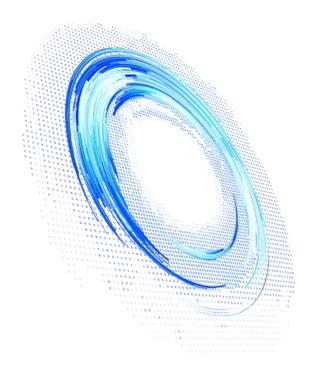
Over the Top (OTT) - Opportunity, Threat or Something Else?





- 59-22 JAMBARY 2020 | HONOEFEE HAVA

By Tony Mosley Director of Business Development Ocean Specialists Inc. tmosley@oceanspecialists.com

Innovation and Disruption

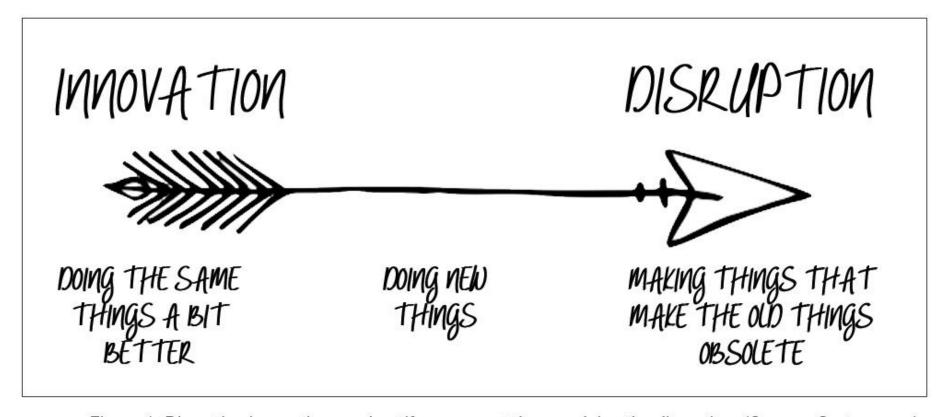
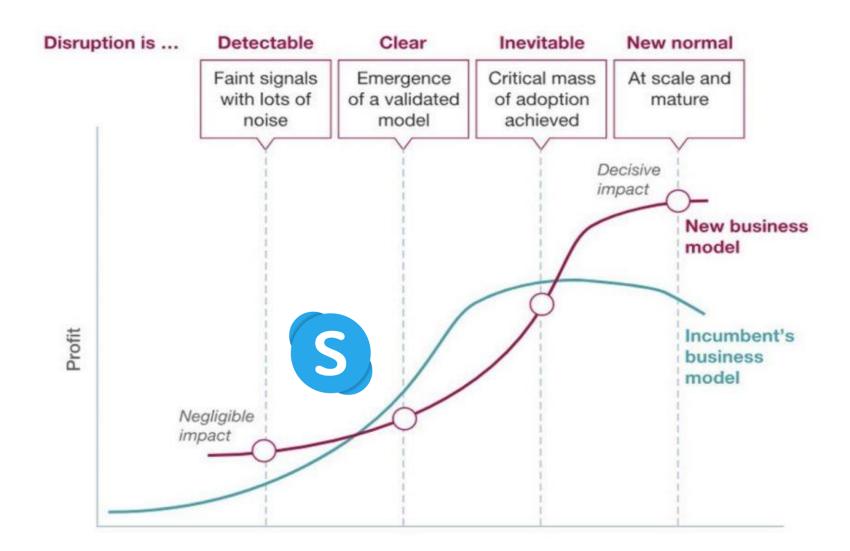


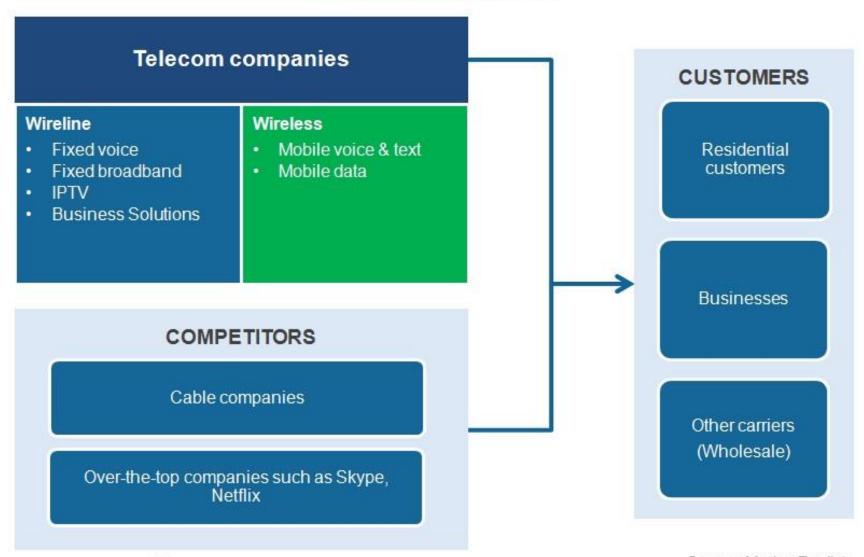
Figure 1: Disruptive innovation can hurt if you are not the one doing the disruption. (Source: Gartner.com)

Disruption and Scale





Telecom industry dynamics





Source: Market Realist

Full Service Telcos

Revenue Drivers

- Voice
- SMS -messaging
- Data (Broadband)
- Mobility
- Enterprise





Substitution

Telex

Fax

Voice

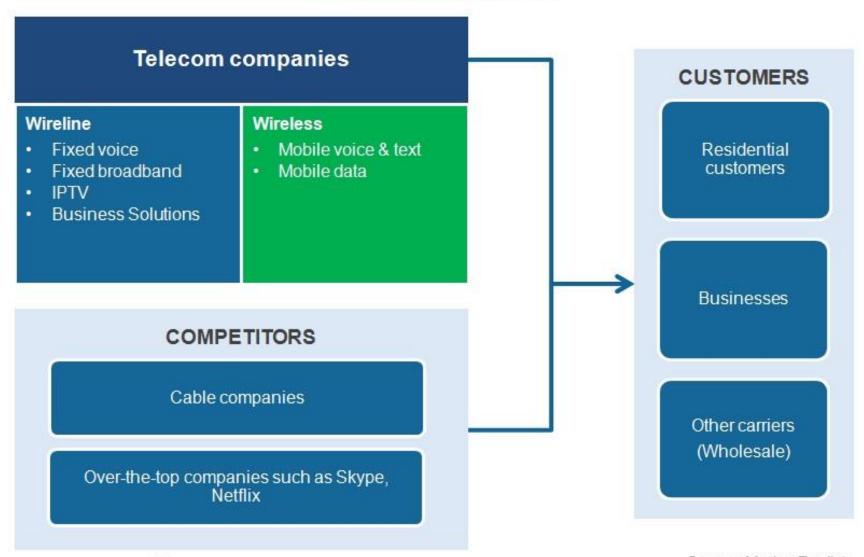
Video

Data

Mobility



Telecom industry dynamics





Source: Market Realist

OTT Definition

- Over-the-Top Application (OTT)
- Definition What does Over-the-Top Application (OTT)mean?
- An over-the-top (OTT) application is any app or service that provides a product over the Internet and bypasses traditional distribution. Services that come over the top are most typically related to media and communication and are generally, if not always, lower in cost than the traditional method of delivery.
- Internet Based Service Providers (IBSP)

Multi-faceted OTT Competition

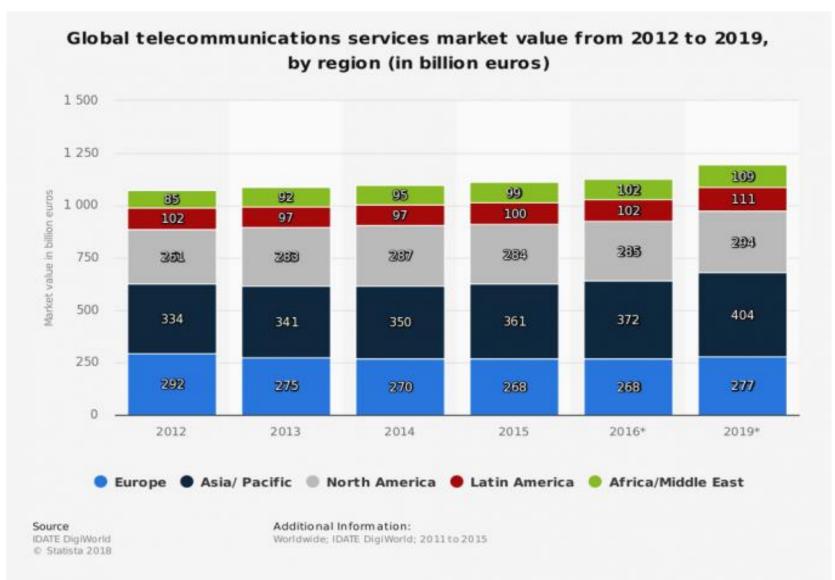


Threats? Revenue Loss 2012-2017

\$461 Billion USD
Ovum research 2016

1997 Netscape 2007 iPhone

Global Telecom Revenue

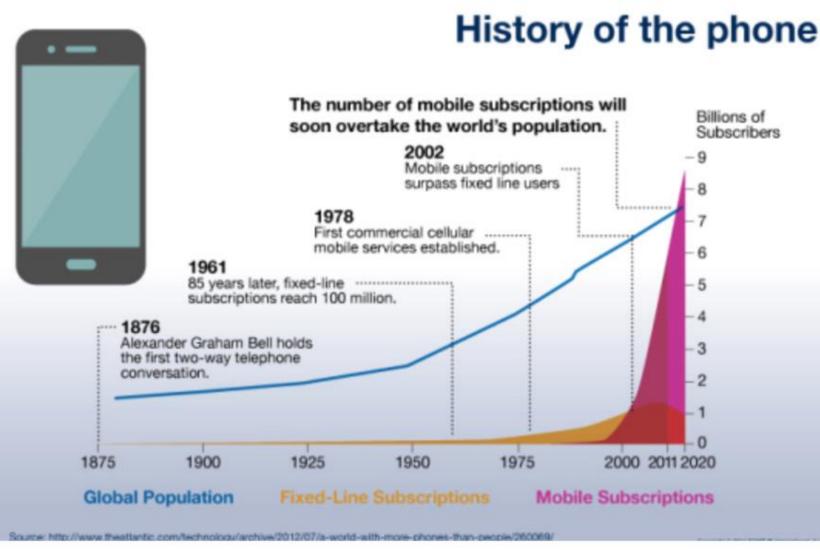




7.68 BILLION PEOPLE*

* World Population Clock

Ubiquity



62%

2019 This Is What Happens In An Internet Minute



CI

Communications Intensity

OTT Scale Facts



SKYPE
300 Million Users

3 Billion Minutes per day W Video 2 Trillion minutes per day



FACEBOOK MESSENGER 2 Billion Users

8 Billion Video Views per day 12 Billion Messages per day

300 Million Photos uploaded per day



WHATS APP

1.5 Billion Users

60 Billion messages per day

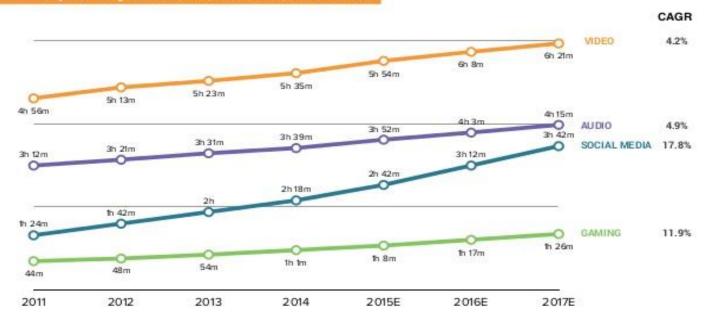


WECHAT 883 Million Users

38 Billion messages per day

Time spent on major digital activities like video, audio, social media and gaming will continue to increase

Time Spent Among 18+ Users, U.S., 2011 - 2017E, Hours : Minutes

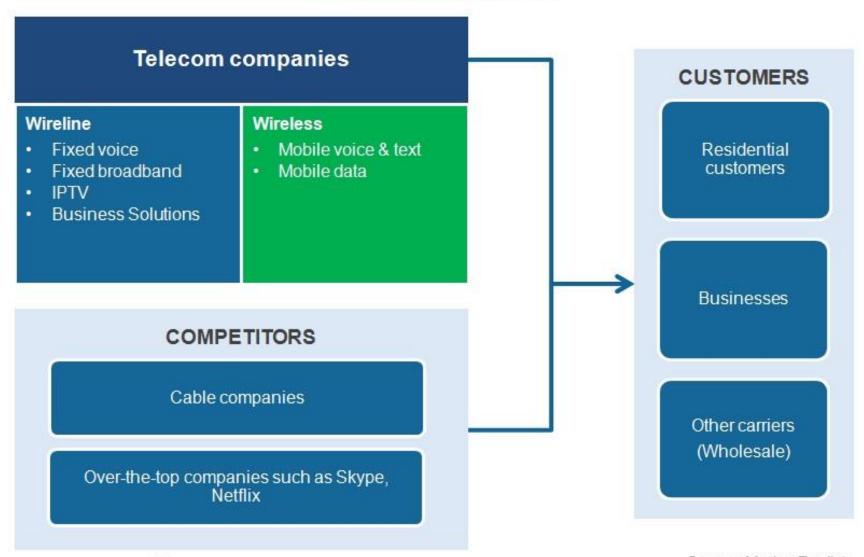




Sources: Edison, We Are Social, eMarketer, Nielsen, Deloitte, SNL Kagan, Sandvine, Ipsos, comScore, Global Web Index, Pew Research Center, Flurry Insights, Informate, NetMarketShare, Statcounter, Activate analysis. Time spent may be double counted (e.g. YouTube for both video and audio).

What's the right OTT Strategy?

Telecom industry dynamics





Source: Market Realist

Keys for OTT Disruption

Fixed Line



Full Service

- Quality of Service
- Deep Fiber Expansion
- Broadening Broadband
- Responsiveness/Agility
- M&A Opportunities

- Quality of Service
- Deep Fiber Network Expansion
- Broadening Broadband
- Responsiveness/Agility
- OTT/Cloud Development
- Mobility and Fixed
 Device Integration 4.5 5G



Keys to working with OTT Disruption

Internet Service Provider

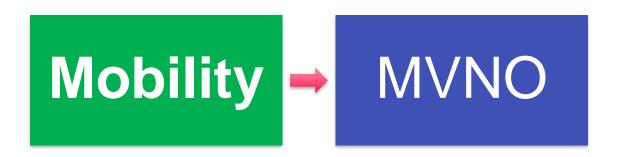


Cable TV

- Strengthen Service Bundles
- Create Product Development Opportunities
- Manage Customer Experience
- OTT Partnerships

- Quality of Service
- Develop Accessible Content
- Broadband Increases
- Mobility Partnership
- M&A Opportunities

Keys to working with OTT Disruption



- Network Expansion
- Customer Experience
- Content Delivery
- AR/VR
- IoT/5G Push

- Brand Differentiation
- Superior Offer Mgmt.
- Agile Product Set
- Cloud
- Customer Security
- Mobile Money

Keys to Dealing with Disruption OTT

- Disruption expect it, embrace it.
- Substitution get ahead and develop it.
- Agility speed and the readiness to act.
- Responsiveness don't wait could be to your peril.
- Product Trials not traditional routes, failure?
- Service exceptional and responsive, customer driven.
- Retention costs 10 times as much to get them back.

1997: Dont trust anyone on the internet, dont get in strangers cars.

2017: use the internet to get into a strangers car

Thank you.

Questions

Your Move!



Ubiquity & Scale



Telecom operator scenarios for 2025

From dumb pipe to smart platforms?



Average annual growth rate for telecom services worldwide 2014-2025 under each scenario

ran Product

Verticals

Digital mall

Operators distribute vertical services (video, music, finance, health, energy, security, education, transportation...)

> They rely on their enhanced connectivity offers

Wholesale

Customer relationship

Commoditisation 2



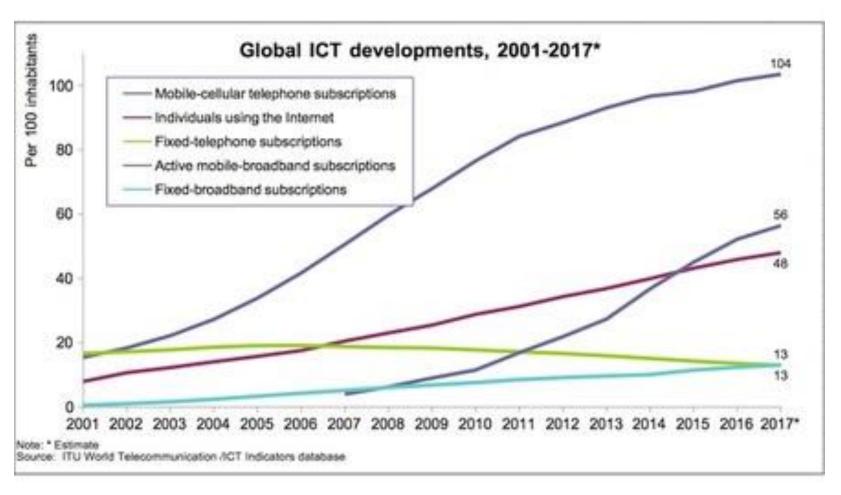
- Internet players gain a foothold in distribution with a smart cloud/dumb device model
- Telcos sell them wholesale connectivity

Smart connectivity Direct relationships

Connectivity+

- · Operators invest in quality networks
- They succeed in offering enhanced connectivity services to both end users and content providers/application developers

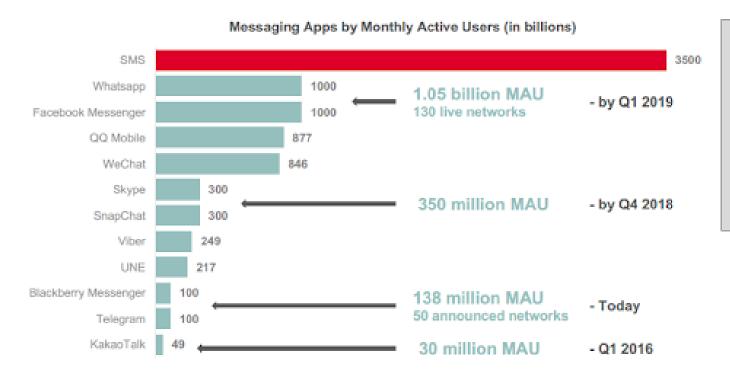
Global Growth Picture ITU



Monthly Active Users by size



RCS is growing! How does it compare?



SMS remains the world's largest platform with 3.5bn MAU.

As an SMS upgrade, RCS has this potential for growth.



OTT Take Away

Figure 1: WhatsApp vs SMS



42 Billion

Number of WhatsApp messages sent per day in 2016



16.4 Billion

Number of P2P SMS sent per day in 2016



18.8%

Decline in dollar value of MNO P2P revenues between 2013 and 2015

Source: Juniper Research