



Welcome! I'm Mr. Show

CREATED USING  
**BwToon**

# Small world phenomenon

Chapter 20

By Sapir Caduri

11/1/15



CREATED USING  
**BitToon**

**1) Milgram + fun Anecdotes**

**2) Modeling the experiment**

**3) Practical uses**



CREATED USING  
**BitIcon**

**What was the name  
of that story I wanted  
to tell them?**



CREATED USING  
**BitIcon**



**"Chains", 1929  
By Frigyes Karinthy**



CREATED USING  
**BwTon**

"Planet Earth has never been

CREATED USING  
**iwLearn**

**"Planet Earth has never been  
as tiny as it is now"**

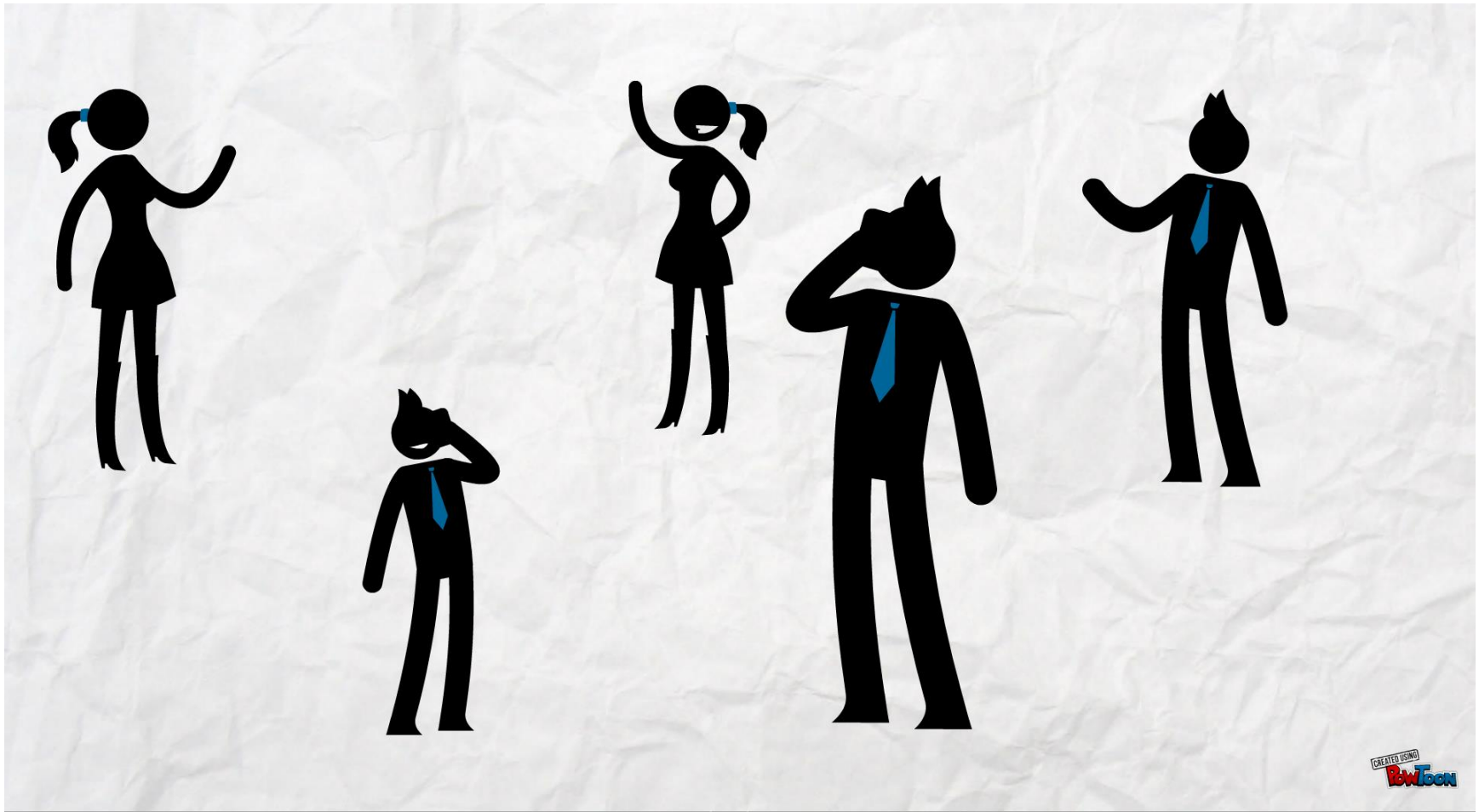
**"...using no more than five individuals ...  
one could contact the selected individual"**

# Milgram experiment





CREATED USING  
**BoToon**



CREATED USING  
**BitFun**

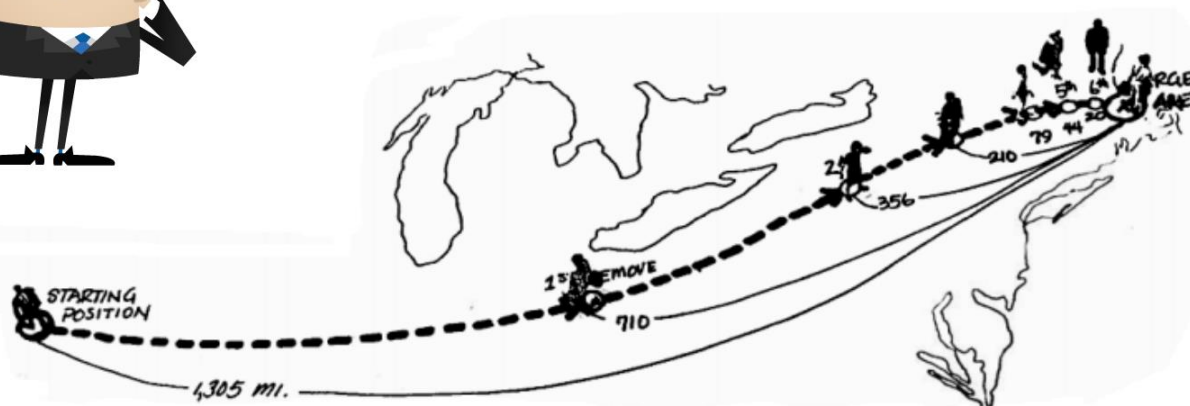




CREATED USING  
**iwtoon**







## From Omaha to Boston

**"Yo Milg'... Listen...  
Your expirement is quite stunnig!  
But... Who cares?  
We have the post-office"**



CREATED USING  
**BoToon**

**Milgram: "Mr. Show...  
I'll explain it using two words:  
tiny & powerful"**



CREATED USING  
**BoToon**

**What was the name  
of that play?**



CREATED USING  
**PowerToon**

**"Six degrees of  
separation"  
1990**

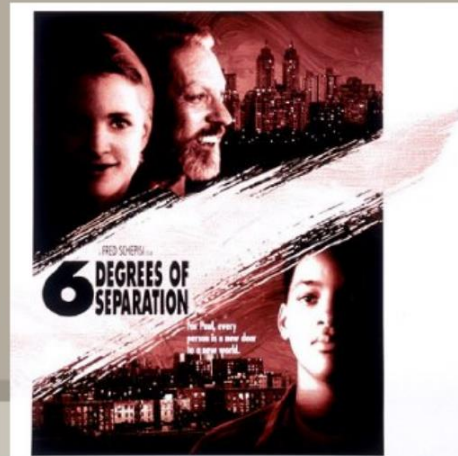


CREATED USING  
**BitIcon**

# "Six degrees of separation" 1990



David Hampton



CREATED USING  
RedTone



Paul Erdos



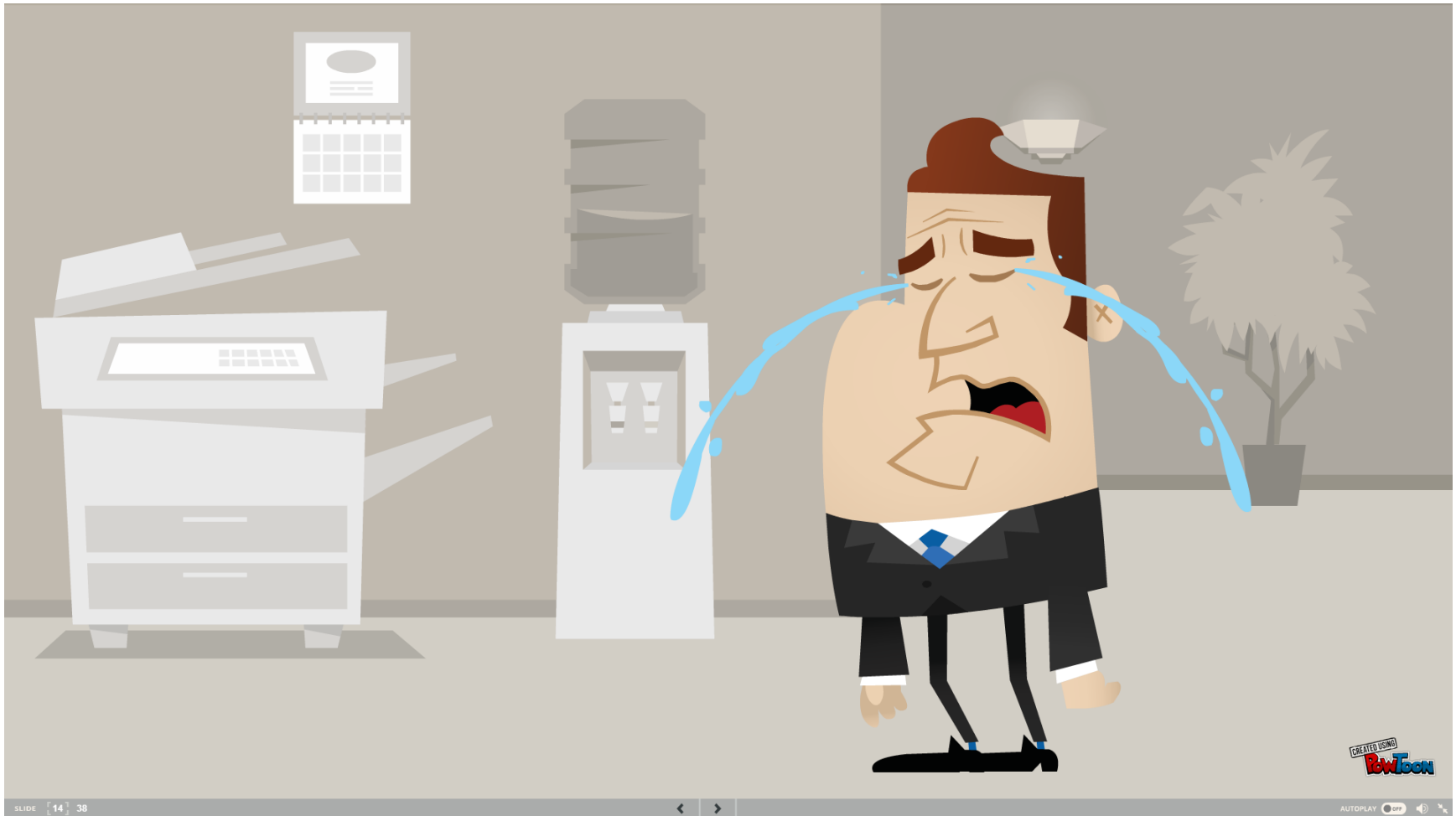
Kevin Bacon

# Modeling the Network



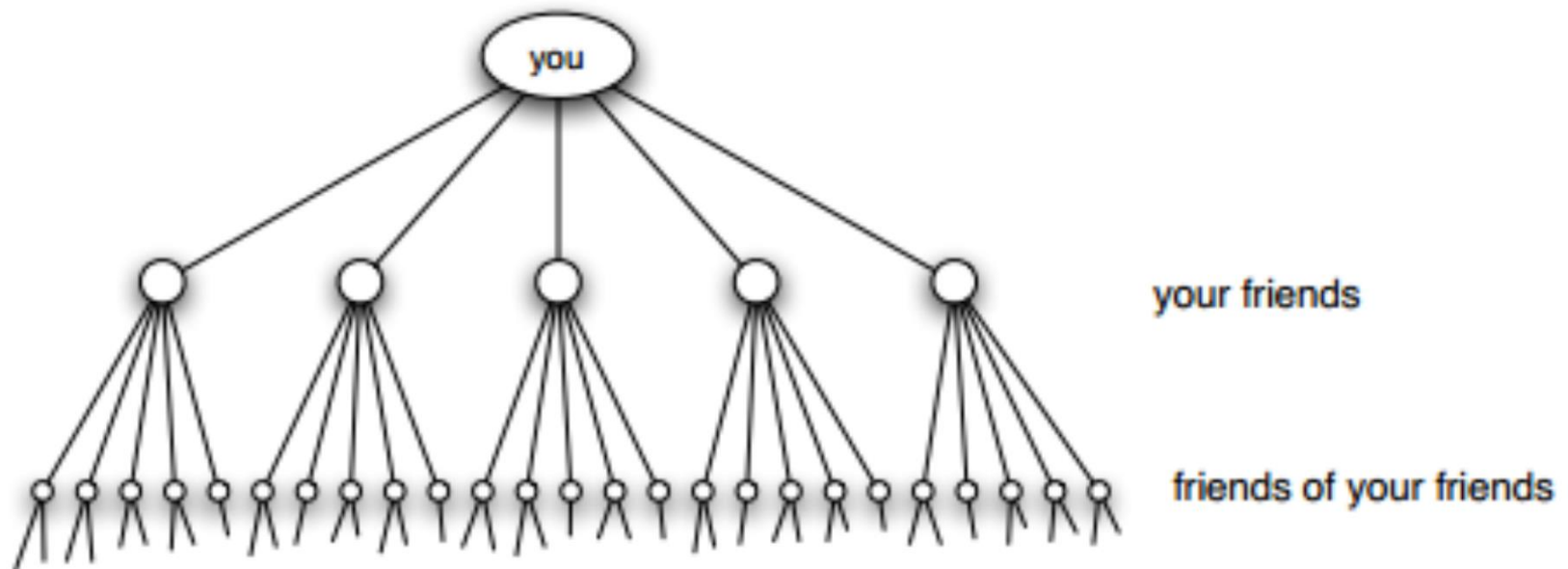
CREATED USING  
**iwicon**



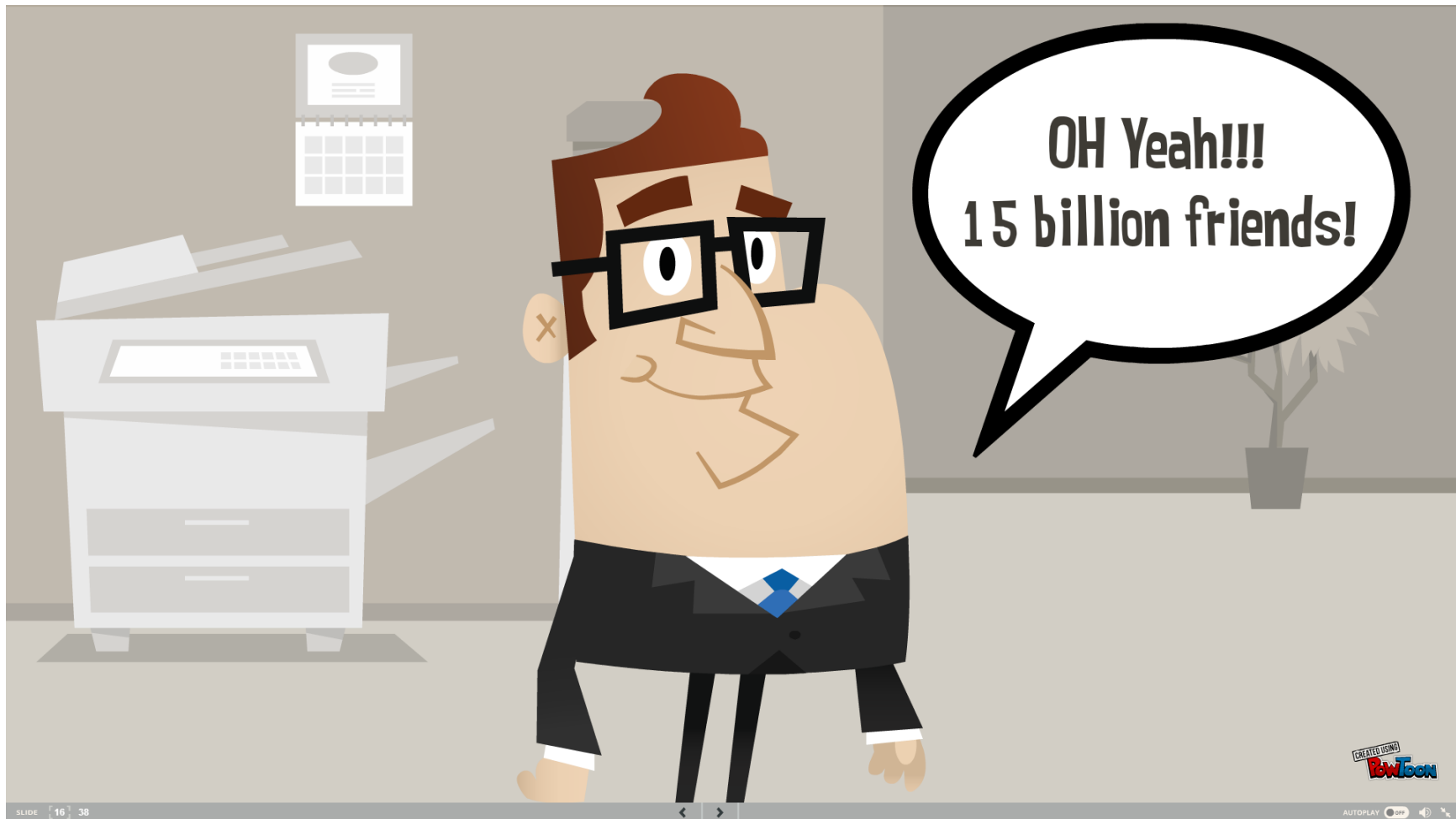


What tiny world?  
I barely have firends...

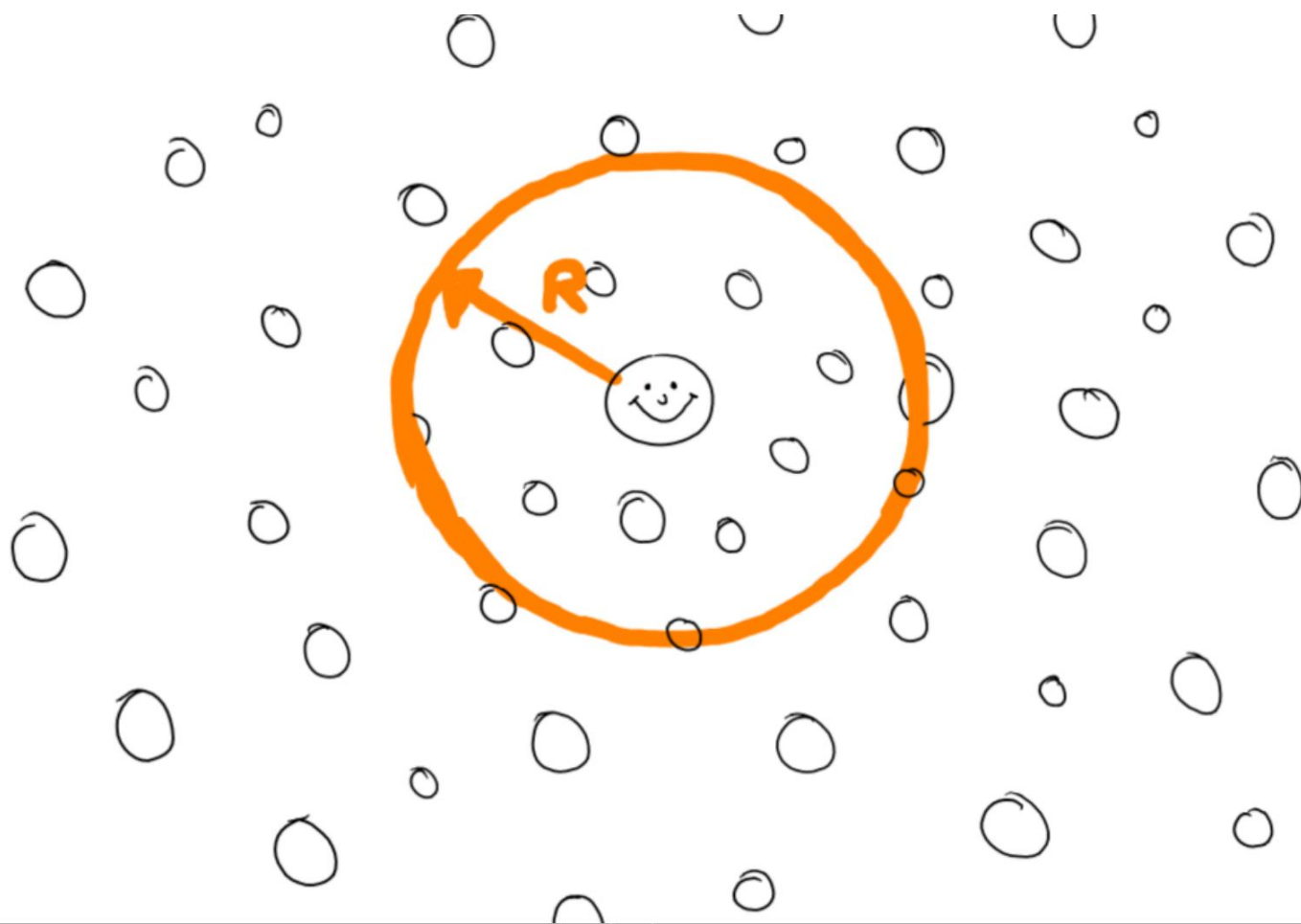


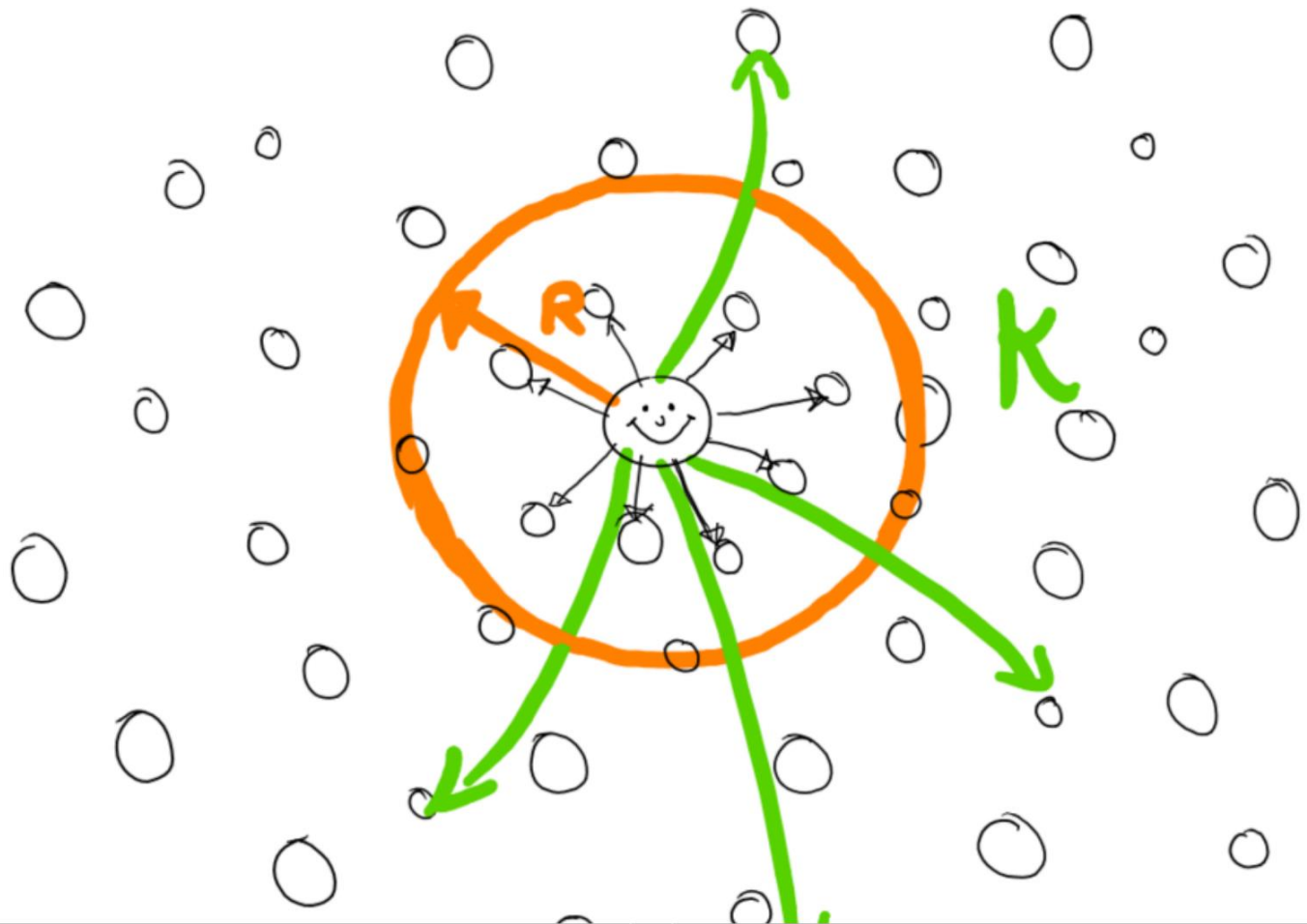


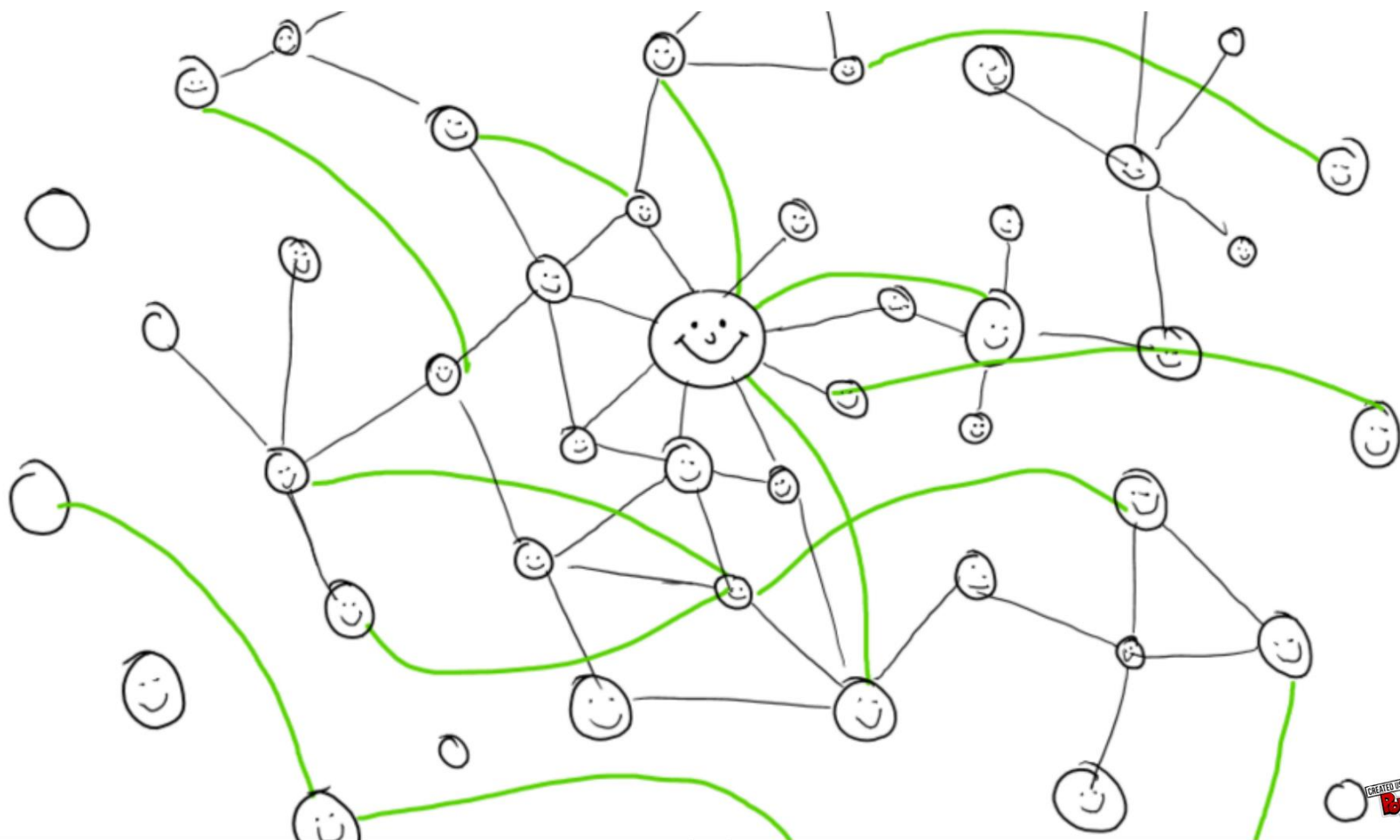
(a) *Pure exponential growth produces a small world*

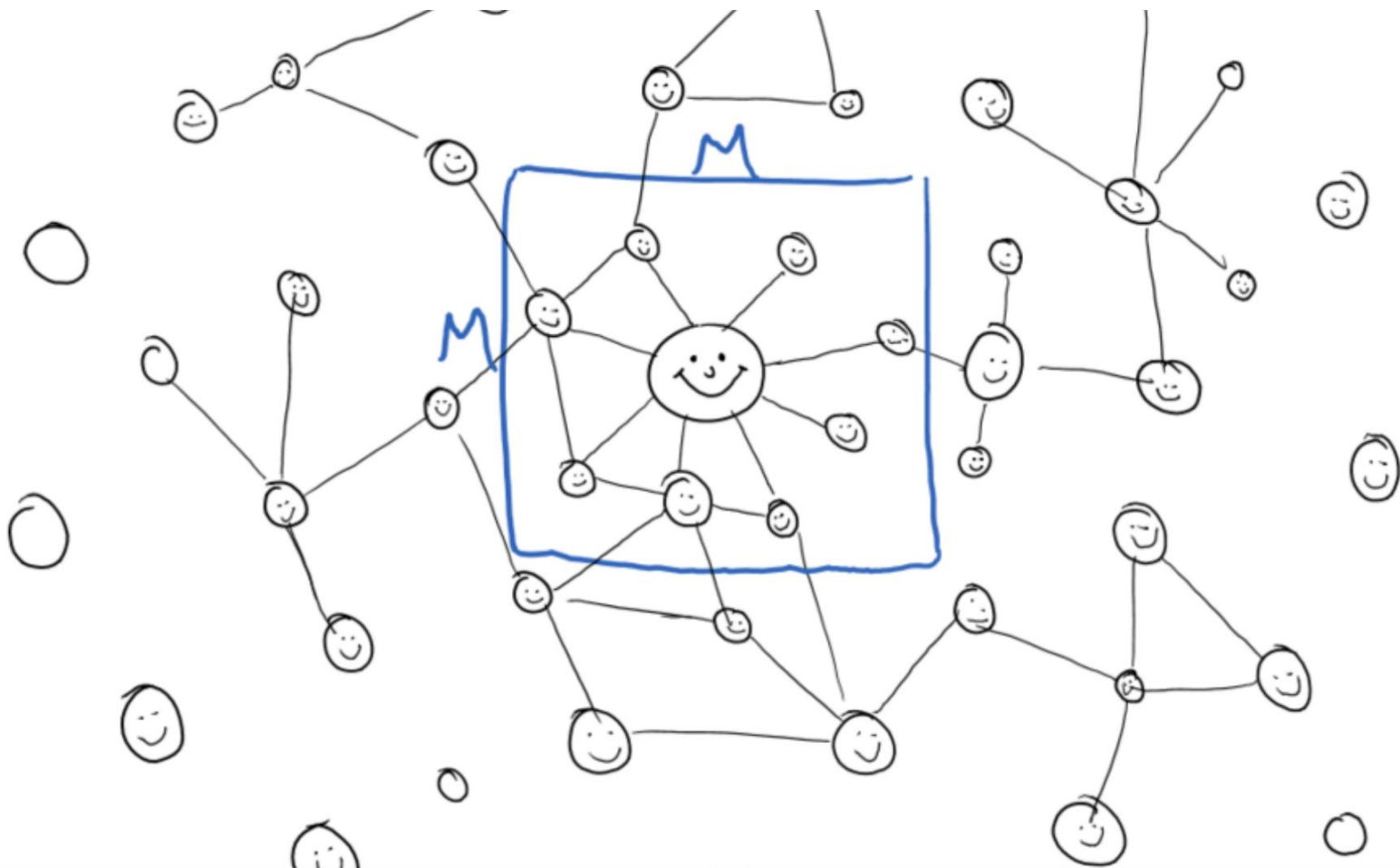


$$50^6 = 15625000000 \sim 15 \text{ billion}$$

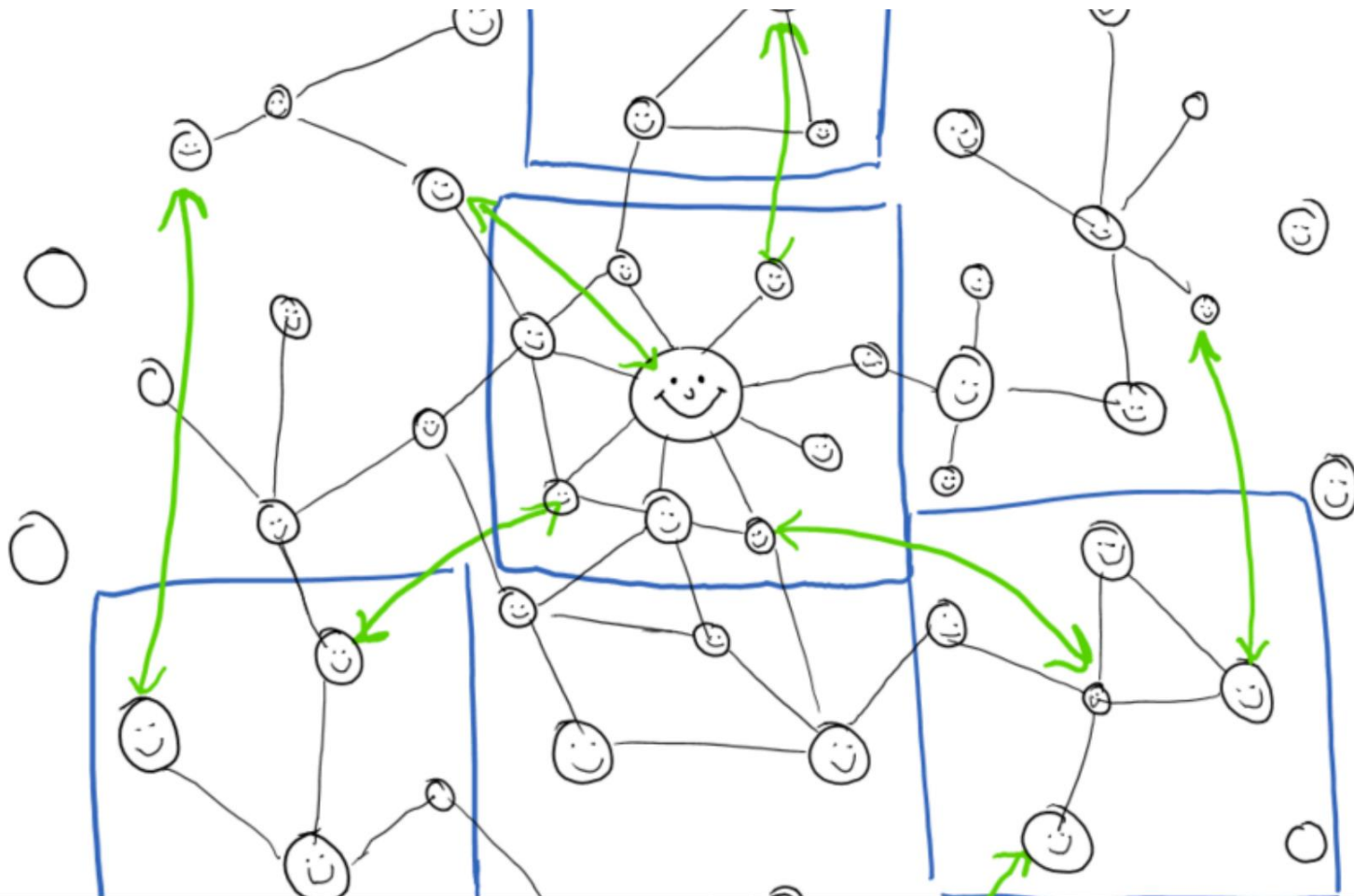














**All we need is tiny  
amount of randomness**

# Modeling the search



# Decentralized search

CREATED WITH  
**PenIcon**

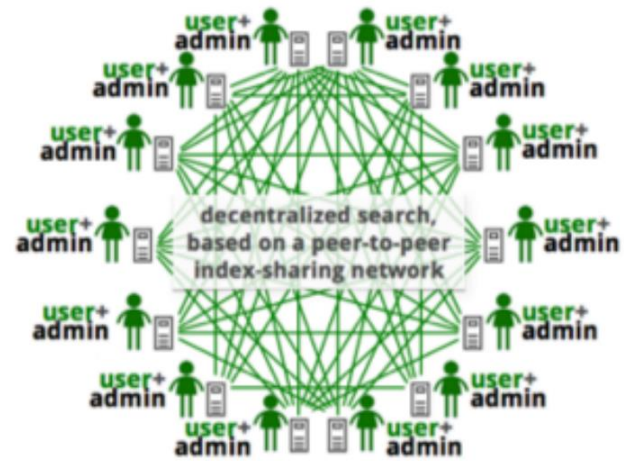


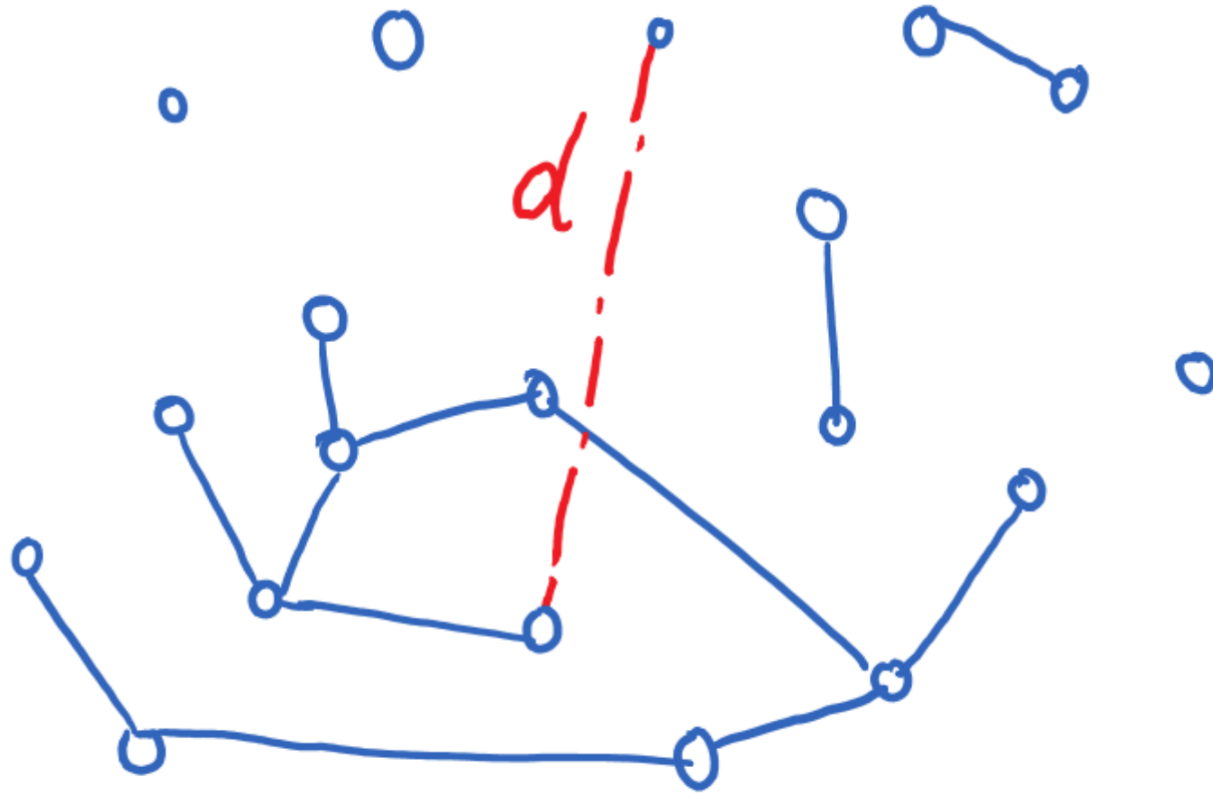
CREATED WITH  
**RAW**SON

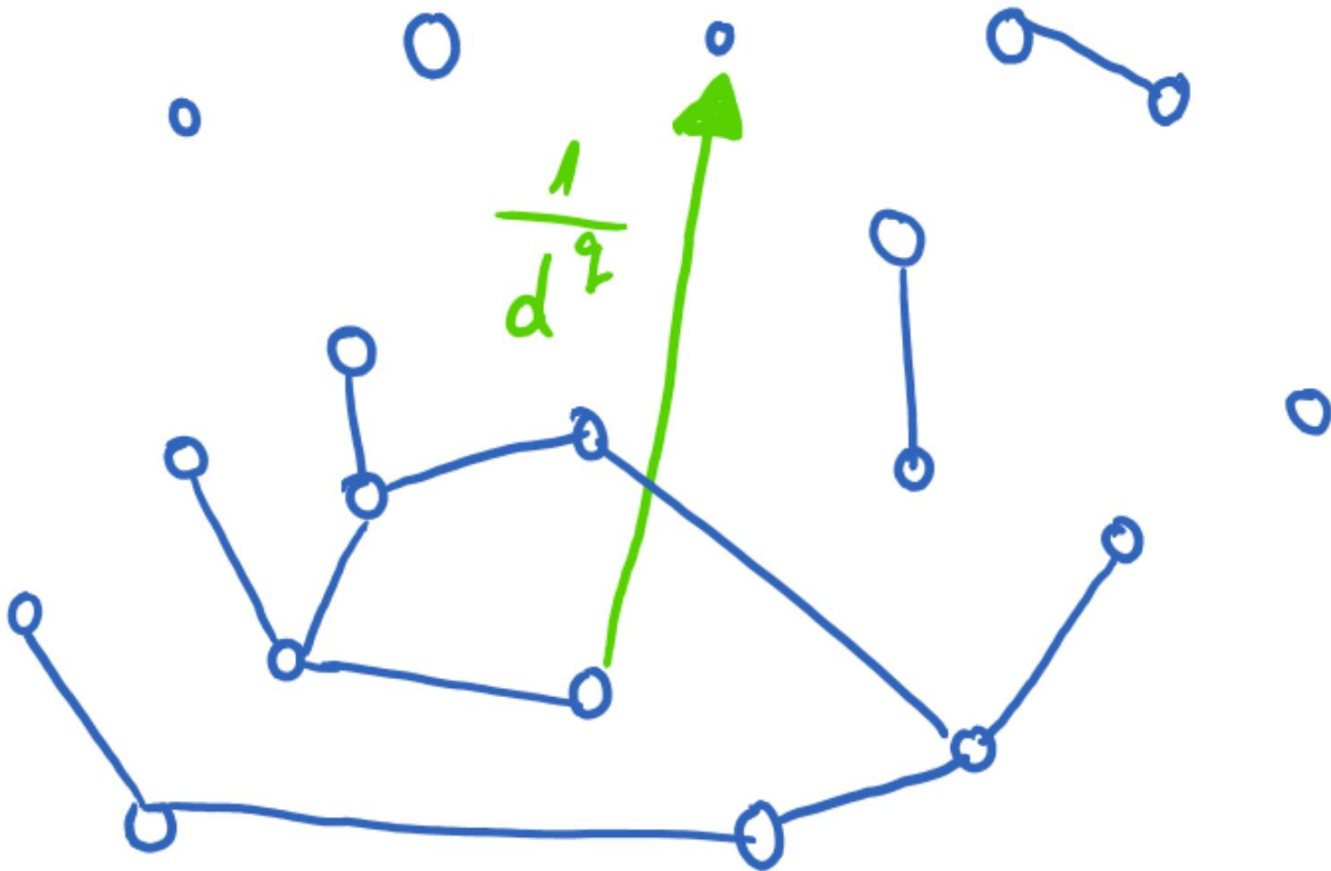
## Search Portals



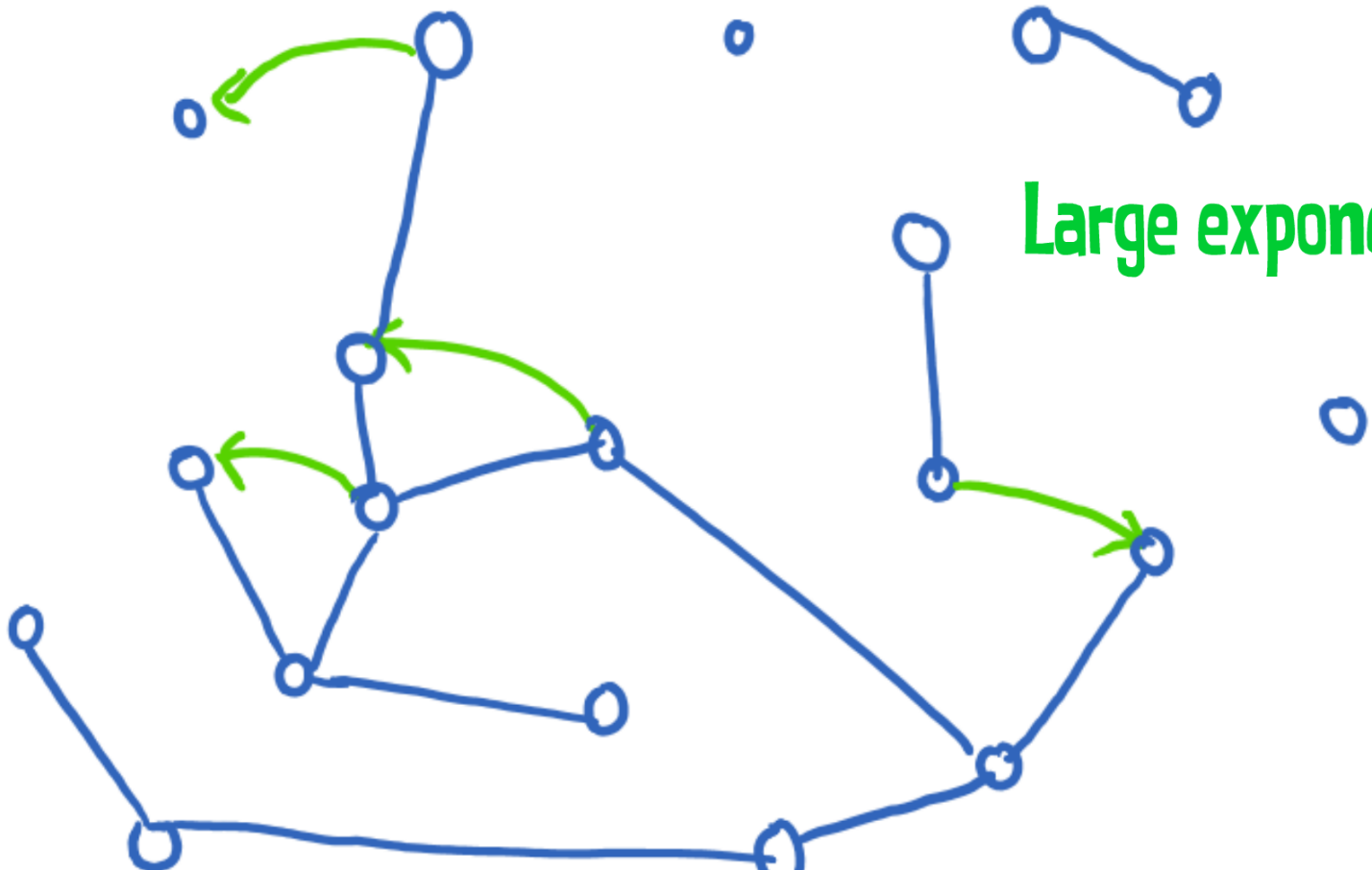
yaCy





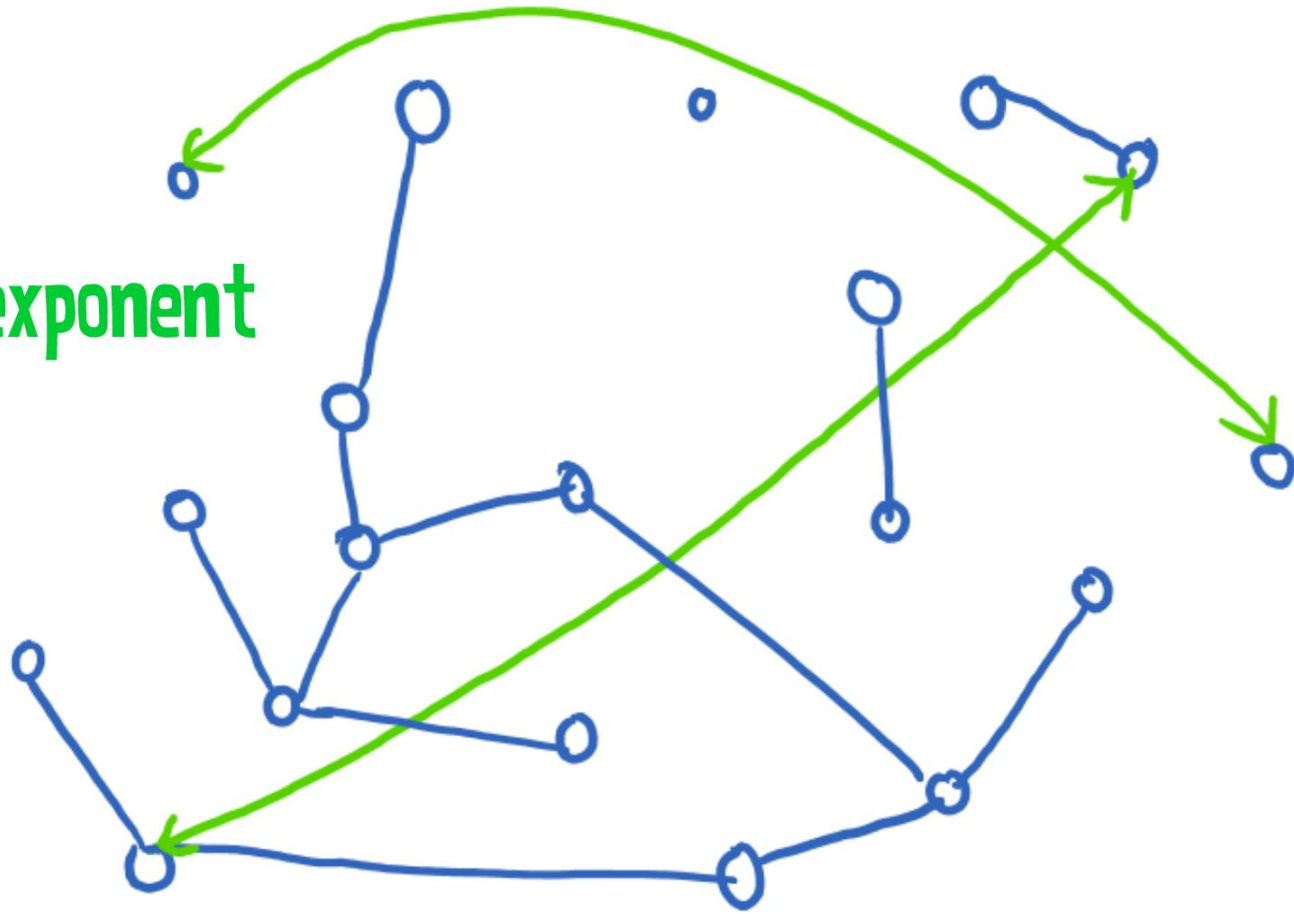


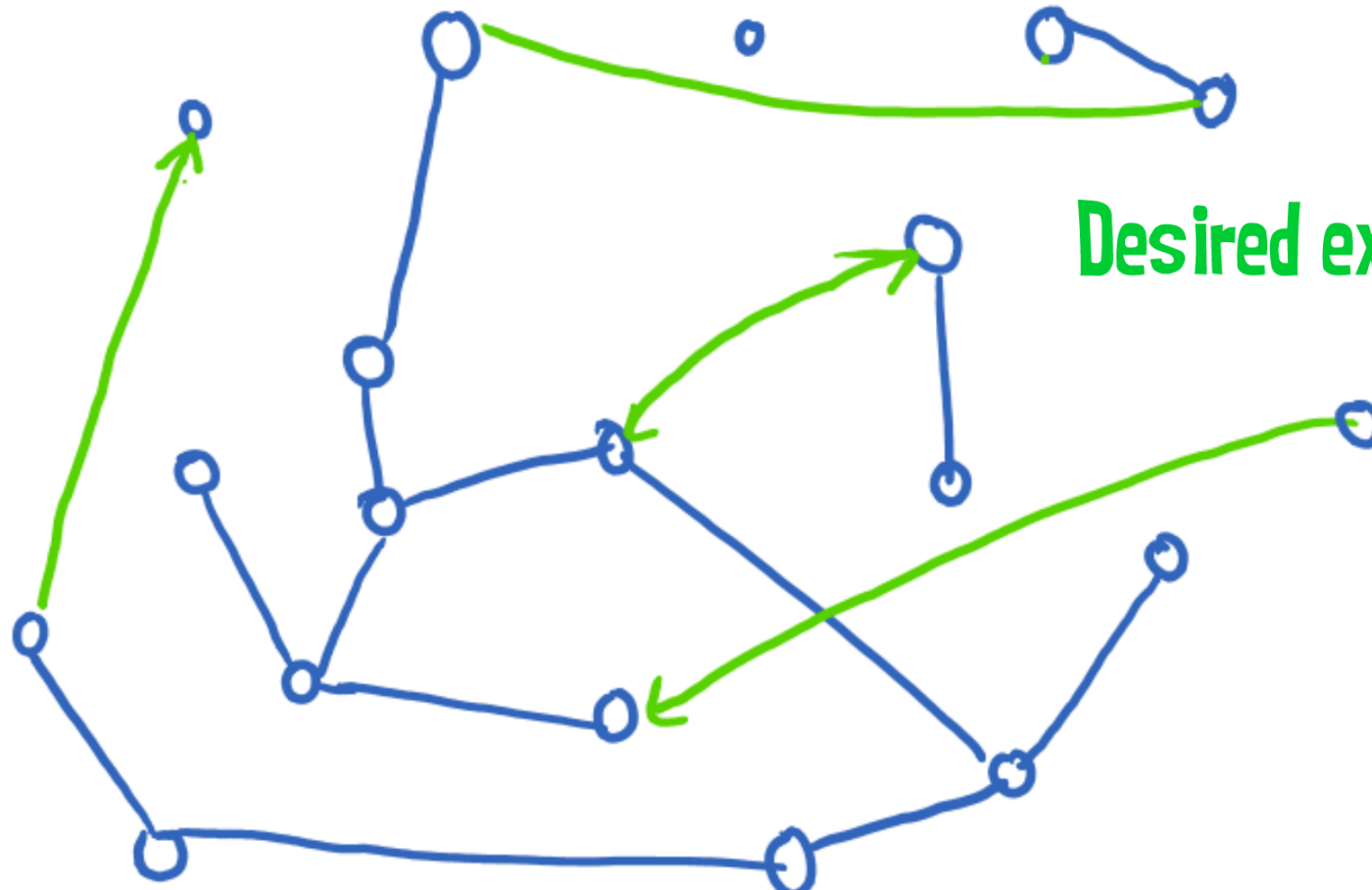




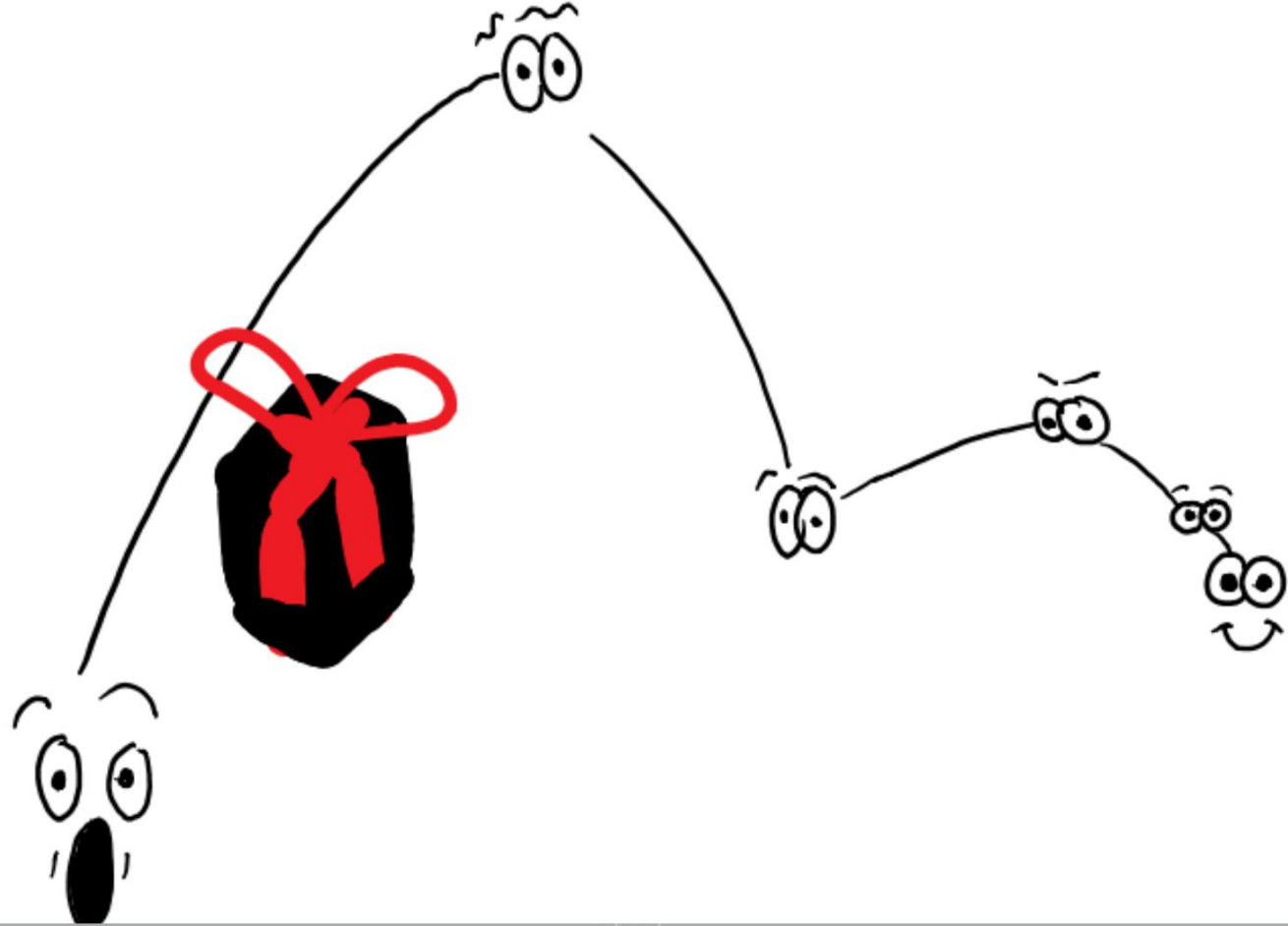
Large exponent

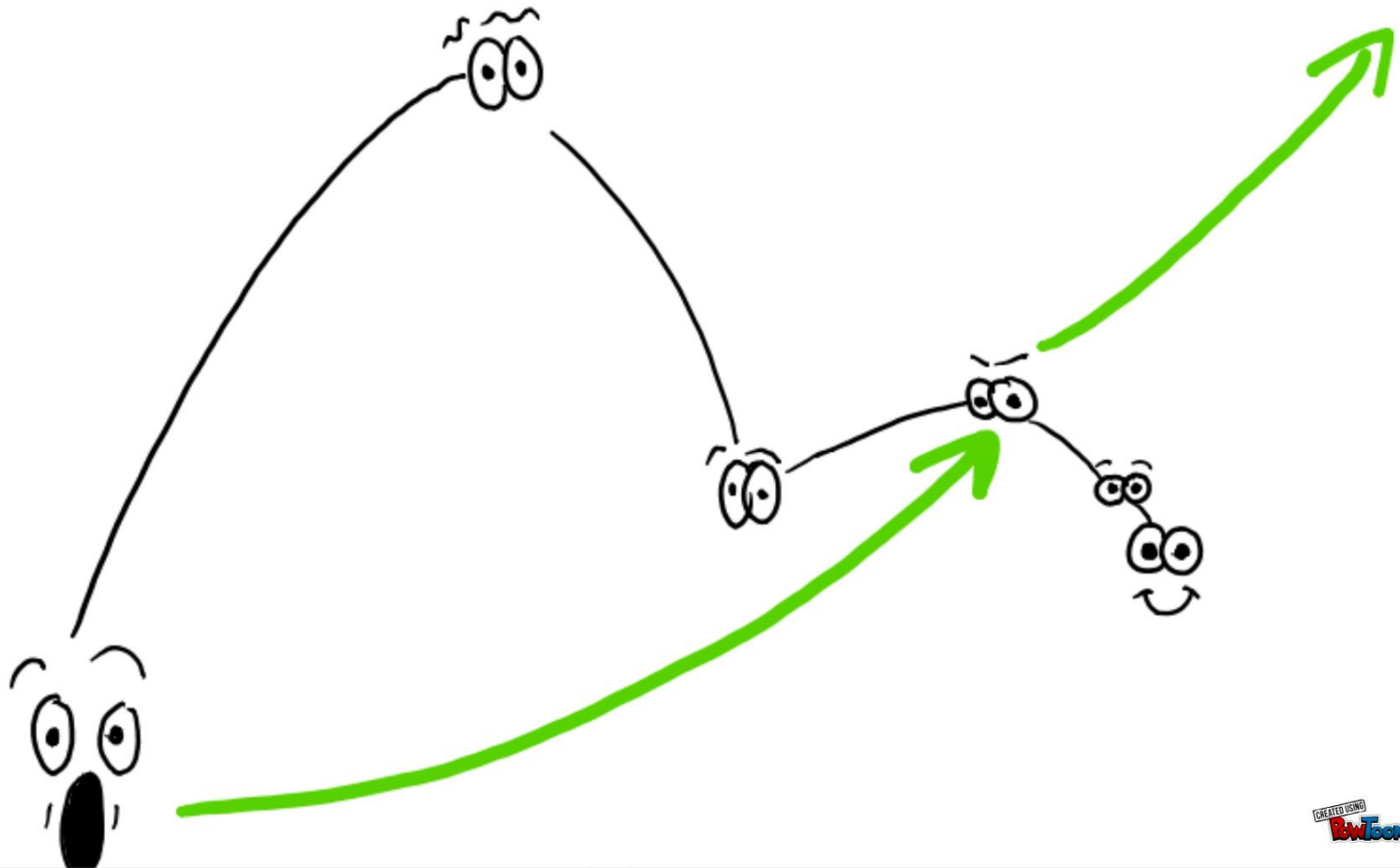
Small exponent

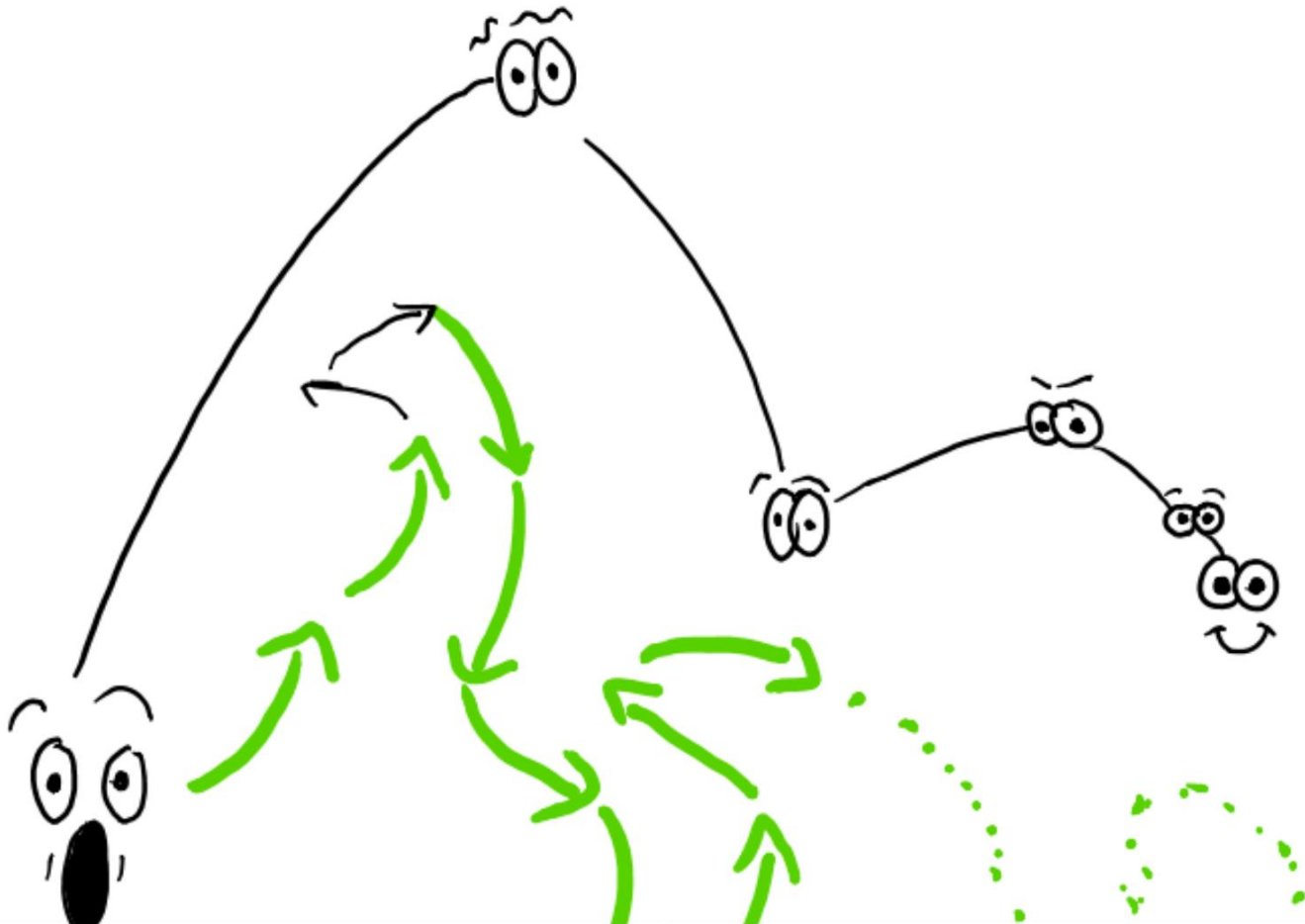


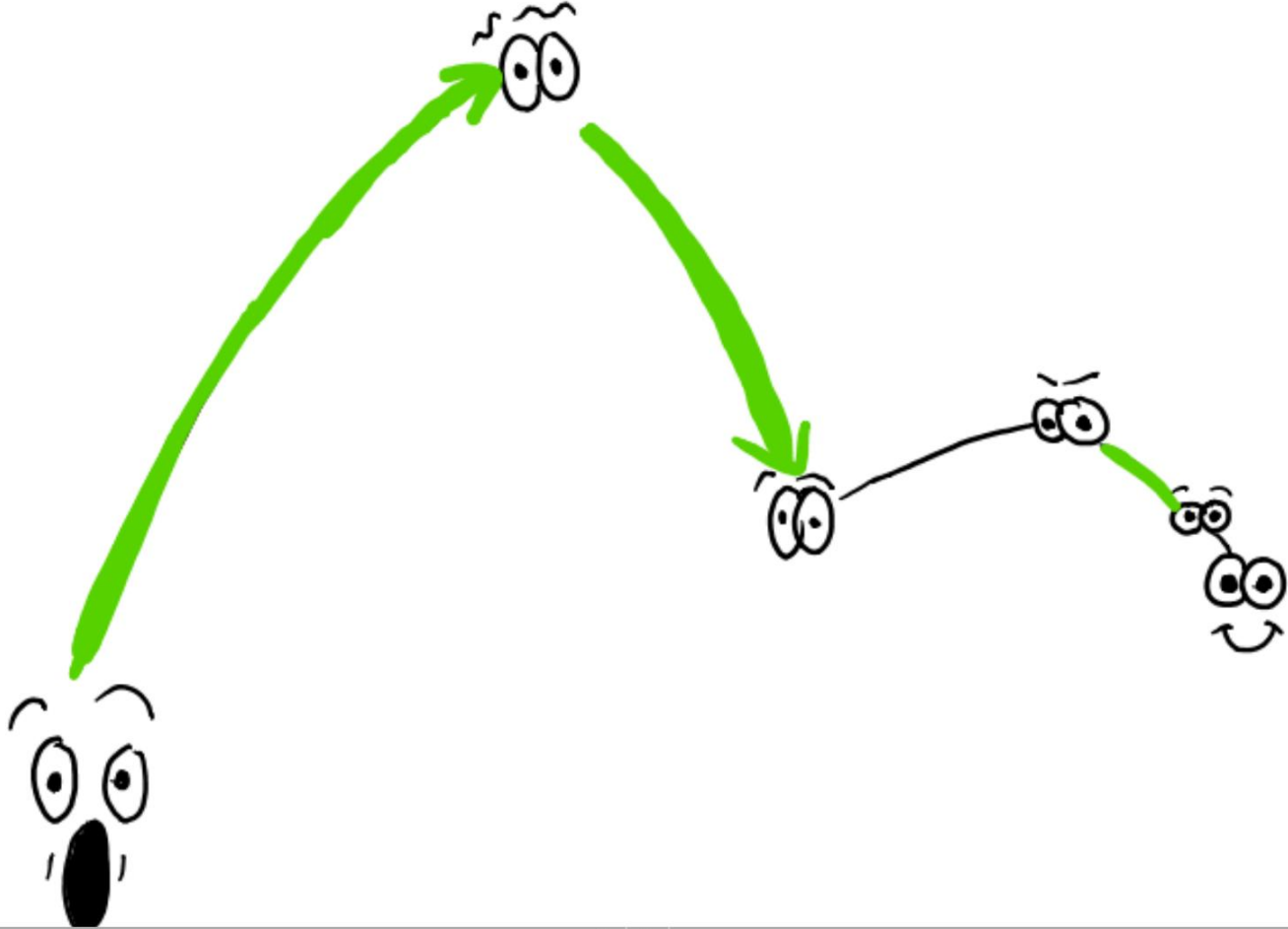


Desired exponent







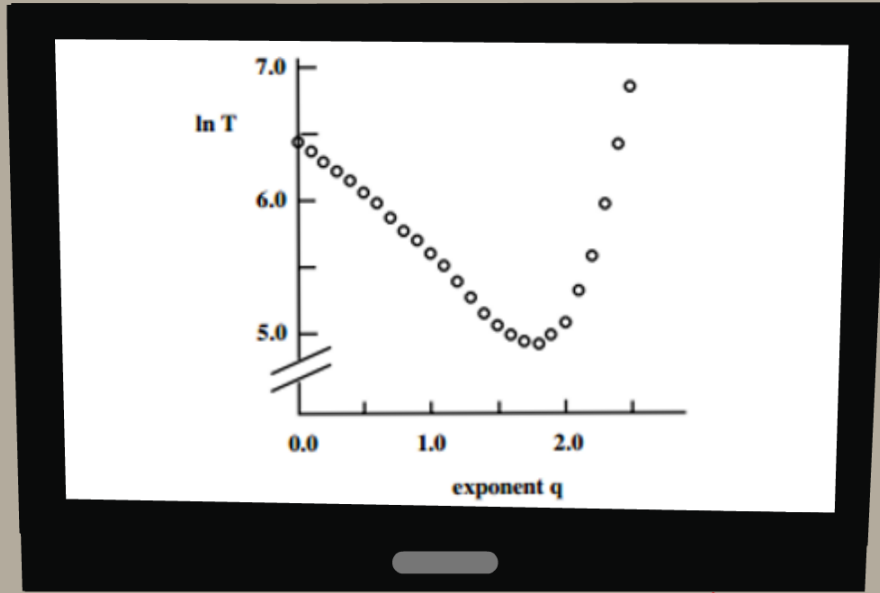


So which  
exponent should  
we use?

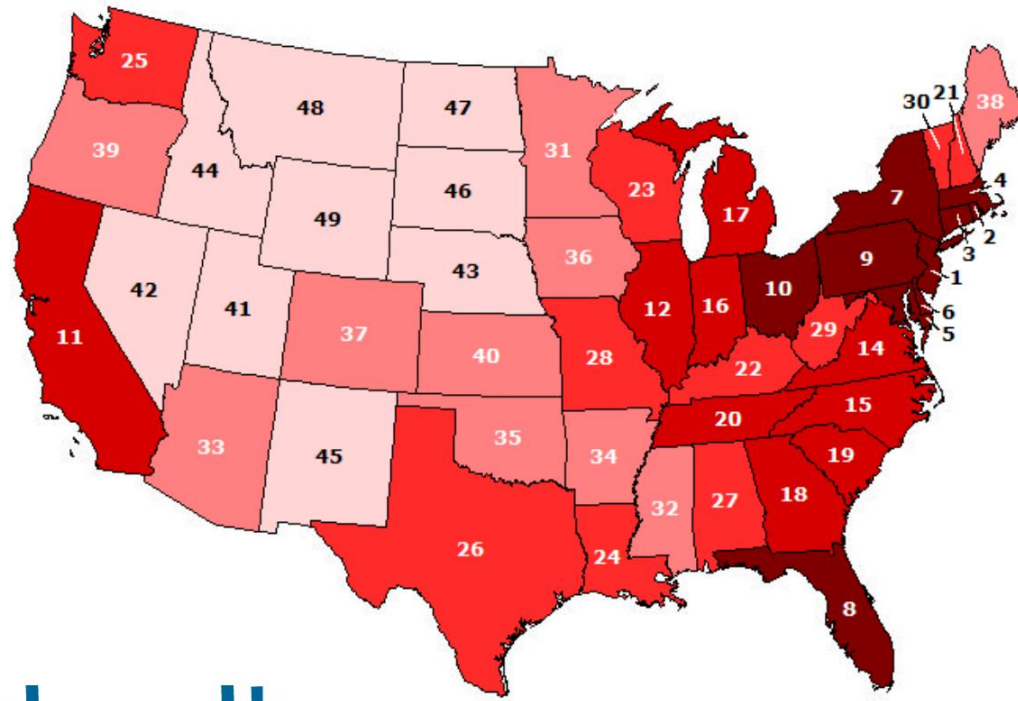


CREATED USING  
**BoToon**

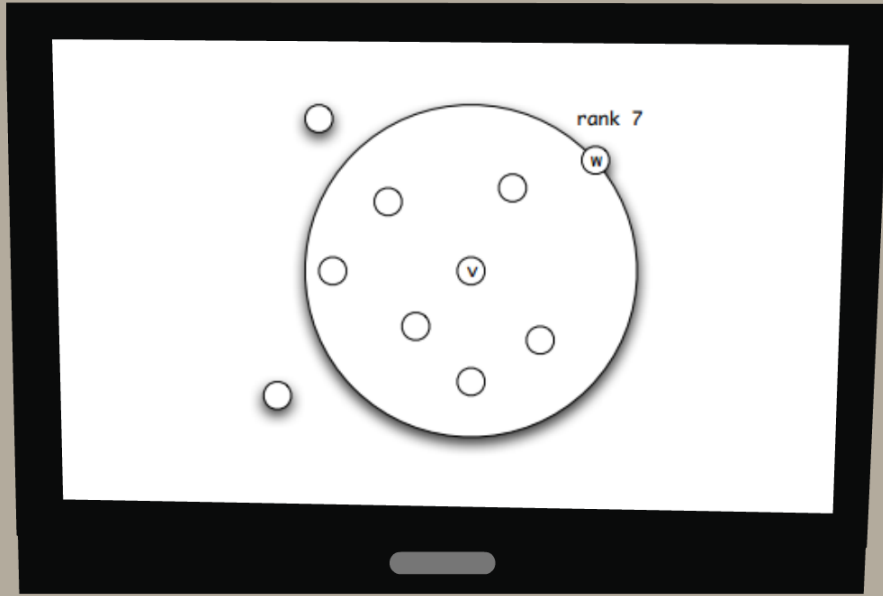


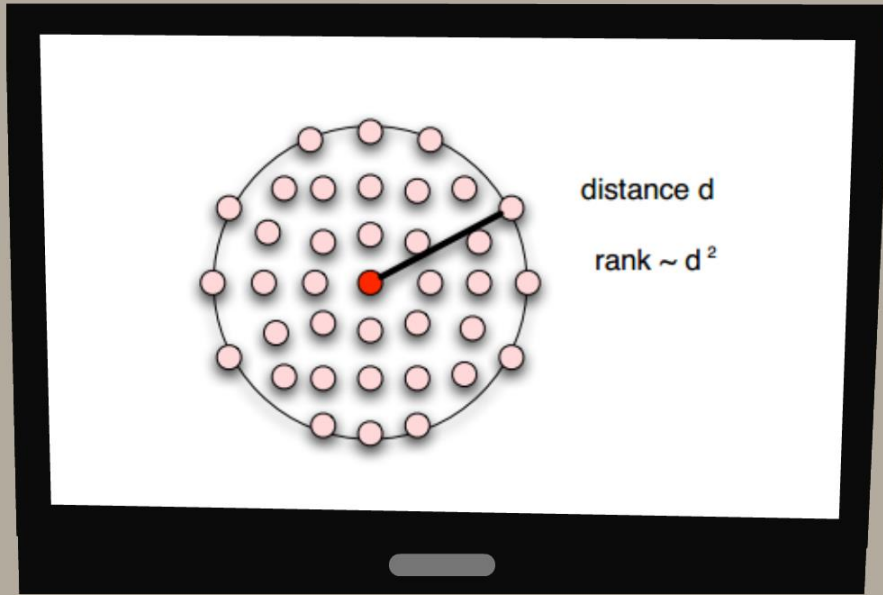


CREATED USING  
**BitIcon**



# Empirical results

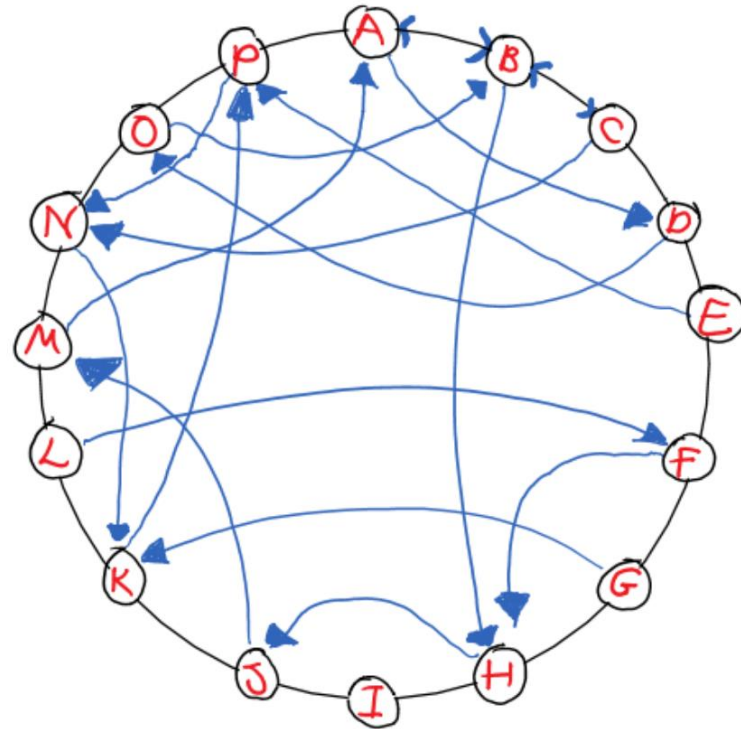


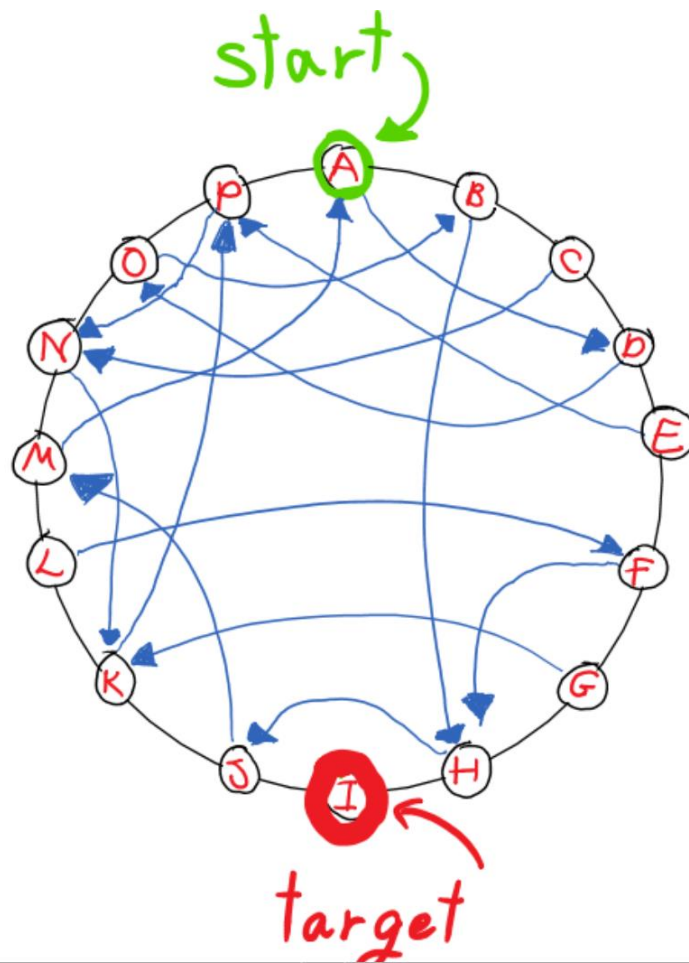


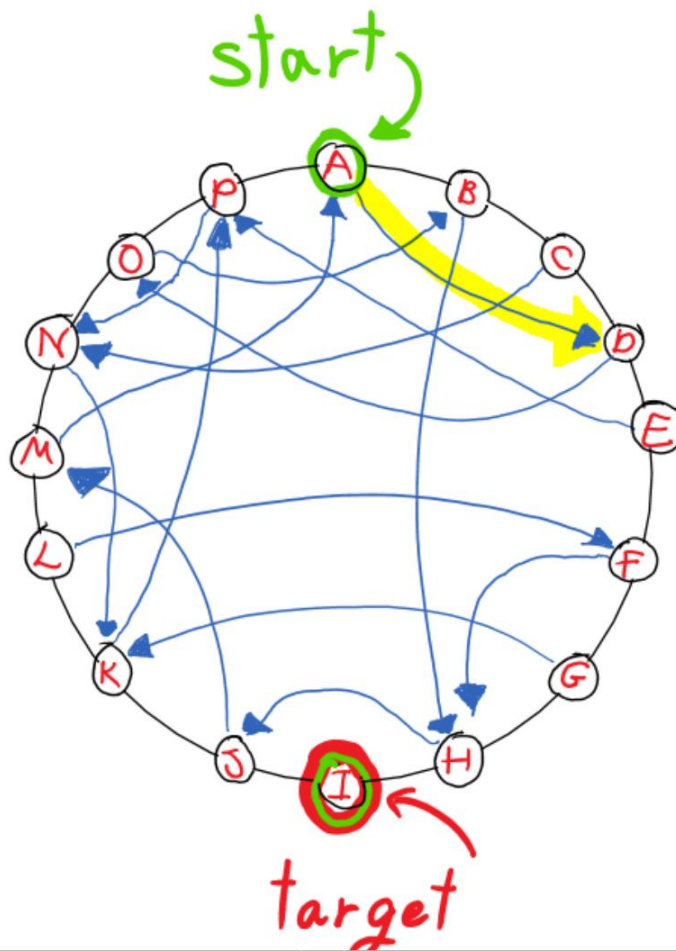
**What's the  
best exponent..?**



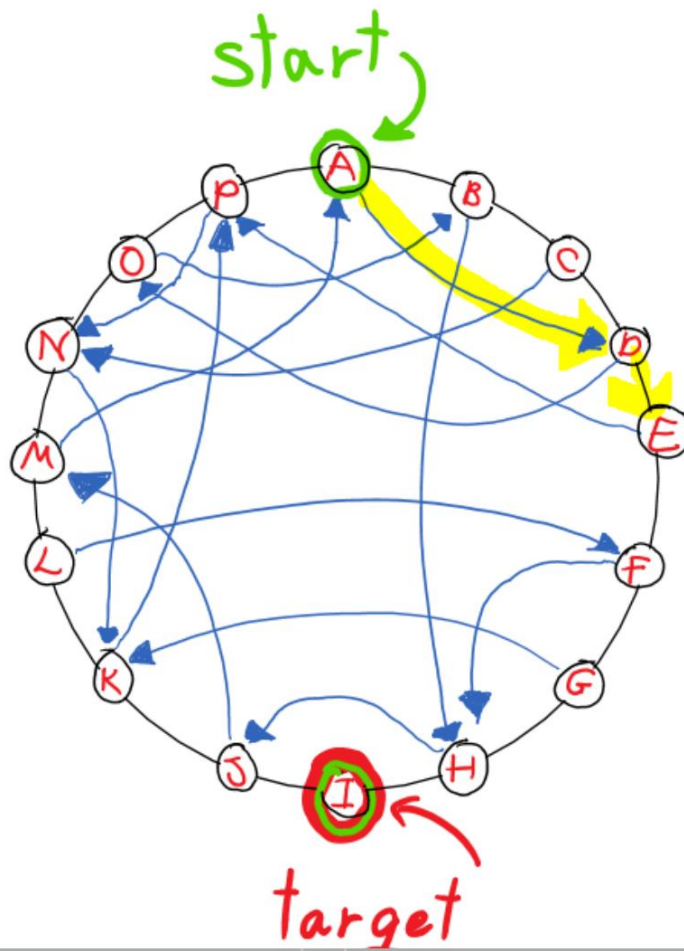
CREATED USING  
**PowerToon**

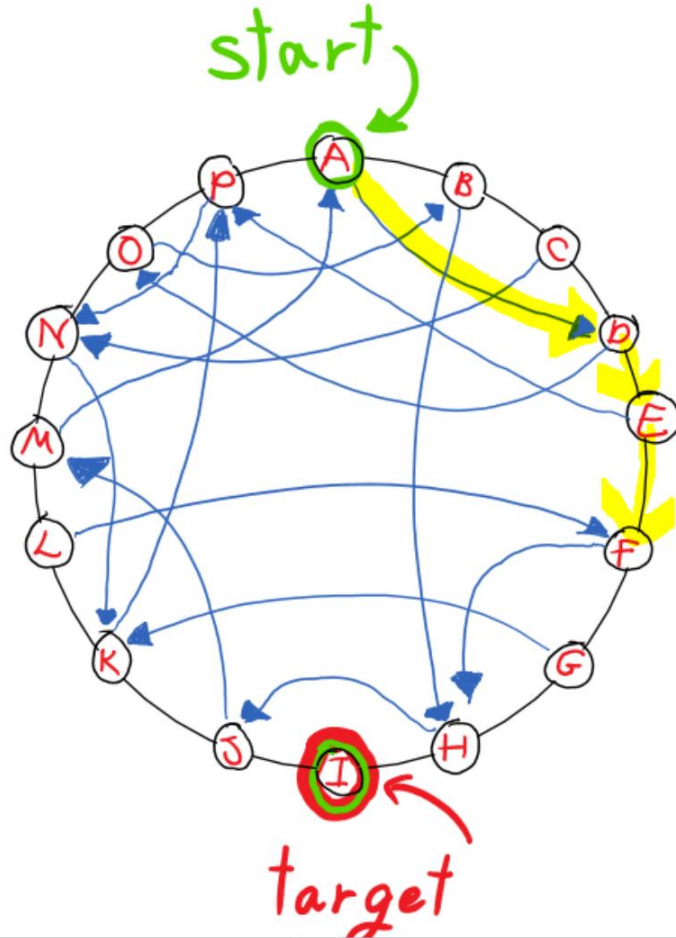


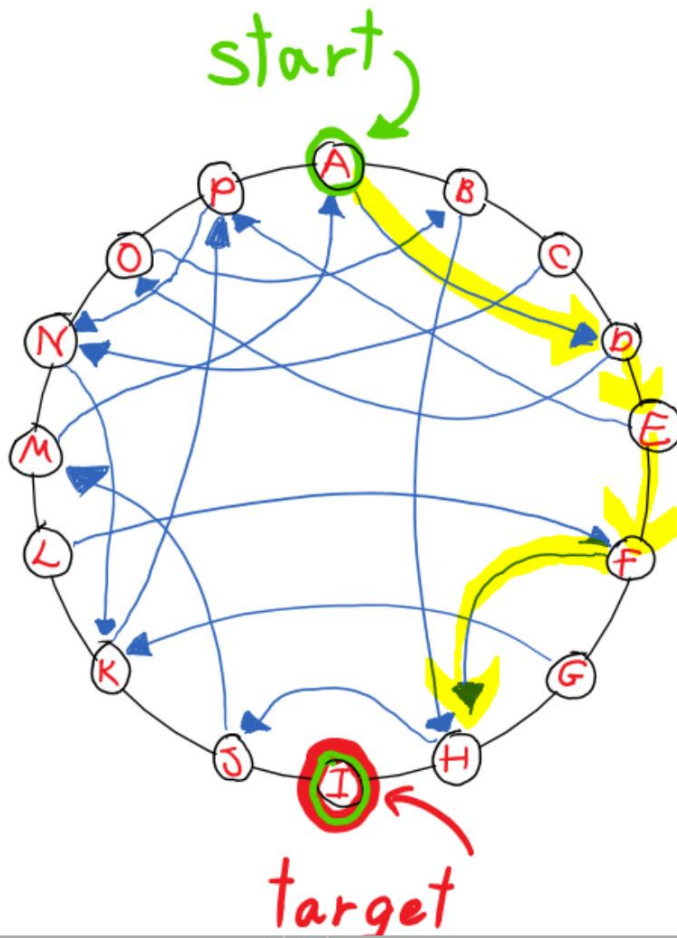


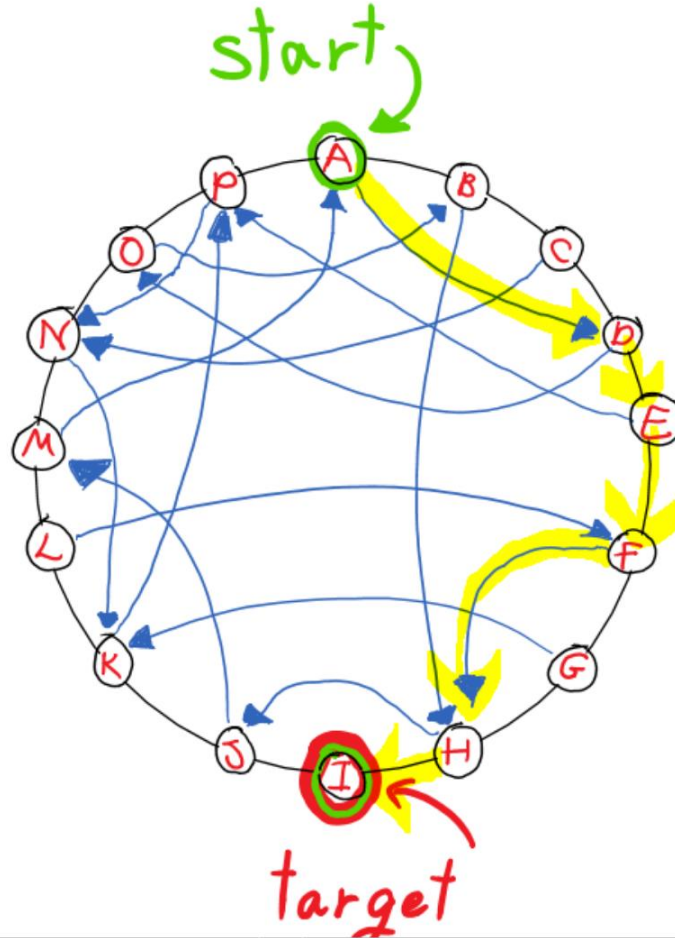




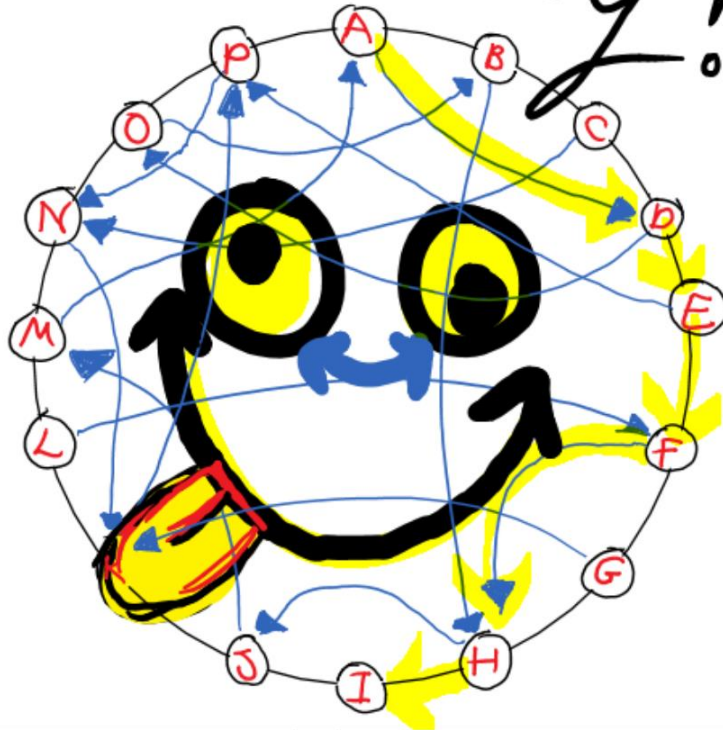








Horay!



# Fun facts



Fun



1) Facebook

2) Twitter

3) LinkedIn



CREATED USING  
**BoToon**

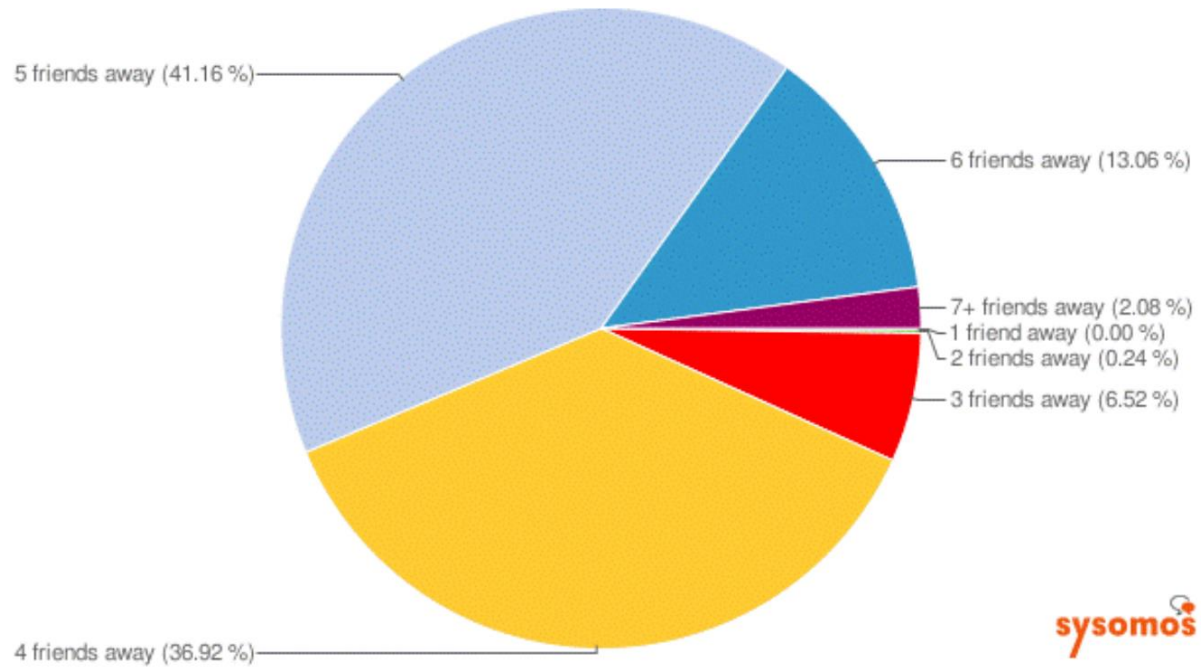


1) Facebook

er

edin

### Degrees of separation on the Twitter graph



sysomos

CREATED USING  
Powtoon

Twitter graph

5 friends away (41.16 %)

6 friends away (13.06 %)

7+ friends away (2.08 %)

1 friend away (0.00 %)

2 friends away (0.24 %)

3 friends away (6.52 %)





## Ayal Zylberman

President at QualiTest Group

Israel | Information Technology and Services

Current Qualitest, Think Testing, ITCB - Israeli Testing Certification Board

Previous Bnot Herzeliya Basketball Club, TeleKnowledge, Jeruslaem Bank

Education Compuware

Connect

Send Ayal InMail

500+ connections

[www.linkedin.com/in/ayalzylbermanqualitest](https://www.linkedin.com/in/ayalzylbermanqualitest)

Contact Info

### Background

#### Summary

More than 18 years of experience in the testing and Quality Assurance field.

Served as Test Manager in different companies and industries (Telecom, Banking, Technology and more).

During 1998 founded QualiTest Group. QualiTest Group is the world's second largest software testing and quality assurance company. QualiTest offers quality assurance and software testing services, and is committed to the highest standards of quality in every project. We aim to improve software quality by providing superior QA solutions to customers and partners worldwide, as well as advancing international QA and testing methodologies.

2nd

### People Also Viewed

Ayal Zylberman is a 2nd degree contact



**Tali Shem-Tov**  
CEO at Qualitest



**Yaron Kottler**  
CEO & Software Test Specialist at QualiTest USA



**Manoj Chandrappa**  
CEO at QualiTest Group



**Neri Lavi**  
Senior VP of professional services & test specialist at Qualitest USA



**Alishaa Chhabra**  
VP of HR/Client relationship management at QualiTest Group



**Eli Margolin**  
CTO at QualiTest Group



**Mark Kardashov**  
Vice President at Qualitest



**Michel Sharvit**  
VP Professional Services at Qualitest

**Ami Sterling**



You



Rony Wolfinzon



Eldar Kravetsky



Mark Kardashov

and 1 more connection in  
common

[Get introduced ▶](#)



Ayal Zylberman



# Bitcoin

- 1) fees
- 2) Assets
- 3) Uniformly



CREATED USING  
**BitBoon**

# MOVIE about bitcoin

*What is* **bitcoin?**

YouTube HD

00:01 01:36

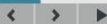


AUTOPLAY





00:41 01:36

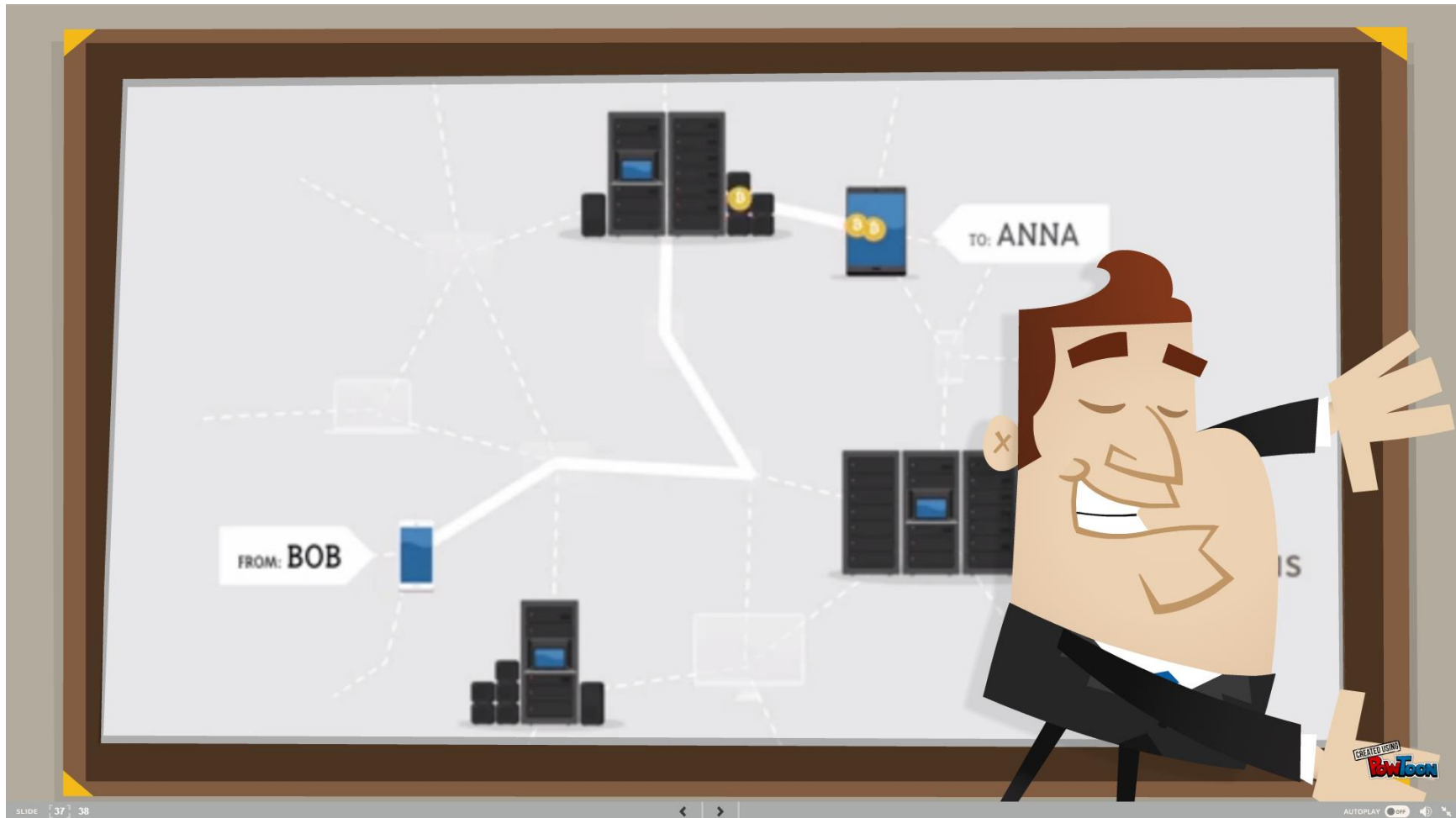


AUTOPLAY

YouTube HD



# Bitcoin using Decentralized Search:





**Bye Bye!**  
**Hope you enjoyed!**

CREATED USING  
**iwtoon**