A VUCA World

- Volatile
- Uncertain
- Complex
- Ambiguous

"the new normal"
A VUCA World

VUCA

- Complexity
  Multiple key decision factors

- Volatility
  Rate of change

- Ambiguity
  Lack of clarity about meaning of an event

- Uncertainty
  Unclear about the present

How well can you predict the outcome of your actions?

How much do you know about the situation?
# A VUCA World

<table>
<thead>
<tr>
<th>Volatility</th>
<th>Uncertainty</th>
<th>Complexity</th>
<th>Ambiguity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change Nature</td>
<td>• Unpredictability</td>
<td>• Tasks Correlation</td>
<td>• Ideal vs. Actual</td>
</tr>
<tr>
<td>• Change Dynamics</td>
<td>• Potential Surprises</td>
<td>• Multifaceted</td>
<td>• Misinterpretation</td>
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<tr>
<td>• Change Rate &amp; Speed</td>
<td>• Unknown Outcomes</td>
<td>• Effects</td>
<td>• Ideal vs. Actual</td>
</tr>
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</table>

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<tr>
<th>Drivers</th>
<th>Effects</th>
<th>Demands</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Risks, Instability</td>
<td>• Direction Paralysis Due To Data Overload</td>
<td>• Take Actions</td>
</tr>
<tr>
<td>• Flux</td>
<td>• Unproductive</td>
<td>• Wider Understanding</td>
</tr>
<tr>
<td></td>
<td>• Dualities</td>
<td>• Different Perspectives</td>
</tr>
</tbody>
</table>

**UNDERSTANDING**
- Key Focus
- Flexible
- Creative

**CLARITY**
- Decision making
- Innovation

**AGILITY**
- Decision making
- Innovation

**VISION**
- Take Actions
- Probe Changes

**UNDERSTANDING**
- Wider Understanding
- Different Perspectives
What Will Exist In 13 Years?

Didn't Exist in 2006

- IPHONE
- IPAD
- KINDLE
- 4G
- LYFT
- ANDROID
- WHATSAPP
- AIRBNB
- OCULUS
- SPOTIFY
- NEST
- BITCOIN
- BLOCKCHAIN
- SQUARE
- INSTAGRAM
- SNAPCHAT
Global Population Projections

- Median projection:
  - 2050: 9.5 billion
  - 2100: 13.3 billion

- Lower 95% confidence interval:
  - 2050: 9.7 billion
  - 2100: 11.2 billion

- Upper 95% confidence interval:
  - 2050: 10.5 billion
  - 2100: 14.1 billion

Historical data:
- 1950: 2.5 billion
Technology Cycles – Still Early Cycle on Smartphones + Tablets, Now Wearables Coming on Strong, Faster than Typical 10-Year Cycle

Technology Cycles Have Tended to Last Ten Years

Mainframe Computing 1960s
Mini Computing 1970s
Personal Computing 1980s
Desktop Internet Computing 1990s
Mobile Internet Computing 2000s
Wearable / Everywhere Computing 2014+

Others?

Consumption Timeline
Technological advancements accelerate growth of firms
Over 70% of Americans use at least one social media site


PEW RESEARCH CENTER

https://www.pewinternet.org/fact-sheet/social-media/
Gone in a flash: How cameras were killed by the smartphone

The first iPhone was released in 2007.

Digital camera sales peaked in 2010 and have declined every year since.
TV Watching Patterns

Americans now spend more time on smartphones than watching TV

Note: Average time adults spend per device, in hours per day
Source: eMarketer
WEB BROWSER MARKET SHARE

SOURCE: STATCOUNTER
How Many Websites Are There?
Number of websites online from 1991 to 2019

“Website” is defined as a unique hostname, i.e. a name which can be resolved, using a name server, into an IP Address.

* As of August 1, 1991
** As of October 28, 2019 at 10:00 CET

Source: Internet Live Stats
Digital Trends Around the Globe

**JAN 2019**

**DIGITAL AROUND THE WORLD IN 2019**

The essential headline data you need to understand global mobile, internet, and social media use.

<table>
<thead>
<tr>
<th>Category</th>
<th>Numbers</th>
<th>Urbanisation</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>7.676 billion</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Unique Mobile Users</td>
<td>5.112 billion</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Internet Users</td>
<td>4.388 billion</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>Active Social Media</td>
<td>3.484 billion</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Mobile Social Media</td>
<td>3.256 billion</td>
<td>42%</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Population: United Nations, U.S. Census Bureau, Mobile: GSMA Intelligence, Internet: Internet World Stats, etc.; World Bank; CIA World Factbook; Eurostat; Social Governance Bodies and Regulatory Authorities; MISSMEDIA ONE; Reports in reputable media, social media, platforms' self-service, advertising tools, press releases, and investor earnings announcements.

Hootsuite, we are social.
Internet Penetration by Region

INTERNET PENETRATION BY REGION
INTERNET USE BY REGION, COMPARING THE NUMBER OF INTERNET USERS TO TOTAL POPULATION (REGARDLESS OF AGE)

NORTHERN EUROPE: 95%
EASTERN EUROPE: 80%
NORTHERN AMERICA: 95%
CARRIBEAN: 63%
CENTRAL AMERICA: 51%
NORTHERN AFRICA: 50%
SOUTHERN AFRICA: 73%
SOUTHERN AMERICA: 51%
WESTERN EUROPE: 94%
SOUTHERN EUROPE: 88%
MIDDLE AFRICA: 12%
WESTERN AFRICA: 41%
SOUTHERN ASIA: 32%
EASTERN ASIA: 60%
CENTRAL ASIA: 50%
EASTERN ASIA: 63%
SOUTH-EASTERN ASIA: 63%
OCEANIA: 69%
Exchanging More Information Faster Than Ever

Information Exchange Rate (IER)

Knowledge Production Rate (KPR)
What Happens In An Internet Minute – 2019

60 SECONDS

- 3.8 Million Searching
- 1 Million Logging In
- 4.5 Million Videos Viewed
- 390,030 Apps Downloaded
- 1 Million Emails Sent
- 1.4 Million Swipes
- 41 Music Streaming Subscriptions
- 188 Million Gifs Served
- 4180 Smart Speakers Shipped
- 87,500 People Tweeting
- 1.6 Million Messages Sent
- 2.1 Million Snaps Created
- 599,956 Spent Online
- 694,444 Hours Watched
- 4.8 Million Gifs Served
- 1 Million Views
- 41 Music Streaming Subscriptions

Created By:
@LoriLewis
@OfficiallyChadd
Shipment Forecasts

Shipments forecast of tablets, laptops and desktop PCs worldwide from 2010 to 2023 (in million units)*

- Desktop-PCs
- Laptops
- Tablets

Year:
- 2010:
  - Desktop-PCs: 157
  - Laptops: 201
  - Tablets: 19

- 2011:
  - Desktop-PCs: 155
  - Laptops: 209
  - Tablets: 76

- 2012:
  - Desktop-PCs: 148
  - Laptops: 201
  - Tablets: 145

- 2013:
  - Desktop-PCs: 134.4
  - Laptops: 180.9
  - Tablets: 219.9

- 2014:
  - Desktop-PCs: 133.85
  - Laptops: 174.28
  - Tablets: 230.1

- 2015:
  - Desktop-PCs: 113.6
  - Laptops: 163.1
  - Tablets: 208

- 2016:
  - Desktop-PCs: 103.3
  - Laptops: 156.8
  - Tablets: 174.9

- 2017:
  - Desktop-PCs: 97.3
  - Laptops: 161.6
  - Tablets: 163.7

- 2018*:
  - Desktop-PCs: 94.4
  - Laptops: 162.3
  - Tablets: 150.3

- 2019*:
  - Desktop-PCs: 88.4
  - Laptops: 166
  - Tablets: 156.8

- 2022*:
  - Desktop-PCs: 84.5
  - Laptops: 165
  - Tablets: 134.1

- 2023*:
  - Desktop-PCs: 79.5
  - Laptops: 171
  - Tablets: 122.1
Desktop v. Mobile v. Tablet Share Worldwide
In 2017 Mobile Accounts = 50.3% of Web Traffic
"Thanks to cloud computing, robotics, 3G wireless connectivity, Skype, Facebook, Google, LinkedIn, Twitter, the iPad, and cheap Internet-enabled smartphones, the world has gone from connected to hyper-connected. This is the single most important trend in the world today and why to get into the middle class now, you have to study harder, work smarter and adapt quicker than ever before."  Thomas Friedman (August 13, 2011 New York Times)
The U.S. Workforce in 2025

The Workforce in 2025
Projected size of U.S. labor force (in millions) by age, for the year 2025

Source: Department of Labor | WSJ.com
The Retail Apocalypse

The retail apocalypse: traditional retail chains are dying across America. Online shopping has changed the retail landscape, and brick and mortar stores are feeling it.
Digital Ad Spending Worldwide, 2018-2023
Digital Ad Spending U.S.

Digital marketing spending in the United States from 2014 to 2019 (in billion U.S. dollars)

- 2014: $57.29 billion
- 2015: $67.31 billion
- 2016: $77.1 billion
- 2017: $85.93 billion
- 2018: $94.59 billion
- 2019: $103.37 billion
U.S. Music Industry Revenue
Spotify Revenue v. Loss