Success Diaries

Success isn't a straight line. Even the most accomplished business leaders have had to face the anvils of crisis at pivotal points. There are immense learnings to gain from moments of such successes and failures.
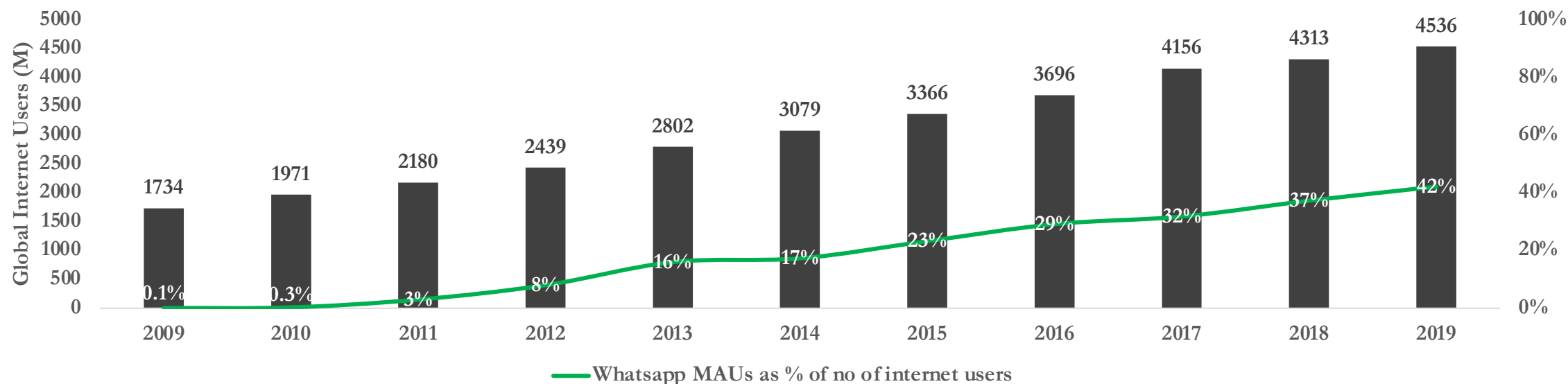
At Kalaari, we draw our energy from helping founders succeed. Through Success Diaries, we bring to you case studies that draw analysis and insights from the journeys of extraordinary companies. We hope this helps you as you build an enduring enterprise of tomorrow.

# The Paragon of Network Effects

By Karthik Nageswaran, Siddhanth Jayaram

WhatsApp is a story of hyper-scale & deep product engagement

Global Internet Users (M)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Users	1734	1971	2180	2439	2802	3079	3366	3696	4156	4313	4536
MAUs %	0.1%	0.3%	3%	8%	16%	17%	23%	29%	32%	37%	42%

— Whatsapp MAUs as % of no of internet users

"It's the only app we've ever seen with higher engagement than Facebook itself"

-Zuckerberg, announcing the WhatsApp acquisition

Source: Internet World Statistics

WhatsApp derives its success from four key tenets
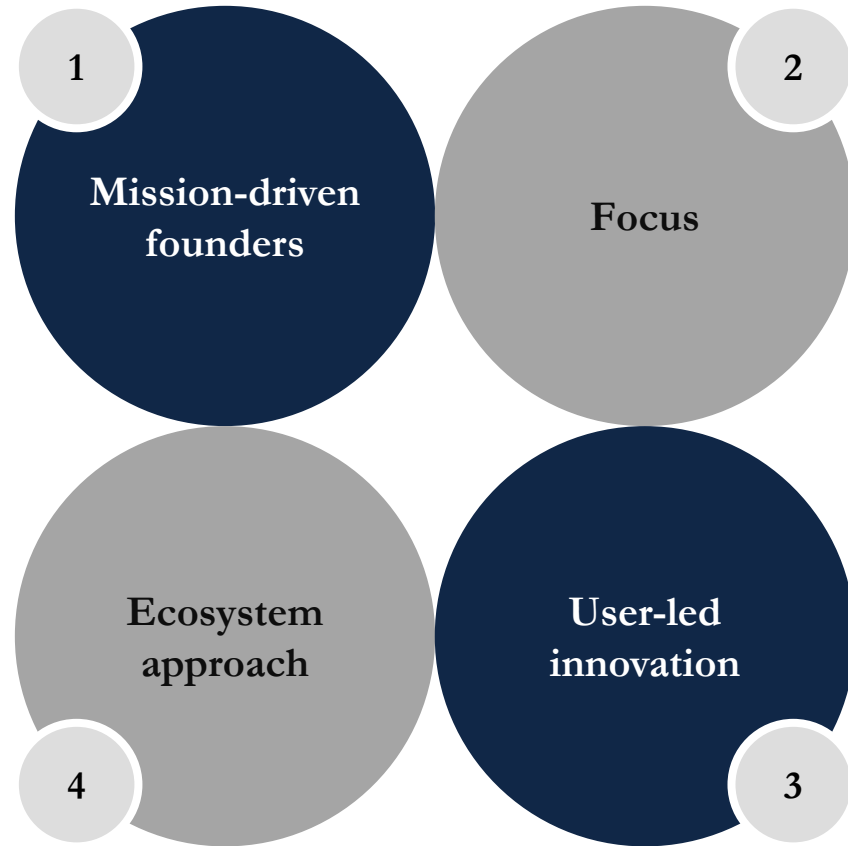
Mission-driven founders
Growing up in Soviet Ukraine, understood the privacy related trade-offs involved in an advertisement led model

Razor-sharp focus
Focused on building a product-first company with utility, reliability, simplicity. Imagined a pre-built, phone-number based social network

User-led innovation
WhatsApp was never the first to market with new, innovative features. But when they launched something, it worked reliably!

Ecosystem approach
Realized the importance of building an ecosystem that works for everyone, including Telecom Companies

Early days of WhatsApp

💡 **Fun Fact:**

WhatsApp was such a reclusive company that they didn't have the company name displayed outside its office!

Communication in the pre-WhatsApp world was broken

Social media & Instant messaging was highly fragmented

kik·   **Viber** Connect. Freely.™   **WeChat**   **Google** (3 products)   **skype**™   BlackBerry

Had 60M MAU in Jan 2011. RIM refused to open up BBM for all platforms, stating that people were buying Blackberry phones for BBM

Customer experience in SMS was poor

Expensive   **Not real time**   **Limited cross-border service**   **High failure rates**

High fragmentation led to subscale players with limited upside from network effects

Founders had a shared history & a desire for creating a connected world

Brian Acton

BS in Computer Science from Stanford. Dropped out of full scholarship from U-Penn to move to Silicon Valley

He was the 44th employee at Yahoo!, having previously worked at Apple, Adobe and Rockwell


Jan Koum

Born in Soviet Ukraine, his parents were political activists who regularly had their phones tapped. Fled to US with his mother when he was 16

Lived on welfare benefits, food stamps and eventually dropped out of San Jose State University. Interviewed by Brian & joined Yahoo! in data security & privacy team

Coming Together!

In September 2007, Koum and Acton left Yahoo! and took a year off, traveling around South America and playing Ultimate Frisbee. In January 2009, Koum bought an iPhone and realized that the then seven-month-old App Store was about to spawn a whole new applications ecosystem

Push notifications inspired WhatsApp to build instant messaging use case
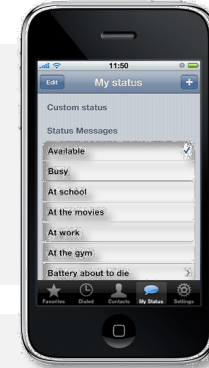
2009 Feb

Launched as a phone status app on iOS
App wasn't seeing traction for the first few months.
Brian egged him to go on and not give up on WhatsApp

May

Inflection Point: Apple launches push notifications
Jan imagines WhatsApp as a **prebuilt social network,** with the phone number in place of a login. Identified this once in a generation tech + platform shift

Growth Hack: Realized that Apple App store updates its new & trending every week, so launched the app with a different name on a weekly basis

Sep

With notifications, users began mimicking Instant Messaging - like behavior. WhatsApp launches with IM features. 5 friends from Yahoo! invest $250K in seed round

Dec

about ~250K users

Includes ability to share videos, photos. **Ignored conventional wisdom. Instead of going the advertising route, they started to charge $1 for the product (Essentially, to cover the cost of sending the SMS confirmation)**

WhatsApp rapidly scaled up to 50M users in <2 years of launch

2010 **Jan** — Launched location sharing

Oct — Launched Android App. This was a big lever for growth across Blackberry, Nokia devices as well as global expansion
Post this launch, WhatsApp was ranked in the top 3-most downloaded apps on both iOS & android
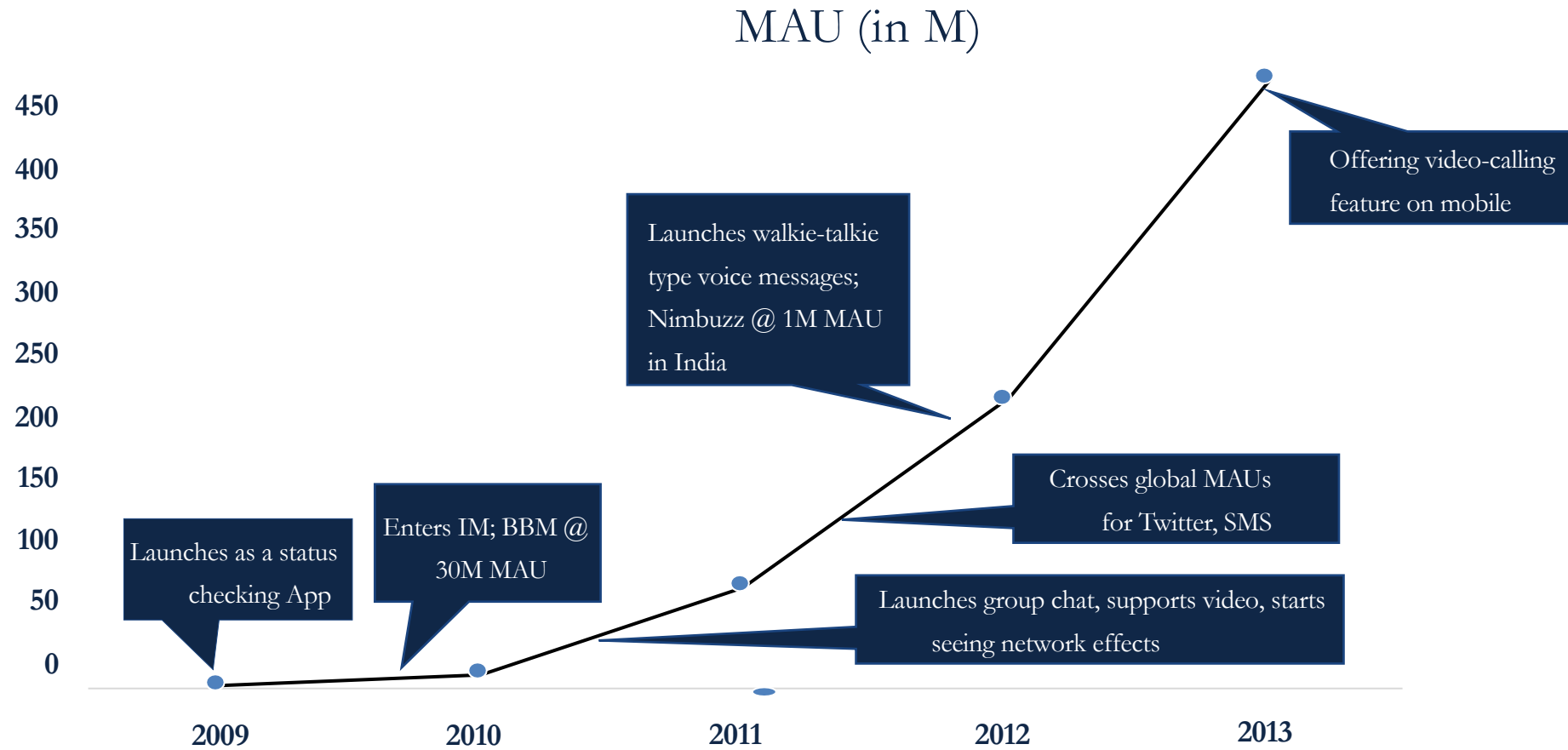
2011 **Sep** — Launched Group Chat
The founders occasionally switched the app from "free" to "paid" so they could scale up their backend infrastructure!

By October **2011**, one billion messages were being sent per day & had 50M users

Successful manifestation of network effects led to global domination

MAU (in M)

- **Launches as a status checking App** (2009)
- **Enters IM; BBM @ 30M MAU** (2010)
- **Launches walkie-talkie type voice messages; Nimbuzz @ 1M MAU in India**
- **Launches group chat, supports video, starts seeing network effects**
- **Crosses global MAUs for Twitter, SMS** (2012)
- **Offering video-calling feature on mobile** (2013)

Y-axis: 0, 50, 100, 150, 200, 250, 300, 350, 400, 450
X-axis: 2009, 2010, 2011, 2012, 2013

The largest acquisition of a VC-backed company!

💡 **Fun Fact:**

Both WhatsApp founders, Jan Koum & Brian Acton were rejected for jobs at Facebook in 2008!

Global tech giants saw value in WhatsApp network, leading to a competitive acquisition process

2012 Jan
Zuckerberg writes to Jan. Jan ignores it. Zuckerberg follows up for six months before they finally meet for the first time.

For two years, the conversations don't move forward!

2013 Dec
Conversations begin actively again. This time, WhatsApp lets Google and Tencent know about the interest

Engaged in advanced conversation with Tencent, with a deal rumored to be ~$11B in place. Eventually, the transaction didn't happen as Pony Ma couldn't travel because of a back surgery

2014 Feb
Sundar Pichai sets up a meeting with Google founders. However, Zuckerberg came to know about this meeting and invited Jan to meet him at his home, one day before the meeting with Google.

Zuckerberg convinces Jan to sell to FB, touting FB's Instagram acquisition as an example of Facebook being a benevolent acquiror, retaining product control with the founders and assured him that FB will not force WhatsApp to move away from its philosophical core

Why Facebook paid ~$19B for WhatsApp – four numbers that explain

450M users on the app. 1M users were installing the app every day

32 No of engineers. 1 WhatsApp engineer per 14M MAU + 15 on Customer Support

$1 Price users pay per year after free trial (Only in US)

$0 Money invested in marketing, customer acquisition

Facebook paid ~10% of its market capitalization at the time to acquire WhatsApp!

Source: Blog post by Jim Goetz

Defensive acquisition that allowed FB to strengthen its foothold in Asia!

A defensive acquisition

- WhatsApp, with its global user base & high engagement, could have been the single largest competitor for Facebook

- It would have been an even bigger threat had it been acquired by Google or Tencent

- Today, 8 social networks & platforms have 1B+ users, Facebook owns four of them

- WhatsApp also gave FB inroads in Asia, enriching the FB group's value significantly. WhatsApp acquisition is now considered a significant inflection point in FB's history

Platforms with 1B+ MAU

Facebook family apps

Facebook	WhatsApp	FB Messenger	Instagram

WeChat	Youtube	iMessenger	TikTok/ Douyin

Learnings from WhatsApp

💡 **Fun Fact:**

When Jan left Facebook, he stated that he wanted to devote more time towards collecting rare, air-cooled Porsches & playing Ultimate Frisbee!

Identify the company's true mission and build single-mindedly for it
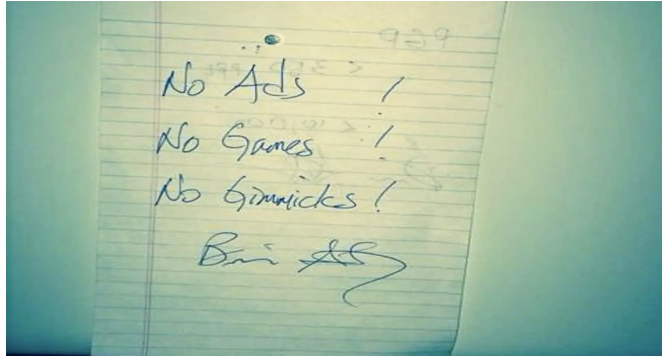
Why we don't sell ads

No one wakes up excited to see more advertising, no one goes to sleep thinking about the ads they'll see tomorrow. We know people go to sleep excited about who they chatted with that day (and disappointed about who they didn't). We want WhatsApp to be the product that keeps you awake... and that you reach for in the morning. No one jumps up from a nap and runs to see an advertisement.

"We want to know as little about our users as possible. We don't know your name, your gender. We designed our system to be as anonymous as possible. We are not advertisement-driven so we don't need personal databases"

Jan's father couldn't emigrate to US from Ukraine: Realized having affordable, reliable tools that enable communication is critical, almost fundamental to our way of life

Life under a totalitarian state in Ukraine made him value privacy

Key Learning from Yahoo included an aversion to advertisement led models as they created friction in user experience & privacy concerns

Focussed on **utility, reliability, simplicity**

Streamline your focus and go all-in on making the core product work

"I want to do one thing and do it well."

50 engineers only! No marketing spend, no CAC. **Word of mouth was the only way for growth**

Understood network effects in telecom– **adopted multiplatform approach early in the journey**

Product: Simple design, phone number-based signups for **Quick & fast onboarding**

Core Functionality: Cheapest option for **cross-border communication**

Obsession with ensuring **data privacy** for their users

Anchor your (consumer) product philosophy around PMF and virality

Whatsapp daily messages sent (bn)

[Source: Whatsapp, Enders Analysis]
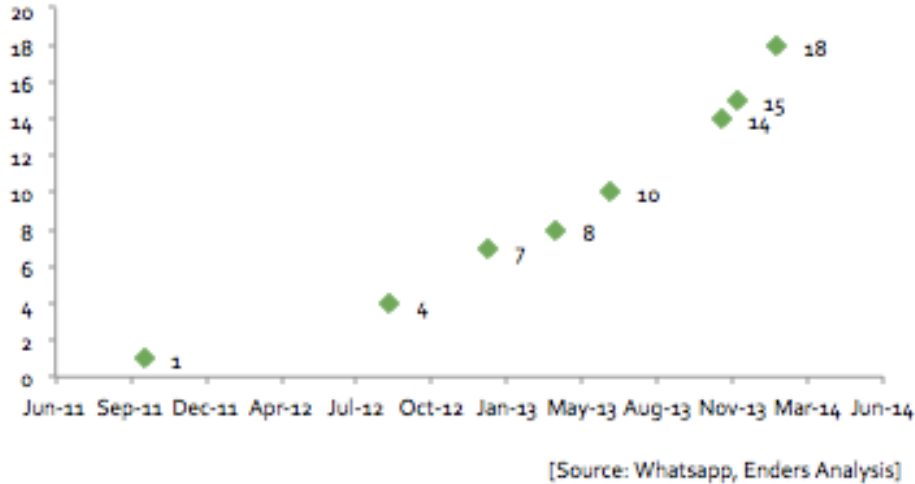
"Being able to reach somebody half-way across the world instantly, on a device that is always with you, was powerful" –
Jan Koum

Create a useful, user-friendly product

Develop cross-platform functionality early on

Free or Freemium always doesn't work. Customers never shy away from paying for a useful product/service

Use existing and established infrastructure to boost product engagement (Apple Push Notifications)

Know, how to use positive PR efficiently. Preferred communicating updates directly through their channels rather than through the media

Go where the users lead you

Product Evolution: Growing feature stack

Rapid Prioritization given lean team

Year		Year	
2009		2015	
2010		2016	
2011		2017	
2012		2018	
2013		2019	
2014		2020	
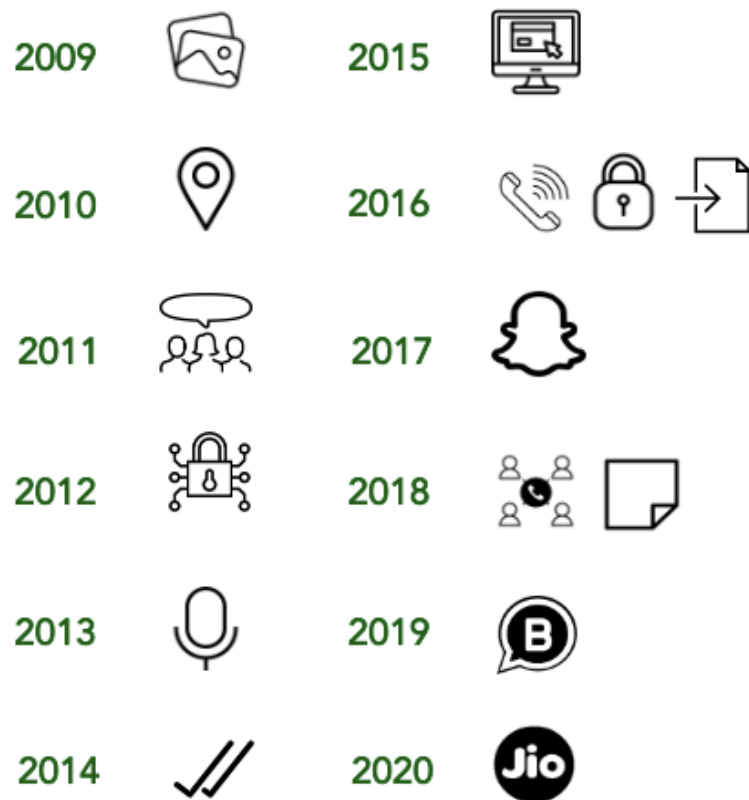
WhatsApp was never first in rolling out new features but when they did, they just worked, they were reliable

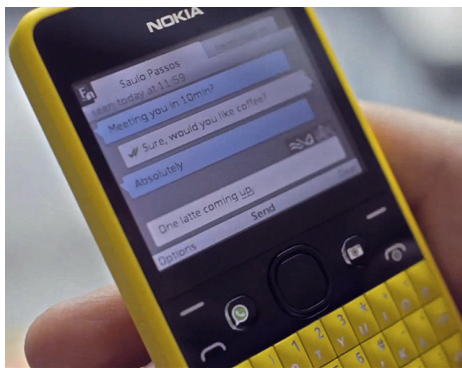They could do this, because **they had early distribution**

The trend continued post acquisition: Snapchat Stories, GIFs, Stickers

Could the same happen for video calling?

Expanded functionality to 8-person video call vs. 4 earlier

Positioning it as a safer alternative to Zoom & Houseparty

Build an ecosystem that works for everyone

Integrations with carriers and handsets

Fall in SMS revenue led to a lot of lobbying against WhatsApp in some countries. Indian & African Telcos were losing out on SMS revenue (~7-12% of carrier revenues at that time)

Realized importance of creating an ecosystem that works for everyone. Made carriers realize the importance of data in the future vs. SMS today

Carrier Deals Across the World

 5   3   10   3

Learnings for startups

🎯 **Identify the company's true mission and build single-mindedly for it**
User experience and privacy were at the core of Whatsapp's mission

👁 **Streamline your focus and go all-in on making the core product work**
Whatsapp obsessed with product simplicity, and making cross-border communication cheap

📈 **Anchor your product philosophy around PMF and virality**
Leverage pricing, channels, and infrastructure to stimulate virality

🏃 **Go where the users lead you**
Expand features and functionality as needs of your userbase grows

👨‍👧‍👧 **Build an ecosystem that works for everyone**
Whatsapp integrated with carriers and handsets so they do not lose in the data movement

Thank You

Kalaari Capital

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