

IT Now and Tomorrow

Cimahi Creative Association
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Academics, Communities and Industries

Innovation in Campus, Network in Communities, and
Industries need both

...IT is Applied Science

... 10 things that are
happening in Industries...

Mobility and Services

mobile apps, multi platform, mobility monitorization, User Interface and User Experiences, cloud computing, PaaS, SaaS

Security

secure code, secure development life cycle, cyber security, cryptography,
hashing, **audit**, *forensic, risk analysis, predictive analysis, open data*

the most Important component

“people think of security as a noun, something you go buy. in reality, it's an abstract concept like happiness. openness is unbelievably helpful to security”

–James Gosling

A1-Injection

Injection flaws, such as SQL, OS, and LDAP injection occur when untrusted data is sent to an interpreter as part of a command or query. The attacker's hostile data can trick the interpreter into executing unintended commands or accessing data without proper authorization.

A2-Broken Authentication and Session Management

Application functions related to authentication and session management are often not implemented correctly, allowing attackers to compromise passwords, keys, or session tokens, or to exploit other implementation flaws to assume other users' identities.

A3-Cross-Site Scripting (XSS)

XSS flaws occur whenever an application takes untrusted data and sends it to a web browser without proper validation or escaping. XSS allows attackers to execute scripts in the victim's browser which can hijack user sessions, deface web sites, or redirect the user to malicious sites.

A4-Insecure Direct Object References

A direct object reference occurs when a developer exposes a reference to an internal implementation object, such as a file, directory, or database key. Without an access control check or other protection, attackers can manipulate these references to access unauthorized data.

A5-Security Misconfiguration

Good security requires having a secure configuration defined and deployed for the application, frameworks, application server, web server, database server, and platform. Secure settings should be defined, implemented, and maintained, as defaults are often insecure. Additionally, software should be kept up to date.

The Internet of Things

a global network infrastructure, machine to machine
communication, sensor

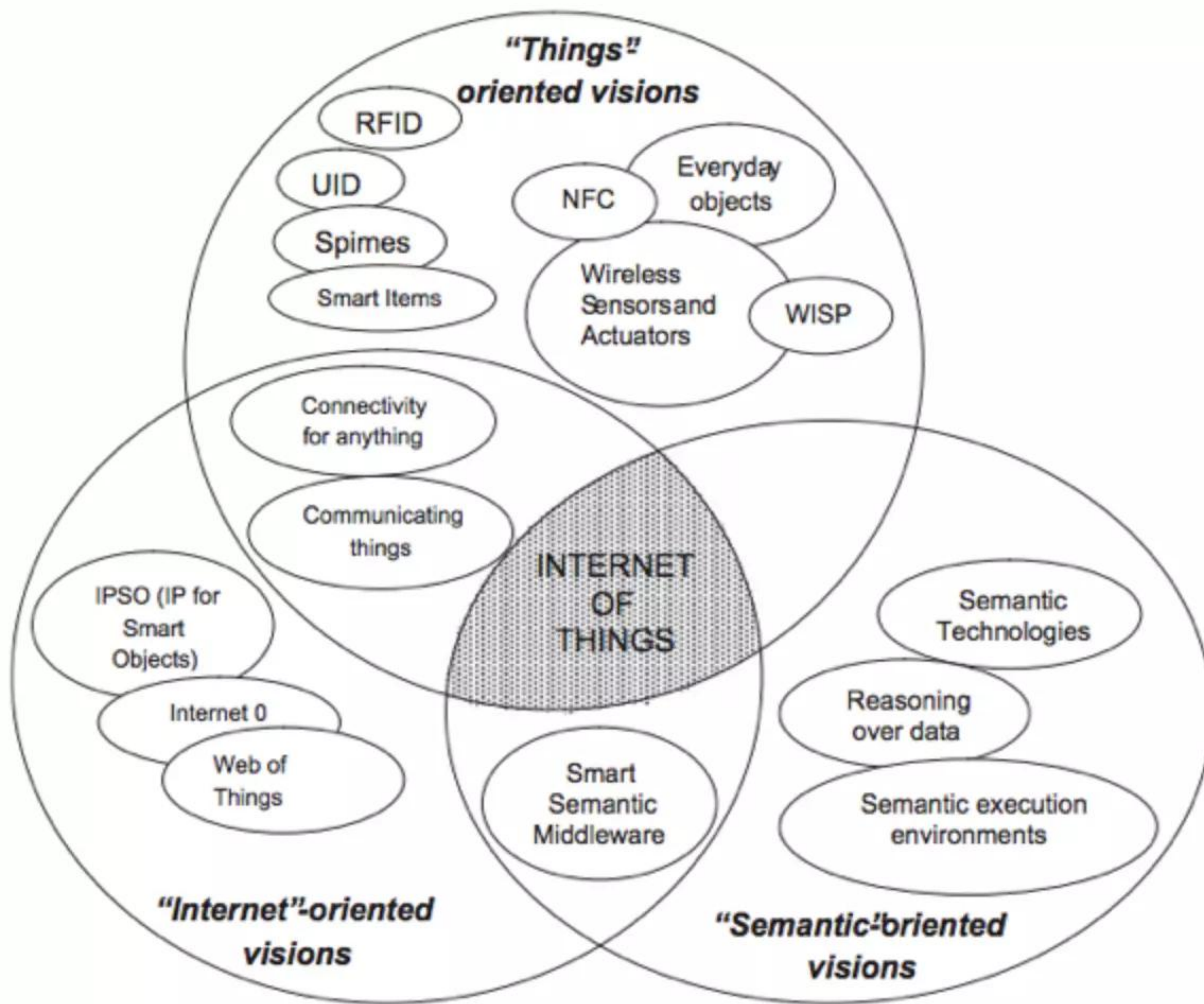


Fig. 1. "Internet of Things" paradigm as a result of the convergence of different visions.

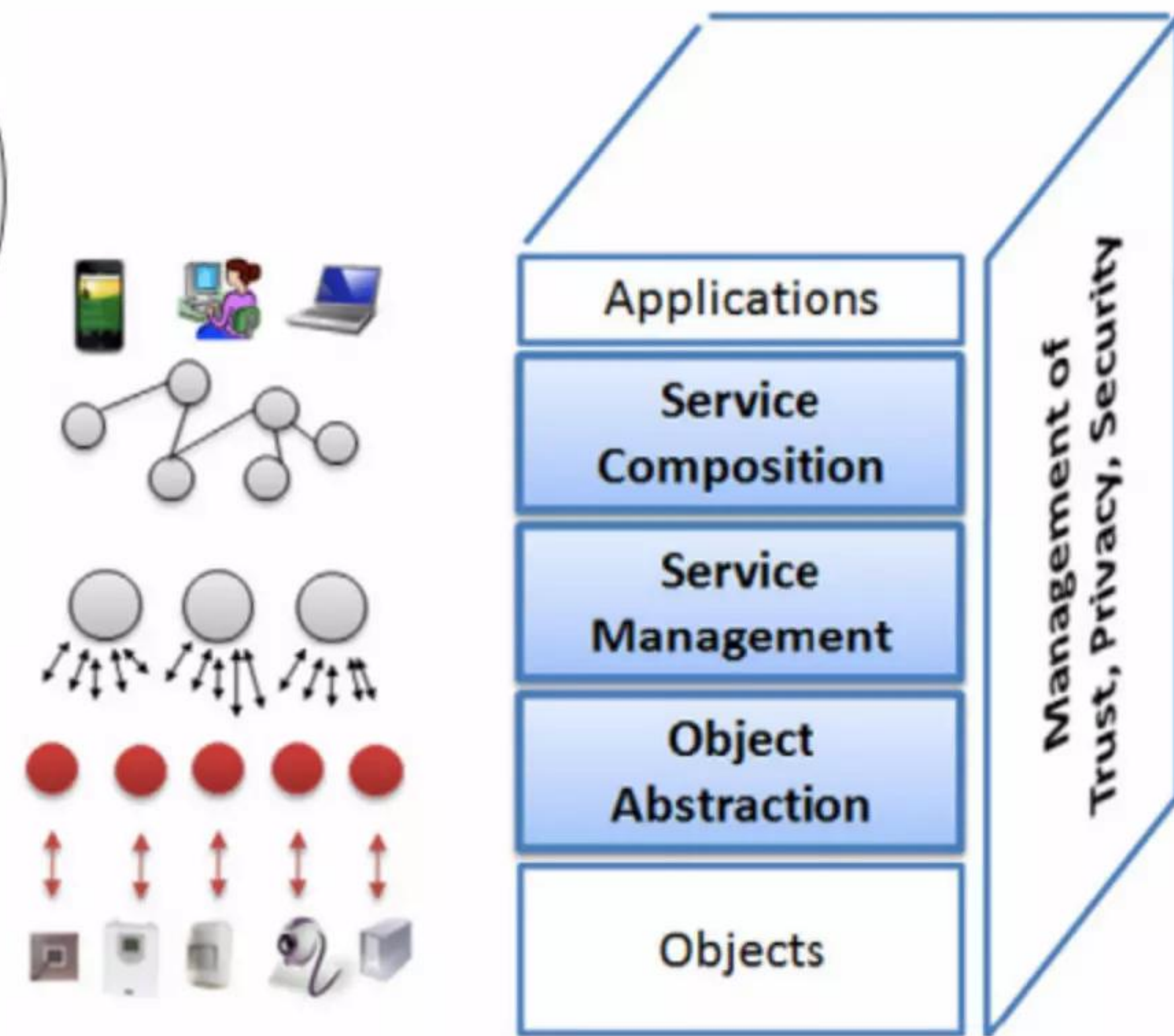


Fig. 2. SOA-based architecture for the IoT middleware.

A. Luigi, L. Antonio, M. Giacomo, The Internet of Things: A survey, 2010.

But one of the most important (after security) today and tomorrow, to support our business and our life...

What is the meaning of informatics???

artificial A-intelligence

data driven development, data driven business,
business intelligence, robotics, automation system

interesting area : perceptual computing, econometrics
and bioinformatics

Natural User Interface

computer vision, sensor, biometrics, pattern recognition,
perceptual computing

High Performance Computing

distributed system, cluster computing, paas, parallelism,
map-reduce, nosql, message passing interface

Big Data

big data analytics, deep learning, datawarehouse, nosql,
non-rdbms, hadoop, map-reduce, openspark,
bioinformatics, molecular biology, oil exploration,
econometrics, astronomy, government

Personalization

business to business, customer to customer, web design, social network analysis, medicine

Lean Agile Process

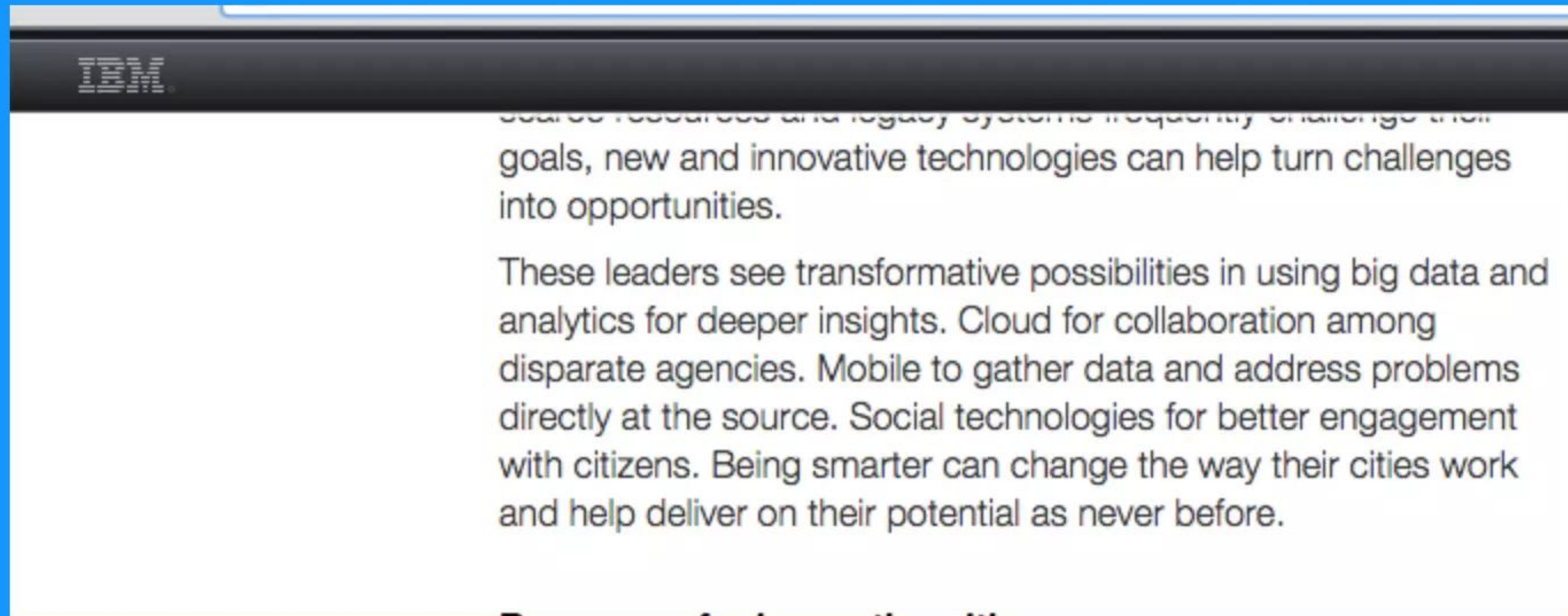
culture, management, development, regulation, risk
analysis, time management, SCRUM

Business Transformation

mission, vision, finance, discover potential future challenges
opportunities, strategy, prediction analysis, remote workers,
marketing, innovation, creativity, security, social-enable
enterprise

+1 for Smart City

transport, energy, health care, water and waste, digital city, **knowledge-based city, system transformation**



Transformation.....

http://www.ibm.com/smarterplanet/us/en/smarter_cities/overview/

Smart CitySDK

The CityService Development Kit (CitySDK) is a system that collects open data of governments, in order to provide their availability uniformly and in real-time. Withing this project Waag Society is responsible for the domain Mobility. We will talk to potential data suppliers and application developers to meet the needs of both parties. Combined with questions from various cities in Europe, these needs lead to services that are both generic and dynamic.

Change by Us in Amsterdam

Change by Us is a new platform in Amsterdam. The platform started in New York and is known by the name of Change by Us NYC. It allows innovative partnership in the city between citizens, city leaders, welfare organizations, housing corporations and government.

The 'Idee voor je buurt' website will be tested until the end of 2014 in Amsterdam Sloterveer in cooperation with the Municipality of Amsterdam, Waag Society, Eigenwijks, Code for Europe and Amsterdam Smart City.

<http://amsterdamsmartcity.com/>

“...life is longlife learning...”

-thanks-

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