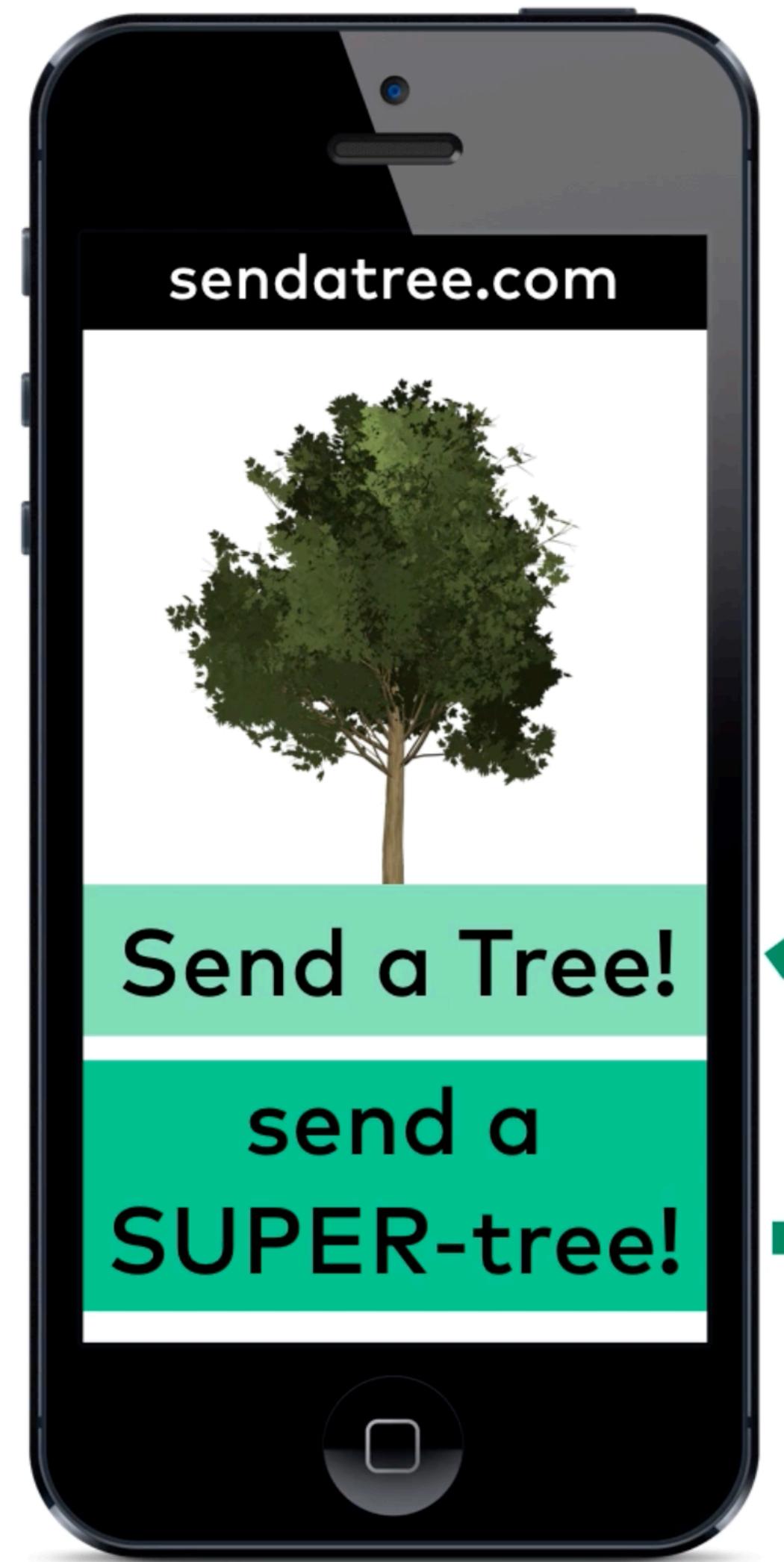


Send-A-Tree

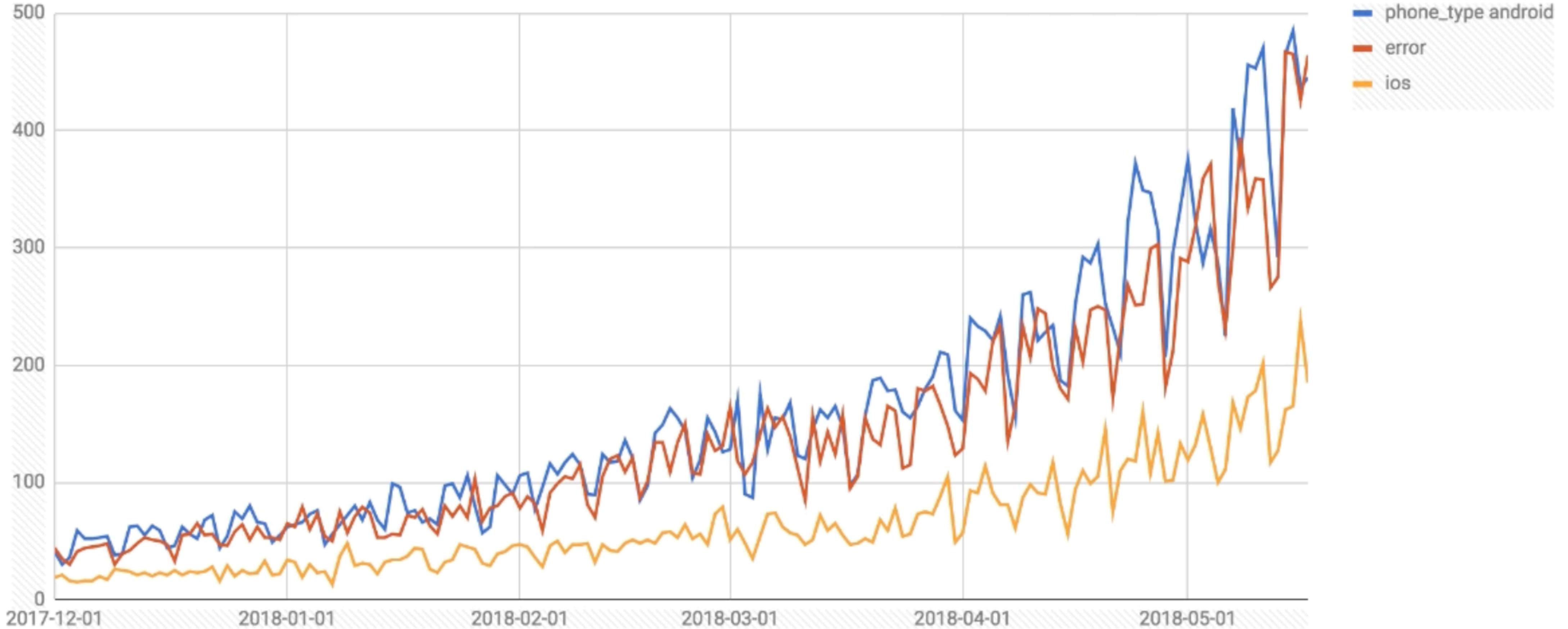
freelance data science project



Sends a picture about a
tree to a selected friend!

Sends a picture about a
huge tree to a friend!
(first one is free, the rest is \$1)

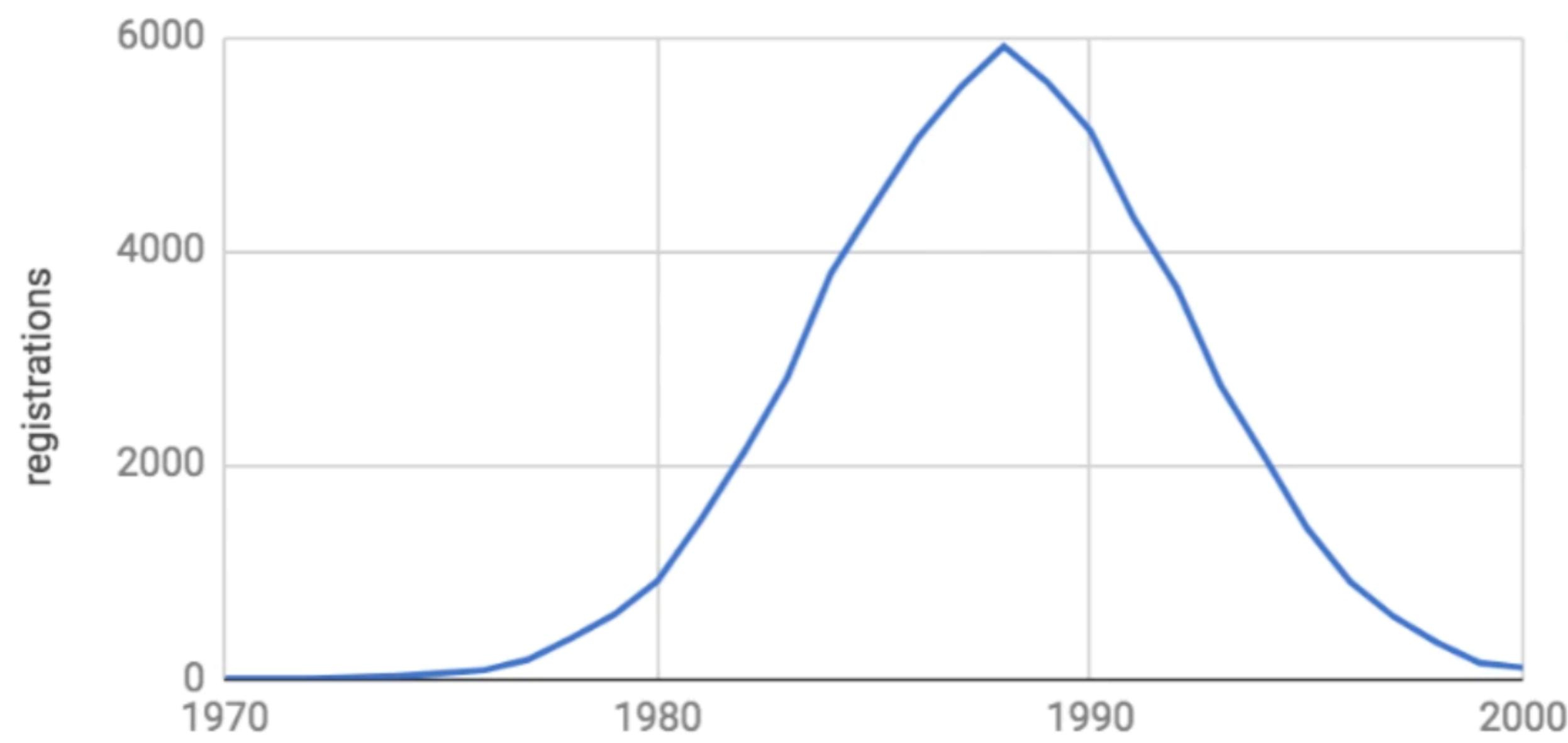
android, error and ios



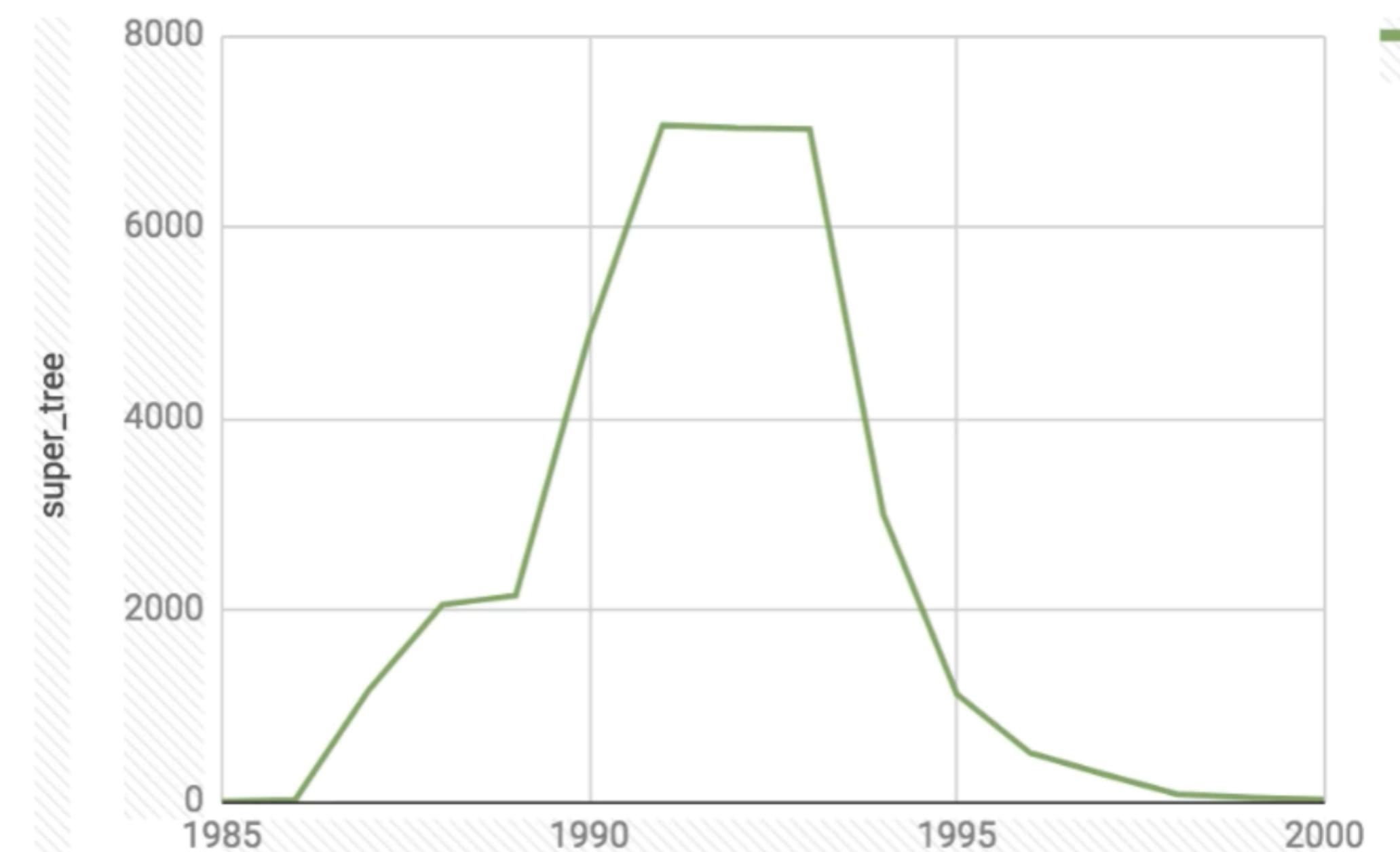
Growth is stable (actually increasing) over time.

There are a lot of "errors" in the phone_type column. (Possible data collection issue!)

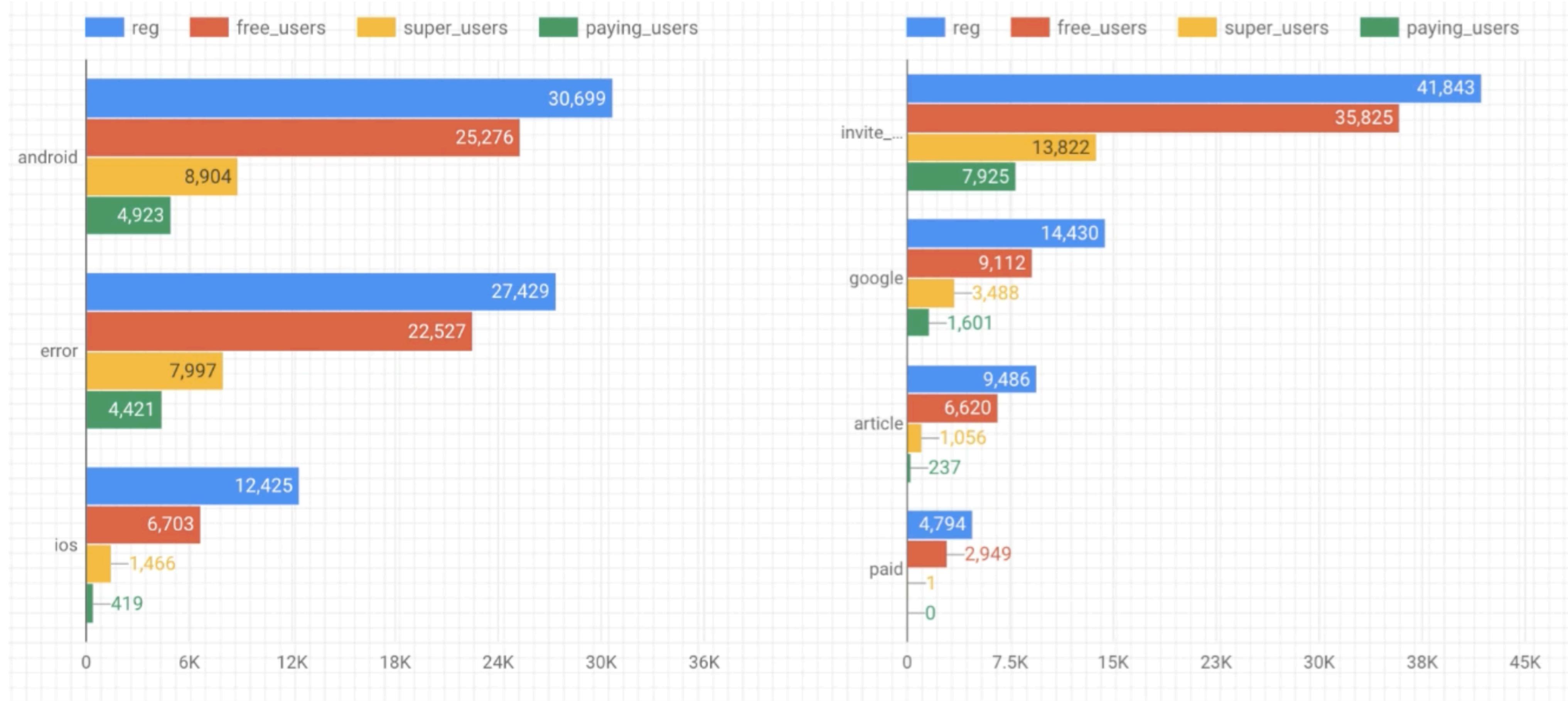
registrations



super_tree



The user base mainly consists of people born between 1985 and 1995.
The paying users are somewhat younger.



Funnel analysis shows a relatively bigger churn between free-users-->super-users conversion.

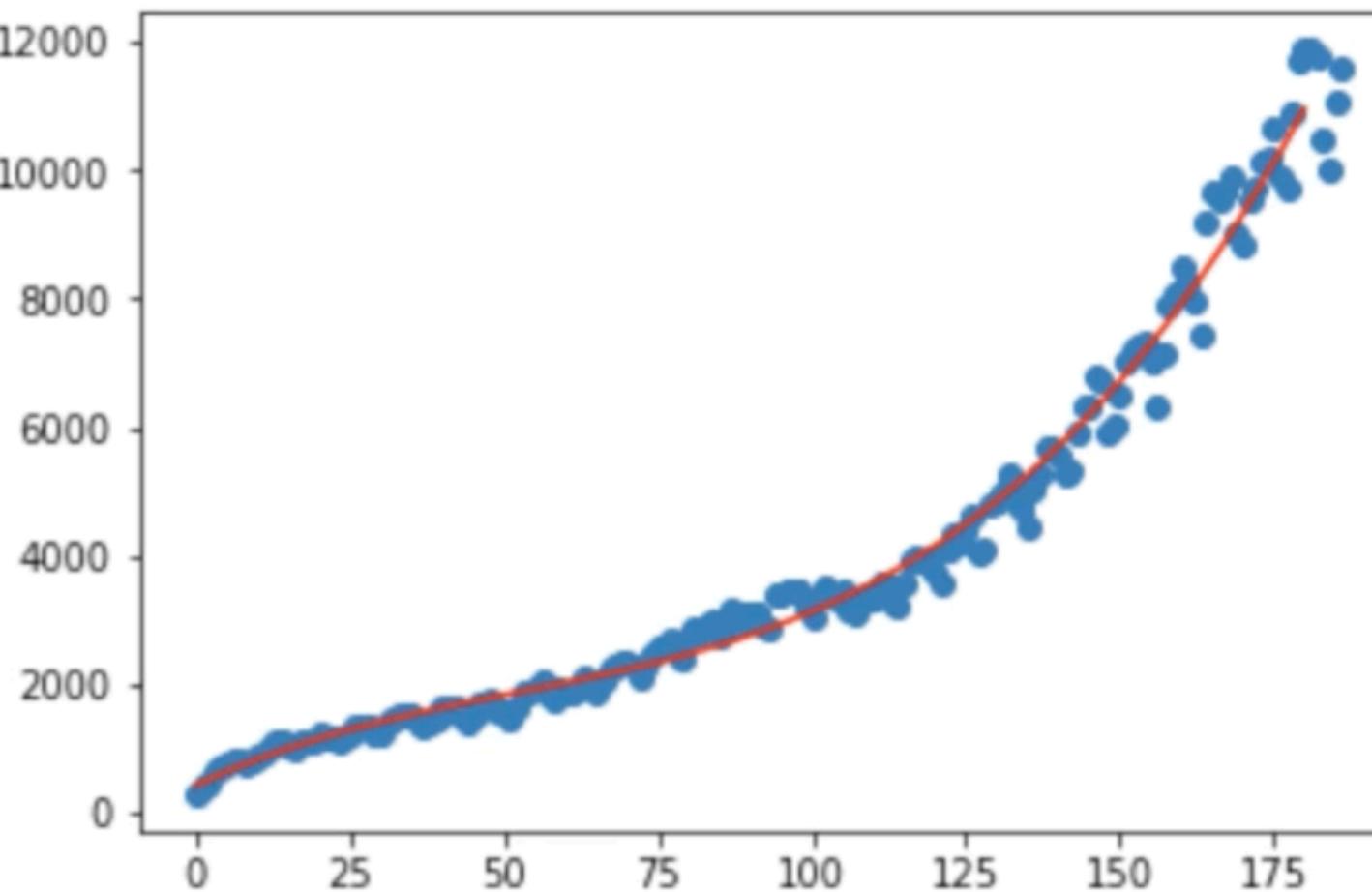
As of the channels: the invitation program dominates both in absolute numbers and conversion rates.

days_...	cohort	0	1	2	3	4	5	6	7	days_passed / number_of_users
1	day_1	78	58	37	33	25	29	28	27	
2	day_2	66	42	31	18	19	17	18	21	
3	day_3	65	53	33	30	27	25	22	21	
4	day_4	91	77	45	42	34	30	35	39	
5	day_5	93	65	34	33	18	27	29	24	
6	day_6	88	77	53	47	37	44	40	38	
7	day_7	86	68	40	36	33	31	32	29	
8	day_8	94	64	37	36	27	33	29	26	
9	day_9	74	45	24	25	26	23	21	23	
10	day_10	82	60	33	27	31	29	29	28	
11	day_11	92	68	42	34	37	26	30	26	
Grand total		2,896	2,047	1,185	977	864	768	740	666	

Cohort analysis doesn't show any significant difference between different cohorts in the first 14 days. (Analysis requested by developers to examine the affect of a specific bug of the first 7 days.)

```
coefs = np.polyfit(x, y, 3)
predict = np.poly1d(coefs)
```

```
x_test = np.linspace(0,180)
y_pred = predict(x_test[:,None])
plt.scatter(x,y)
plt.plot(x_test,y_pred,c='r')
plt.show()
```



```
coefs
```

```
array([ 3.18407351e-03, -4.98989270e-01,  4.51013370e+01,  4.24708900e+02])
```

Growth can be accurately predicted with a 3rd degree polynomial.
(Requested by infra team to investigate future server needs.)

SUMMARY

- 1. Growth is promising!**
- 2. Best marketing channel: invitation program! (Worth to put more effort into it.)**
- 3. The company will need to expand its server capacities in 75-85 days.**