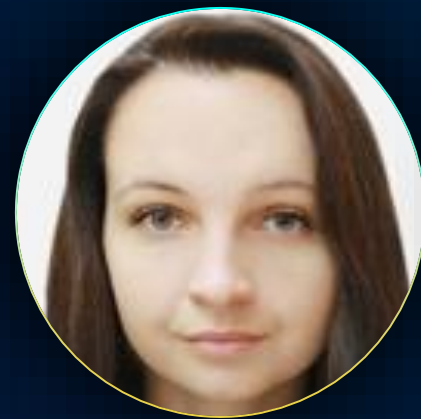
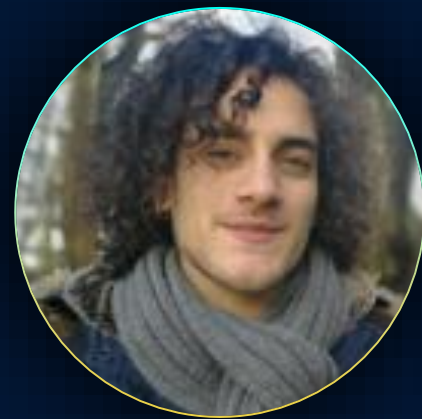
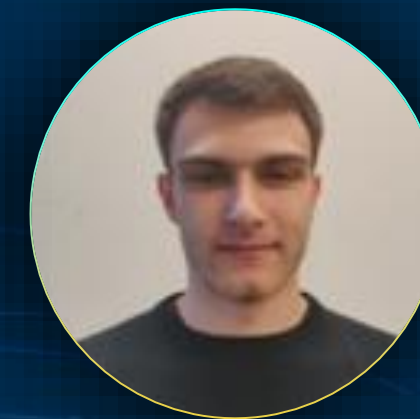
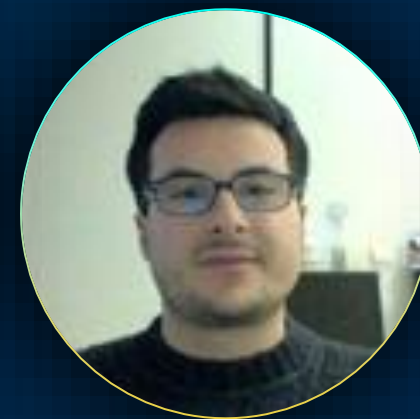


Emanuele Frontoni

ARTIFICIAL INTELLIGENCE & HUMAN CREATIVITY

VR*Ai*
vision robotics
artificial
intelligence

vrai
vision robotics
artificial
intelligence



UNIVERSITÀ
POLITECNICA
DELLE MARCHE



unimc
UNIVERSITY OF MACERATA



Sant'Anna
Scuola Universitaria Superiore Pisa



ISTITUTO
ITALIANO DI
TECNOLOGIA

CRISP



PROMOTICA
PEOPLE DRIVEN COMPANY

people | sustainability | innovation
PROTAGONIST



AWARENESS

ARTIFICIAL INTELLIGENCE

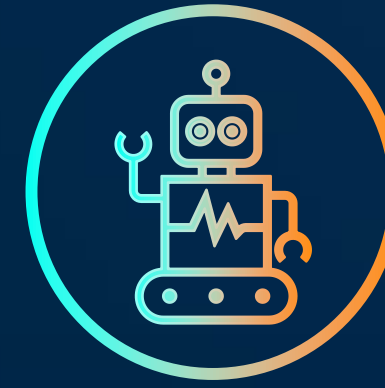
Dartmouth Conference 1956

John McCarthy coined the term Artificial Intelligence

Trenchard More, John McCarthy, Marvin Minsky, Oliver Selfridge, Ray Solomonoff



They were very optimistic



“In 1968 a computer will be world chess champion.”

Simon and Newell, 1958

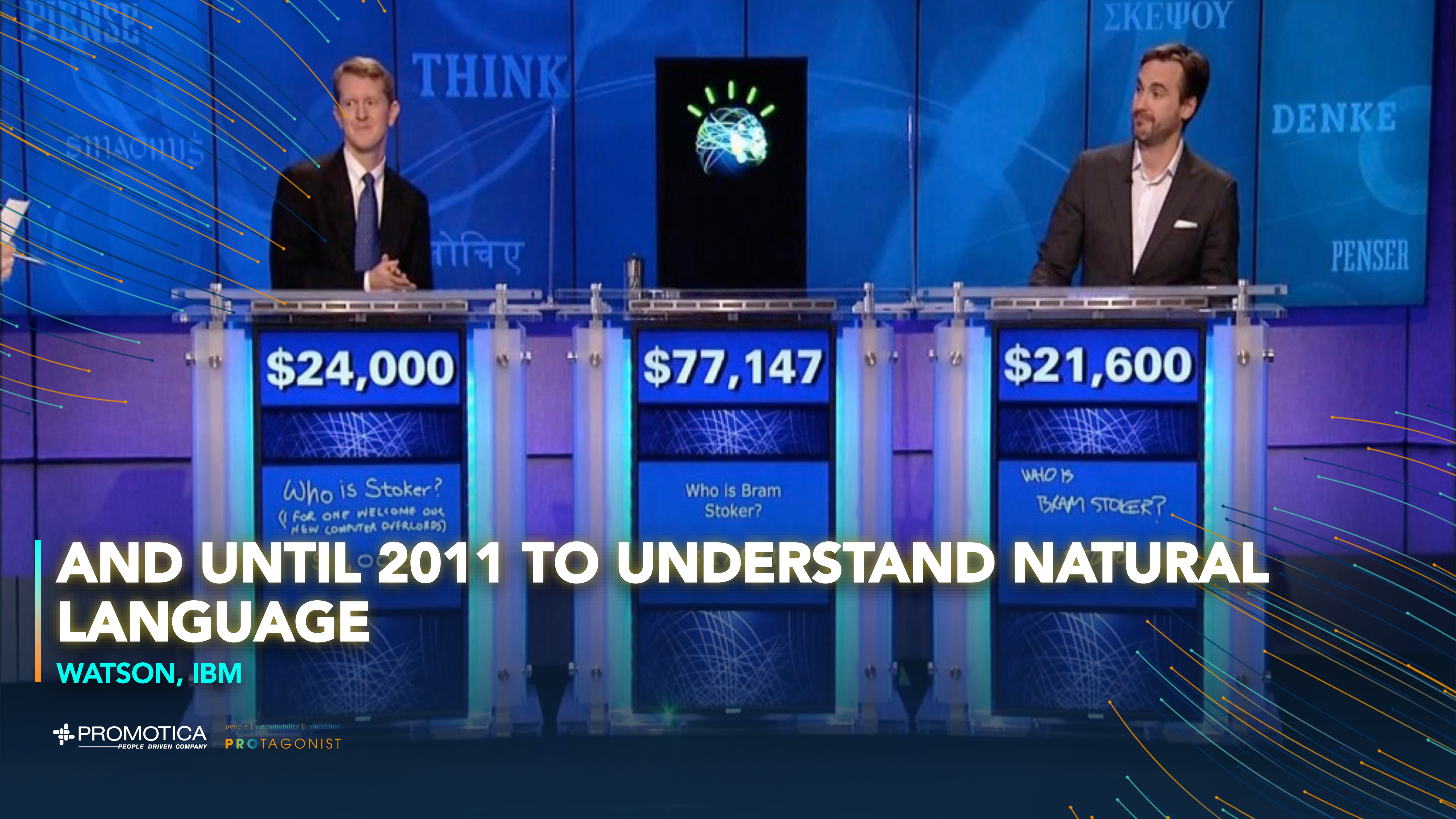
“In 20 years computers will be able to do everything that humans can do.”

Simon, 1965



WITH REGARD TO THE CHESS IT TOOK UNTIL 1997

DEEP BLUE, IBM



AND UNTIL 2011 TO UNDERSTAND NATURAL LANGUAGE

WATSON, IBM

So why all this fuss after almost 70 years?

Computational power of computers is increasing exponentially

- Doubling every 18 months
Moore's Law, 1965

Vast data quantities

- For use as examples to learn what to do

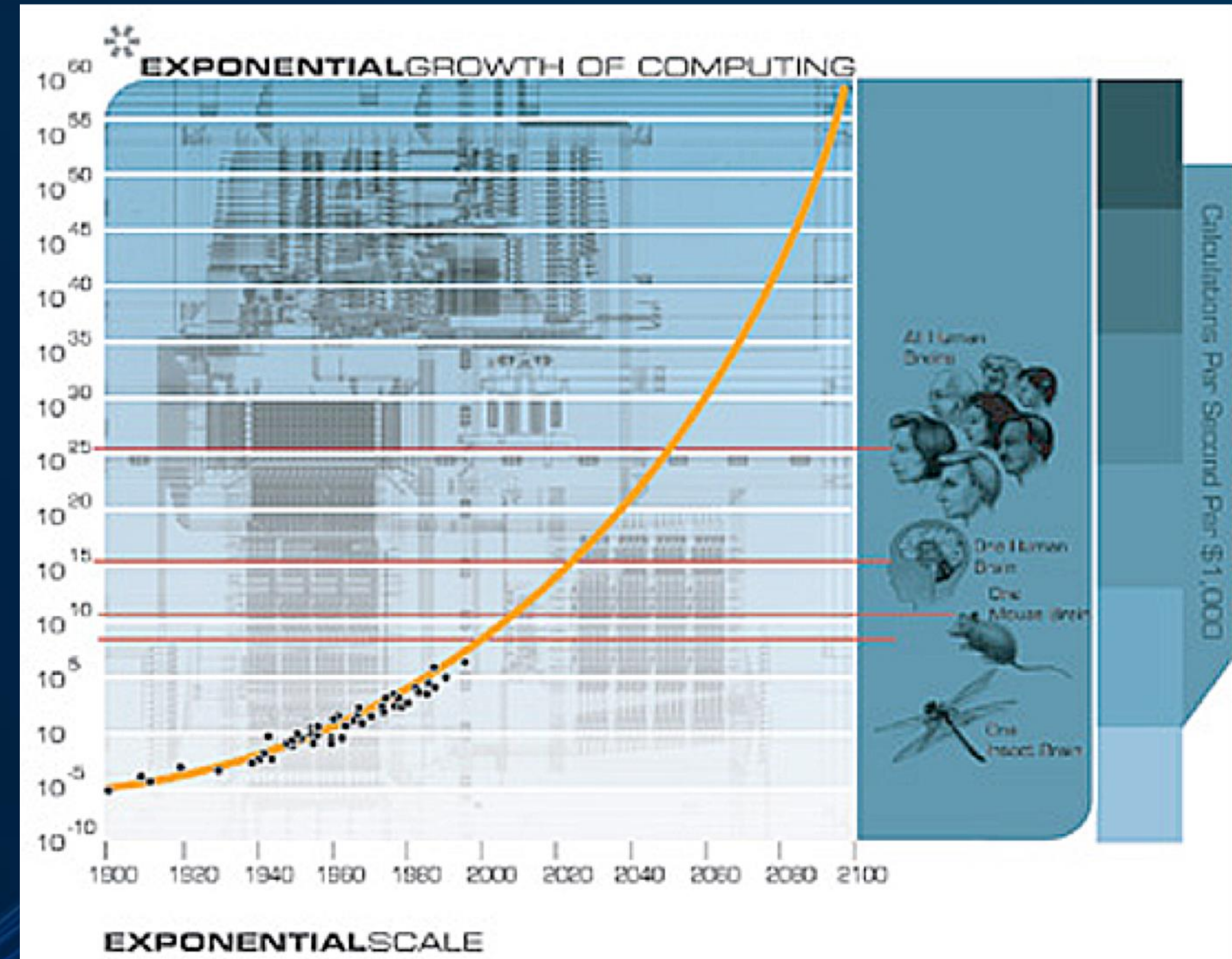
Better algorithms

- E.g. deep learning

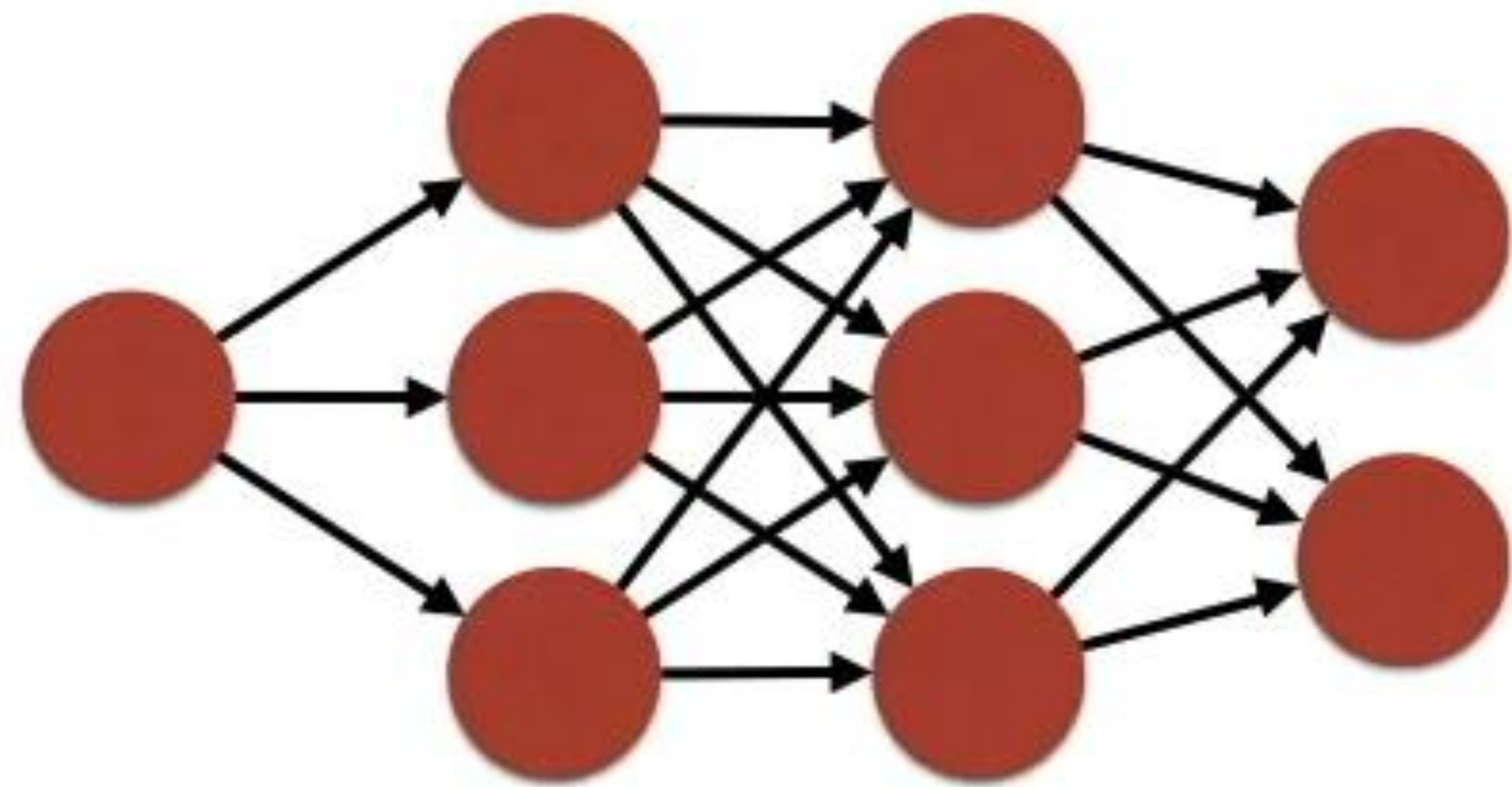
YouTube: 400 hours of video uploaded every minute

Walmart: 2.5 petabytes of customer data hourly

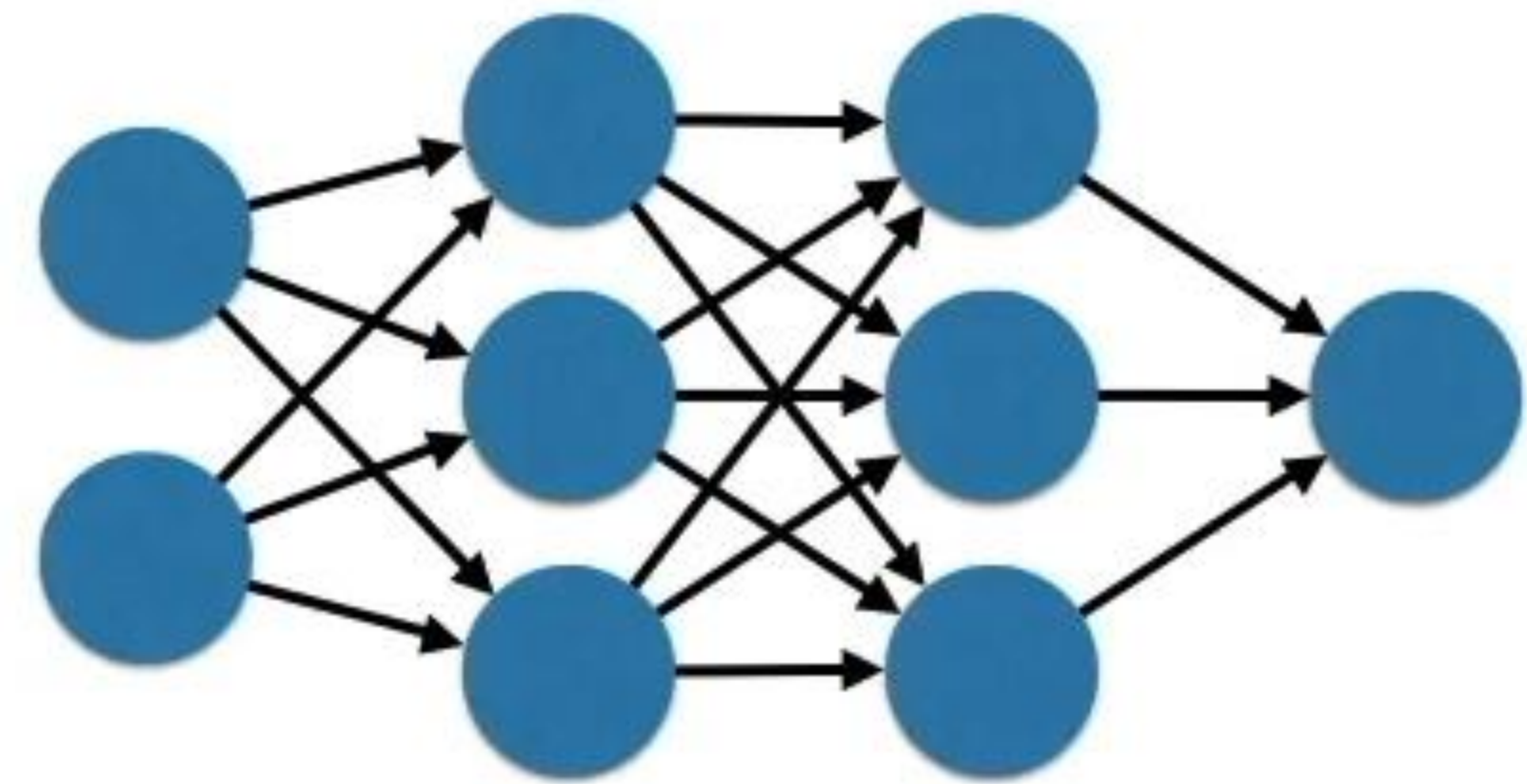
Facebook: 350 million images uploaded daily



GENERATIVE AI

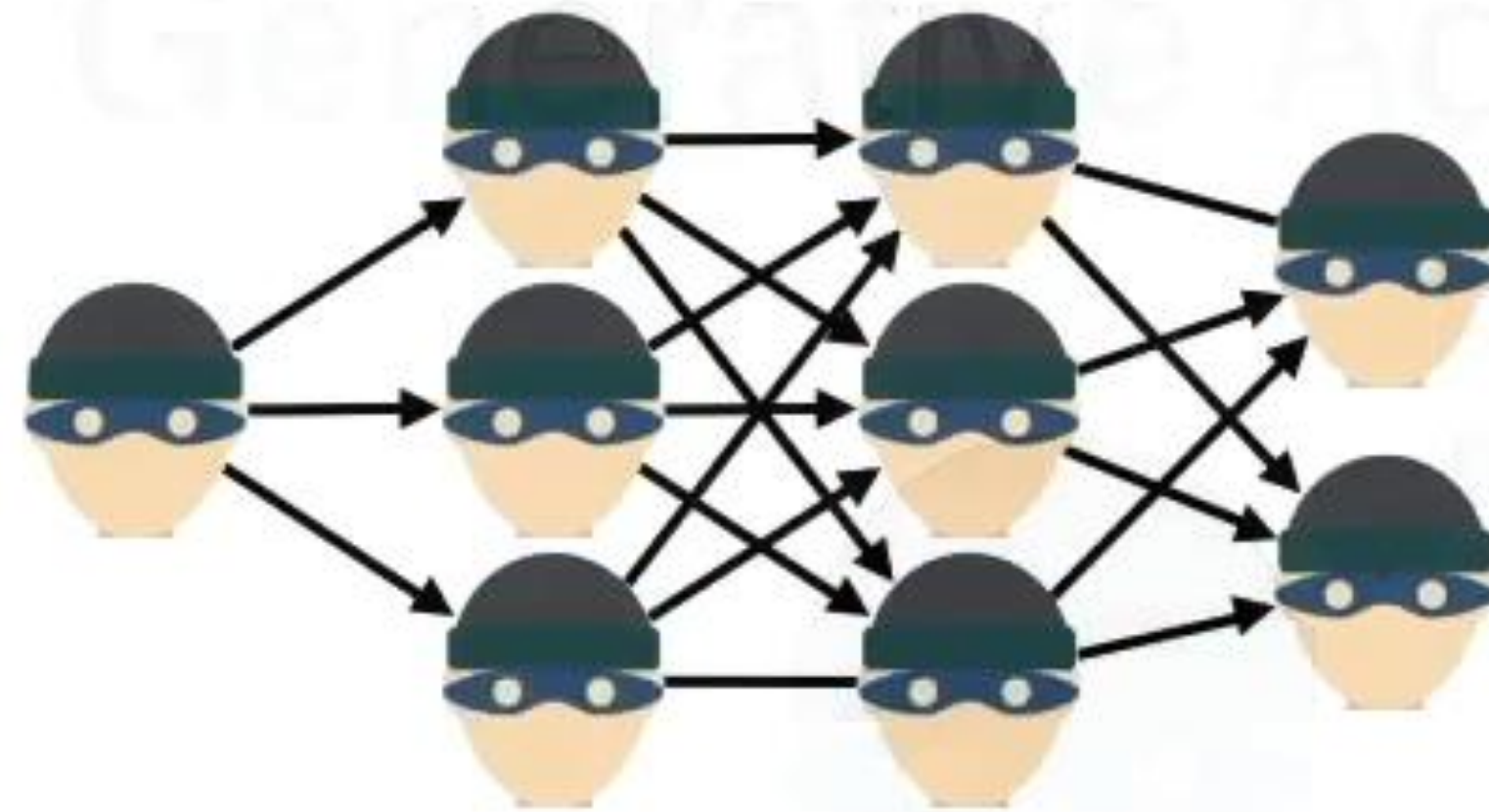


Generator

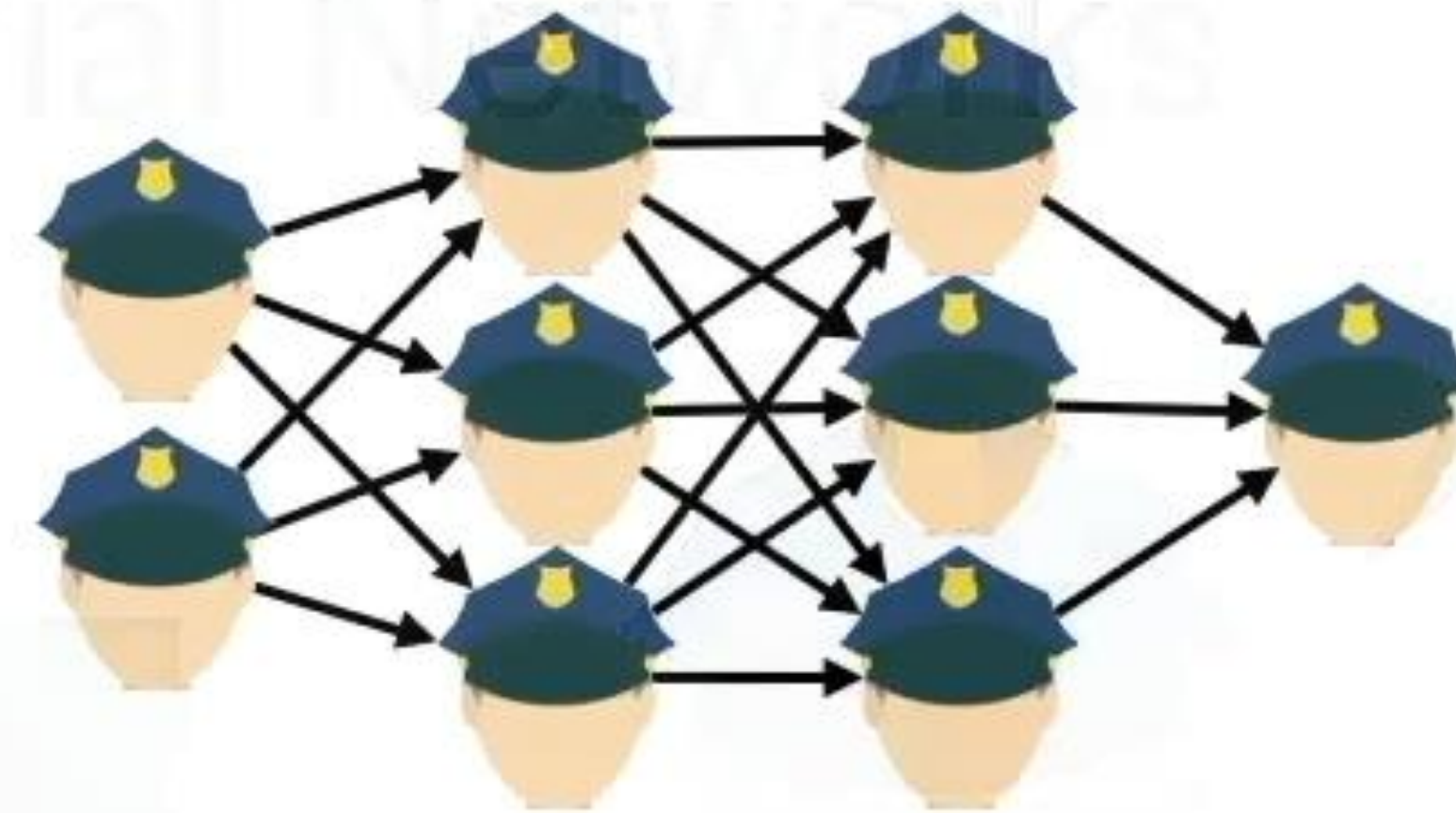


Discriminator

Generator



Discriminator



Real images





COLLECTED DATA

People
16,323,710

Interactions
1,804,788





hba-project



Stay:1

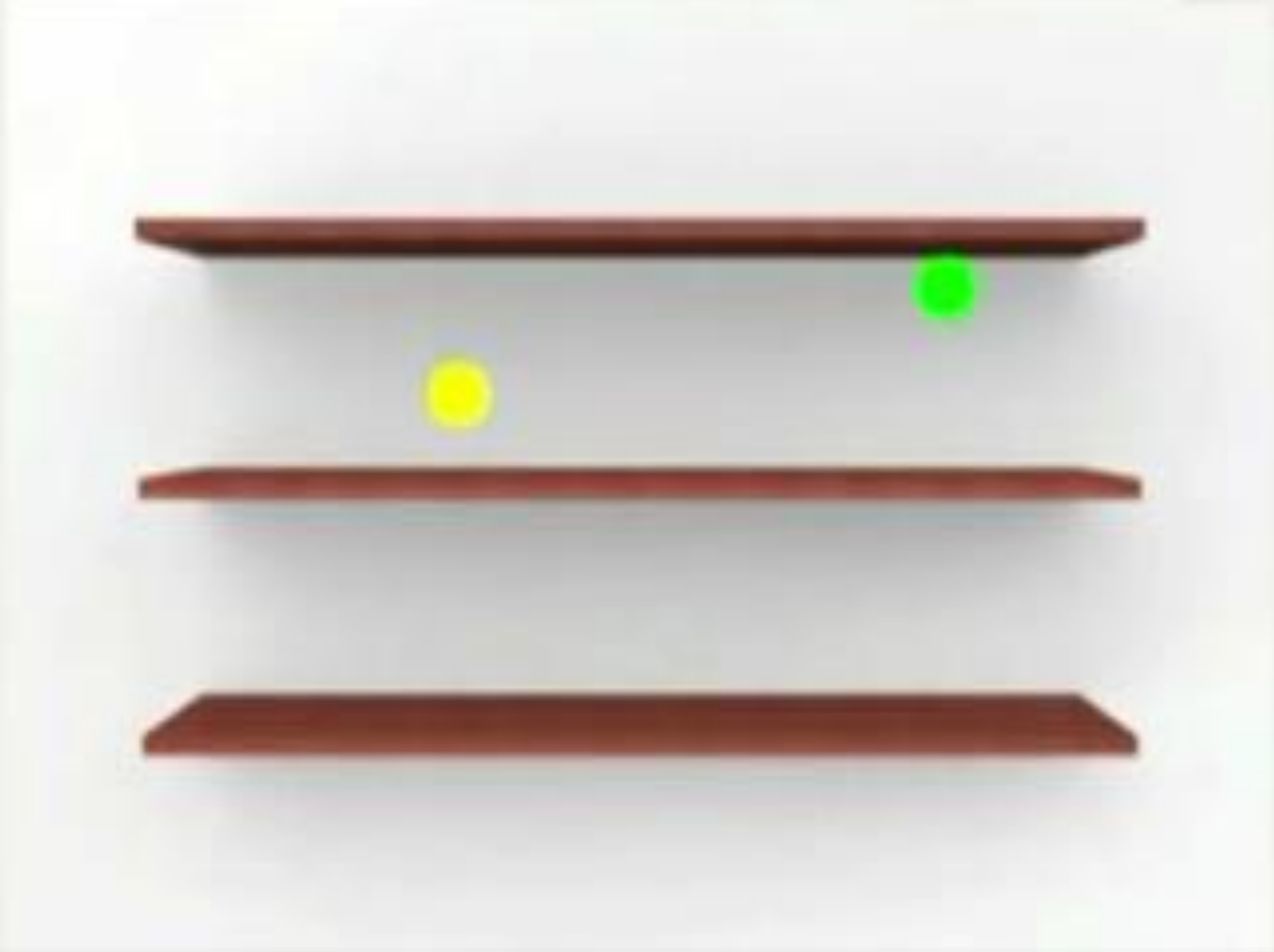
Hand:1

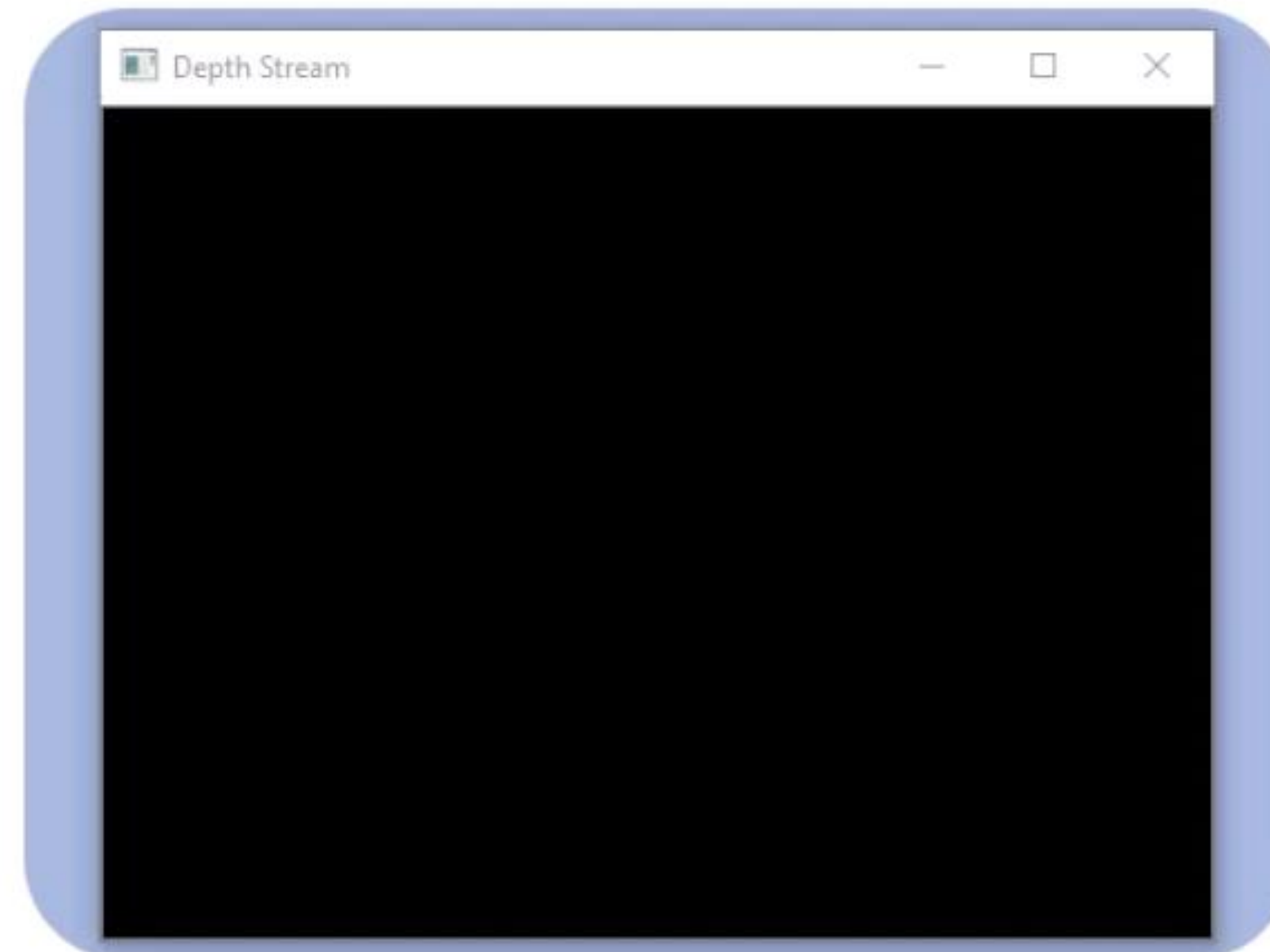
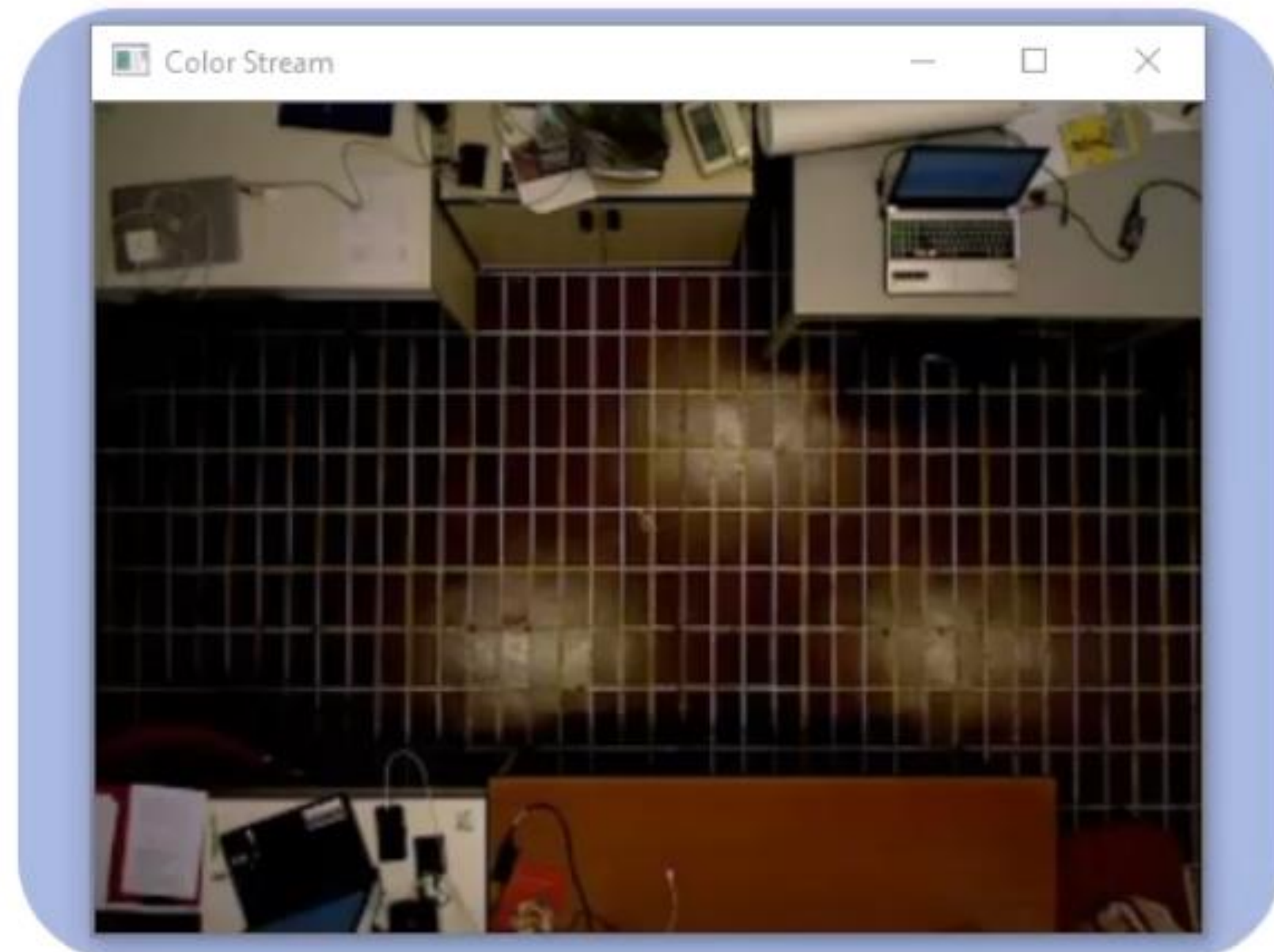




20131007102802987 tlen = 7305 xin = 18 yin = 163 xout = 293 yout = 159

ID shop = 99 ID Cam = 99 ID person = 2 ID hand = 2 tin = 20131007102817382 tlen = 1075 x = 237 y = 75 z = 1547





Person Detected

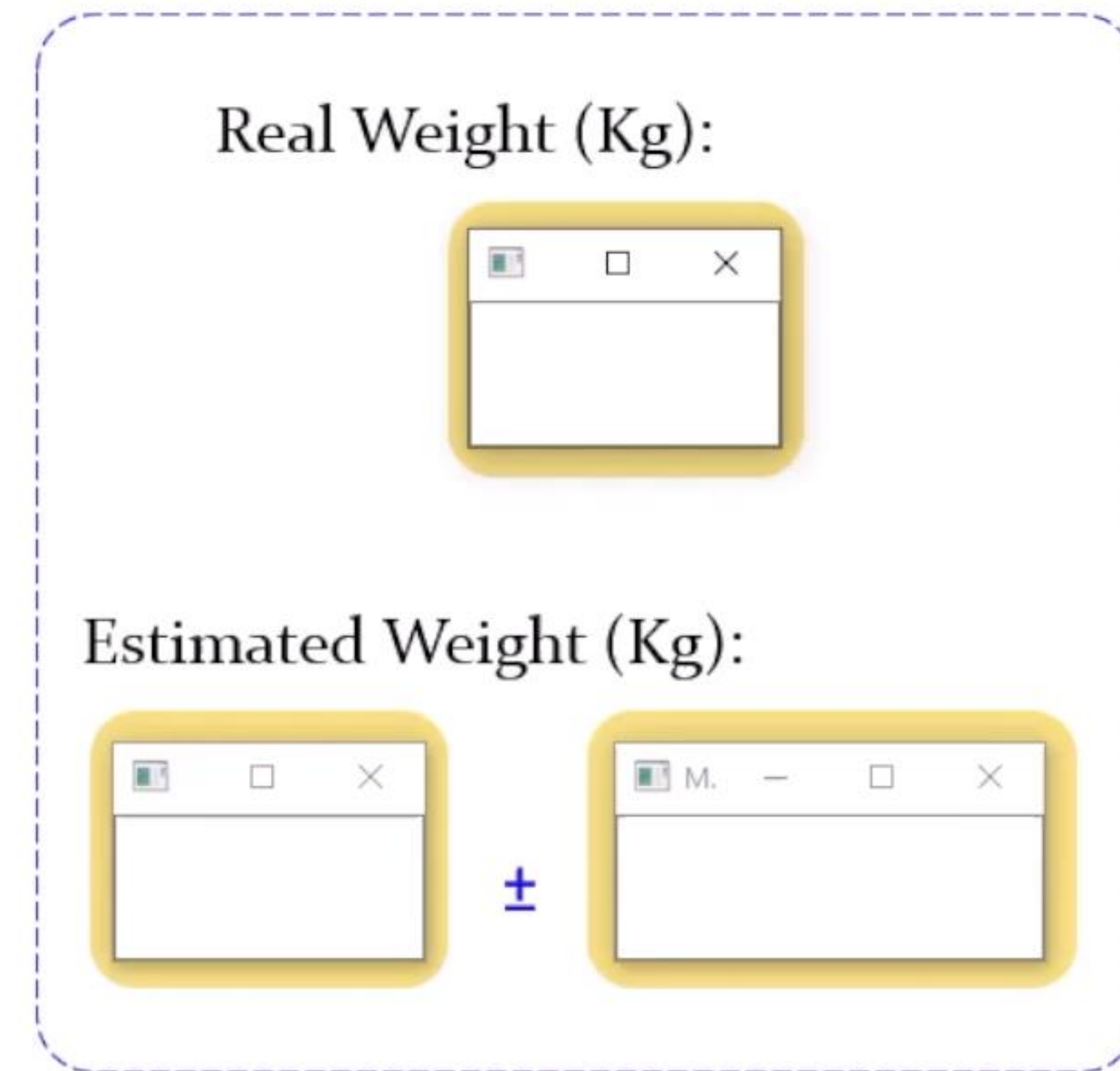
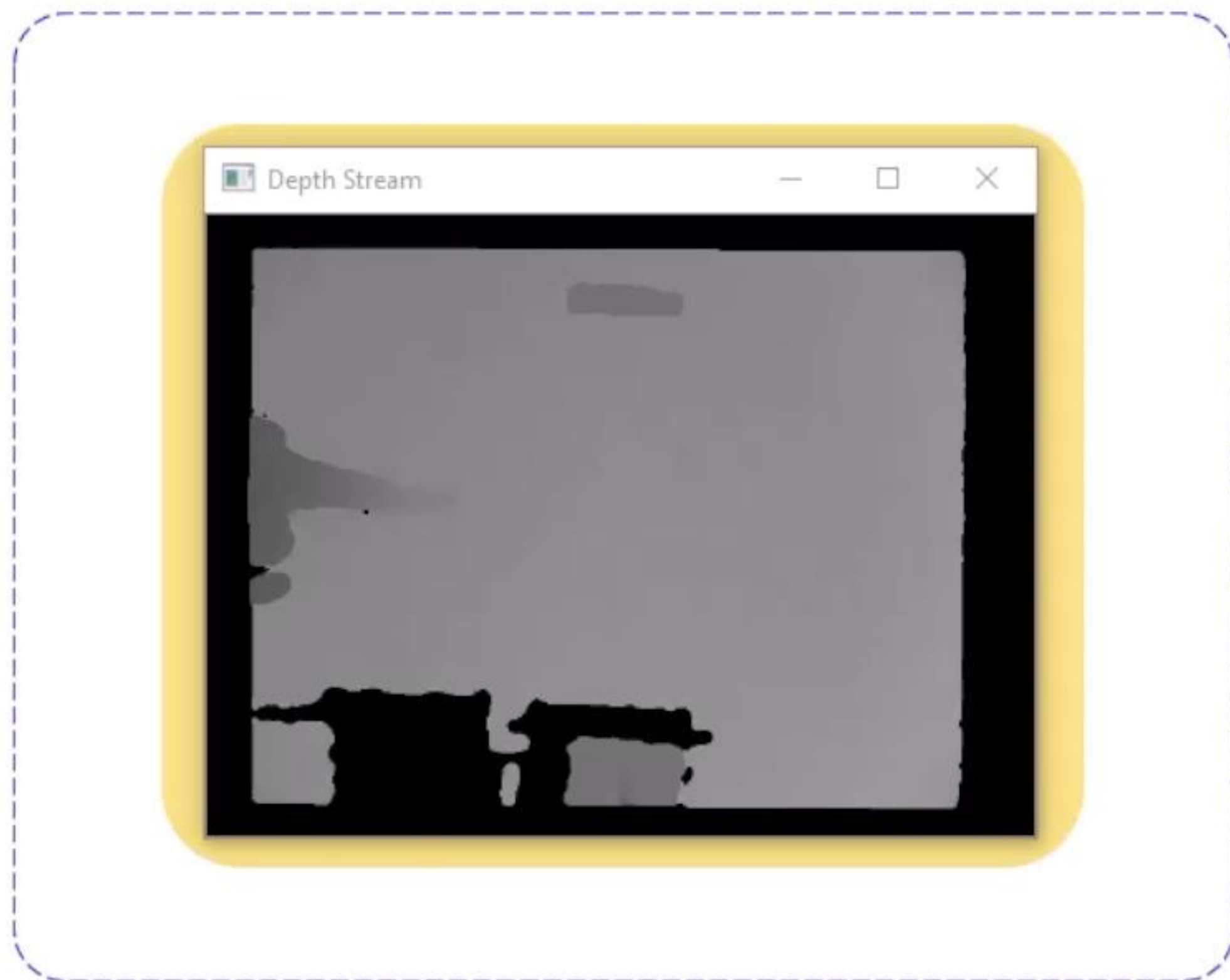


ID:



TVPR2

Top-View Person Re-Identification v2 Dataset



Weight Estimation

MULTIMEDIA

SHELF MANAGEMENT



From

05/30/2023

To

05/30/2023

Master

2023-05-30 15:36:27 - Showroom - GLAB - SMARTBOX RETAIL - B

Slave

2023-05-30 15:50:35 - Showroom - GLAB - SMARTBOX RETAIL - B

Thr

Plano Compliance

Take New Picture

Plano Compliance

Show Interactions

Interactions



Excel

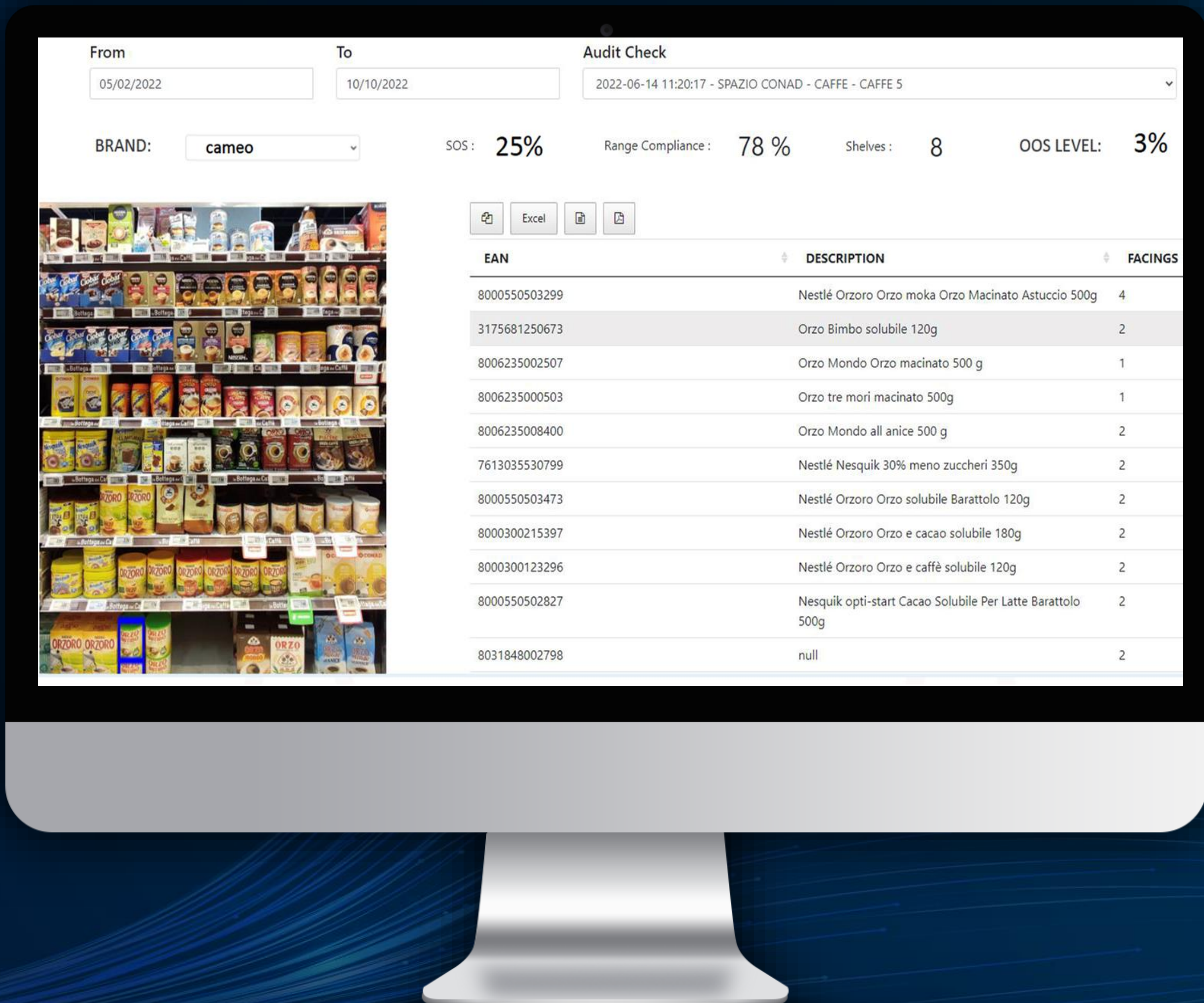
Search:

ROW	COLUMN	EAN	DESCRIPTION	OOF	OOS	SWITCH	DESCRIPTION
			CARNAROLI				
3	2	8076809532877	BARILLA CASERECCE	1	1		
3	5	5000159317955	M&Ms Peanut 500g	1	1		
3	11	8032993000042	null	0	0		
4	3	8000965050203	CONSILIA TRE CEREALI	1	1		
4	9	8076802085912	BARILLA PIPE RIGATE	1	0		

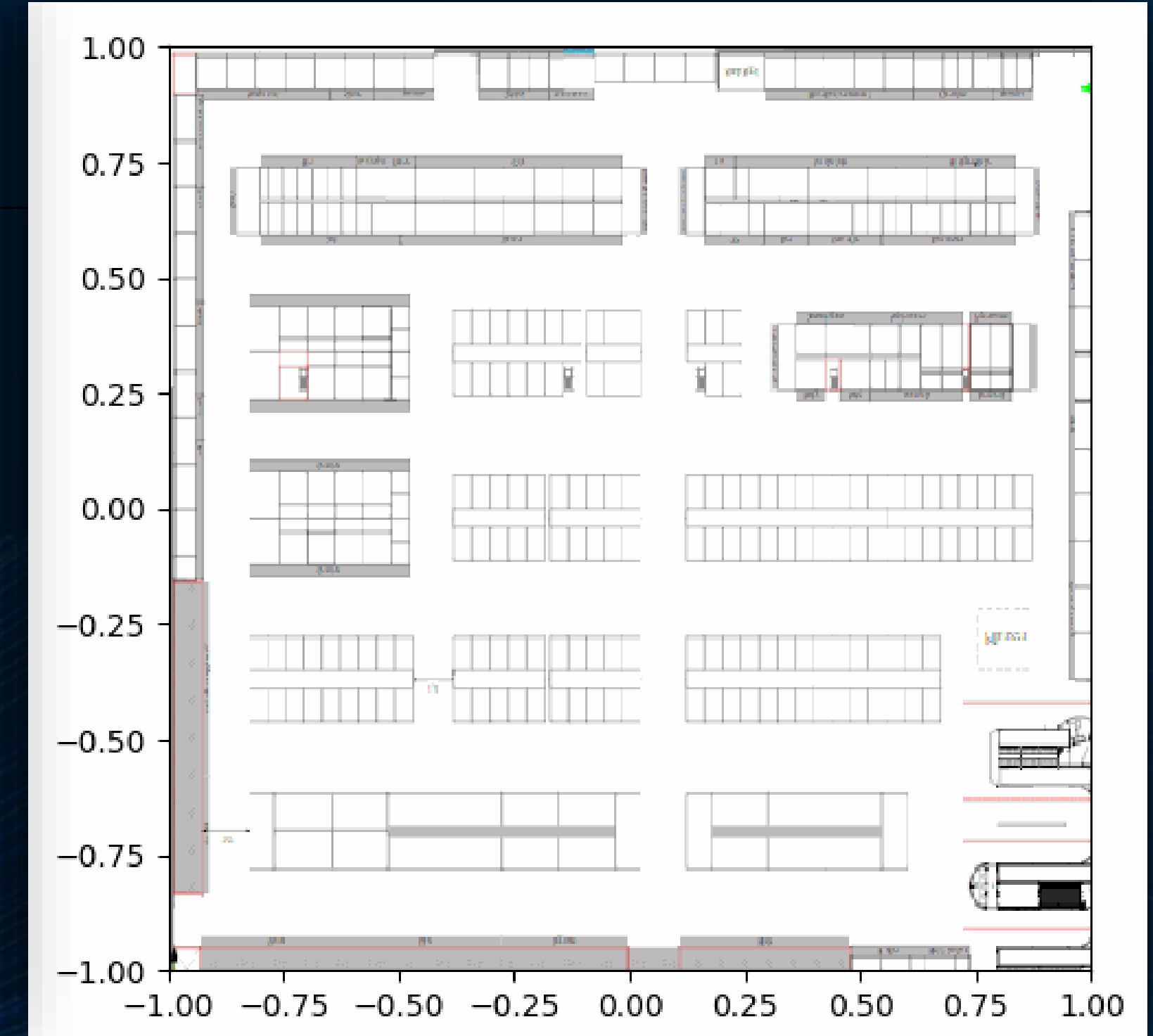
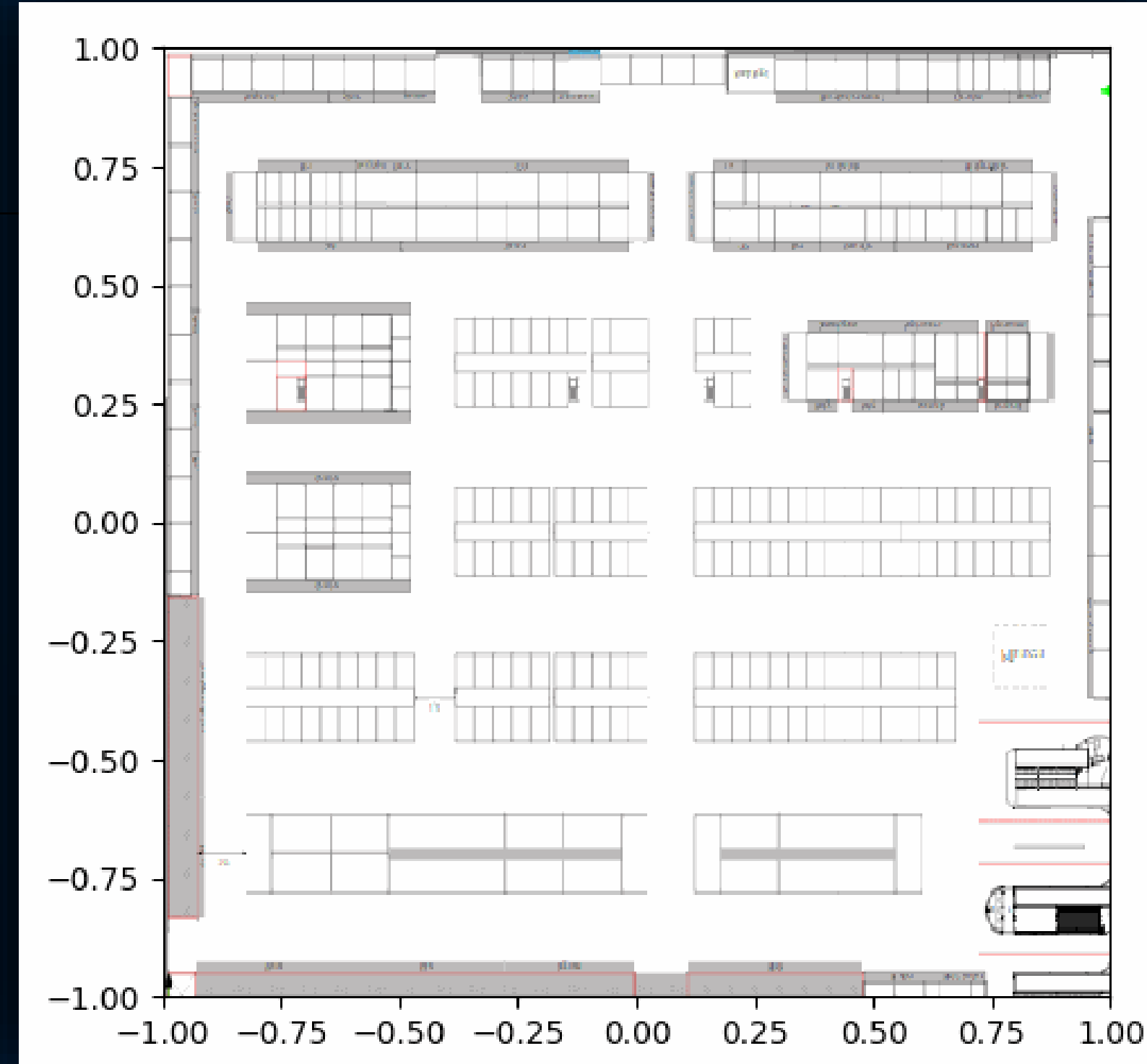
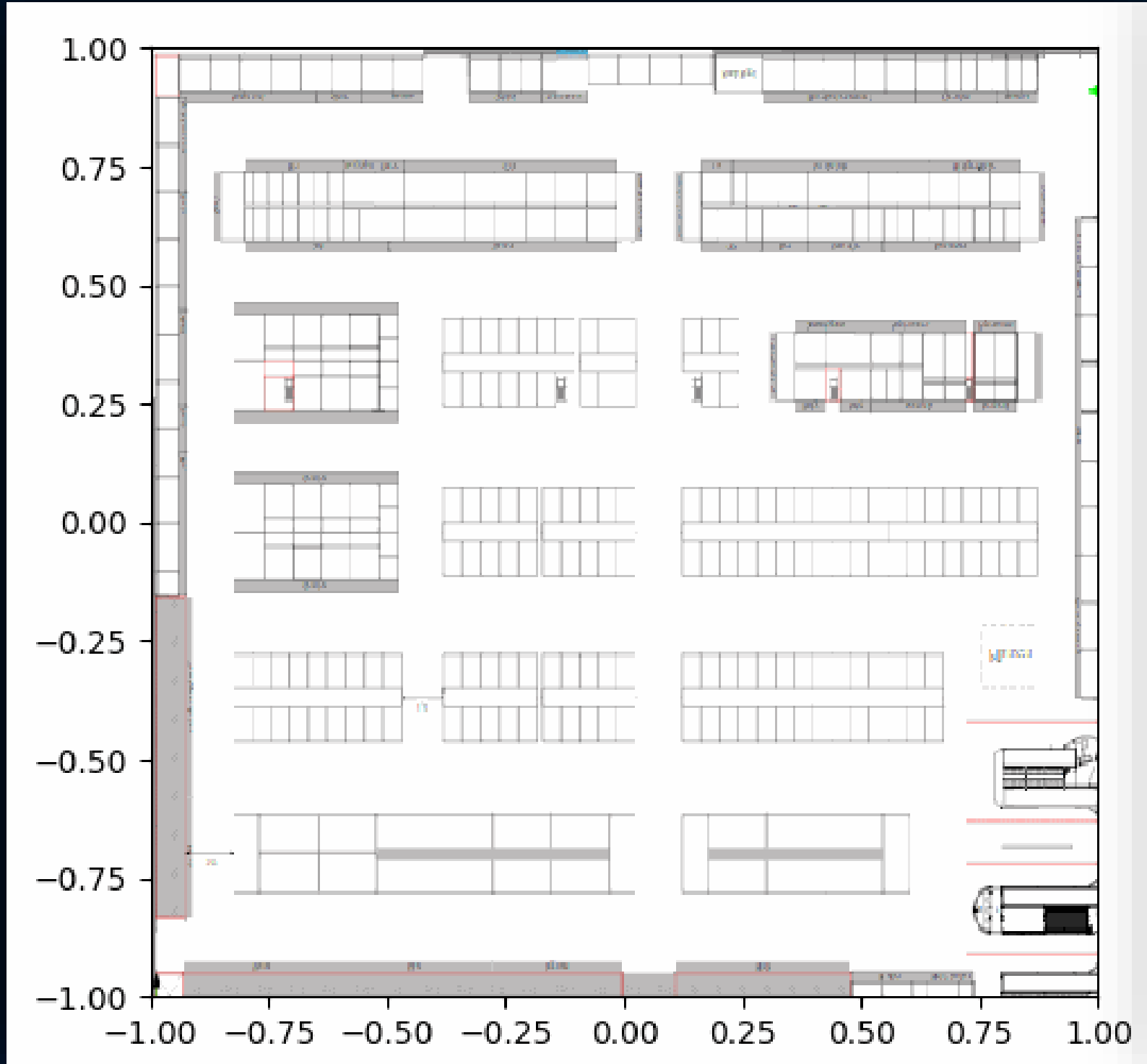
FROM DSS & DASHBOARDS TO PROMPT-BASED DECISIONS

PROMPT

"I need a planogram for a Pet Food category with 1.33 m of shelf on 8 levels; avg. visitors per day 400; max SOOS 3%; central lines to MARS SKUs."

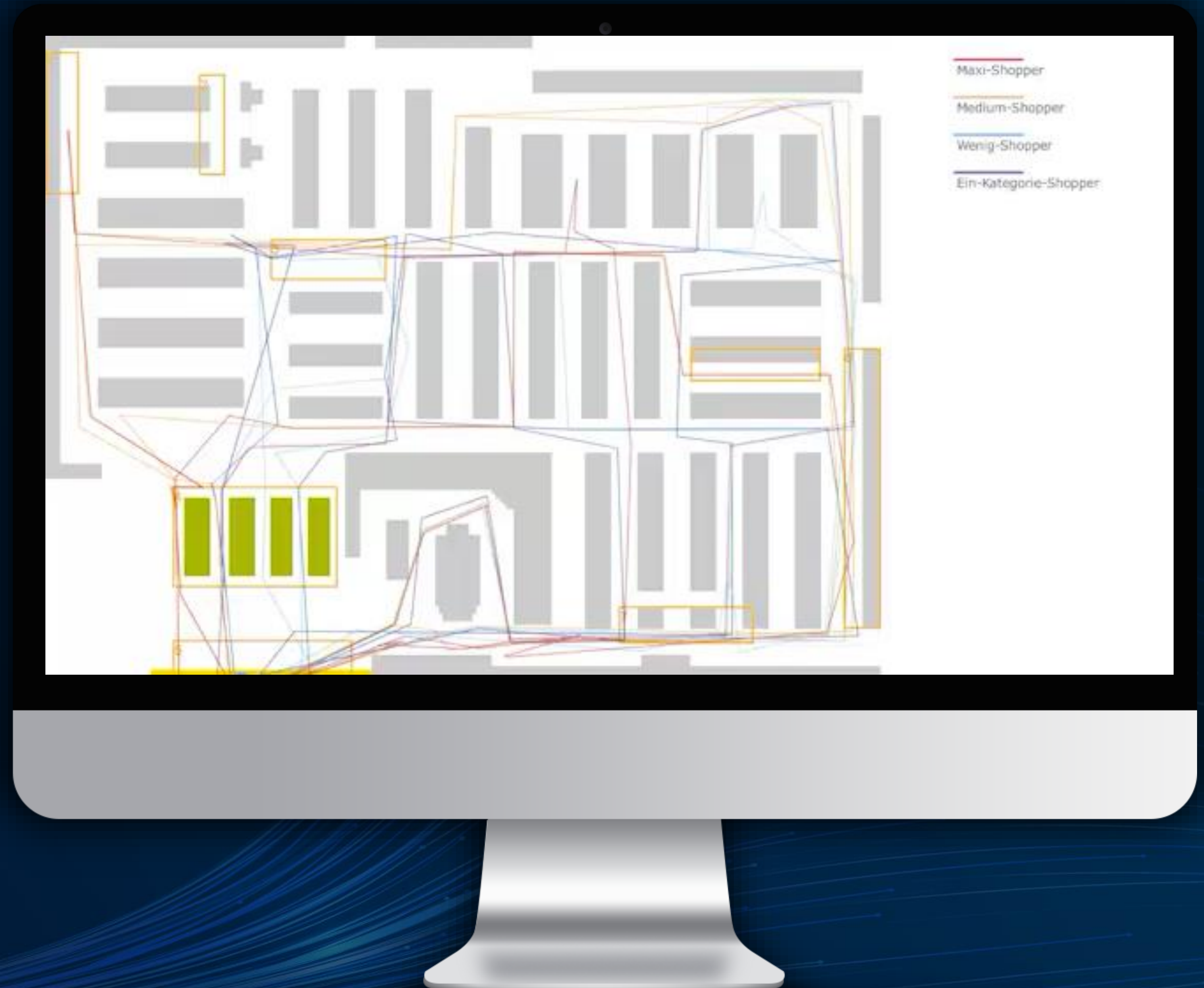






PROMPT

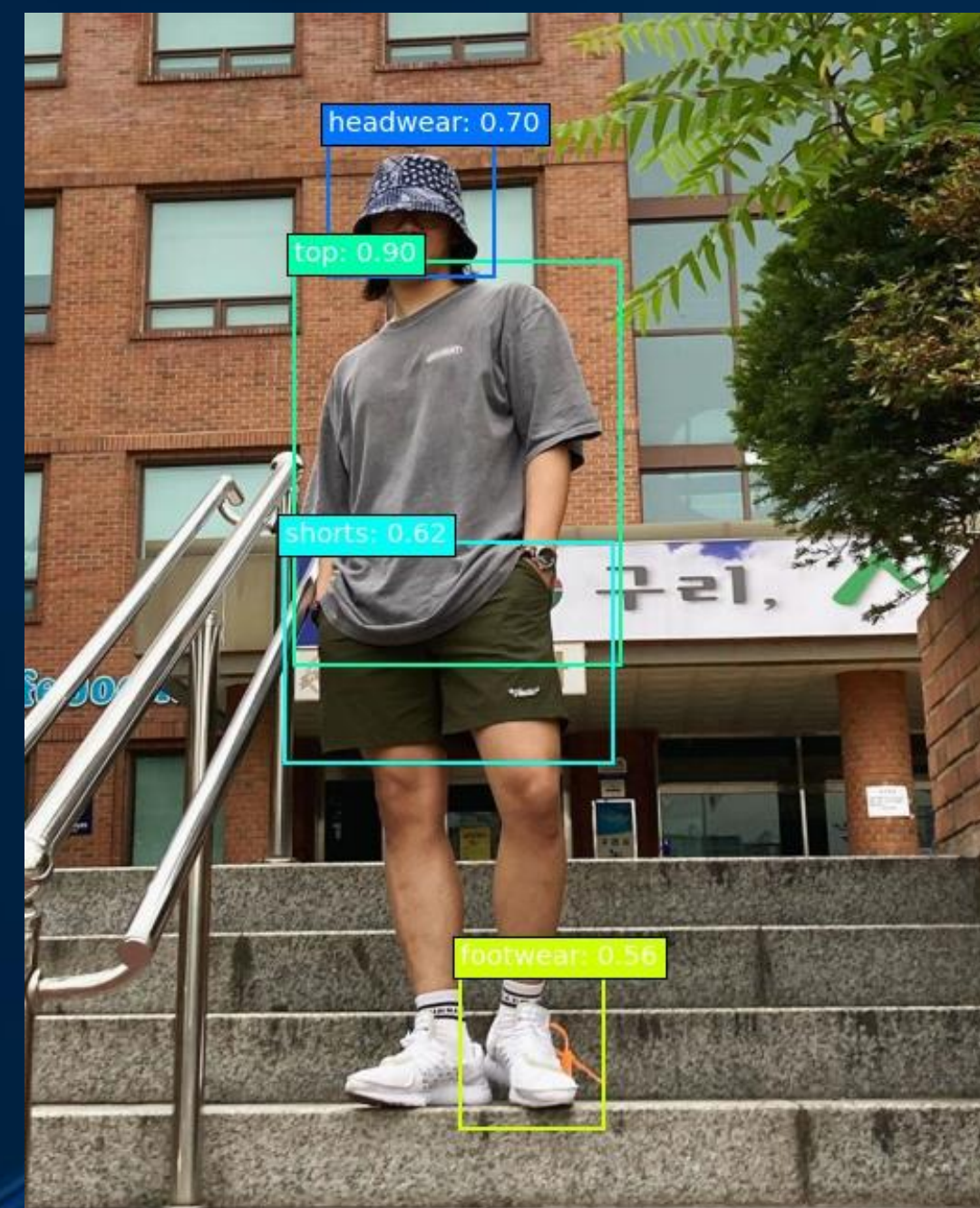
"Generate 100 consumers per cluster in this store design given the following category placement."



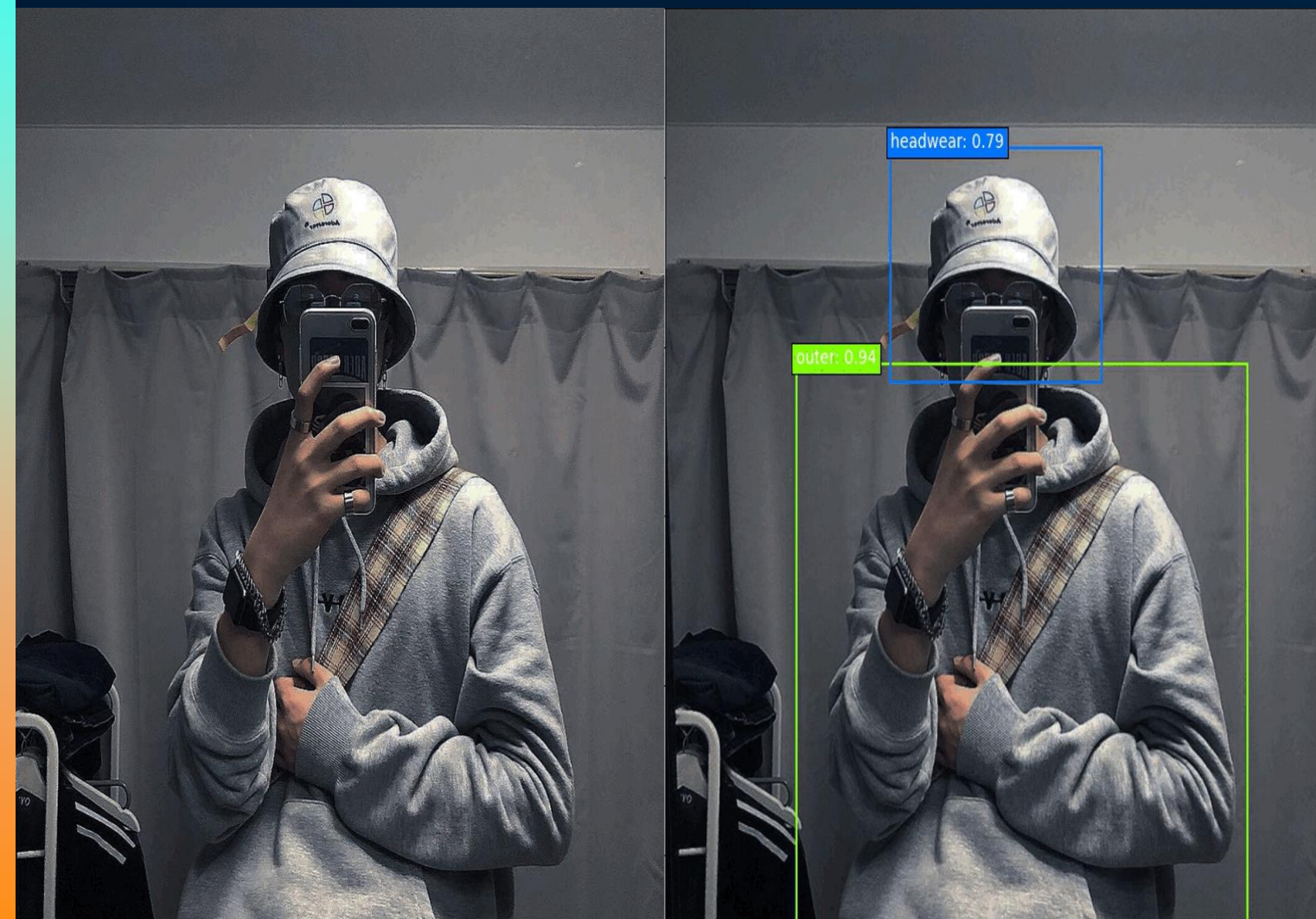
TRENDS & STYLES



80,000
images/h



#outfit

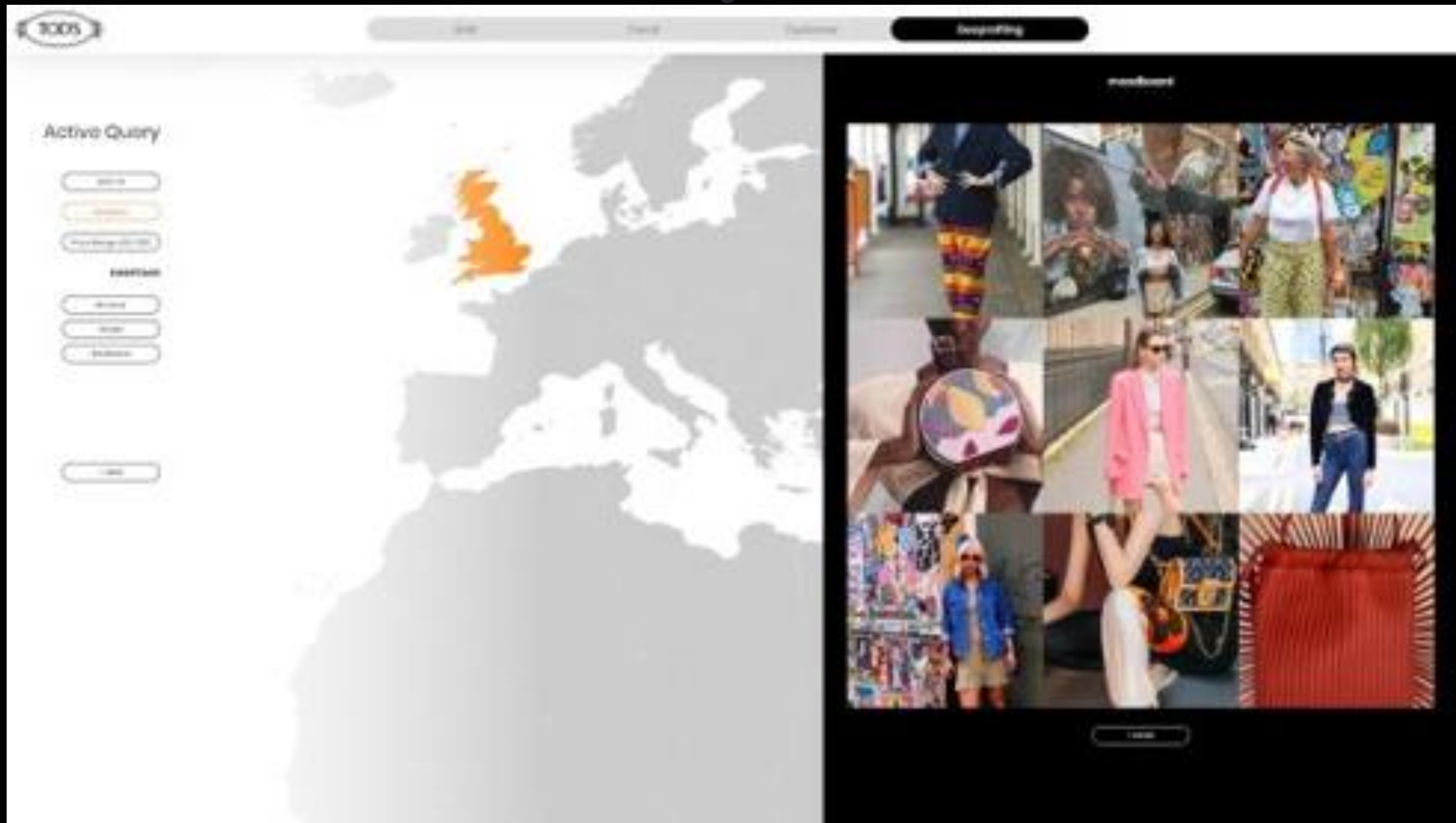


#streetoutfit



#streetstyle







[LINK TO VIDEO «GIVE YOUR VOICE»](#)

people | sustainability | innovation

PROTAGONIST