



**INNOVATORS
UNDER 35**

Ian Goodfellow

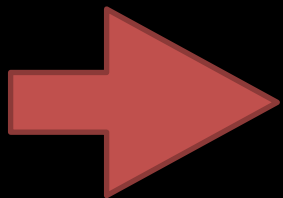
Generative adversarial networks

**Giving artificial
intelligence
imagination using
game theory**

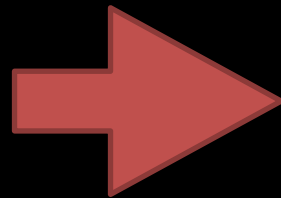




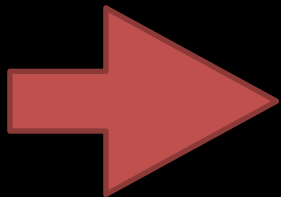
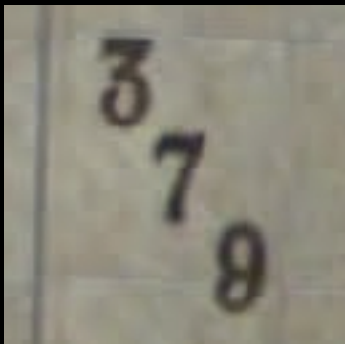
INNOVATORS UNDER 35



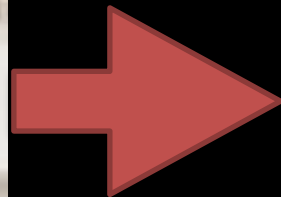
2503



175



379



26624



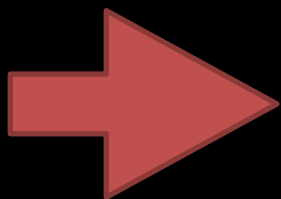
Mapping South Africa with Street View cars



Traditional model



Input



2504

Actual
output



Update: 4->3



2503

Desired
output



INNOVATORS
UNDER 35

Generative adversarial networks (GANs)



Training data

Discriminator

Real

Generative adversarial networks (GANs)

Generator



**Generated
data**

Discriminator

Fake

Imaginary celebrities



(Karras et al, 2017)



Learning to read from 100 images

5	8	9	8	9	5	0	2	8	1
4	6	6	6	0	7	1	2	7	8
2	0	1	0	7	4	4	9	5	9
1	7	3	8	3	2	1	6	3	8
0	2	6	0	6	9	3	6	1	6
5	2	9	9	5	8	6	4	4	5
1	5	4	6	7	8	7	9	7	3
7	4	4	7	9	5	6	8	1	1
1	3	9	0	9	1	1	1	8	7
2	6	8	3	0	9	7	1	4	1