



Addiction: A Futurists Perspective

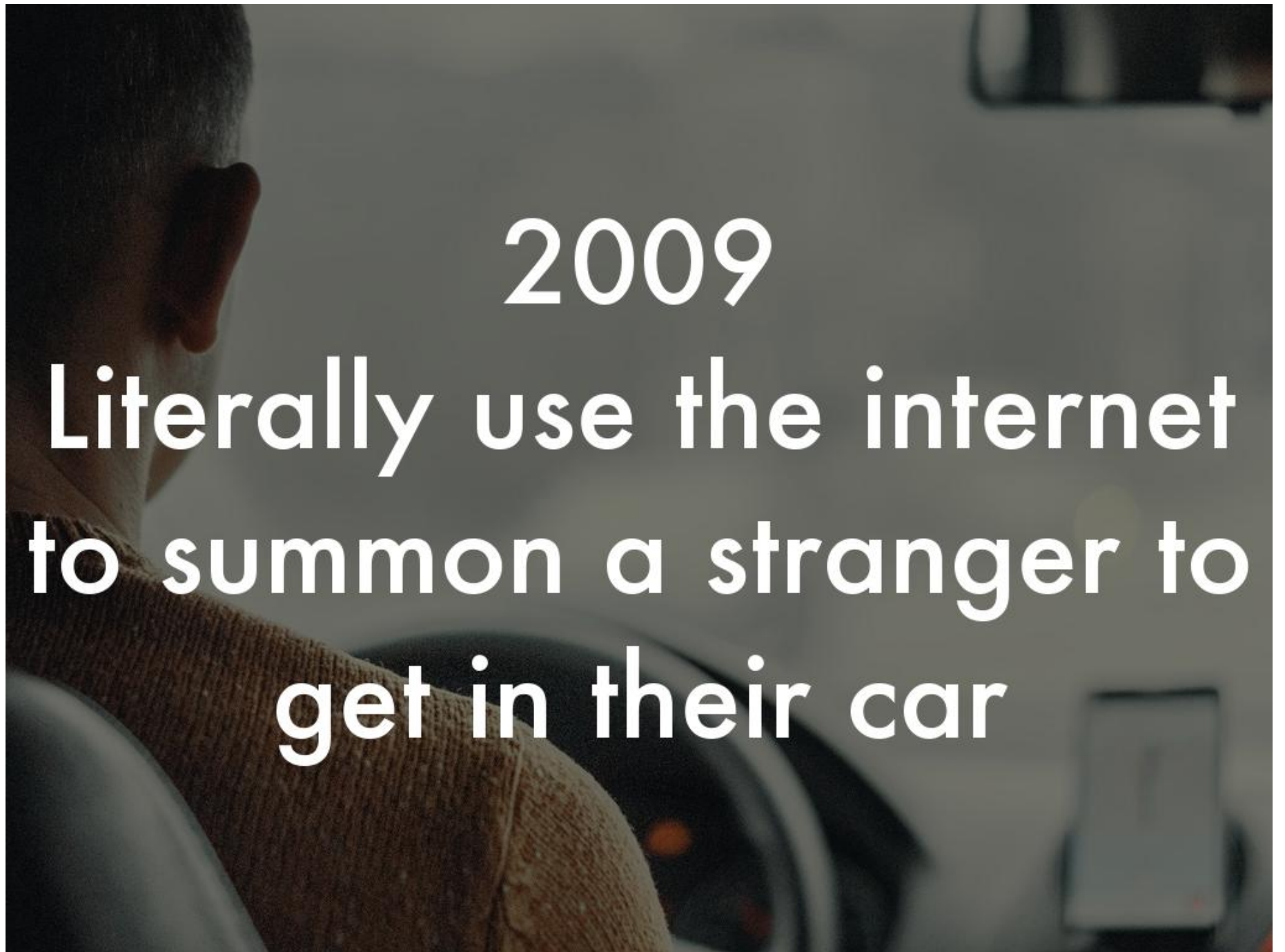
@DrManejwala



Why does it matter?

Because things change faster than we assume and we can't always see that in hindsight either



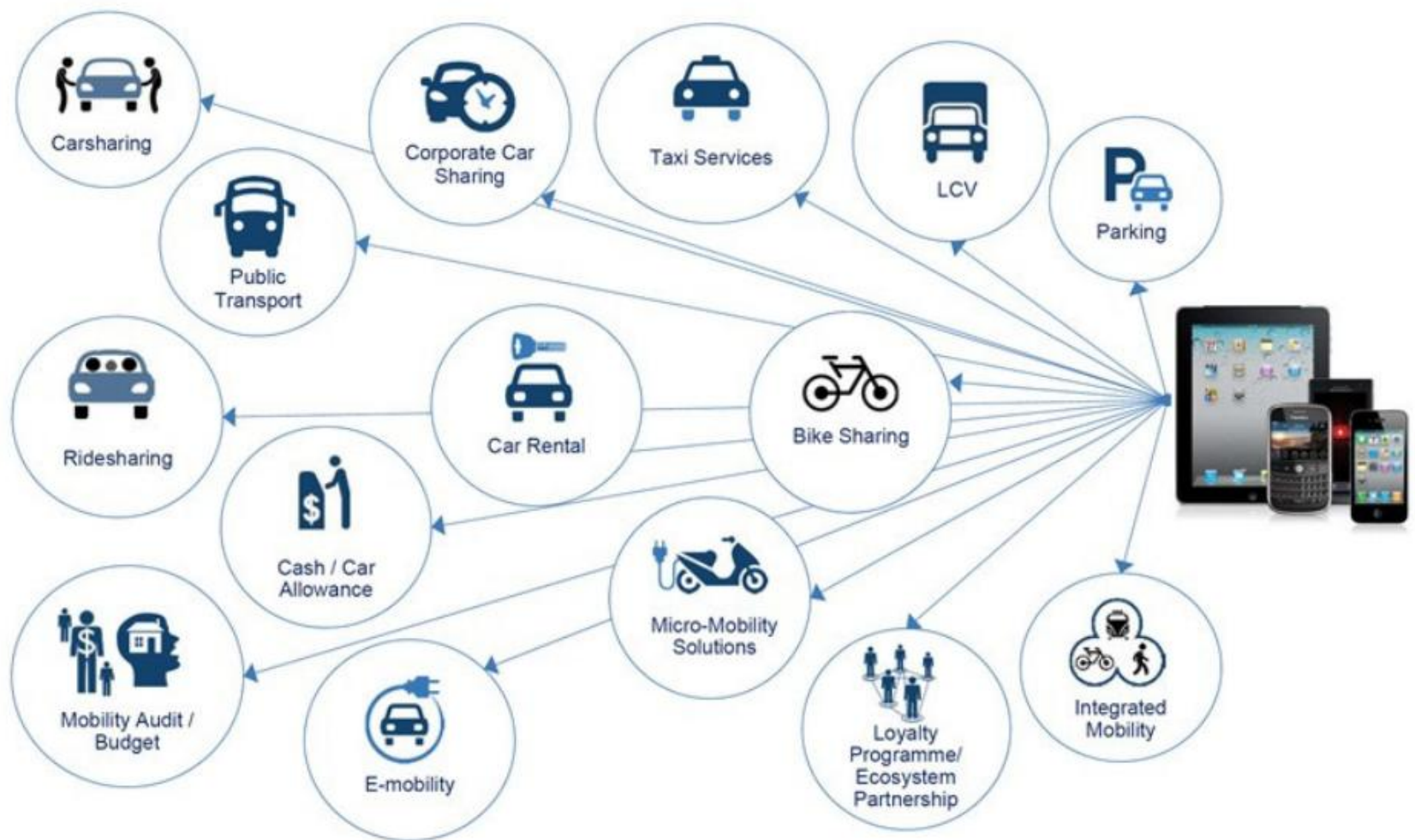


Taxi

- Hoping one will stop for you
- No idea on fare
- Crap shoot on quality
- Stuck with one pricing model

Ridesharing

- Routes tracked for fairness
- Easily purchase in bulk
- More transparency and accountability
- Can select car and class
- Less expensive



And it goes beyond transporting people to solving for all the challenges of movement itself

LCV= light commercial vehicles

Image source: Frost and Sullivan, Martyn Briggs.



	Taxi Services	UBER	HAIL	mytaxi
	Bike Sharing		velib'	bicing
	Micro-mobility		smart	
	Car Sharing	zipcar	car2go	DriveNow
	Corporate Car-Sharing	AlphaCity	ubeeqo	
	Car Rental	Hertz	avis	budget
	Ridesharing	BlaBlaCar	lyft	
	Parking	VINCI	JustPark	
	E-Mobility	source LONDON	ChargeNow	
	Public Transport	DB	oyster	
	Integrated Mobility	moovel	Qixxit	
	Ecosystem Partnership	HS-Business Card	REWE	DriveNow, UBER, comcar

And its not just theoretical, but companies are moving in to solve these components and the ecosystem is evolving.

Image source: Frost and Sullivan, Martyn Briggs.

Addiction: Context

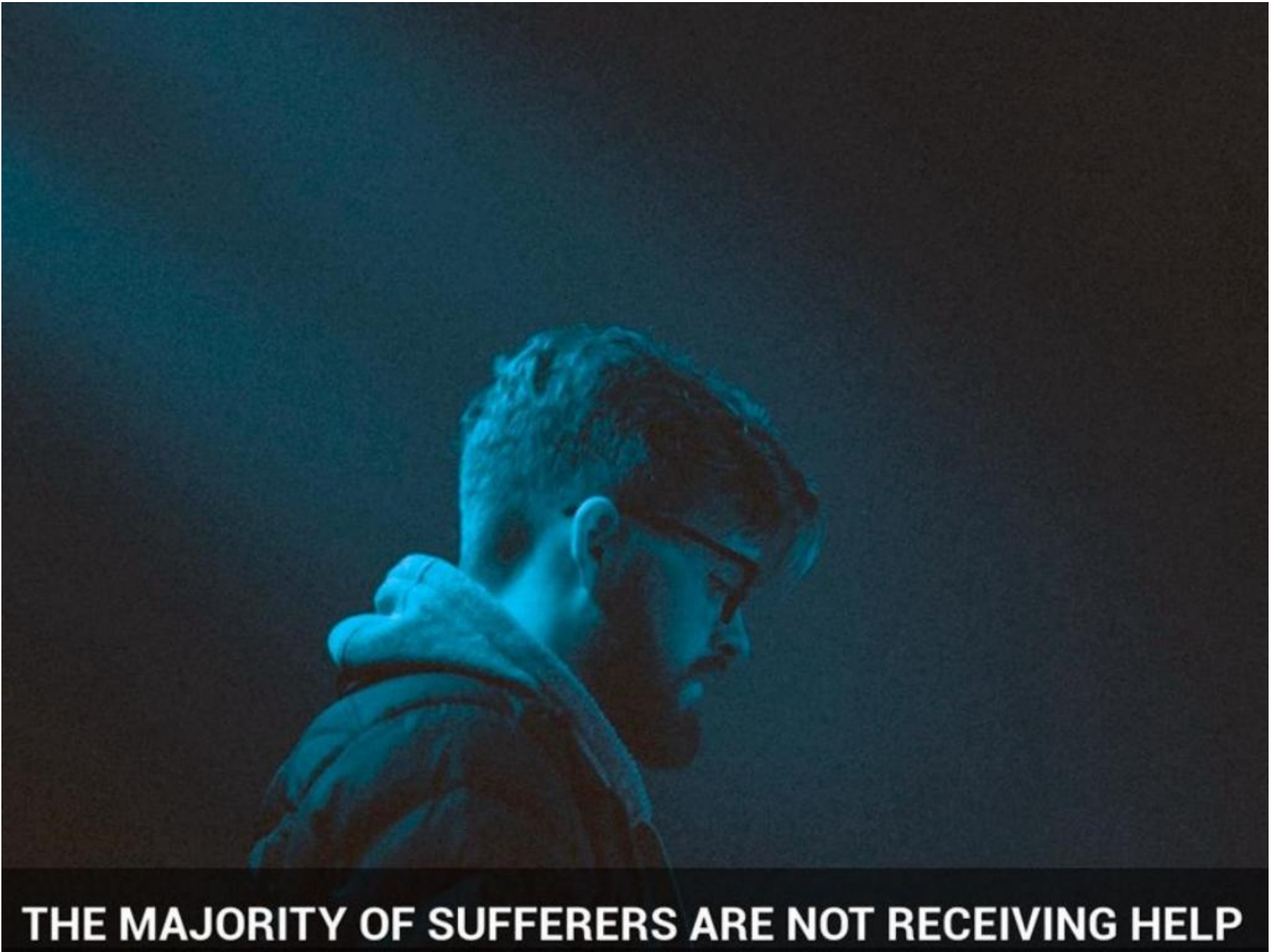
There is a problem that's killing almost 90,000 people a year





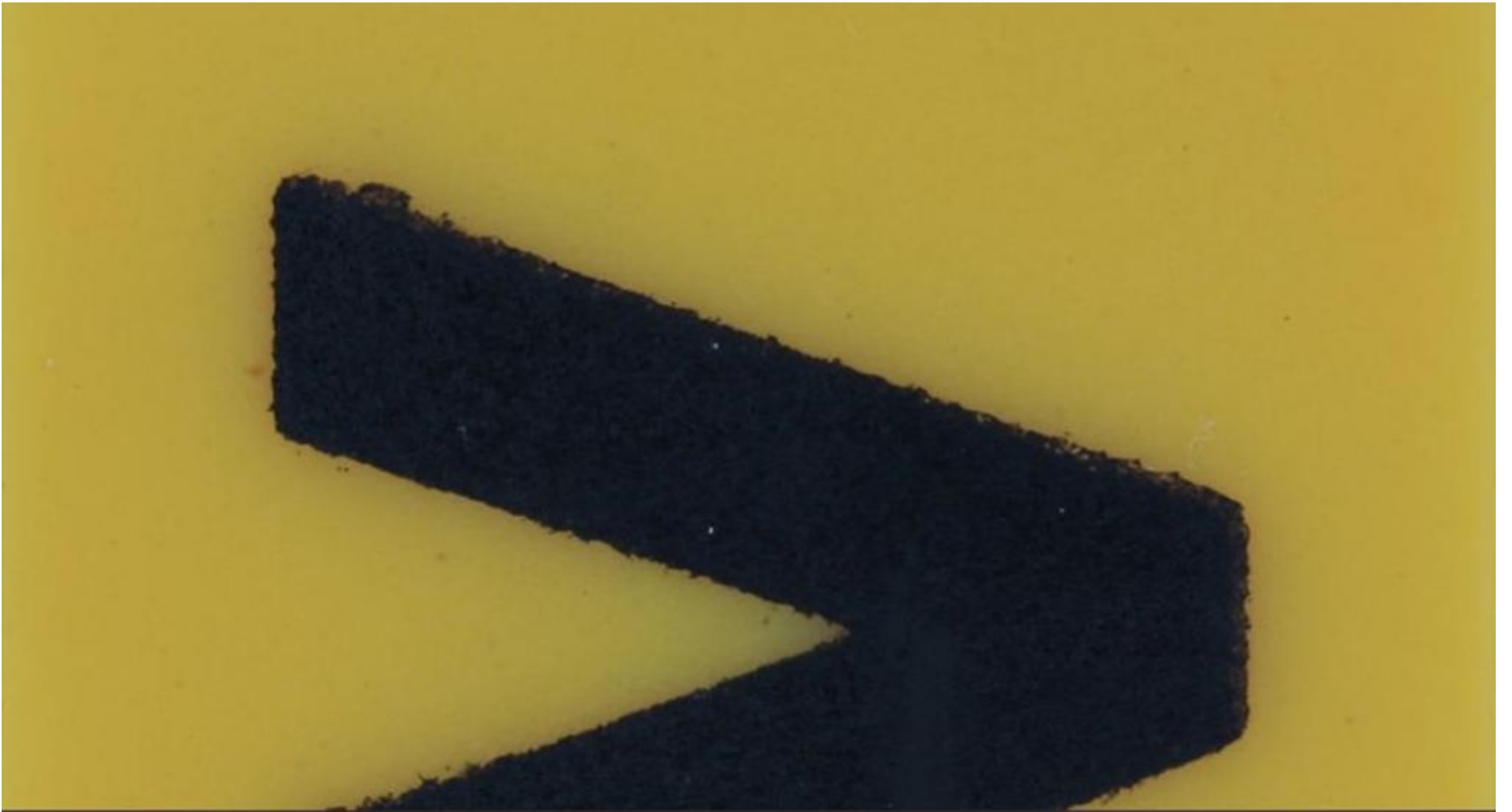
The death rate is increasing and has not shown any sign of slowing down







What we are talking about
are Alcohol Use Disorders



Kill far more than the opioid epidemic or any other intoxicant



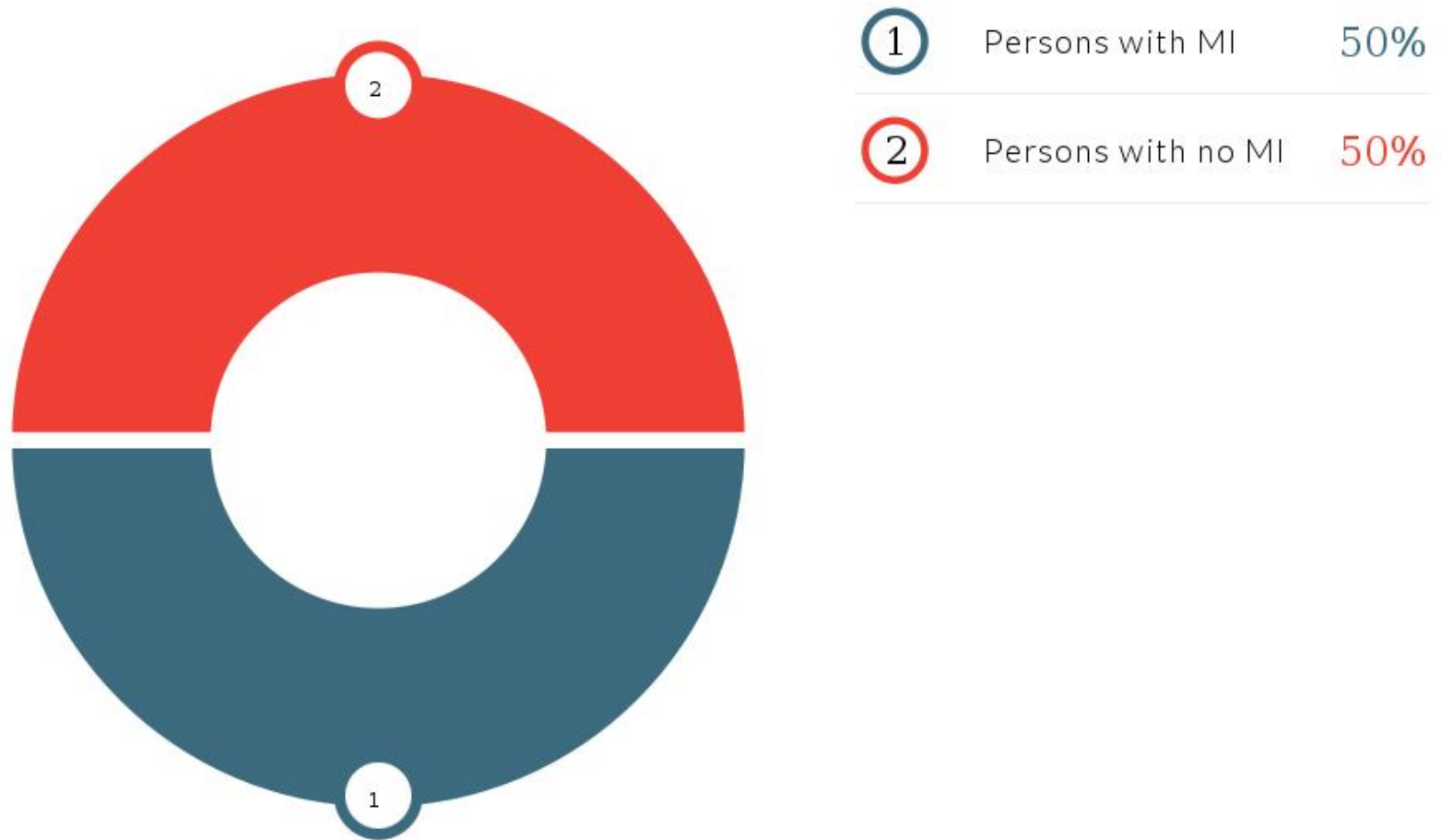
Provide important lessons that can be applied to the Opioid crisis.

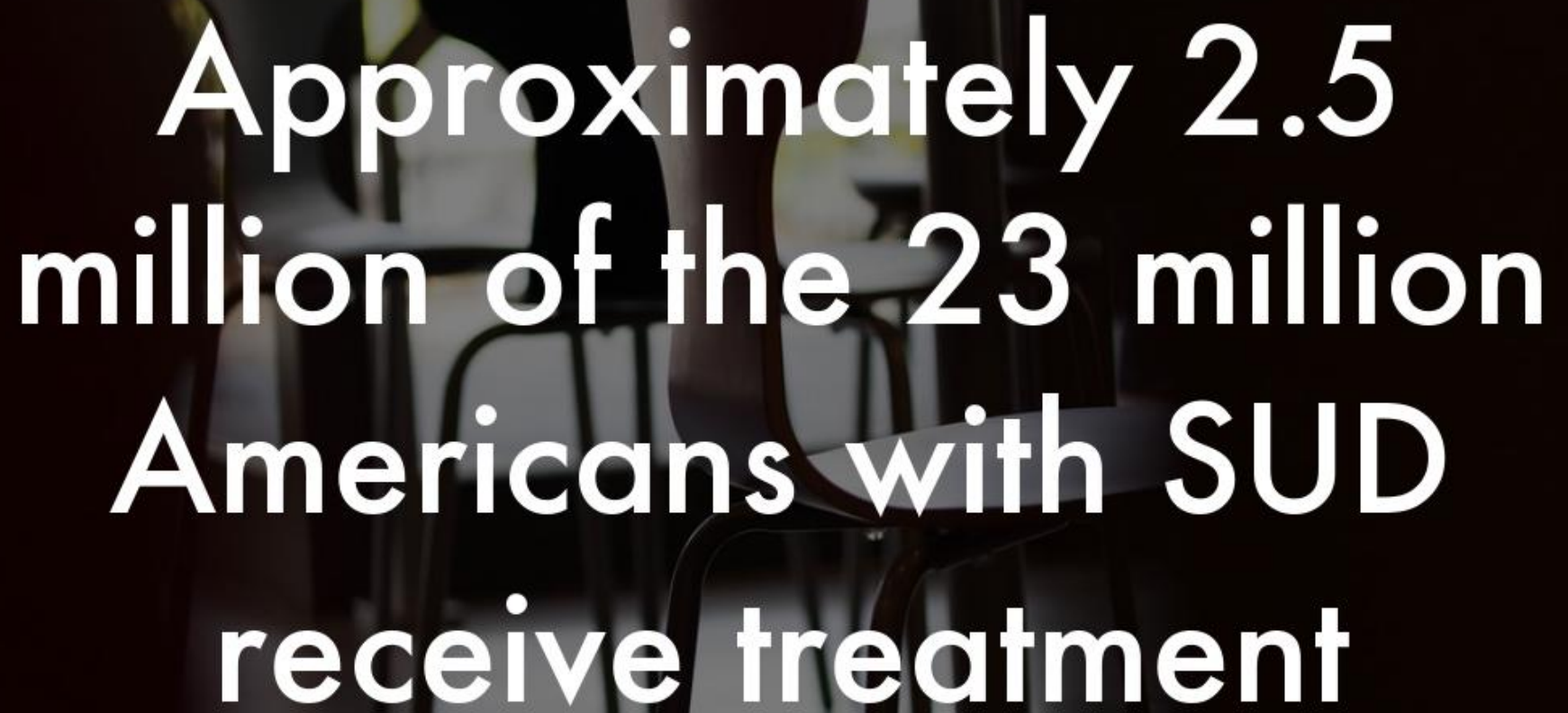
Opioid Overdose Deaths

115

Deaths per day

Most opioids prescribed to people with mental illness

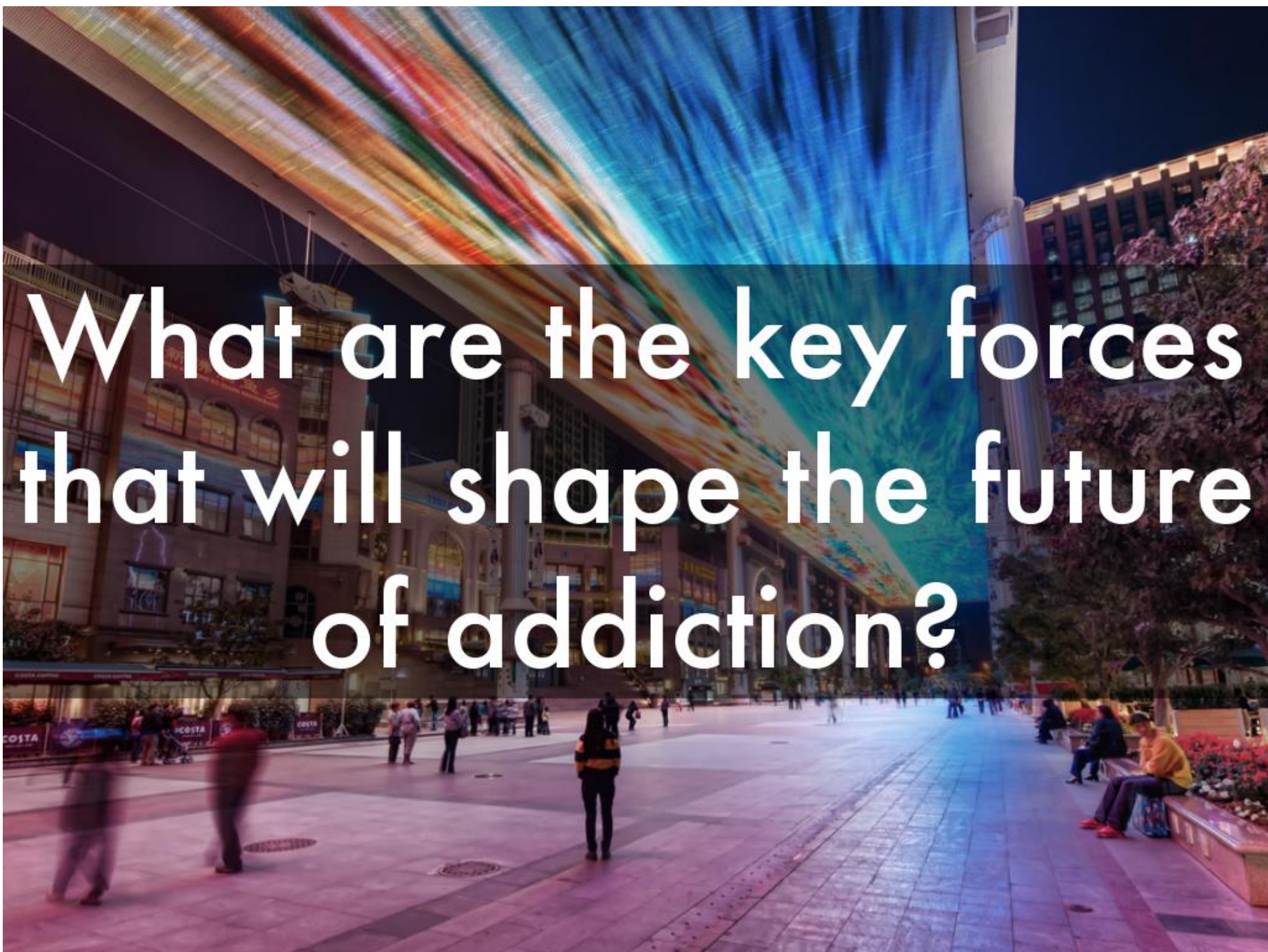




Approximately 2.5
million of the 23 million
Americans with SUD
receive treatment



Untreated BH and SUD drive substantial medical expenditure



What are the key forces that will shape the future of addiction?

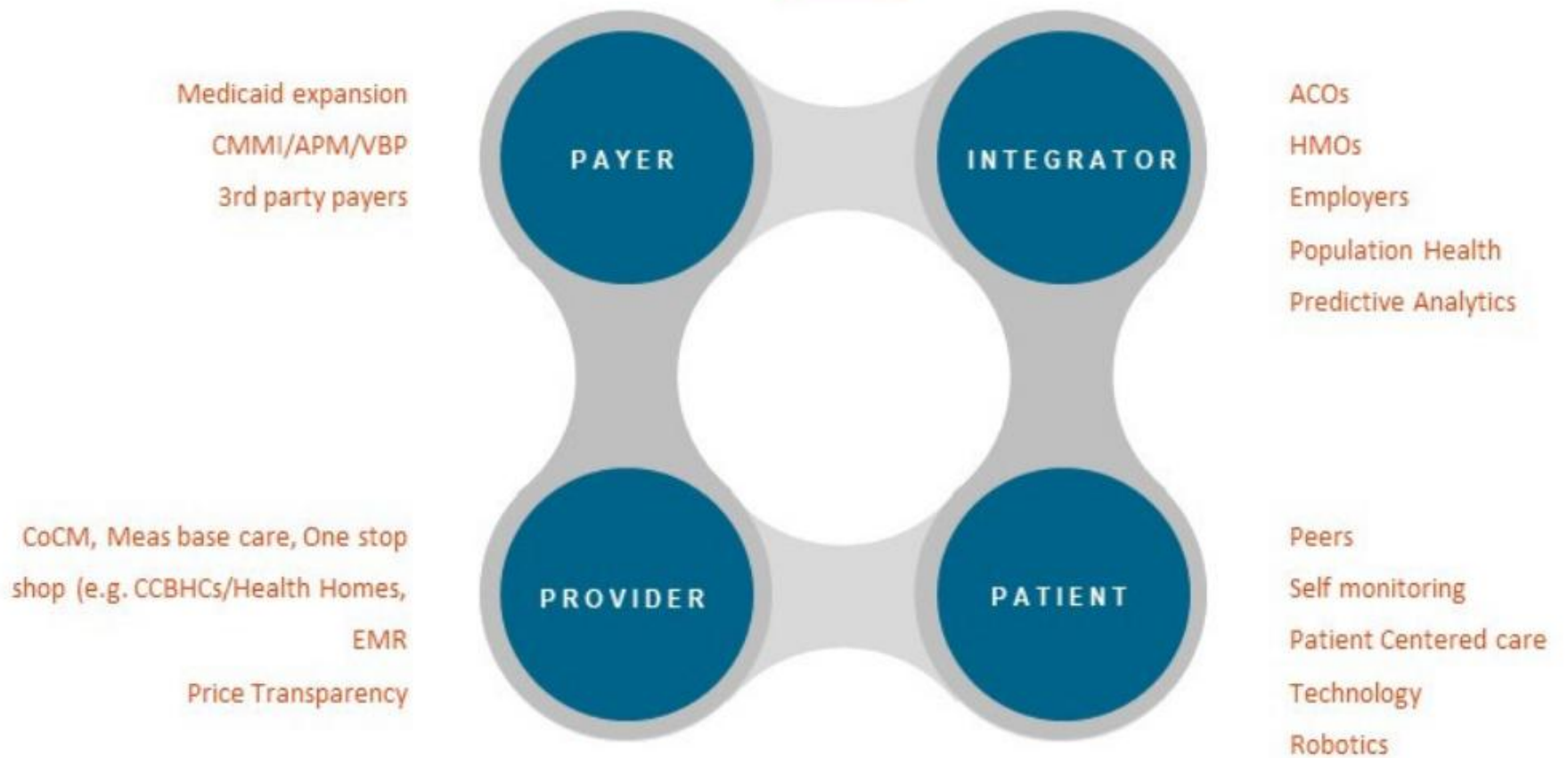
Key Forces

- Payer and Business Model Evolution
- Technology and Biotechnology
- Data and Analytics
- Privacy and Transparency
- Pharmacotherapeutics
- Technology and Biotechnology
- User demands / User Sophistication
- Data and Analytics

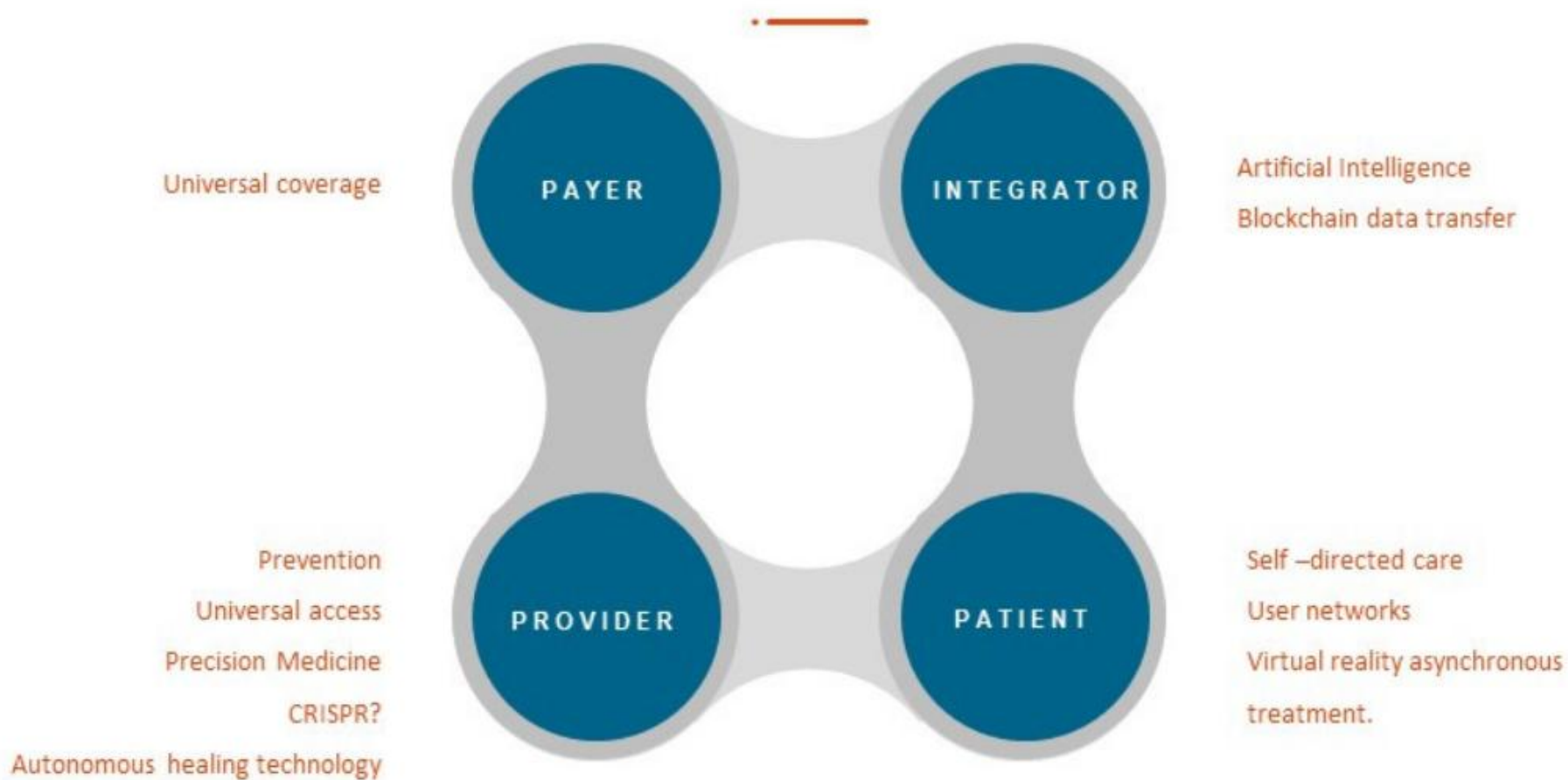
user demands and user sophistication are related to health care consumerization



Current state



Future State: Universal Access + A Whole Lot More






What Sergio Marcchione said when Fiat bought Chrysler


78.1 GRANT HOSPITAL COLUMBUS, OHIO
 ACCOUNT OF Mrs. Harry O'Brien
 BILL TO _____
 STREET NUMBER _____
 ADDRESS _____
 FROM May 13 TO May 17
 DR. CR.

To Board, Room and General Nursing	Days at		
" " " " " " " "	" "		
" " " " " " " "	" "		
Use of Private Bath	" "		
Board of Graduate Nurse	7	100	700
Pathological Services			
Anesthetic Charge of Doctor			20 00
Anesthesia Supplies			10 00
Operating Room Services			65
Maternity " " "			
Dressings			
Medicines and Special Prescriptions			
Guests' Meals			
Cot for Guests in Patient's Room			
Private Room for Guests			
Diet Orders Not on Menu			
Total			3765
Room Rate for Week Ending	<u>May 17</u>		<u>38 50</u>
Total Charges			7615
Credits:			



178.1 GRANT HOSPITAL COLUMBUS, OHIO
 ACCOUNT OF Mrs. Harry O'Brien
 BILL TO _____
 STREET NUMBER _____
 ADDRESS _____
 FROM May 10 TO May 17
 DR. CR.

To Board, Room and General Nursing	Days at		
" " " " " " " "	" "		
" " " " " " " "	" "		
Use of Private Bath	" "		
Board of Graduate Nurse	7	100	700
Pathological Services			
Anesthetic Charge of Doctor			
Anesthesia Supplies			
Operating Room Services			
Maternity " " "			
Dressings			90
Medicines and Special Prescriptions			25
Guests' Meals			
Cot for Guests in Patient's Room			
Private Room for Guests			
Diet Orders Not on Menu			
Total			815
Room Rate for Week Ending	<u>May 24</u>		<u>38 50</u>
Total Charges			4665
Credits:			



All companies are healthcare companies



Consolidation
Vertical Integration

Solving for loneliness

All companies are healthcare companies

Loneliness

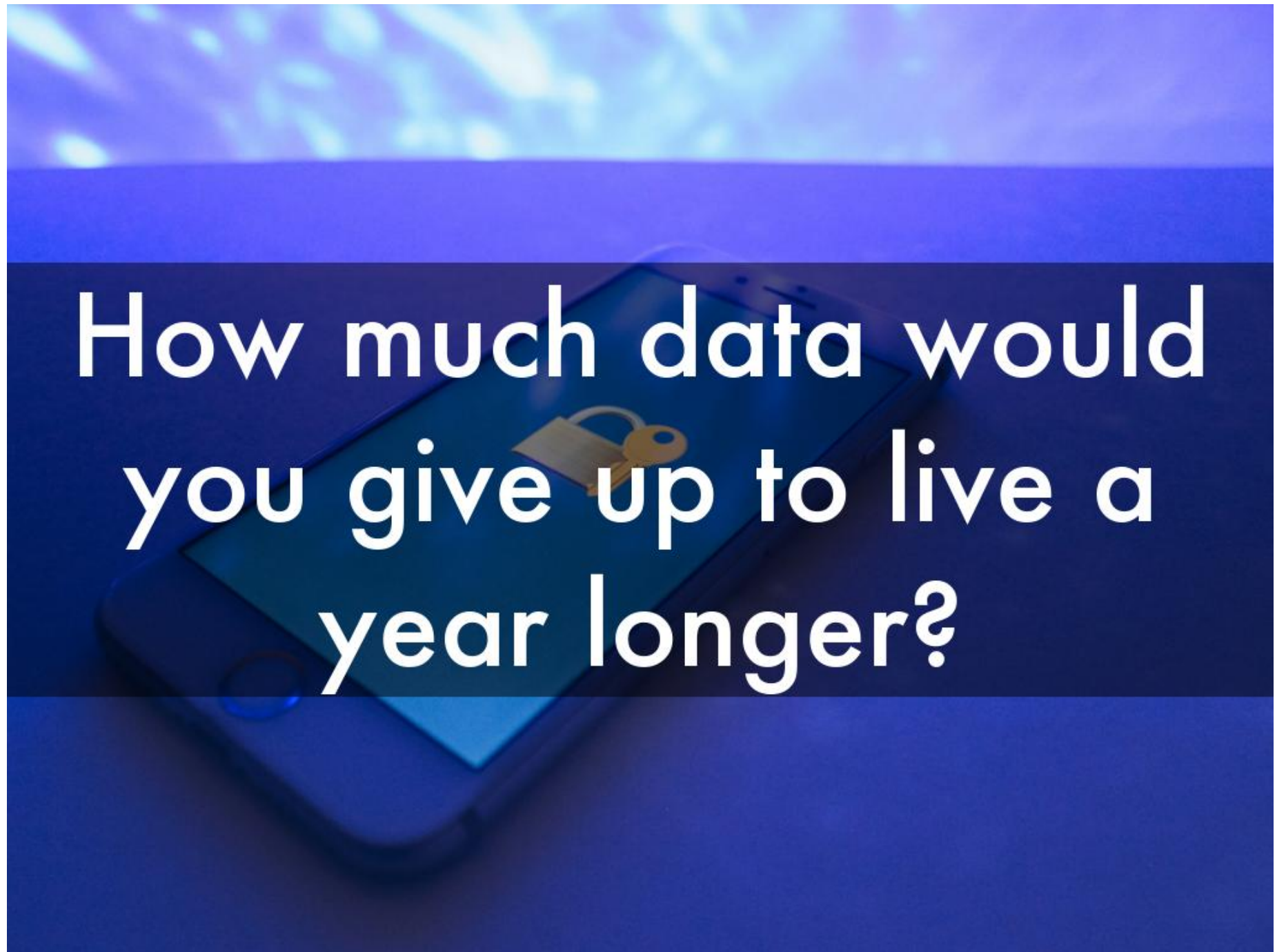
- Increases chance of premature death risk by 26%
- Same impact as smoking 15 cigarettes per day
- Increases stroke risk by 32%
- 1 in 3 Americans over 45 are chronically lonely

References are here:
<https://www.thecostofloneliness.org/>



Everyone wants to protect their own data.

Nobody likes the idea of people peeking into their lives

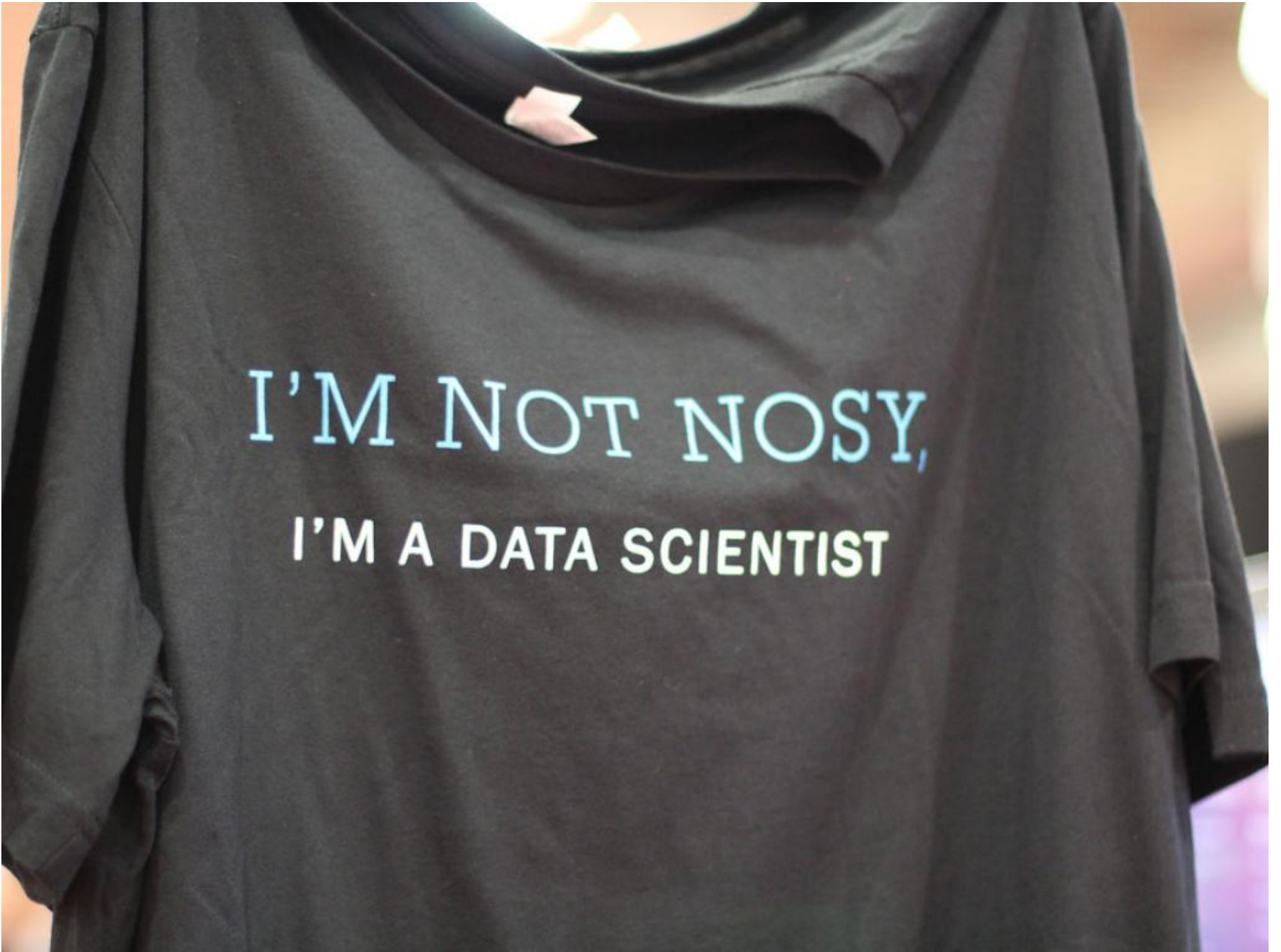


People will trade privacy for value

- What are the limits of our privacy and are they flexible?
- How will we trust algorithms?
- How will intoxicants and intoxicating behaviors themselves evolve?

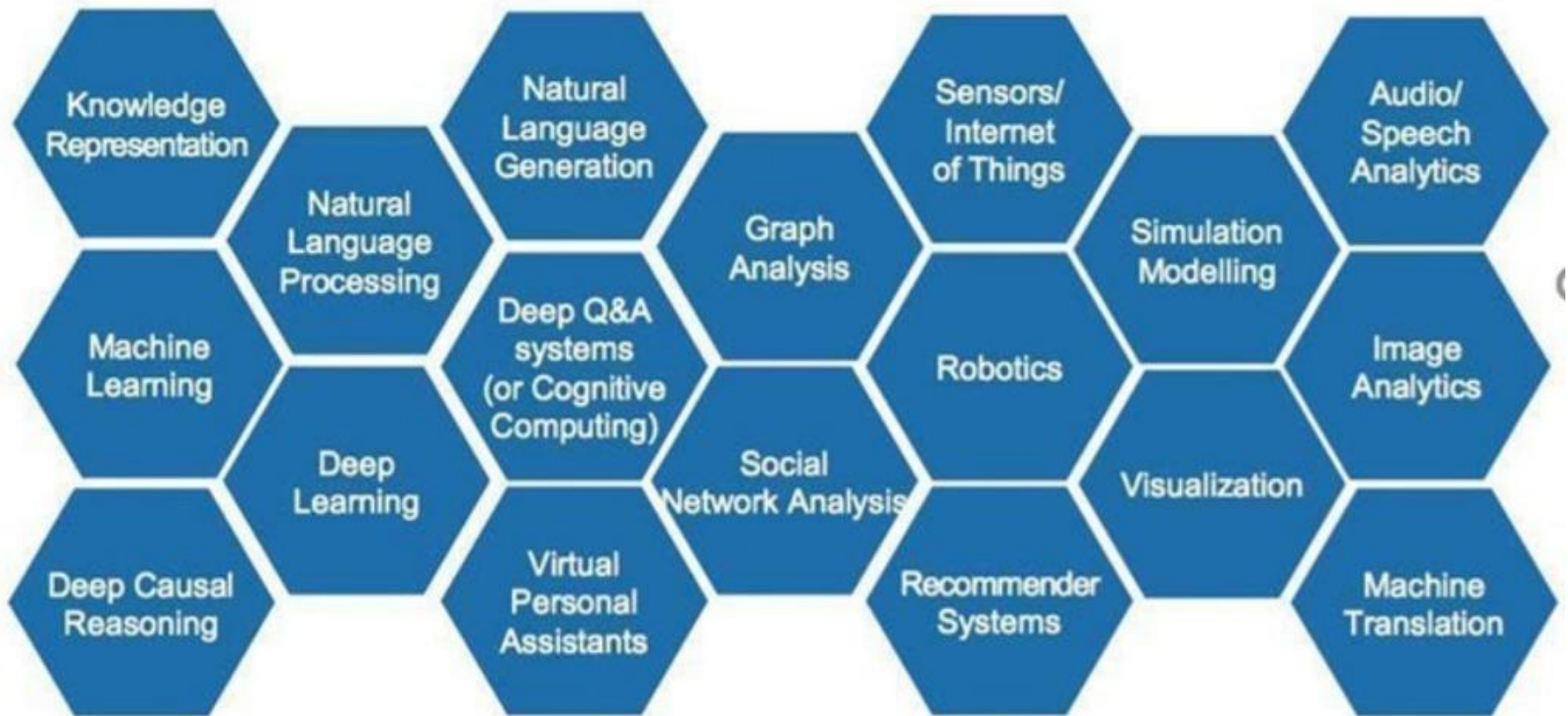


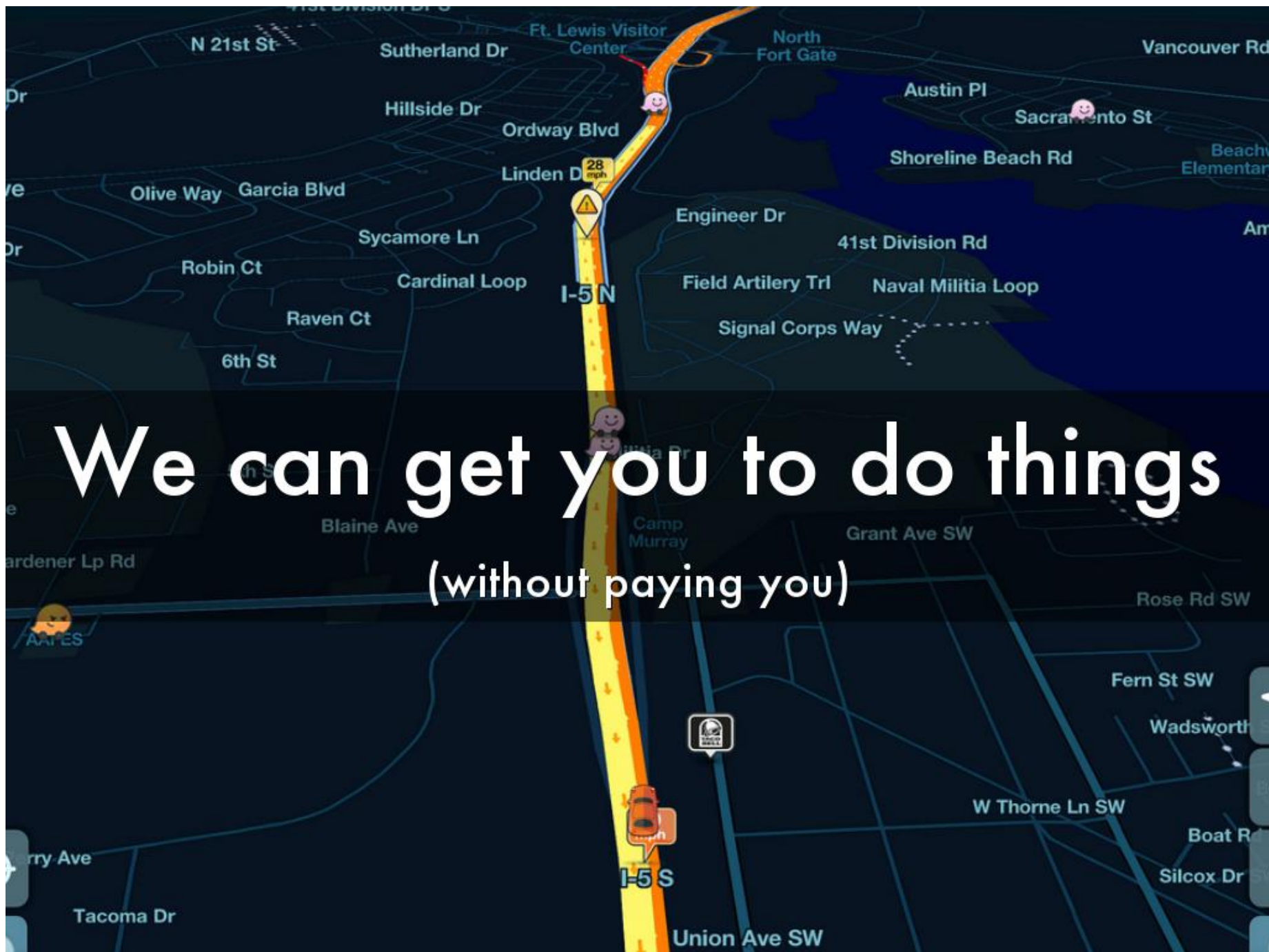
Allows users to share their data all the way downstream
Easily monetize their data
Ultimately measure the contribution of their own data sharing to their own outcomes

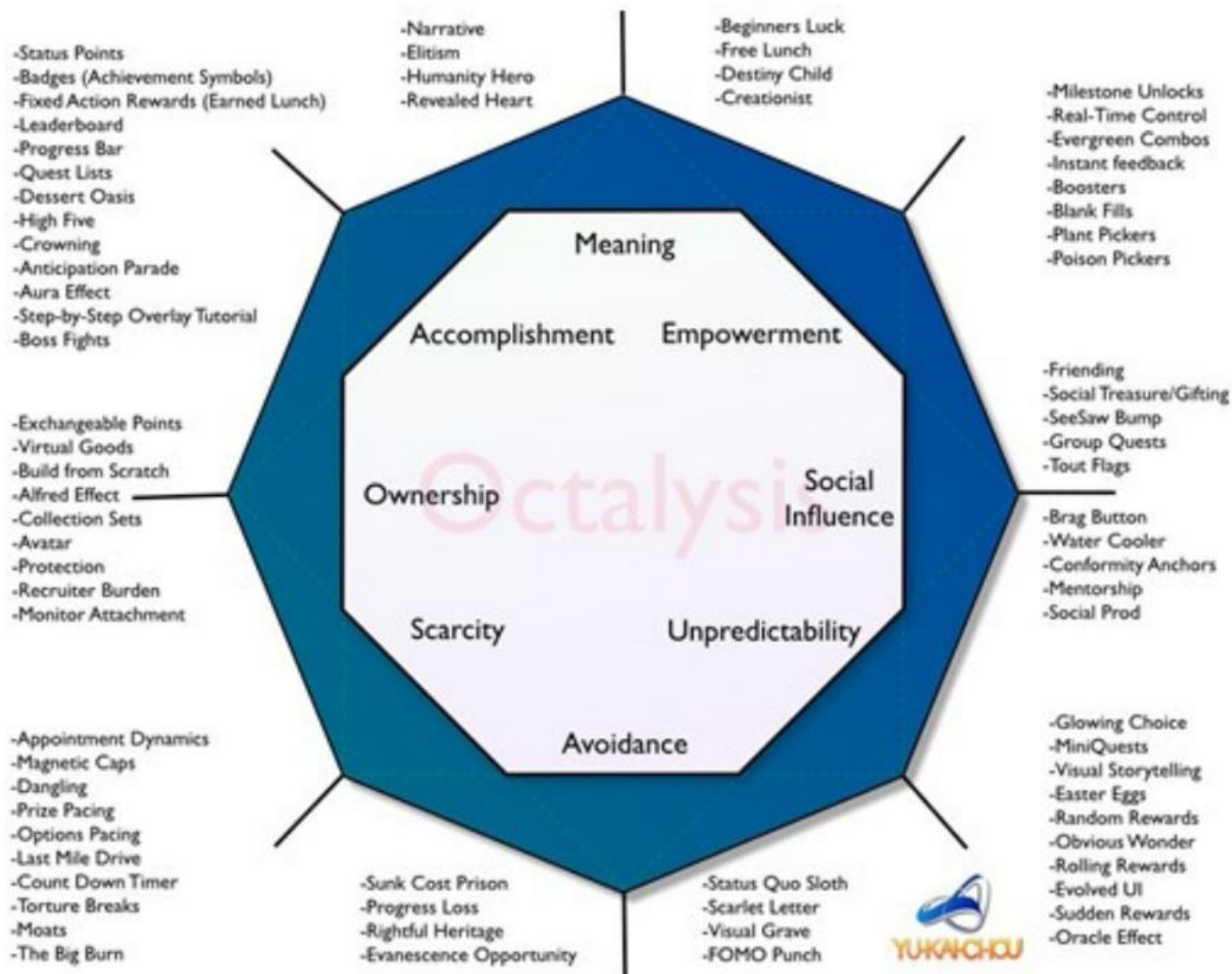




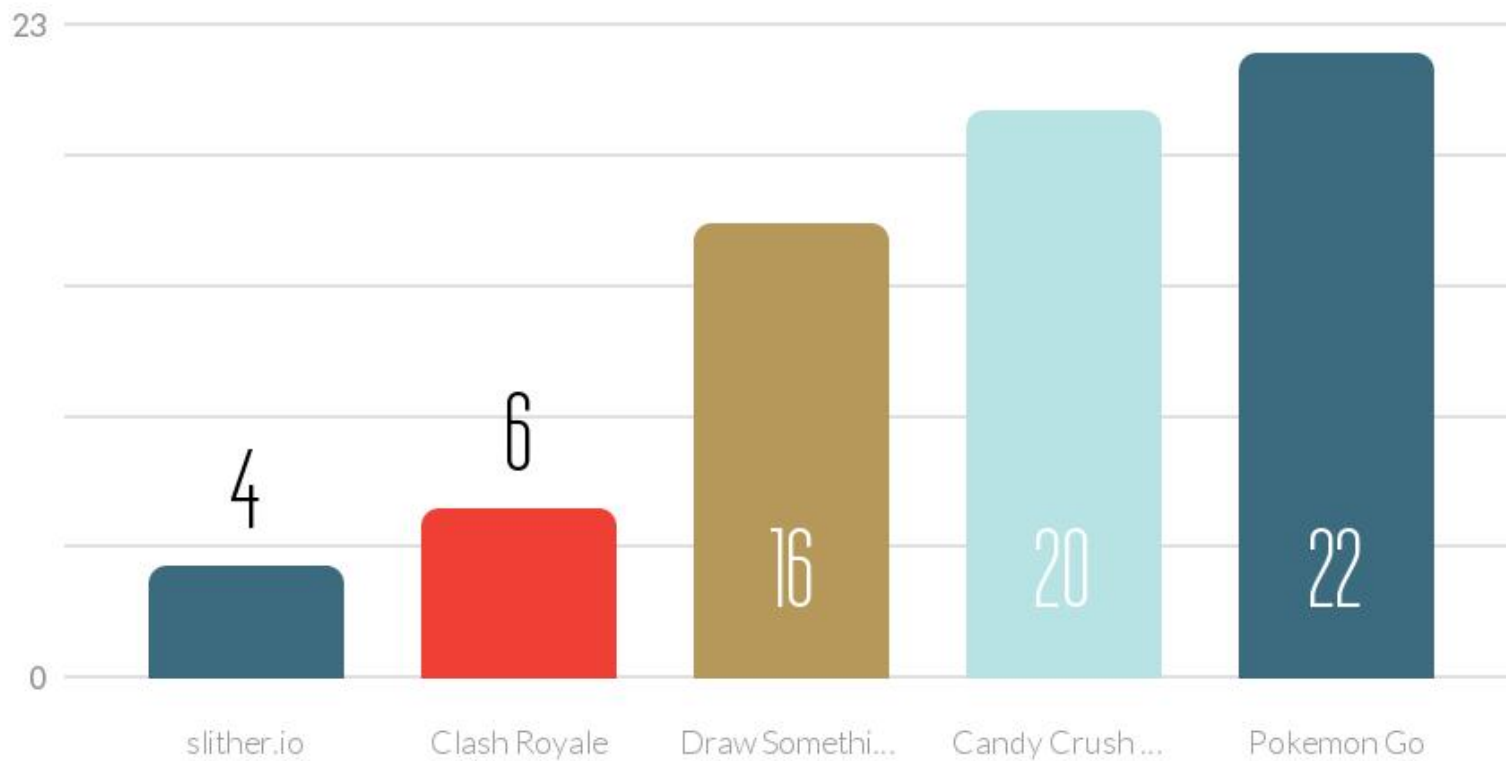
Life in the digital age
produces a massive
data exhaust



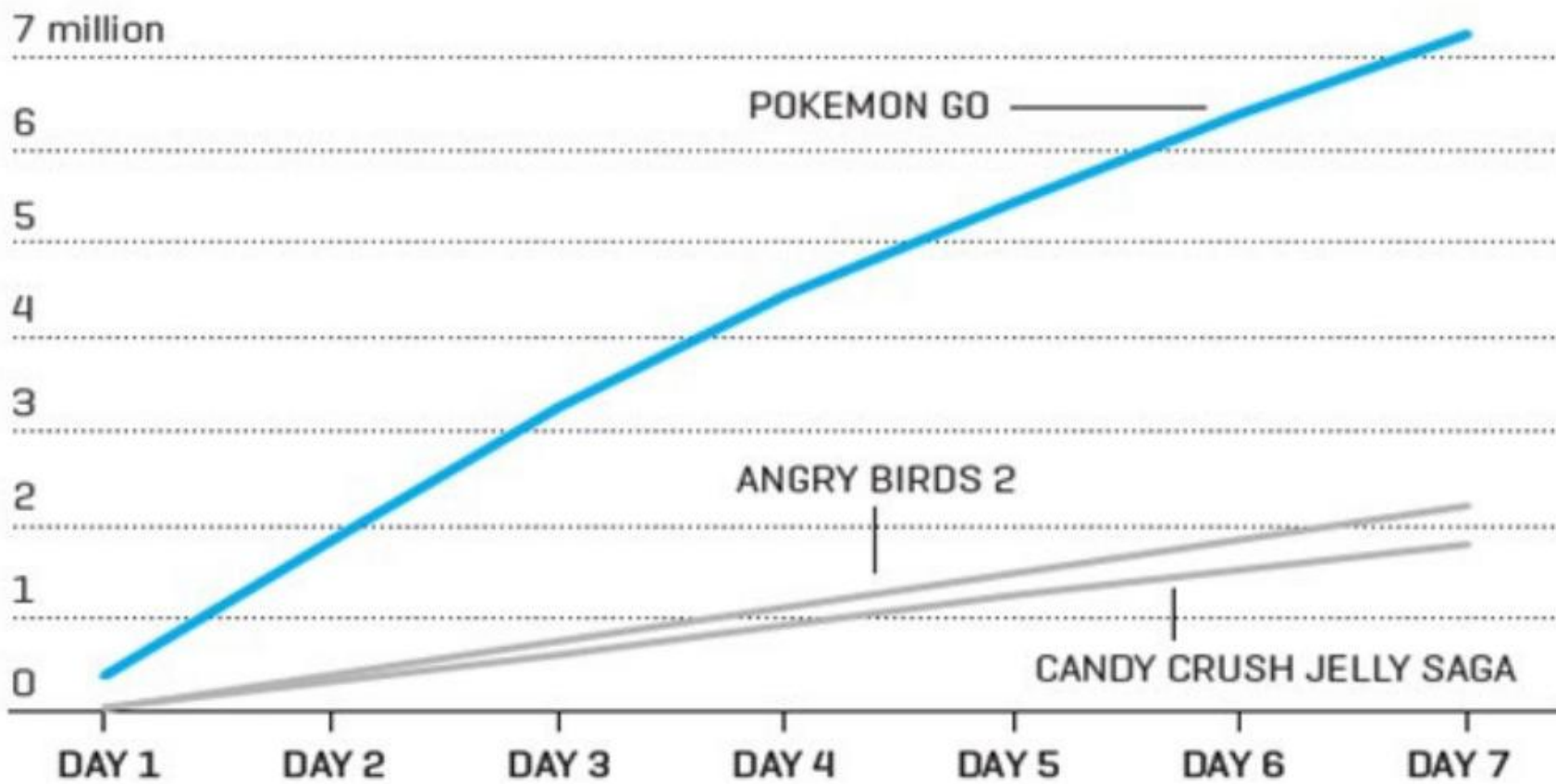




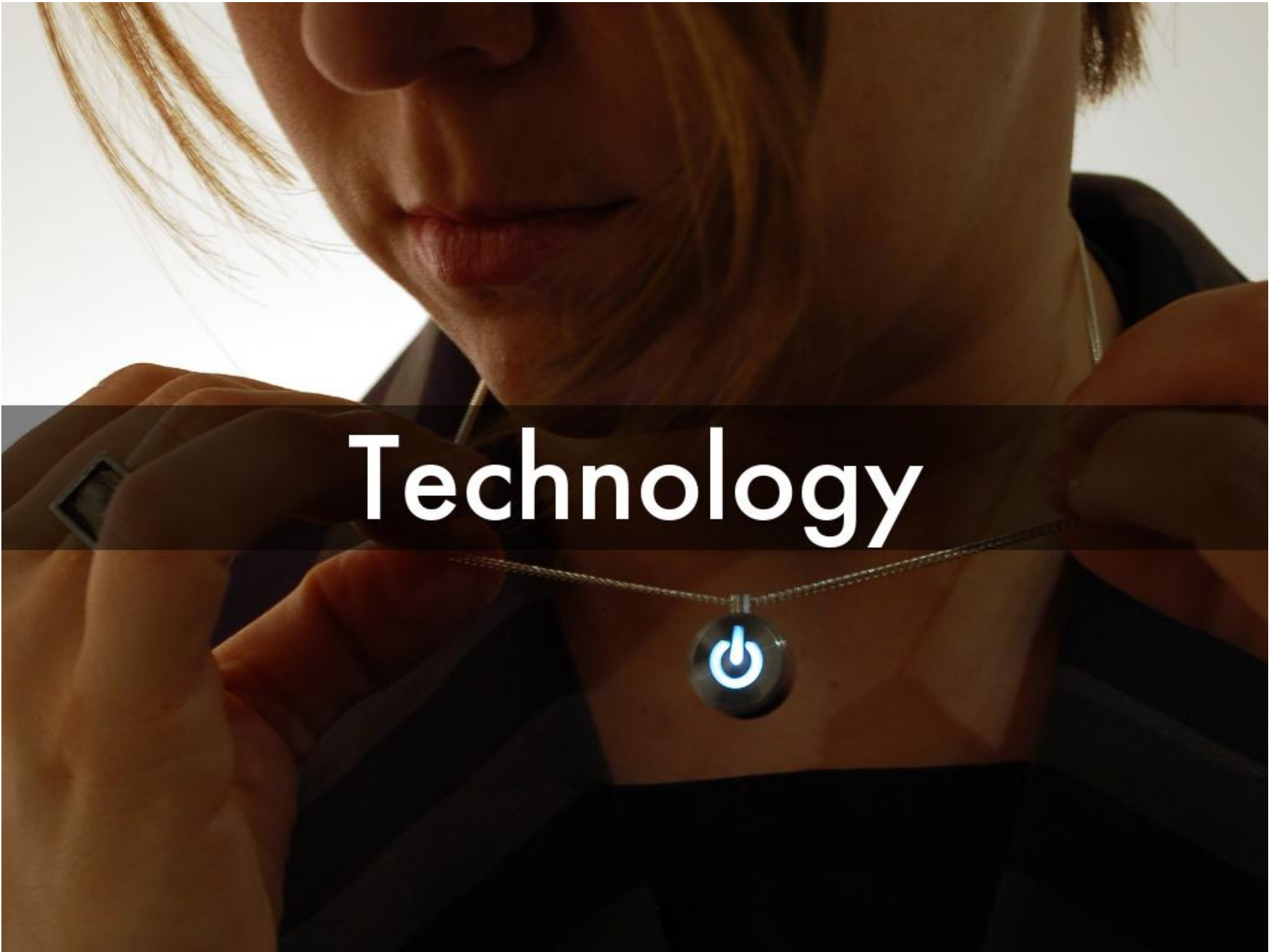
Peak Million Daily Active Users

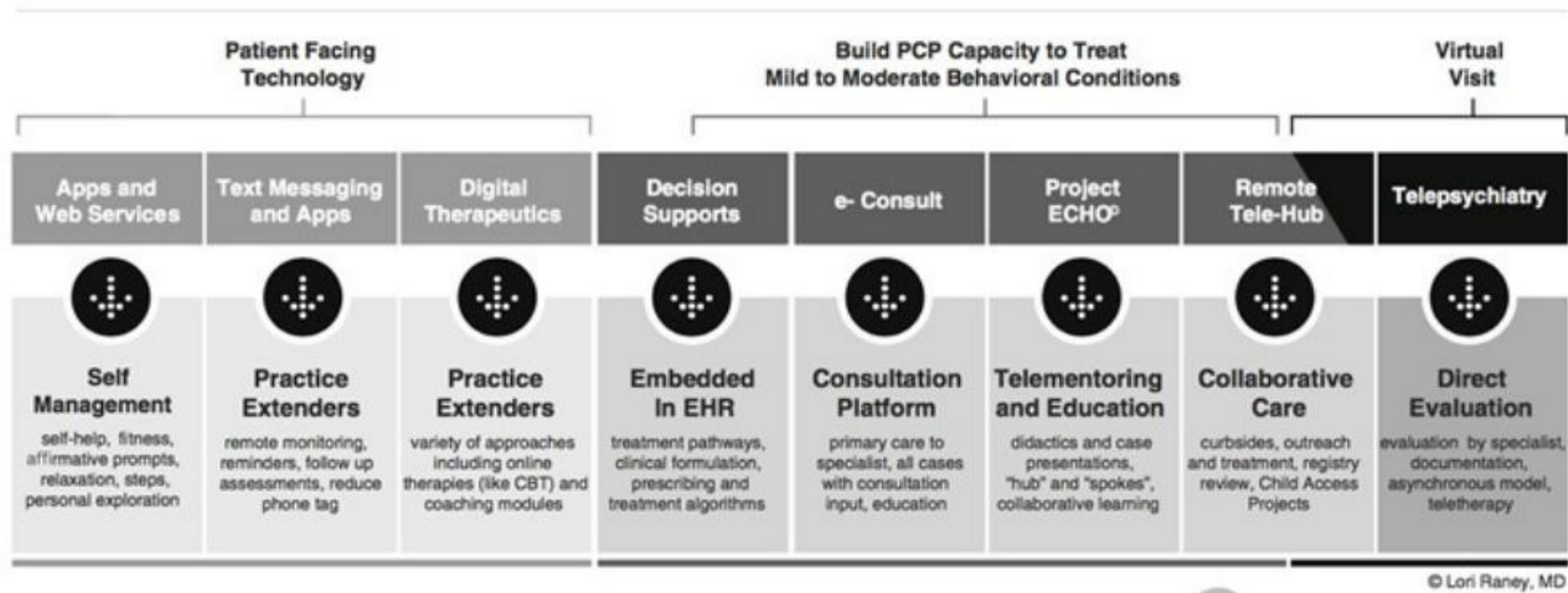


NUMBER OF CUMULATIVE GAME DOWNLOADS

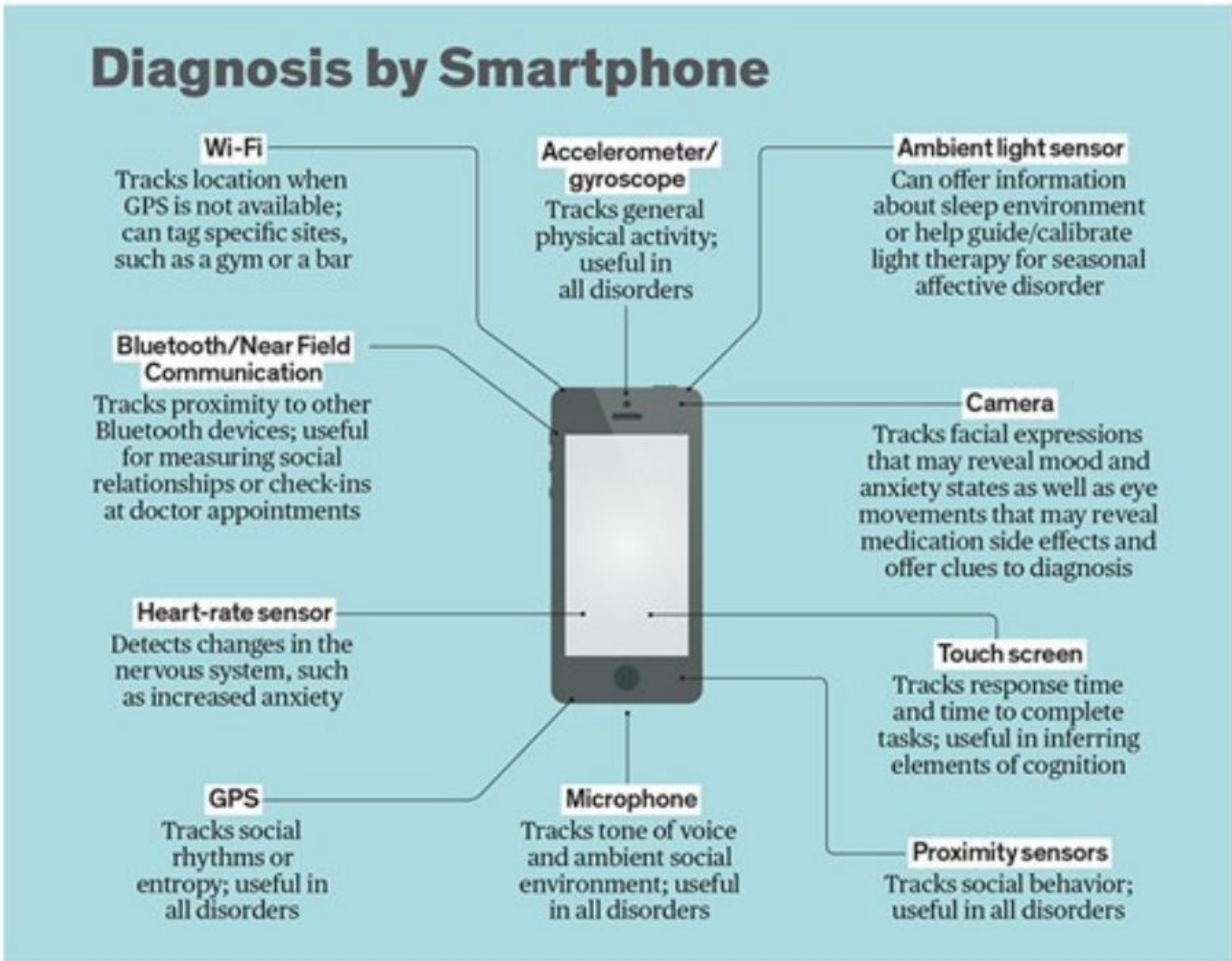


SOURCE: SENSORTOWER ESTIMATES





In the near term this is what you are seeing to solve for the core problems.



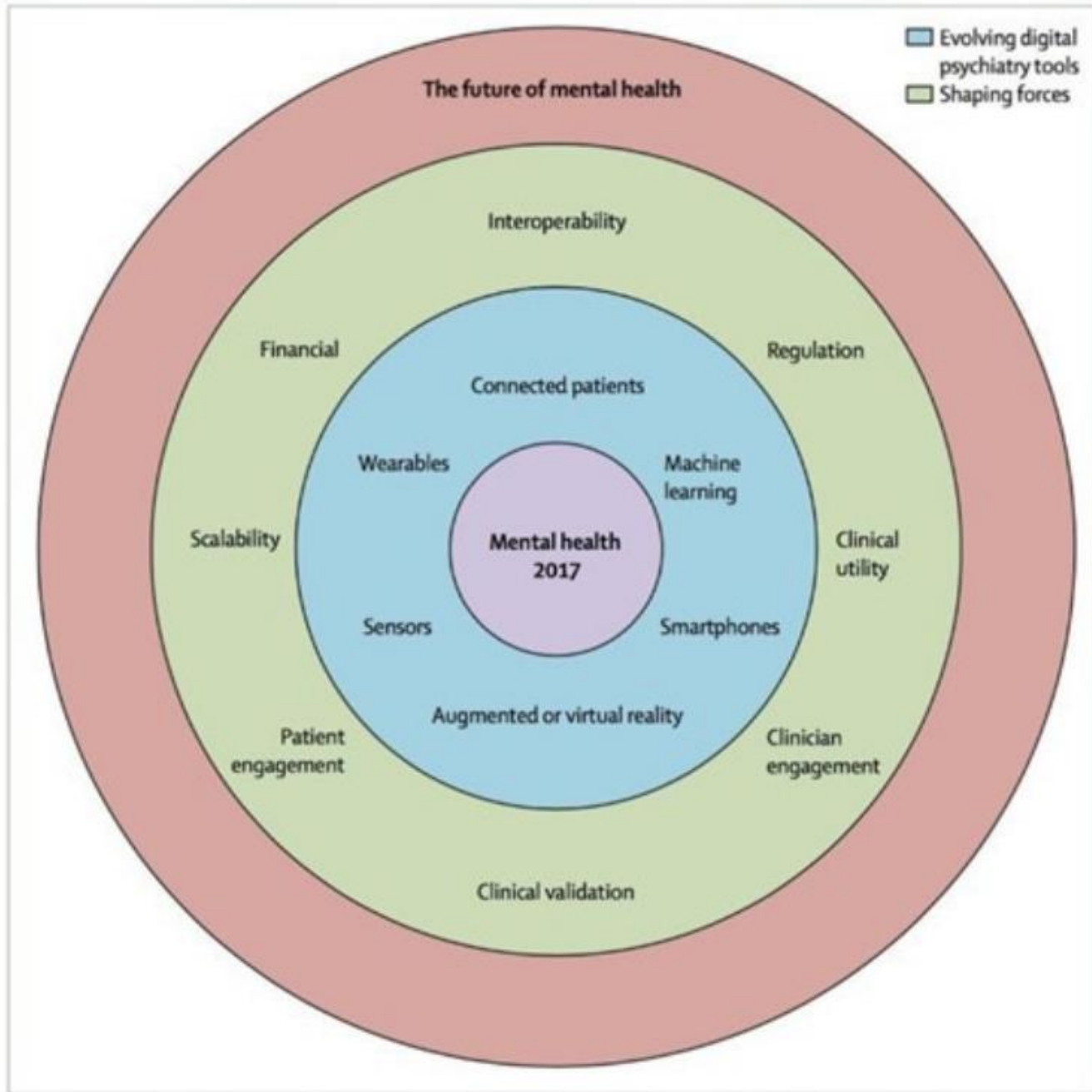


Image: John Tourous, M.D.

- **Mobile access to care 24/7**
- **IoT**
- **Biometrics**
- **Behavioral Analytics / Predictive Modelling**
- **Platform integration (Siri, Alexa)**





Mostly involves identifying and targeting variants of illness.

Hypertension model - not everyone will experience adverse outcome

Focusing on the Social Determinants

- Inadequate neonatal care
- ACE
- Bullying and social defeat
- Isolation and loneliness

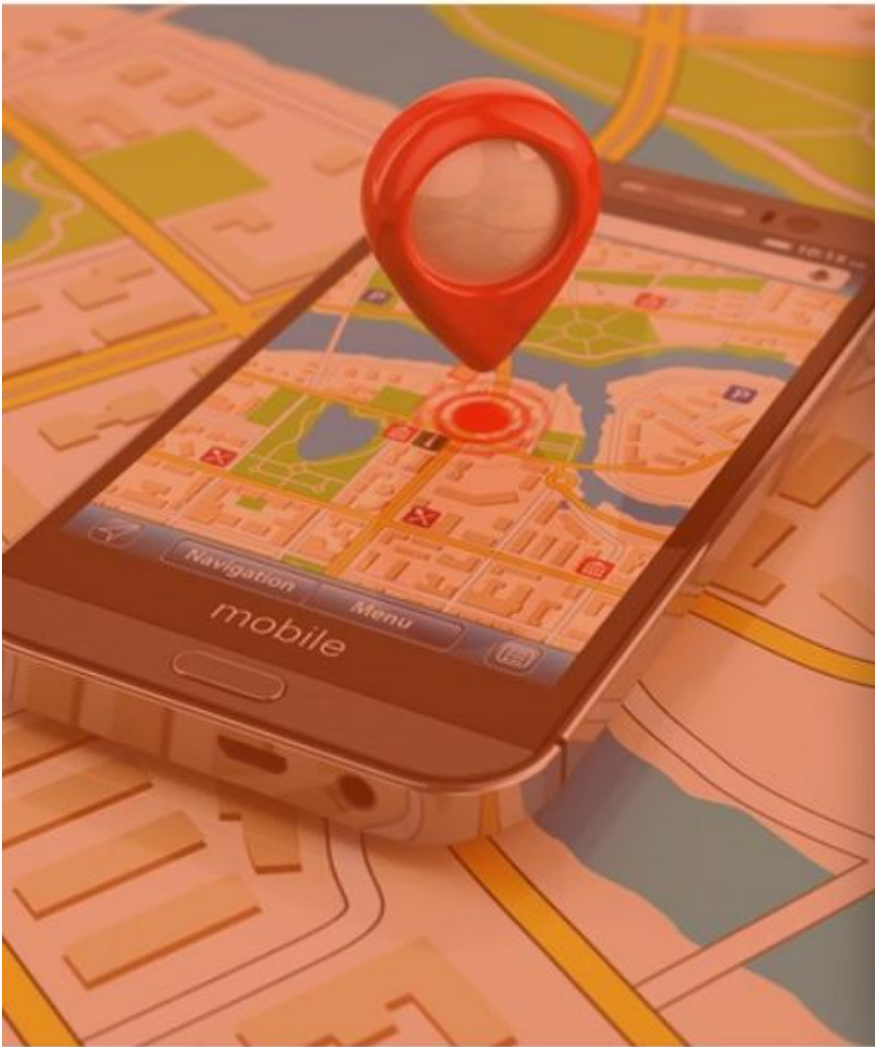


Old Paradigm

- Black box
- Travel to point of care
- Service delivered in "sessions"
- Rely on user to make it happen
- Limited intersession support
- Payment is per "unit"
- Large variation in use of evidence-based tx
- Individualized care "in name only"
- Minimal access to peer support outside of 12-step
- Some or no technology
- Outcomes don't inform care
- Outcomes don't affect payment
- Medical care is separate
- Taboo prevents data sharing
- Fear is leveraged to direct referrals

New Paradigm

- Care can be accessed continuously wherever the user is
- Minimal obstacles to accessing care "care in your pocket"
- Reimbursement is based on addiction and global outcomes
- Data informs treatment and recovery support
- Mobile tech and IOT heavily leveraged
- Full Medical Integration
- Widespread datasharing deidentified as necessary
- Users empowered to make care decisions
- Longitudinal care and coach/peer supported
- Recovery oriented
- Fully transparent
- Retail integration (Target/Walmart/Amazon etc)



My GPS takes me around known open air drug markets or liquor stores tailored to my unique risk factors

My efforts to dial old-using friends texts my supports

Poor sleep tracked through wearables and suggestions offered

My wearable tells me what meetings are nearby

My healthy, recovery oriented choices are supported through gamification (I'm rewarded for healthy choices)

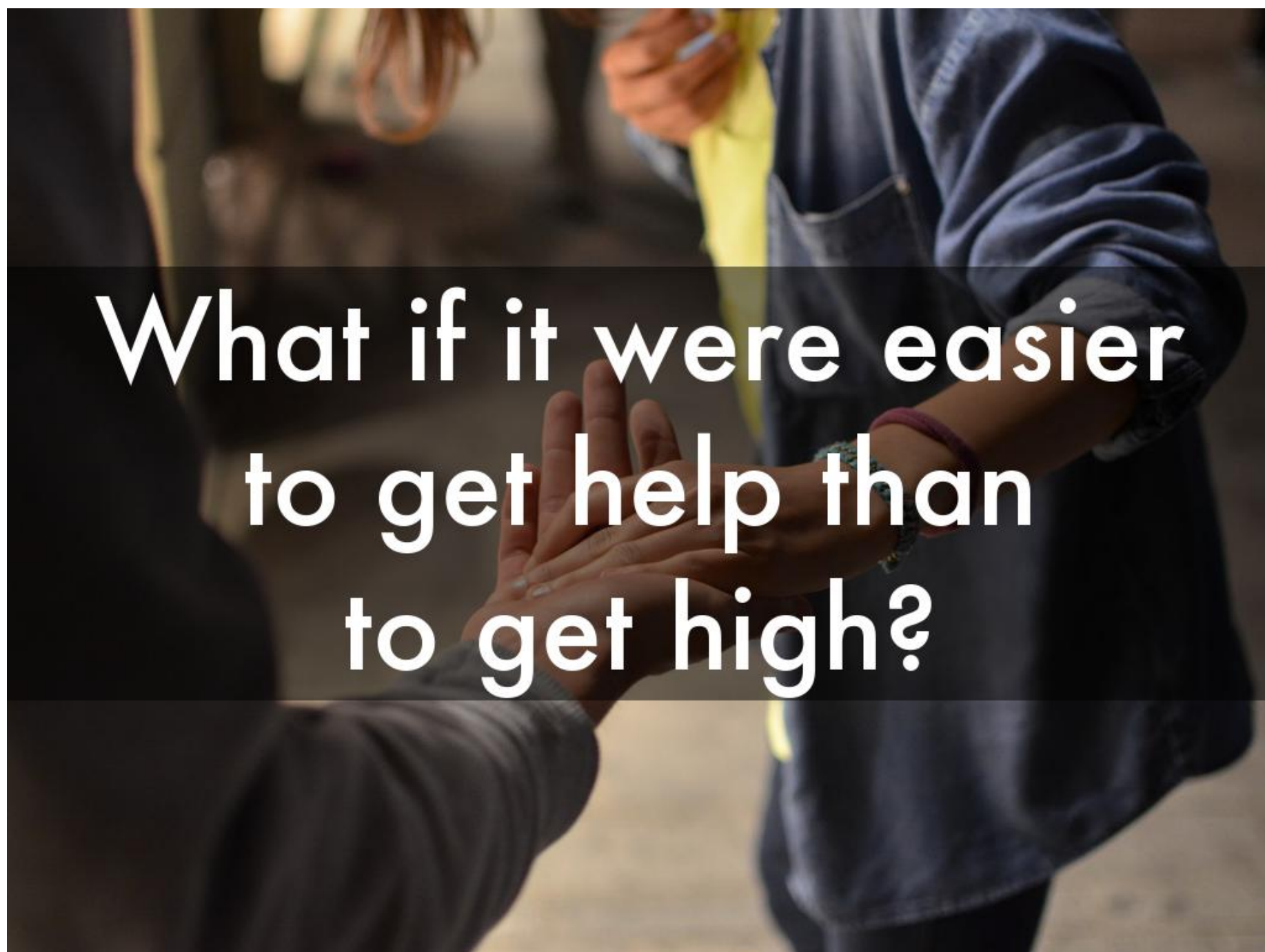
My access to care providers is immediate and mobile

Recovery materials, interactives, coach and peer support are always accessible

My addiction recovery and other health goals are integrated

Biometrics anticipate problems before they occur (stress etc)

And so on...



What if it were easier
to get help than
to get high?



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manejwala.com/mha