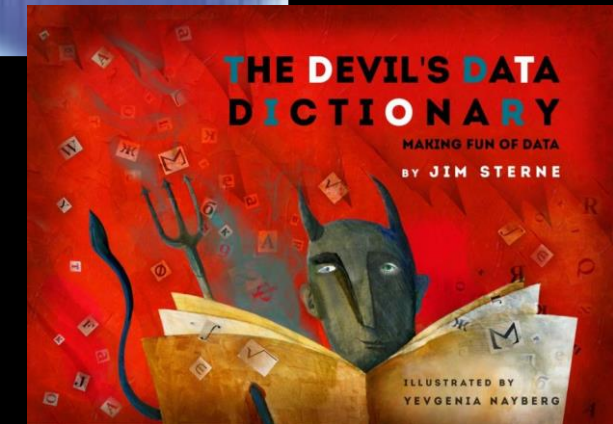
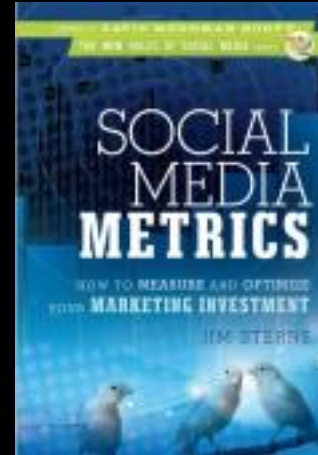
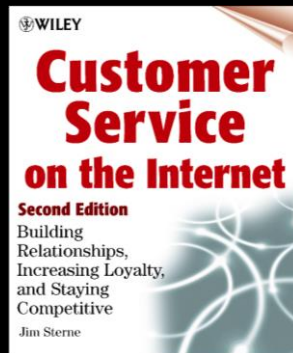


# Jim Sterne

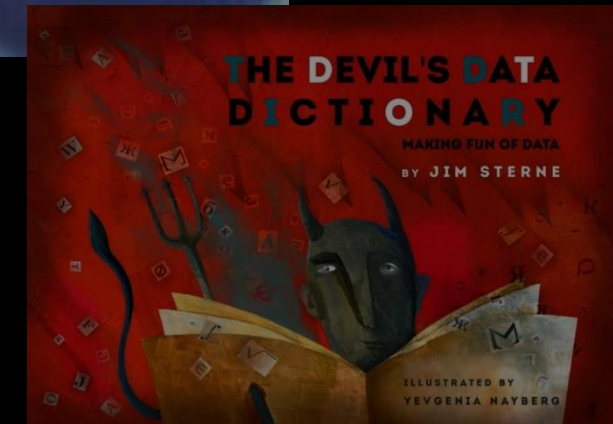
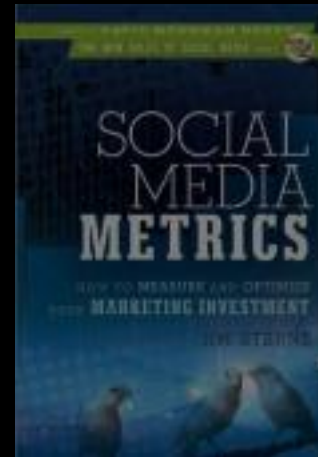
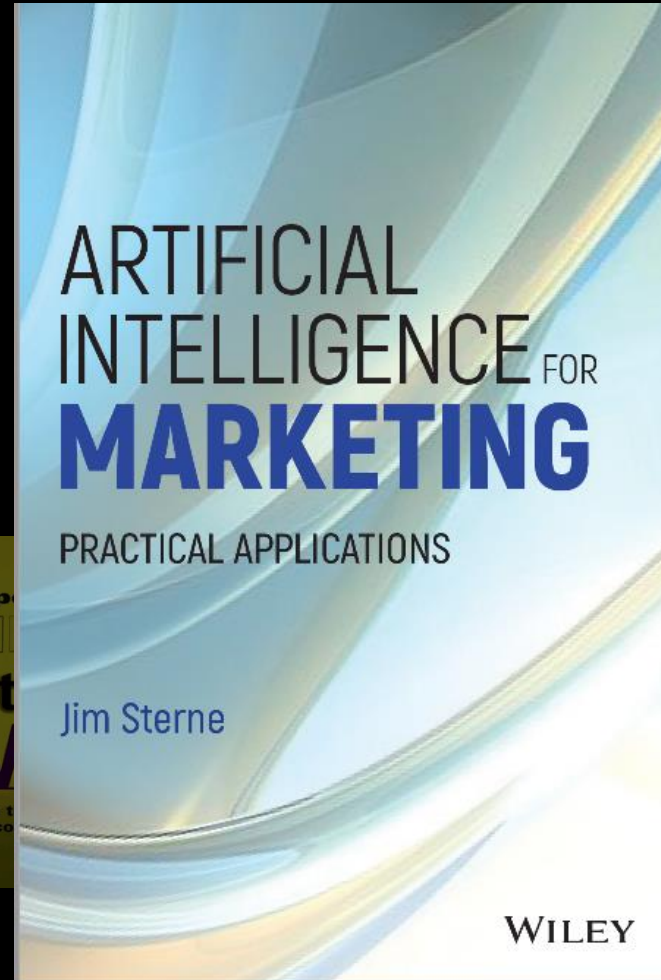
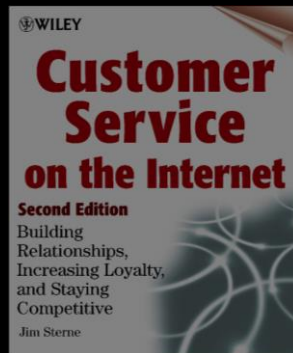
## Artificial Intelligence for Marketing



jsterne@targeting.com — Marketing Evolution Experience.com — @jimsterne

# Jim Sterne

## Artificial Intelligence for Marketing



jsterne@targeting.com – Marketing Evolution Experience.com – @jimsterne

# Why AI Now?

50 years of study

Cheap storage of Big Data

Massively parallel processing (GPUs)

Open Source algorithms



# Intro to Artificial Intelligence for Marketing

What is it?  
How does it work?  
What is it good at?  
What is it good for?



# Artificial Intelligence

Natural Language Understanding

Conversation Bots

Computer Vision

Self-Driving Cars & Robots

**Machine Learning**

# Intro to Artificial Intelligence for Marketing

What is it?

How does it work?

What's it good at?

What is it good for?



# Software Grows Up

## Specific Logic

Do this, then this, then this

If this happens, do that

If confused, report error

## Mathematical Model

## Statistical Model

## Machine Learning

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Describe numerical relationships

Calculate alternatives

Human compares results & iterates

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Project likelihoods

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If confused, report error

## Statistical Model

Calculate probabilities

Project likelihoods

Human compares & iterates

## Mathematical Model

Describe numerical relationships

Calculate alternatives

Human compares results & iterates

## Machine Learning

Uses examples to figure it out  
and changes it's mind

# Intro to Artificial Intelligence for Marketing

What is it?

How does it work?

What's it good at?

What is it good for?

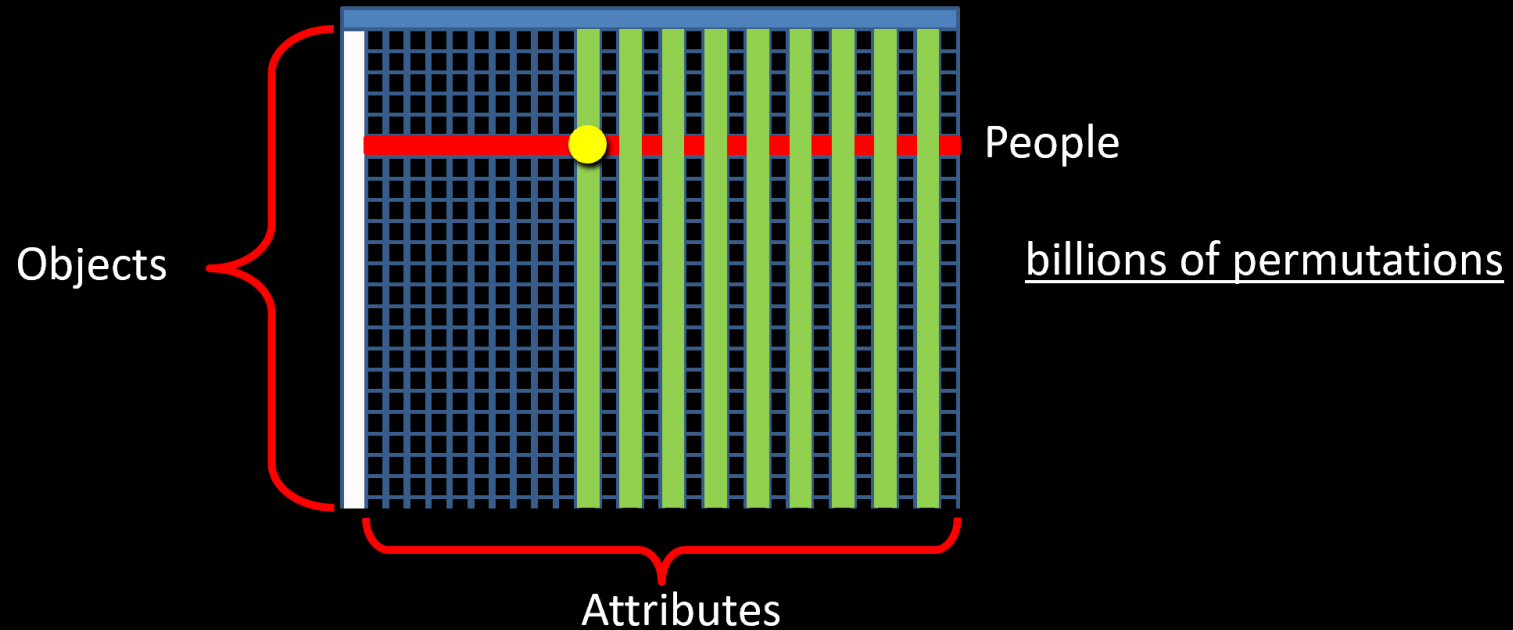


# Machine Learning is Good At High Dimensionality & High Cardinality

# Machine Learning is Good At High Dimensionality & High Cardinality

Dimensionality = Attributes per Object

Cardinality = Options per Attribute





# Intro to Artificial Intelligence for Marketing

What is it?

How does it work?

What's it good at?

What is it good for?



# Machine Learning is Good For

Repetitive, high volume, taxing tasks

Ranking

Sorting big data

Finding patterns

Finding look-alikes

Counting, measuring

Finding a needle in a haystack

One of these things is not like the other

# What Can ML Do Better?

Testing

Lead scoring

Meeting scheduling

Personalizing content

Inbound e-mail sorting

Social media monitoring

Programmatic advertising

Display ad targeting, timing, messaging

Creating social media messages & ad copy

# Exploration ~~Analysis~~

Correlations	people with <i>this</i> attribute have <i>that</i> attribute
Segmentation	these people form a group
Clustering	there are X number of groups
Anomalies	these people are unique

Interesting? Useful? Worthy of further study?

# Humans Required for Analysis

Given enough data, a goal, and control,  
the machine can detect, decide, and revise  
IF the marketer provides the  
aspiration, the information, and the evaluation.



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Given enough data, a goal, and control,  
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IF the marketer provides the  
aspiration, the information, and the evaluation.

What problem are we solving?

What question do we want answered?

How will the results change our behavior?

# Humans Required for Analysis

Given enough data, a goal, and control,  
the machine can detect, decide, and revise  
IF the marketer provides the  
aspiration, the information, and the evaluation.

Determine which data sets are useful

Too much = noise  
Too little = overfitting  
Just right = insight



# Humans Required for Analysis

Given enough data, a goal, and control,  
the machine can detect, decide, and revise  
IF the marketer provides the  
aspiration, the information, and the evaluation.



# Your Domain Knowledge Rules

## Machine Advantages

- Amount of data
- Speed of correlation
- Repetition minus ennui
- Accuracy
- Cost
- Zero attitude

## Human Advantages

- Reason
- Common sense
- Emotion
- Empathy
- Experience
- Integrated cognition

# Human Advantage

Recognizing the problem  
Onboarding new ideas  
Relating non-related data  
Relating non-related experience  
Collaboration & Diversity  
Empathy  
Imagination





# AI Onboarding Tips



**Stéphane Hamel**

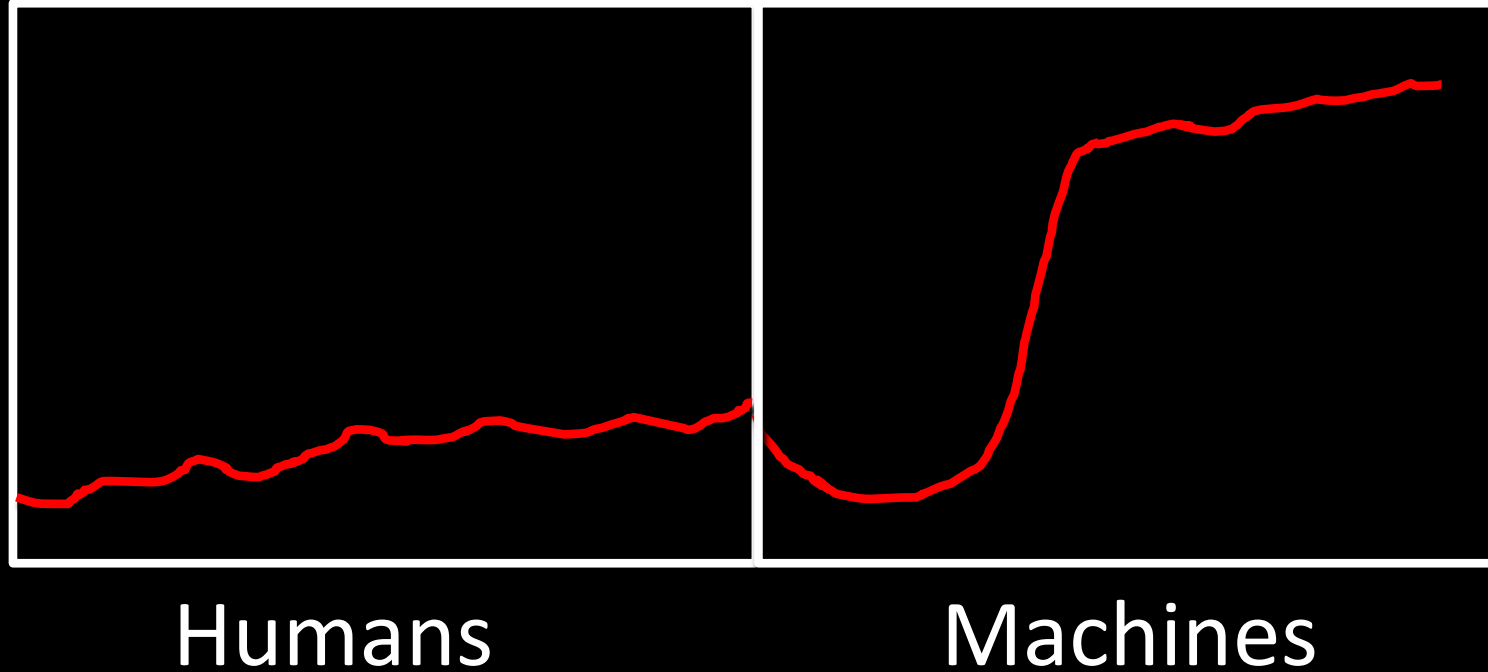
@SHamel67

Following



If Your Company Isn't Good at #Analytics, It's  
Not Ready for #AI [bit.ly/2rBRBYE](https://bit.ly/2rBRBYE)  
#digitalanalytics

# Machine Learning Bump



# It Takes a Village

Data Science

Analysis

Decision Maker

---

Data Engineering

Insights Gleaning

Tools Implementation

Reporting

Data Cleansing

Data Integration

# Building a Bridge to Data Science

Jim Sterne – President, Rising Media, &  
DAA Director Emeritus  
and

Ian Thomas – Former Data/Analytics Lead,  
Microsoft, DAA Director



Be Prepared:

Marketing is About to Get Weird





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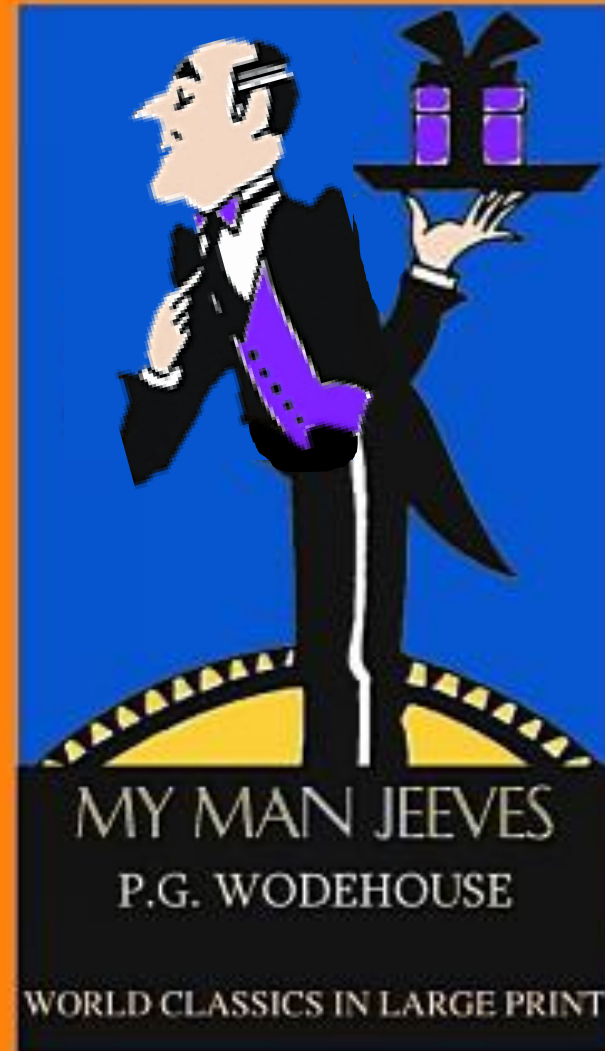
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