

Alvin Roth, Nobel Prize winner in economics and president of the American Economic Association

Age? Being old is fantastic if you consider the alternative. I have designed methods of matching up kidney donors and recipients, and for every child to find a school in New York and Boston. I am a new academic at RACEF, now at the Institute of Spain, and counselor at Barcelona GSE.

How have you made six kidney donors and recipients agree to save six lives?

Matching them up successfully is a mathematical problem. You donate your kidney to your child, who needs it, but your immunology is not compatible, so then you look for a third person who will also donate to a loved one, but they are not compatible either. However, they are compatible with your son.

This is getting complicated...

But we have the formula that allows us to find these donors and compatible patients.

...and up to six times, congratulations.

There are many other problems with matching markets (matching supply and demand) that can be solved with math.

I have read studies about couples.

The love market is a highly competitive one.

That I can tell you.

Therefore, a researcher on my team devised a system to improve the efficiency of the digital market for couples.

Without the need to know the person?

One of the biggest problems was that the most attractive photos of the young ladies had two to three times more requests from gentlemen in comparison to the rest of the photos.

How do you prevent the website from collapsing?

To optimize this market and save time for everyone, we introduced signals and then limited them to increase the cost of each demand.

How?

With virtual roses. Each gentleman could only send two virtual roses per day to the women he desired. This way, he was saying to this woman, "I am not just another guy sending a request to everyone, including you. I like you a lot and I am going to be serious with you."

That's life itself.

If you were interested in a specific woman and she found out that you were also interested in everyone else, she would lose interest in you. When you compete for what you desire in a highly competitive market, you need to stand out. This also applies to finding a good job.

What advice can you give me about looking for work?

If you want to be interesting, get interesting. Don't send out a broadcast of impersonal applications to all employers. Carefully select where you want to work, personalize your demands as much as possible, and when you write to them, show them that you are familiar with the company. Explain why it interests you and say why you believe you can prosper by working together.

Do I send roses to my prospective employer?

That is what we do at the American Economic Association conference where I work. Last year we occupied 13,000 rooms at a hotel in Chicago. Thousands of economists came to look for work, but in order for us to choose them, they have to choose us. We give them the option to only send two signals to the two centers or universities that they like most.

And it works?

I am at Stanford and I was at Harvard, and at these institutions there are always a lot of applications and the signals are disregarded. However, I was also at Pittsburgh and we did pay a lot of attention to them there.

Is it not just a question of a salary and numbers?

In the professional market, money matters, but it is not the most important thing. For example, in the journalist market it is not just salary that matters, it is more complex than that. You may prefer to earn less, but are then able to choose your team, a specific area or the ability to work in one city or another.

Should they also send signals?

When students look for a university in the U.S., they visit those that interest them the most and leave their signature in the guest book. Therefore, when the application is sent, they can say, "You interest me so much that I was there."

It is once again a rose: another signal.

I have also designed mechanisms to optimally match the supply and demand between students looking for a place and available schools in New York and Boston. As well as for recently graduated doctors and available positions at hospitals in the U.S.

Would you be able to design a system here to contract public works without corruption?

Look, there are problems that economy cannot solve, but that the police can.

Like what...?

For every politician who charges commission to rob tax payers... send them to the police. Arrest and try them. They are criminals. Those who try to bribe them to obtain public contracts are also criminals. This is strictly a political problem, not economic.

Is that how you would solve the problem?

This way they would think twice before trying to make or take a bribe. It would discourage the crime. The contracting process should be as transparent as possible, but the punishment for bribes should also be exemplary.

Where do you see your methods for matching supply and demand most needed today?

I participated in a study at the UN to look for solutions to the refugee crisis. It is a complicated problem, I know, but the way to approach this type of challenge is to break it down into other, smaller problems and face each one that way.

What piece of that problem do you have?

I am designing a method to match refugee applicants and availability to better place refugees in areas where they will find work and be welcomed.

This is an urgent study.

We can design all the markets, they do not have a life of their own. There is a way to meet the refugee supply and demand, and I will find out how.

It is a lot more than just money.

Professor Roth's mathematical formula to successfully match, and without the means of money, kidney donors and recipients has saved thousands of lives. Another similar algorithm improved the lives of students in New York and Boston by allowing them to find the best school for them. Now, this Nobel Prize winner is looking for the formula for refugees around the world to find the best place for them, where they will be welcomed and be able to contribute with their work in return. Markets are not foreign entities that we must obey without choice. It is actually the opposite, they are much more complex