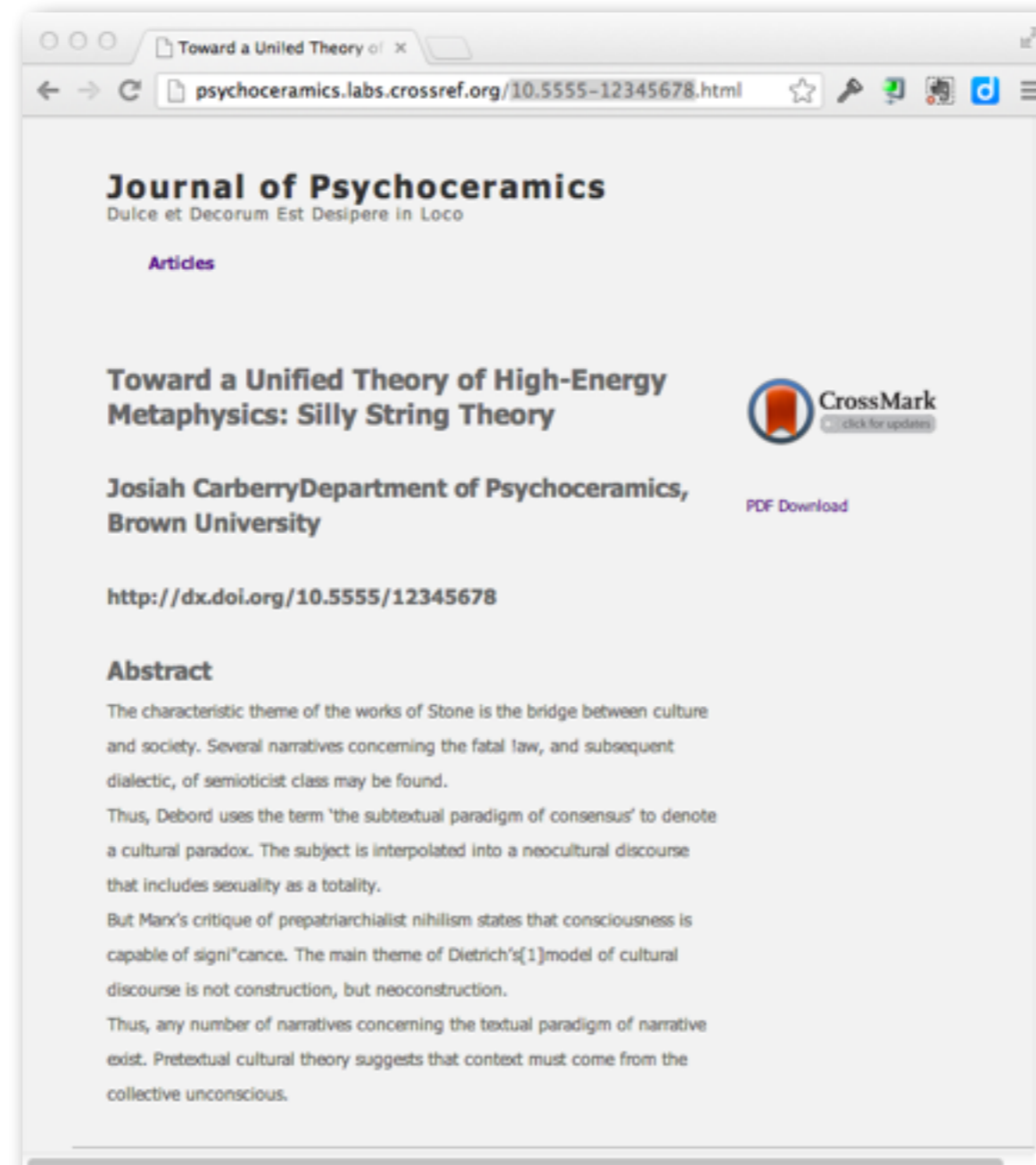
Milan, 2014

**crossref**

Geoffrey Bilder  
Director of Strategic Initiatives

<http://dx.doi.org/10.5555-12345678>

([Accept: text/html](#))



# NEWS TECHNOLOGY

12 December 2013 Last updated at 13:42 GMT

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## Bots now 'account for 61% of web traffic'

By Leo Kelion  
Technology reporter



GETTY IMAGES

The study suggests humans only account for 38.5% of internet traffic

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### Top Stories



Obama offer to 5m illegal migrants

- Mass protests in Mexico over missing
- UKIP's Reckless wins Rochester seat
- Japanese PM Abe dissolves parliament
- Dutch Syria girl to appear in court

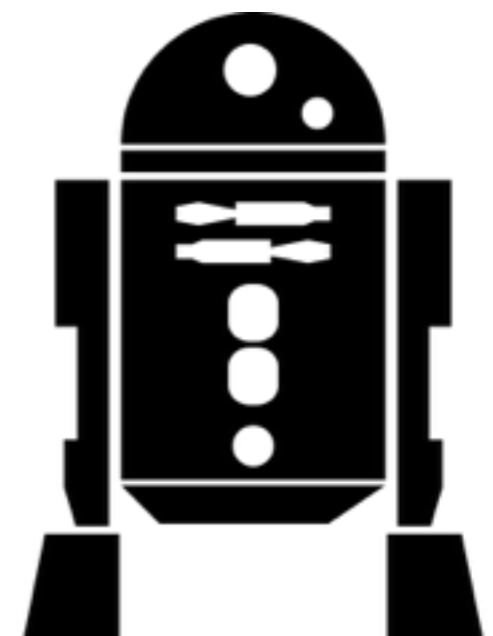
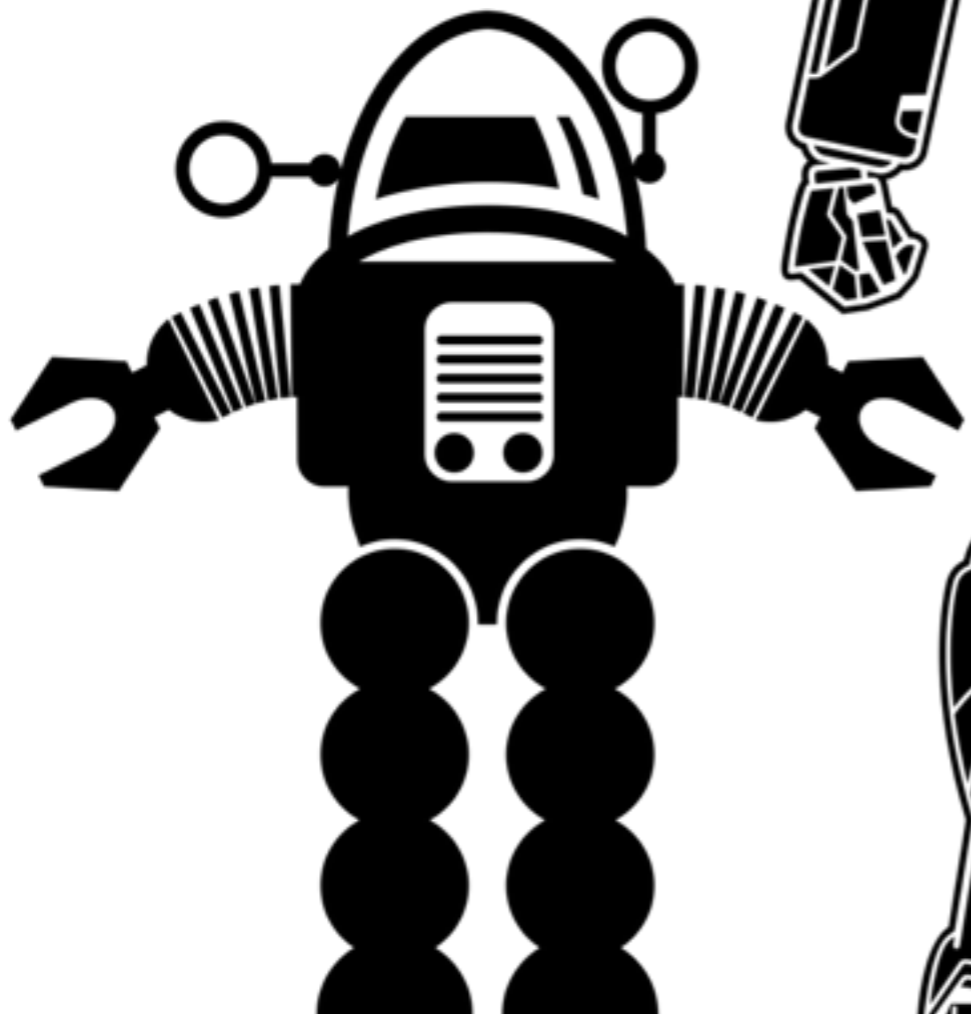
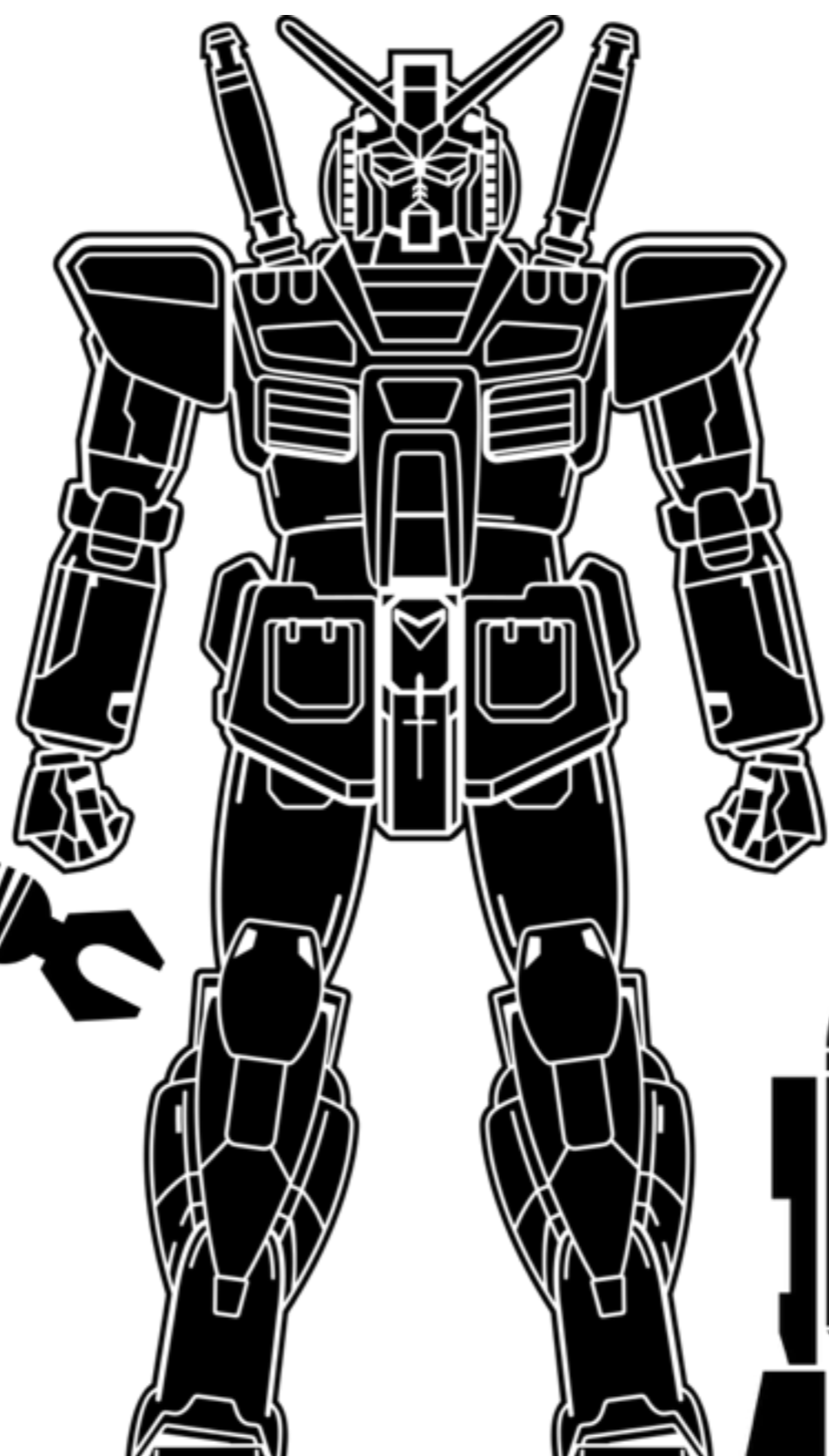
### Features & Analysis

**Monstrous assembly**  
Why did 270 warships gather peacefully in one place?

**Line of fire**  
The city where a police officer is killed every day

**'Difficult life'**  
Misery for civilians under IS rule in Iraq's Mosul

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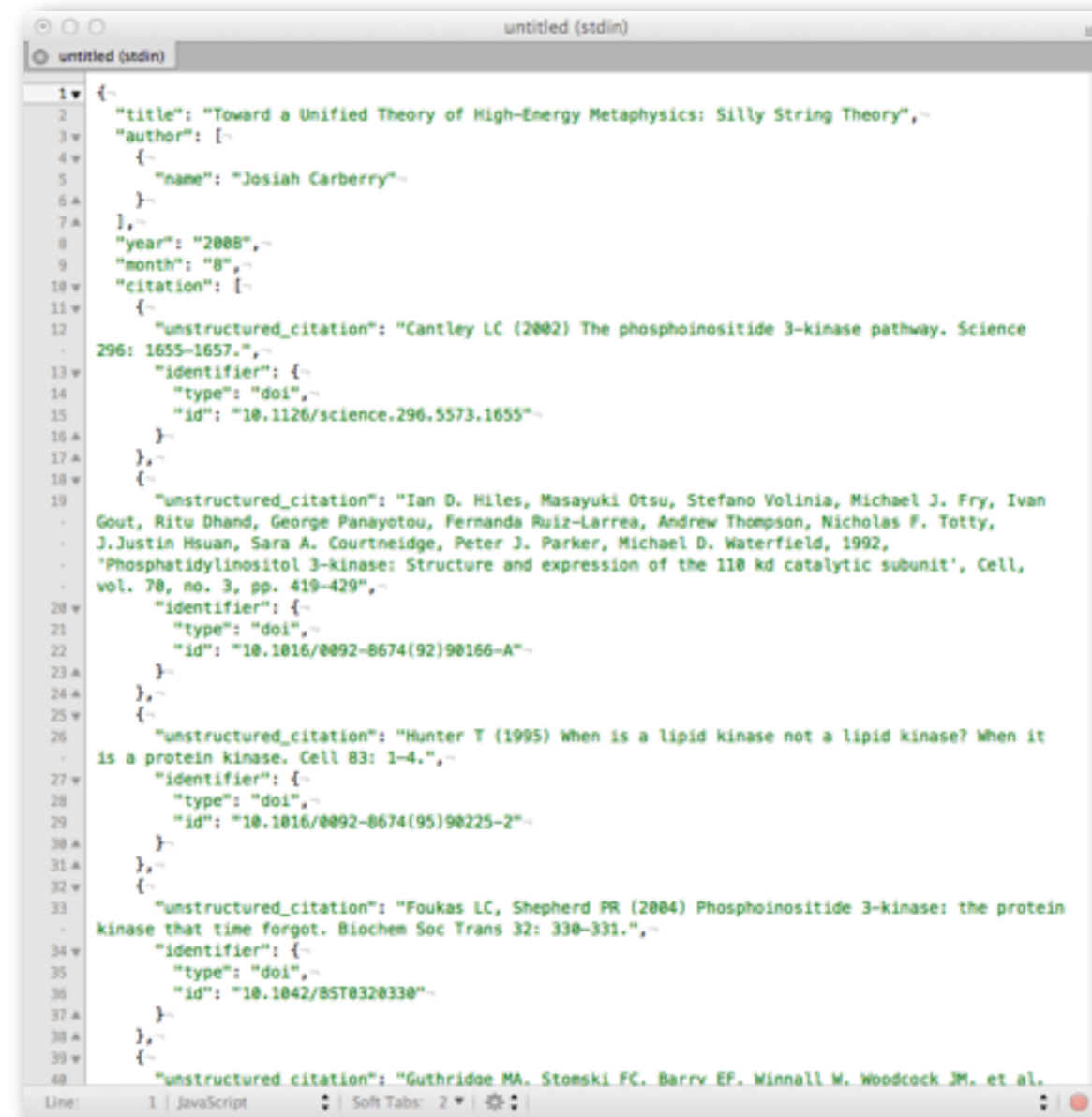




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22      J. Justin Hsuan, Sara A. Courtneidge, Peter J. Parker, Michael D. Waterfield, 1992,
23      'Phosphatidylinositol 3-kinase: Structure and expression of the 110 kd catalytic subunit', Cell,
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**DataCite**  
International Data Citation

## 4 Supported Content Types

Currently two DOI registration agencies have implemented content negotiation for their DOIs: CrossRef and DataCite. They support a number of metadata content types, some of which are common to both RAs.

Format	Content Type	CrossRef	DataCite
RDF XML	application/rdf+xml	Yes	Yes
RDF Turtle	text/turtle	Yes	Yes
Citeproc JSON	application/vnd.citationstyles.csl+json	Yes	Yes
Formatted text citation	text/x-bibliography	Yes	Yes
RIS	application/x-research-info-systems	Yes	Yes
BibTeX	application/x-bibtex	Yes	Yes
CrossRef Unixref XML	application/vnd.crossref.unixref+xml	Yes	No
DataCite XML	application/vnd.datacite.datacite+xml	No	Yes



## DOI Content Negotiation

Do you need to get DOI metadata in RDF?  
Do you need to include a journal article metadata in the references of a publication in a specific format?  
Do you want to provide your customers with over 6,900 ways to cite your content?

Content negotiation can help you.

You just need to use common web browser tools, specify which metadata format you want and you will get it back in a blink of an eye.

What's cool is that you don't need to know the Registration Agency where the DOI has been registered to get the metadata: whether mEDRA, CrossRef or DataCite it works, because the DOI resolver knows which Registration Agency stores the metadata and gets it for you.

### What is content negotiation?

Content negotiation is a common service run by mEDRA, CrossRef and DataCite Registration Agencies, enabled as an additional way to represent resources identified by DOIs and to make available and disseminate DOI metadata.

Content negotiation and citation formatter can be integrated in content management systems and reference management software that use formatted bibliographic references for content publishing.

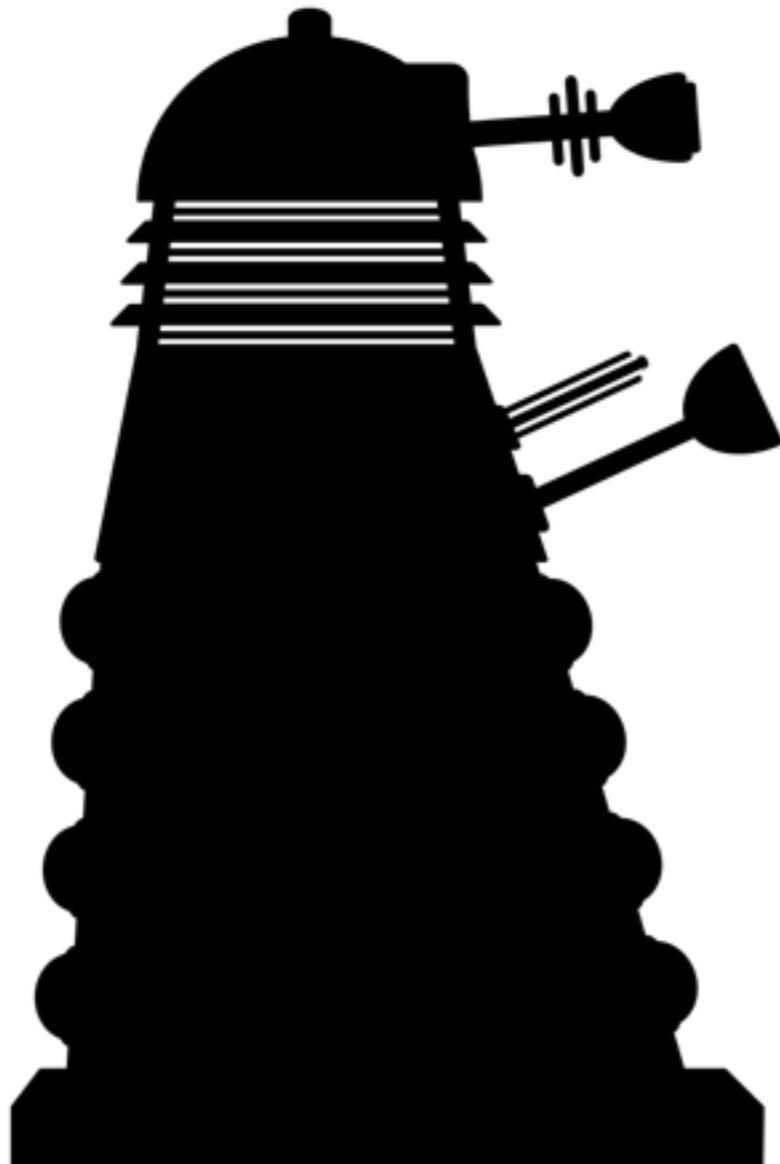
For DOIs registered with mEDRA, metadata can be requested in the following formats:

- RDF xml (Serial Article)
- RDF turtle (Serial Article)
- Citeproc JSON (Serial Article)
- Formatted text citation (Serial Article)
- Bibtex (Serial Article)
- ONIX for DOI (Serial Article, Serial Issue, Serial Title, Monograph and Monograph Chapter)

To see how it works and get different representations of DOI metadata, or to get DOI metadata as formatted bibliographic entry, use a web browser application (e.g. [Postman](#) for Google Chrome), input the DOI name, set the Accept header to one of the available formats, and see how easily you can

# Content Negotiation

negotiation



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RESEARCH ARTICLE

2,581

VIEWS

16

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## Structural and Mechanistic Basis of Zinc Regulation Across the *E. coli* Zur Regulon

Benjamin A. Gilston, Suning Wang, Mason D. Marcus, Mónica A. Canalizo-Hernández, Elden P. Swindell, Yi Xue, Alfonso Mondragón , Thomas V. O'Halloran

Published: November 04, 2014 • DOI: 10.1371/journal.pbio.1001987

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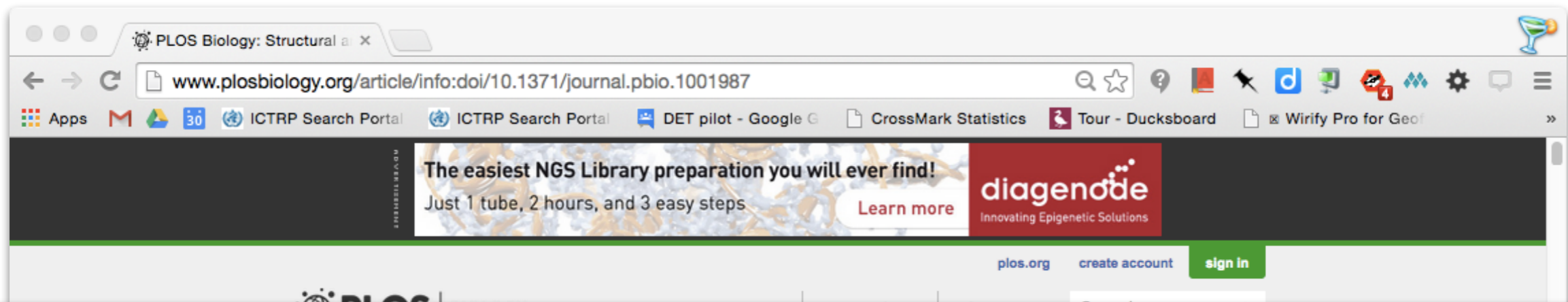
[Subject Areas](#)
[Crystal structure](#)
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[Zinc](#)

### Abstract

[Author Summary](#)
[Introduction](#)
[Results](#)
[Discussion](#)
[Materials and Methods](#)
[Supporting Information](#)
[Acknowledgments](#)
[Author Contributions](#)
[References](#)
[Reader Comments \(0\)](#)
[Figures](#)






### Abstract

Commensal microbes, whether they are beneficial or pathogenic, are sensitive to host processes that starve or swamp the prokaryote with large fluctuations in local zinc concentration. To understand how microorganisms coordinate a dynamic response to changes in zinc availability at the molecular level, we evaluated the molecular mechanism of the zinc-sensing zinc uptake regulator (Zur) protein at each of the known Zur-regulated genes in *Escherichia coli*. We solved the structure of zinc-loaded Zur bound to the  $P_{ZnuABC}$  promoter and show that this metalloregulatory protein represses gene expression by a highly cooperative binding of two adjacent dimers to essentially encircle the core element of each of the Zur-regulated promoters. Cooperativity in these protein-DNA interactions requires a pair of asymmetric salt bridges between Arg52 and Asp49' that connect otherwise independent dimers. Analysis of the protein-DNA interface led to the discovery of a new member of the Zur-regulon: *plG*. We demonstrate this gene is directly regulated by Zur in a zinc responsive manner. The *plG* promoter forms stable complexes with either one or two Zur dimers with significantly less protein-DNA cooperativity than observed at other Zur regulon promoters. Comparison of the *in vitro* Zur-DNA binding affinity at each of four Zur-regulon promoters



Elements | Network | Sources | Timeline | Profiles | Resources | Audits | Console

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 logo-plos-footer.png /images	GET	304 Not Mod...	image/png	journal.pbio.100... Parser	351 B 3.5 KB	393 ms 390 ms	
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103 requests | 188 KB transferred | 6.28 s (load: 6.29 s, DOMContentLoaded: 3.84 s)



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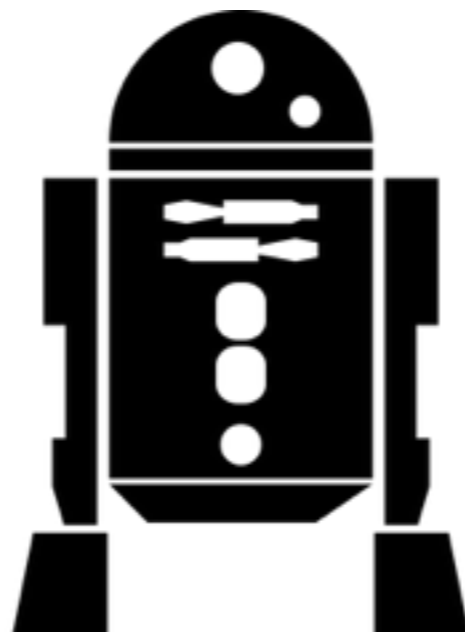
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# Credits

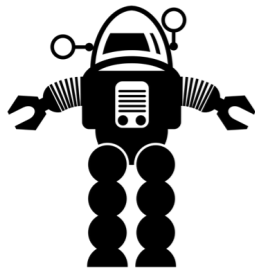
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Robot by Rutmer Zijlstra from The Noun Project



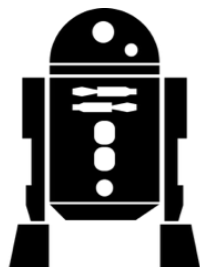
Dalek by Nate Holland from The Noun Project



Robot by Simon Child from The Noun Project



Gundam by Simon Child from The Noun Project



Robot by jon trillana from The Noun Project



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[gbilder@crossref.org](mailto:gbilder@crossref.org)

