

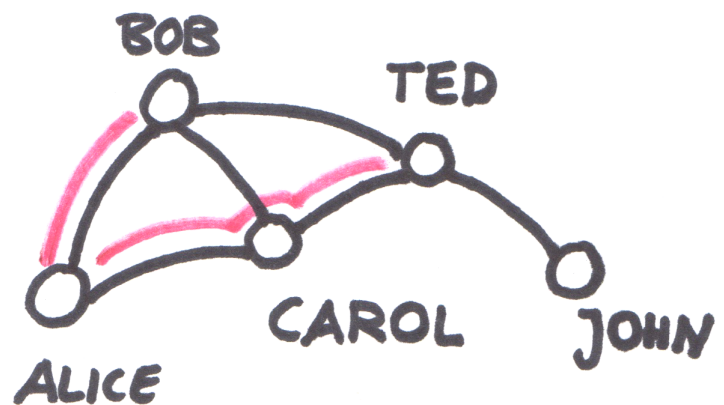
# It's a small world!! 6 degrees of separation

There are 8 billion (8.000.000.000) people currently alive on planet earth. But we are just 6 degrees away! Supposedly, you know someone, who knows someone, who knows someone, who knows someone and that last "someone" could be any person on the planet. How is that possible?



## Degrees of separation (distance)

1. Alice and Bob are friends: they are 1 degree of separation away.
2. Alice and Ted are not friends, but they both know Carol, so they are 2 degrees away



## Questions:

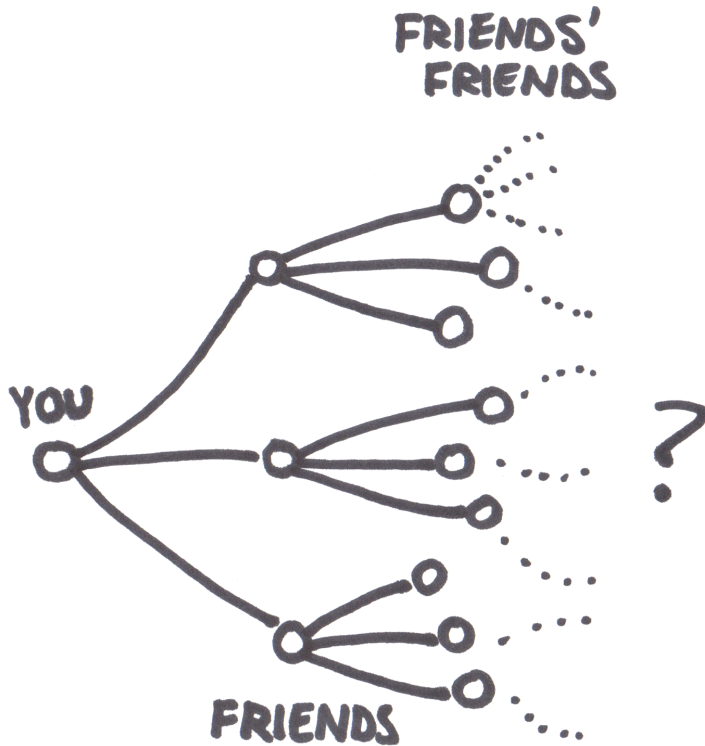
How many degrees of separation is John away from Alice?

- a) 1      b) 2      c) 3      d) 4

What is the largest degree of separation in the group?

- a) 1      b) 2      c) 3      d) 4

Let's count the number of people away from you



Suppose that everybody has 3 (other) friends

How many people are

1 degrees away (friends)?

2 degrees away (friends' friends)?

3 degrees away (friends' friends' friends)?

Distance	Number of people
1 degrees away	3
2 degrees away	9
3 degrees away	
4 degrees away	

Everybody in the world is 6 degrees away from you.

1. But we know more than 3 people, right? How many people do you think people usually know?

a) 40      b) 50      c) 60

2. If everybody knows that number of people, calculate how many people are at 1 to 6 degrees of separation from you. (use a calculator!!!)

1 degree	2 degree	3 degree	4 degree	5 degree	6 degree

3. At what number did you reach 8 billion (8.000.000.000) people?