

# Navigating open source

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2019/4/20, TECH(K)NOW Day, Taipei

# Agenda

1. The numbers on open source
2. Case study: Kubernetes community and CNCF
3. How can you get involved?



# Cheryl Hung (@oicheryl)

Xoogle software engineer,  
now I advocate for  
Kubernetes, cloud native  
and open source.

Founder of Cloud Native  
London.

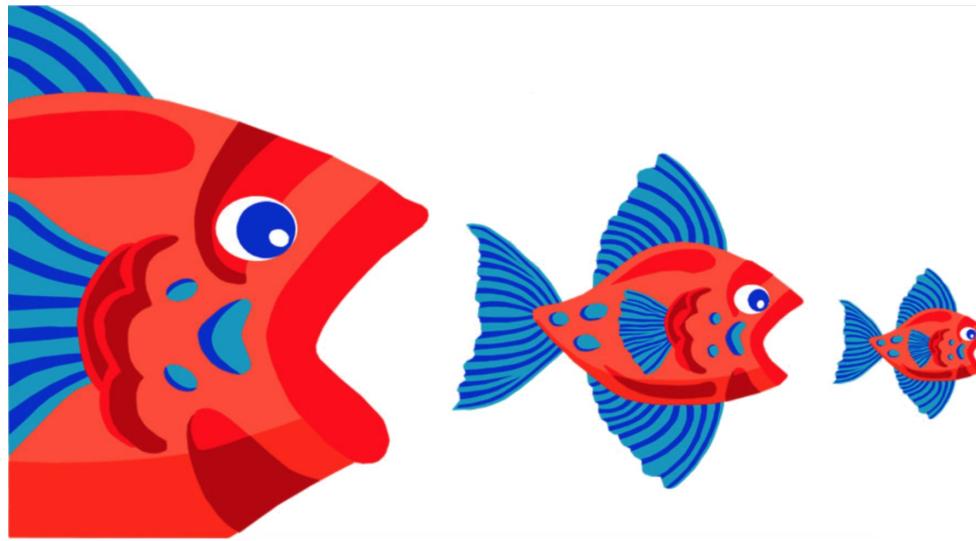


# The numbers on open source



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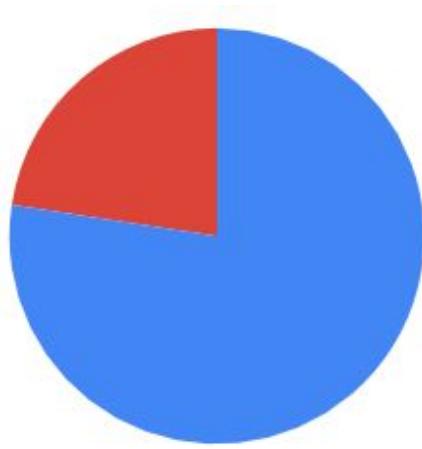
# Open source is eating the world



78% of companies [use](#) and 63% [participate](#) in open source.



# Diversity in open source is even worse than tech overall



Women vs men developers, professional US (23%) and open source (4%)



# Women are just as interested as men in contributing to open source, but are

2x

as likely to have a negative encounter

2x

as likely to seek help from people they already know



# Impact is both personal and universal

“Half of contributors say that their open source work... [helped] get their current role”



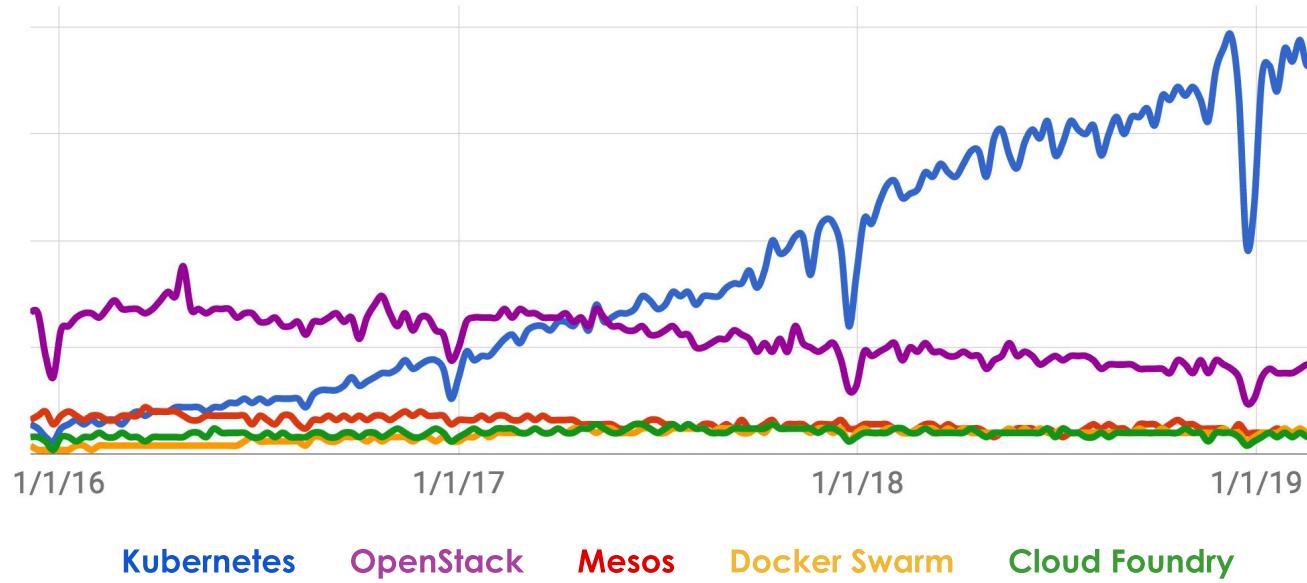
# Case study: Kubernetes community and CNCF



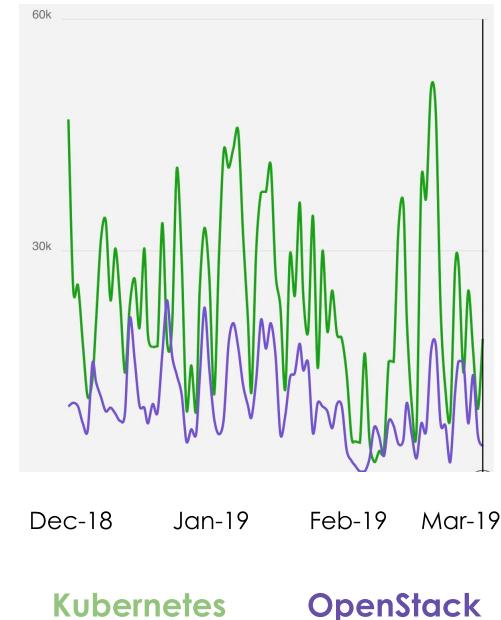
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# Kubernetes in Search Trends

Google Trends



WeChat



# Github + Slack

77,370 commits

2,104 contributors

#kubernetes-users

☆ | ⚡ 61,804 | ⚡ 6 | Ne

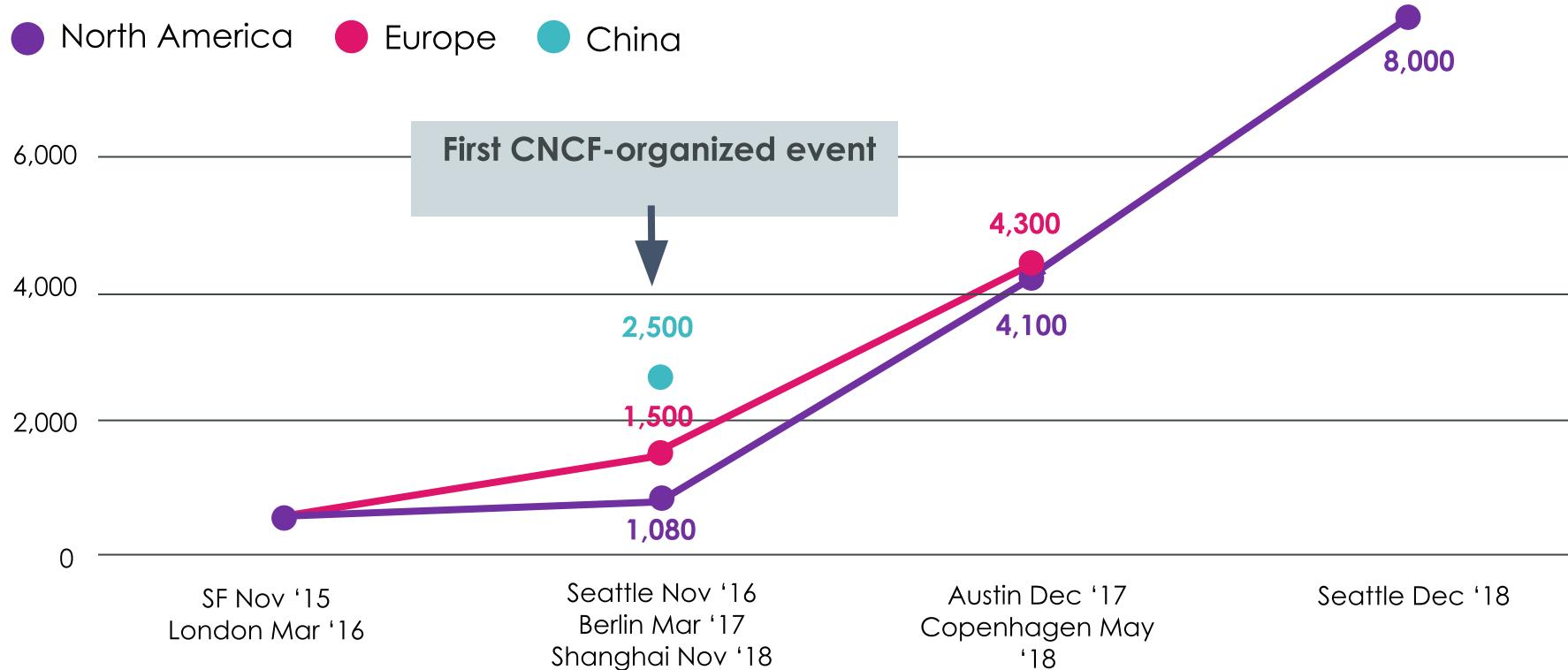
Author	Projects	Labels	Milestones	Reviews	Assignee	Sort		
Andrew Sykim	kubelet	area/cloudprovider, area/kubelet, cncf-cla: yes, kind/feature, priority/important-longterm, release-note, sig/node, size/L	#75229	2 hours ago	andrewsykim	5		
Haian Meng	Add metrics to monitor the kubelet http server	area/kubelet, cncf-cla: yes, kind/feature, needs-priority, ok-to-test, release-note-none, sig/node, size/L	#75228	2 hours ago	haiyameng	7		
Tal Clair	apiserver log streaming & de-flake audit test	cncf-cla: yes, kind/feature, kind/flake, priority/important-soon, release-note, sig/api-machinery, sig/auth, sig/testing, size/XL	#75226	2 hours ago	tallclair	3		
Jing Xu	Add bracket to the sig-window tag	approved, cncf-cla: yes, kind/bug, lgtm, release-note-none, sig/storage, sig/windows, size/XS	#75225	2 hours ago	jingxu97	1.14	v1.14	3
Neolit123	kubeadm: print key inside the upload-certs phase of init	approved, area/kubeadm, cncf-cla: yes, do-not-merge/hold, kind/bug, lgtm, priority/critical-urgent, release-note-none, sig/cluster-lifecycle, size/S	#75224	2 hours ago	neolit123	3		
Sjennin	kubelet: include init containers when determining pod QoS	cncf-cla: yes, lgtm, needs-kind, needs-priority, release-note, sig/apps, sig/node, size/M	#75223	3 hours ago	sjennin	2		
Ostromart	Remove Istio manifests and configure-helper code	cncf-cla: yes, do-not-merge/cherry-pick-not-approved, kind/cleanup, needs-priority, ok-to-test, release-note-none, sig/cluster-lifecycle, size/XXL	#75221	3 hours ago	ostromart	7		
Izang	Fix the network policy tests.	cncf-cla: yes, do-not-merge/cherry-pick-not-approved, do-not-merge/release-note-label-needed, needs-kind, needs-ok-to-test, needs-priority, sig/testing, size/XS	#75219	4 hours ago	izang	4		



# Meetups in 48 countries, 106k members



# KubeCon + CloudNativeCon Attendance



# The mission of the CNCF is to foster and sustain open source projects around cloud native



**kubernetes**



Prometheus



**envoy**



CoreDNS



**fluentd**



# Non-profit, founded December 2015



# 375+ Members

## Platinum Members

Alibaba Cloud



DELL Technologies



Microsoft Azure

ORACLE

Pivotal

redhat.



vmware

## Gold Members



Baidu 百度

CapitalOne



HORTONWORKS

inspur 浪潮



Kingsoft Cloud  
Orchestrating a brighter world



ZTE

## End User Members



Bloomberg



CapitalOne

ebay

DENSO

adidas amadeus



cookpad cruise

curve doordash

form3 granular

psystems cablelabs

cambia

engen

golden gate university

internet

opencloud



globo.com

goldman sachs

indeed

intuit



mattermost



la mobiliere



the new york times

postfinance

pusher reddit

ricardo.ch

sap concur

cloud foundry

golden gate university

internet

Morgan Stanley

MUFG

NAIC  
National Association of Insurance Commissioners

ncsoft

@Pinterest

salesforce

shopify showmax

simple nexus spredfast

state farm

stix testfire lab

textkernel thredup

NAIC  
National Association of Insurance Commissioners

nipr national insurance register

opencloud

opencloud

Spotify

Squarespace

State Street

TradeShift

Twitter

Advanced Research Computing Technology Services University of Michigan

Wikimedia Foundation

YAHOO! JAPAN

ticketmaster

Two Sigma

werkspot

wework

woorank

workday

wpengine

zalando

SEL Software Engineering Lab  
Duke University

Advanced Research Computing Technology Services University of Michigan

Wikimedia Foundation



# 375+ Members (Silver 1)



# 375+ Members (Silver 2)



# In practice

- Community
- Documentation
- Translation
- Security audits
- Certification
- Legal
- Marketing & PR
- Events

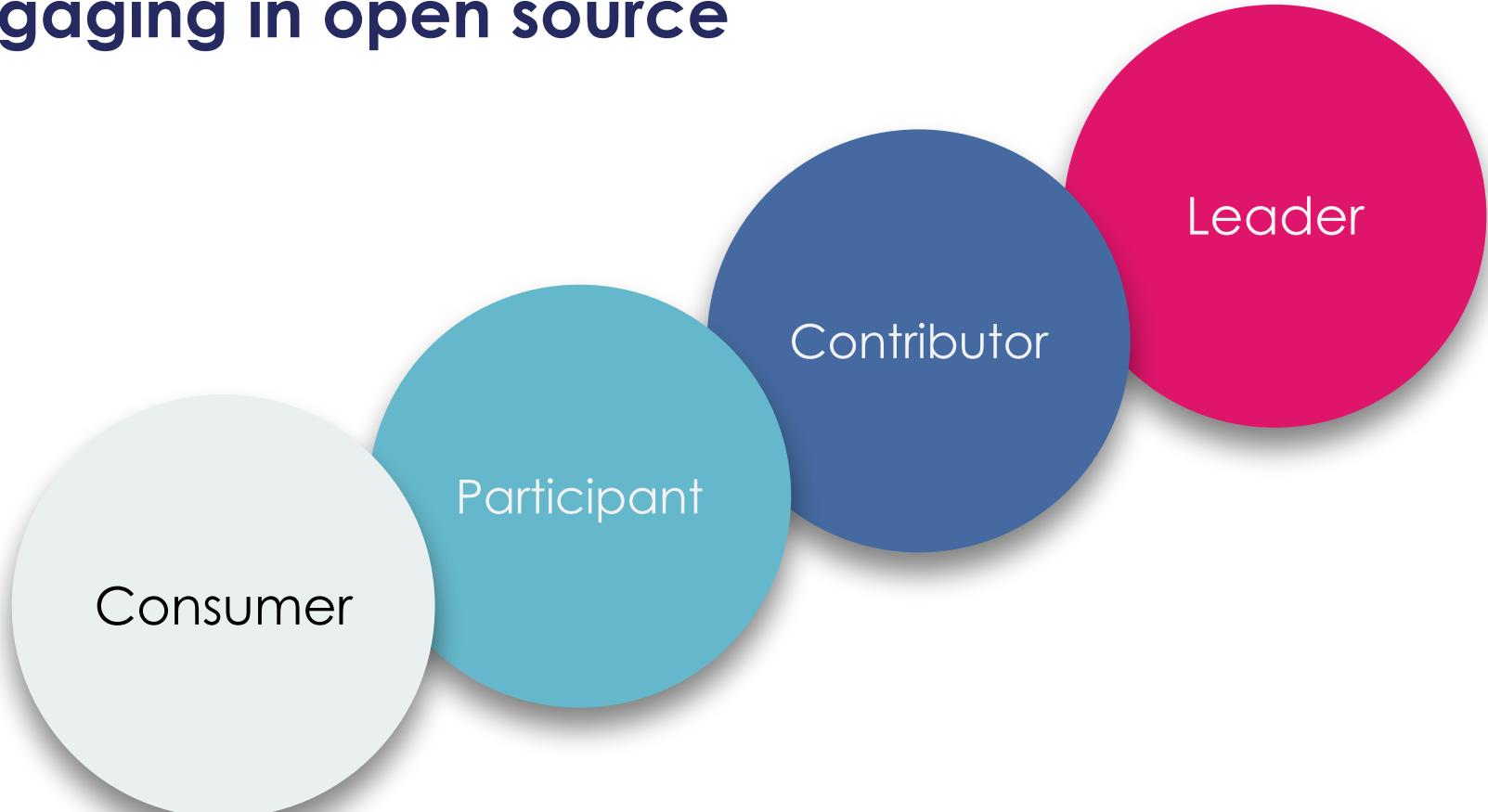


# 8 staff



# How can you get involved?

# Engaging in open source





Consumer

Evaluate and use open source  
tools

File bug reports

Attend events





- Speak at meetups
- Run events
- Answer others' questions
- Moderate discussions
- Curate





Write and translate  
documentation

Improve user experience and  
design

Code and review code

Improve tooling and testing





Leader

Organize issues

Mentor others

Governance

Formalize open source at your  
company



# Pitfalls

- A lot of unspoken rules in open source and on Github
- High barrier to entry and inertia in large projects
- Very few independent maintainers (70% are employed)



# 1. Find an open source friendly employer



## 2. Find what you're good in, and specialize



### 3. Find a sponsor



# Summary

The impact of open source is both personal and universal.

Understand how you want to engage.

Find sponsors to help you with the unspoken rules.



# Resources

[opensourcesurvey.org/2017](https://opensourcesurvey.org/2017)

[opensource.guide](https://opensource.guide), [todogroup.org](https://todogroup.org),  
[chaoss.community](https://chaoss.community)

[github.com/cncf/contribute](https://github.com/cncf/contribute), [cncf.io/about/join](https://cncf.io/about/join)



# Thanks!

Slides at [oicheryl.com](http://oicheryl.com)



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