



PreCrime – Technologies &
Countermeasures

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And while they were eating, he said, "I tell you the truth, one of you will betray me."

Luke 22:7-23

Further on...

"I assure you," ...said to him, "tonight, before the rooster crows, you will deny Me three times!"



What is “Free Will”

- Free will is the ability of agents to make choices free from certain kinds of constraints.

From
Wikipedia.org

Atoms and particles behave in probabilistic ways, but our mind is made of atoms and particles...



How can free will exist?



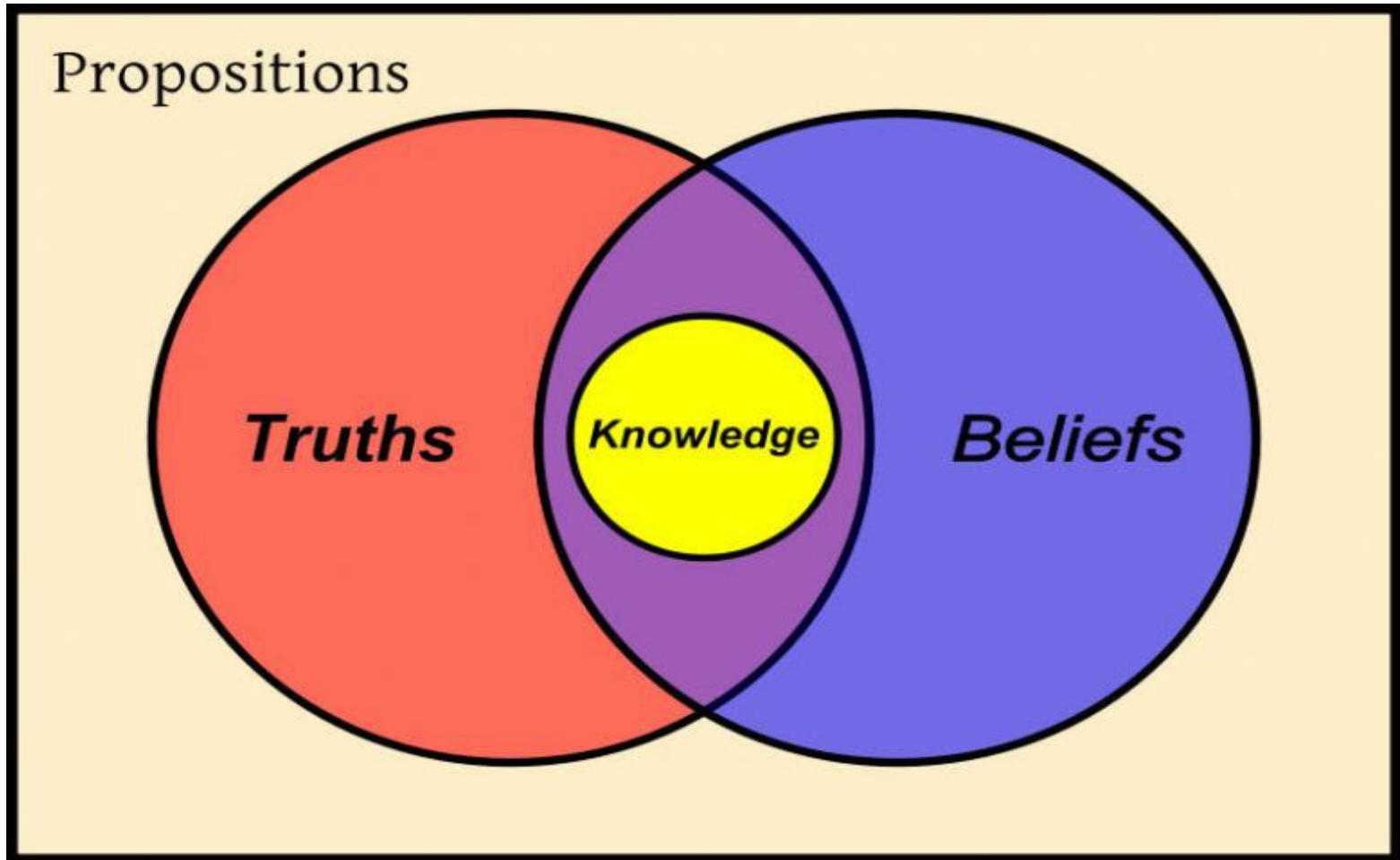
Sorry No Cartesian Dualism here..



“Unfortunately he is not human. He will never grow old and he will never die — and yet he is unable to appreciate these remarkable gifts, for that would require the one thing that David will never have: a soul.” Prometheus, The movie



A little empiricism





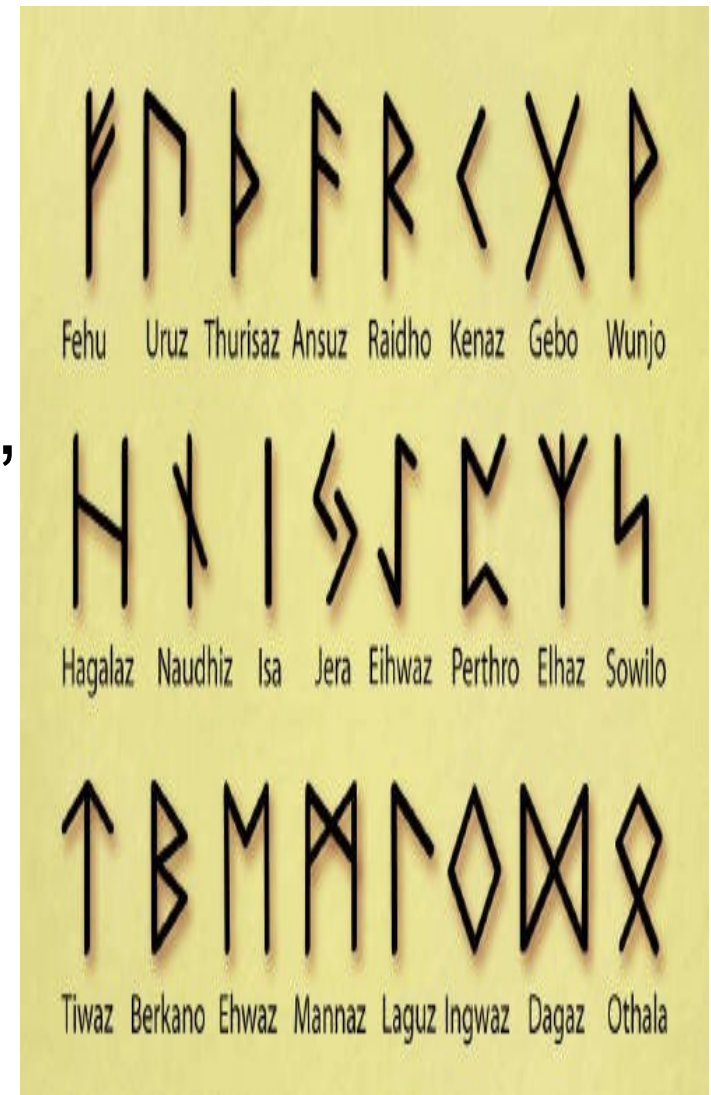
Assumptions

- When it comes to behavior we can only see what we can measure. (No Cartesian Dualism here :)
- Free will as of now is still believed to exist. (Until biology and genetics catch up :)
- Behavior can be modified and predicted in controlled environments.
- What you type, what you say, what you enter in any mobile device or computing system can be analyzed in a Molar/Molecular way aiming to predict behavior. These devices pretty much



Can we really predict behavior?

- Absolutely. It has been done for centuries, from Oracles, Wizards, Biologists, Psychologists, Psychiatrists, Economists, Mathematicians, Statisticians, etc...
- Human behavior does not occur in the vacuum. It has a vector, it can be modified, controlled and predicted with surprising accuracy



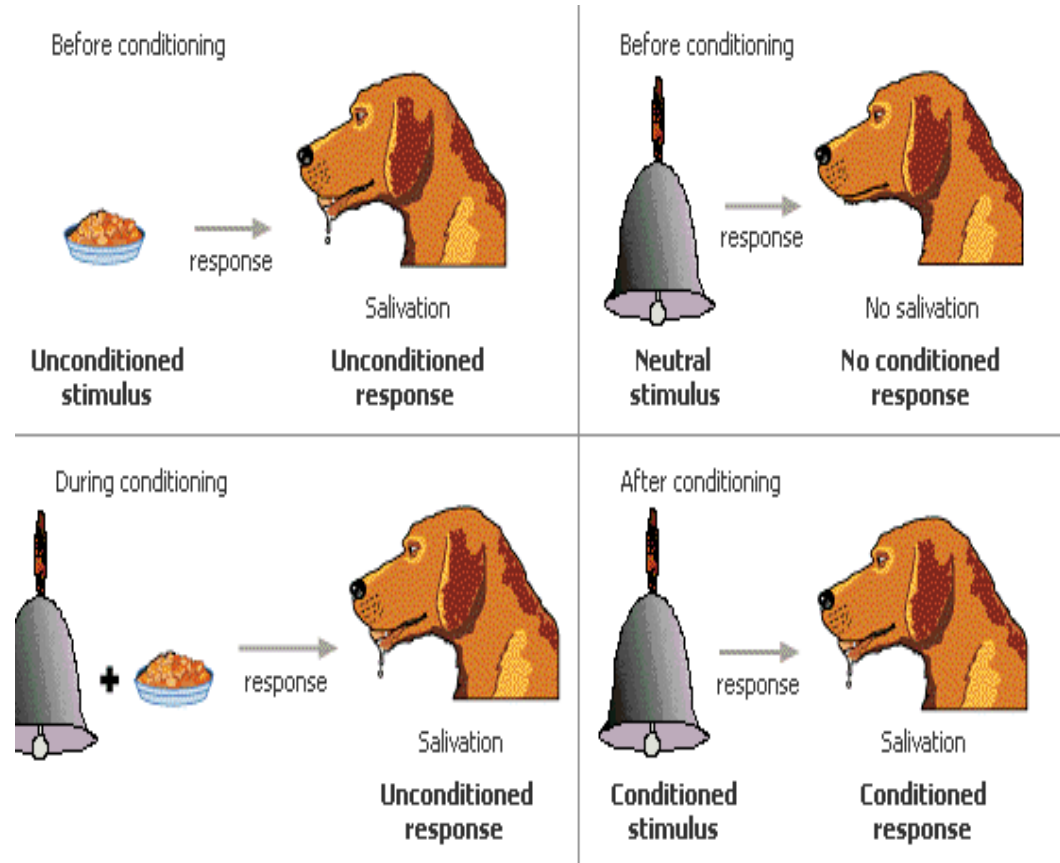


Behaviorism

- Behaviorism (or behaviourism), also called the learning perspective (where any physical action is a behavior), is a philosophy of psychology based on the proposition that all things that organisms do—including acting, thinking, and feeling—can and should be regarded as behaviors, and that psychological disorders are best treated by altering behavior patterns or modifying the environment
- Behaviorists believe behavior can be studied in a methodical and recognizable manner with



Behaviorism





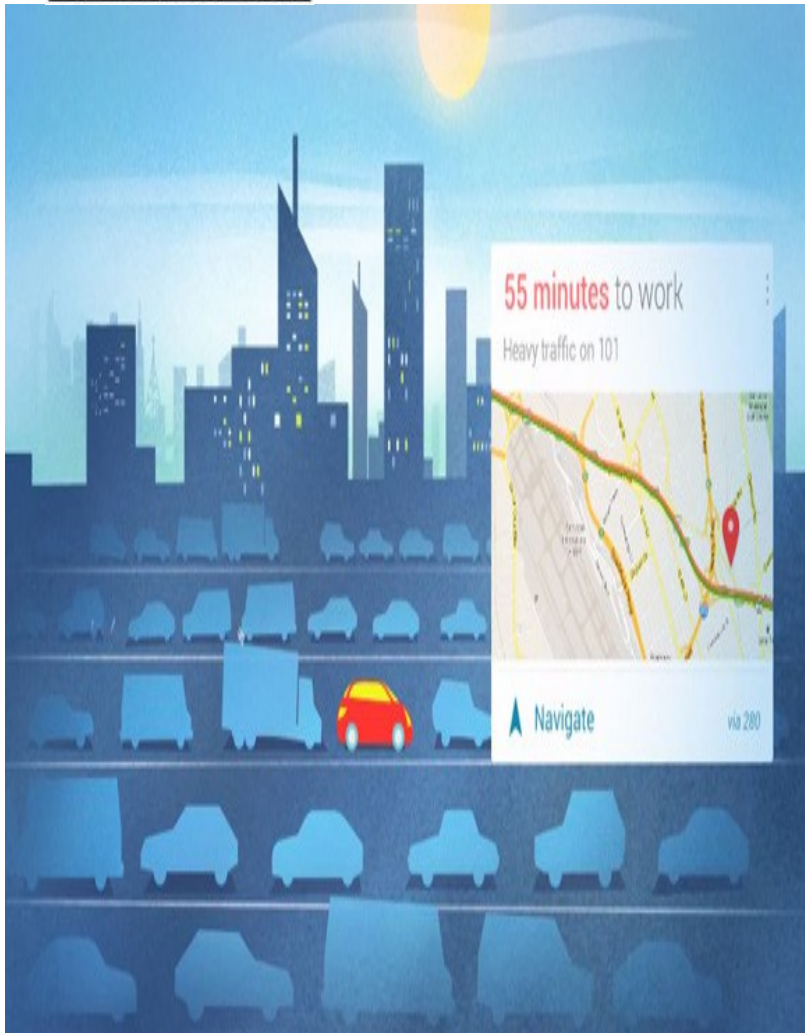
Some history of behaviorism

John Watson (January 9, 1878 – September 25, 1958)

- Psychology as the behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness. The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute. The behavior of man, with all of its refinement and complexity, forms only a part of the behaviorist's total scheme of



Predictive technologies



- Google and In-Q-Tel have recently injected a sum of up to \$10 million each into a company called Recorded Future, which uses analytics to scour Twitter accounts, blogs and websites for all sorts of information, which is used to “assemble actual real-time dossiers on people.”



Is “Free Will” threatened by technology.

- The technology sifts through a database of thousands of crimes and uses algorithms and different variables, such as geographical location, criminal records and ages of previous offenders, to come up with predictions of where, when, and how a crime could possibly be committed and by who.
- <http://www.infowars.com/pre-crime-technology-to-be-used-in-washington-d-c-2/>



Perfect Storm

- Emoticons: :) , LOL, <3, FML, SOL, etc
- Status updates, tags in places, purchases, friends, colleagues, travel data,
- Criminal records, driving records, background checks.
- TV Shows, Channels, keywords in searches, email, sms, songs listened, purchased movies, RX, food, alcohol, etc

Correlation of all this data together presents an incredible and powerful tool to PREDICT behavior



Perfect Storm, Example

- Subject has arrest record
- Subject purchases Narcotic
- Subject goes to same location of violence record
- Subject purchases alcohol
- Subject update status, tweets keywords correlated to antisocial/psychopathic behavior
- Subject falls under times of criminal activity, neighborhood with high criminal activity, day of the week when certain crimes occur, and time



Perfect Storm.

- To what extent once a governing power has all this information, will this affect the ability of this subject or anybody else to go anywhere without presumption of occurrence of certain behaviors based on data? This certainly questions the notion of free will to an extent.
- They do it now. Look around when you drive. Watch the grocery shopping isles, banners that show up while you surf or read email. The depth of data that these new technologies are providing is previously unseen. Consequences



Another example



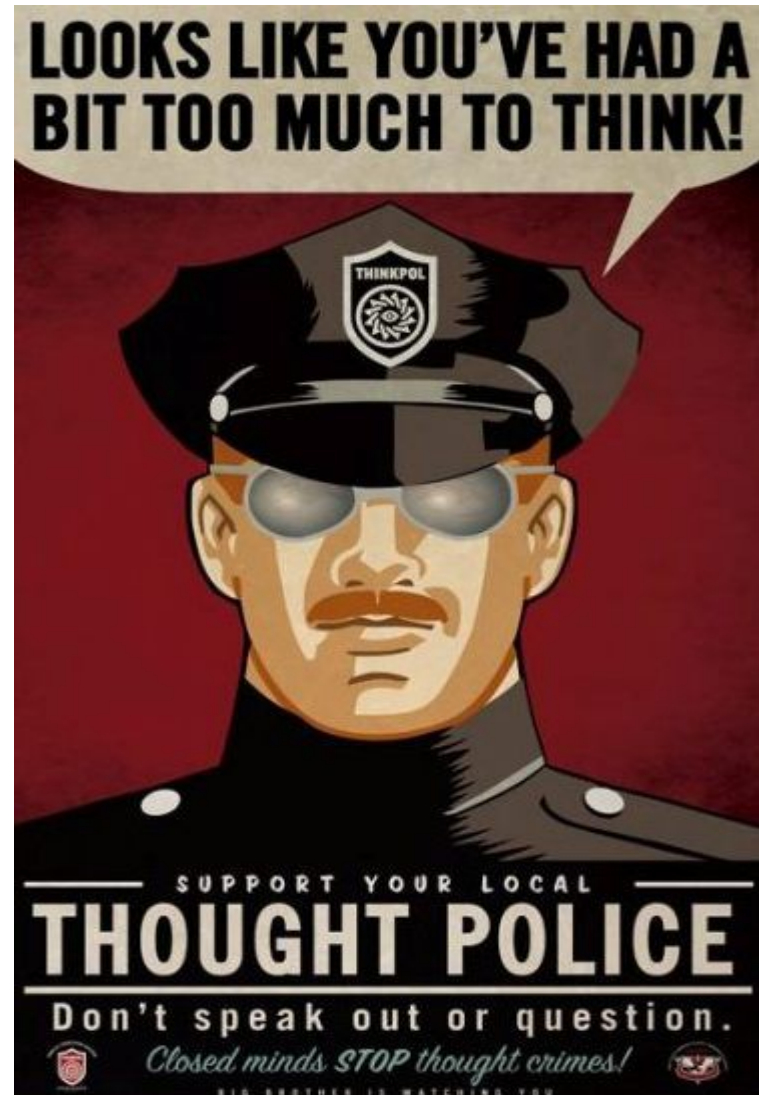
- At around 3:45 a.m. on March 24, someone in Fort Lauderdale, Fla., used a mobile phone to Google “chemicals to passout a person.” Then the person searched Ask.com for “making people faint.” Then Google again, for “ways to kill people in their sleep,” “how to suffocate someone,” and “how to poison someone.”





Subjects are willingly giving information

- Which is presented as a way to customize location, marketing, information services but at the same time they are also possibly incriminating themselves
- “Thoughts” can be measured as verbatim (Status updates, Acronyms, Tweets, etc).





Already happening..

www.cnn.com/2012/07/09/tech/innovation/police-tech/index.html?hpt=hp_c3

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Police embracing tech that predicts crimes

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By Heather Kelly, CNN updated 4:59 PM EDT, Mon July 9, 2012 | Filed under: **Innovations**



New technology allows police to predict crime before it happens, but some agencies can't afford the software.

STORY HIGHLIGHTS

- Predictive analytic software PredPol anticipates future crime based upon past activity.
- The program was adapted from similar software meant to predict earthquake aftershocks.
- Many police stations still use obsolete technology due to small budgets and aversion to change.
- Even so, police depend heavily upon social media to solve crimes.

(CNN) -- For something that predicts the future, the software is deceptively simple looking.

A map of a city is marked up with small red squares, each indicating a 500-by-500-foot zone where crimes are likely to take place next. A heat-map mode shows even more precisely where cars may be stolen, houses robbed, people mugged.

The program is called PredPol, and it calculates its forecasts based on times and locations of previous crimes, combined with sociological information about criminal behavior and patterns. The technology has been beta tested in the Santa Cruz, California police department for the past year, and in an L.A. police precinct for the past six months, with promising results.

Predictive-analytics software is the latest piece of policing

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It's a matter of time



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Face Deals checks you in with facial-recognition cameras

August 13, 2012 By Salvador Rodriguez

A new app is being tested in Nashville, Tenn., that can check in people on Facebook and send them offers using facial-recognition cameras.



Called Face Deals, the new service uses cameras installed at businesses' front doors to read people's faces as they enter. If the people who come in are users of the app, they will be checked in, and based on their "like" history, they would receive a customized offer.

To use the app, people first have to sign up. The [app](#) will then work with users to verify pictures of them to get a better reading of their face.

Once that process is done, you can just go about your day and you'll be checked in any time you go to participating businesses, according to Redpepper, the company behind the service.

"Personalized deals can now be delivered to your [Smartphone](#) from all participating locations - all you have to do is show your face," the company said online.



Already happening...

TrapWire is a technology solution predicated upon behavior patterns in red zones to identify surveillance. It helps you connect the dots over time and distance.

One of the sources of data is facial recognition





Is there a way to counter act the overwhelming measuring of all your behaviors?

- Opt out
- Use tools such as trakmenot
<http://cs.nyu.edu/trackmenot/>
- Social desirability: tendency of respondents to answer questions in a manner that will be viewed favorably by others
- Go back to Phone/SMS. This still shows how paranoid you are :)
- Alter patterns of behavior, this will definitely take you out of the 10-90 bell curve but don't complain if when you search music you get