







# What's next?

Stefano Stinchi "Auditorium della Musica" October 12





## **Agenda**

- Where will we go?
- Going mobile ? (Convergence between IT and Mobile)
- Going predictive ? (Smarter Planet 2.0)
- Going somewhere else that is equally or more disruptive ?



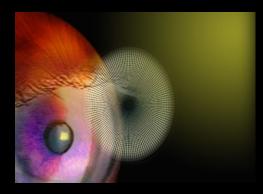
# planet SO



## Why are we here?















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# I told you so

I told you so

# "Our civilization runs on cilftware"

— Bjam D. Strockstfaller

This will be the software decade with a large shift of investment to software that will have significant ramifications for innovation, venture capital and enterprises strategy.

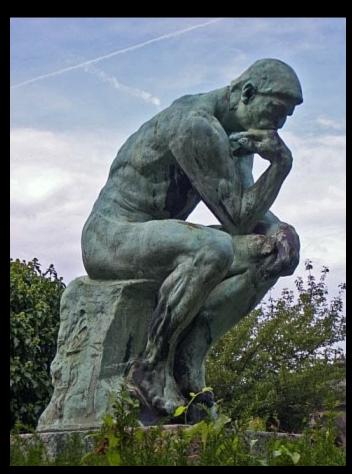
# Enterprise IT: The current state Systems of records are largely complete

- Transaction systems for global commerce...
  - \*Financials, Order Processing, Inventory, HR, CRM, Supply Chain
  - ◆Mainframe, Minis, client-server, PC, Internet-enabled, SaaS
- Drove three decades of investment
  - Data centres everywhere
  - Database, OLTP, reporting and analytics
  - Network as transport mechanism
- Y2K put the capstone on this trend
  - Pulled forward a half decade of investment
  - Enterprise IT had go through a long "digestive" period



## IT Innovation: For the Past Decade (2000-2009)

Consumers are king



**Enterprise IT** On Hold



**Consumer IT** On Fire



## **Redefining IT for Consumers** The digitization of Human Culture



erything

o barriers to entr are any-to-many

## ologs, Skype, Tw everything are the killer ap nagazines are toast being reengineered even as we speak **WGT VIRTUAL PRO SHOP** CLUBS BALLS **AVATARS**







## **Consumers innovations**





What does it mean for the enterprises?

# Helping in building a smarter planet

## Shifting from the database to the collaborative network Dates Centrer stendic stack

## **Business** Layer

- Consulting
- Deskite C Envisonment
- Usarrs@etioncApptiloatiloorss
- Besinessenætjigrethæs
- Dessime lita Baseco communications

## Compute **Processes**

- Mobile Application Servers
- Virtual Systems Management Infrastructure
- Database
- Unified Communications

## Compute **Engine**

- Mainframe
- Béragersicture services
- Storage
- Network
- Microprocessors

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# Splanet Solar planet M



## Tech cycles tend to last ten years

Entered Next Major Computing Cycle – Mobile Internet – 2 Years Ago

Mainframe Computing 1960s Mini Computing 1970s Personal Computing 1980s Desktop Internet Computing 1990s

Mobile Internet Computing 2000s





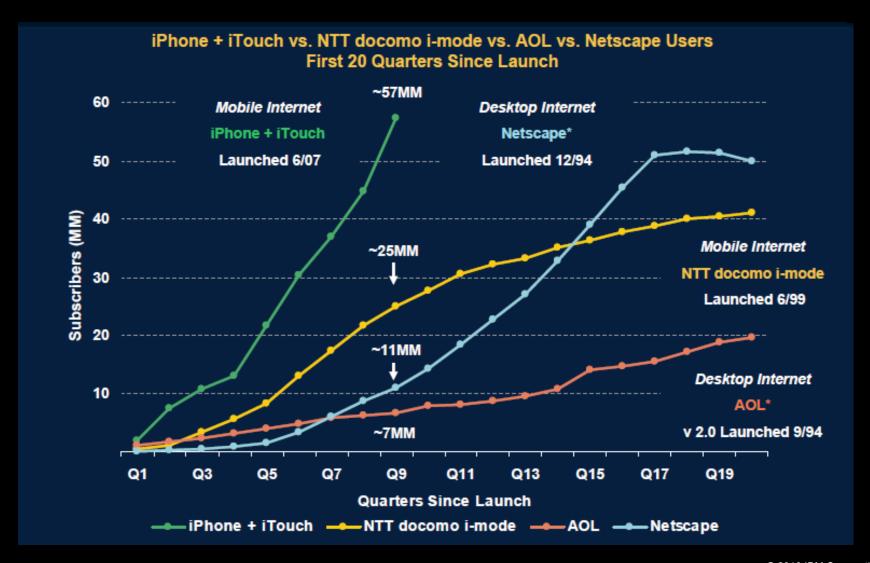




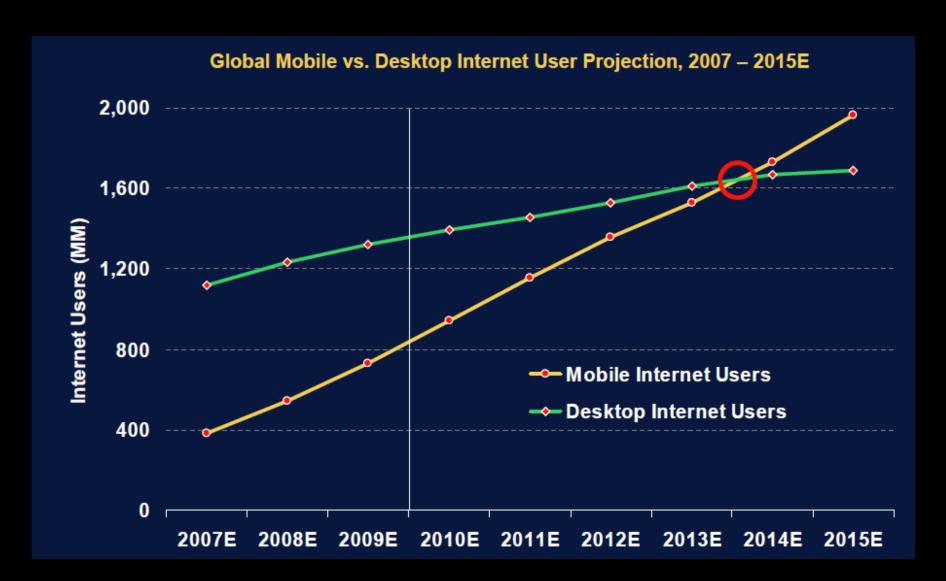


## Mobile Internet outpaces Desktop Internet Adoption

iPhone + iTouch Users = 8x AOL Users 9 Quarters After Launch



## **Mobile vs Desktop users**

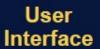








## What has been improved?



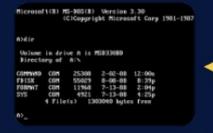


Input **Device** 



**Device** Usage

Text



Graphical



Touch



Keyboard





Mouse



**Fingers** 



**Content Creation** 



Communication



## **Content Consumption**





## Time to market

Print Books
Physical Distribution
circa 200AD



eBook on Phone / Kindle Wireless Delivery in 60 sec circa 2007



Marie A Primarie Control of the Cont

Nintendo GameBoy Physical Cartridge circa 1989



Over 3G / Wi-Fi circa 2008





Analog Cassette circa 1970s Physical Audio CD circa 1990s

dio CD Streaming on a 1990s Mobile Phones circa 2008







Analog VHS circa 1970s

Physical VCD / DVD circa 1990s Digital Video Streaming on Mobile Phones circa 2008

**Digital Audio** 

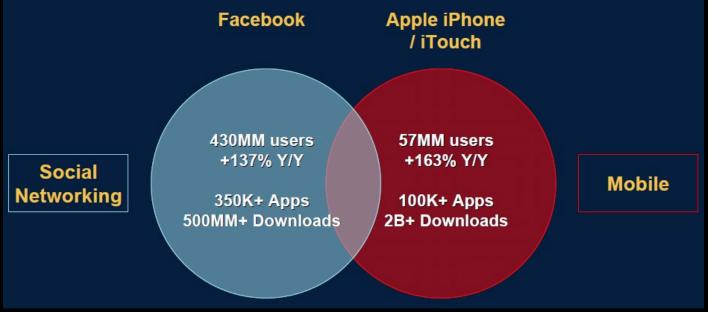








## The two forces social network and iPhone









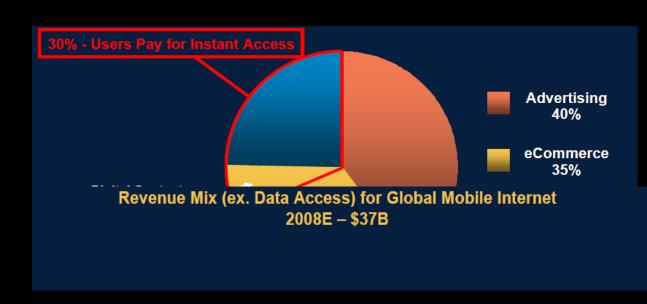
## **Mobile Augmented Reality**





## Mobile users are more willing to pay

Revenue Mix for Top 50 Global Internet (ex. Data Access) Companies 2008 - \$91B



Revenue Mix (ex. Data Access) for Global Mobile Internet 2008 - \$37B

# The software for a smarter

# Why Are Users Willing to Pay So Much More for Content on Mobile Devices than on Desktop PCs?

**Users Are Willing to Pay for Content On Mobile Internet Owing to...** 

- Easy-to-Use / Secure Payment Systems 'Embedded' systems (like carrier billing + iTunes) allow real-time payments;
- Small Price Tags
   Most content / subscriptions carry sub-\$5
   price tags
- Walled Gardens Reduce Piracy
   Content exists in proprietary environments, difficult to get pirated content onto mobile devices
- Established Store Fronts
   Carrier decks / iTunes store allow easy discovery / purchase
- Personalization
   More important on mobiles than desktops

**Users are LESS Willing to Pay for Content On Desktop Internet Owing to...** 

 Difficult-to-Use / Fragmented Payment Mechanisms That Are More Susceptible to Security Issues

Too many payment options for vendors / consumers + widespread fraud

- Often Expensive + Cumbersome to Purchase Legal Content
- \$15+ per movie / DRM protection limits usage
- Open Internet + Piracy

Most content in digital formats is available for free (newspaper / pictures) or for illegal download (music / video / applications)

 Lack of Centralized / Large-Scale
 Marketplace for Legal Content Discovery / Purchase

Few players beyond iTunes + Amazon.com





## Italy: La Repubblica



## Crollano Madrid, Lisbona e Atene. Allarme Trichet su deficit Eurolandia



Salva T- T+



Non migliora il clima generale il dato sulle richieste dei sussidi di disoccupazione negli Usa nella settimana chiusa il 30 gennaio,

utilizzato come polizza assicurativa per il sottoscrittore di un'obbligazione) relativi al Portogallo hanno raggiunto livelli record.

peggiore delle attese, cui è seguito l'avvio negativo di Wall Street. Così le Borse d'Europa chiudono tutte in forte calo. Oggi inoltre il presidente della Bce, Jean-Claude Trichet, <u>ha ricordato</u> che diversi Paesi in Eurolandia devono confrontarsi con deficit di bilancio sempre più ampi. Un'allusione che ha fatto pensare alla Spagna, alla Grecia e al Portogallo, facendo tremare i rispettivi listini azionari. Tuttavia Trichet ha anche sottolineato che la Bce "approva gli obiettivi di medio termine fissati dal governo greco per portare il deficit sotto il 3% del Pil nel 2012", aggiungendo che le misure annunciate "sono un passo nella giusta direzione", ora occorre che "gli obiettivi vengano raggiunti".

A fine giornata Wall Street ha chiuso in forte: il Dow Jones ha ceduto il 2,61% a quota 10.002,18. Peggio il Nasdaq che ha perso il 2,99% finenso a 2.125,43 punti.

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La caduta dell'indice Dax alla Borsa di

Francoforte





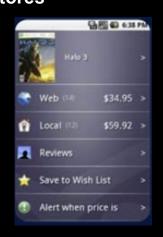
## **Mobile Revolutionizing Commerce**

- •Location-Based Services Enable real-time physical retail / service opportunities
- Transparent Pricing Instant local + online price comparison could disrupt retailers
- •Deep Discounts Invitation-only time-based selective sales gaining traction
- •Immediate Gratification OTA (over-the-air) instant digital product + content delivery

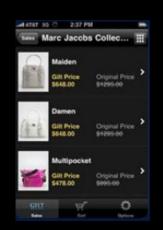
Location-Based Services
Priceline.com
iPhone App
Finds hotel deals
in your area



Transparent Pricing
ShopSavvy Android App
Comparison shopping
among online + local
stores



Deep Discounts
Gilt iPhone App
Designer handbags
Up to 70% Off



Immediate Gratification iTunes Store on iPhone Music / video / apps delivered wirelessly







## **Location-Based Services**

## Zipcar Combines Mobile Internet + GPS to Disrupt Car Rental Business

- •Free app allows users to find Zipcars / reserve Zipcars / unlock Zipcars with iPhone (25% of Zipcar members are also iPhone users, per Zipcar survey).
- •App engages GPS and Google Maps to display available Zipcars near current location / near any location you search, making results more relevant.
- •Make reservations online while on-the-go (uses payment information from Zipcar.com member profile) / unlock car using iPhone.

# Find the Zipcar Closest to You



# Sort Zipcars Based on Time Availability / Model



# Review / Reserve the Zipcar You Want at the Right Price



Unlock the Zipcar Using Your iPhone







## **Transparent Pricing - Likely to Disrupt Retail**

- •ShopSavvy app allows mobile users to scan product barcodes (using mobile digital camera) and retrieve best pricing information from web + local stores in <30 seconds.
- •For web results, user can go to site or email link to friends...for local results (via GPS / cellular tower geo-locating), user can see store locations / get directions / call stores.
- •Additional functions include price alerts (notifies user when price is cheaper / hit user's preset price target) / wish lists / search history.

Step 1: Tap Search



Step 2: Scan Barcode



Step 3: See Results



Step 4: Click to Buy

	81	G 6:39	PA
Halo 3			
Haltzon		\$34.95	>
Amazon.com		<b>\$</b> 53.99	>
Newegg com		\$54.99	>
Buycom		\$55.09	
PC Connection		\$57.41	
Detavision		\$57.49	
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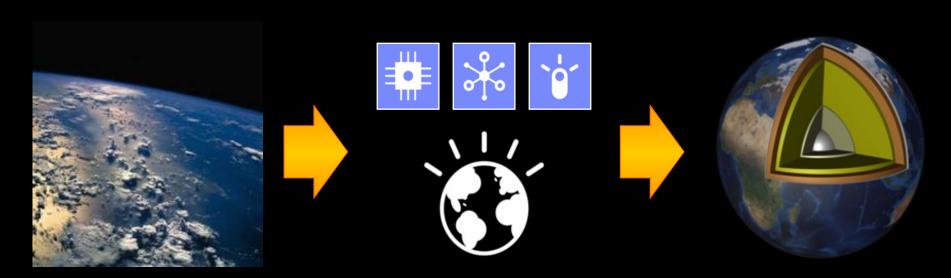
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## **Evolution of the Smarter Planet (2.0)**



### **Smarter Planet (Past)**

Distinct physical, people, IT and business worlds

## **Smarter Planet (Present)**

Instrumented, interconnected, and intelligent in the physical world

## **Smarter Planet (Future)**

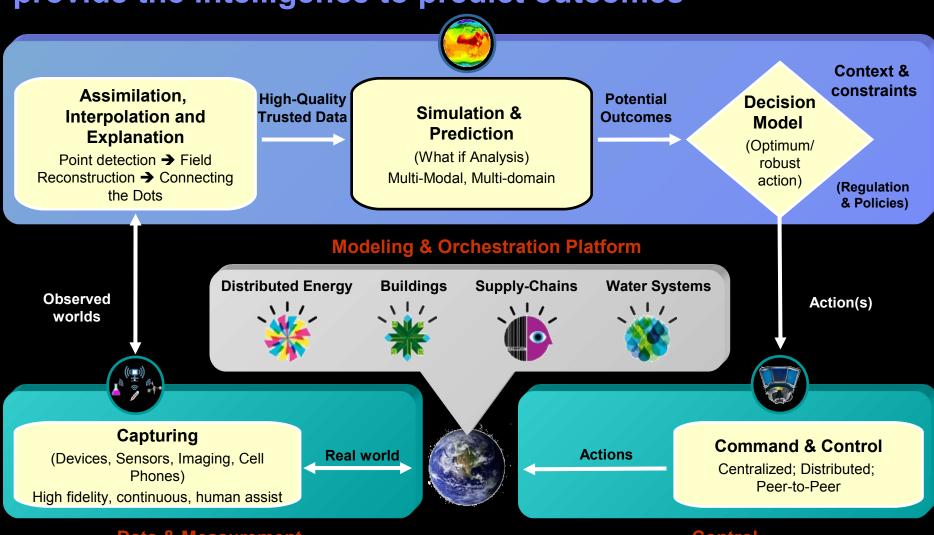
Interactive, interconnected & interdependent, digitally represented world

- Interconnected and interdependent behavioral models optimize Smarter Planet solutions
- Dynamic capture and assimilation of data using closed-loop models for prediction & response
- Individual and community behaviors & preferences leveraged for improved business outcomes





# Interconnected and interdependent behavioral models will provide the intelligence to predict outcomes



Data & Measurement Platform

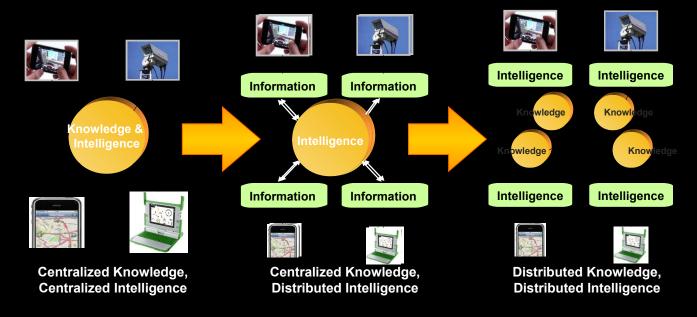
Control Platform





## **Real-time Web**

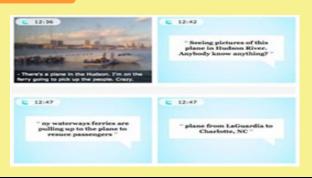
## Enabling ambient awareness & situational intelligence



#### **Examples of real-time Web for smart interactions**







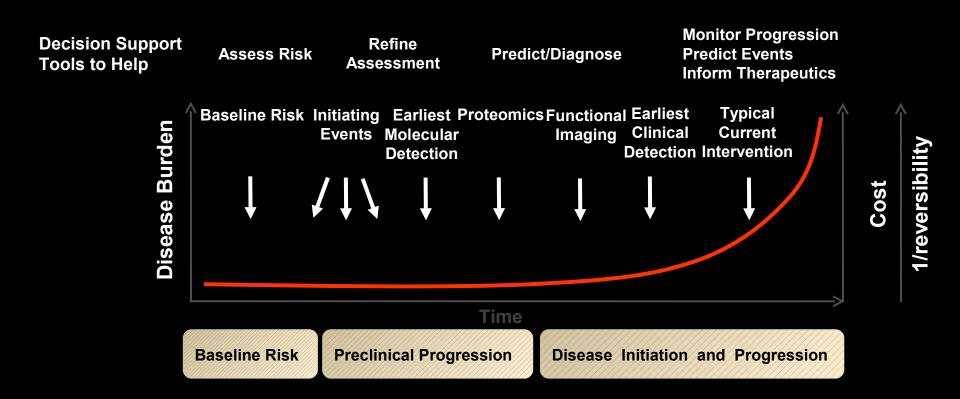
Real-time search Real-time microblog Live streaming mashup





## **Emerging early diagnosis**

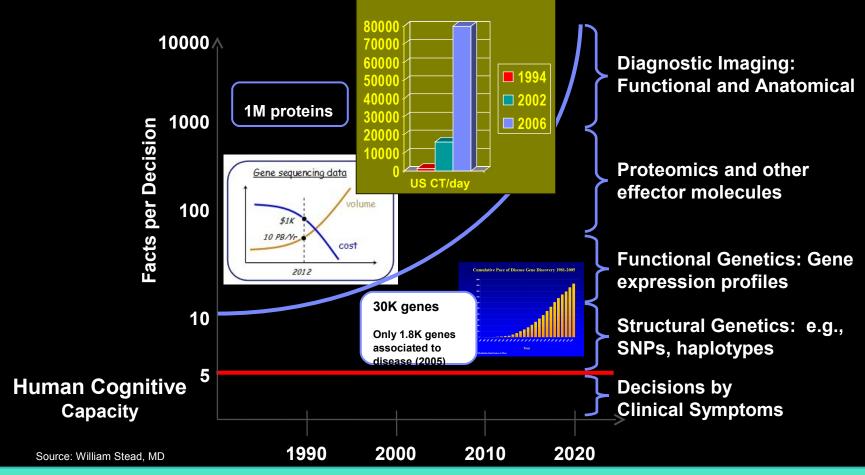
Improved observation of the body's before clinical symptoms appear.



Early intervention results in improved outcomes and lower costs

## **New diagnostics**

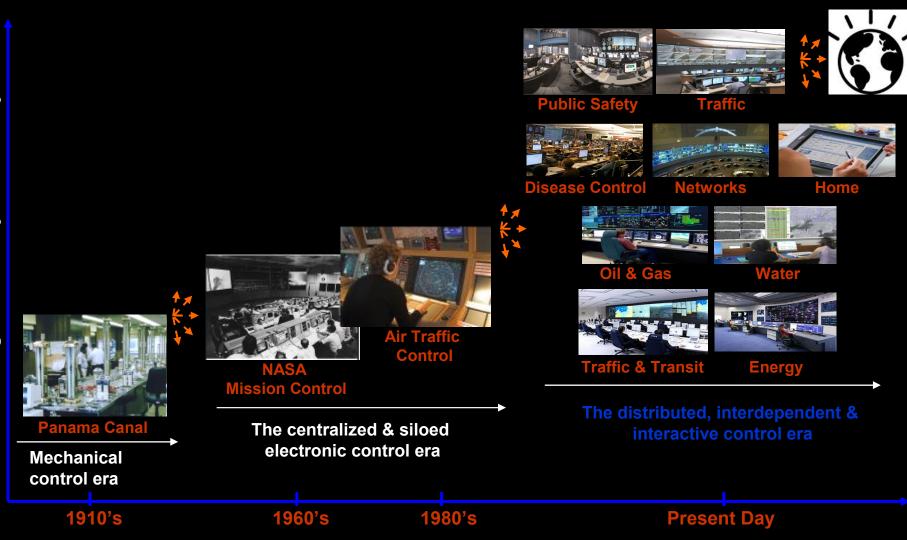
complicate decision lead to data explosion and cognitive overload



Multiple treatment options, liability issues, affordability and conflicting evidence, are also sources of cognitive overload. IT is key to simplifying decision making at the point-of-care

# Increasing Functionality & Availability

## **Evolution of control platforms**







# Smarter Energy - model-driven optimization enables to increase electricity (>20%) generated as renewable energy



#### Management of intermittent energy generation

Real-time model-driven control framework to manage and integrate renewable energy into the grid infrastructure

#### **Predictable Generators**





#### **Smarter Planet Platforms**





Control

Spain's Electrical Grid
Incorporates 20% of
Intermittent Energy

**Data & Measurement** 

**Model & Analytics Orchestration** 

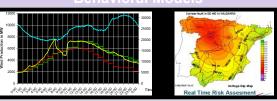
#### Real-Time Visibility



## Country-Wide Measurements Every 12 secs

Active & Reactive Power Voltage & Connectivity, Temperature, Wind Speed

#### **Behavioral Models**



#### Real Time Modeling & Risk Assessment

Data Models & Assimilation
Weather Models
Wind and Solar Forecast
Consumption Forecast

## Interconnected Control



#### Management & Control

Optimal Unit Commitment Supervision & Control of Energy Generators





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## **New users interaction**

g-speak is a spatial operating environment: a new computing platform.





Some early takeaways (next 12 months initiatives)

Next steps in Enterprise Systems



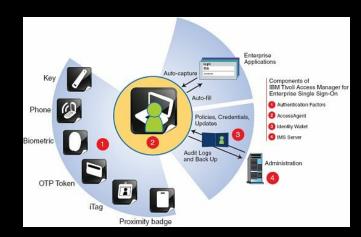
**Consumerized Applications** 



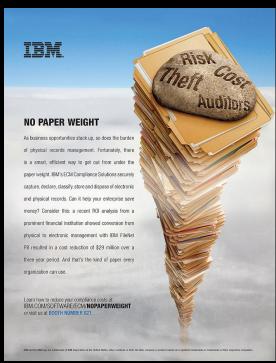
Multi-Channel Communications



Hyperactive Directory



**Next-Generation security** 



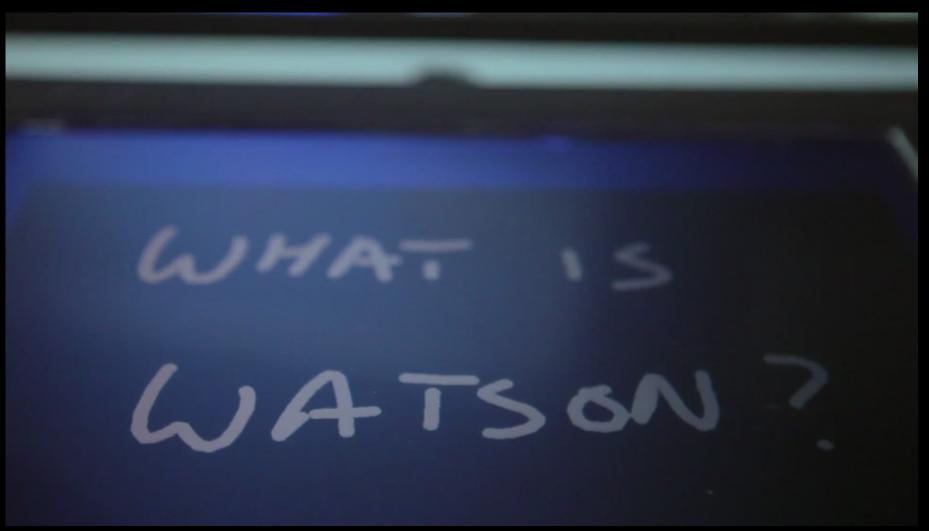
Open Content Management







## **New Intelligence (Turing test)**





A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.

Wayne Gretzky



Let's make our company a great company and our country a great country.

Please fasten the seat belt it is going to be an exciting trip in the next 10 years