

MITOCW | MIT15_071S17_Session_7.3.01_300k

In this lecture, we will discuss how visualization can offer insights in the area of policing in urban environments.

The explosion of computerized data affects all parts of society, including policing.

In the past, human judgment and experience was the only tool in identifying patterns in criminal behavior.

Police forces around the United States and the world are augmenting human judgment with analytics.

Los Angeles police worked for months to catch Manson and his followers.

These days the LAPD is on an offensive to prevent crime.

Its latest weapon is a computer program that can actually predict where crimes will happen.

And justice correspondent Bob Orr has a first look at the results.

In the Foothill Division north of downtown Los Angeles, police are patrolling the largely working-class neighborhoods with specially marked maps.

The small red squares are hot spots, where computers project property crimes are most likely.

It's called predictive policing.

A program which Captain Sean Malinowski says puts officers on the scene before crimes occur.

65% of our crimes are burglary, grand theft auto, and burglary for motor vehicle.

And that's what these boxes represent.

That's a pretty small box, 500 feet by 500 feet.

Yes, it is a small area.

These crime prediction boxes come from the same kind of mathematical calculation used to predict earthquakes and aftershocks.

By analyzing the times, dates, and places of recent crimes computers project hot spots for burglaries, break-ins, and car thefts.

LA's Police Chief Charlie Beck says increasing police patrols inside those boxes denies criminals opportunity.

The real measure of this is not how many people you catch, it's how much crime you prevent.

I love catching people.

It's what I live for.

But, what I'd rather do is live in a place and work in a place where crime didn't happen.

Chief Beck, a 35-year veteran and the father of two LAPD officers, has faced some skepticism in selling the predictive concept.

You're a street cop.

I am.

So somebody comes to you with a computer program that says, here we're going to predict the future, we're going to tell you where crime is going to occur.

Aren't some of the guys on the street just going to roll their eyes and say, oh come on?

Well, of course.

I mean, that's the nature of human beings.

I mean everybody thinks that they do their profession as well as it can be done already, so they don't need any help.

If this old street cop can change the way that he thinks about this stuff, then I know that my kids can do the same.

The LAPD began testing the predictive policing model here in the Foothill Division in November, and the early results are encouraging.

Burglaries are down 33%, and violent crime is also down 21%.

That success will allow Beck to expand the program to other parts of the city and leverage limited resources.

I'm not going to get more money.

I'm not going to get more cops.

But I have to be better at using what I have, and that's what predictive policing is about.

It's also about driving the crime rate lower.

Crime here has dropped nine straight years.

With these small red boxes, LA is aiming for 10.

Bob Orr, CBS News, Los Angeles.

The Los Angeles Police Chief Charlie Beck writes, "I'm not going to get more money.

I'm not going to get more cops.

I have to be better at using what I have, and that's what predictive policing is about.

If this old street cop can change the way that he thinks about this stuff, then I know that my officers can do the same." Let me comment on the role of analytics.

The analytical tools you have learned in this class can be used to make these predictive policing models possible.

However, communicating the results of these models is critical.

A linear regression output table will not be of use to a police person on patrol.

Visualization bridges the gap between the analytics and the end user.