

The background features a dark blue gradient with white technical diagrams. On the left, a large circular scale with tick marks and numbers from 150 to 260 is visible. Several circular arrows and dashed lines are scattered across the slide, suggesting a technical or scientific theme.

“JUST WRONG,”
“DISGUSTING,”
“GROTESQUE,”
“OFFENSIVE”

HOW TO DEAL WITH PUBLIC
REJECTION OF NEW POTENTIALLY
LIFE-SAVING TECHNOLOGIES

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20/9/2018

WHAT'S AT STAKE?: COST OF 9/11

Up to 42,000 human lives

- ~3,000 on 9/11
- ~3,000 increased road deaths post 9/11
- ~3,000 coalition soldiers in Afghanistan
- ~3,000 civilian deaths in Afghanistan
- ~30,000 Taliban deaths in Afghanistan

Up to 7trillion US dollars (\$7,000,000,000,000)

- ~\$100,000,000,000 lives & property on 9/11
- ~\$2,000,000,000,000 in stocks, tourism etc.
- ~\$5,000,000,000,000 for war in Afghanistan

Psychological costs



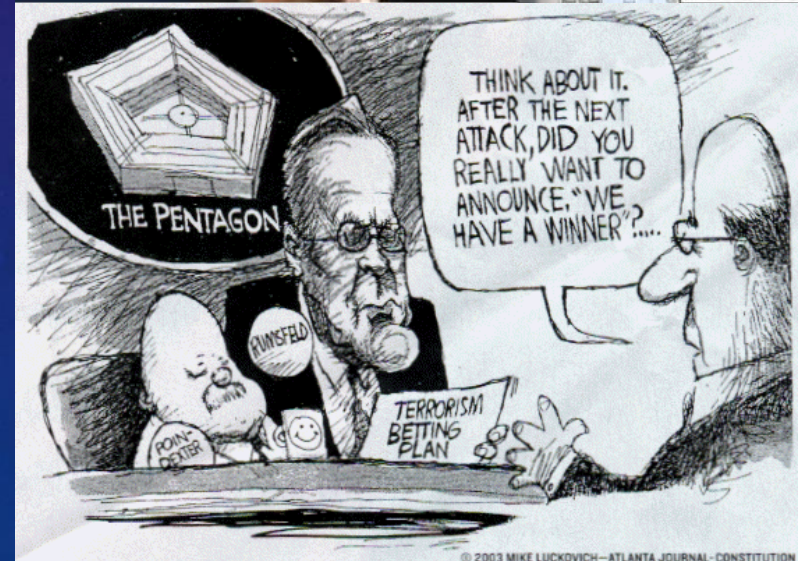
<http://www.significancemagazine.org/details/webexclusive/1340691/World-Trade-Centre-anniversary--What-did-911-really-cost.html>

AND THE CROWD WENT WILD!

Less than positive comments:

- “just wrong”
- “ridiculous... grotesque,”
- “defies common sense”
- “absurd... disgusting”
- “loopiest manifestation of... belief... markets [can] solve all problems”
- “a new level of absurdity”
- “despicable... callous... retarded”
- “unbelievably stupid”

FutureMAP terminated ASAP



POLICY ANALYSIS MARKET: PREDICTING TERRORISM

DARPA → funds → FutureMAP → includes sub-project: PAM

| Focus on a Security of Interest | | | | |
|---------------------------------|----------------|---------------|----------------------------|---------------------|
| Security Structure | Name | Current Price | Recent Trading Price Range | Your Holding Volume |
| Base | IQcd403=85 | 0.624 | 0.602 | 1,800 |
| Base | TYum303100-120 | | 0.635 | 100 |
| Cond. | | | | |
| Cond. | | | | |

| Special Event Securities | | | |
|--------------------------|--------------------------------|-------|---|
| # | Brief (click for Detail) | Price | B or C |
| 1.4.3 | Jordan King Overthrown 4th Q3 | 0.24 | <input type="checkbox"/> <input type="checkbox"/> |
| 2.4.3 | N. Korea Missile Attack 4th Q3 | 0.15 | <input type="checkbox"/> <input type="checkbox"/> |
| 1.1.4 | U.S. Recog. Palestine 1st Q4 | 0.32 | <input type="checkbox"/> <input type="checkbox"/> |
| 2.1.4 | Arafat Assassinated 1st Q4 | 0.17 | <input type="checkbox"/> <input type="checkbox"/> |

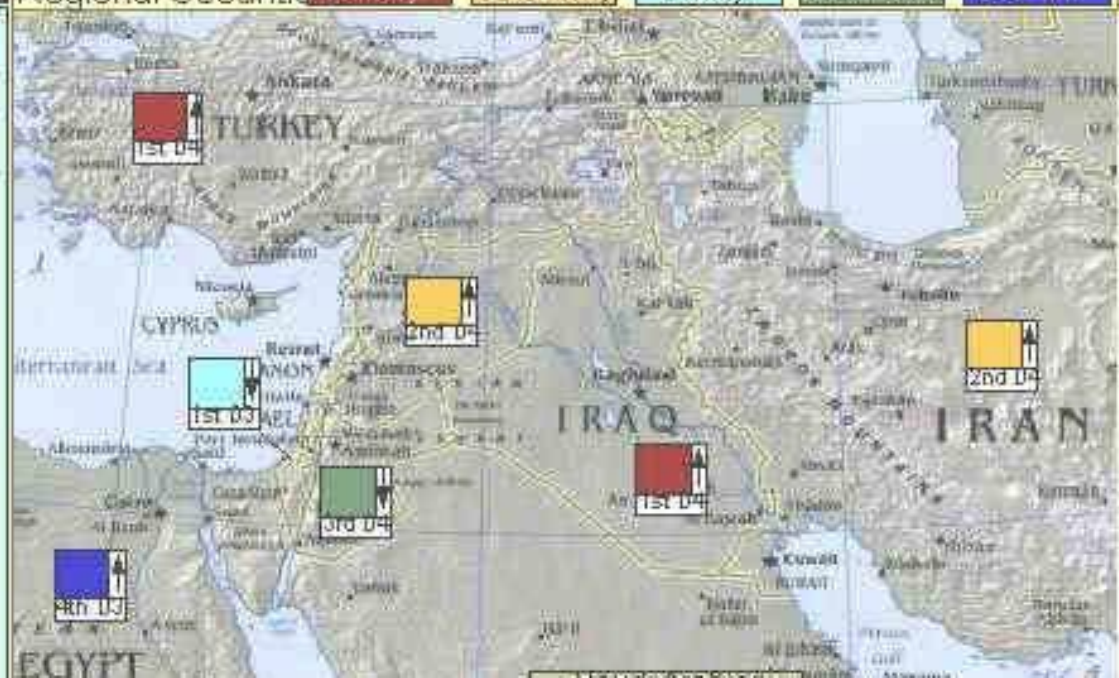
| Global Securities | | | | | | |
|-------------------|------|------|------|------|------|------|
| | 1 Q3 | 2 Q3 | 3 Q3 | 4 Q3 | 1 Q4 | 2 Q4 |
| U.S. Equities | 7.5 | 7.2 | 7.1 | 7.5 | 7.9 | 8.0 |
| U.S. GDP | 5.23 | 6.32 | 6.38 | 6.36 | 6.33 | 6.41 |
| Global Trade | 7.5 | 7.2 | 7.1 | 7.5 | 7.9 | 8.0 |
| Terror | 113 | 65 | 88 | 214 | 654 | 334 |
| U.S. Int. Deaths | 45 | 124 | 143 | 500 | 200 | 436 |

Sort Market Transactions | Display in Portfolio | Transfer to Watch List | Transfer to Trading Screen

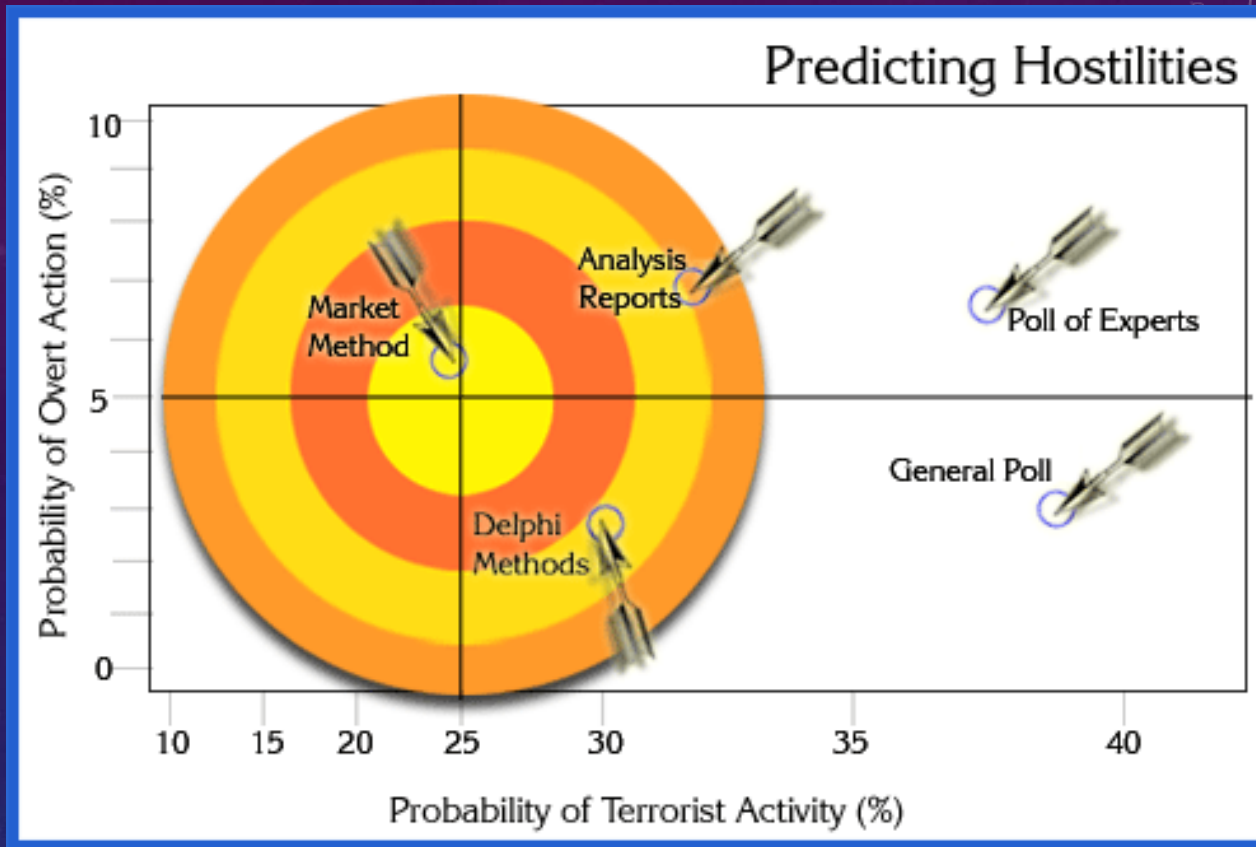
Market Information | Trades & Watch | Portfolio Views

| Market Transactions | | | | | |
|---------------------|---------------|----------------------------|------|--------|--------------------------|
| Security | Current Price | Recent Trading Price Range | | Volume | Transfer To Focus |
| JNec40385-105 | 0.26 | 0.22 | 0.33 | 2,150 | <input type="checkbox"/> |
| IQcd403=85 | 0.17 | 0.15 | 0.29 | 1,800 | <input type="checkbox"/> |
| TYum303100-120 | | | | | |
| SAmp403>110 | 0.35 | 0.32 | 0.40 | 1,050 | <input type="checkbox"/> |
| ILu\$104>100 | 0.55 | 0.52 | 0.61 | 850 | <input type="checkbox"/> |
| ETu\$104>110 | 0.40 | 0.35 | 0.40 | 700 | <input type="checkbox"/> |
| INec303105-115 | 0.45 | 0.45 | 0.52 | 650 | <input type="checkbox"/> |
| JNec40385-105 | 0.26 | 0.22 | 0.33 | 2,150 | <input type="checkbox"/> |
| IQcd403=85 | 0.17 | 0.15 | 0.29 | 1,800 | <input type="checkbox"/> |
| TYum303100-120 | | | | | |
| SAmp403>110 | 0.35 | 0.32 | 0.40 | 1,050 | <input type="checkbox"/> |
| ILu\$104>100 | 0.55 | 0.52 | 0.61 | 850 | <input type="checkbox"/> |
| ETu\$104>110 | 0.40 | 0.35 | 0.40 | 700 | <input type="checkbox"/> |

Regional Securities: Military | Economy | Civility | U.S. Econ | U.S. Mil



WOULD PAM HAVE WORKED?



- Supposedly better than reports, Delphi, experts, polls
- Cost to test = to cost of one more spy

(Weijers, Dan (2016). Prediction Markets as an Alternative to One More Spy, in Jai Galliot & Warren Reed (eds.), Ethics and the Future of Spying: Technology, Intelligence Collection and National Security, Routledge, pp. 80-92.)

PUBLIC OUTRAGE AS MORAL REPUGNANCE

Moral repugnance occurs when person X feels morally charged revulsion about thing T

- E.g. “absurd... disgusting”—Sen. Dorgan
- Sen. Dorgan felt moral repugnance about PAM



HOW TO DEAL WITH PUBLIC OUTRAGE

Assess it

- Clarify the concern
- Check factual claims/assumptions
- Ascertain relevant moral framework/s

Sort it

- Use grouping discussed here
- Consider using group to motivate dialogue

Act

- Alter plan (and reassess or go ahead)
- Stop plan
- Go ahead

SOME BASIC TYPES OF MORAL REPUGNANCE

- *Legitimate moral repugnance*
 - Description: correct facts + morally wrong according to my moral framework
 - Action: Consider redesign or stop if common
- *Mistaken moral repugnance*
 - Description: incorrect facts, I would see it as morally permissible with the correct facts
 - Action: Educate on facts, go ahead
- *Dumbfounded moral repugnance*
 - Description: I know it's wrong, but I can't explain why when using my moral framework
 - Action: Investigate more if common, go ahead

E.g., Caveman sees surgery



“Shallow are the souls that have forgotten how to shudder.”

—Leon Kass

SOME COMPLEX TYPES OF MORAL REPUGNANCE

- *Indeterminate moral repugnance*
 - Description: morally balanced (right & wrong) according to my moral framework
 - Action: Consider redesign or other policies
- *Mitigated moral repugnance*
 - Description: some moral good, but more moral bad according to my moral framework
 - Action: Consider redesign or stop if common
- *Outweighed moral repugnance*
 - Description: some moral bad, but more moral good according to my moral framework
 - Action: Consider redesign, go ahead

SOME UNUSUAL TYPES OF MORAL REPUGNANCE

- *Conflicted moral repugnance*
 - Description: I feel like it's morally wrong, but my moral framework deems it morally good
 - Action: Investigate more if very common, go ahead
- *Dominant moral repugnance*
 - Description: I know that's morally wrong so I will change my moral framework to make sure of it
 - Action: Consider redesign or stop if common
- *Moral repugnance deficit*
 - Description: I don't feel like it's morally bad, but my moral framework deems it morally bad
 - Action: Consider redesign or stop if common

MORAL REPUGNANCE: BETTING ON DEATH

- “[T]he fact that our government is essentially setting up a terrorist bookmaking operation is despicable.”—Blogger Greg Saunders
- Betting on death isn’t new
 - Military spending decisions
 - Life insurance
 - Death pools
- Some of these disrespect life, others try to preserve it



- Rotten Dead Pool
- Halloween Dead Pool
- O.B.E. Celebrity Death Watch
- CashforCadavers.com

GENERAL RULES

- *Moral repugnance* is a sign to investigate further, not cancel on the spot
- Failure to comply with reasonable moral frameworks requires at least redesign and reassessment
- Much moral repugnance will be a bad guide for policy, so use reason too



What is reasonable?

Various psychological biases

THE REAL WINNERS AND LOSERS



MY WORK ON THE TOPIC

- **Weijers, Dan** (2018). Prediction Markets, in Robert W. Kolb (ed.), *The SAGE Encyclopedia of Business Ethics and Society: 2nd edition*. Sage. [Last author version](#).
- **Weijers, Dan & Keyser, Vadim** (2016). The Varieties and Dynamics of Moral Repugnance: Prediction Markets and Betting on Matters of Life and Death, *The Humanities and Technology Review*, 35: 91-129. [The free official version](#).
- **Weijers, Dan** (2016). Prediction Markets as an Alternative to One More Spy, in Jai Galliot & Warren Reed (eds.), *Ethics and the Future of Spying: Technology, Intelligence Collection and National Security*, Routledge, pp. 80-92. [Last author version](#). [Publisher's site](#).
- **Weijers, Dan & Richardson, Jennifer** (2014). Is the Repugnance about Betting on Terrorist Attacks Misguided? *Ethics and Information Technology*, 16(3): 251-262. [Last author version](#). [The official version](#).
- **Weijers, Dan** and Richardson, Jennifer (2014). A Moral Analysis of Effective Prediction Markets on Terrorism. *International Journal of Technoethics*, special issue: "Military Technoethics Beyond", 5(1): 28-43. [My last version](#). [Official version](#)
- **Weijers, Dan** (2013). Prediction Markets, *Observatory for Responsible Research and Innovation in ICT*. [Link](#)