It's Humans After All

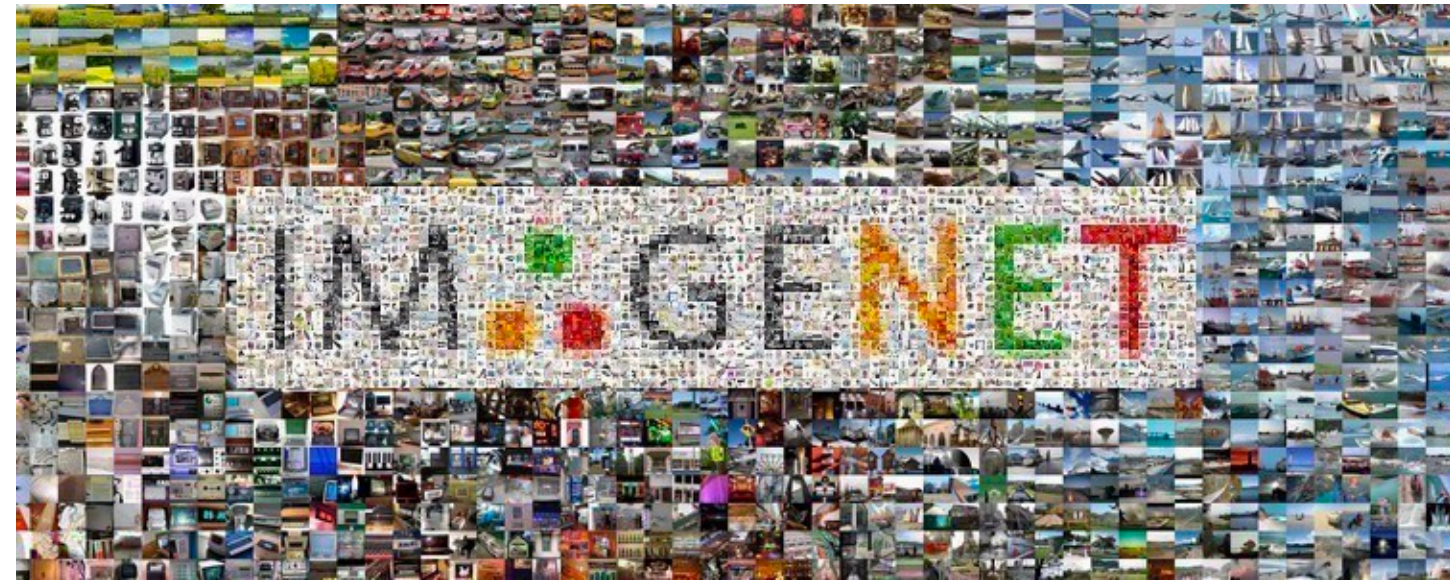Rosanne Liu

ML Collective, Google Brain
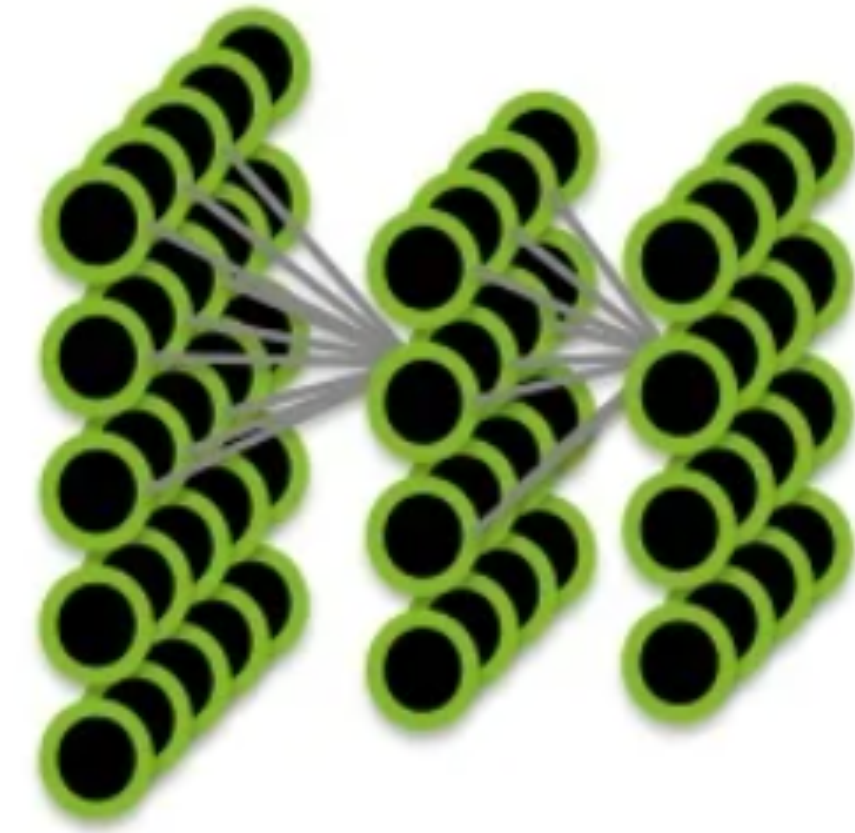
"Deep Learning Revolution"
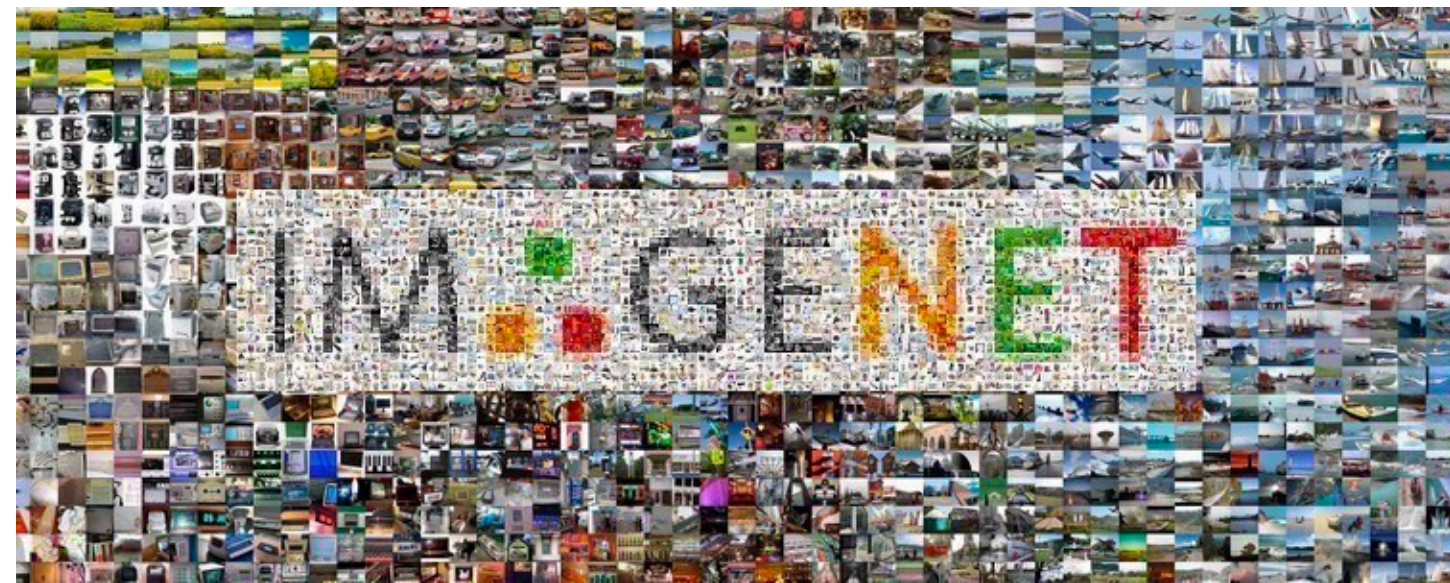
"Deep Learning Revolution"

Big data

Fast compute

Better algorithms

"Deep Learning Revolution"

Big data

Fast compute

Better algorithms

\+

Lots of passionate, talented, hard-working people…
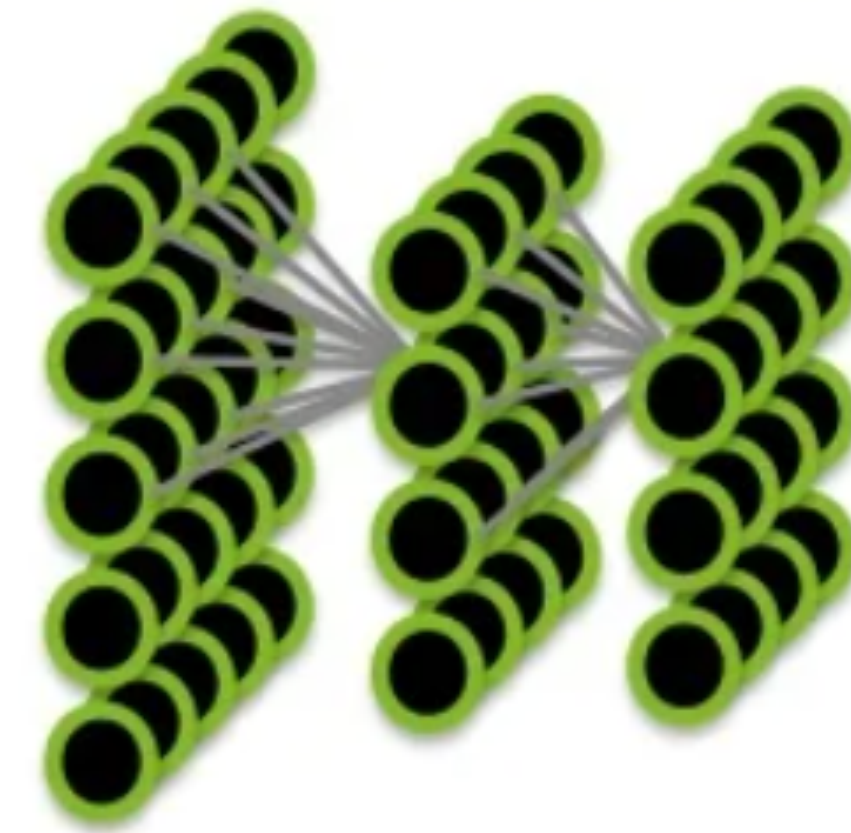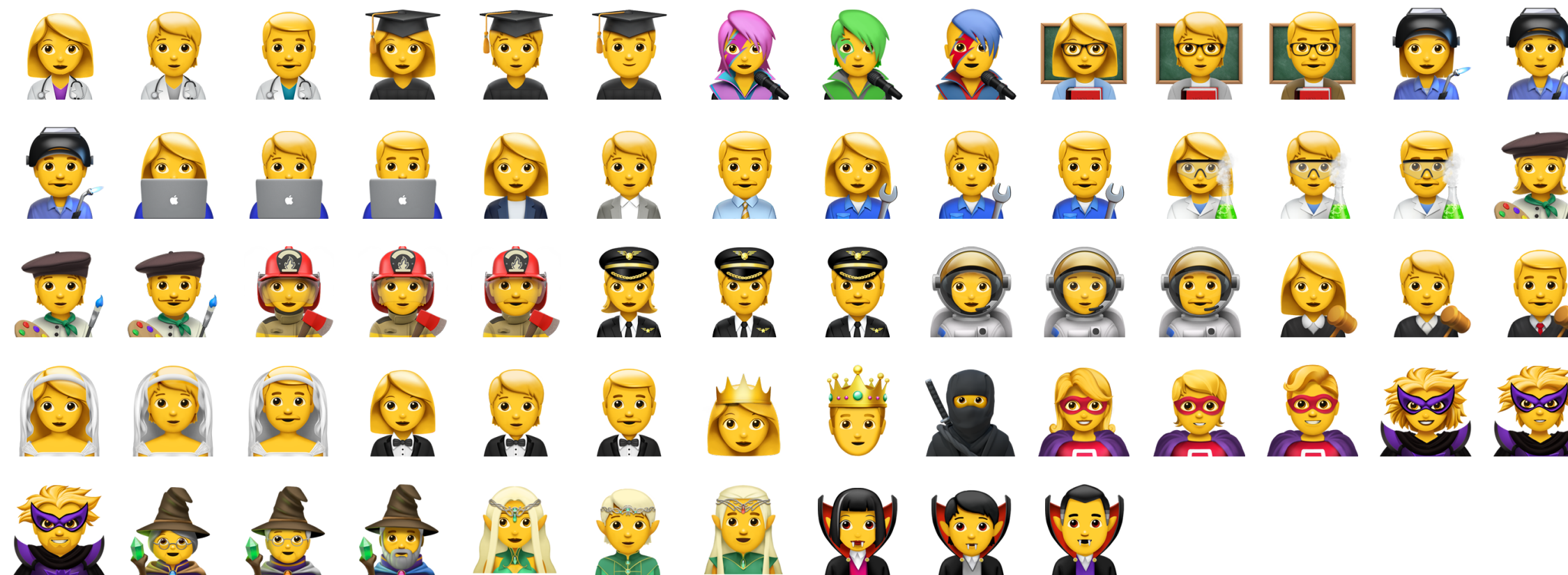
"Deep Learning Revolution"

Big data   Fast compute   Better algorithms
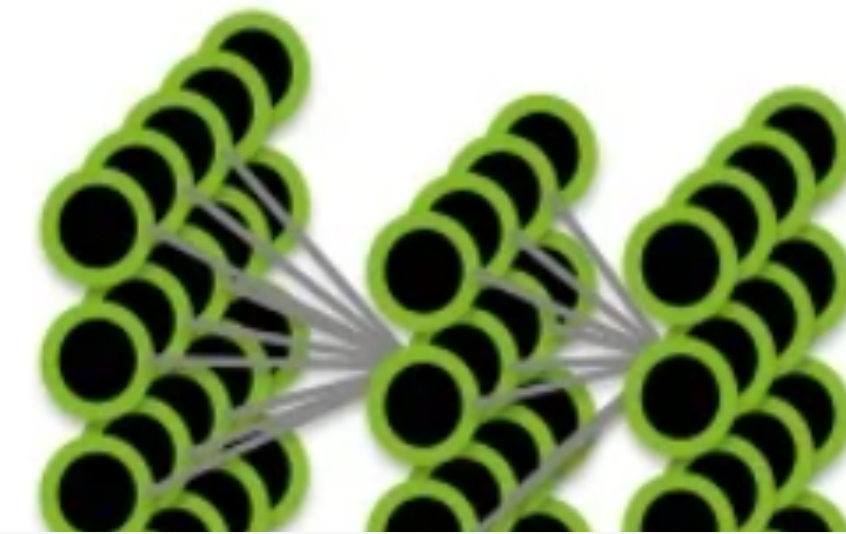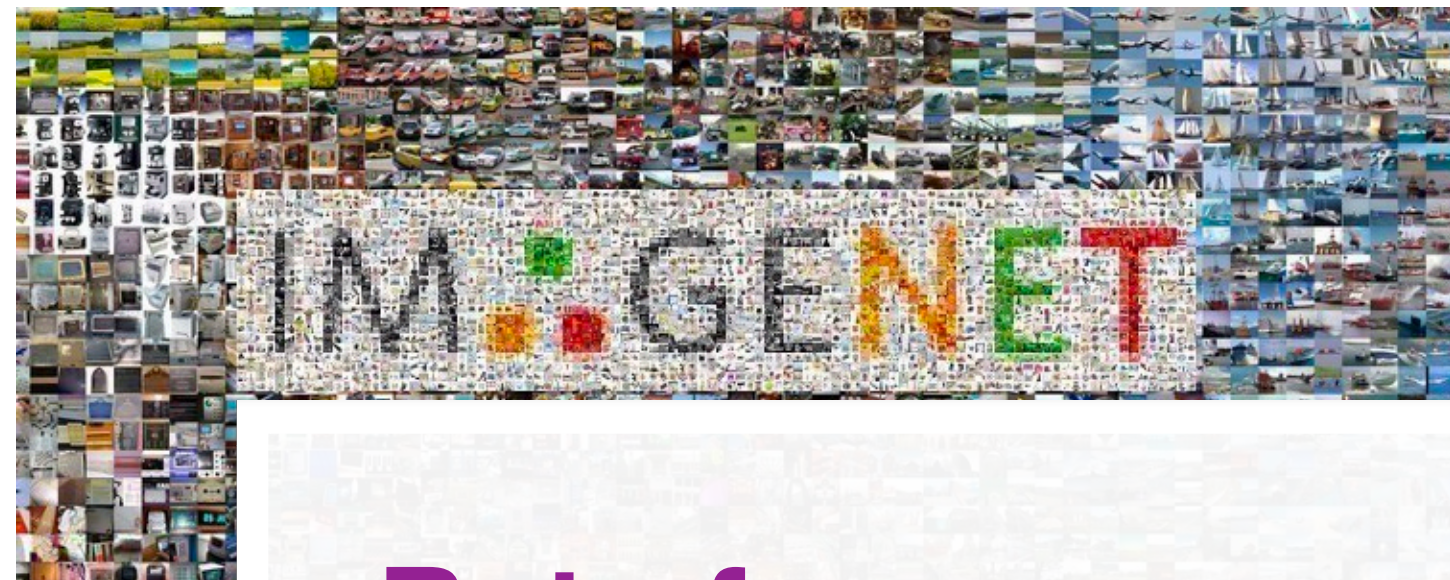
But of course.
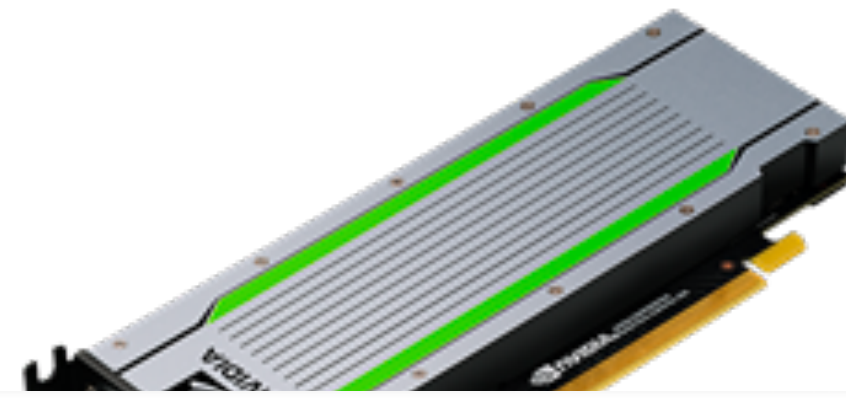**Everything that ever happened was because of people.**

"Why do you even need to say this?"

+
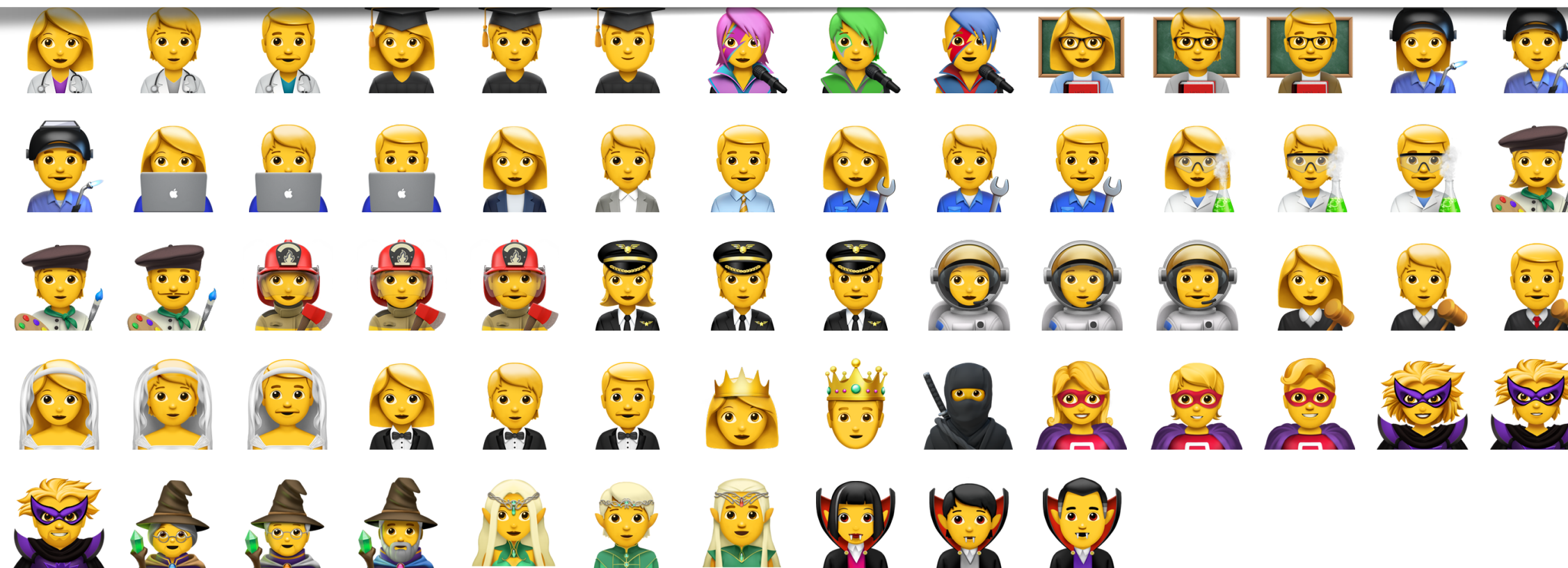
Lots of passionate, talented, hard-working people…

Why do I talk about humans

Humans make every best achievement that ever happens.

And every worst mistake.

Why do I talk about humans

Humans make every best achievement that ever happens.

And every worst mistake.

Also true for our personal experiences: best and worst.

The Problem(s)

Bad, unreproducible science. Or just uninspiring science.

Toxic, biased models.

Evil social media.

Broken peer review system.

Science's funding crisis.

Why does RL reward have to be a number?

…

(Everything you talked about and are going to talk about here.)

The Real Problem

Bad, unreproducible science. Or just uninspiring science.

Toxic, biased models.

Evil social media.

Broken peer review system.

Science's funding crisis.

Why does RL reward have to be a number?

…

(Everything you talked about and are going to talk about here.)

Why aren't humans motivated to do better?
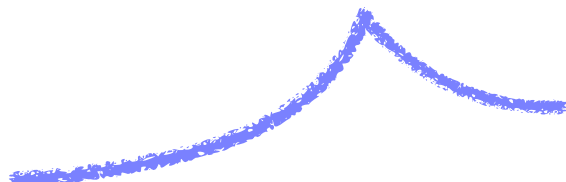
My proposal: bring human back to the equation

How can we fix X

My proposal: bring human back to the equation

How can we fix X

enable people to

BTW "human" is also the key answer behind these ML problems

Why is RL not progressing as fast as vision & NLP?

Why can't MLP outperform ConvNet/Transformer?

Why isn't there better hardware for sparse models?

Why aren't people releasing code/data/model weights?

Why are "better marketed" papers cited more?

…

Human vs technical solutions: both easier and harder

Human vs technical solutions: both easier and harder

1. We know what people need:

   to feel seen, heard, to feel good, fulfilled.

2. We know why people act badly:

   when the needs above are not satisfied;

   when operating under fear, insecurity, detachment.

Human vs technical solutions: both easier and harder

When you see a "bad actor":

Ask not who they are or why they do this but what happened to them, what the environment is doing to them.

When you see a "good actor":

Ask how they are inspired, empowered, what privileges and opportunities were given to them.

Human vs technical solutions: both easier and harder

We have enough people with technical skills.
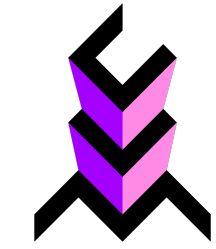
We do not have enough with people skills.

About me

About me

1. Both "bad" and "good"

2. "Knowing the right people"

3. An accidental "organization lead"

4. More fulfilled than ever being an "enabler"

What are people solutions like? 2-4 year goal. ML Collective

- Research training with care, separate from job

- Full representation to inspire

- Opportunities to explore & exploit

- "Know the right people" earlier on

Parting words

Make better AI.

Parting words

Enable better human to Make better AI.