



# *Surviving the Data Crush*

Christopher Surdak, JD  
15 July 2015

# Welcome!

## Christopher Surdak, JD

Technology Evangelist, Award-Winning Author, Engineer, Data Guy, Rocket Scientist, and Global Expert in Information Governance, Analytics, Privacy and Social Media



Held roles with leading companies such as Accenture, Siemens, Dell and Citibank. Began my career with Lockheed Martin AstroSpace, where I was a spacecraft systems engineer and rocket scientist.

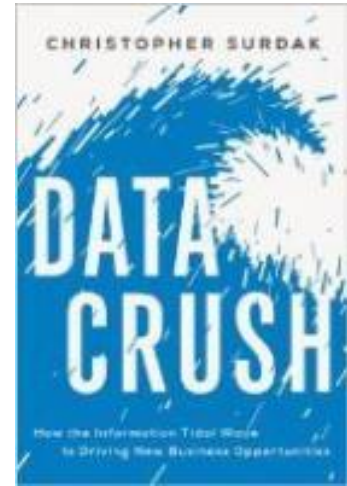
Hold a Juris Doctor from Taft University, an Executive Masters In Technology Management and a Moore Fellowship from the University of Pennsylvania, a Master's Certificate in Information Security from Villanova University and a BS in Mechanical Engineering from Pennsylvania State University.

Wrote "Data Crush: How the Information Tidal Wave is Driving New Business Opportunities", published by AMACOM Publishing, recipient of GetAbstract's International Book of the Year Award, 2014.

Wharton Club DC's Benjamin Franklin Innovator of the Year, 2015

Honored Consultant, The FutureTrek Community, Beijing, China

Contributing editor and columnist for *European Business Review* magazine.



# Changing Expectations

## Homeland Security Secretary Says He'll Do All He Can to Prevent Terrorism

JOSHUA GREEN

TECH 9/16/2014 @ 7:37AM | 157 views

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Lutz Finger  
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# Our Future: Free Will vs. Predictions Based On Data

SOCIAL IMPACT

+ Comm

## Can Big Data Feed the World?

What

Sep 12, 2014

BEIJING, Sept. 11 (Xinhua) — A national program for preventing cardiovascular diseases in China, will be launched this week, announced Thursday.



In 1968, Paul Ehrlich began his bestselling book, *The Population Bomb*, by asserting that a rapidly expanding population was

# Six Challenges of “The New Normal”

**Quality**: Consumers expect perfection. Deliver less and your customers will abandon you forever.

**Ubiquity**: Globalization means anything, anywhere, anytime. Anything less is unacceptable.

**Immediacy**: Immediate gratification. “There’s an app for that” instantly, predictively.

**Disengagement**: Don’t build, don’t run, don’t outsource, don’t care. I only buy a result.

**Intimacy**: Customers hunger for other forms of connectedness. Feeling like part of a community will be even more important as our needs are met more anonymously.

**Purpose**: Support customers’ need for and sense of purpose.



# Zombie Apocalypse?





## **Socialfication**

**In 2014, Facebook had 1.3 billion users**

**The average American spends 40 minutes per day on FB**

**The average American spends 33 minutes per day on email**

**Social MUST be part of every policy decision!**

**CAN YOU LIVE  
TWO WEEKS  
WITHOUT  
SOCIAL MEDIA?**

# Creeping Towards Creepy

## Amazon says it can ship items before customers order

William M. Welch, USA TODAY 8:50 p.m. EST January 18, 2014



(Photo: Oli Scarff, Getty Images)

SHARE 11

f 4650  
CONNECT 11

t 898  
TWEET 11

96  
COMMENT 11

EMAIL 11

MORE 11

Online retail giant Amazon says it knows its customers so well it can start shipping even before orders are placed.

The Seattle-based company, which late last year said it wants to use drones to speed package delivery, gained a patent last month for what it calls "anticipatory shipping," the *Wall Street Journal* reports.

Amazon, the *Journal* reported, says it may box and ship products that it expects customers in a specific area will want, based on previous orders and other factors it gleans from its customers' shopping patterns, even before they place an online order.

Among those other factors: previous orders, product searches, wish lists, shopping cart contents, returns and other online shopping practices.

Amazon has worked to cut delivery times as a way of encouraging more orders and satisfying customers, such as by expanding its warehouse network and making some overnight and even same-day deliveries.

Amazon didn't estimate how much delivery time it expects to save, or whether it has already put its new system to work, the *Journal* reported.

"It appears Amazon is taking advantage of their copious data," Sucharita Mulpuru, a

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LOOKING FOR A JOB?

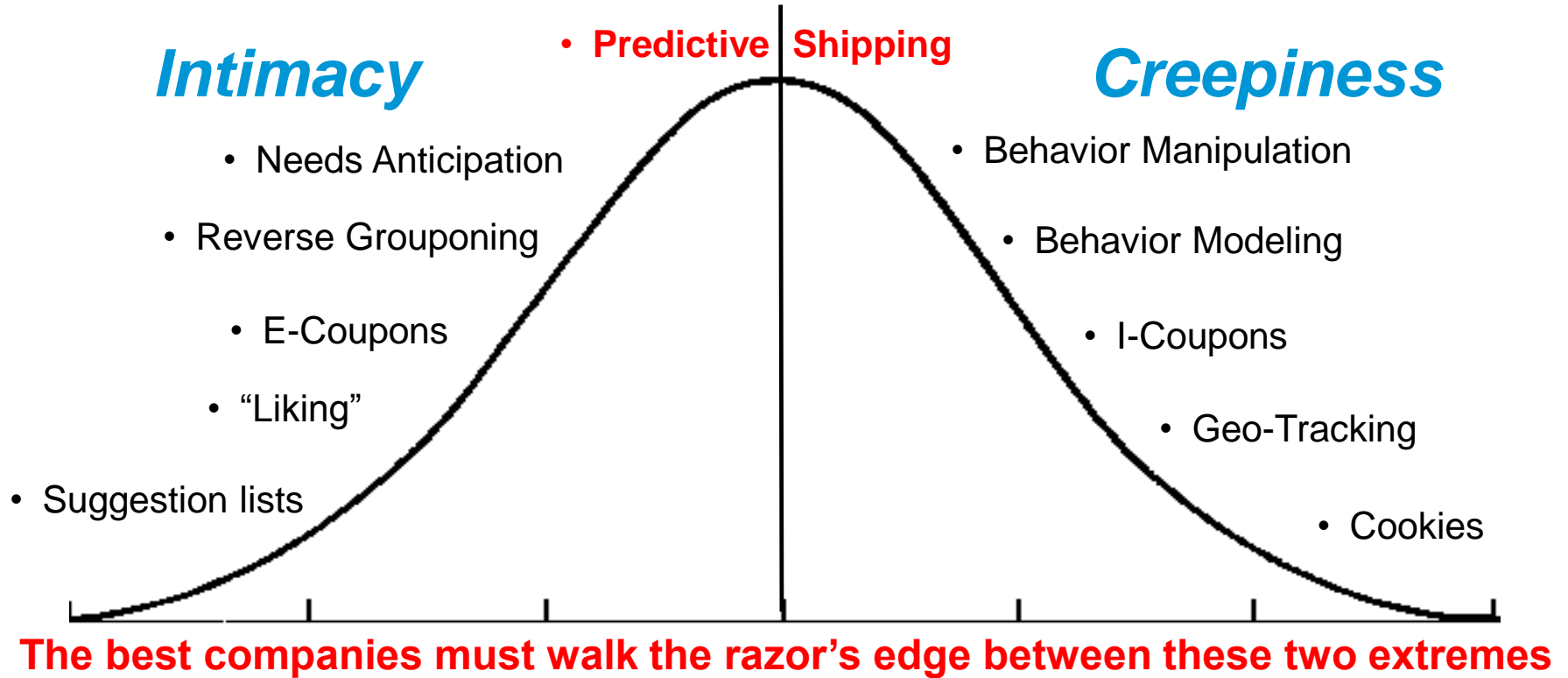
Keywords

Location

Select Job Category



# What's the Issue, What's at Stake?





# Innovation Outpaces Morality?

“Like” this if  
you feel  
violated...



The image is a screenshot of a news article from the Mirror website. At the top left, there is a 'WORLD CUP' logo for the 2014 Brazil tournament. The Mirror logo is prominently displayed in the top center. To the right, there is a promotion for mobile and tablet apps. Below the header is a navigation bar with categories like 'Most read', 'Live feeds', 'Recommended for you', 'News', 'Football', 'Celebs', 'TV & Film', and 'Weird News'. A 'TRENDING' section lists topics such as 'ROLF HARRIS', 'MUST SEE', 'MICHAEL SCHUMACHER', 'PISTORIUS TRIAL', and 'MADELEINE MCCANN'. The article title is 'Facebook secretly manipulated moods of 700,000 users in huge creepy psychology experiment' by Mikey Smith, dated June 29, 2014. The article text states that users were freaked out as the social network revealed it had been messing with their news feeds to affect their emotional state. At the bottom, there are social sharing options for Facebook (3490 Shares), Twitter, Google+, and Email. A small image of a woman is visible on the right side of the article.

**WORLD CUP** BRAZIL 2014  
Get all the latest news and live action >

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Most read Live feeds Recommended for you News Football Celebs TV & Film Weird News

TRENDING ROLF HARRIS MUST SEE MICHAEL SCHUMACHER PISTORIUS TRIAL MADELEINE MCCANN Sport Technology Money Travel

News Technology & Science Facebook

## Facebook secretly manipulated moods of 700,000 users in huge creepy psychology experiment

Jun 29, 2014 19:45 By **Mikey Smith**

Users freaked out as the social network revealed they'd been messing with their news feeds to try and affect their emotional state

3490 Shares  Share  Tweet  +1  Email



# Why Care?

What if analytics and predictive technologies can change customer behavior 1%?

In reality, these technologies easily double or triple results

Can changes to the customer environs double their purchases?  
Triple? Do you know?

## Cha-Ching!!!



**\$18 billion in increased revenue!**

# Case Study: License Plate Recognition

Autonomy Virage Automatic Number Plate Recognition v4.18

Options







PLATE	TIME	CODE	EM	TYPE
44439	15:00:53	B	DB	Private

44439 15:00:53 B DB Private


1 plate reads



# Face Recognition Demo: Office Entrance

Virage Face Recognition v2.0

Live View



Captured Image

Database Image

Brightness 179

Contrast 167

Live Camera

- Camera 3
- Camera 4
- Camera 5
- Camera 6
- Camera 7

Capture Options

Video  Manual

Recognition Options

Result to Display 1

Threshold 17 %

Active Cameras

- Camera 1  Camera 9
- Camera 2  Camera 10
- Camera 3  Camera 11
- Camera 4  Camera 12
- Camera 5  Camera 13
- Camera 6  Camera 14
- Camera 7  Camera 15
- Camera 8  Camera 16

Name	Camera	Score (%)	Time and Date
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Stop Database Exit



# Use case – Police surveillance



# Use Case – Counting and Access control



# The Privacy Paradox

I demand “deep personalization”

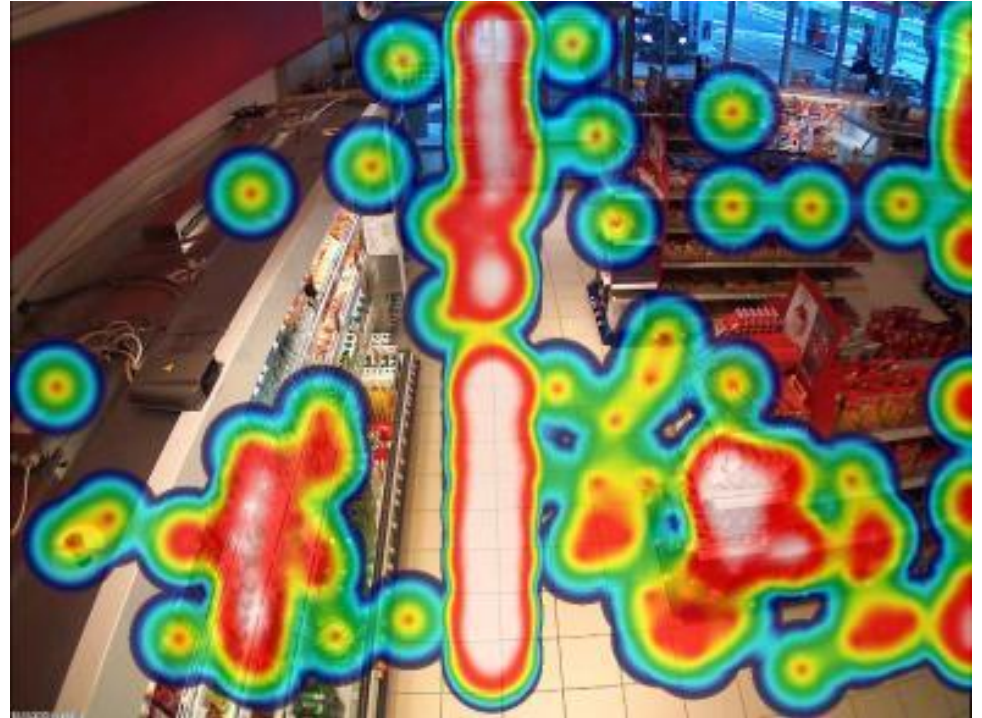
- What I want
- Where I want
- When I want
- How I want

I expect privacy

- Anonymity
- Freedom
- Protection

Pick \*ONE\*

*because you can't have both!*



# What is for sale?

Top 6 Companies in the World, by Market Capitalization, June 2014 (Source, PwC)

<u>Rank</u>	<u>Who?</u>	<u>What do they Sell?</u>
1		Phones?
2		Oil
3		Nothing?
4		Money
5	 <i>PetroChina</i>	Oil
6		Stuff



# YOU ARE THE PRODUCT!



Companies like Google, Facebook, Yahoo, Twitter and Microsoft (Bing) spend tens of billions of dollars per year on servers, storage, networking and electricity

How much did you pay to use their services?

# Do You Read Your EULAs?

The Language in End User License Agreements (EULAs) are broad, open to a range of interpretations, and are designed to allow vendors to make money from your data

## The Insidiousness of Facebook Messenger's Android Mobile App Permissions (Updated)

Posted: 12/01/2013 6:13 pm EST | Updated: 08/11/2014 5:59 pm EDT

803k 228742 10710 0 52

Like Share Tweet LinkedIn Comment



*Corrections/Updates (4:45pm EST 8/11/2014): A previous version of this post contained inaccurate and outdated information about Facebook's Messenger app for Android devices (Facebook has provided its own response to concerns about the app [here](#)). The post incorrectly equated the app's Terms of Service to its Android-specific permissions language, and the permissions language it originally quoted has since been updated by Google. These changes are now reflected in the post.*

How much access to your (and your friends') personal data are you prepared to share for access to free mobile apps? I suspect the amount is significantly less than that which you actually agreed to share when blindly accepting an app's Terms of Service or the default permissions required by a given operating system for an app to function.

Case in point: Facebook's Messenger App, which boasts more than 200,000 million monthly users, requires you to allow access to an alarming amount of personal data and, even more startling, direct control over your mobile device. I'm willing to bet that few, if any, of those using Messenger on Android devices, for example, fully considered the permissions they were accepting when using the app.

ADVERTISEMENT

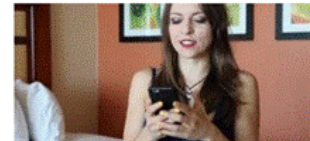
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LG G3  
**\$50** <sup>\$150</sup>  
with 2-year  
Tab24 agreement  
on a Smart plan

fido

SUGGESTED FOR YOU



# Facebook EULA

As of 12 February, 2015

**By using or accessing Facebook Services, you agree that we can collect and use such content and information in accordance with the [Data Policy](#) as amended from time to time.**

# Google's EULA

[From Support.Google.com](https://support.google.com); 8/11/2014

## **Camera/Microphone**

An app can use your device's camera and/or microphone.

Camera and microphone access may include the ability to:

Take pictures and videos

Record audio

Record video



# Data Crush

## Six Impacts:

1. Contextification: Where and when matter
2. Socialfication: Everything interconnected, interdependent
3. Quantafication: Every process broken down and right-sourced
4. Appification: Expectation of perfect, cheap and instant gratification
5. Cloudification: EaaS (EVERYTHING as a Service)
6. Thingification: Everything connected and intelligent

## Six Imperatives:

1. Polarize: Commodity or Quality, pick one
2. Accelerate: Cut every cycle time in half, every 12-18 months
3. Data Enable: Every employee data-literate, every process data-aware
4. Quantify: Measure absolutely everything
5. Gamify: Put customers to work
6. Crowdsource: Employ the 1 billion new middle-class



# There is Much Good to Be Done

Tremendous benefit to be had from these technologies



The “Tricorder” from Star Trek is real!

Completely changes the diagnostic landscape

Makes the “front-half” of the Healthcare Value Chain irrelevant

**10 FINALIST TEAMS  
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Teams Advance in Global Competition to Develop  
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# China Pursues “Internet +” Strategy

China is pursuing an "Internet Plus" action plan that seeks to drive economic growth by integration of Internet technologies with manufacturing and business, according to a government work report issued at the National People's Congress.

Speaking at the March 5 opening meeting of the National People's Congress, Premier Li Keqiang spoke of the "Internet Plus" concept in his [2015 Government Work Report](#). According to Premier Li's report, "Internet Plus" entails integration of mobile Internet, cloud computing, big data and Internet of Things with modern manufacturing, fostering new industries and business development, including e-commerce, industrial Internet and Internet finance.

The aim of the plan is to promote innovation-driven development and upgrade China from being a "big industrial country" to a "powerful industrial country", a goal often seen in recent Chinese government policy pronouncements. In his report, Premier Li also mentioned the policy goals of three network convergence, accelerating fiber optic network construction, improving broadband speed and promoting information consumption.

# Are You Ready for “Globalization of the Mind?”

1 billion new entrants to the  
global middle class by 2025

**NONE** of them in the  
Developed World

(Where the middle class will shrink)

Think things are tough now?  
You have no idea...

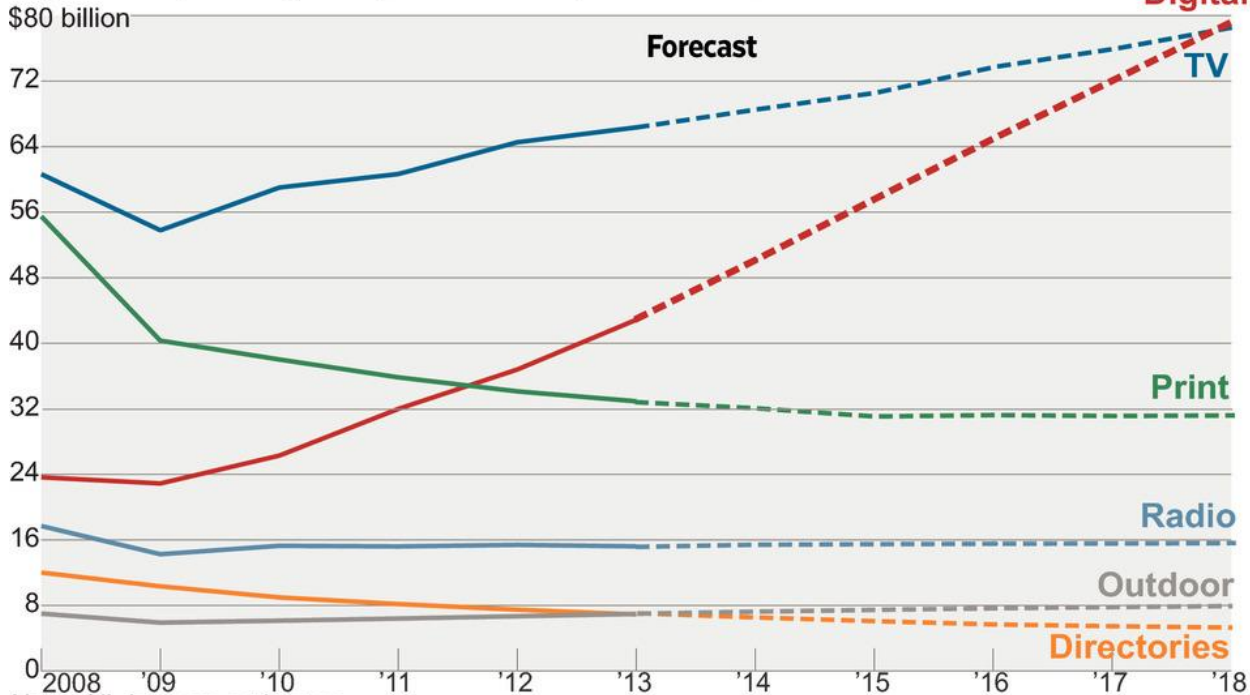




# Where's the Power? Follow the Money

## U.S. Total Media Ad Spending, 2008-2018

Digital ad spending is expected to surpass TV in 2018.



Note: All data are estimates.  
Source: eMarketer

Rani Molla/The Wall Street Journal

# What Can We Do?

The First Battle of the War on Privacy is Long-Over...

Google™

...You and I lost

None of us is giving up our  
smart phones without a fight

You cannot legislate at the  
pace of innovation



# Reasonable Goals

## ***A Framework for Workable Privacy***

**Disclosure**: Companies would notify consumers in detail what is collected, how frequently, by whom, and how it may be used.

**Transparency**: Consumers would be notified when their data is being used, in real time, to influence their opinions or actions.

**Recourse**: Consumers would be allowed to adjust how their data is used to suit their own comfort level. This would mean no more blanket authorizations when a user downloads an app or signs up for an account.

**Monitoring**: Consumers must be able to confirm that businesses respect their wishes.

# Disruption is Guaranteed

Are you  
disrupting,

or

being  
disrupted?



TWEET THIS!

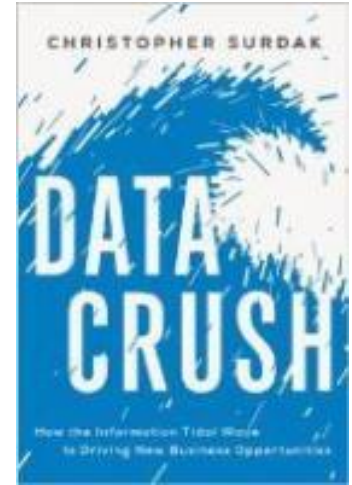
Over 40% of the companies that were at the top of the Fortune 500 in 2000 were **no longer there in 2010.**

Source: Brian Solis' Future of Business

# Thank You

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M: 714.398.4874

If you'd like to learn more, check out "*Data Crush*,"  
getAbstract's International Book of the Year, 2014



Also see my columns in *European Business Review*, *HP Matter* and *TechBeacon* Magazines, and my blogs on *HP.com*, *EBReview*, *ChinaBusinessReview*, *Dataconomy.com*, *Inc. Magazine*, and *About.com*

Look for my second book, "*Jerk*," coming in 2016, foreword by Don Tapscott, business guru and best-selling author of "*Wikinomics*," "*Growing Up Digital*" and 12 other best-selling business books

And thereafter, book three, "*Rupture*," coming in late-2016