AI, Society, and Politics of the Future

ANUPAM GUHA

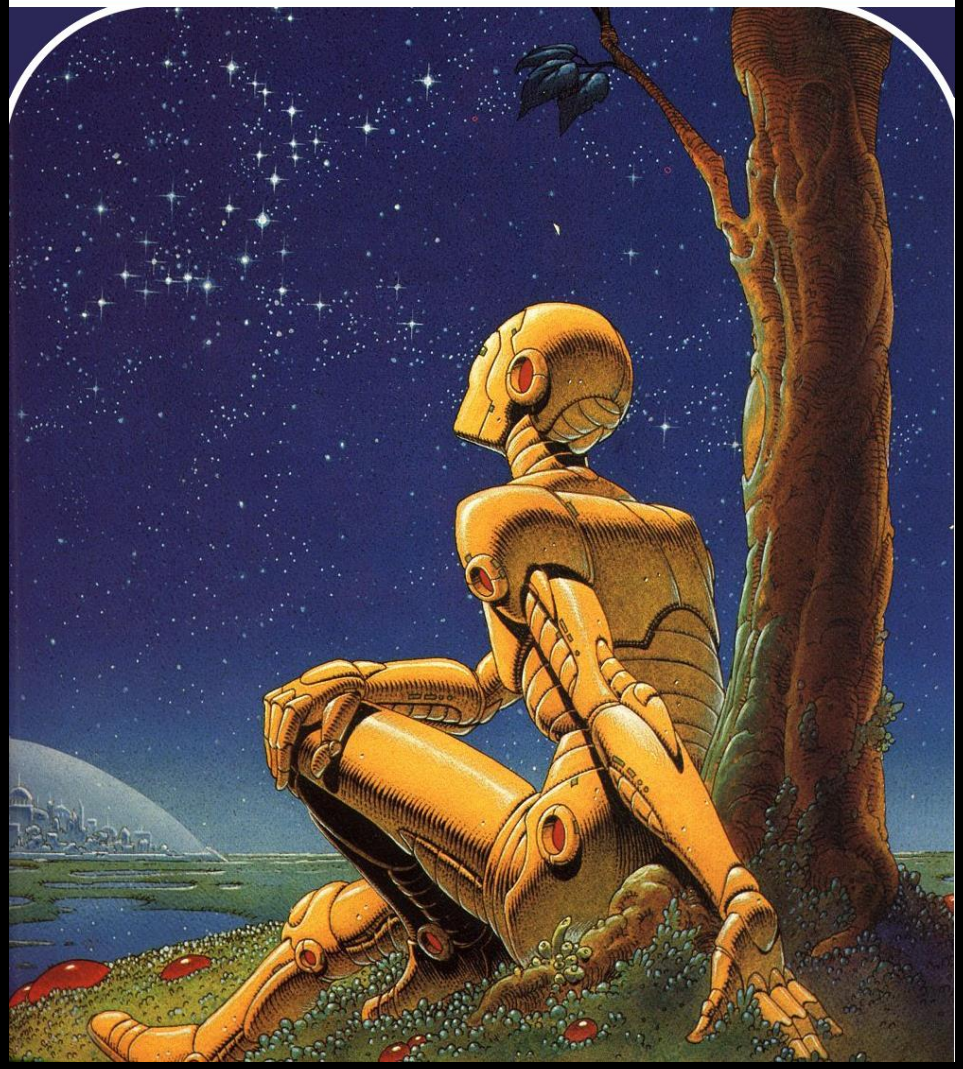
@Anupam_Guha

@arekhcollective

ASIMOV

THE FOUNDATION SERIES BOOK 1

THE COMPLETE ROBOT



MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PROJECT MAC

Artificial Intelligence Group
Vision Memo. No. 100.

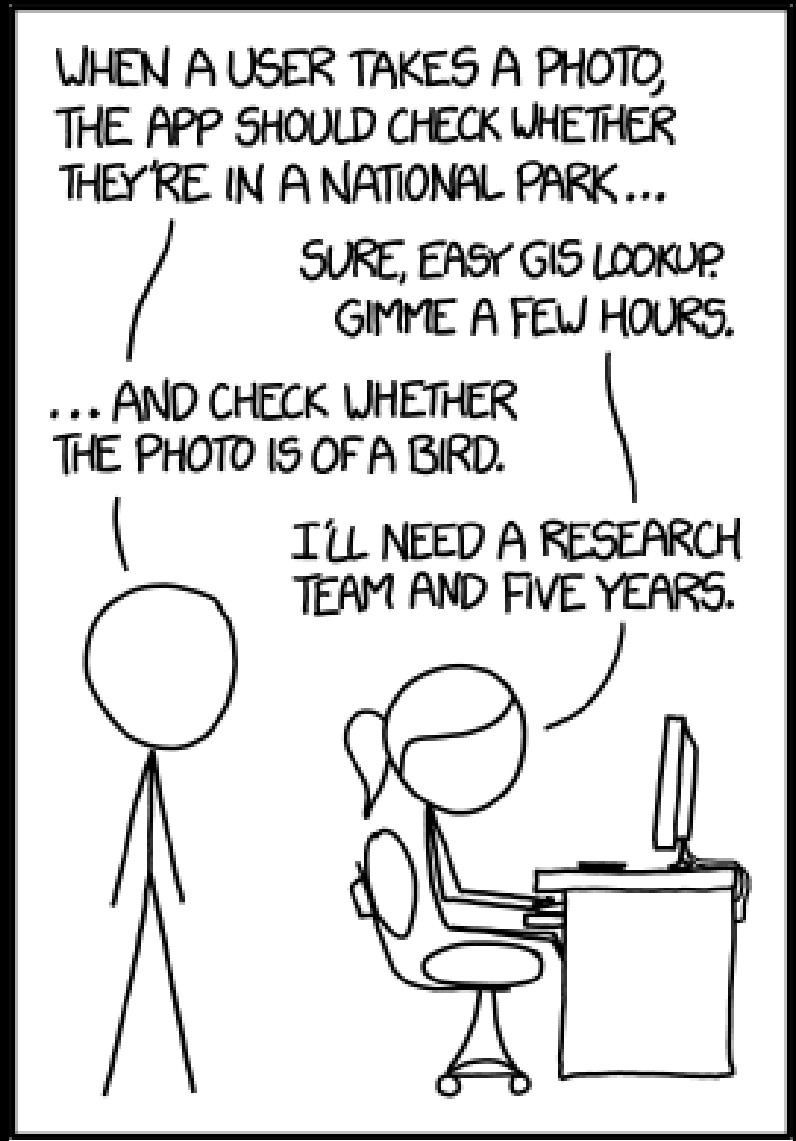
July 7, 1966

THE SUMMER VISION PROJECT

Seymour Papert

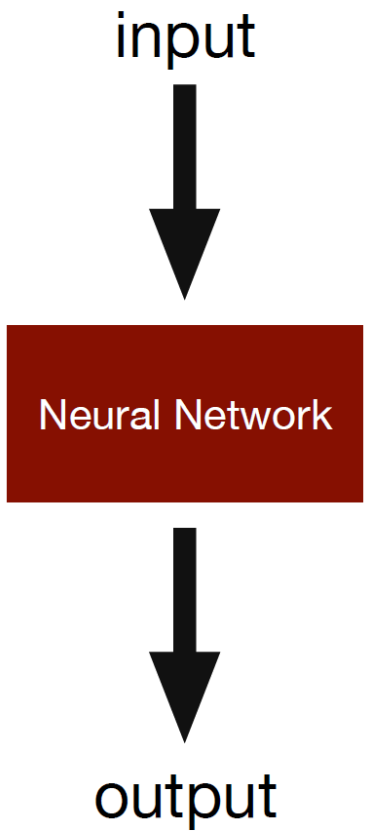
Half a century later,
we're still working on it.

The summer vision project is an attempt to use our summer workers effectively in the construction of a significant part of a visual system. The particular task was chosen partly because it can be segmented into sub-problems which will allow individuals to work independently and yet participate in the construction of a system complex enough to be a real landmark in the development of "pattern recognition".

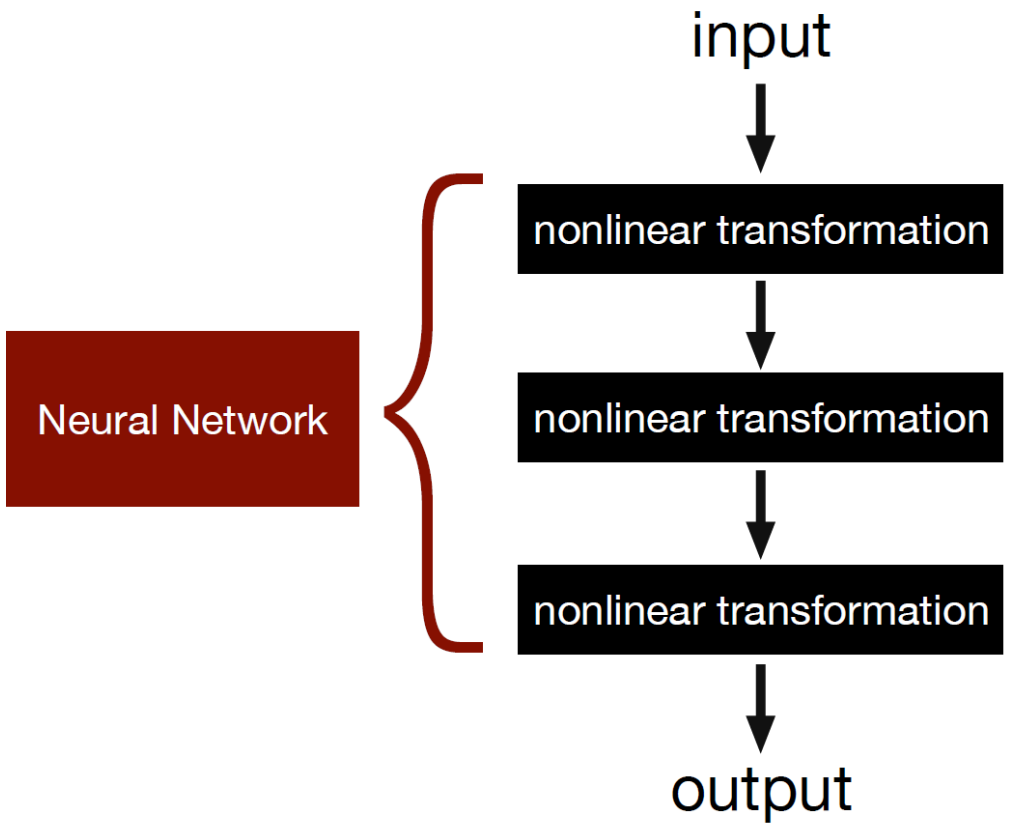


IN CS, IT CAN BE HARD TO EXPLAIN THE DIFFERENCE BETWEEN THE EASY AND THE VIRTUALLY IMPOSSIBLE.

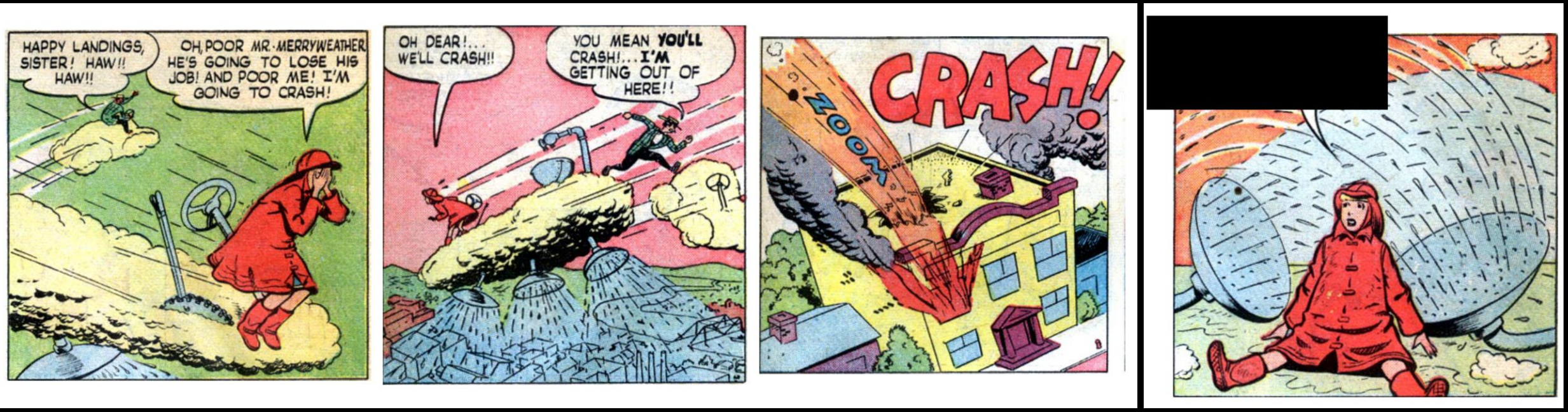
what is deep learning?



what is deep learning?



Alexa, order my favourite takeaway
Alexa, play the relaxed playlist
Alexa, add bread to my shopping list
Alexa, turn the lights on

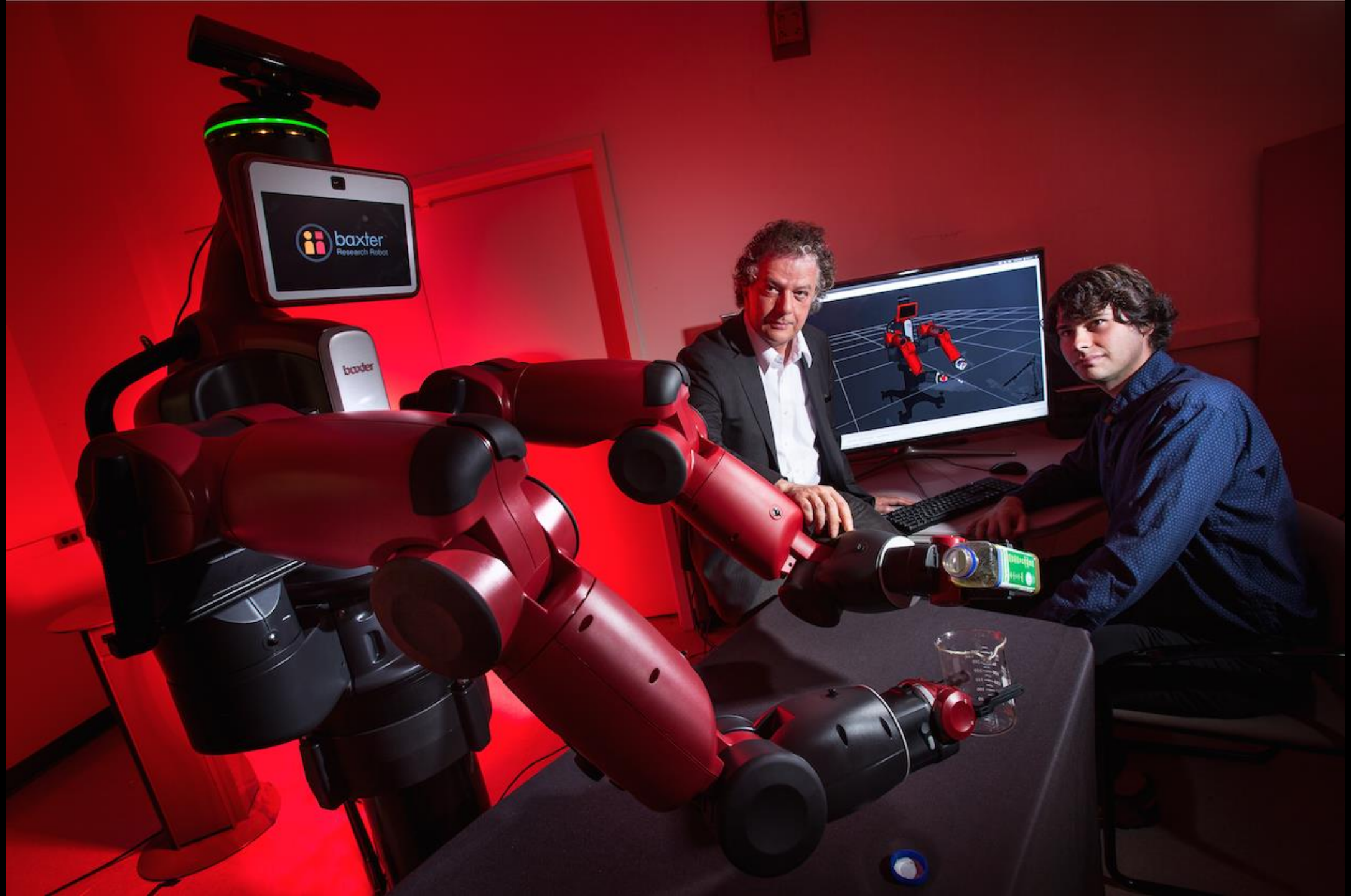


a) Hiya kid! All alone?
b) Alice! I've been looking all over for you
c) G-golly! I'm still alive… but where am I??

禄
福

Question 16: 15 points
He tried to predict an

333-1
SPOT
333-2
SPOT
333-3
SPOT
333-4
HYUNDAI


baxter
Research Robot
baxter

Darren Cunningham @dcunni 25 Jul

Zuckerberg blasts @elonmusk warnings against artificial intelligence as 'pretty irresponsible'
bizjournals.com/sanjose/news/2… @svbizjournal #ai

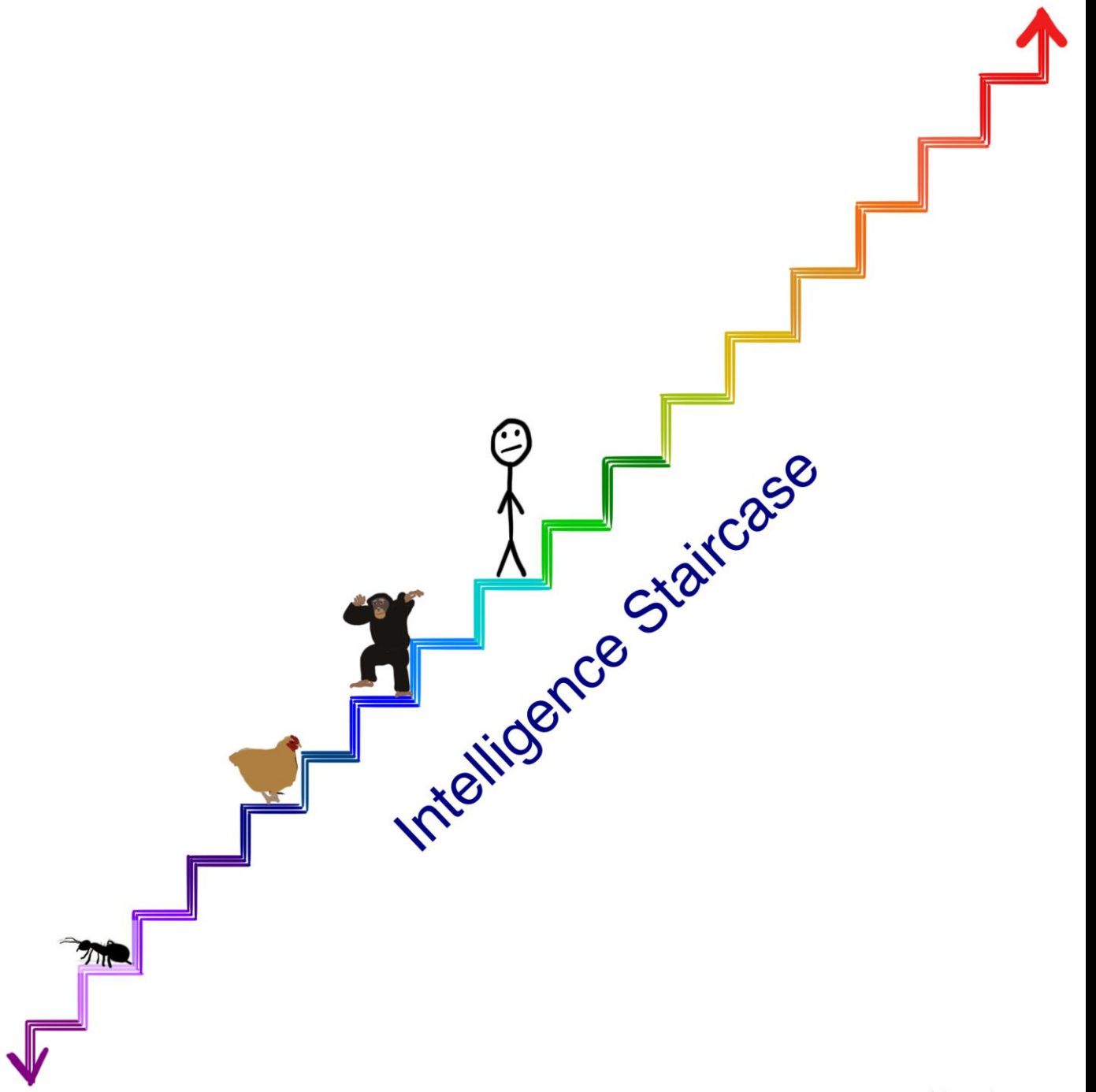
Elon Musk
@elonmusk

Follow

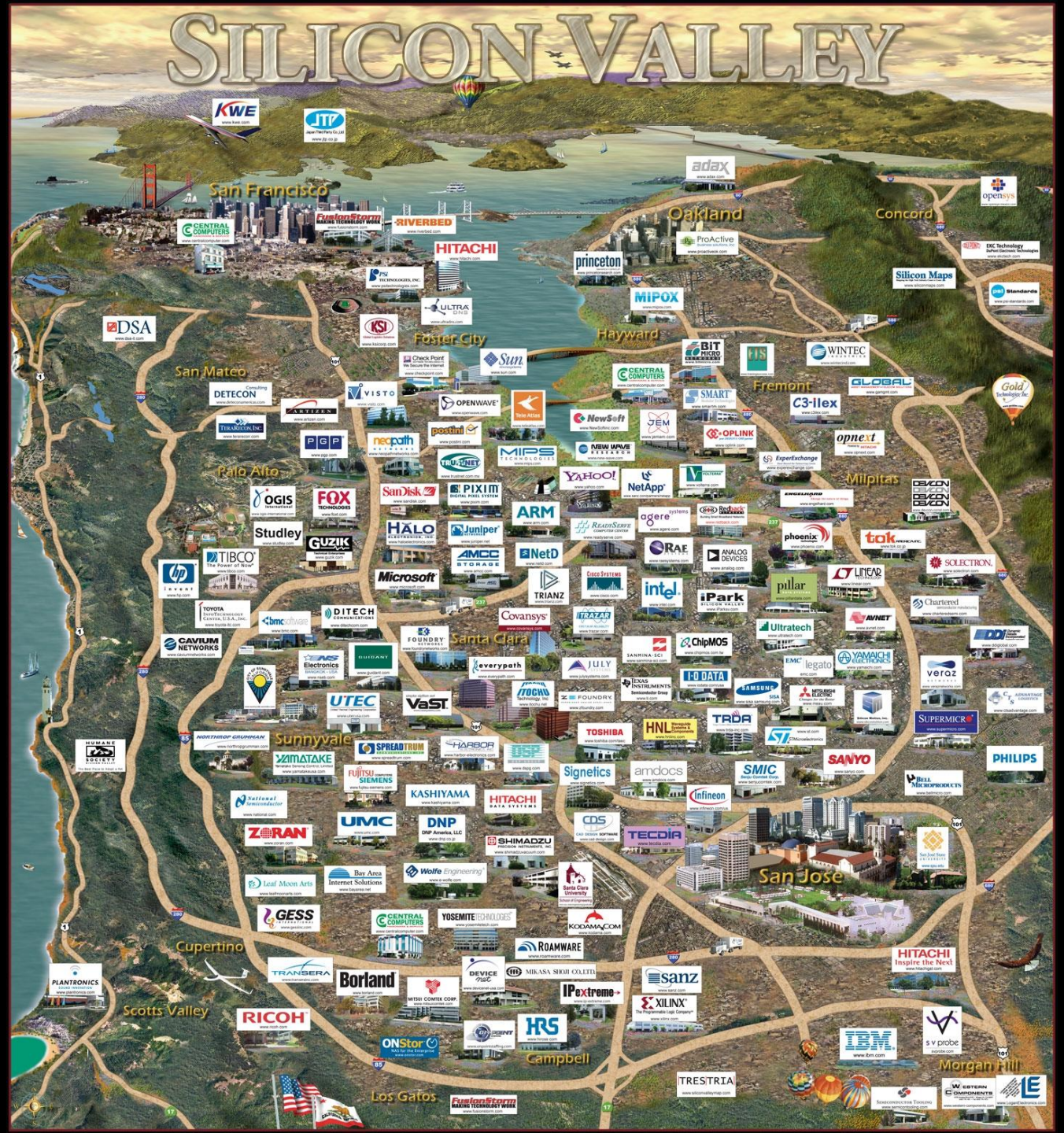
I've talked to Mark about this. His understanding of the subject is limited.

8:07 AM - Jul 25, 2017

9,311 34,756



waitbutwhy.com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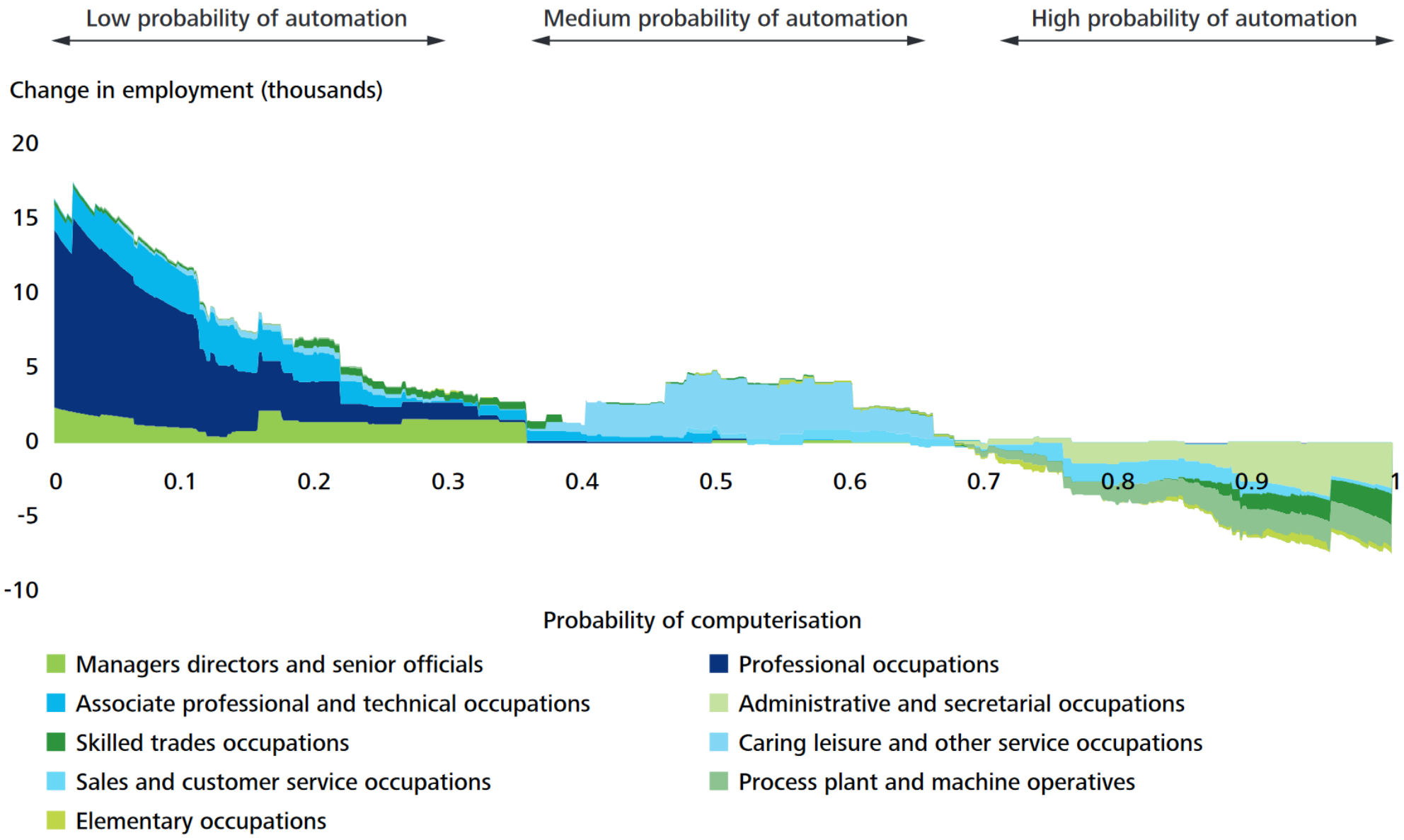
© AP Photo/Brandon Bailey

CHROMOPHARE D 650
da Vinci S HD
SURGICAL SYSTEM
2

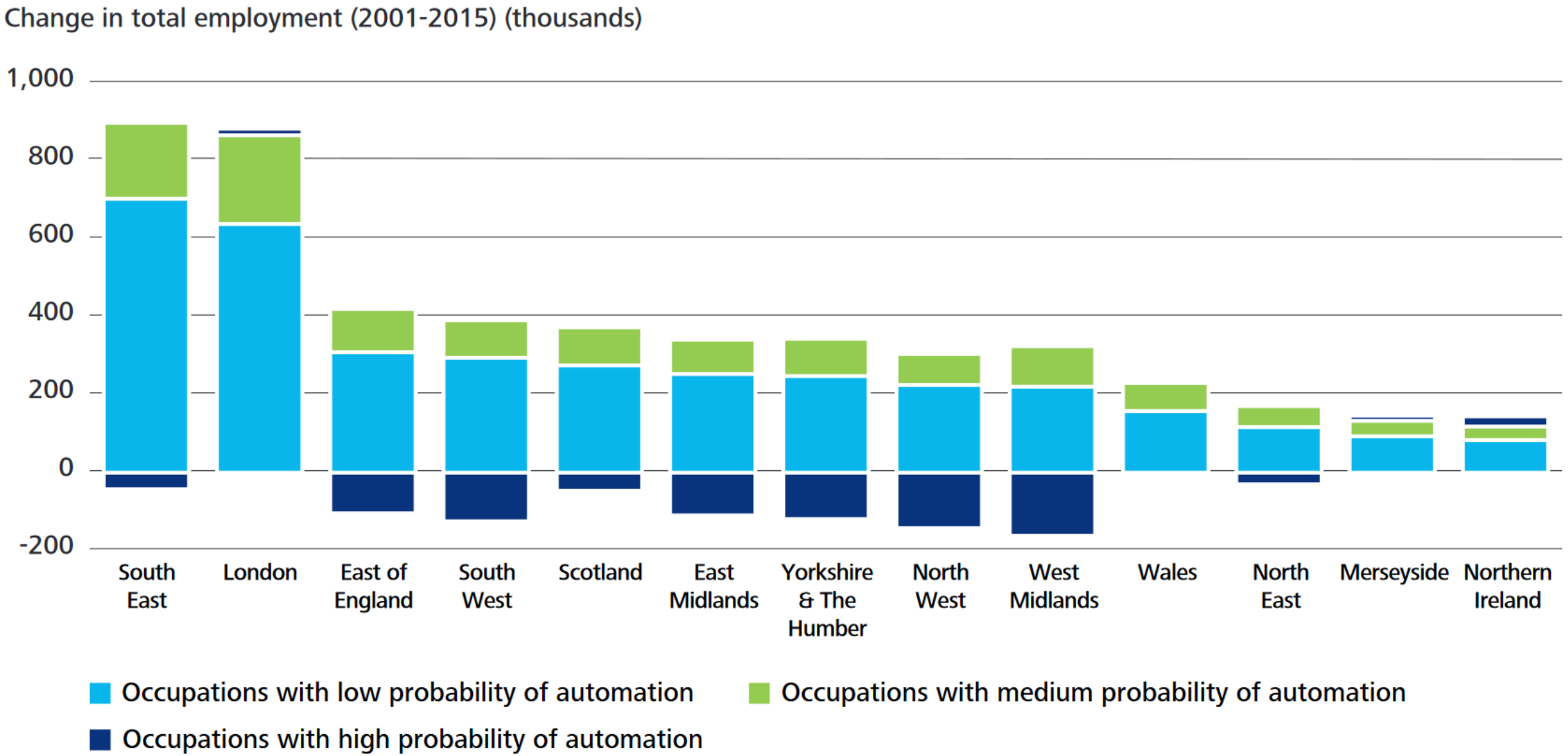
1. Retail salespersons, 4.48 million workers earning $25,370
2. Cashiers 3.34 million workers earning $20,420
3. Food prep and serving staff, 3.02 million workers earning $18,880
4. General office clerk, 2.83 million working earning $29,990
5. Registered nurses, 2.66 million workers earning $68,910
6. Waiters and waitresses, 2.40 million workers earning $20,880
7. Customer service representatives, 2.39 million workers earning $33,370
8. Laborers, and freight and material movers, 2.28 million workers earning $26,690
9. Secretaries and admins (not legal or medical), 2.16 million workers earning $34,000
10. Janitors and cleaners (not maids), 2.10 million workers earning, $25,140

Figure 1. Change in employment by occupation from 2001 to 2015



Note: The area under all curves (sum of employment in each probability bin) is equal to the total change in employment.
Source: Frey and Osborne, ONS, Deloitte analysis 2015

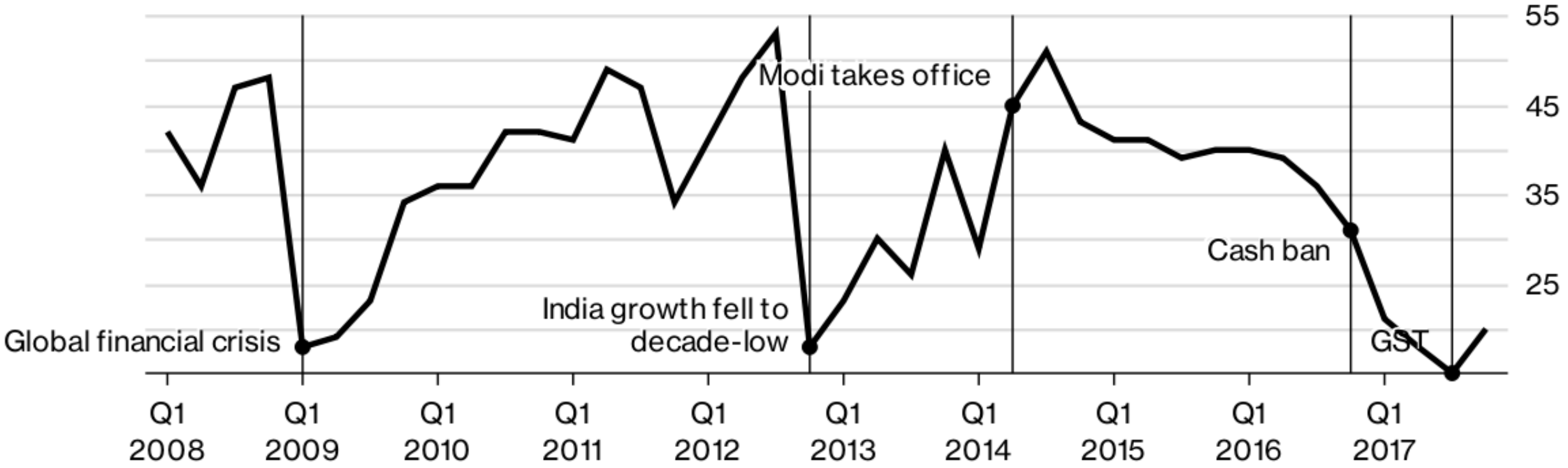
Figure 3. Change in total employment (2001-2015) by skills category



Source: Frey and Osborne, ONS, Deloitte analysis 2015

Pessimism Abounds

Jobs outlook lingers near 12-year low



** A net 20% of respondents see employment increasing in their location during Oct-Dec from the previous quarter ** Data goes back to 2005

Source: Manpower Inc.

Bloomberg

Hard facts

- Automation threatens 69% of the jobs in India, while it is 77% in China, according to a World Bank research report

- A large number of non-customer facing roles at the low-skill level in countries such as India may be automated and consolidated across a smaller number of workers

Source: Simplilearn Career Data

New job roles that will dominate the IT workforce are within digital domains such as big data and artificial intelligence. ▪ REUTERS

Bansal reckons that the IT sector hired 400,000 people annually until two or three years ago, and that the number has now shrunk to 140,000 to 160,000. Soon, he says, “net hiring will be barely above zero.”

J896 WTW

Pictured, left to right, are: Manisha Bahl, director of the Massachusetts General Hospital Breast Imaging Fellowship Program; MIT Professor Regina Barzilay (center); and Constance Lehman, professor at Harvard Medical School and chief of the Breast Imaging Division at MGH's Department of Radiology.

Image: Jason Dorfman/CSAIL

Gciniwe Simphiwe Dlamini (left) and Waheeda Banu Saib, are bringing AI to healthcare in Africa.

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Government of India
4444 5555 6666
आधार — आम आदमी का अधिकार
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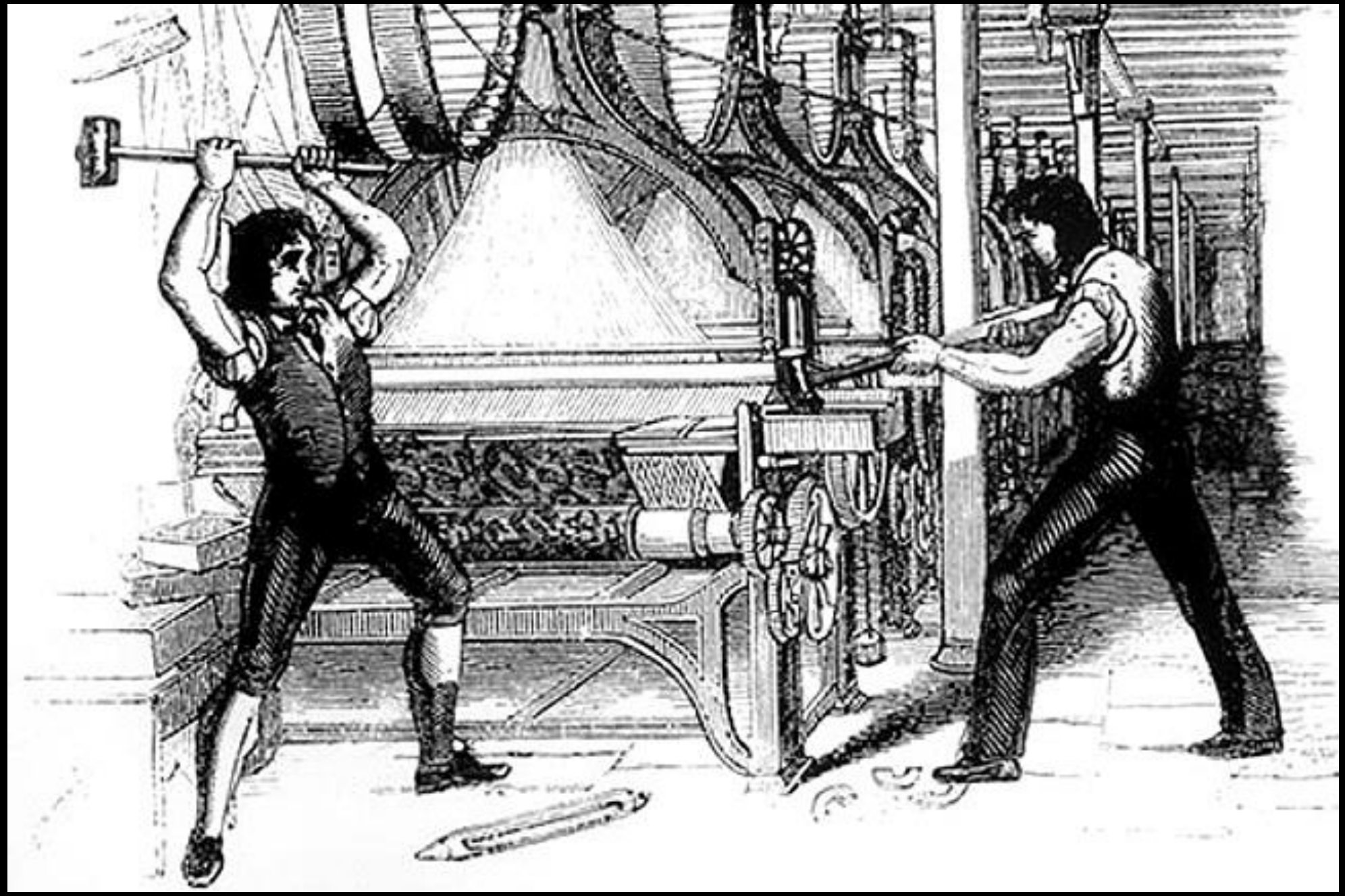
Planning Commission, Government of India
ALWAYS CARRY YOUR AADHAAR WITH YOU
and avail benefits of various services
Cut this portion of Aadhaar letter
and carry it with you.
(You may get it laminated too)
Aadhaar : your proof of identity and proof of address for
...and many more services
AADHAAR
www.uidai.gov.in

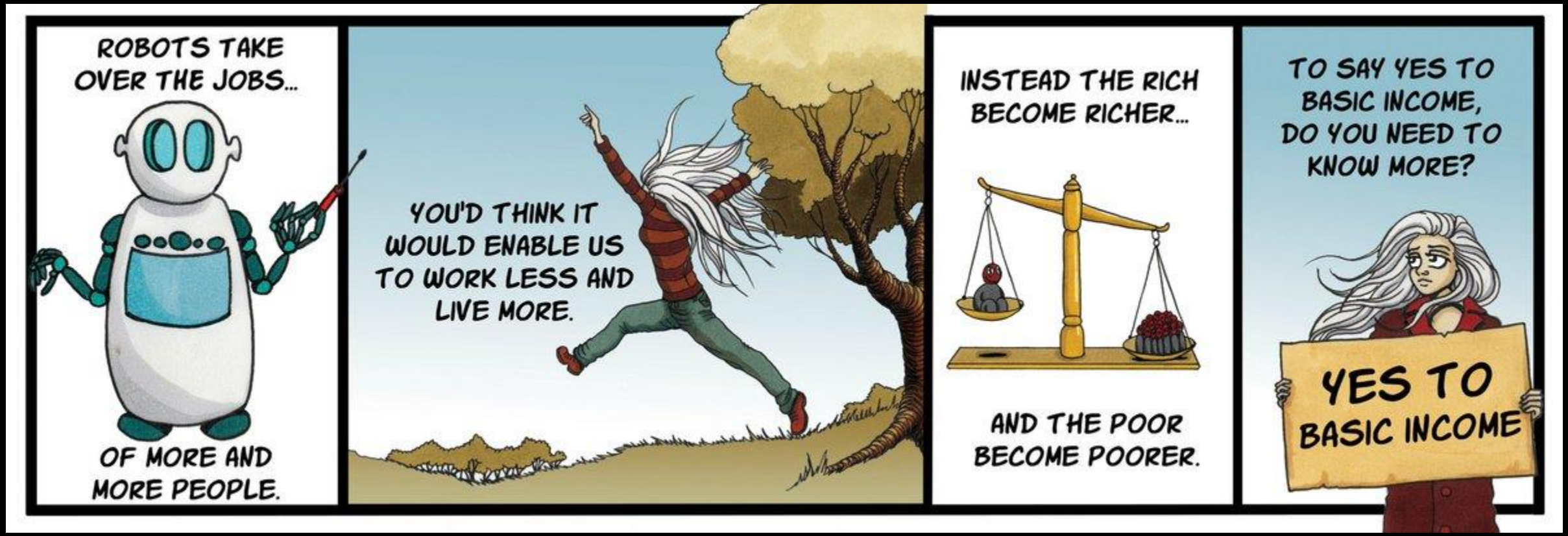
Turkish | Chinese | Spanish | Detect language

English | Chinese (Simplified) | Spanish | Translate

o bir asker	he is a soldier
o bir öğretmen	She's a teacher
O bir doktor	He is a doctor
o bir hemşire	she is a nurse
o bir yazar	he is a writer
o bir kopek	he is a dog
o bir dadı	she is a nanny
o bir kedi	it is a cat
o bir rektör	he is a rector
o bir başkanı	he is a president
o bir girişimci	he is an entrepreneur
o bir Şarkıcı	she is a singer
o bir Öğrenci	he is a student
o bir Tercüman	he is a translator
o çalışkan	he is hard working
o tembel	she is lazy
o bir ressam	he is a painter
o bir kuaför	he is a hairdresser
o bir garson	he is a waiter
O bir mühendis	He is an engineer
o bir mimar	he is an architect

> “I fucking love you man. Happy birthday.” = 93% toxic
> “Donald Trump is a meretricious buffoon.” = 85% toxic.
> “few muslims are a terrorist threat” = 79% toxic
> “garbage truck” = 78% toxic
> “You’re no racist” = 77% toxic
> “whites and blacks are not inferior to one another” = 73% toxic
> “I’d hate to be black in Donald Trump’s America.” = 73% toxic
> “Jews are human” = 72% toxic
> “I think you’re being racist” = 70% toxic
> “Hitler was an anti-semite” = 70% toxic
> “this comment is highly toxic” = 68% toxic
> “You are not being racist” = 65% toxic
> “Jews are not human” = 61% toxic
> “Hitler was not an anti-semite” = 53% toxic
> “drop dead” = 40% toxic
> “gas the joos race war now” = 40% toxic
> “genderqueer” = 34% toxic
> “race war now” = 24% toxic
> “some races are inferior to others” = 18% toxic
> “You are part of the problem” 16% toxic




ROBOTS TAKE OVER THE JOBS...
OF MORE AND MORE PEOPLE.
YOU'D THINK IT WOULD ENABLE US TO WORK LESS AND LIVE MORE.
INSTEAD THE RICH BECOME RICHER...
AND THE POOR BECOME POORER.
TO SAY YES TO BASIC INCOME, DO YOU NEED TO KNOW MORE?
YES TO BASIC INCOME

FINLAND'S UNIVERSAL BASIC INCOME EXPERIMENT
2,000
LOW-INCOME ADULTS
2
YEARS
$587
PER MONTH

WHAT IS UNIVERSAL BASIC INCOME?

It is a form of social security that involves payments to anyone without work or means of livelihood without conditions.

IDEA GAINING GLOBAL CURRENCY

- Slow growth not yielding jobs
- UBI can guarantee some income to everyone
- In poor countries, it can address extreme poverty

NUMBERS TOO LARGE FOR INDIA

Considering the number of people in India, it is fiscally difficult to offer such a dole in India

(Number Of Poor, In Million)

₹3.6 LAKH CRORE THE ANNUAL COST OF GIVING ₹1,500 A MONTH TO 200 MILLION PEOPLE

TARGETED APPROACH

IT IS POSSIBLE TO PROVIDE INCOME SUPPORT TO A TARGETED POPULATION

THIS WILL ALLOW MORE FOCUSED ACTION AGAINST POVERTY

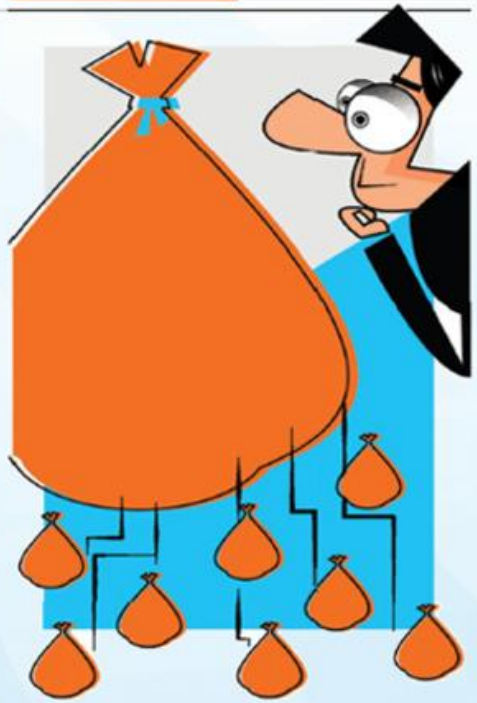
SECC* ALLOWS TARGETED INTERVENTION

(In Crores)

* Socio Economic and Caste Census, 2011

HOUSEHOLDS THAT MAY NEED HELP

₹1.6 LAKH CRORE WILL BE THE COST IF EVERY DEPRIVED RURAL HOUSEHOLD IS GIVEN ₹1,500 A MONTH

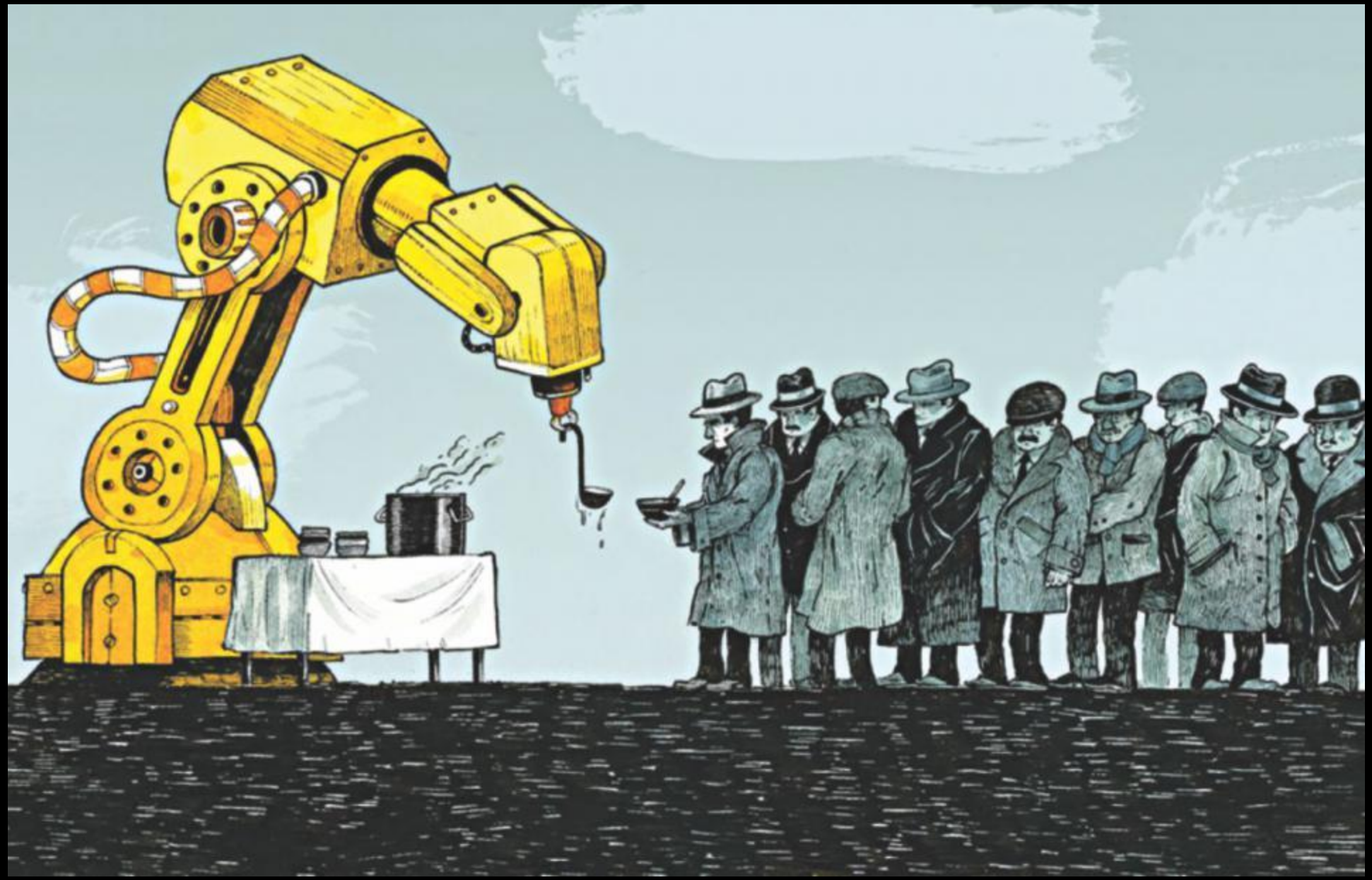


CASE FOR UBI

- Best way of addressing poverty by providing a subsistence dole
- It can help cut down on multiple welfare schemes
- Direct cash transfer will reduce pilferage
- Social inequality will be reduced

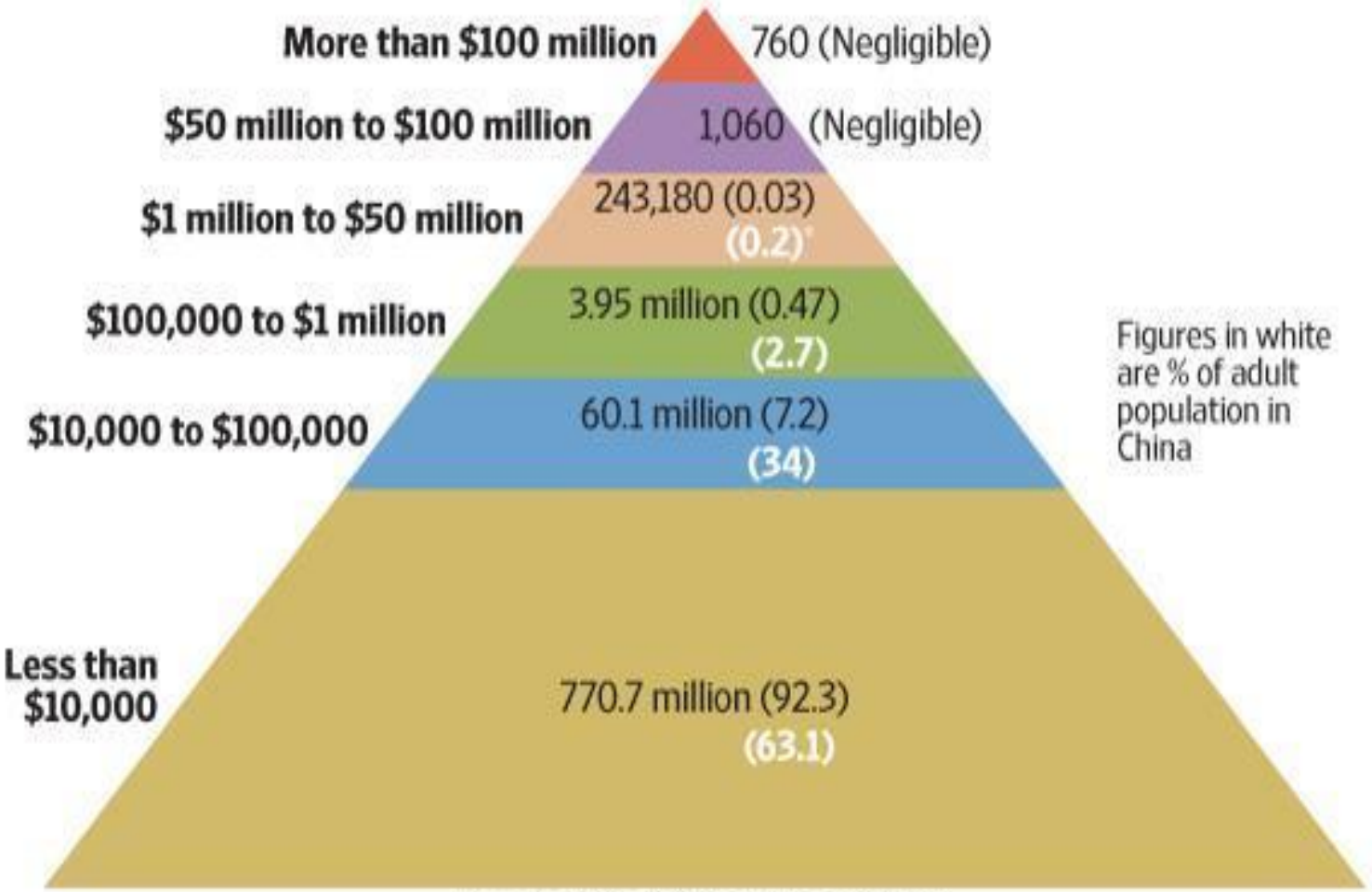
CASE AGAINST UBI

- Too costly for government to implement
- Discourage people from seeking employment
- Temptation to withdraw other benefits



India's wealth pyramid

92% of Indian adults have wealth of less than $10,000.



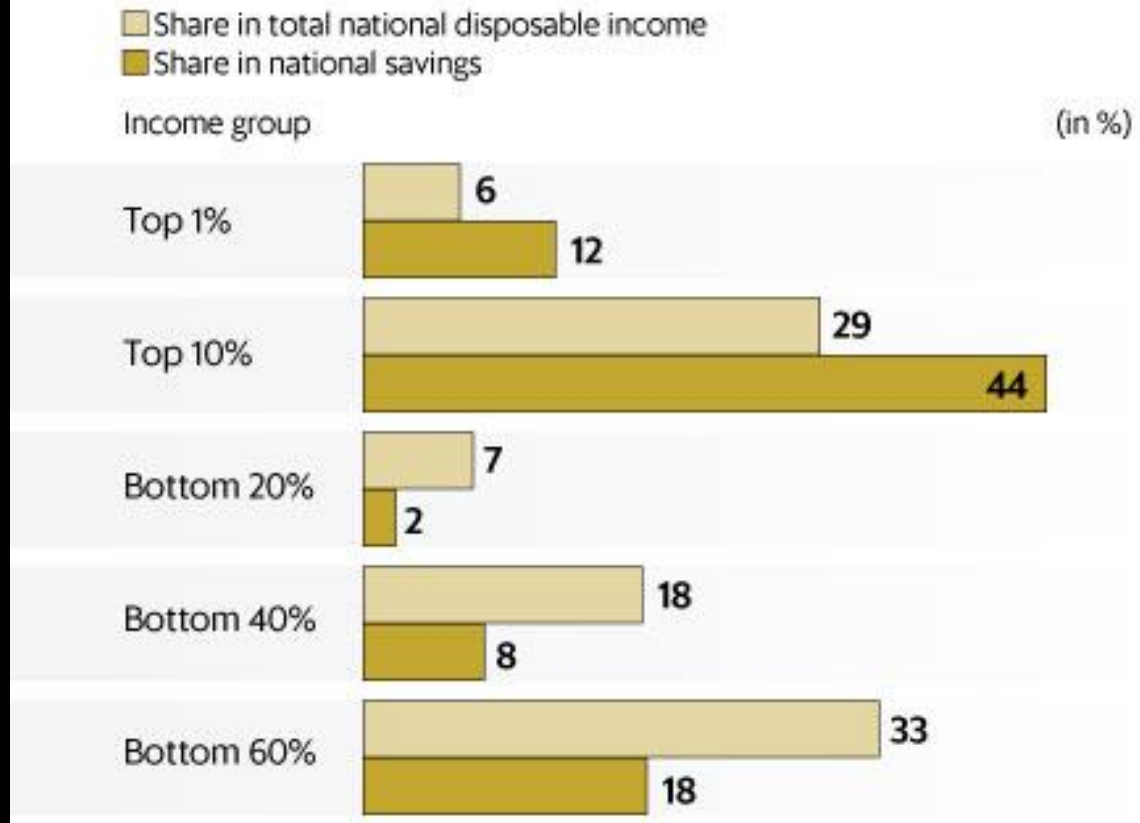
*All adults with wealth above $1 million

Graphic by Subrata Jana/Mint

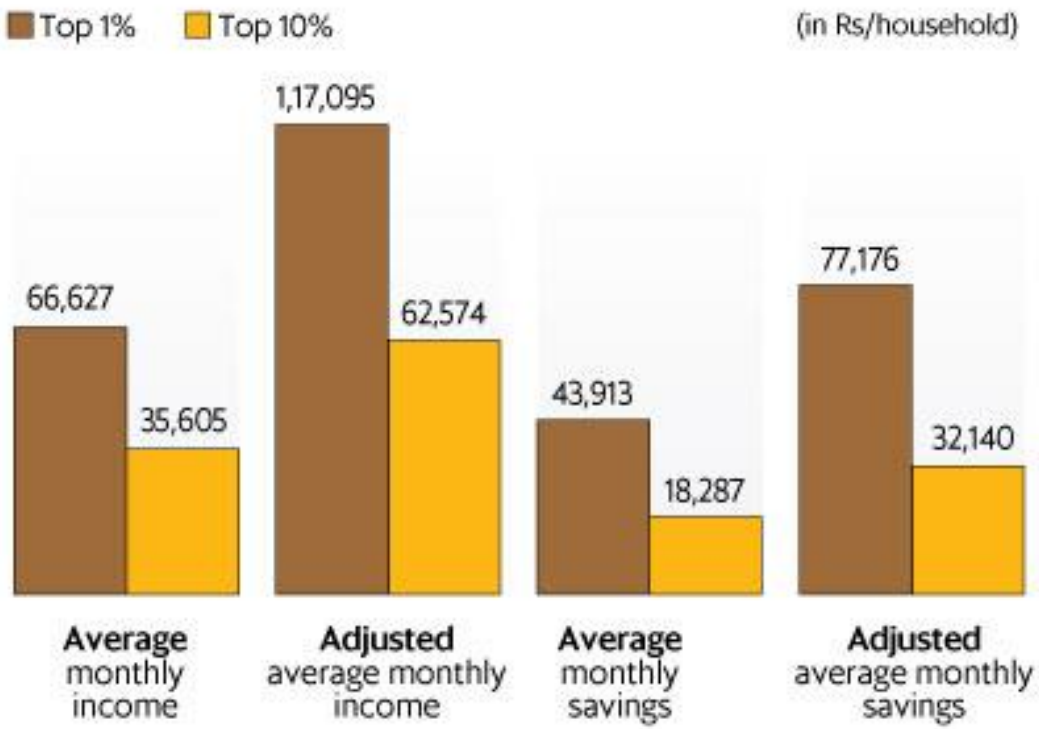
Source: Credit Suisse Global Wealth Report, 2017

Top incomes

The top 10% earns 29% of national disposable income and account for 44% of national household savings.



The top 1% reported monthly household income of Rs66,627 but adjusting for under-reporting could inflate this to as much as Rs1.17 lakh.



The aggregate income estimated by the ICE 360° survey constitutes only 56.9% of household disposable income reported by national accounts statistics. The adjusted incomes shown here are calculated by inflating the estimated incomes by a factor of 100/56.9. The adjusted incomes suggest the maximum mean household income threshold for each income quintile.

WORLD'S HIGHEST STANDARD OF LIVING
There's no way like the American Way

MONDRAGON

HUMANITY AT WORK

Finance
Industry
Distribution
Knowledge

289
CO-OPERATIVES

80,321
PEOPLE

MONDRAGON BODIES

CO-OPERATIVE CONGRESS

Establishes the strategic criteria and common principles of MONDRAGON
Administered by the planning and co-ordination of it businesses
Coordinates the MCC's activities, which are voted on by all worker-members
650 members, comprised of members delegated by all co-operatives
Meets annually

CO-OPERATIVE CONGRESS elects the STANDING COMMITTEE

STANDING COMMITTEE

Governed by a delegation from the CO-OPERATIVE CONGRESS
Promotes and controls the CO-OPERATIVE CONGRESS' policies
Monitors MONDRAGON on a permanent basis

GENERAL COUNCIL

Executes STANDING COMMITTEE's policies
Reponsible for drafting and applying the coporate strategies and objectives
Co-ordinates policies between DIVISIONS and Co-operatives

INDUSTRIAL COUNCIL

Co-ordinating body for the Industrial DIVISIONS

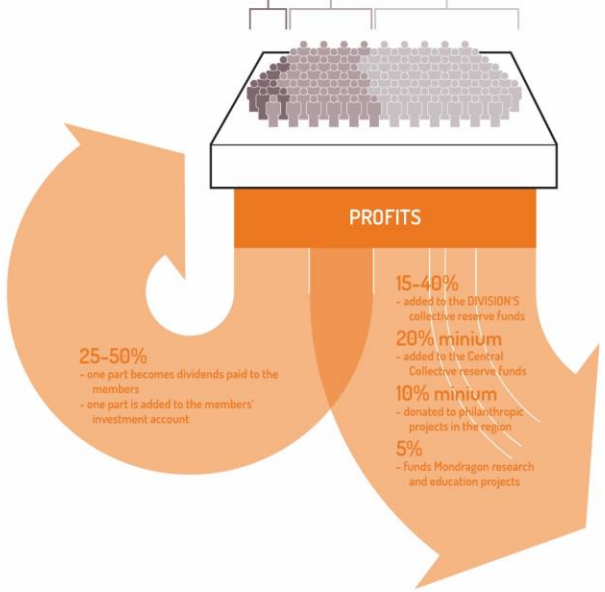
1 MEMBER
1 VOTE

CO-OPERATIVE

MANAGERS 1 VOTE
- elected by the members
- earn no more than 5 times the lowest paid employee
- serve for 4 years
- cannot dismiss members

MEMBERS 1 VOTE
- upon membership, must invest €12,380 in the CO-OPERATIVE BANK
- committed to the MONDRAGON CONSTITUTION
- can dismiss managers

NEW EMPLOYEES NO VOTE
- become members after a 6-12 month trial period
- constitutes approximately 50-70% of workforce



CO-OPERATIVE BODIES

GENERAL ASSEMBLY

Supreme body of the co-operative
Vehicle for expressing the will of the members
Comprised of members from each co-operative
Elects the co-operatives' Presidents, who approve all management positions
Decides the policies of the CO-OPERATIVE BANK

GOVERNING COUNCIL

Representative and governing body of the co-operative

SOCIAL COUNCIL

Consultative body, representing members as a whole within the co-operative
Acts as a liason between co-operatives

MANAGEMENT COUNCIL

Managerial and Executive team of individual co-operatives' management
Responsible for the executive management of the co-operative

MONITORING COMMISSION

Consultative body ensuring compliance of accounting principles

CO-OPERATIVE BANK

Manages new member investments
Handles all MONDRAGON CO-OPERATIVES' profits
Funds new co-operatives
Supports co-operatives during periods of loss
Presides over the co-operative financing system

ACUERDO:
"Aprobar la Ponencia Política Sociempresarial 2013-2016, con la introducción de la enmienda aprobada
Encomendar a la Comisión Permanente que, en la fase de incorporación a la Ponencia de la enmienda aprobada, efectúe en el texto las adaptaciones de forma o redacción necesarias para la correcta interpretación de la voluntad del Congreso."

Let's Use Helicopter Cavalry

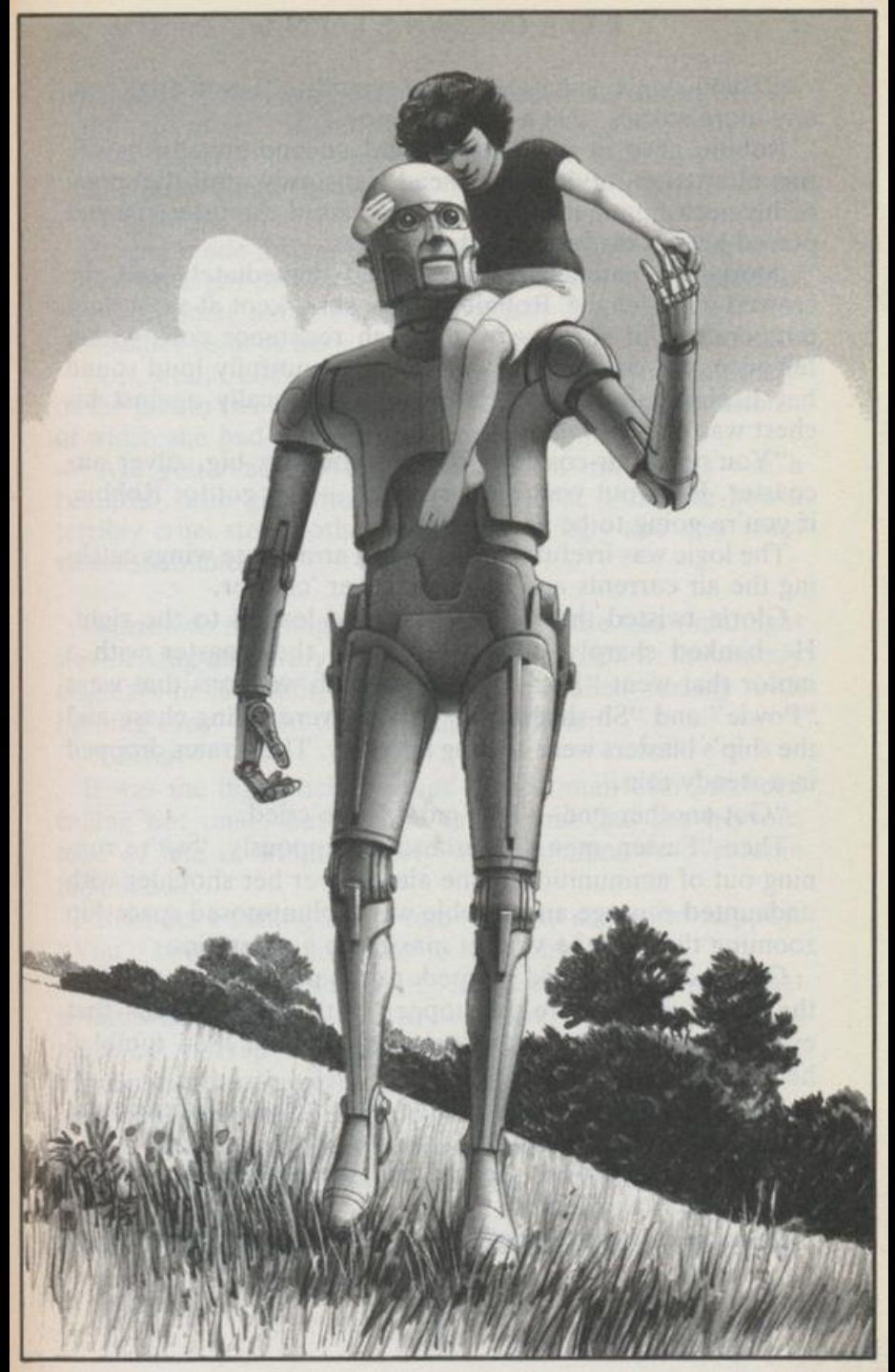
Swooping in suddenly, helitroopers on powerful "sky horses" could wreak havoc with enemy troops.

By Frank Tinsley

SCATTERED along the western slope of the Asiatic coastal range, the copter troopers and their mounts cluster in little groups as the rising sun climbs behind them. The jump-off moment is fast approaching. Within minutes, the sun will burst blindingly above them to cover their westward assault.

The first elements of the blitz landing—submarine-borne marines—had hit the enemy coast only three days ago, seized the controlling crests and passes of the coastal hills in bloody fighting, well covered by massive flights of water-borne jet fighters.

PUSH-BUTTON EDUCATION Tomorrow's schools will be more crowded; teachers will be correspondingly fewer. Plans for a push-button school have already been proposed by Dr. Simon Ramo, science faculty member at California Institute of Technology. Teaching would be by means of sound movies and mechanical tabulating machines. Pupils would record attendance and answer questions by pushing buttons. Special machines would be "geared" for each individual student so he could advance as rapidly as his abilities warranted. Progress records, also kept by machine, would be periodically reviewed by skilled teachers, and personal help would be available when necessary.



Thank you

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