Security Metrics

What's Hot and What's Not

Outline

- Current State (4)
- What We Can Do (7)
- What PlexLogic is Doing
- Conclusions (I)

IT S & M: 2010

Key: **■** >90% **M**





Archer Qualys ArcSight

Program	Tools				
Ad Hoc	XLS, PPT		Report Features		
Program	Homegrown	Datama	rt 1	Metrics Platform	
Community	Market Reports	Homegro	yn	Cloud	
Verizon Veracode OSF:DLDB	SharePoint MySql Drupal	Pental Cogn Hyper	os	XX-ISAC PlexLogic Clear-Point	

What Others are Doing

Key: **■** >90% **M**





Security	Tools			
Ad Hoc	XLS, PPT	Report Features	Home	
Program	Home	Datamart	Metrics Platform	
Com- munity	Market Reports	Home	Cloud	

Medicine	Tools			
Ad Hoc	XLS, PPT	Report Features	Home	
Program	Home	Datamart	Analysis Platform	
Com- munity	Market Reports	Home Datamart	Cloud	

Baseball	Tools			
Ad Hoc	XLS, PPT	Report Features	Home	
Program	Home	Datamart	Analysis Platform	
Com- munity	Market Reports	Home	Cloud	

Finance	Tools			
Ad Hoc	XLS, PPT	Report Features	Home	
Program	Home	Datamart	Trading Platform	
Com- munity	Market Reports	Home	Cloud	

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Killer Apps

- 1800s: Epidemiology
 - study of disease
- Biostatistics theory of natural selection
- Bioinformatics human genome proj.
- 1952: Markowitz -Portfolio Selection
- Black-Scholes option pricing (Nobel Prize)
- Algotrading: Stat arbitrage, sig fitting

- 1970s Bill James
- Beane (Oakland A's) Theo Epstein (Red Sox)
- Money Ball by Michael Lewis
- 1950s Marketing analytics (Nielson)
- 1981 Six Sigma: 3M, Boeing, GE, Motorola
- 1990s Web analytics
- 2000: eHarmony -On-line match making (c) 2010 PlexLogic LLC. All rights reserved.

State of Market: 2010

Key: Good Bad

- Metrics deliver value (but proven elsewhere)
- Vendors: Over promise
- Practitioners: Unrealistic expectations
- Business Culture: Sharing data (Tradgedy of the Anti-Commons)
- We can get killer apps

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How ???

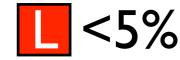
INNOVATE

- Better Models
- Automation
- Early Adopters

Models

Key: | >90% | <5%





- Counts, Percents, Ranks
- Leverage Visual Analytics
- Mimic IT Management
- Mimic Medicine
- Mimic Finance
- Mimic Economics

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Automation

UseCases				
Ad Hoc	XLS, PPT	Report Features	Homegrown	
Program	Homegrown	Datamart	Metrics Platform	
Community	Market Reports	Homegrown	Cloud	

2003: Sigma

2005: ClearPoint

2008: MetricsCenter

2010: ClearPoint

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Platform Feature Set

Importance: M Provided: M

Feature		CPM	HG	IMHO
Public Dashboards				
Re-Usable Implementation				
Ad Hoc Investigation	Excel		Excel	
Metrics Design Studio			Excel	
Metrics Catalog				
Content Mgmt (RSS, Rating,)				
Lifecycle/Workflow				
Multi-Tenant/Community				
Anonymization				
OLAP, Models, Dynamic Viz				
RDBMS, Static Rpts, Counting				

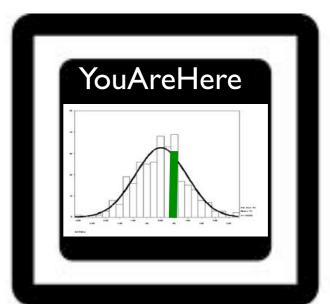
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Anonymization

Submitted

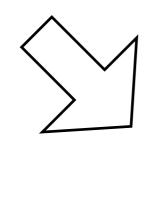
#
incidents:
100

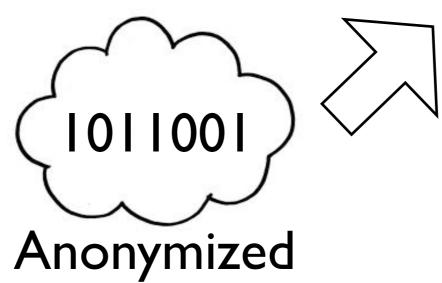












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Anonymization: - / +

- NP Hard
- Subject to attack
- Skepticism

- Used widely
- Attack defenses exist
- Exists as COTS

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Public Dashboards

- Open Security Foundation
 http://www.opensecurityfoundation.org
- Verizon DBIR
 - http://www.verizonbusiness.com/resources/security/reports/2009_databreach_rp.pdf
- Veracode SOSS
 http://www.veracode.com
- MetricsCenter Dashboards
 http://www.metricscenter.net

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Conclusions

#1: Killer apps

#2: Innovation

#3: Regulation

Adoption is slow but will spike

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