

How to turn Big Data into Business Answers & Strategies

Kiyomi Mori,
IP Product Marketing Specialist, Asia
June 5, 2015

| What is Big Data?

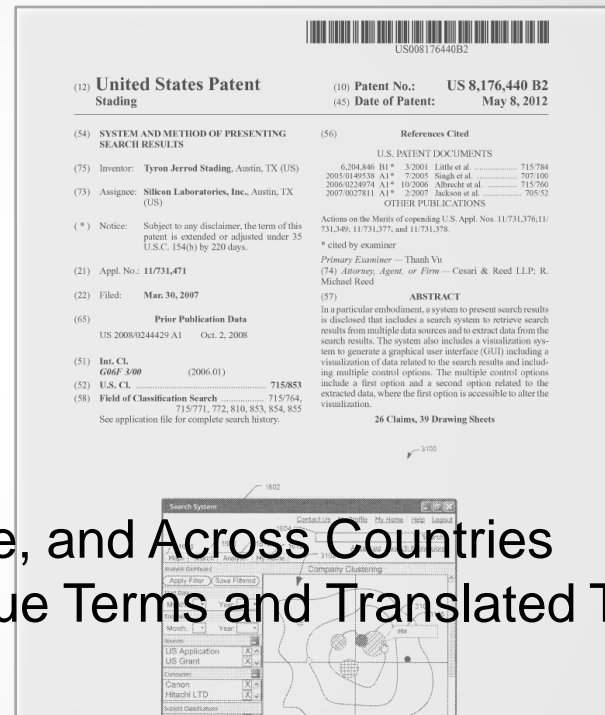
Gartner's Definition:

- **High-Volume:** Terabytes and petabytes of data
- **High-Velocity:** New data is added continuously, at high speed in and out
- **High-Variety:** Multiple forms of structured, unstructured and semi-structured data (esp. text)

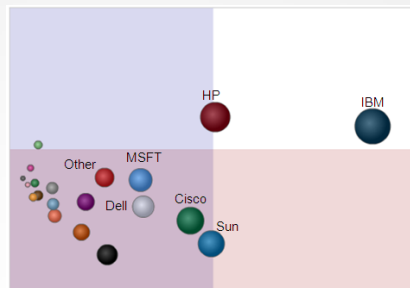
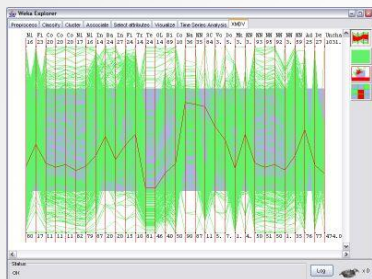
“...that requires new forms of processing to enable enhanced decision-making, insight discovery and process optimization.”

| Patent Data Characteristics

- Structured
- Lots of Metadata
- Citations
- Classification Codes
- State Codes
- Inferred Metadata
- Expiration Date
- Patent Families
- Structure Changes Over Time, and Across Countries
- Text – With Purposefully Vague Terms and Translated Text
- Images
- Many Errors in Names
- Continually Changing



Evolution of IP Tools to Handle Big Data



Patent Application Information Retrieved				
Order Certified Application As Filed Order Certified File Wrapper View Claims Table				
08/19,393 DOUBLE ACTING PULSE TUBE ELECTROACOUSTIC SYSTEM				
Select New Case	Application Data	Transaction History	Continuity Data	Fees Published Document/History/Agent
Bibliographic Data				
Application Number:	08/719,393	Customer Number:	-	
Filing or 371 (c) Date:	09-24-1996	Status:	Patent Expired Due to Nonpayment of Maintenance Fees Under 37 CFR 1.362	
Application Type:	Utility	Status Date:	11-01-2004	
Examiner Name:	KILMER, CHRISTOPHER B	Location:	FILE REPOSITORY (FRANCONIA)	
Group Art Unit:	3744	Location Date:	09-25-1998	
Confirmation Number:	9407	Earliest Publication No:	-	
Attorney Dock#:	7881.3802	Earliest Publication Date:	-	
Class / Subclass:	06/006	Patent Number:	5,813,234	
First Named Inventor:	HERBERT F. WISHARD, PORT ST. LUCIE, FL, US	Issue Date of Patent:	09-29-1998	
Title of Invention: DOUBLE ACTING PULSE TUBE ELECTROACOUSTIC SYSTEM				

Patent Analysis

- Text mining
- Document grouping

Patent Groups

Patent Search

- Keyword search
- Assignment and legal status search

Patent Documents

IP Intelligence

- Correlating business, legal, market, trademark and patent data
- Predictive analysis

Business-specific Answers

| How PatentStrategiesSM is Different

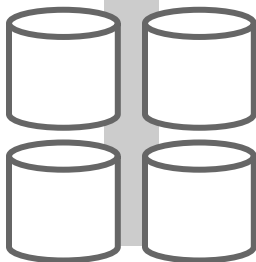
Typical Patent BI Tools

Visualization Library



Keyword Search

Raw Data Sources



PatentStrategiesSM Insight-Generating Approach

Answer-Driven Visuals

PatentScape™

Text Cluster

Market Map

Company Comparison

Relevance Delivery

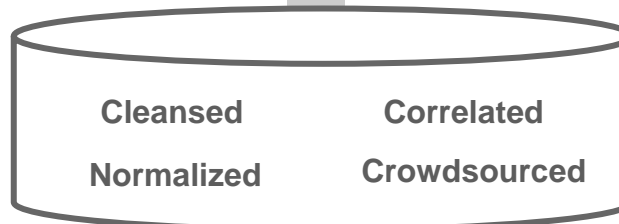
Semantic Search

“Find More Like This”

Metadata Search

PatentStrength™

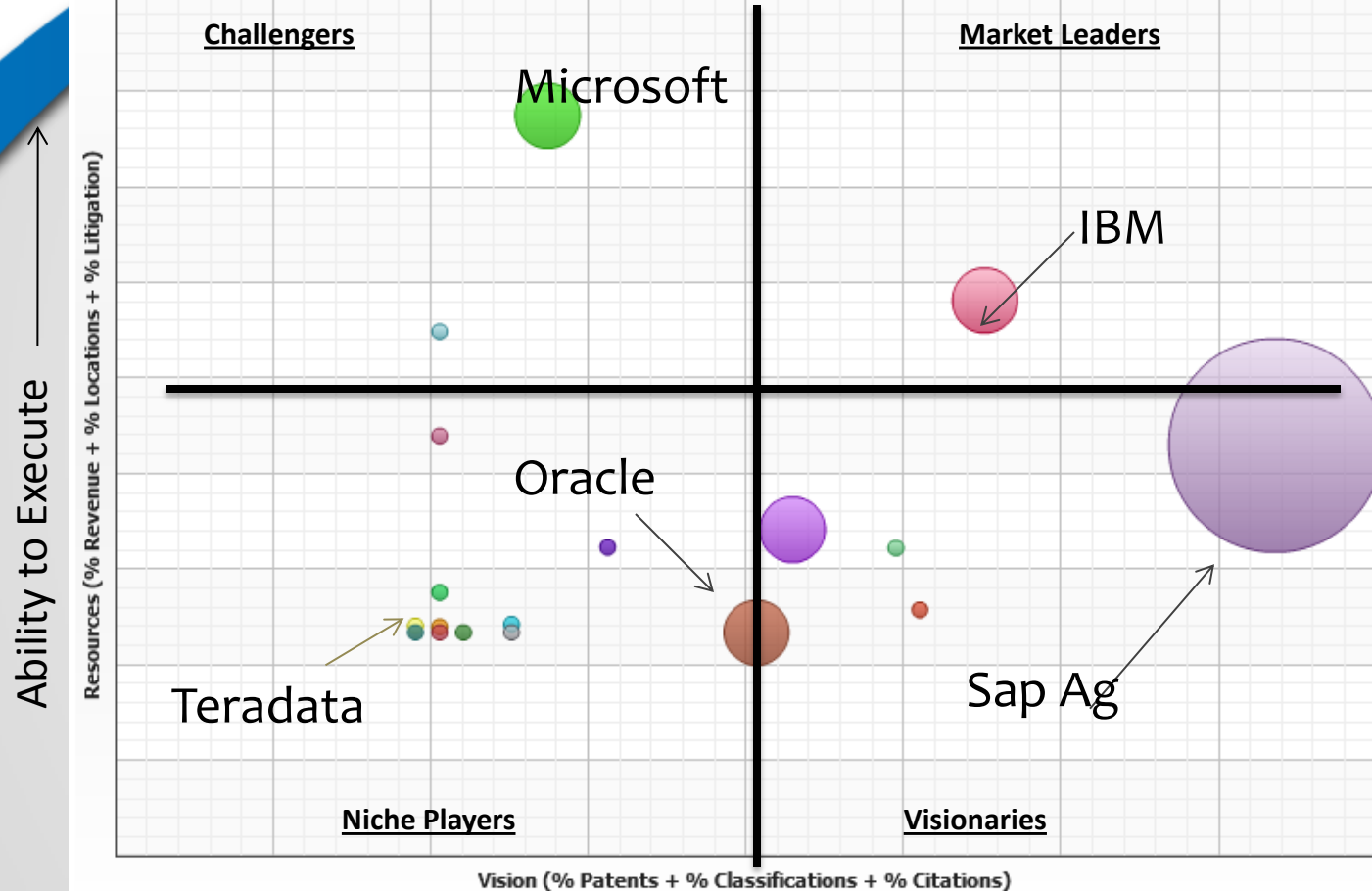
Data Clean Room



Patent StrategiesSM Examples

Social CRM: 2008-2010

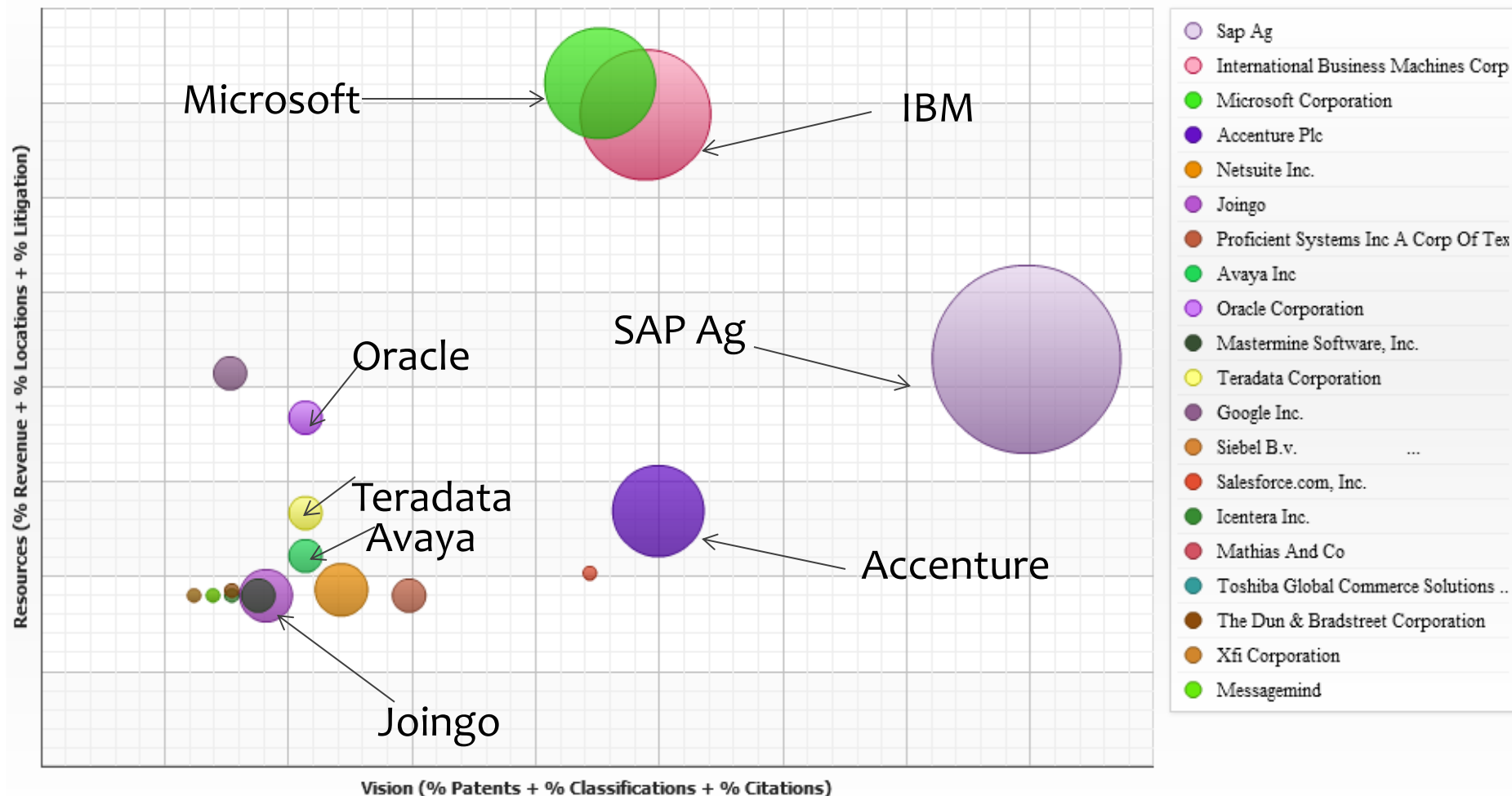
Patents, Revenue, & Litigation per Company



- Sap Ag
- International Business Machines Corp
- Oracle Corporation
- Microsoft Corporation
- Proficient Systems Inc A Corp Of Tex
- Ebay Inc.
- Samsung Electronics Co., Ltd.
- Teradata Corporation
- The Boeing Company
- Liveperson, Inc.
- Volume Interactions Pte. Ltd., Sin...
- Netsuite Inc.
- Accenture Plc
- Siebel B.v.
- Salesforce.com, Inc.
- Icintera Inc.
- Mathias And Co
- Avaya Inc
- Toshiba Global Commerce Solutions ..

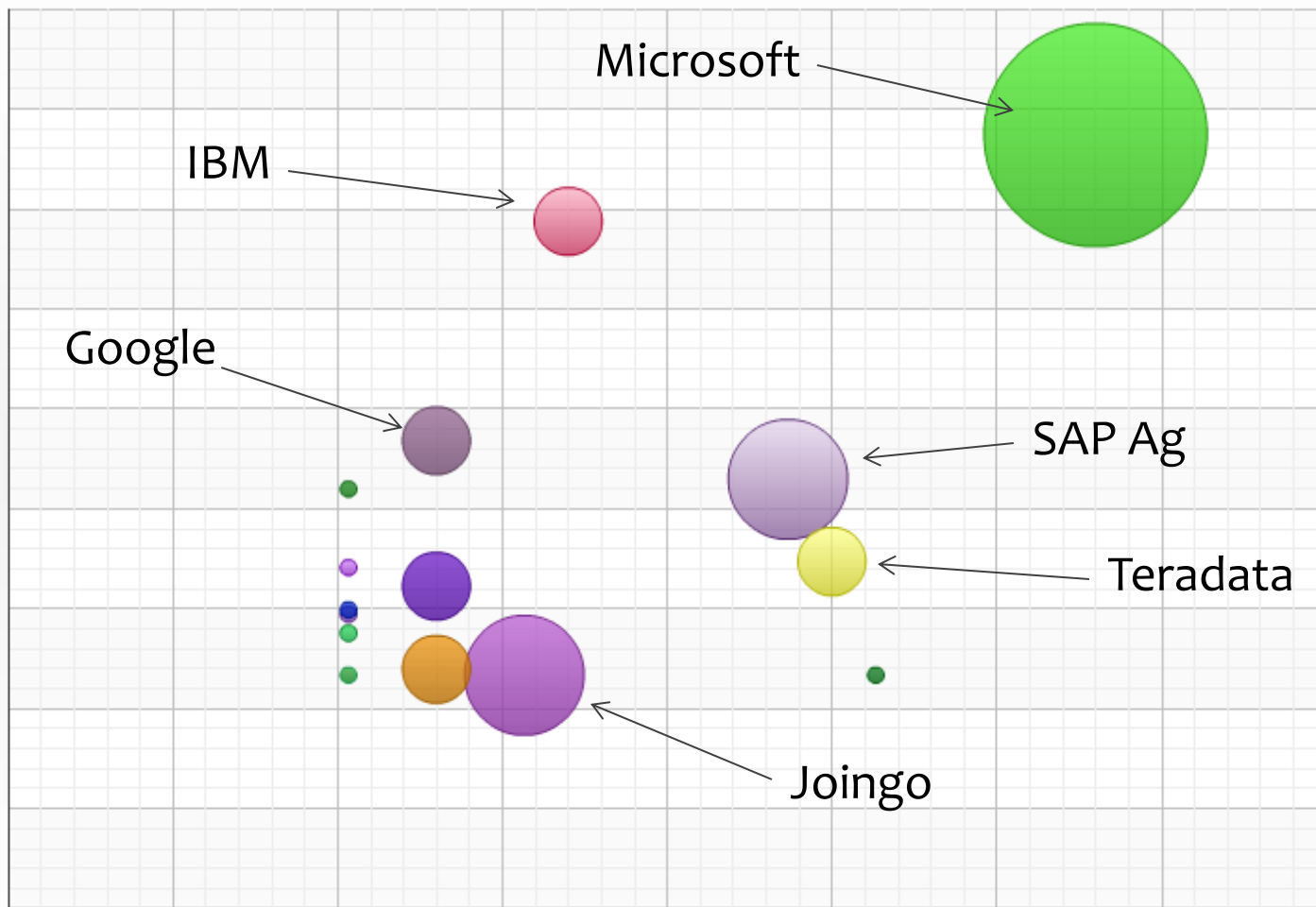
Social CRM: 2010–2012

Patents, Revenue, & Litigation per Company



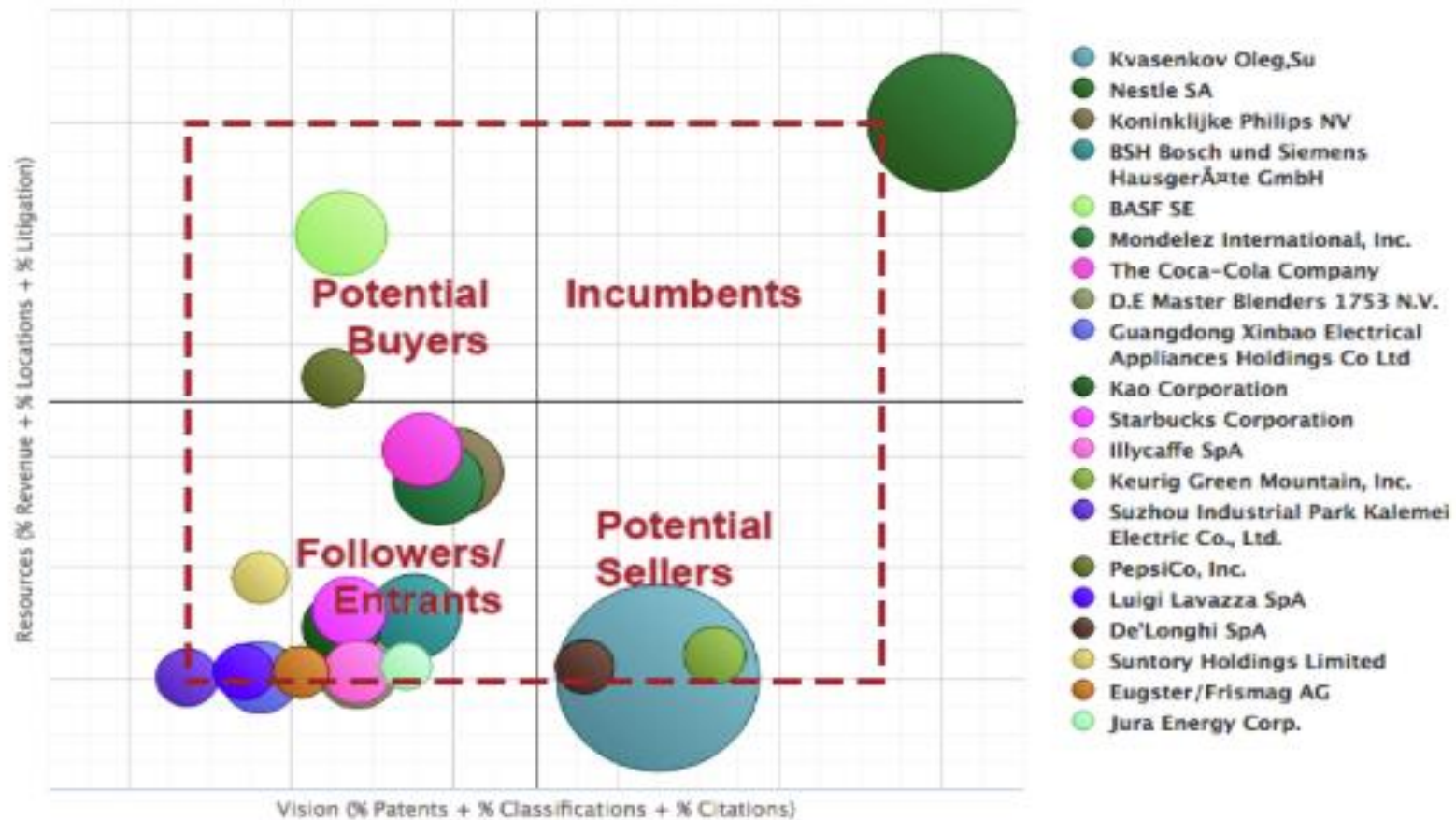
Social CRM: 2012–2014

Patents, Revenue, & Litigation per Company



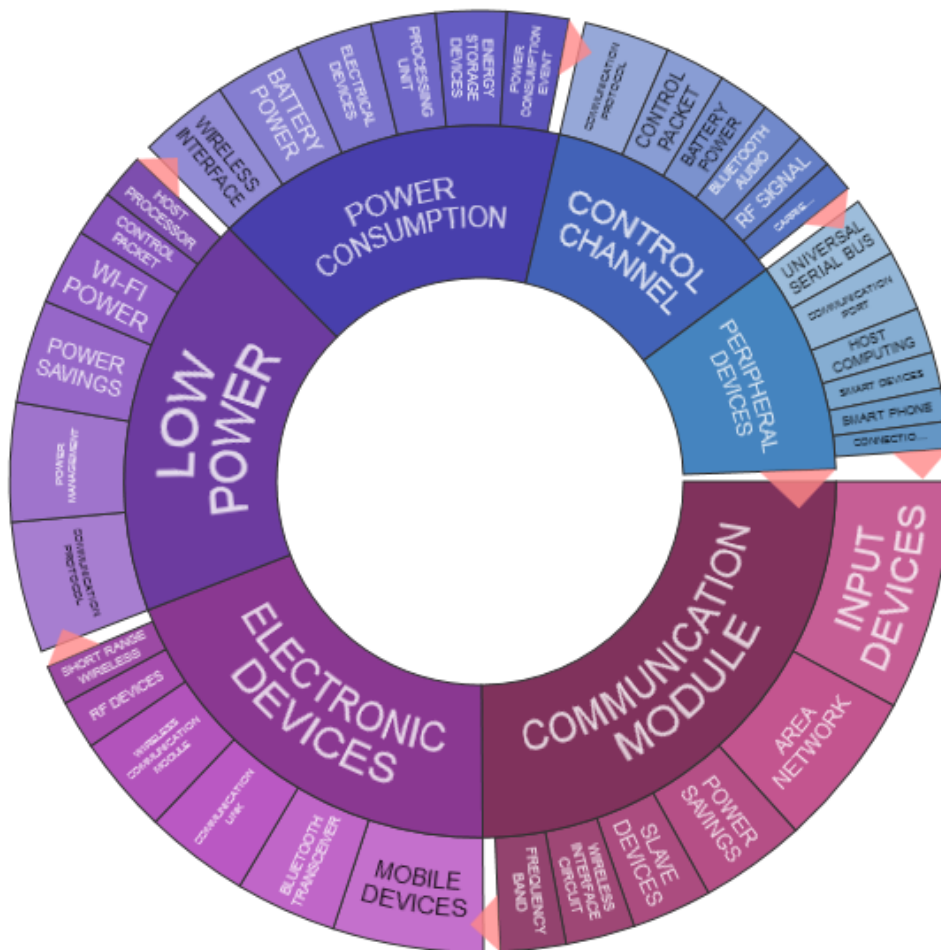
- Microsoft Corporation
- Sap Ag
- Joingo
- Accenture Plc
- International Business Machines Corp
- Teradata Corporation
- Netsuite Inc.
- Google Inc.
- Hobsons, Inc.
- Balhuun Inc.
- Super Derivatives Inc
- Voice Media Lab, Inc
- Avaya Inc
- Dell Inc.
- Novitaz Inc
- Alcatel-lucent
- Hartford Financial Services
- Oracle Corporation
- Moontoast, Llc
- Valkre Solutions, Inc.

Patents, Revenue, & Litigation per Company



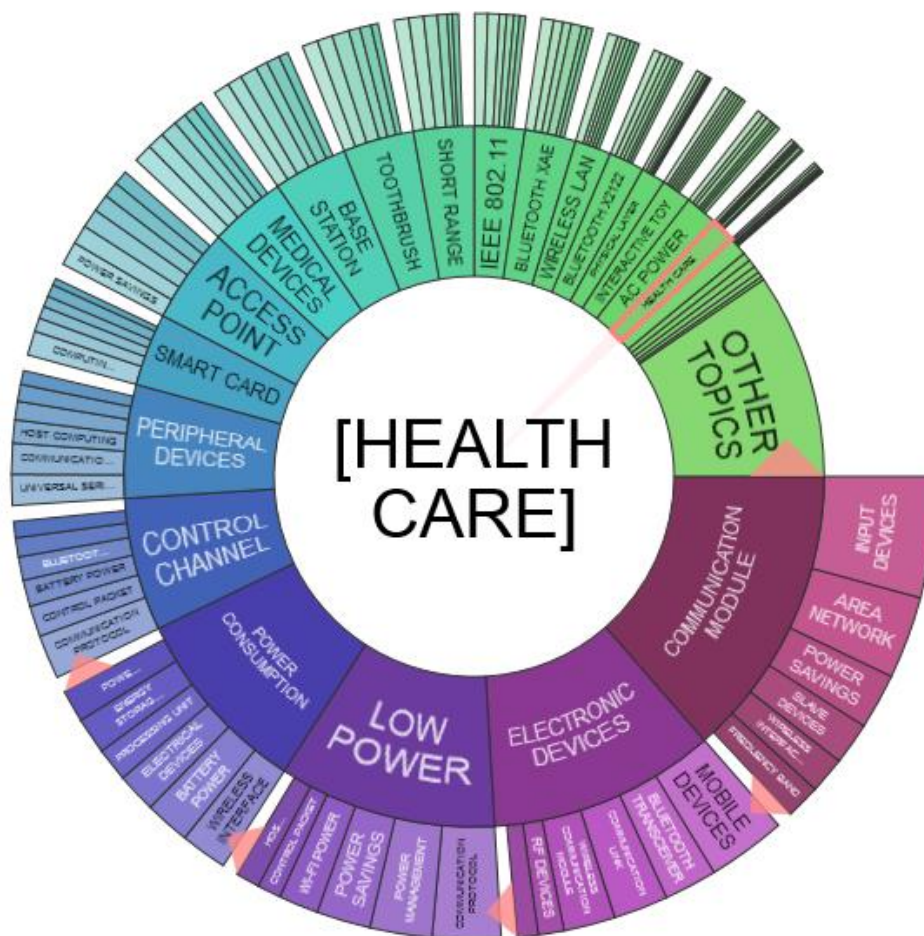
Component Technologies – Low Energy Bluetooth

1000 Patents, 299 Text Clusters (From Title, Abstract, and Claims)



Component Technologies – Low Energy Bluetooth

1000 Patents, 299 Text Clusters (From Title, Abstract, and Claims)



Component Technologies – Low Energy Bluetooth

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Jobs History

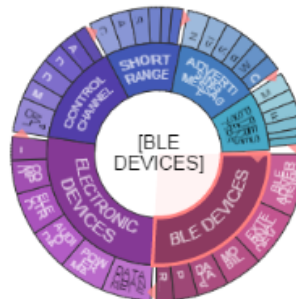
Results: 1000 Patents, 253 Text Clusters (From Title, Abstract, and Claims)

Save Search

Display Options

Group: Text Cluster	View: Circles
Text Cluster	Circles Table Grid

Clear Selection



Selected: 0 Patents

Analyze Save Patents Export

<input type="checkbox"/>	#		ID	Title	Assignee	Published	Relevance
<input type="checkbox"/>	1		US8851372 B2	Wearable personal digital device with changeable bendable battery and expandable display used as standalone electronic payment card		10-07-2014	--
<input type="checkbox"/>	2		US20140315401 A1	Wireless communication device and method for power-efficient data transfer	Intel Corporation	10-23-2014	--
<input type="checkbox"/>	3		US20140239085 A1	Wearable personal digital device with changeable bendable battery and expandable display used as standalone electronic payment card		08-28-2014	--
<input type="checkbox"/>	4		US20140157135 A1	Method and mobile terminal for controlling bluetooth low energy device	Samsung Electronics Co., Ltd.	08-05-2014	--
<input type="checkbox"/>	5		US20130348494 A1	Cloud-based system and method for sharing media among closely located devices	Google Technology Holdings Llc	12-26-2013	--
<input type="checkbox"/>	6		US8712330 B2	Method and system for bluetooth low power link layer connection setup	Broadcom Corporation	04-29-2014	--
<input type="checkbox"/>	7		US20140273858 A1	Adaptive data transfer using bluetooth	Fitbit, Inc.	09-18-2014	--
<input type="checkbox"/>	8		US20130108315 A1	Concurrent ble scanning and initiation for bandwidth efficiency and power saving	Broadcom Corporation, A California Corporation	05-02-2013	--

Component Technologies

– Low Energy Bluetooth

INNOGRAPHY

Home Projects Playbooks

You are analyzing 1000 Patents

Analyze by

- View Patents
- Text Clustering
- PatentScope ✓
- Recommended by Classification
- Backward Citations
- Forward Citations
- Forward + Backward Citations
- Family Expansion

Refine

Keywords

Enter Keywords

Include Body

Reduce By Family

Source

Extended References

Organization

Organization Revenue

Original Organization

CP Classification

IP Classification

US Classification

Filing Date

Priority Date

Publication Date

Wearable personal digital device with changeable bendable battery and expandable display used as standalone electronic payment card

Patent Number: US8851372

Inventors: Tiger T G Zhou, Dylan T X Zhou, Andrew H B Zhou

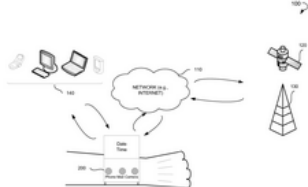
Status: **Active** Priority Date: 07-18-2011 Filed Date: 05-08-2014

Abstract

Provided is a wearable personal digital device and methods for enlarging display space using the wearable personal digital device. The wearable personal digital device may comprise a processor, a memory unit, an expandable display, a camera, a projector, a communication circuit, a swipe card reader, one or more biometric sensors, one or more accelerometers, a housing, and a band. The expandable display is be communicatively coupled to the processor and configured to expand to enlarge display space using a flip up portion, detachable portion, or bending the expandable display. The band may include one or more rechargeable batteries configured to power the wearable personal digital device. Biometric sensors and accelerometers provide data for monitoring health and activity of the user. The swipe card reader is configured to read payment card data.

Claims

1. A wearable personal digital device, the device comprising: a processor; a memory unit communicatively coupled to the processor; a basic display device, permanently mounted to the device and communicatively coupled to the processor, the basic display device having a first display space; a detachable display device, communicatively coupled to the processor, the detachable display device having a second display space and configured to expand the first display space by operably coupling the second display space with the first display space; a credit card-sized display device having a magnetic stripe and integrated circuit (IC) card reader, wherein the credit card-sized display device is configured to wirelessly couple to a front, rear, left side or right side of the basic display device; a camera communicatively coupled to the processor; a display projector communicatively coupled to the processor; a communication circuit communicatively coupled to the processor and configured to connect to a wireless network and to communicate with one or more external devices; a swipe card reader communicatively coupled to the



Also Published As

US20140239065 A1

Forward Citations

US20130146659
Wearable personal digital device for facilitating mobile device payments and personal use

Zhou, Dylan T X; Zhou, Tiger T G; Zhou, Andrew H B

US9016565
Wearable personal digital device for facilitating mobile device payments and personal use

Zhou, Dylan T X; Zhou, Tiger T G; Zhou, Andrew H B

Backward Citations

US20010017663
Portable image capturing device

Casio Computer Co., Ltd.
Yamaguchi, Ryusuke; Nagatomo, Shoichi

US20020012292

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Jobs History

Save Search

Clear Selection

Analyze Save Patents Export

Assignee	Published	Relevance
	10-07-2014	—
Intel Corporation	10-23-2014	—
	08-28-2014	—
Samsung Electronics Co., Ltd.	08-05-2014	—
Google Technology Holdings LLC	12-26-2013	—
ROADCOM CORPORATION	04-29-2014	—
Intel, Inc.	09-19-2014	—
ROADCOM CORPORATION, A California Corporation	05-02-2013	—
ROADCOM CORPORATION	05-02-2013	—

US8851372 B2

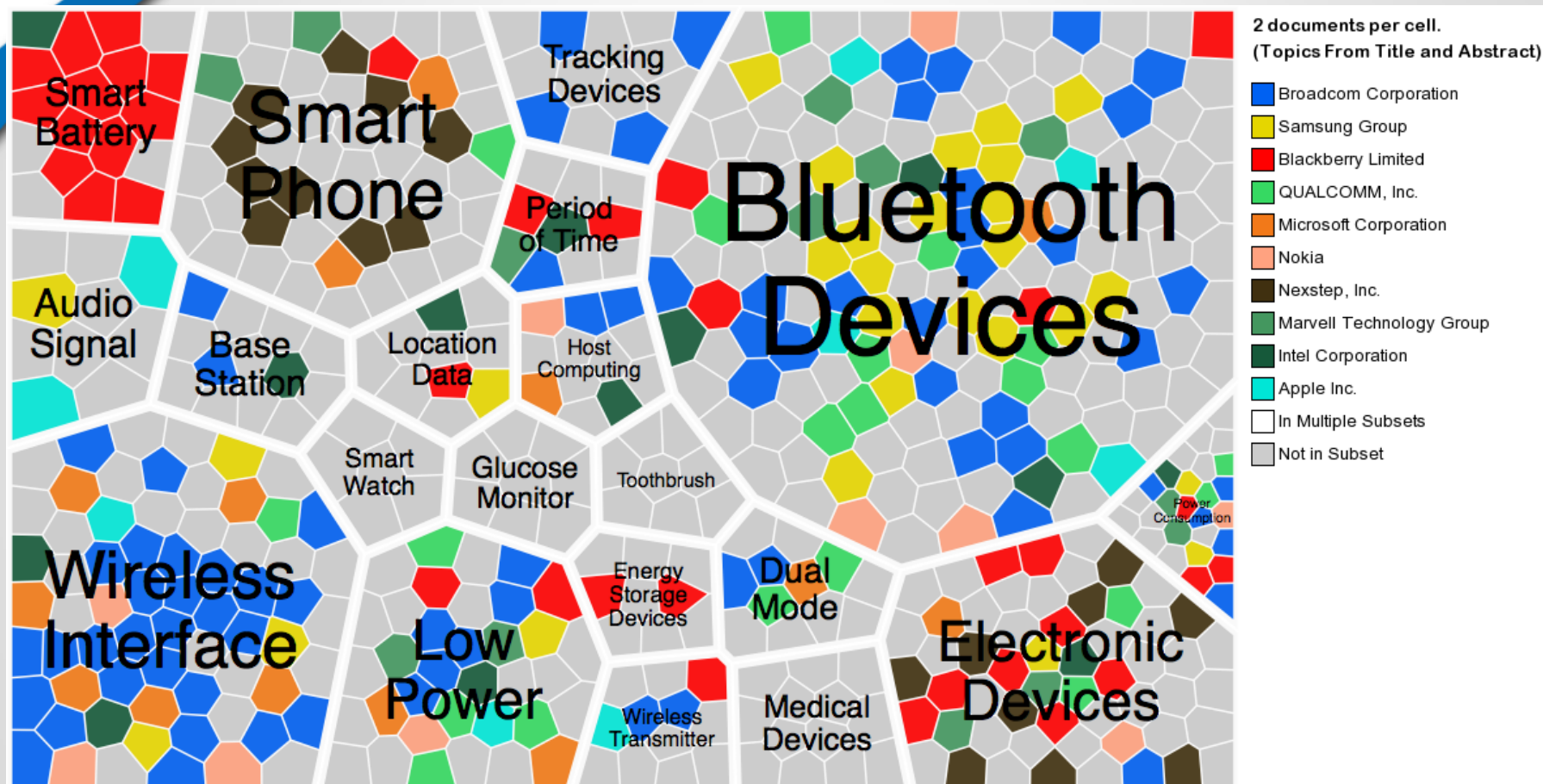
Wearable personal digital device with changeable bendable battery and expandable display used as standalone electronic payment card

1 of 218

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Differentiation in a Landscape



Evaluating Acquisition Candidates

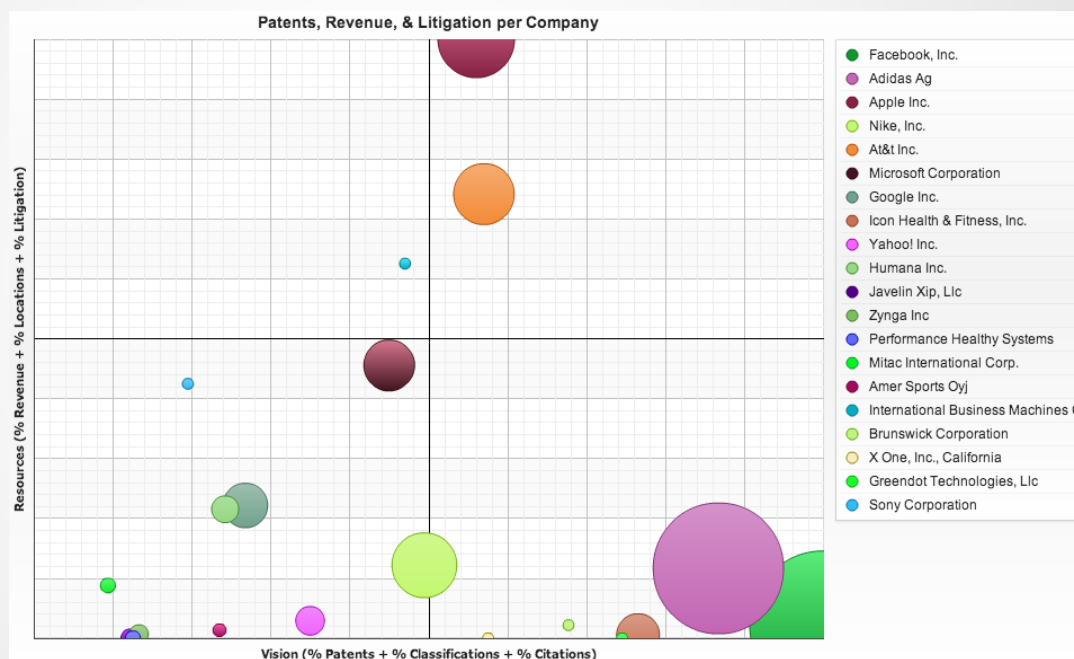
Risk of lawsuit even when acquire has no patents

Market map from semantic search of MapMyFitness's product description:

Example:

14.11.2013: Under Armour acquires MapMyFitness

4.2.14: Adidas sues Under Armour for patent infringement based on MapMyFitness products



➔ 8 of the 10 patents in the Adidas complaint are in the above market map

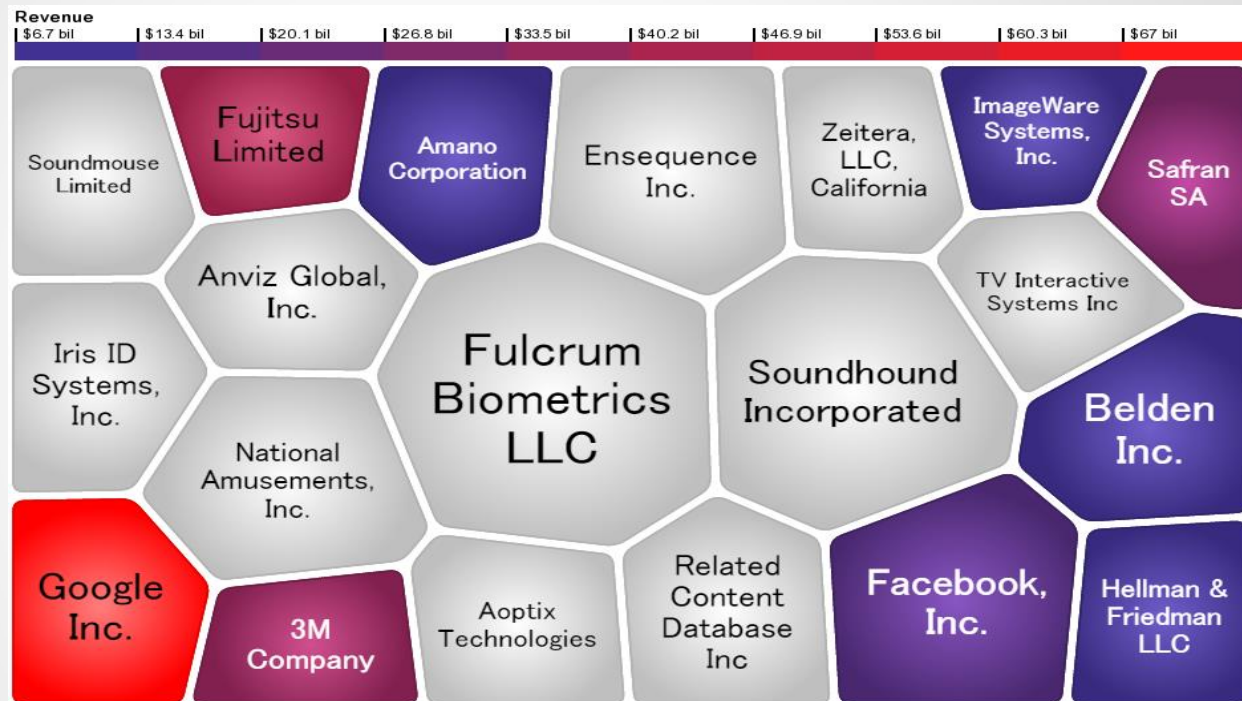
| Perform Litigation Analytics

- Blue Spike sued many companies -

Plan superior defensive and offensive strategies

Analyze

- Plaintiff
- Defendant
- Courts
- Judges
- Law firms
- Attorneys
- Outcomes
- Case events
- Filing year
- Cited patent
- Class codes



Covers:

- International Trade Commission (ITC),
- Patent Trial and Appeal Board (PTAB)
- Public Access to Court Electronic Records (PACER)
(US federal litigation of “830 Patent” only)

Thank you very much
謝謝您收看我的演講
ご清聴ありがとうございました