

# ¿Quiénes mapean la Argentina?

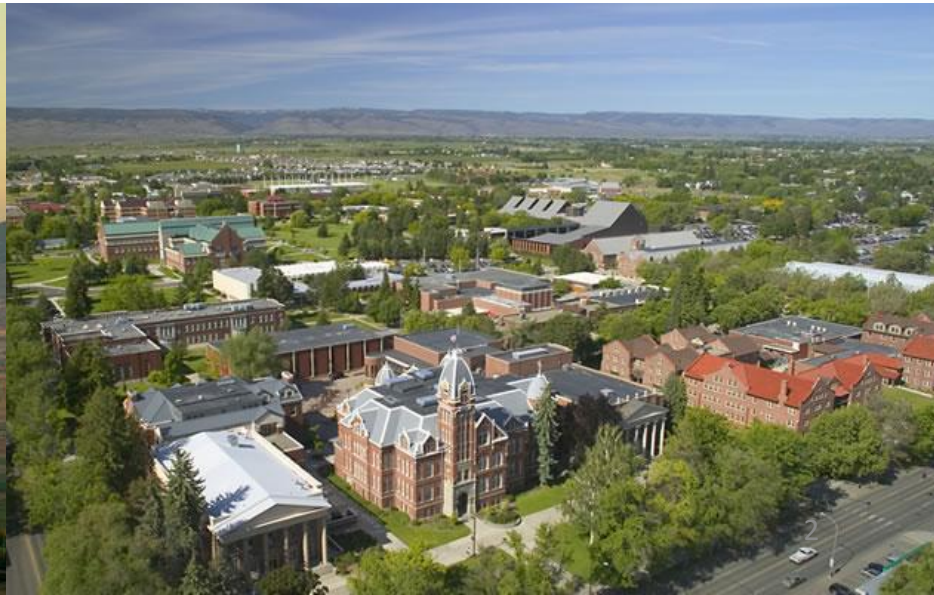
Una exploración del archivo histórico de OpenStreetMap para comprender el conjunto de contribuyentes activos en el país

**Dr. Sterling Quinn**

Assistant Professor– Departamento de Geografía  
Central Washington University

@SterlingGIS





# Preguntas de investigación

1. Dado un lugar, ¿quiénes contribuyeron al mapa?
2. ¿Cómo podemos hierarquizar los contribuyentes más activos en el país?
3. ¿Qué aprendemos de todo ésto sobre el estado de OpenStreetMap en Argentina?

# Trabajando con el archivo histórico ("full history dump")

- Se necesitan dos archivos...
  - Argentina full history dump (extracto de Geofabrik de 31/8/17 ~7.7 GB)

<http://download.geofabrik.de/south-america/argentina.osh.pbf>

- Changeset history

<http://planet.osm.org/planet/2017/changesets-170925.osm.bz2>

- Contienen XML...  
¡Mucho XML!



# Metodología



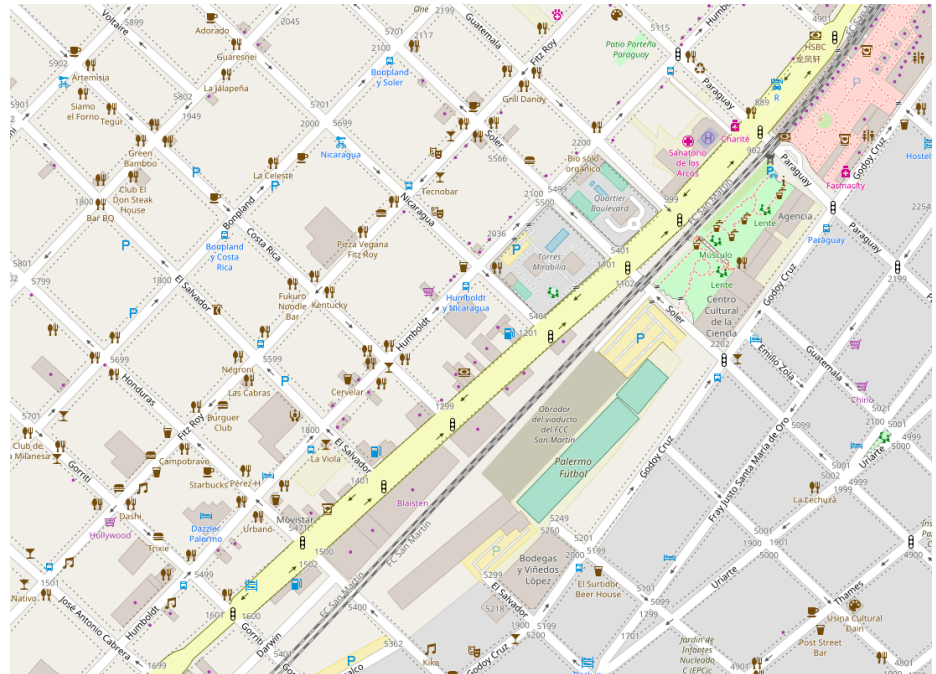
1. Leí el XML con Python
2. Detecté el idioma de los comentarios usando la librería *langid.py*
3. Sumé los datos para cada contribuyente
4. Escribí los datos de interés en CSV
  - Los junté usando la librería *pandas*
  - Tal vez crear una base de datos sería más eficaz

# Preguntas de investigación

1. Dado un lugar, ¿quiénes contribuyeron al mapa?
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# ¿Quiénes hicieron el mapa?

- ¿Cuántos contribuyen?
- ¿Cuáles son sus inclinaciones?
- ¿Cuántos parecen ser locales?
- ¿Cuántos siguen activos en el proyecto?



# ¿Cómo medir la actividad en OpenStreetMap?

- ¿Cantidad de “nodes” y “ways”? ← Problemas: Importaciones y “bots”
- ¿Cantidad de changesets? ← Problema: Personas que guardan sus cambios a menudo
- ¿Cantidad de contribuyentes? ← Problema: Algunos mapean mucho más que otros
- ¿Cantidad de días activos? ← ¡Me gusta!





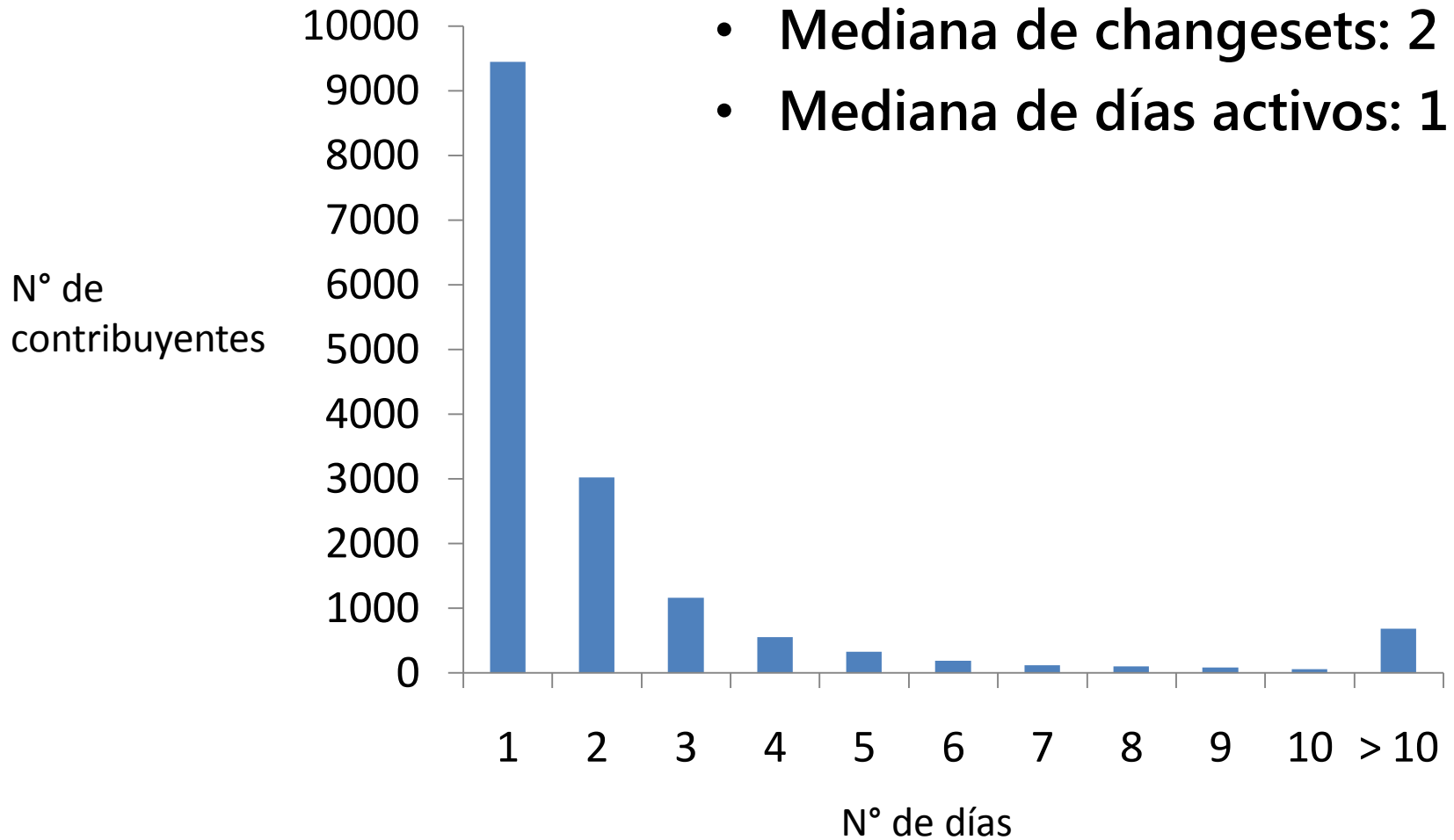
# El mapa de la Argentina

Hasta 31/8/2017

- 385.257 changesets
- 15.576 contribuyentes
- 74.646 días activos

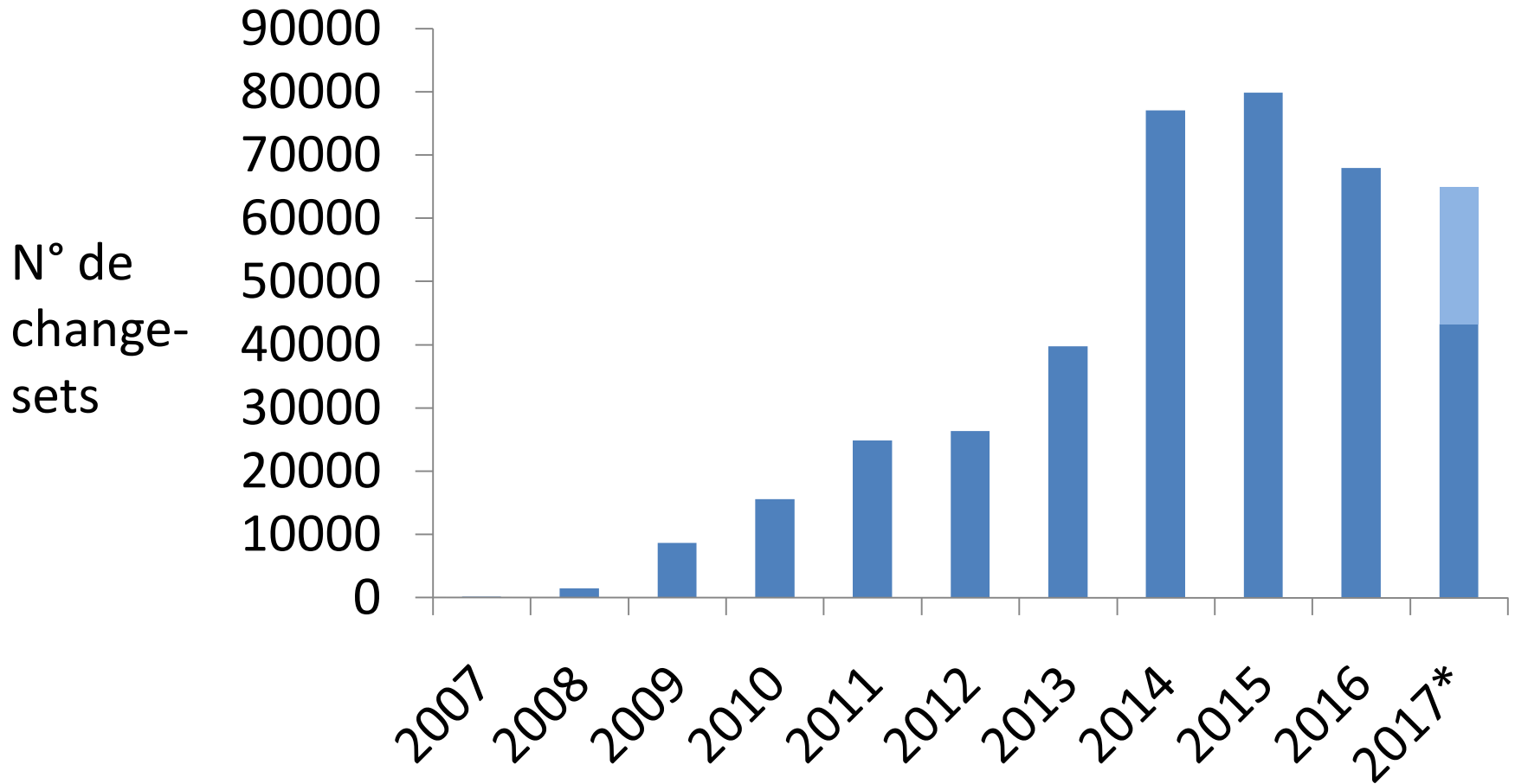


# La mayoría de contribuyentes mapean un solo día



Días activos en el mapa de Argentina, por contribuyente<sup>10</sup>

# N° de changesets ha bajado desde 2015

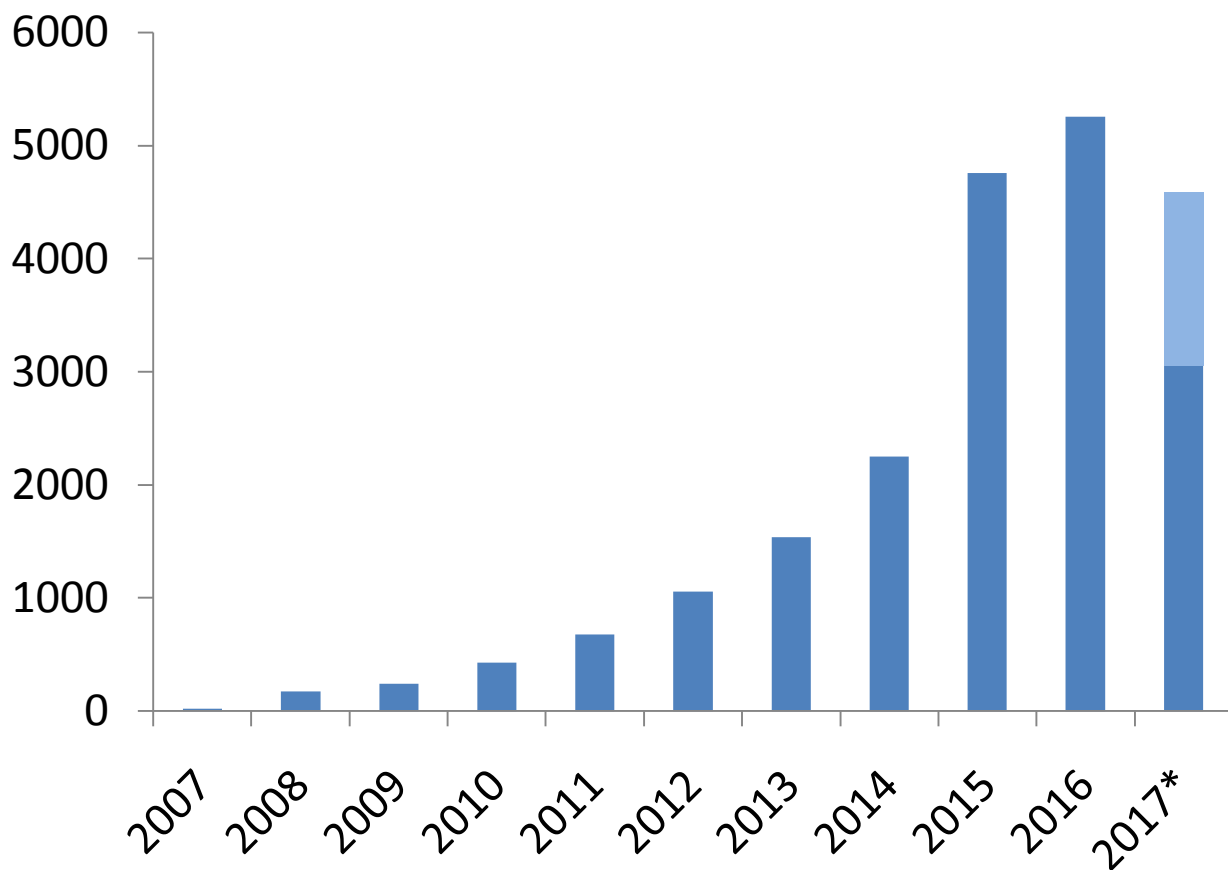


\* 2017 proyectado usando datos hasta 31/8/2017

# N° de contribuyentes activos

## ¿Va a bajar este año?

N° de contribuyentes al mapa de Argentina

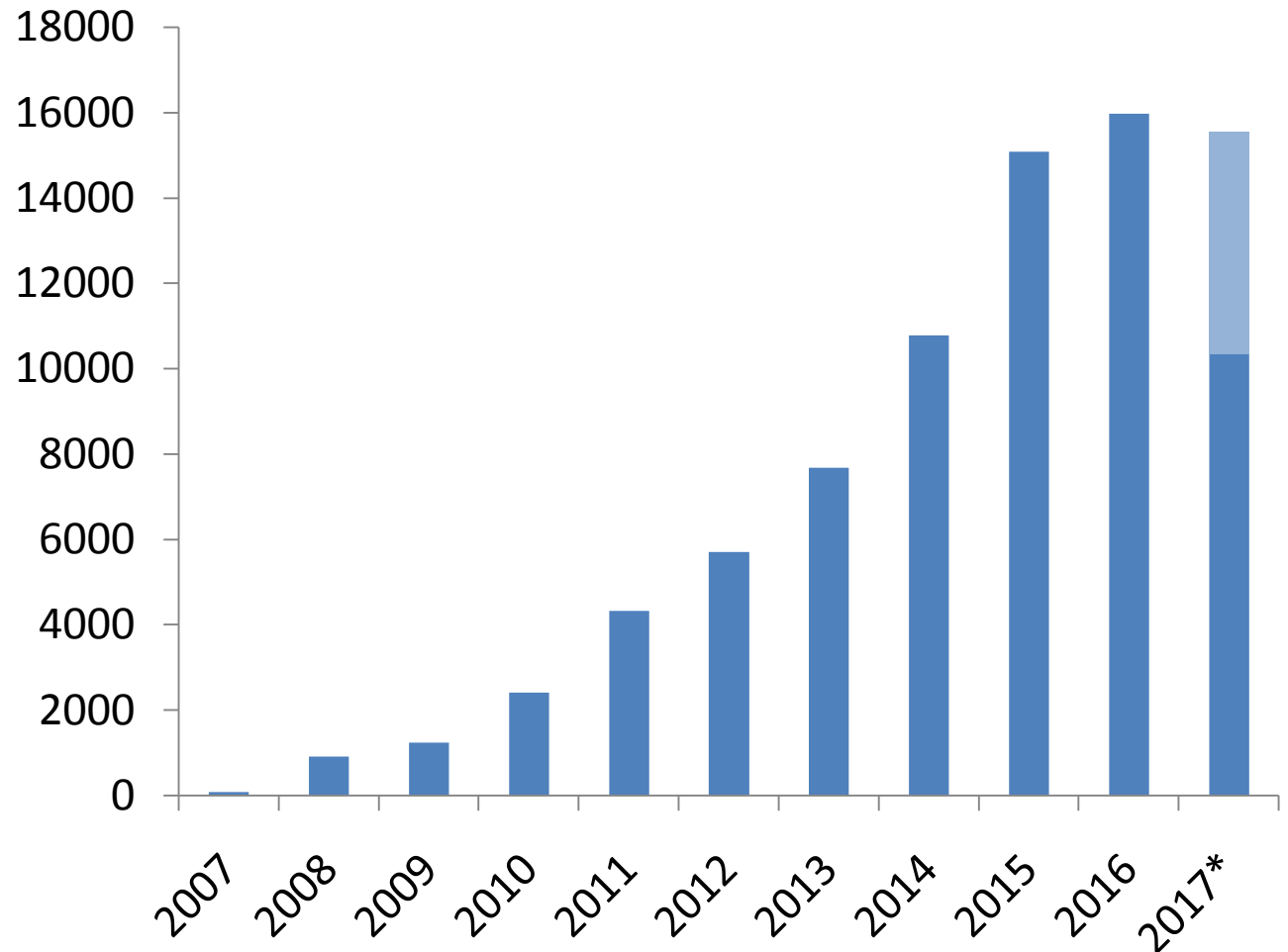


\* 2017 proyectado usando datos hasta 31/8/2017

# N° de días activos

## También parece estar bajando

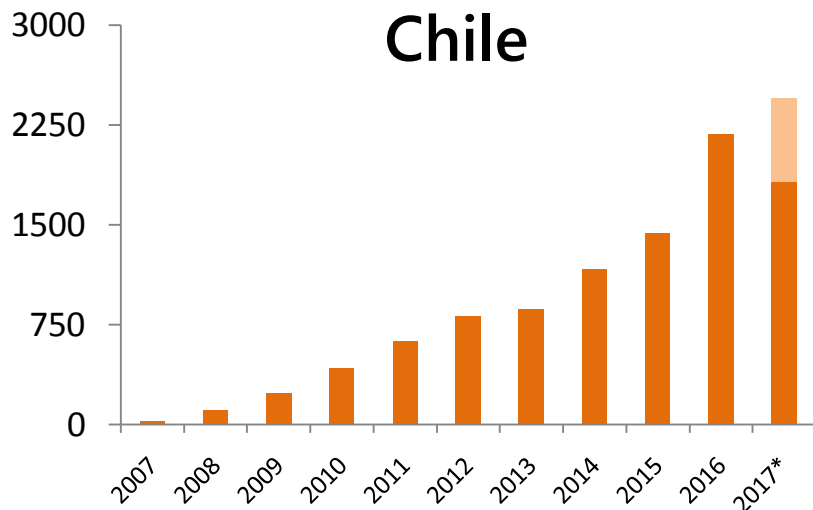
N° de días activos de contribuyentes (en total)



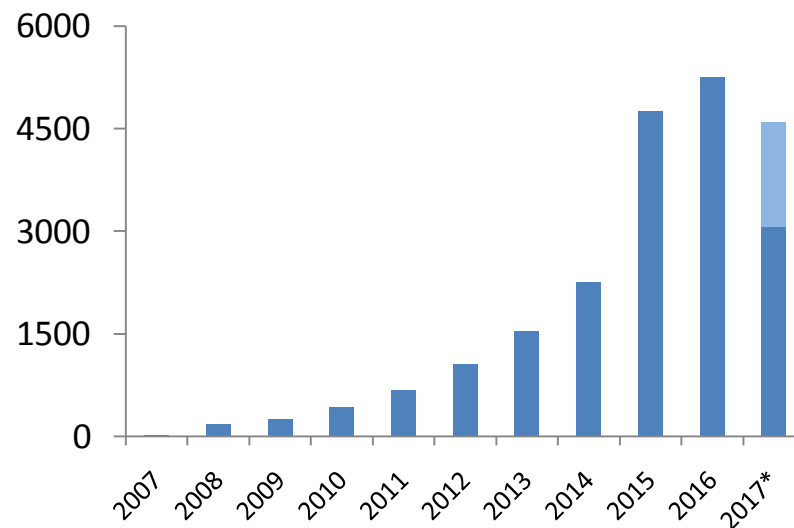
\* 2017 proyectado usando datos hasta 31/8/2017

# Comparando contribuyentes con países vecinos

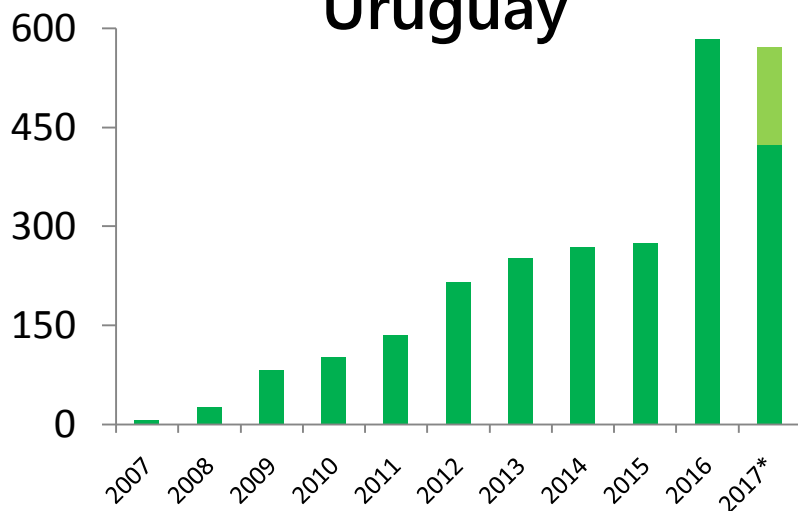
## Chile



## Argentina

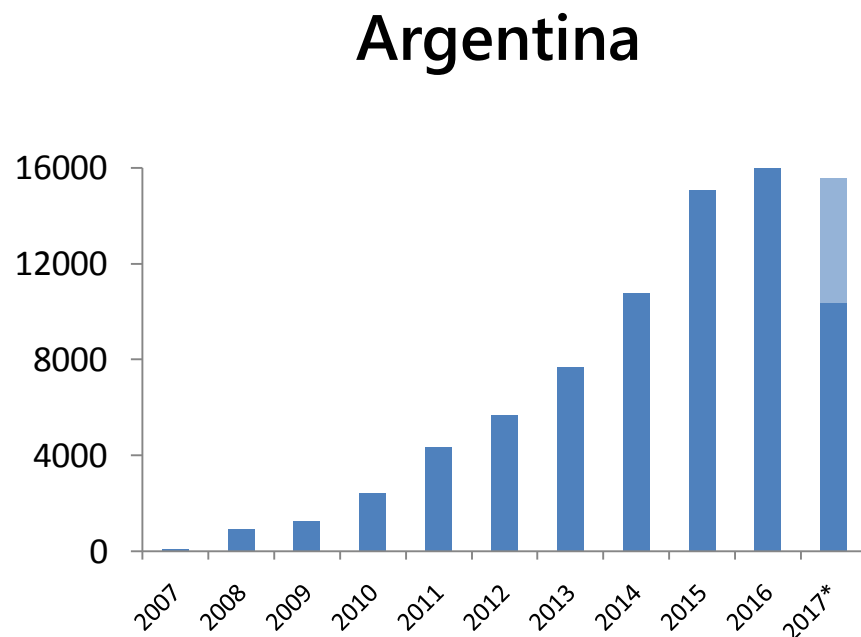
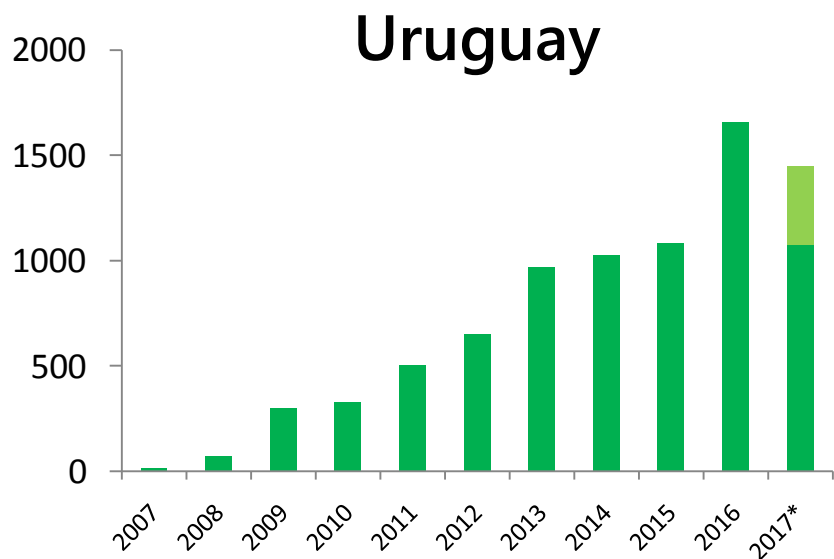
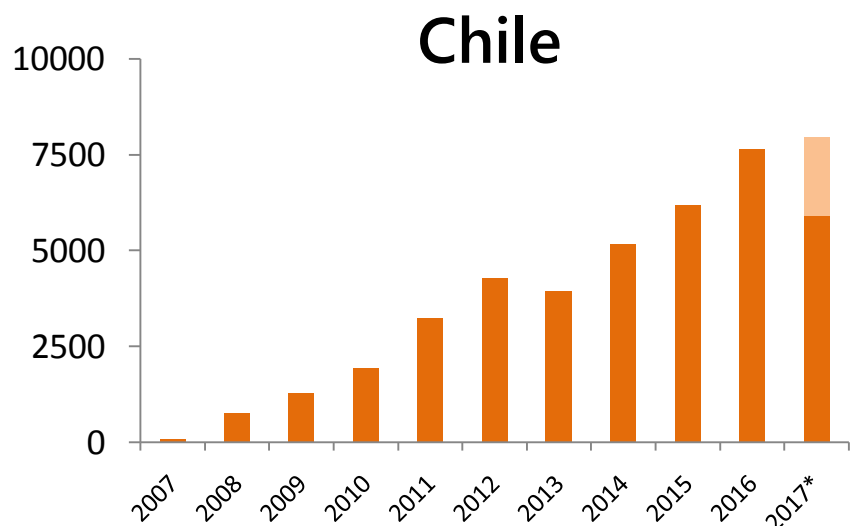


## Uruguay



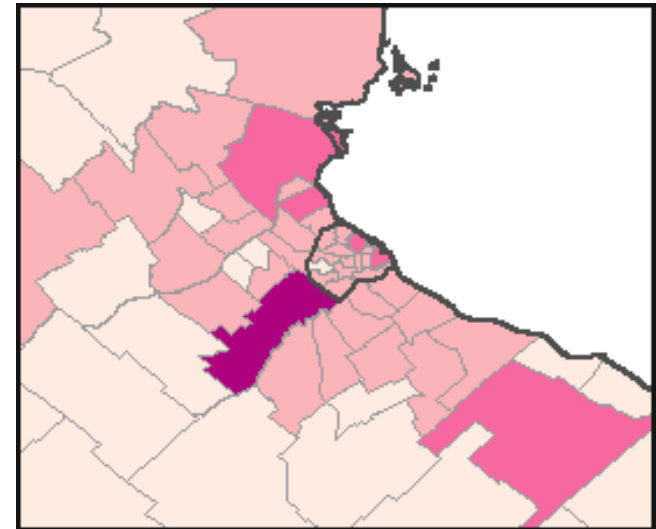
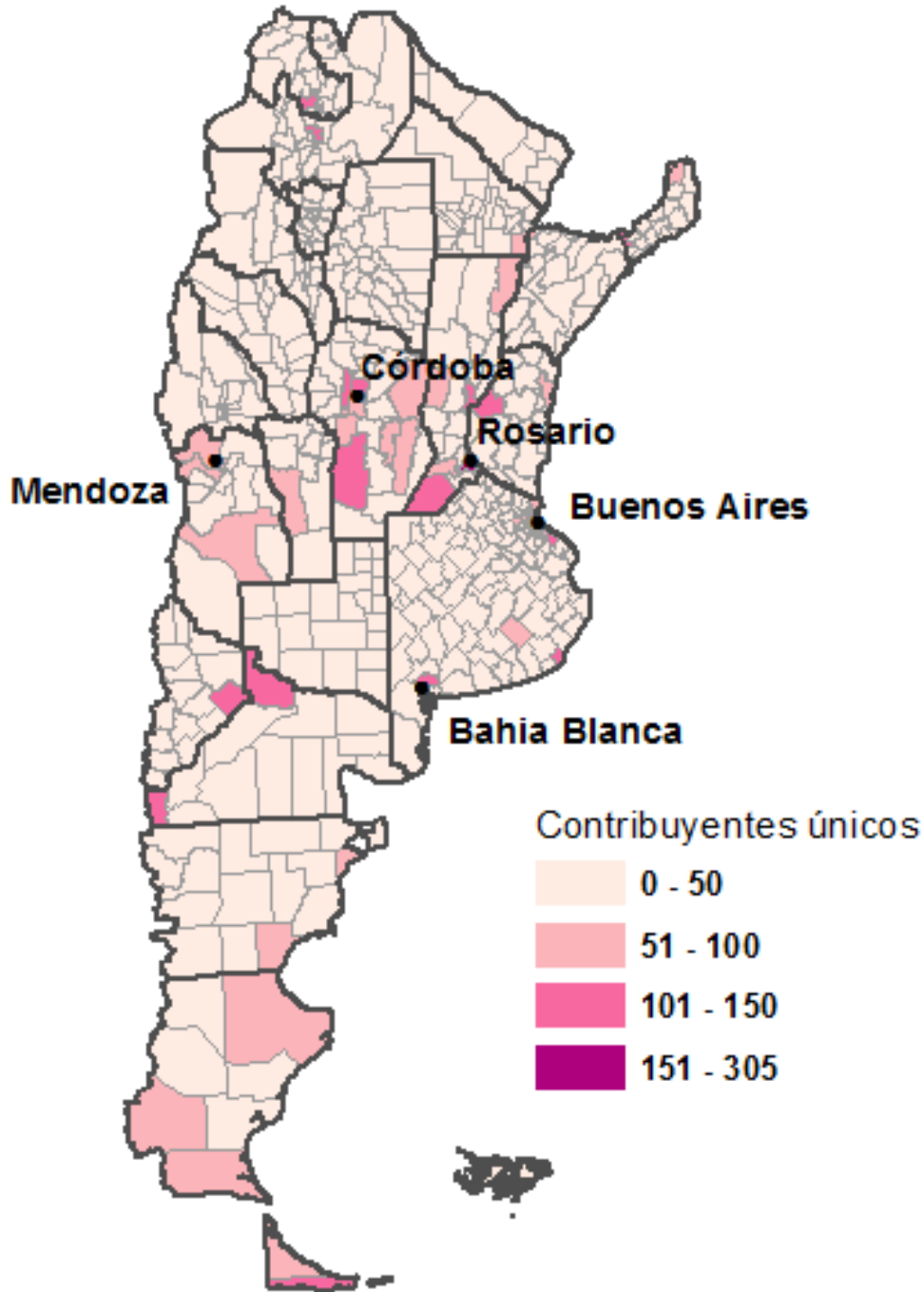
•Datos para Argentina proyectados a partir de 31/8/2017. Datos para Chile y Uruguay proyectados a partir de 28/10/2017.

# Comparando días activos con países vecinos



•Datos para Argentina proyectados a partir de 31/8/2017. Datos para Chile y Uruguay proyectados a partir de 28/10/2017.

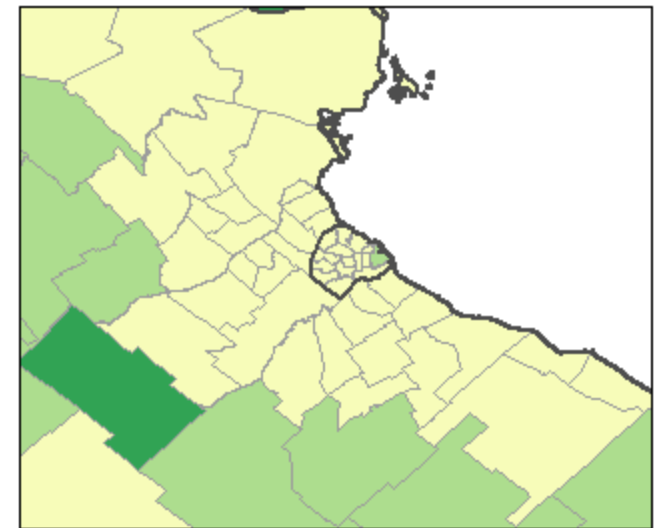
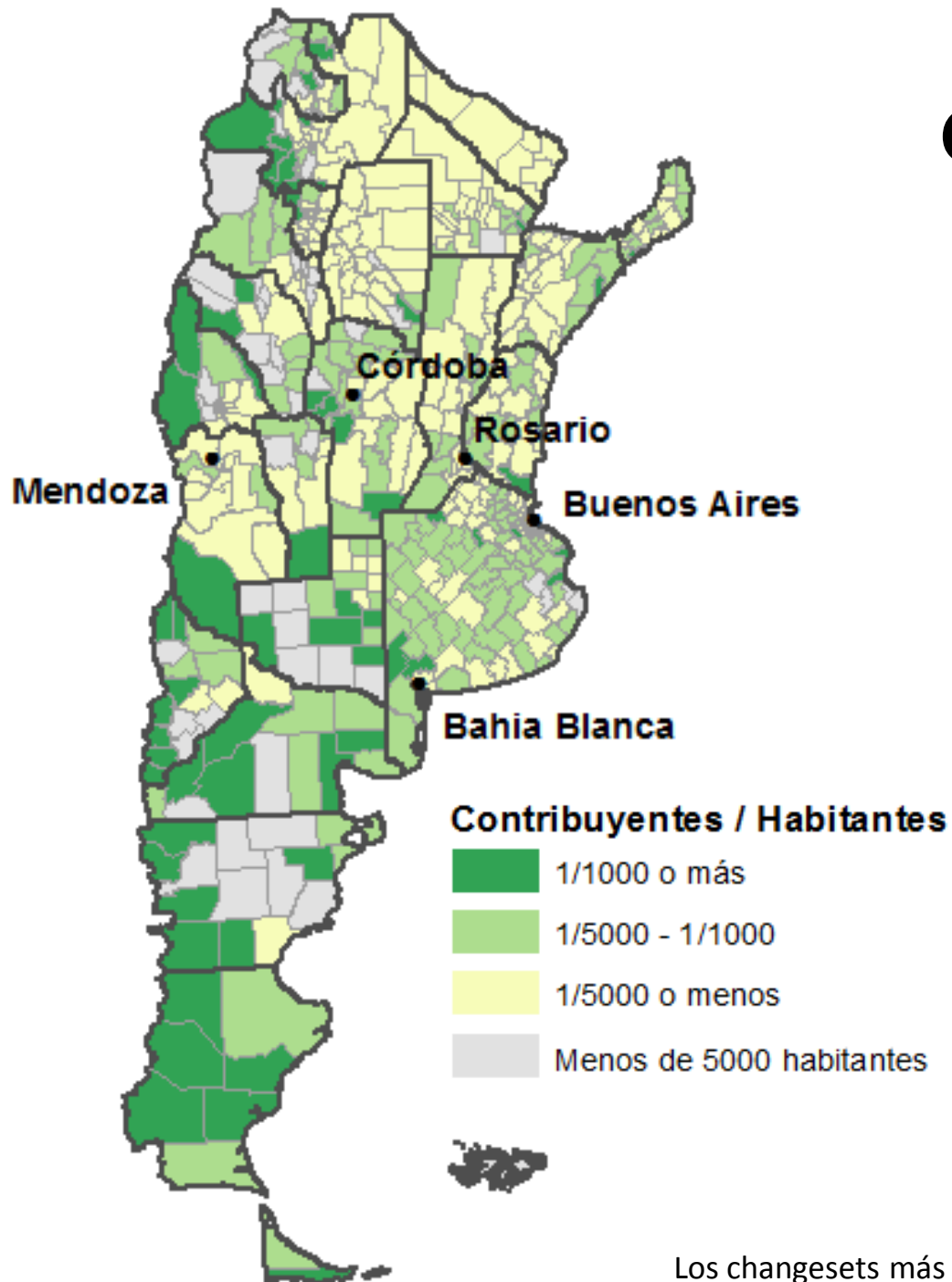
# Contribuyentes por departamento/ partido



Gran Buenos Aires

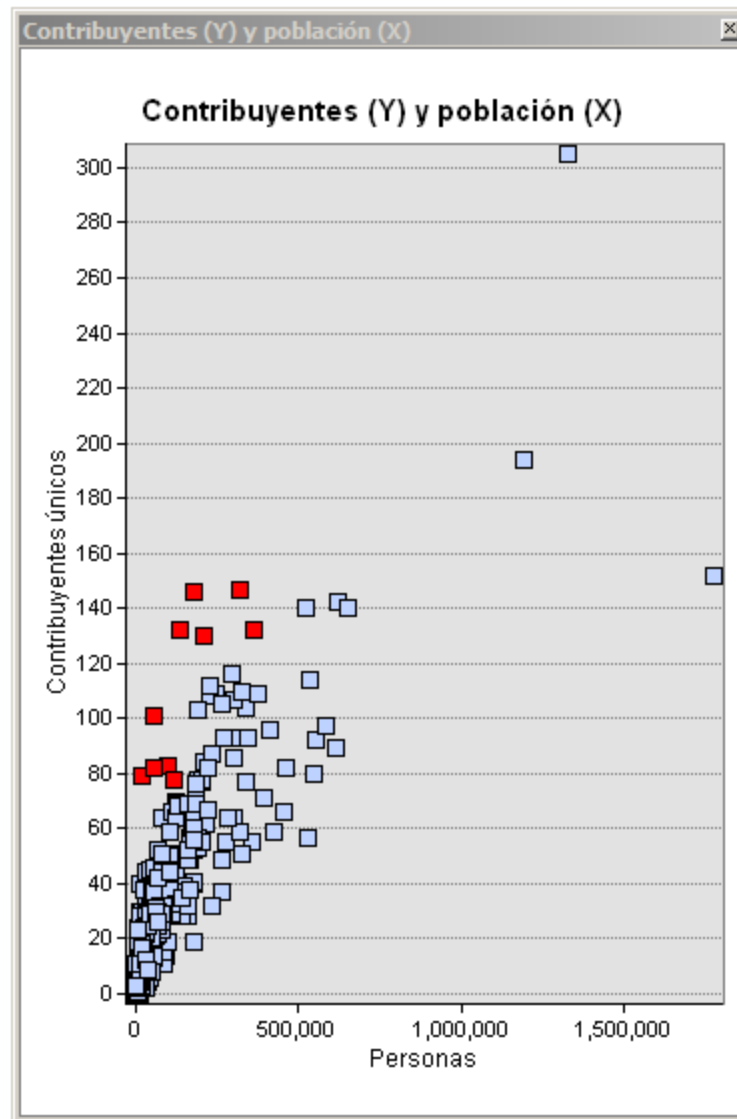
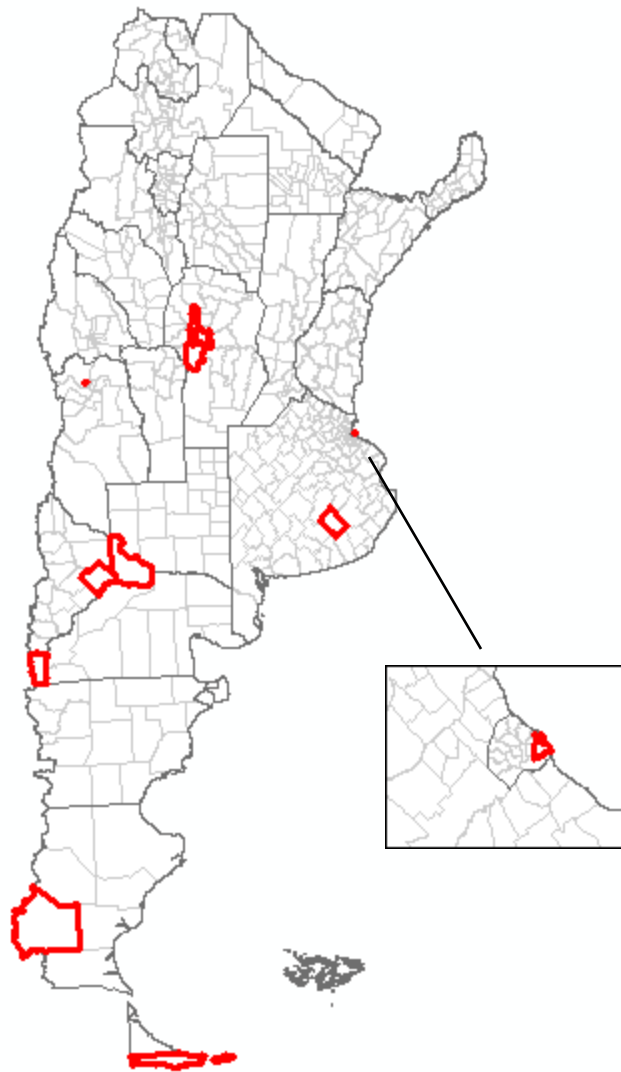


# Contribuyentes per capita

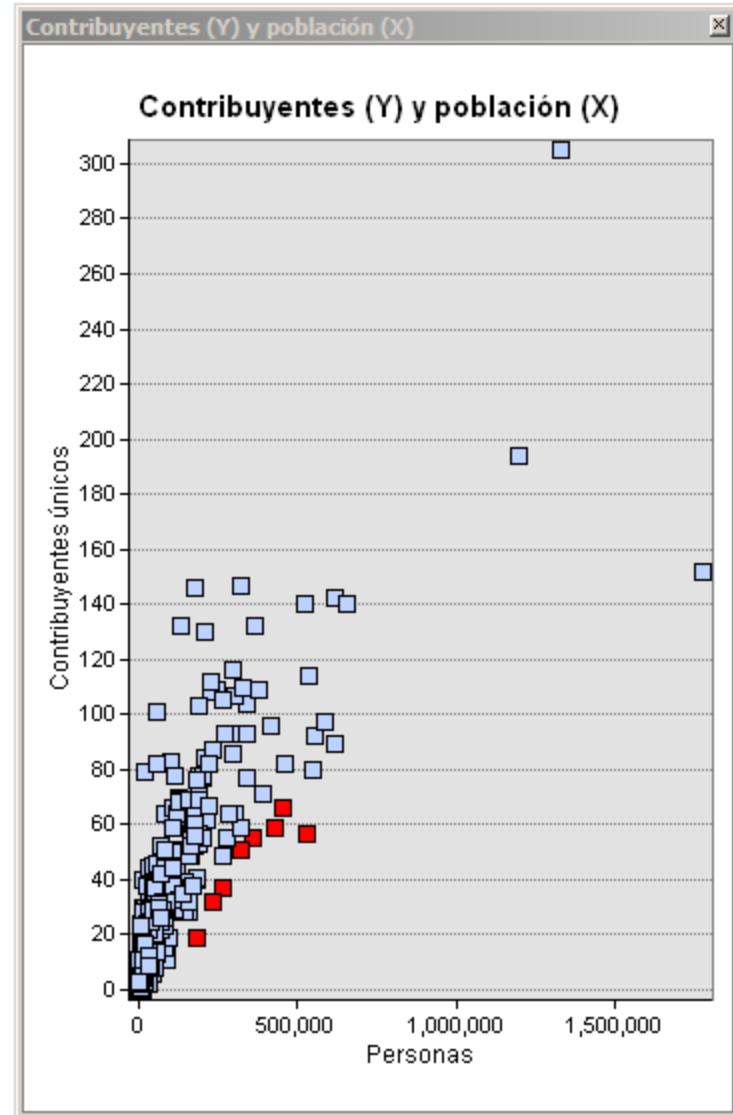
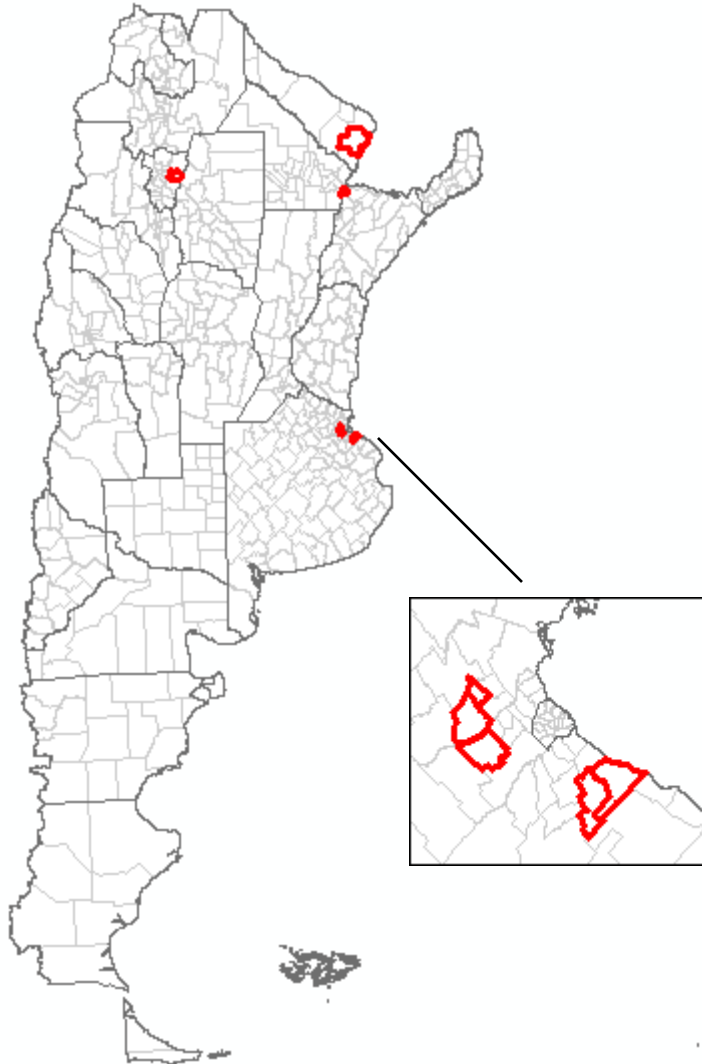


Gran Buenos Aires

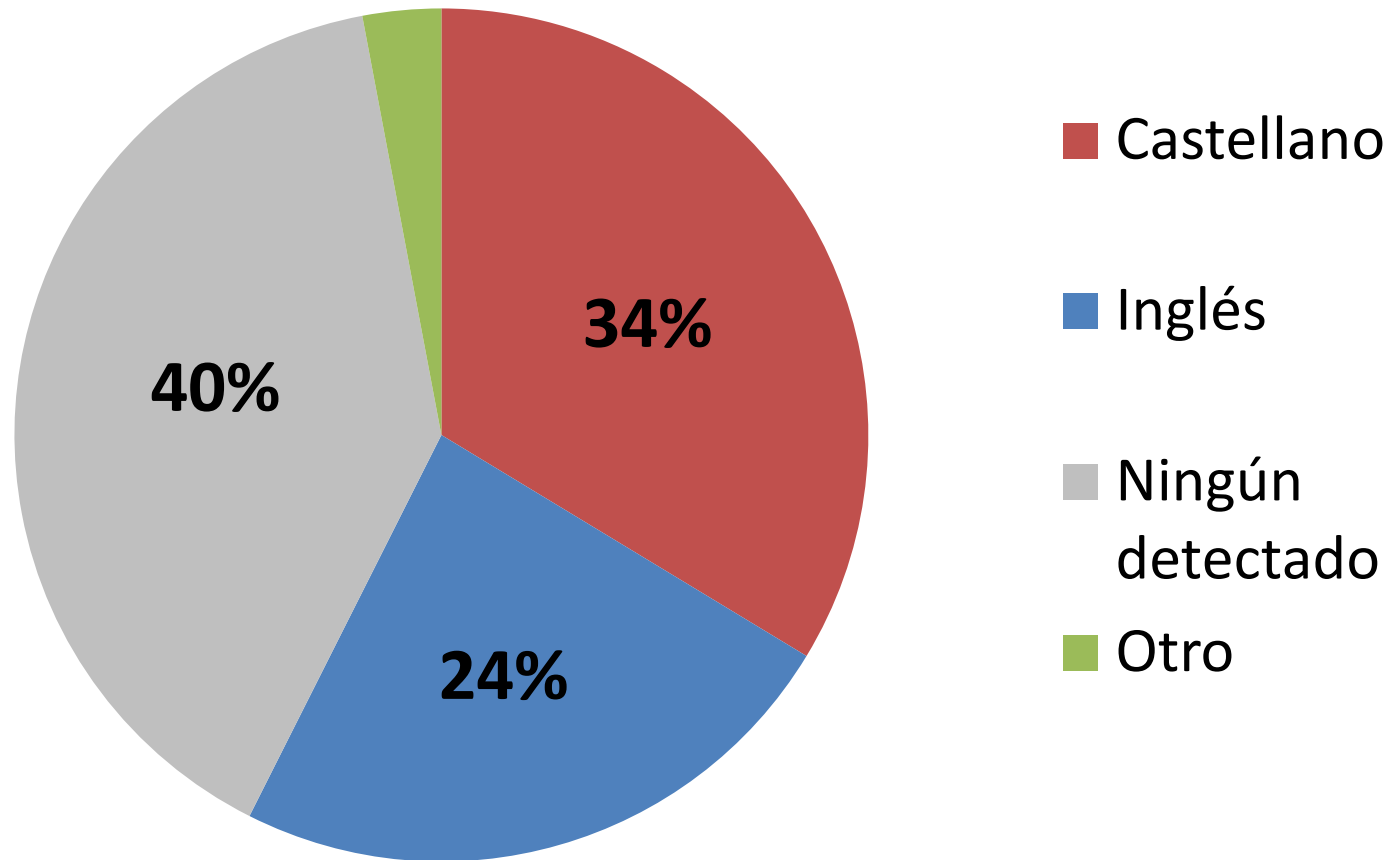
# Con respecto a la población: Muchos contribuyentes



# Con respecto a la población: Pocos contribuyentes



# Idiomas usados al comentar sobre cambios en la Argentina



# CrowdLens para OpenStreetMap

## Una manera da ver el conjunto de contribuyentes por lugar

- <http://sterlingquinn.net/apps/crowdlens>

The screenshot displays the CrowdLens for OpenStreetMap interface. The main map shows a grid of contributor activity for the location 'Argentina - Palermo (Buenos Aires)'. The interface includes several filters on the left: 'Days active here' (1-203), 'Changesets here' (1-406), 'Changesets in OSM' (1-1000000), 'Percent of user's changesets here' (0-100), and 'Years active here' (2007-2016). A 'Tag filter' dropdown is set to '(No filter applied)'. Below the filters, a 'Color key of favored language in OSM comments' is shown with checkboxes for English, Spanish, French, German, Portuguese, and None. The main map area shows a grid of contributor activity for the location 'Argentina - Palermo (Buenos Aires)'. On the right, a detailed profile for user 'AgusQui' is shown, including their 'User profile', 'Favored language in OSM comments' (Spanish), 'Fraction of user's changesets here' (406 / 10874), and 'Active days here' (2007-2016). A list of OSM tags is also visible on the right side, including 'access', 'addr:city', 'addr:country', 'addr:full', 'addr:house', 'addr:house:address:housenumber', 'addr:inclusion', 'addr:interpolation', 'addr:postcode', 'addr:street', 'admin:level', 'penetration', 'all:amenity', 'area', 'art:artwork', 'type:elm', 'backrest', 'barrier', 'bench', 'biblioteca:st', 'bicycle:bin', 'branch', 'brand', 'bridge', 'building', 'bus', 'bus:lanes', 'busway', 'capacity', 'construction', 'contact:email', 'contact:fax', 'contact:phone', 'contact:website', 'country', 'covered', 'crossing', 'cuisine', 'cutting', 'cycleway', 'cycleway:left', 'cycleway:right', 'day\_off', 'day:on', 'denomination', 'description', 'designation', 'dispensing', 'drinking', 'water', 'electrified', 'email', 'embankment', 'emergency', 'entrance', 'except:fee', 'ferry', 'fence', 'food', 'foot', 'frequency', 'fuel:cng', 'funicular', 'gauge', 'government', 'hgv', 'highway', 'historic', 'horse', 'hour:off', 'hour:on', 'internet:access', 'internet:access:fee', 'is\_in', 'in:country', 'is\_in:country\_code', 'is\_in:state', 'junction', 'kindergarten', 'landuse', 'lanes', 'lanes:forward', 'layer', 'leisure', 'lit', 'man\_made', 'max:age', 'max:height', 'max:speed', 'memorial', 'microbrewery', 'min:age', 'monument', 'motor\_vehicle:backward', 'motor\_vehicle:conditional', 'motorcar', 'motorcycle'.



# Crowd Lens for OpenStreetMap

Select place: **Argentina - Palermo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

Days active here  
1 - 203

Changesets here  
1 - 406

Changesets in OSM  
1 - 1000000

Percent of user's changesets here  
0 - 100

Years active here  
2007 - 2016

Tag filter  
(No filter applied)

Language filter (No filter applied)

Color key of favored language in OSM comments

- English
- Spanish
- French
- Other
- German
- None
- Portuguese



Contributors in current map view: **325** Sort by: Days active here

Sort order  
High  
Low

AgusQui	zorko	Zalitoar	Geogast	Tuentibiker	Beerforfree	niqueco	
argenos	muralito	M72	nicfer	acracia	pabloporeja	seppo0010	ALE!
user_16881	mweper	dbusse	ignaciolep	juam	Blobo123	John Bek	SimonPoole

## muralito

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **26 / 13311**

Active days here: **20** 2007 - 2016

**Tags:** addr.city addr.country addr.housename addr.housenumber addr.postcode addr.street addr.suburb amenity area barrier bicycle brand bridge bridge:name building contact:website cuisine denomination description electrified entrance foot fuel.cng gauge highway internet\_access junction landuse lanes lanes:forward layer leisure lit maxspeed name network note oneway opening\_hours operator phone railway religion smoking source sport surface tourism tracktype tunnel turn:lanes waterway website wikipedia

Changeset	Date	Comment
17664852	2013-09-04	Correccion de tag.
18944472	2013-11-16	Corregir geometria de multipoligono.
18945040	2013-11-16	recreation_ground es landuse.
20941862	2014-03-06	Correcciones varias del validador de JOSM
21183936	2014-03-18	Correccion de geometria. <sup>23</sup>

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Years active here  
2007 - 2016

Tag filter  
(No filter applied)

Language filter (No filter applied)

- Color key of favored language in OSM comments
- English
  - Spanish
  - French
  - Other
  - German
  - None
  - Portuguese



Contributors in current map view: **9** Sort by: Days active here

Sort order  
High  
Low



## muralito

[User wiki](#)

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Active days here: **20** 2007 2016

**Tags:** addr:city addr:country addr:housename addr:houenumber addr:postcode addr:street addr:suburb amenity area barrier bicycle brand bridge bridge:name building contact:website cuisine denomination description electrified entrance foot fuel:cng gauge highway internet\_access junction landuse lanes lanes:forward layer leisure lit maxspeed name network note oneway opening\_hours operator phone railway religion smoking source sport surface tourism tracktype tunnel turn:lanes waterway website wikipedia

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1 - 406

Changesets in OSM  
1 - 1000000

Percent of user's changesets here  
10 - 100

Years active here  
2007 - 2016

Tag filter  
(No filter applied)

Language filter (No filter applied)

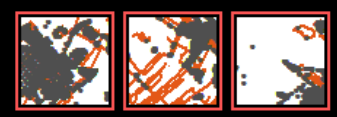
Color key of favored language in OSM comments

- English
- Spanish
- French
- Other
- German
- None
- Portuguese



Contributors in current map view: **3** Sort by: Days active here

Sort order  
High  
Low



Zalitoar Tuentibiker niqueco

## muralito

[User wiki](#)

Favored language in OSM comments: **Spanish**

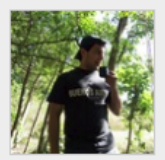
Fraction of user's changesets here: **26 / 13311**

Active days here: **20** 2007 2016

**Tags:** addr.city addr.country addr.housename addr.housenumber addr.postcode addr.street addr.suburb amenity area barrier bicycle brand bridge bridge:name building contact:website cuisine denomination description electrified entrance foot fuel.cng gauge highway internet\_access junction landuse lanes lanes:forward layer leisure lit maxspeed name network note oneway opening\_hours operator phone railway religion smoking source sport surface tourism tracktype tunnel turn:lanes waterway website wikipedia

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21183936	2014-03-18	Correccion de geometria. <sup>25</sup>





### Zalitoar

Edits 2,313 | Map Notes | Traces 28 | Send Message | Diary 0 | Comments | Add Friend

Mapper since: November 14, 2008

Estudiante oriundo del Sur del GBA (Gran Buenos Aires), colaboro desde 2008. Más info:

OSM-related accounts: [OSM Wiki](#) [OSM help](#) [OSM forum](#) [github](#) [uMap](#) [Mapillary](#)



# Crowd Lens for OpenStreetMap

Select place: **Argentina - Palermo (Buenos Aires)**

- Argentina - Palermo (Buenos Aires)
- Argentina - Palermo (Buenos Aires)
- Argentina - San Telmo (Buenos Aires)
- Argentina - La Rioja**
- Argentina - Tres Arroyos
- Australia - Hervey Bay
- Brazil - Copacabana (Rio)
- Ghana - Suhum
- Haiti - Léogâne
- India - Kadiñ
- Poland - Gdańsk shipyard (Gdańsk)
- UK - Hereford
- USA - Johnstown
- USA - Seattle Center (Seattle)

[Zoom to full city](#) [About](#) [Help](#)

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Days active here  
20 - 203

Changesets here  
1 - 406

Changesets in OSM  
1 - 1000000

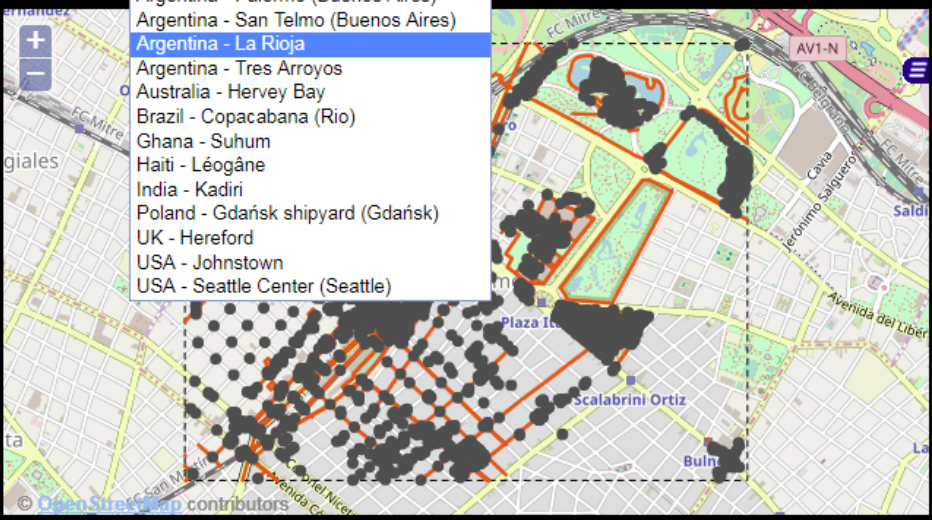
Percent of user's changesets here  
10 - 100

Years active here  
2007 - 2016

Tag filter  
(No filter applied)

Language filter (No filter applied)

- Color key of favored language in OSM comments
- English
  - Spanish
  - French
  - Other
  - German
  - None
  - Portuguese



Contributors in current map view: **3** Sort by: Days active here

Sort order

High

Low

Zalitoar Tuentibiker niqueco

## Zalitoar

[User profile](#) [User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **205 / 1932**

Active days here: **74** 2007 2016

- Tags:** access access:conditional addr:city addr:country addr:full addr:house:house:inclusion addr:interpolation addr:postcode addr:street aerialway after\_school age\_group alt\_name amenity animal aquaculture area artwork\_type atm attraction backrest barrier bench biblioteca:id biblioteca:tipo bicycle bicycle\_parking brand bridge bridge:name building building:architect building:colour building:levels building:material building:part bus colour comuna contact:email contact:phone contact:website covered crossing cuisine cutting cycleway cycleway:left description designation dispensing display drive\_through electrified email embankment emergency entrance fee fence\_type ferry fixme flag:type foot fuel:cng funicular garden:style gauge height hgv highway hiking historic indoor information internet\_access internet\_access:fee isced:level kindergarten landuse lanes lanes:forward layer leisure level lit loc\_name location:mame man\_made map\_size map\_type material maxheight maxspeed memorial microbrewery monorail motor\_vehicle motorcar motorcycle name name:de name:en name:es natural network noexit nombre note nursery office official\_name

# Crowd Lens for OpenStreetMap

Select place: **Argentina - La Rioja** | [Zoom to full city](#) | [About](#) | [Help](#)

Set these filters or move the map to narrow the contributor list.

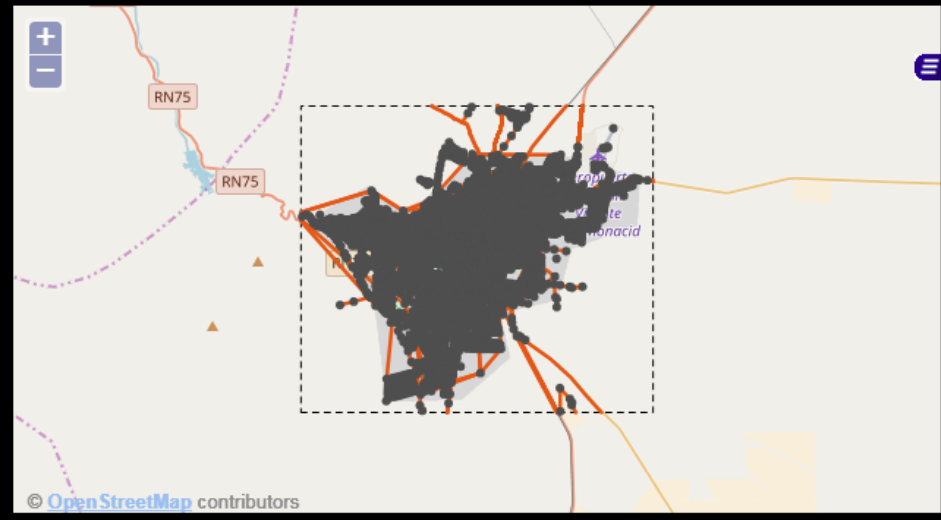
**Days active here**  
1 - 72

**Changesets here**  
1 - 534

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



Contributors in current map view: **117** Sort by: **Days active here**

**Tag filter** (No filter applied)

**Language filter** (No filter applied)

Color key of favored language in OSM comments

- English
- Spanish
- French
- Other
- German
- None
- Portuguese

Sort order: High to Low

**fagervan** | Geogast | MartinDigital | dbusse | zorko | Luis La Rioja | patodiez

serock | muralito | pablopareja | Noelia Reyes | pertile | nicfer | mwepw | s3b4s5

Martinez Alejandra | Beerforfree | rufina amalia guzman | Diego Alberto Rodriguez | ALE! | JeF

## fagervan

[User profile](#) | [User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **534 / 20312**

Active days here: **72** (2007-2016)

**Tags:** access addr:housenumber addr:interpolation amenity area barrier bicycle boundary brand bridge building created\_by cycleway denomination description electrified foot gauge highway information is\_in junction landuse lanes layer leisure motor\_vehicle name natural network note on oneway operator parking place population railway ref religion service shop source source\_ref sport stars surface tourism waterway

Changeset	Date	Comment
1478140	2009-06-10	zona predio ferial
1478451	2009-06-10	Presitente Castillo
1486881	2009-06-11	predio ferial
1486926	2009-06-11	predio ferial
1487654	2009-06-11	av. acosta villafanez
1488244	2009-06-11	av. acosta villafanez

# Crowd Lens for OpenStreetMap

Select place: **Argentina - La Rioja**

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Set these filters or move the map to narrow the contributor list.

**Days active here**  
1 - 72

**Changesets here**  
1 - 534

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



Contributors in current map view: **22** Sort by: **Days active here**

**Tag filter** (No filter applied)

**Language filter** (No filter applied)

Color key of favored language in OSM comments

- English
- Spanish
- French
- Other
- German
- None
- Portuguese

Sort order: High to Low

<b>fagervan</b>	MartinDigital	dbusse	zorko	patodiez	pablopareja	Beerforfree	
mweper	juandigital	liliLaR	Ale Mari	Ramzes	WorstFixer	jic081	erickdeoliveiraleal
pyram	RamonCruz	Danyriojano	sorcros	Anibal	Marcelo Camargo	Diego Coll	

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# Crowd Lens for OpenStreetMap

Select place: **Argentina - La Rioja** [Zoom to full city](#) [About](#) [Help](#)

- Set these filters or move the map to narrow the contributor list.
- Days active here: 1 - 72
  - Changesets here: 1 - 534
  - Changesets in OSM: 1 - 1000000
  - Percent of user's changesets here: 0 - 100
  - Years active here: 2007 - 2016



Contributors in current map view: **31** Sort by: Days active here

- Tag filter: (No filter applied)
- Language filter: (No filter applied)
- Color key of favored language in OSM comments
- English
  - Spanish
  - French
  - Other
  - German
  - None
  - Portuguese

Sort order: High to Low

Contributors: fagervan, MartinDigital, dbusse, zorko, Luis La Rioja, patodiez, serock, pablopereja, muralito, Noelia Reyes, pertile, mwepw, Beerforfree, ignaciolep, Belen32, Ramzes, erickdeoliveiraleal, WorstFixer, jjc081, caserita, xybot, pyram, Anibal

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# Crowd Lens for OpenStreetMap

Select place: **Argentina - La Rioja** | [Zoom to full city](#) | [About](#) | [Help](#)

Set these filters or move the map to narrow the contributor list.

- Days active here**  
1 - 72
- Changesets here**  
1 - 534
- Changesets in OSM**  
1 - 1000000
- Percent of user's changesets here**  
0 - 100
- Years active here**  
2007 - 2016

**Tag filter** (No filter applied)

**Language filter** (No filter applied)

Color key of favored language in OSM comments

- English
- Spanish
- French
- Other
- German
- None
- Portuguese



Contributors in current map view: **31** | Sort by: **Days active here**

**Sort order**  
High → Low

<b>fagervan</b>	MartinDigital	dbusse	zorko	Luis La Rioja	patodiez	serock	
pablopereja	muralito	Noelia Reyes	perville	mwepw	Beerforfree	ignaciolep	Belen32
Ramzes	erickdeoliveiraleal	WorstFixer	jic081	caserita	xybot	pyram	Anibal

## fagervan

[User profile](#) | [User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **534 / 20312**

Active days here: **72** | 2007 - 2016

**Tags:** access addr:housenumber addr:interpolation amenity area barrier bicycle boundary brand bridge building created\_by cycleway denomination description electrified foot gauge highway information is\_in junction landuse lanes layer leisure motor\_vehicle name natural network note on oneway operator parking place population railway ref religion service shop source source\_ref sport stars surface tourism waterway

Changeset	Date	Comment
6509519	01	la rioja
6509600	2010-12-01	la rioja
6509687	2010-12-01	la rioja
6513836	2010-12-02	la rioja
6513925	2010-12-02	la rioja
6514013	2010-12-02	la rioja 33

# Crowd Lens for OpenStreetMap

Select place: Argentina - La Rioja

Zoom to full city About Help

Set these filters or move the map to narrow the contributor list.

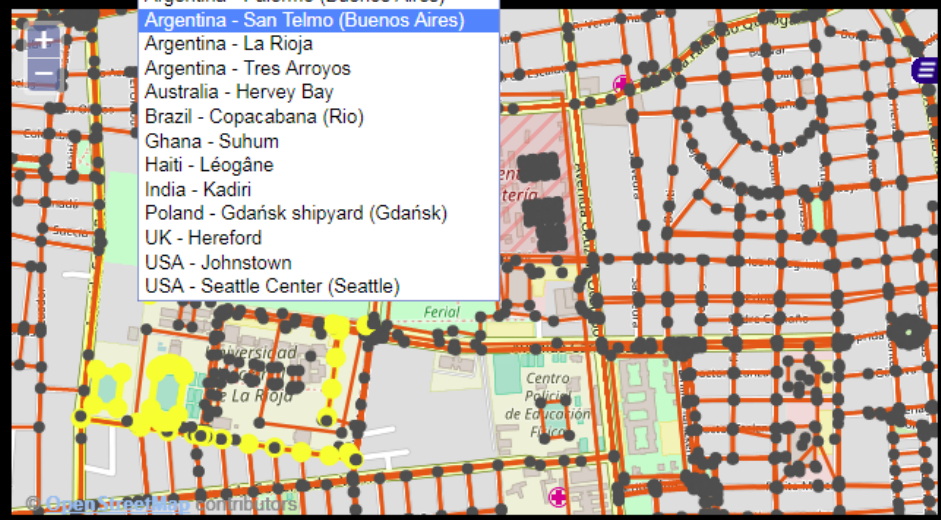
**Days active here**  
1 - 72

**Changesets here**  
1 - 534

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



Contributors in current map view: 31 Sort by: Days active here

**Tag filter** (No filter applied)

**Language filter** (No filter applied)

**Color key of favored language in OSM comments**

- English
- Spanish
- French
- Other
- German
- None
- Portuguese

**Sort order**  
High → Low

fagervan MartinDigital dbusse zorko Luis La Rioja patodiez serock

pablopareja muralito Noelia Reyes pertile mwepw Beerforfree ignaciolep Belen32

Ramzes erickdeoliveiraleal WorstFixer jjc081 caserita xybot pyram Anibal

## fagervan

User profile User wiki

Favored language in OSM comments: Spanish

Fraction of user's changesets here: 534 / 20312

Active days here: 72

**Tags:** access addr:housenumber addr:interpolation amenity area barrier bicycle boundary brand bridge building created\_by cycleway denomination description electrified foot gauge highway information is\_in junction landuse lanes layer leisure motor\_vehicle name natural network note on oneway operator parking place population railway ref religion service shop source source\_ref sport stars surface tourism waterway

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6509600	2010-12-01	la rioja
6509687	2010-12-01	la rioja
6513836	2010-12-02	la rioja
6513925	2010-12-02	la rioja
6514013	2010-12-02	la rioja 34

# Crowd Lens for OpenStreetMap

Select place: **Argentina - San Telmo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

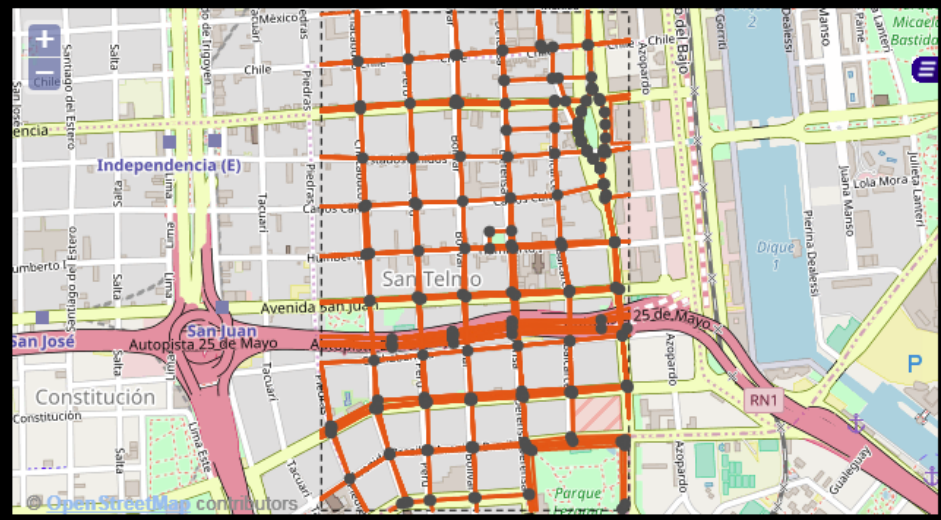
**Days active here**  
1 - 45

**Changesets here**  
1 - 65

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



Contributors in current map view: **144** Sort by: Days active here

**Tag filter**  
(No filter applied)

**Language filter** (No filter applied)

**Color key of favored language in OSM comments**

- English
- French
- German
- Portuguese
- Spanish
- Other
- None

**Sort order**  
High → Low

zorko AgusQui Geogast Beerforfree Tuentibiker seppo0010 muralito

pablopereja Zalitoar ALE! Blobo123 Debacle nicfer Víctor L argenos

Larifari77 Ranger444 Ojota Sefer nicolas17 user\_16881 mweper John Bek

## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

**Tags:** amenity building created\_by highway layer leisure name oneway osmarender:rendername ref reverse\_me split\_me

Changeset	Date	Comment
28522	2008-02-03	
31032	2008-02-04	
34178	2008-02-04	
52598	2008-08-04	
72551	2008-04-07	
73074	2008-04-07	
121185	2008-	

# Crowd Lens for OpenStreetMap

Select place: **Argentina - San Telmo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

**Days active here**  
1 - 45

**Changesets here**  
1 - 65

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

**Tags:** amenity building created\_by highway layer leisure name oneway osmarender:rendename ref reverse\_me split\_me

Contributors in current map view: **144** Sort by: **Days active here**

**Tag filter**  
(No filter applied)

- power
- proposed
- pseudo
- public\_transport
- ref
- religion**
- reverse\_me
- segregated
- service:bicycle:renta
- shelter
- shop
- short\_name
- smoking
- smoothness
- sorting\_name
- source
- split\_me
- sport
- start\_date
- supervised

**Sort order**

High

Low

Contributor thumbnails (zorko is highlighted):

- zorko
- AgusQui
- Geogast
- Beerforfree
- Tuentibiker
- seppo0010
- muralito
- pablopereja
- Zalitoar
- ALE!
- Blobo123
- Debacle
- nicfer
- Victor L
- argenos
- Larifari77
- Ranger444
- Ojota
- Sefer
- nicolas17
- user\_16881
- mwepet
- John Bek

Changeset	Date	Comment
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121185	2008-	

# Crowd Lens for OpenStreetMap

Select place: **Argentina - San Telmo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

Days active here  
1 - 45

Changesets here  
1 - 65

Changesets in OSM  
1 - 100000

Percent of user's changesets here  
0 - 100

Years active here  
2007 - 2016

Tag filter  
religion

Language filter (No filter applied)

- Color key of favored language in OSM comments
- English
  - Spanish
  - French
  - Other
  - German
  - None
  - Portuguese



Contributors in current map view: **5** Sort by: Days active here

Sort order  
High  
Low



## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

Tags: amenity building created\_by highway layer leisure name oneway osmarender:rendername ref reverse\_me split\_me

Changeset	Date	Comment
28522	2008-02-03	
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72551	2008-04-07	
73074	2008-04-07	
121185	2008-	

# Crowd Lens for OpenStreetMap

Select place: **Argentina - San Telmo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

Days active here

1 - 45

Changesets here

1 - 65

Changesets in OSM

1 - 1000000

Percent of user's changesets here

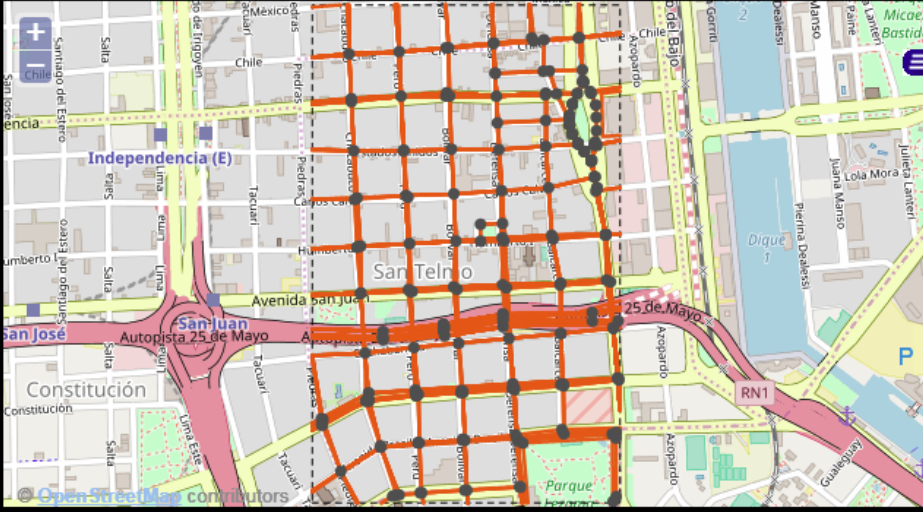
0 - 100

Years active here

2007 - 2016

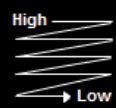
Tag filter

- religion
- (No filter applied)
- abandoned
- access
- access:motor\_vehicle:
- addr:city
- addr:country
- addr:house:username
- addr:house:number
- addr:inclusion
- addr:interpolation
- addr:postcode
- addr:province
- addr:quarter
- addr:street
- addr:suburb
- address
- admin\_level
- alt\_name
- amenity
- architect



Contributors in current map view: **5** Sort by: Days active here

Sort order



Geogast Beerforfree pablopereja ALE! Ranger444

## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

Tags: amenity building created\_by highway layer leisure name oneway osmarender:rendername ref reverse\_me split\_me

Changeset Date Comment

Changeset	Date	Comment
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121185	2008-	

# Crowd Lens for OpenStreetMap

Select place: **Argentina - San Telmo (Buenos Aires)** [Zoom to full city](#) [About](#) [Help](#)

Set these filters or move the map to narrow the contributor list.

Days active here



Changesets here



Changesets in OSM



Percent of user's changesets here



Years active here



Tag filter

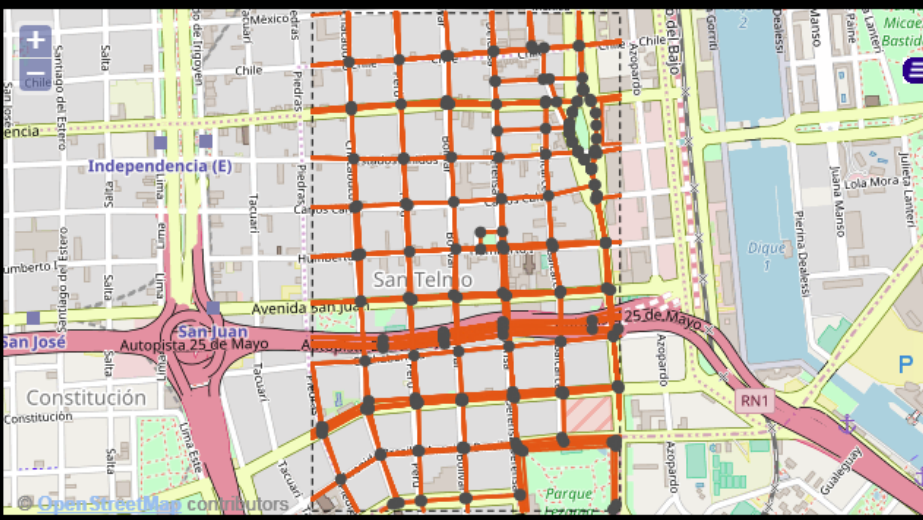
(No filter applied)

Language filter

(No filter applied)

Color key of favored language in OSM comments

- English
- French
- German
- Portuguese
- Spanish
- Other
- None



Contributors in current map view: **144** Sort by: Days active here

Sort order



## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

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Set these filters or move the map to narrow the contributor list.

**Days active here**  
1 - 45

**Changesets here**  
1 - 65

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 - 2016

**Tags:** amenity building created\_by highway layer leisure name oneway osmarender:rendername ref reverse\_me split\_me

Contributors in current map view: **144** Sort by: **Days active here**

**Tag filter**  
(No filter applied)

**Language filter** (No filter applied)

Color key of language in OSM

- English
- French
- German
- Spanish
- Portuguese
- Other
- Portuguese
- None

Sort order  
High  
Low

Contributor thumbnails (zorko is highlighted):

- zorko
- AgusQui
- Geogast
- Beerforfree
- Tuentibiker
- seppo0010
- muralito
- pablopereja
- Zalitoar
- ALE!
- Blobo123
- Debacle
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73074	2008-04-07	
121185	2008-	



# Crowd Lens for OpenStreetMap

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Set these filters or move the map to narrow the contributor list.

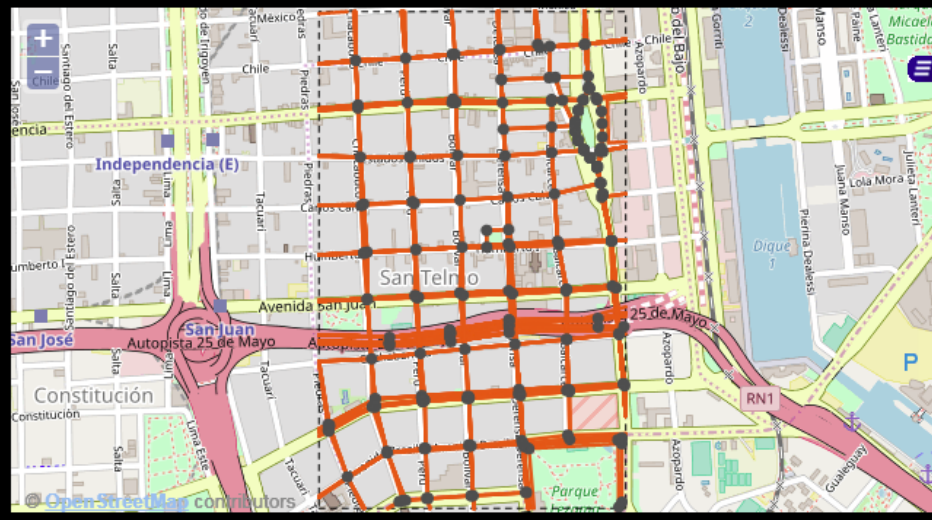
**Days active here**  
1 - 45

**Changesets here**  
1 - 65

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2007 - 2016



Contributors in current map view: **57** Sort by: **Days active here**

**Tag filter**  
(No filter applied)

**Language filter** **Spanish**

**Color key of favored language in OSM comments**

- English
- Spanish
- French
- Other
- German
- None
- Portuguese

**Sort order**  
High  
Low

**zorko** AgusQui Beerforfree Tuentibiker muralito pablopereja Zalitoar

nicfer Víctor L argenos Ranger444 Ojota Sefer nicolas17 mwep

fnielson juam serock Fearandir Eat me! McBain2004 germanxv Cristina Palacios

## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 2016

**Tags:** amenity building created\_by highway layer leisure name oneway osmarender:rendename ref reverse\_me split\_me

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52598	2008-08-04	
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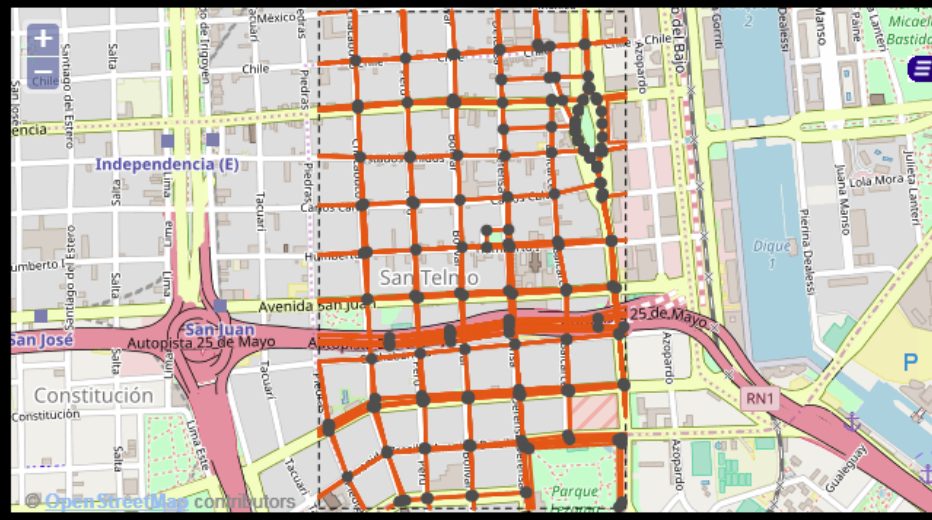
**Days active here**  
1 - 45

**Changesets here**  
1 - 65

**Changesets in OSM**  
1 - 1000000

**Percent of user's changesets here**  
0 - 100

**Years active here**  
2016 - 2016



Contributors in current map view: **21** Sort by: **Days active here**

**Tag filter**  
(No filter applied)

**Language filter** **Spanish**

**Color key of favored language in OSM comments**

- English
- Spanish
- French
- Other
- German
- None
- Portuguese

**Sort order**

High  
Low

## zorko

[User wiki](#)

Favored language in OSM comments: **Spanish**

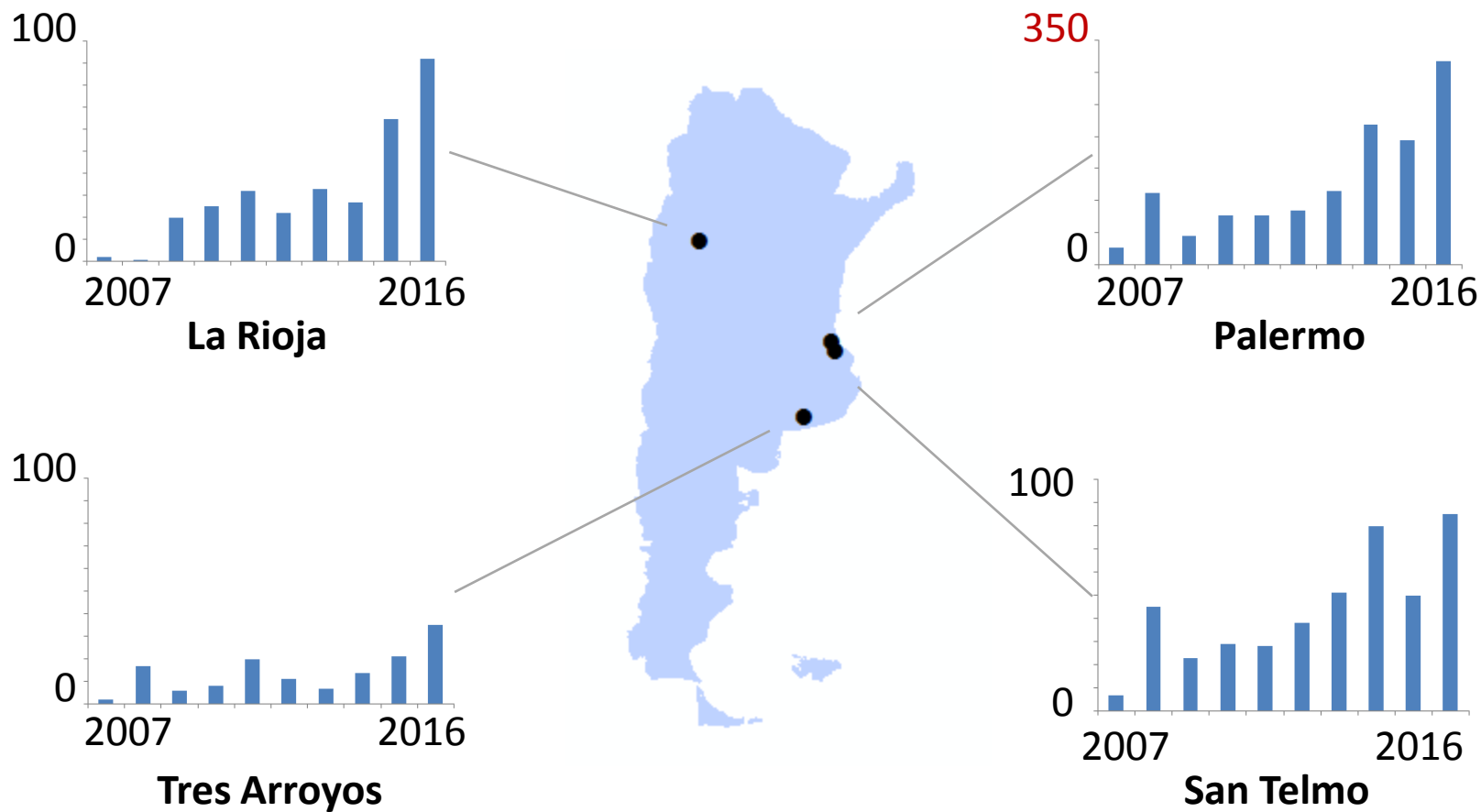
Fraction of user's changesets here: **65 / 2264**

Active days here: **45** 2007 2016

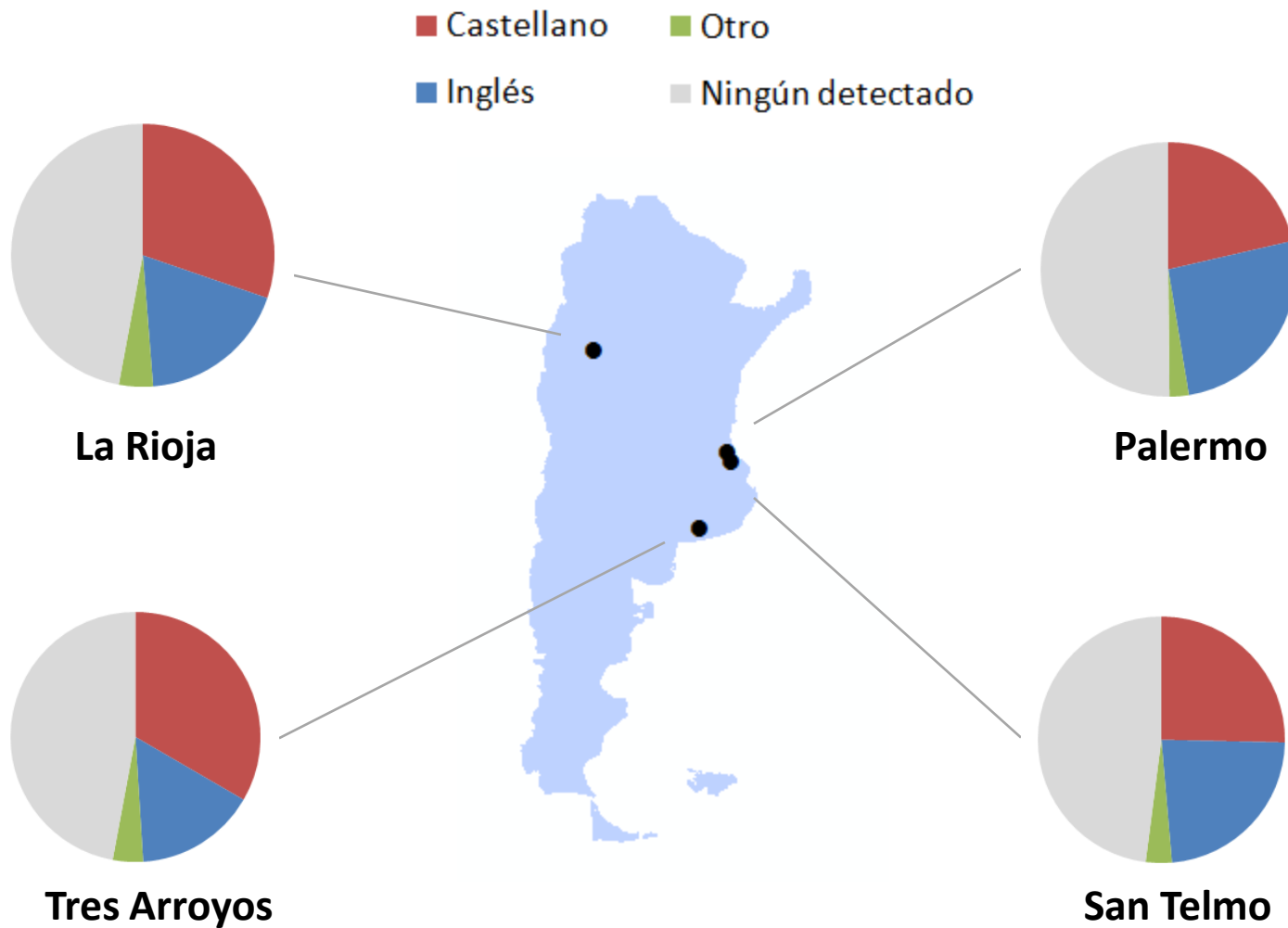
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52598	2008-08-04	
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73074	2008-04-07	
121185	2008-	

# Días activos de contribuyentes (en total, por año)



# Idiomas empleados al comentar sobre cambios

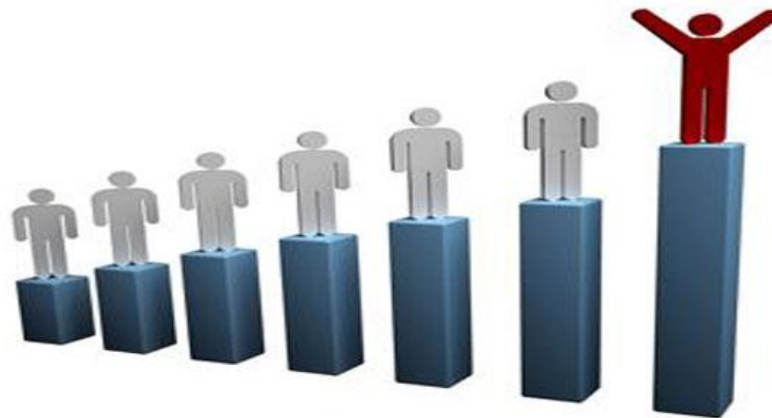


# Preguntas de investigación

1. Dado un lugar, ¿quiénes contribuyeron al mapa?
2. **¿Cómo podemos hierarquizar los contribuyentes más activos en el país?**
3. ¿Qué aprendemos de todo ésto sobre el estado de OpenStreetMap en Argentina?

# Investigando el conjunto de contribuyentes en un país

- OSMF Chile quería una lista de los usuarios que más contribuyeron en su país
- Compartí un archivo con scripts de Python y una tabla de resultados

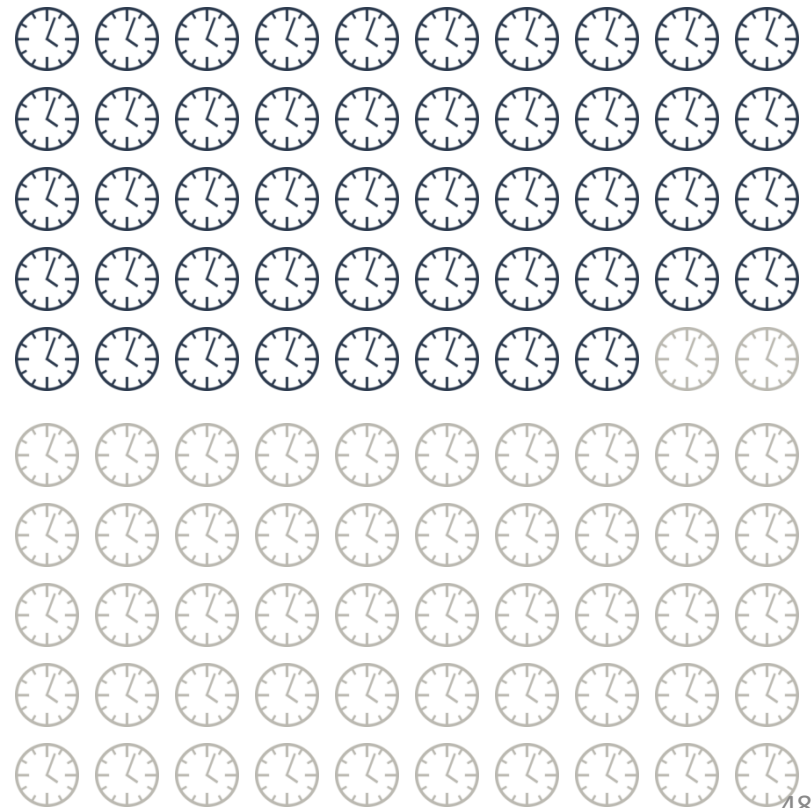


- Archivo:
  - [http://sterlingquinn.net/downloads/stats from osm history.zip](http://sterlingquinn.net/downloads/stats_from_osm_history.zip)
- Resultados de Argentina (31/8/17):
  - [http://sterlingquinn.net/downloads/argentina a resultados 31 agosto 2017.csv](http://sterlingquinn.net/downloads/argentina_resultados_31_agosto_2017.csv)

# El 1% más activo en la Argentina

(medido por días activos)

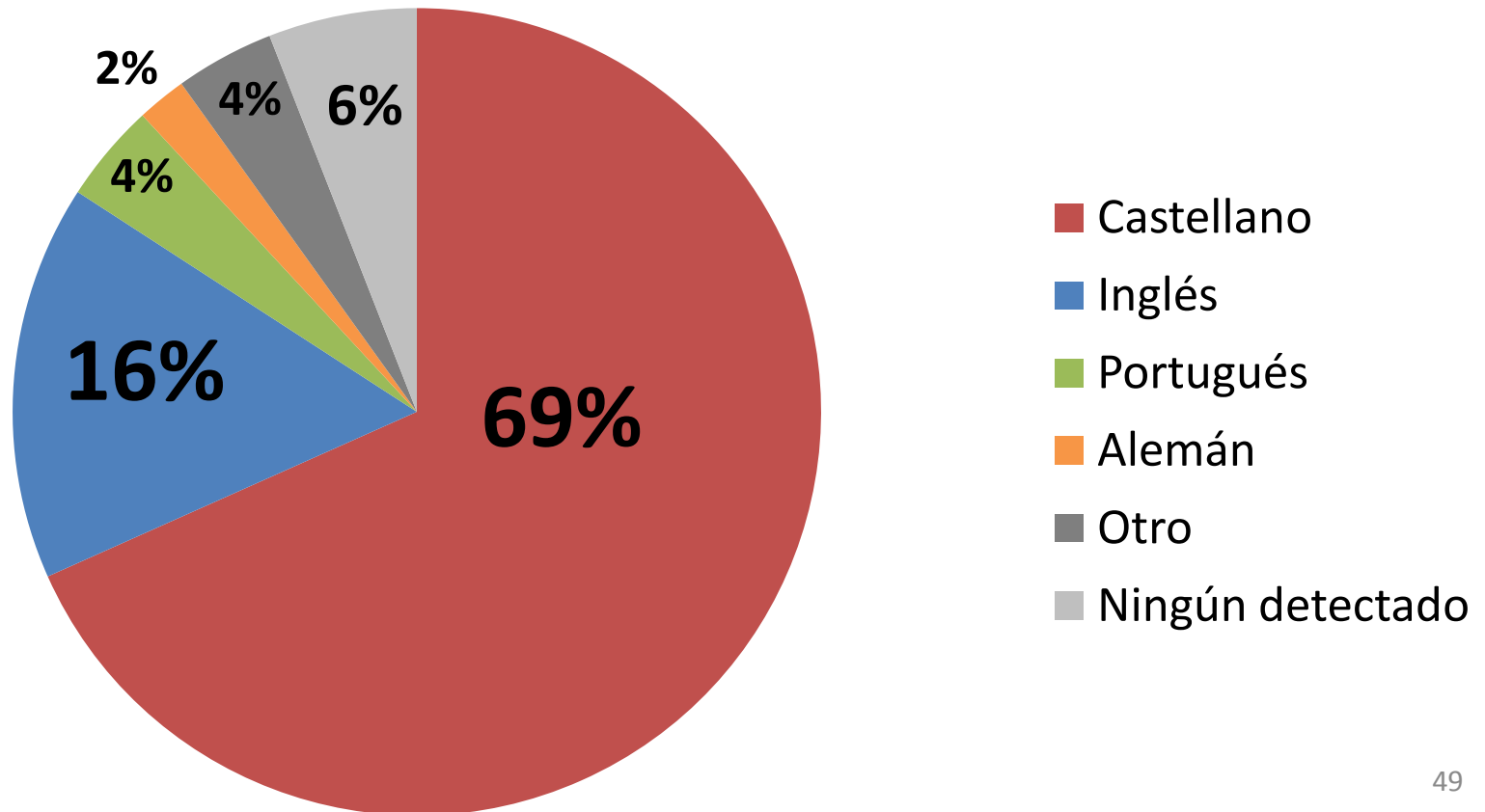
- Produjeron 48% de los días activos (en total) en la Argentina





# El 1% más activo en la Argentina (medido por días activos)

- Usaron estos idiomas al comentar sobre sus cambios en la Argentina:



# 10 contribuyentes más activos

Nombre de usuario	Días activos	Changesets en Arg.	Porcentaje de changesets que caen en Arg.	Idioma de comentarios sobre cambios en Arg.	Año más activo (medido por días activos, 2007 a 2016)
AgusQui	1959	10223	84%	Castellano	2016
fagervan	1345	19895	96%	Castellano	2011
mweper	1290	4331	94%	Castellano	2015
Geogast	1033	9770	37%	Inglés	2011
pertile	1000	3289	93%	Castellano	2013
Víctor L	935	14961	97%	Castellano	2015
Beerforfree	865	2293	94%	Castellano	2010
muralito	864	4551	30%	Castellano	2015
Carlos Brys	854	10155	89%	Castellano	2016
Rodarte!	828	4590	89%	Castellano	2014

# Preguntas de investigación

1. Dado un lugar, ¿quiénes contribuyeron al mapa?
2. ¿Cómo podemos hierarquizar los contribuyentes más activos en el país?
3. **¿Qué aprendemos de todo ésto sobre el estado de OpenStreetMap en Argentina?**

- **La actividad en OSM se ha reducido (¿estancado?) en los últimos dos o tres años**
- **Se necesitan contribuyentes en el conurbano de Gran Buenos Aires y en el norte del país**
- **Los contribuyentes más activos parecen ser locales o tener conocimiento local**

Más resultados de mis investigaciones anteriores se encuentran en mi página web...

<http://www.sterlingquinn.net/recent-projects>

# Recent projects

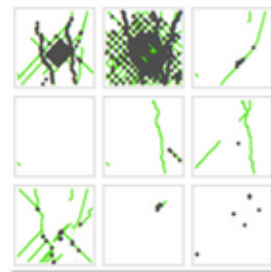
Click an image to read about my recent and current work.



VISUALIZING THE  
CROWD BEHIND  
OPENSTREETMAP



DETERMINING  
LOCAL INFLUENCE  
IN  
OPENSTREETMAP  
THROUGH  
AUTOMATED  
LANGUAGE  
DETECTION



USING SMALL  
CITIES TO LEARN  
ABOUT  
CROWDSOURCING  
IN  
OPENSTREETMAP



COLLABORATIVE  
MAPPING OF URBAN  
FOOD RESOURCES  
IN PHILADELPHIA

# ¡Muchísimas Gracias!

**Dr. Sterling Quinn**

Assistant Professor–Departamento de Geografía  
Central Washington University

@SterlingGIS

