Lab 1

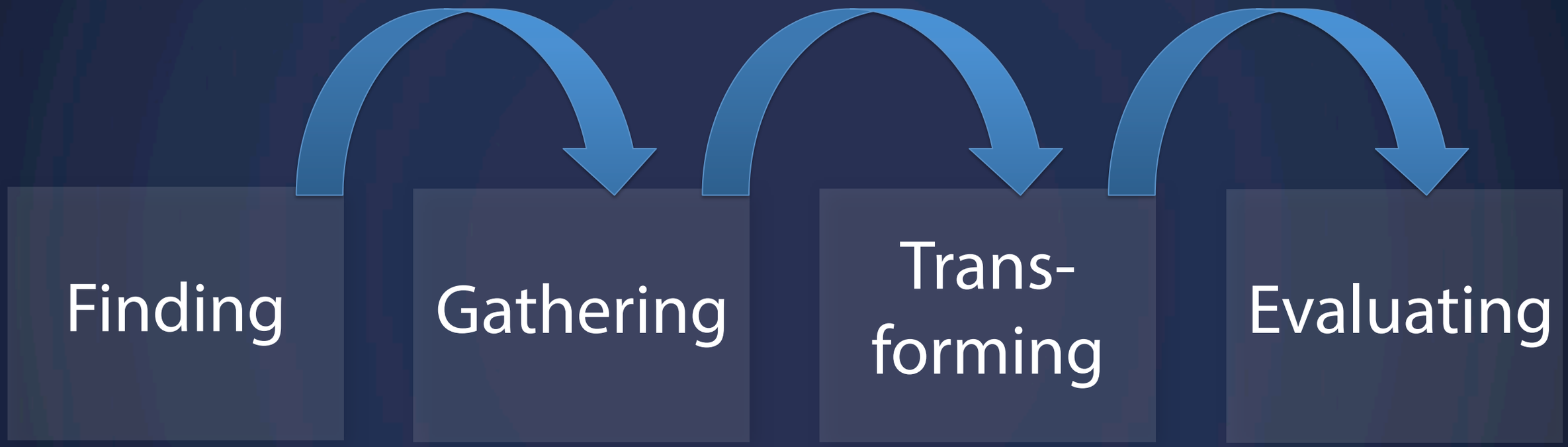
Data

Jan 24, 2013 – Michael Porath (@poezn)

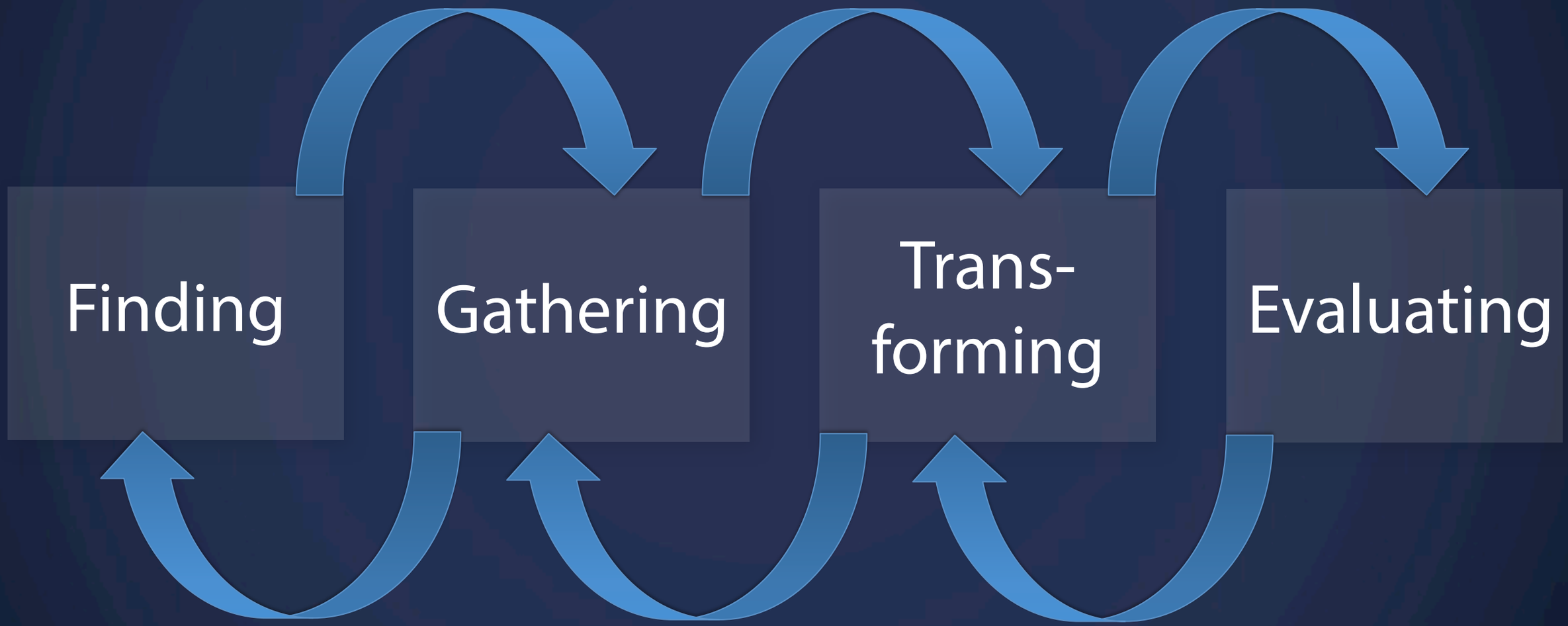
Process

Finding. Gathering. Transforming.

Process



Process



Flickr / jeff-o-matic

From (Idea To) Raw Data To Data

doterrablog.com

Flickr / jeff-o-matic

Finding data

The needle in the haystack

Open Government Data

THE WORLD BANK
Working for a World Free of Poverty

DataSF

DATA.GOV
EMPOWERING PEOPLE

OECD.StatExtracts
Complete databases available via OECD's iLibrary

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Product APIs

foursquare

fitbit

Developers

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Third Party Data Providers

factual.

infochimps

Socrata

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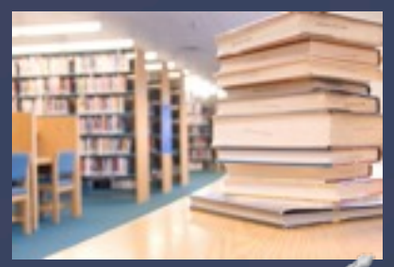
Socrata

Anywhere



flickr / ccacnorthlib

	A	B	C	D
1	Weekday	Hour	Count	
2	0	0	1	
3	0	1	0	
4	0	2	1	
5	0	3	3	
6	0	4	0	
7	0	5	0	
8	0	6	0	
9	0	7	0	
10	0	8	0	
11	0	9	0	

Gathering data

The tedious part

Scraping

Collecting manually

Crowdsourcing

B	C	D	E	F	G	H
ink	name	address	neighborhoo	rating_overa	id	rating_espresso
/review-view	Blue Bottle C	66 Mint St.	SOMA	8.5	1064	8.5
/review-view	Blue Bottle C	1 Ferry Build	Embarcadero	8.1	1128	8.4
/review-view	Blue Bottle C	315 Linden S	Hayes Valley	8.3	820	8.4
/review-view	Coffee Bar	1890 Bryant	Potrero Hill	8.45	1059	8.4
/review-view	Epicenter Ca	764 Harrison	SOMA	8.3	1121	8.4
/review-view	Four Barrel C	375 Valencia	Mission	8.45	1070	8.4
/review-view	Mercury Cafe	201 Octavia S	Hayes Valley	8.2	1171	8.4
/review-view	Ritual Coffee	1634 Jerrold	Bayview	8.2	1016	8.4
/review-view	Ritual Coffee	1026 Valenci	Mission	8.45	843	8.4
/review-view	Cafe Capricci	2200 Mason	North Beach	8.05	1127	8.3
/review-view	Special Xtra	46 Minna St	SOMA	7.55	1177	8.2

Transforming and evaluating data

Clean your data

- Missing data points
- inconsistent formats

```
Jan 24, 2013
2013/01/24
24/01/13
24th January 2013
```

Transforming and evaluating data

Clean your data

- Missing data points
- inconsistent formats

```
Jan 24, 2013
2013/01/24
24/01/13
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```

Identify your target format

SQL Database?

CSV?

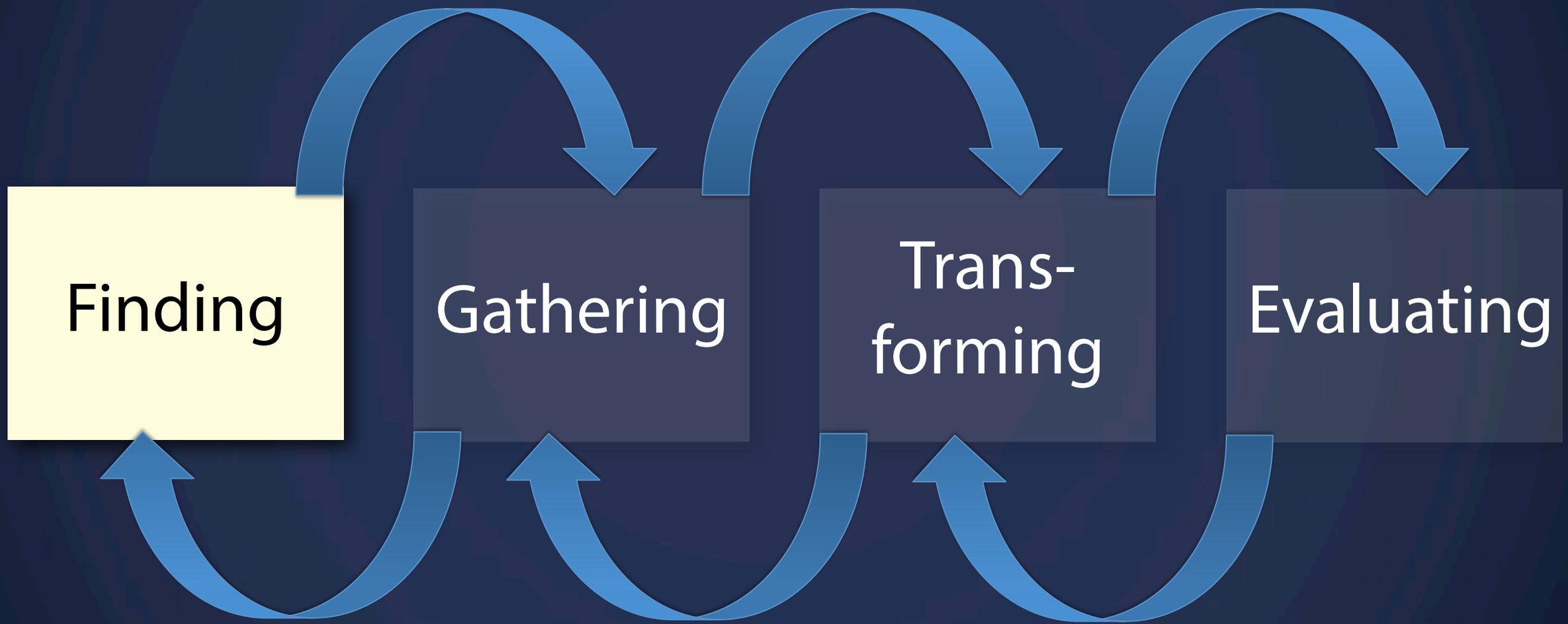
Excel?

JSON?

API?

Example

Process



THE NEW FILM BY
QUENTIN TARANTINO

DJANGO

UNCHAINED

THE NEW FILM BY
QUENTIN TARANTINO

DJANGO

UNCHAINED

"I bet that's the most successful western so far"

Question

Which is the most successful Western so far?

THE NUMBERS

BOX OFFICE DATA, MOVIE STARS, IDLE SPECULATION

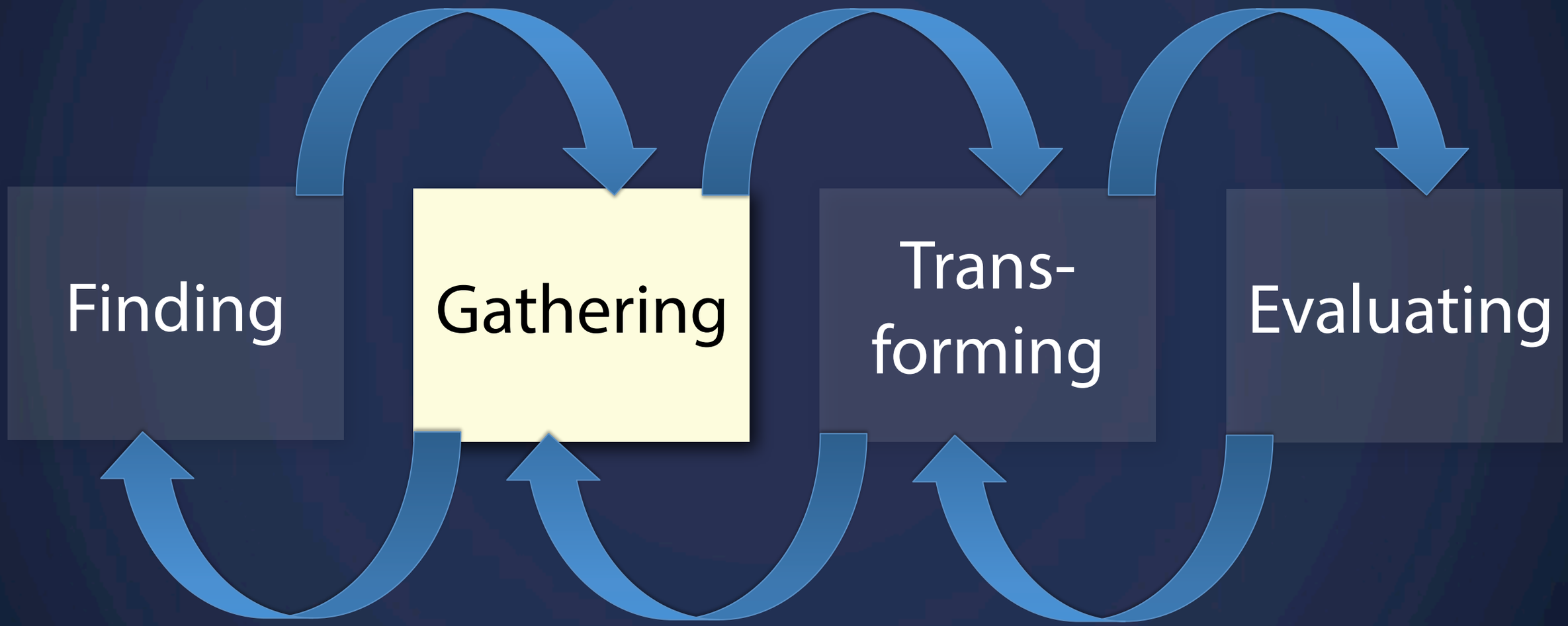
Wednesday, January 23, 2013

Western Movies

Movie	Release Date	Distributor	MPAA Rating	Domestic Gross	Inflation-Adjusted Gross
Hondo	Jan 1, 1953		PG	$8,200,000	$107,830,003
The Alamo	Oct 24, 1960	United Artists	PG-13	$7,900,000	$90,334,780
Major Dundee	Apr 7, 1965	Sony Pictures	PG-13	$14,873	$116,188
Bandolero!	Jan 1, 1968	20th Century Fox	PG-13	$12,000,000	$72,274,806
C'era una volta il West	May 28, 1969	Paramount Pictures	PG-13	$5,321,508	$29,568,098
Big Jake	Jan 1, 1971		PG-13	$7,500,000	$35,863,640
Tombstone	Dec 25, 1993	Walt Disney	R	$56,505,065	$90,906,513
Lightning Jack	Mar 11, 1994	Savoy	PG-13	$16,821,273	$24,969,720
Bad Girls	Apr 22, 1994	20th Century Fox	R	$15,187,851	$25,815,733
Maverick	May 20, 1994	Warner Bros.	PG	$101,631,272	$195,161,375
Wyatt Earp	Jun 24, 1994	Warner Bros.	PG-13	$25,052,000	$38,006,035
Wagons East	Sep 9, 1994	Sony Pictures	PG-13	$4,358,940	$8,429,424
The Quick and the Dead	Feb 10, 1995	Sony Pictures	R	$18,552,460	$33,634,344
Tall Tale	Mar 24, 1995	Walt Disney	PG	$8,247,627	$14,939,186
Last of the Dogmen	Sep 8, 1995	Savoy	PG	$7,008,542	$12,666,709
Wild Bill	Dec 1, 1995	MGM	R	$2,169,373	$3,934,790
Dead Man	May 10, 1996	Miramax	R	$1,025,488	$1,830,567
Ride With the Devil	Nov 24, 1999	USA Films	R	$630,779	$967,211
Shanghai Noon	May 26, 2000	Walt Disney	PG-13	$56,932,305	$83,338,756
All the Pretty Horses	Dec 22, 2000	Miramax	PG-13	$15,527,125	$22,275,742

http://www.the-numbers.com/movies/genre/Western

Process



Tip

HTML pages to Excel/CSV/Spreadsheet

Google Docs

```
=importHtml(URL, element, index)
```

http://googlesystem.blogspot.com/2007/09/google-spreadsheets-lets-you-import.html

Tip

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```
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```
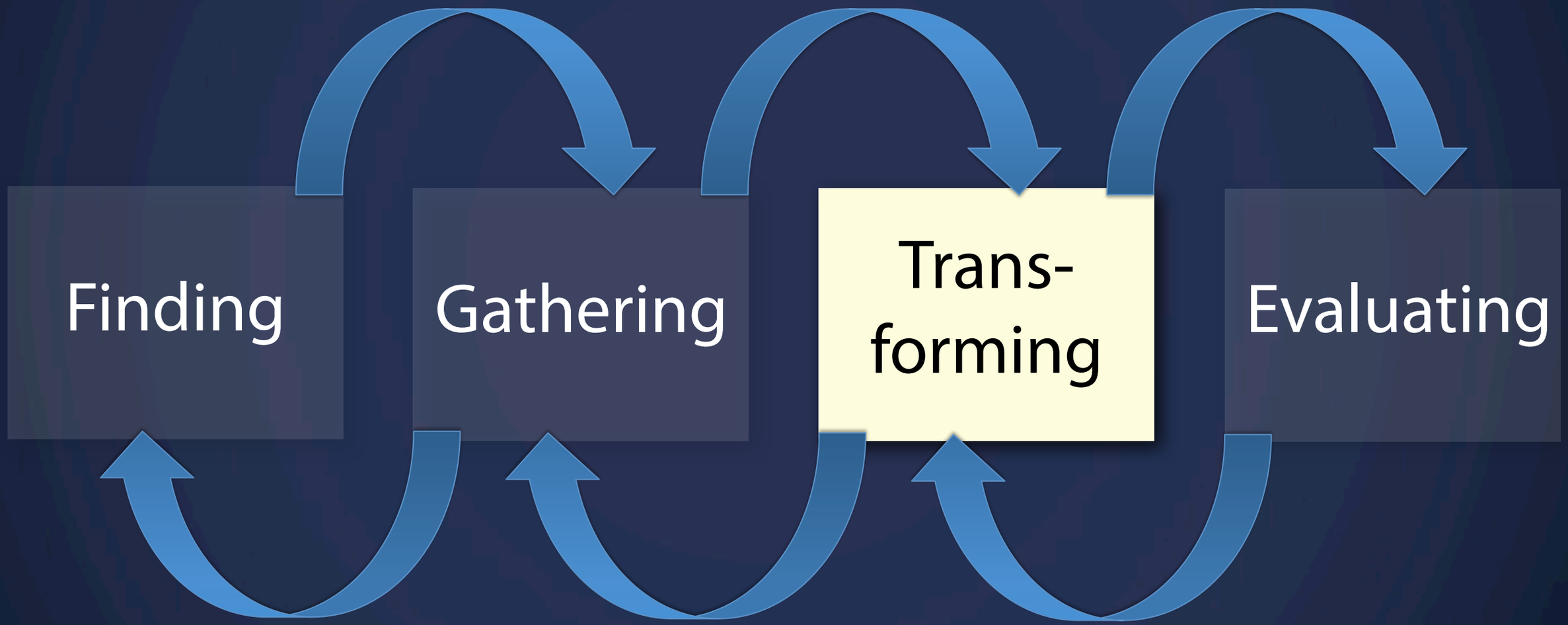

```
=importHtml(
     "http://www.the-numbers.com/movies/genre/Western",
     "table",
     4
)
```

http://googlesystem.blogspot.com/2007/09/google-spreadsheets-lets-you-import.html

Process



Data Cleaning

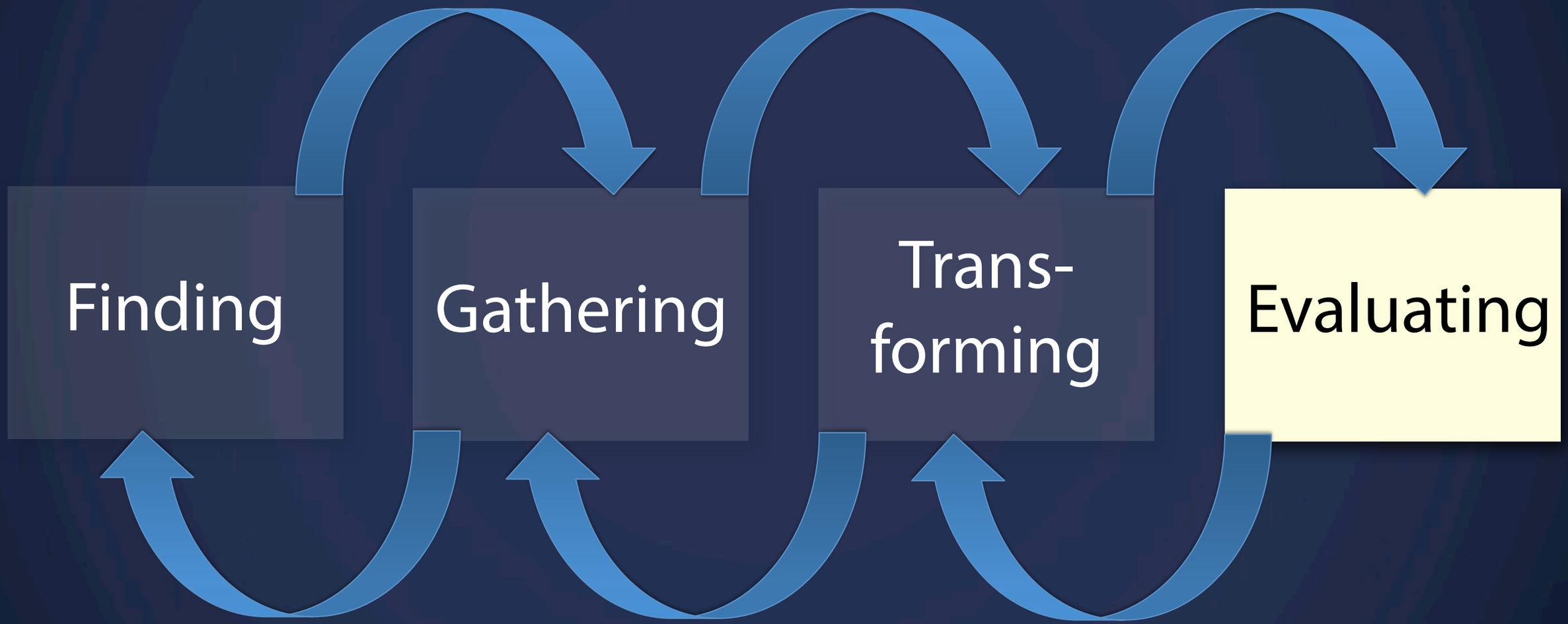
Stanford Text Wrangler

`http://vis.stanford.edu/wrangler/app/`

Open Refine

`http://openrefine.org/`

Process



Let's try again

http://blogs.ischool.berkeley.edu/i247s13/lab-1-data/

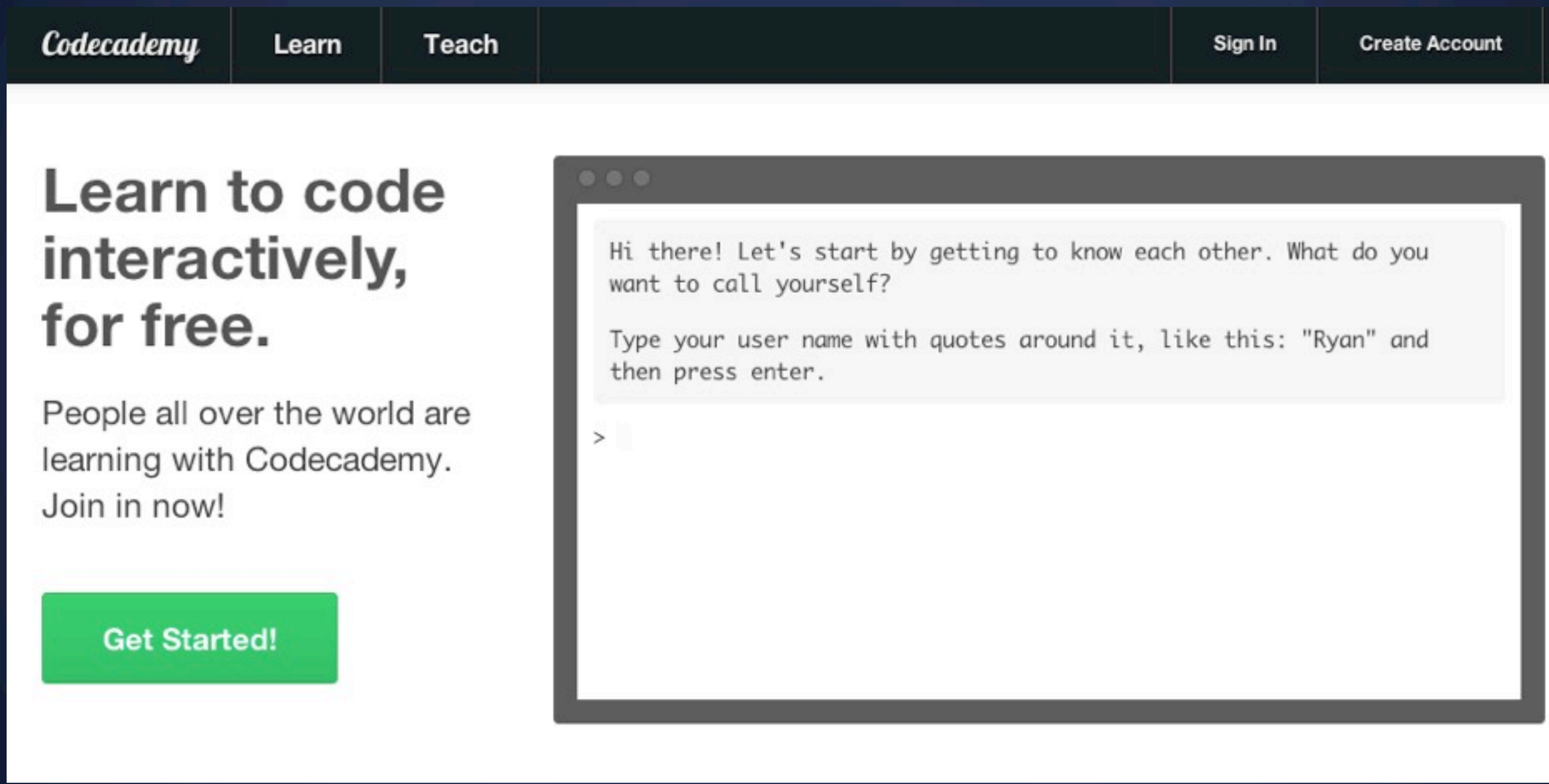
Questions?

Aaaaaargh!

I can’t code!

Start somewhere

Just do it!



http://www.codecademy.com/tracks/javascript

Reminder

Assignment 1

Task Find and document 2 visualizations

- 1 online
- 1 “in the wild”

Deliverable 2 visualizations; 1 page writeup

Due Tuesday Jan 29, 3:00PM

More information on the class blog

Tuesday

From Data to Visualization