

Martin Fenner

PLOS

Technical Lead Article-Level Metrics Public Library of Science

http://pixabay.com/en/ruler-straight-edge-tool-geometry-145940/

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A piece of data or content is open if anyone is free to use, reuse, and redistribute it subject only, at most, to the requirement to attribute and/or share-alike.

http://opendefinition.org/



It has become more important where we publish than what we publish.

The tools we use for impact assessment are slow, limited and proprietary.



We need to move beyond **Open Access** for all research outputs.

Open Metrics are needed for the timely, comprehensive and reproducible evaluation of the impact of research.



Open up (and standardize) the publication metadata



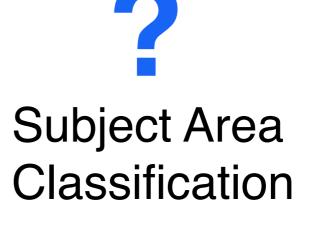
Authors

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Institutions



Funding Information





Open up reference lists (and make them machine-readable)

References

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http://dx.doi.org/10.1371/journal.pone.0063184

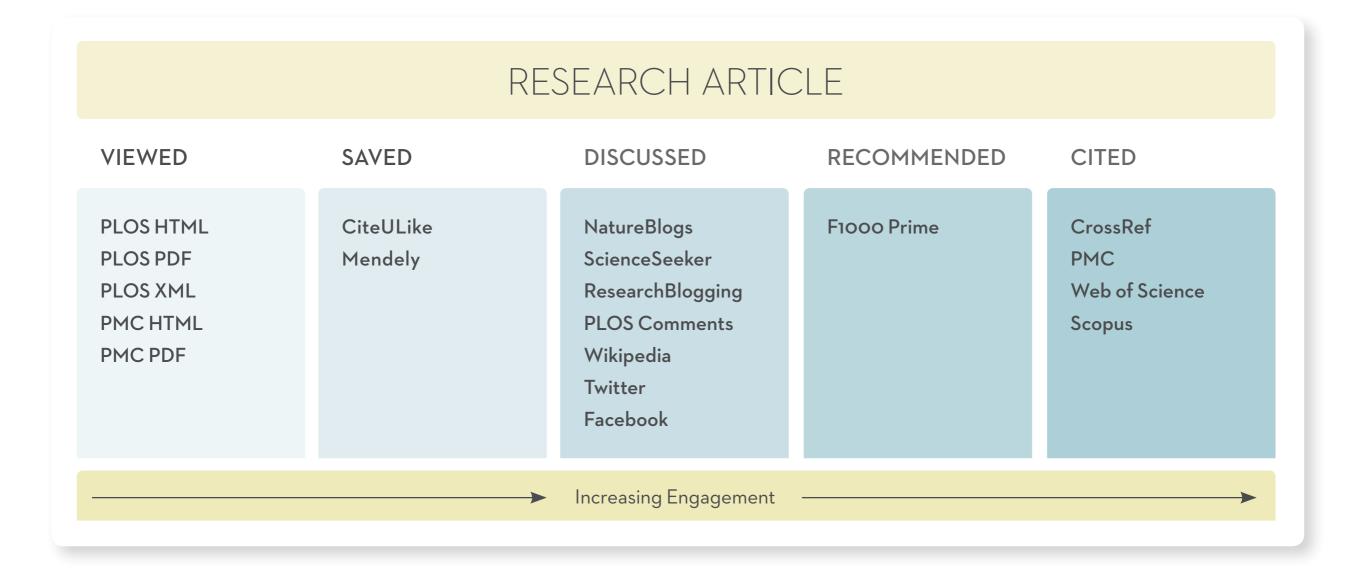
Open up links to data and other resources

Data Availability: The authors confirm that all data underlying the findings are freely available without restriction. Specimen data may be accessed through the Museum of Comparative Zoology at Harvard University's MCZbase (http://mczbase.mcz.harvard.edu/) under the sample IDs http://mczbase.mcz.harvard.edu/guid/MCZ:IZ:24804, http://mczbase.mcz.harvard.edu/guid/MCZ:IZ:24805, http://mczbase.mcz.harvard.edu/guid/MCZ:IZ:95557, http://mczbase.mcz.harvard.edu/guid/MCZ:IZ:95901. MicroCT scans are available through GigaScience's GigaDB (http://gigadb.org/site/index) at http://dx.doi.org/10.5524/100092.



http://dx.doi.org/10.1371/journal.pone.0096617

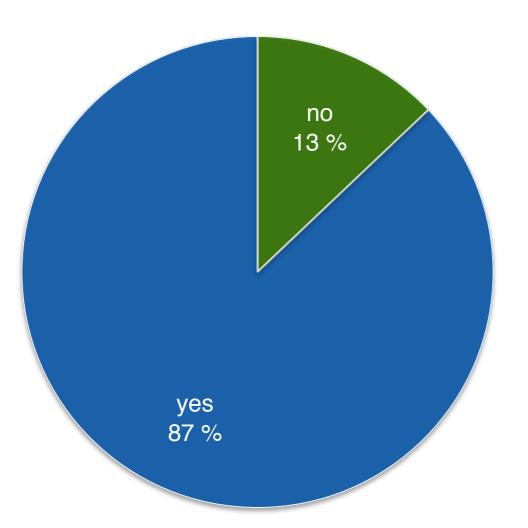
Open up what we measure



http://dx.doi.org/10.3789/isqv25no2.2013.04

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Open up content to be alm-able



Facebook can't resolve all DOIs to a canonical URL

Cookies Circular redirects Permissions Canonical URL mismatch

Data from 9,969 random CrossRef DOIs from 2011 and 2012, collected June 22, 2014. Facebook Debugger: https://developers.facebook.com/tools/debug DOIs: http://dx.doi.org/10.6084/M9.FIGSHARE.821209 (2011) and http://dx.doi.org/ 10.6084/M9.FIGSHARE.821213 (2012)



Open up what is measured

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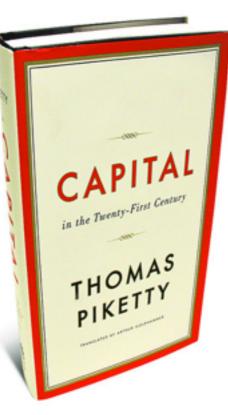
ject does not exist independently of their description of it. Giddens (1990) described the special nature of reflexivity that characterizes modernity: how information about our practices is constantly monitored and contemplated and, as a result, may change the very nature of those practices. As long as differences among people are our main focus, a moral objection to culture studies can be said to exist, insofar as it "lends to draw attention away from what we have in common instead of encouraging us to communicate across national, ethnic, and religious boundaries, and to venture between them" (Kuper, 1999, p. 247). This issue becomes particularly consequential in the context of Giddens's (1990) conjecture that the results of our research are likely to be assimilated by the very people we are studying, even to the extent that we may change their actions and self-perceptions.

ACKNOWLEDGMENTS

We are grateful to Margarita Azmitia, Dan Linger, Shigeko Okamoto, and Barbara Rogoff for their insightful comments on an earlier draft.

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Articles

Books

Datasets





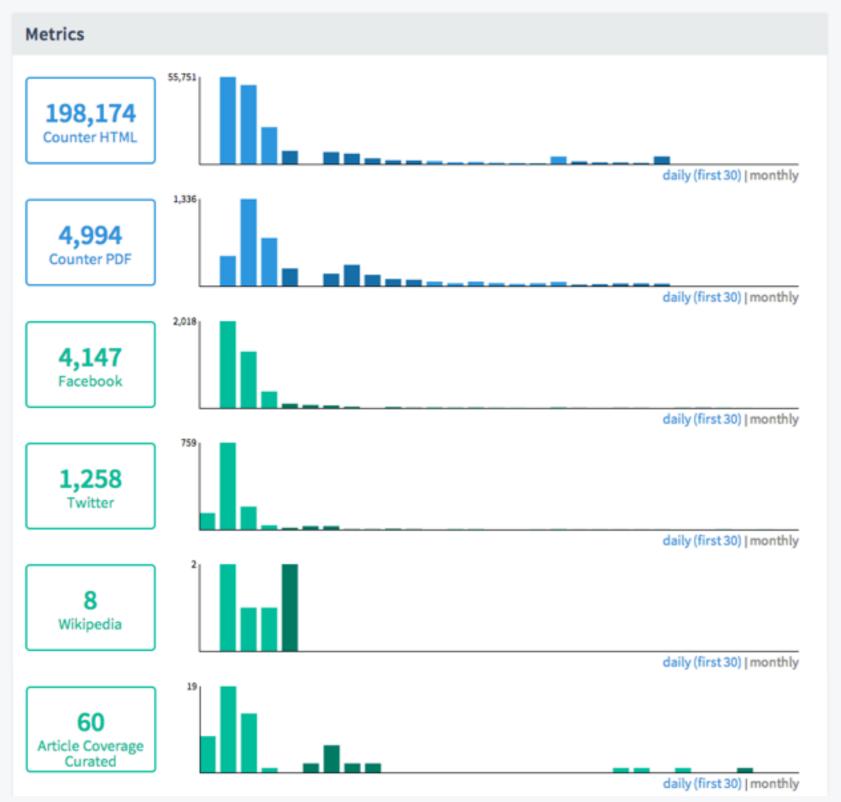
Open up what is measured

Software for UCE (and general) phylogenomics			
Type Publisher	April 28, 2014 dataset Github https://github.com/faircloth-lab/phyluce		
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http://labs.lagotto.io/works/url/https://github.com/faircloth-lab/phyluce

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Open up the time window



PLOS

:0)

Days since publication August 27, 2014

http://alm.plos.org/articles/info:doi/10.1371/journal.pone.0105948

Open up the events behind the numbers

2014

PLOS

Congratulations!

Ronald Chapman. *PLOS Comments*. Personal communication. December 08, 2014. http://dx.doi.org/10.1371/journal.pone.0105948

Porque se mueven las piedras en el desierto? Superficies cubiertas de hielo y viento. nada sobrenatural... http://t.co/FxilpqvNbY

Fefo Cles. *Twitter*. Personal communication. November 11, 2014. http://twitter.com/Fedocles/status/532204152940945408

Racetrack Playa mystery in Death Valley solved

GrindTV. News. November 06, 2014. http://www.grindtv.com/outdoor/nature/post/racetrack-playa-mystery-death-valley-solved/

http://t.co/c8nL3JdLU6 They finally solved the mystery beind those moving desert rocks.

Rune Devros. *Twitter*. Personal communication. November 05, 2014. http://twitter.com/rune_devros/status/529841610776133632

http://alm.plos.org/articles/info:doi/10.1371/journal.pone.0105948

Open up the metrics data



search figshare (titles, tags, authors, etc.)

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Cumulative PLOS ALM Report - February 2014

	А	В	
1	doi	publication_date	title
2	10.1371/journal.pcbi.0010005	6/24/2005	An Open Forum for Computation
3	10.1371/journal.pcbi.0010011	6/24/2005	A Phenomenological Theory of
4	10.1371/journal.pcbi.0010030	8/26/2005	Molecular Origin of Polyglutam
5	10.1371/journal.pcbi.0010033	8/26/2005	ISMB 2005 Conference Report
6	10.1371/journal.pcbi.0010051	10/28/2005	The ISCB: Growing and Evolvir
7	10.1371/journal.pcbi.0010052	11/25/2005	Bioinformatics EducationäóîPe
8	10.1371/journal.pcbi.0010077	12/30/2005	The Eighth Annual Bio-Ontolog
9	10.1371/journal.pcbi.0020011	2/24/2006	ISMB 2006



Published on 01 Oct 2014 - 19:53 (GMT) Filesize is 24.48 MB

Categories

Information Systems

Authors

PLOS ALM

alm_report_2014-03-10

PLOS

http://dx.doi.org/10.6084/m9.figshare.1189396

Open up the software to collect and analyze the metrics data

Lagotto

build failing code climate 2.0 coverage 79%

Lagotto allows a user to aggregate relevant performance data on research articles, including how often an article has been viewed, cited, saved, discussed and recommended. The application was called Article-Level Metrics (ALM) until September 2014 and was started in March 2009 by the Open Access publisher Public Library of Science (PLOS). We are continuing to expand Lagotto because we believe that articles should be considered on their own merits, and that the impact of an individual article should not be determined by the journal in which it happened to be published. As a result, we hope that new ways of measuring and evaluating research quality (or 'impact') can and will evolve. To learn more about Article-Level Metrics, see the SPARC ALM primer.

How to start developing now?

Lagotto uses Vagrant and Virtualbox for setting up the development environment. To start developing now on your local machine (Mac OS X, Linux or Windows):

- 1. Install Vagrant: https://www.vagrantup.com/downloads.html
- 2. Install Virtualbox: https://www.virtualbox.org/wiki/Downloads
- 3. Clone this repository git clone git@github.com:articlemetrics/lagotto.git
- 4. Cd into it
- 5. Copy the file .env.example to .env and make any changes to the configuration as needed
- 6. Run vagrant up

PLOS

Once the setup is complete (it might take up to 15 minutes), you'll be able to open up a browser and navigate to http://10.2.2.4, and you should see this screen:



ALM Reports

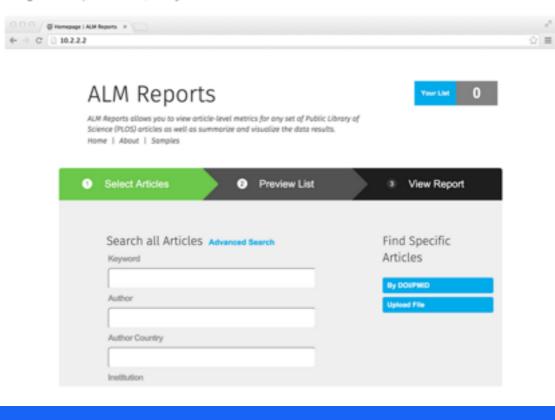
build failing code climate 1.7 coverage 73%

How to start developing now?

ALM Reports uses Vagrant and Virtualbox for setting up the development environment. To start developing now on your local machine (Mac OS X, Linux or Windows):

- 1. Install Vagrant: https://www.vagrantup.com/downloads.html
- 2. Install Virtualbox: https://www.virtualbox.org/wiki/Downloads
- 3. Clone this repository git clone git@github.com:articlemetrics/alm-report.git
- 4. Cd into it and run vagrant up

Once the setup is complete (it might take up to 20 minutes), you'll be able to open up a browser and navigate to http://10.2.2.2, and you should see this screen:



https://github.com/articlemetrics/lagotto

https://github.com/articlemetrics/alm-report

Open up the service to collect and analyze the metrics data

CrossRef Labs has started a pilot project to collect events around all CrossRef DOIs issued since January 2011.

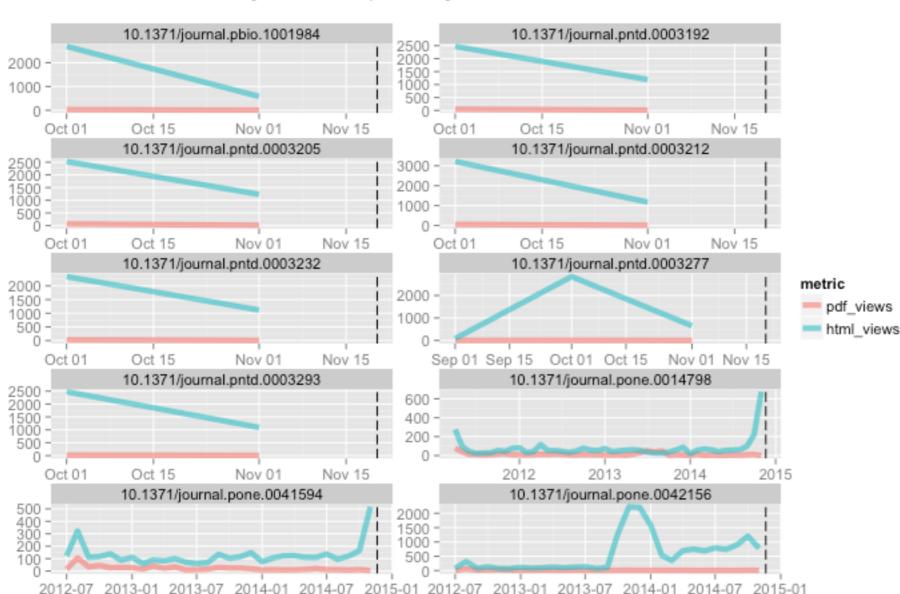
A DOI Event Tracker (DET) CrossRef working group was formed in May 2014 to support this pilot.

The service is available at http://det.labs.crossref.org, and is using the Lagotto software.

Uusing the Lagotto software, the Public Knowledge Project is providing an ALM service for publishers running Open Journal Systems (OJS)



Open up data quality checks

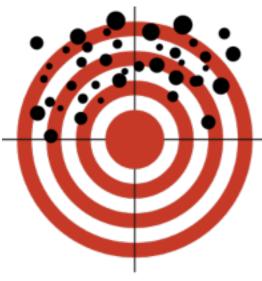


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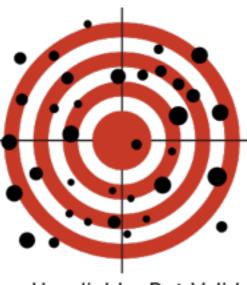
HtmlRatioTooHighError - Top ten highest HTML/PDF ratio articles

Work by Scott Chamberlain using the rOpenSci R package alm https://github.com/ropensci/alm

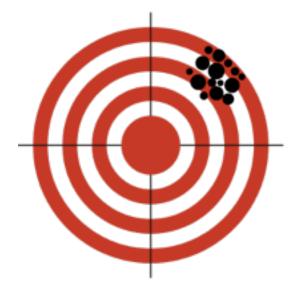
Open up your mind to the limitations of metrics



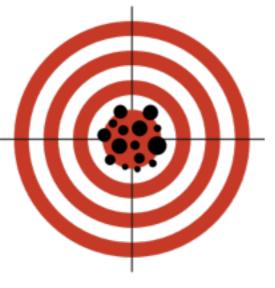
Unreliable & Unvalid



Unreliable, But Valid



Reliable, Not Valid



Both Reliable & Valid

Any metric we use should have good **reliability** (consistency) and **validity**.



Open up the discussion



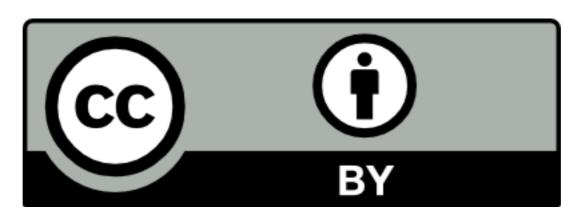
Alternative Metrics Initiative Phase 1 White Paper

June 6, 2014

Phase II of the project starts in early 2015

http://www.niso.org/topics/tl/altmetrics_initiative/

PLOS



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PKP's Article Level Metrics Service

Juan Pablo Alperin (@juancommander)

our main motivation is to offer

ALMs and altmetrics for developing countries

what should be our motivation for caring about altmetrics/ALM

- new ways gaining visibility
- new ways demonstrating visibility
- good articles can stand out from journal
- researchers can stand out for good work

- counting some forms of public impact
- being rewarded for other kinds of impact
- incentive to gear research to public(local?) interests
- move away from dependencies on measures biased against the South



the signal is



@juancommander

I looked at all articles published in SciELO for 2013

only ~20% had Mendeley readers

only 6% had Tweets

only 3% had Facebook

so altmetrics may not tell us much in the developing country context....yet





our plan

@juancommander

make these metrics prominent on article pages

the tried and true "shove it in people's faces" approach

hopefully:

change culture around communicating research

•open minds to alternative measures of impact

•attract readers to a different group of journals

•give an incentive to do research of public interest

caveat

• we are doing this as a pilot...

which means: we are not fully supporting this.

That said...

 we are collecting metrics for over 150,000 articles already

also

- The ALM plugin has TWO parts:
 - Usage Metrics: anyone can show these
 - ALMs: these require a little bit of setup

requirements

- must upgrade to latest OJS (at least 2.4.3)
 - ALM plugin already built in!
- For ALMs, you must assign DOIs
 - not required for you to show your download stats
 - PKP has a new partnership with CrossRef and a new plugin that makes this easier in OJS 2.4.5: <u>https://pkp.sfu.ca/crossref/</u>

Resumen

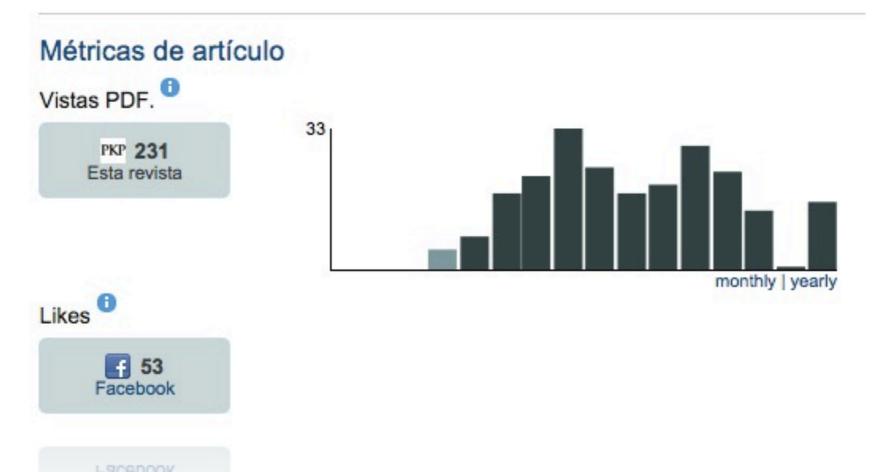
El objetivo de este artículo es presentar los resultados de una investigación acerca de las condiciones y experiencias de vida de las mujeres indigentes. Participaron cuatro mujeres gestantes indigentes. La investigación se enmarcó en un diseño cualitativo de tipo fenomenológico. La recolección de los datos se ejecutó mediante la aplicación de la entrevista a profundidad, empleando la grabación para realizar observaciones repetidas; luego se analizaron los datos y se contrastó con el marco referencial. Entre las peculiaridades más relevantes que forman el perfil de una mujer embarazada indigente se encontró como factores comunes alcoholismo, drogadicción, prostitución, violencia física, sexual, psicológica y la delincuencia. Se concluye que las condiciones de vida están entrelazadas por las experiencias de vida de las mujeres embarazadas indigentes, condición a partir de la cual se determina su perfil

Palabras clave

condiciones-de-vida, experiencias-de-vida, embarazo, indigencia, fenomenología

Texto completo:

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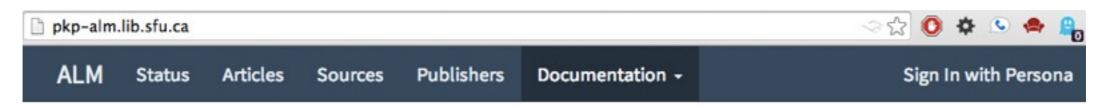


interested?

- I. upgrade to OJS 2.4.5 (2.4.3 OK, but 2.4.5 better)
 - this is harder than it looks. Make sure you get some support to make sure your usage metrics are migrated properly from older installations.
 - You have the option of processing your server logs to capture these correctly

interested?

- if you want to collect ALMs, set up your DOIs in OJS (preferably to automatic deposit, see details: <u>http://pkp.sfu.ca/crossref/</u>)
- go to <u>http://pkp-alm.lib.sfu.ca</u> and make an account (try to login, you'll be redirected to Mozilla Persona Sign-on)





interested?

4. enter your API key into the Plugin Settings page

1

juan@alperin.ca

Username juan@alperin.ca Email juan@alperin.ca Role Admin - full access to the ALM application API Key koz58qgTfDhSi89Ekpth

 email me with (juan@alperin.ca): the URL to your journal, your DOI prefix

that is it!





@juancommander