Osama Ghanim

Chief Technology Officer (CTO) for Nour Smart Solutions & Founder – INNOVABIA (Innovation & Entrepreneurship)

Holds the longest regional solid practical experience in Innovation & Entrepreneurship & SME Development (Since 2008)
A techno-business engineer with strong presence in the IT & Innovation & IoT fields. An advocate for creating solutions to existing challenges. Founder and previously Chief Innovation Director (CID) for the first dedicated MENA region Innovation Management company namely INNOVABIA. A very passionate individual about innovation and entrepreneurship. A strong advocate for the right of every person to know how to innovate in every business and life matter. Focuses his current career in the transformation toward innovativeness for everybody in everything while utilizing modern emerging technologies such as IoT, Artificial Intelligence, Block chain and Big-Data.

Achieved sound contribution to the Innovation, Entrepreneurship & SME Development fields at the MENA at the regional level. Some of the achievements that added value to the Innovation & Entrepreneurship fields are:
Wrote a book about the “Innovation & Creativity Culture”,
Developed Innovation Model named “Climate Innovation Model ©”,
Developed an Innovation index under name “Ebtikarna ©”
Author of KIDSOVATION© Educate Entrepreneurship & Innovation in K12 Schools
Author of EduPreneurship Curriculum © for the Higher Education

Always ahead of time to bring what the future hides to the market. Working in Innovation at the private corporates level as well as startups through entrepreneurship and the SME world as well as the public sector as a large innovation space.
A Senior Innovation Strategy Consultant with accumulative experience of 23 years out of which 15 years in Senior Business positions with extensive involvement in Innovation, Strategy Consultation and Strategic Planning. Originally achieved sound achievements in the Information Technology and eBusiness areas.
Frequently speaking in regional and international event about Innovation. Participated in many regional entrepreneurship competitions and/or awards both as organizer and as judge. Professional and passionate trainer since 1983 in various technology and management subjects yet selective in subjects that are new and suite the time we live in.

Arab Regulatory Network (AREGNET) Manama – Bahrain
1st Oct 2018

IOT
MOST PROMISING INNOVATION OPPORTUNITIES
DOOR OPENER IN THIS DECADE

by: Osama Ghanim
Nour Smart Solution
& Innovabia
1st Oct 2018

IoT Story or Roots…..

The story of IoT in 2009 ….

As of 2016, the vision of the Internet of things has evolved due to a convergence of multiple technologies, including ubiquitous wireless communication, real-time analytics, machine learning, commodity sensors, and embedded systems. This means that the traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and others all contribute to enabling the Internet of things. The concept of a network of smart devices was discussed as early as 1982, with a modified Coke machine at Carnegie Mellon University becoming the first Internet-connected appliance, able to report its inventory and whether newly loaded drinks were cold. Mark Weiser's seminal 1991 paper on ubiquitous computing, "The Computer of the 21st Century", as well as academic venues such as UbiComp and PerCom produced the contemporary vision of IoT. In 1994 Reza Raji described the concept in IEEE Spectrum as "[moving] small packets of data to a large set of nodes, so as to integrate and automate everything from home appliances to entire factories". Between 1993 and 1996 several companies proposed solutions like Microsoft's at Work or Novell's NEST. However, only in 1999 did the field start gathering momentum. Bill Joy envisioned Device to Device (D2D) communication as part of his "Six Webs" framework, presented at the World Economic Forum at Davos in 1999.

Kevin Ashton

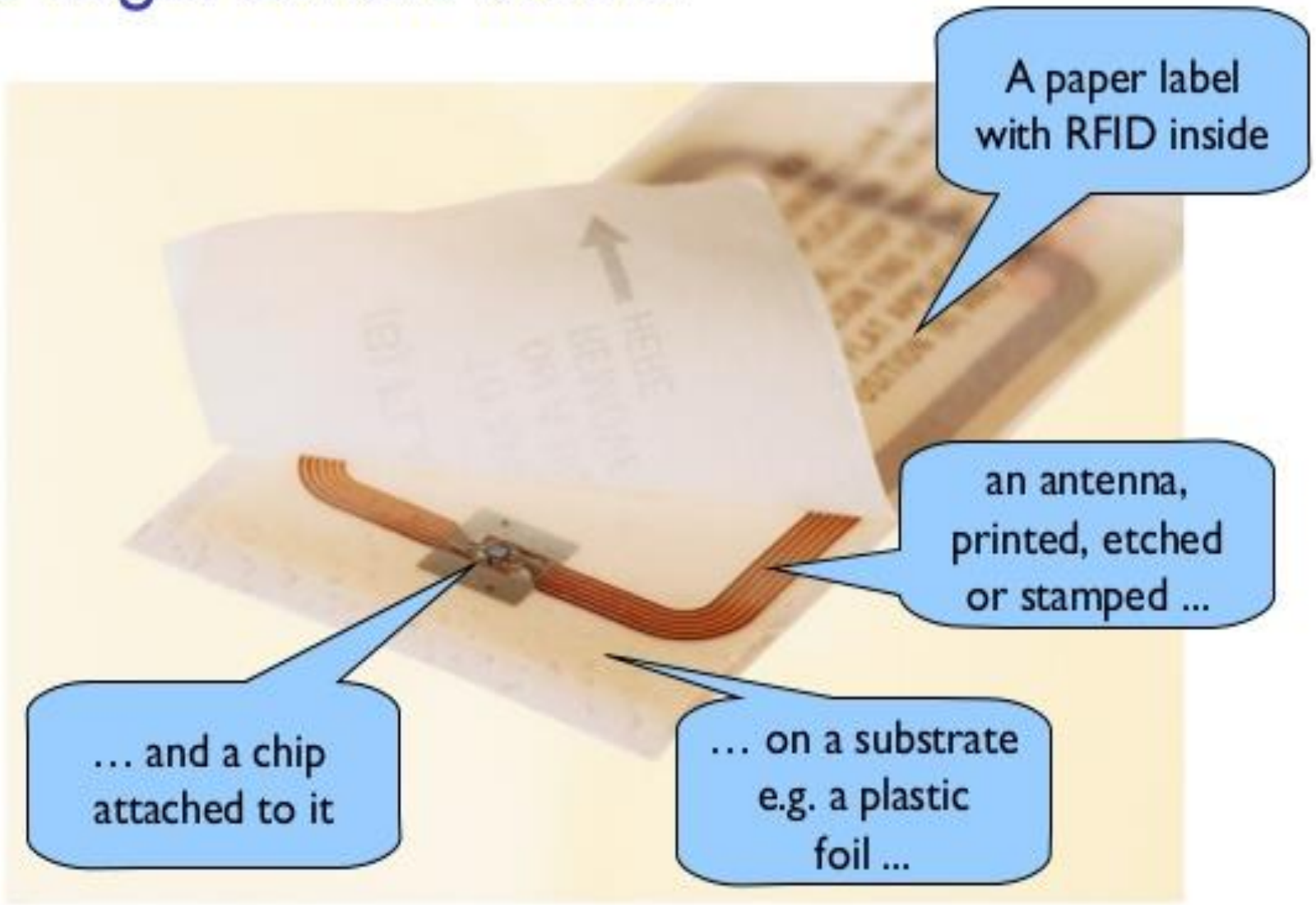
The concept of the Internet of things became popular in 1999, through the Auto-ID Center at MIT and related market-analysis publications.

If all objects and people in daily life were equipped with identifiers, computers could manage and store them.

Radio-frequency identification (RFID) was seen by Kevin Ashton (one of the founders of the original Auto-ID Center) as a prerequisite for the Internet of things at that point.

Besides using RFID, the tagging of things may be achieved through such technologies as near field communication, barcodes, QR codes and digital watermarking.

RFID tags: Smart labels

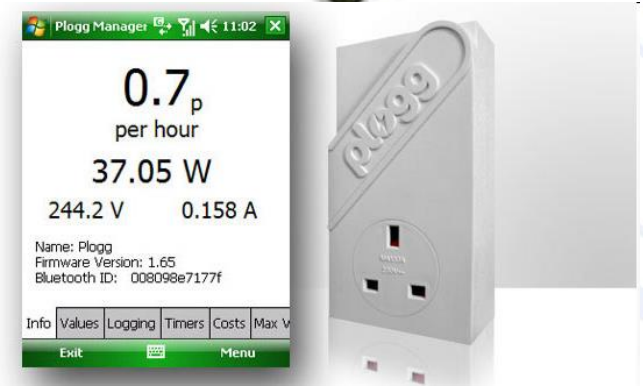


Sensors

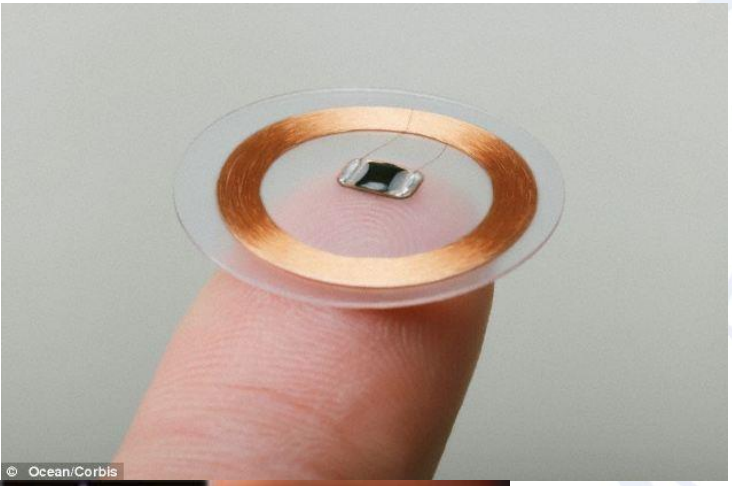

Accelerometer
Gyroscope
Magnetometer
Barometer
Proximity
Light sensor
Touch screen
GPS
WiFi
Bluetooth
GSM/CDMA Cell
NFC: Near Field
Camera (front)
Camera (back)
Source: Internet
14 sensors!

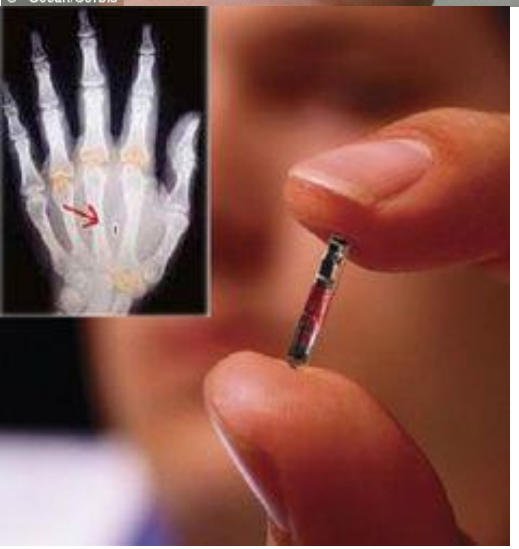
Sensor devices are becoming widely available

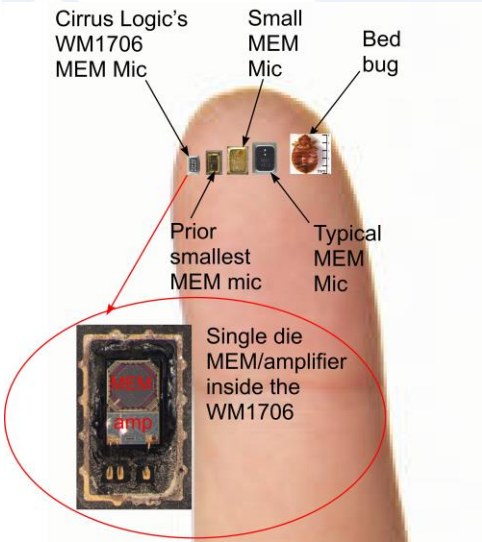
- Programmable devices
- Off-the-shelf gadgets/tools

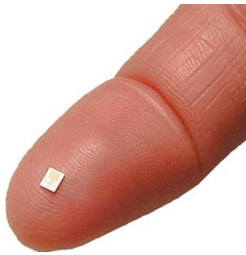


Sensors Smaller & Smaller









Big Data vs AI

IoT applications

homes	cities	environments	energy systems	retail systems
logistic systems	agriculture	industry	health & lifestyle	education

IoT Applications Space

smart homes:

- Smart Lighting
- Smart Appliances
- Intrusion Detection
- Smoke / Gas Detectors

smart cities:

- Smart Parking
- Smart Lighting for Road
- Smart Road
- Structural Health Monitoring
- Surveillance
- Emergency Response

smart environments:

- Weather Monitoring
- Air Pollution Monitoring
- Noise Pollution Monitoring
- Forest Fire Detection
- River Flood Detection

smart energy systems:

- Smart Grid
- Renewable Energy Systems
- Prognostics

smart retail systems:

- Inventory Management
- Smart Payments
- Smart Vending Machines

smart logistic systems:

- Fleet Tracking
- Shipment Monitoring
- Remote Vehicle Diagnostics

smart agriculture:

- Smart Irrigation
- Green House Control

smart industry:

- Machine Diagnosis & Prognosis
- Indoor Air Quality Monitoring

smart health & lifestyle:

- Health & Fitness Monitoring
- Wearable Electronics

Smart Education

- Smart Class rooms
- Secured school system
- Efficient attendance system

Again .. the presentation is about

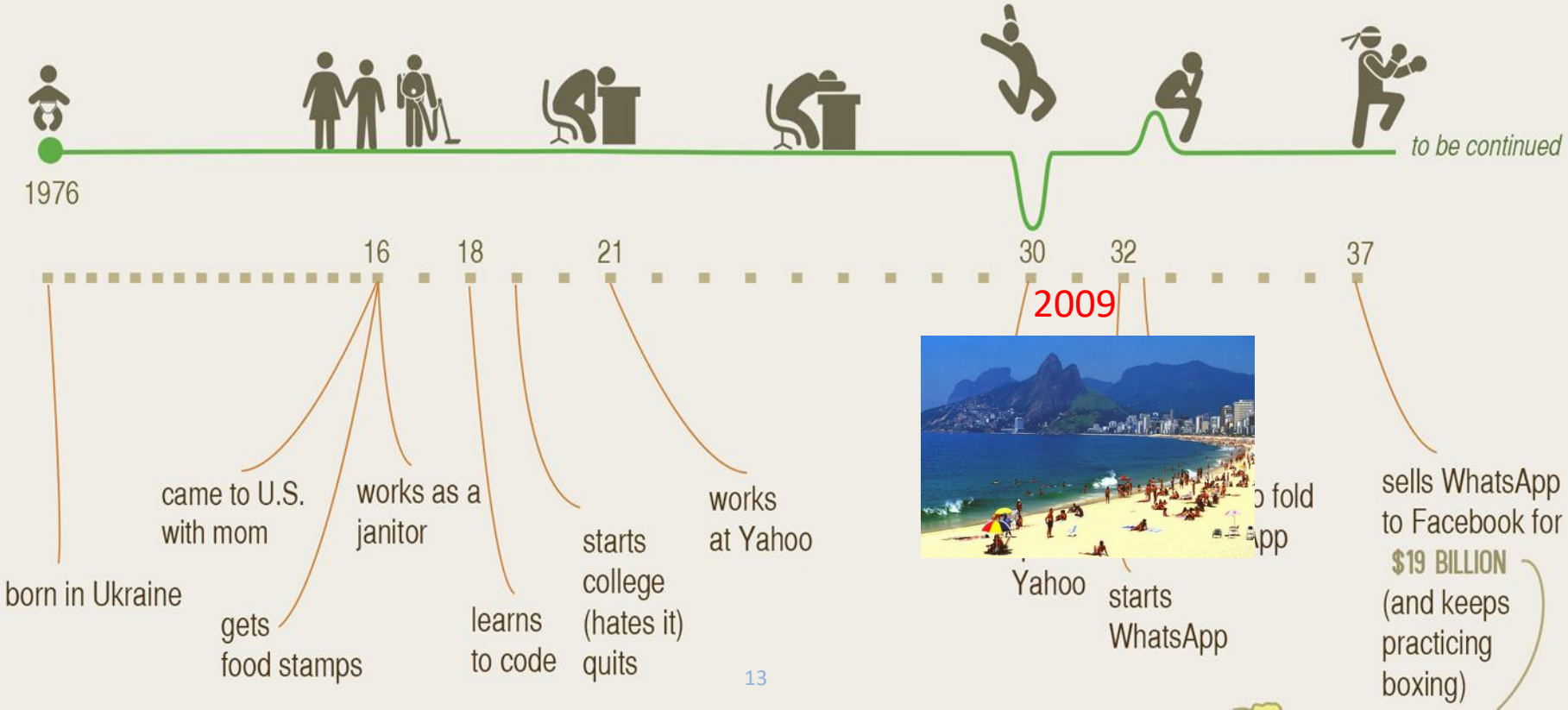
IoT
Most promising Innovation Opportunities
Door Opener in this DECADE

Story of WhatsApp Founder

Jan Koum


Jan Koum, founder of WhatsApp

- Started in cleaning Job at 16Y.
- Was under welfare.
- Went college & quitted.
- Worked at Yahoo.
- Quitted work for one year travelling in South America.
- Saw opportunities in Apple Store start in 2009.
- In One year he started WhatsApp.



Why IoT is an OPPORTUNITY for future millionaires & billionaires?

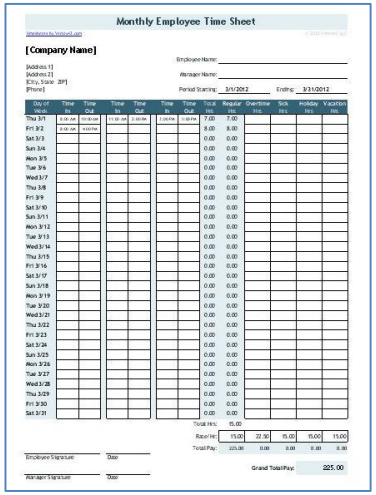
What was the first smart device to enter our homes?

60 years of the clicker

TV or Internet?

Time Attendance Evolution

Manual Time Attendance Sheet


Monthly Employee Time Sheet

[Company Name]

Employee Name:

Manager Name:

Period Starting: 3/1/2012 Ending: 3/31/2012

Day of Week	Time In	Time Out	Time In	Time Out	Time In	Time Out	Total Hrs	Regular Hrs	Overtime Hrs	Sick Hrs	Holiday Hrs	Vacation Hrs
Thu 3/1	8:00 AM	5:00 PM	11:00 AM	3:00 PM	1:00 PM	5:00 PM	7.00	7.00				
Fri 3/2	8:00 AM	4:00 PM					8.00	8.00				
Sat 3/3							0.00	0.00				
Sun 3/4							0.00	0.00				
Mon 3/5							0.00	0.00				
Tue 3/6							0.00	0.00				
Wed 3/7							0.00	0.00				
Thu 3/8							0.00	0.00				
Fri 3/9							0.00	0.00				
Sat 3/10							0.00	0.00				
Sun 3/11							0.00	0.00				
Mon 3/12							0.00	0.00				
Tue 3/13							0.00	0.00				
Wed 3/14							0.00	0.00				
Thu 3/15							0.00	0.00				
Fri 3/16							0.00	0.00				
Sat 3/17							0.00	0.00				
Sun 3/18							0.00	0.00				
Mon 3/19							0.00	0.00				
Tue 3/20							0.00	0.00				
Wed 3/21							0.00	0.00				
Thu 3/22							0.00	0.00				
Fri 3/23							0.00	0.00				
Sat 3/24							0.00	0.00				
Sun 3/25							0.00	0.00				
Mon 3/26							0.00	0.00				
Tue 3/27							0.00	0.00				
Wed 3/28							0.00	0.00				
Thu 3/29							0.00	0.00				
Fri 3/30							0.00	0.00				
Sat 3/31							0.00	0.00				
							Total Hrs:	15.00				
							Rate/Hr:	15.00	22.50	15.00	15.00	15.00
							Total Pay:	225.00	0.00	0.00	0.00	0.00

Employee Signature Date

Manager Signature Date

Grand Total Pay: 225.00

Magnetic card

Finger Print

Eye Sensor

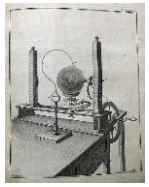
Face Recognition

Contactless Card

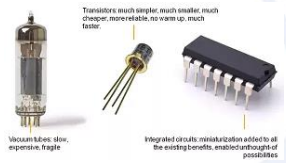
Technology Breakthrough TimeLine

Wheel

Electricity



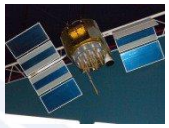
Tube
Transistor
IC



Internet

RFID

GPS



Mobile
Phone

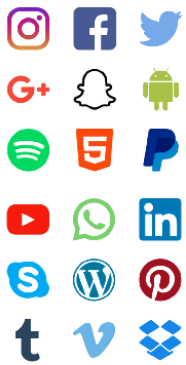
3G & 4G

IoT

IoT

YAHOO!

Google

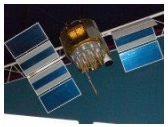


RFID & IoT Evolution TimeLine

Internet

RFID

GPS



Mobile Phone

3G & 4G

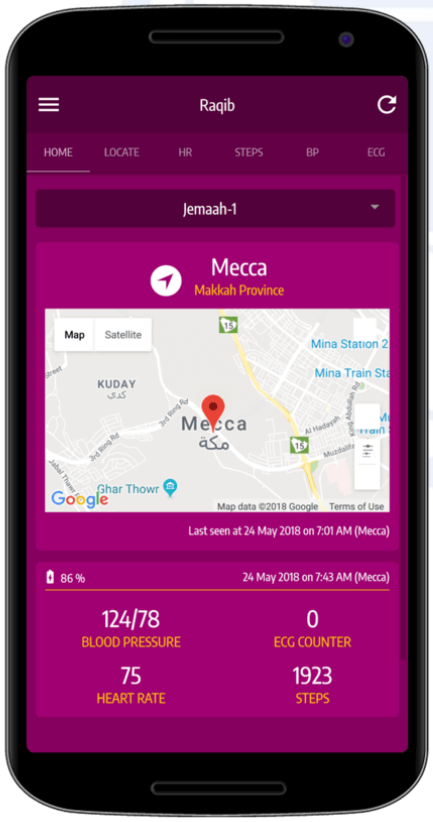
YAHOO!

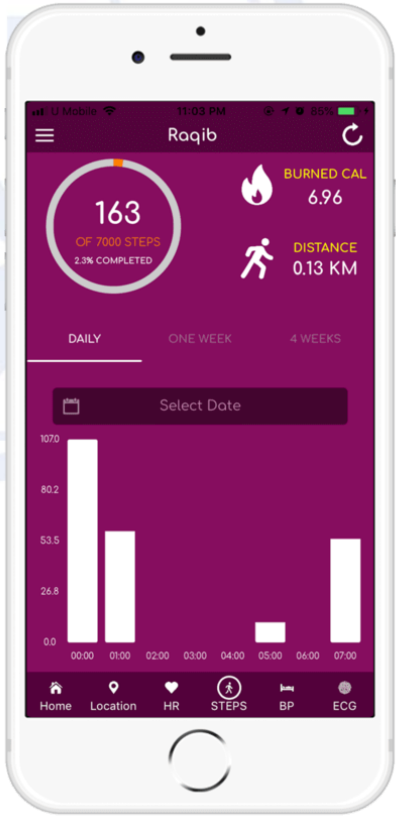
Google

Be the next Millionaire & Billionaire

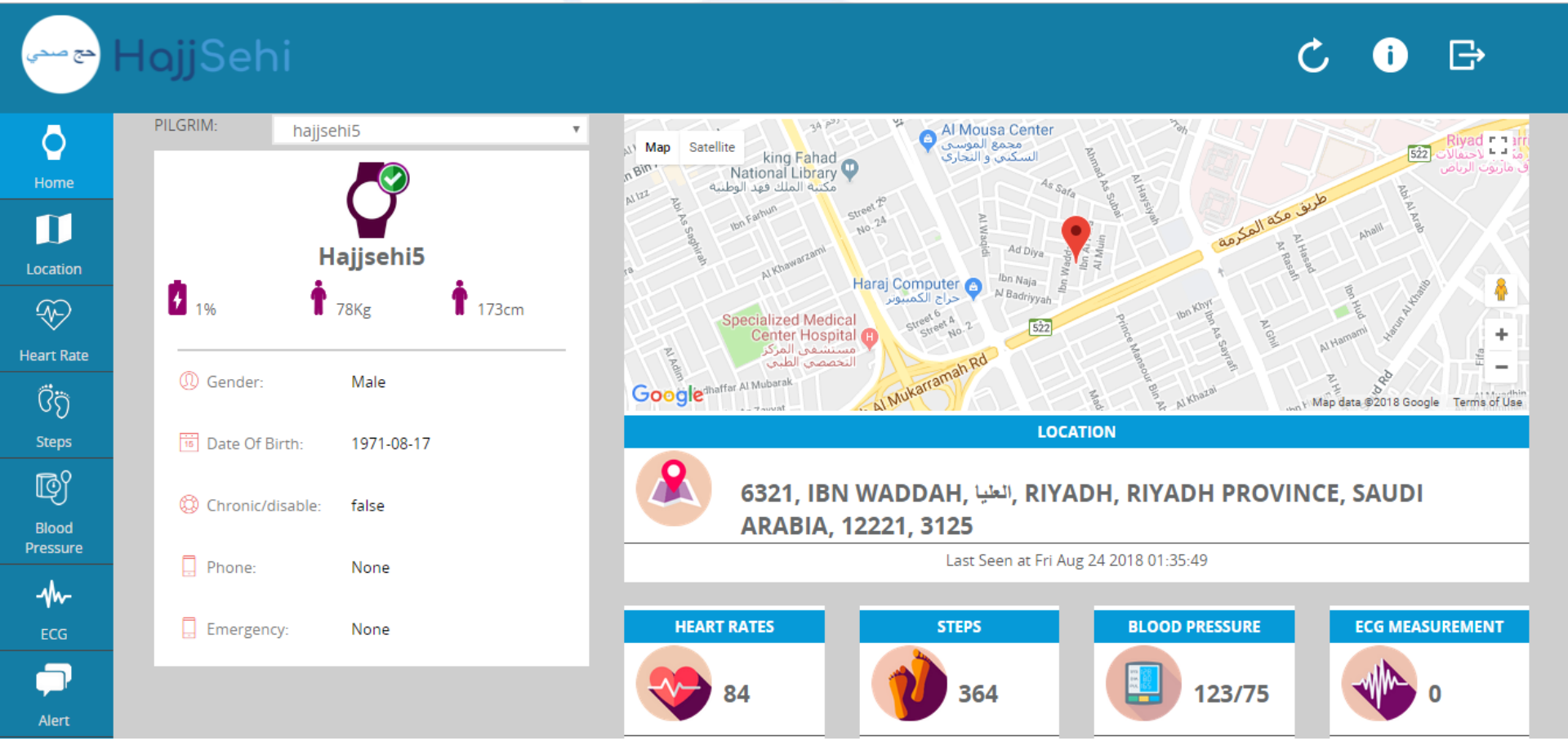
Who is of more value to economy?

HajjSehi


Raqib
HOME
LOCATE
HR
STEPS
BP
ECG
Jemaah-1
Mecca
Makkah Province
Map
Satellite
Mina Station 2
KUDAY
Mecca
مكة
Ghar Thowr
Google
Map data ©2018 Google
Terms of Use
Last seen at 24 May 2018 on 7:01 AM (Mecca)
86 %
24 May 2018 on 7:43 AM (Mecca)
124/78
BLOOD PRESSURE
0
ECG COUNTER
75
HEART RATE
1923
STEPS

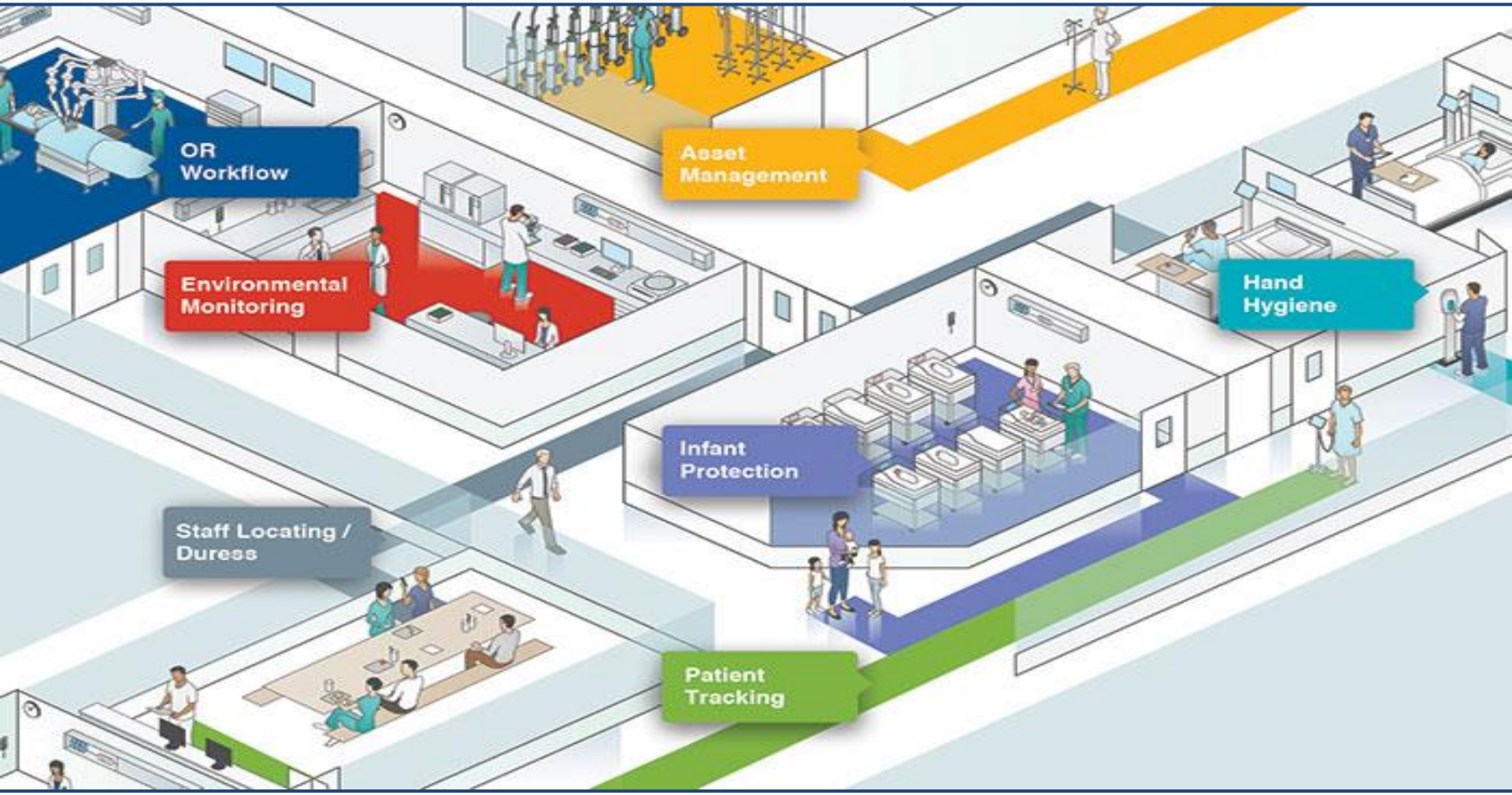

U Mobile
11:03 PM
85%
Raqib
163
OF 7000 STEPS
2.3% COMPLETED
BURNED CAL
6.96
DISTANCE
0.13 KM
DAILY
ONE WEEK
4 WEEKS
Select Date
107.0
80.2
53.5
26.8
0.0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
Home
Location
HR
STEPS
BP
ECG

HajjSehi

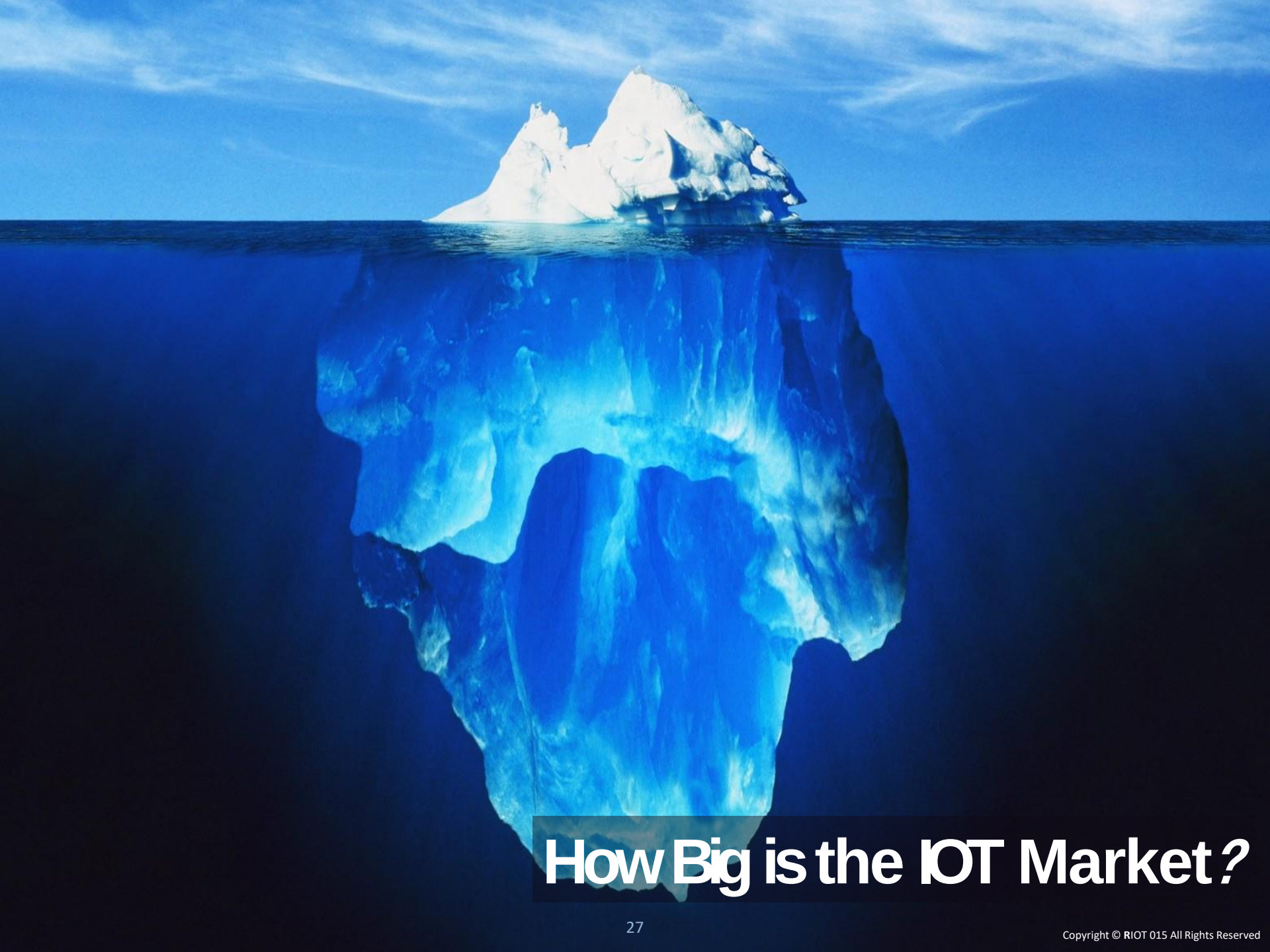

HajjSehi
Home
Location
Heart Rate
Steps
Blood Pressure
ECG
Alert
PILGRIM:
hajjsehi5
Hajjsehi5
1%
78Kg
173cm
Gender: Male
Date Of Birth: 1971-08-17
Chronic/disable: false
Phone: None
Emergency: None
Map
Satellite
Al Mousa Center
king Fahad National Library
Haraj Computer
Specialized Medical Center Hospital
Al Mukarramah Rd
Google
Map data ©2018 Google
Terms of Use
LOCATION
6321, IBN WADDAH, العليا, RIYADH, RIYADH PROVINCE, SAUDI ARABIA, 12221, 3125
Last Seen at Fri Aug 24 2018 01:35:49
HEART RATES
84
STEPS
364
BLOOD PRESSURE
123/75
ECG MEASUREMENT
0

Home power consumption measuring by an operator

Hospital and Indoor tracking to everything



UBER for any shopping



The future of TELECOM companies

Unless they provide the market with what customers "use cases" needs

Just Another Utility Provider

Thank you