



# The State of Visual Media

**2020 REPORT**

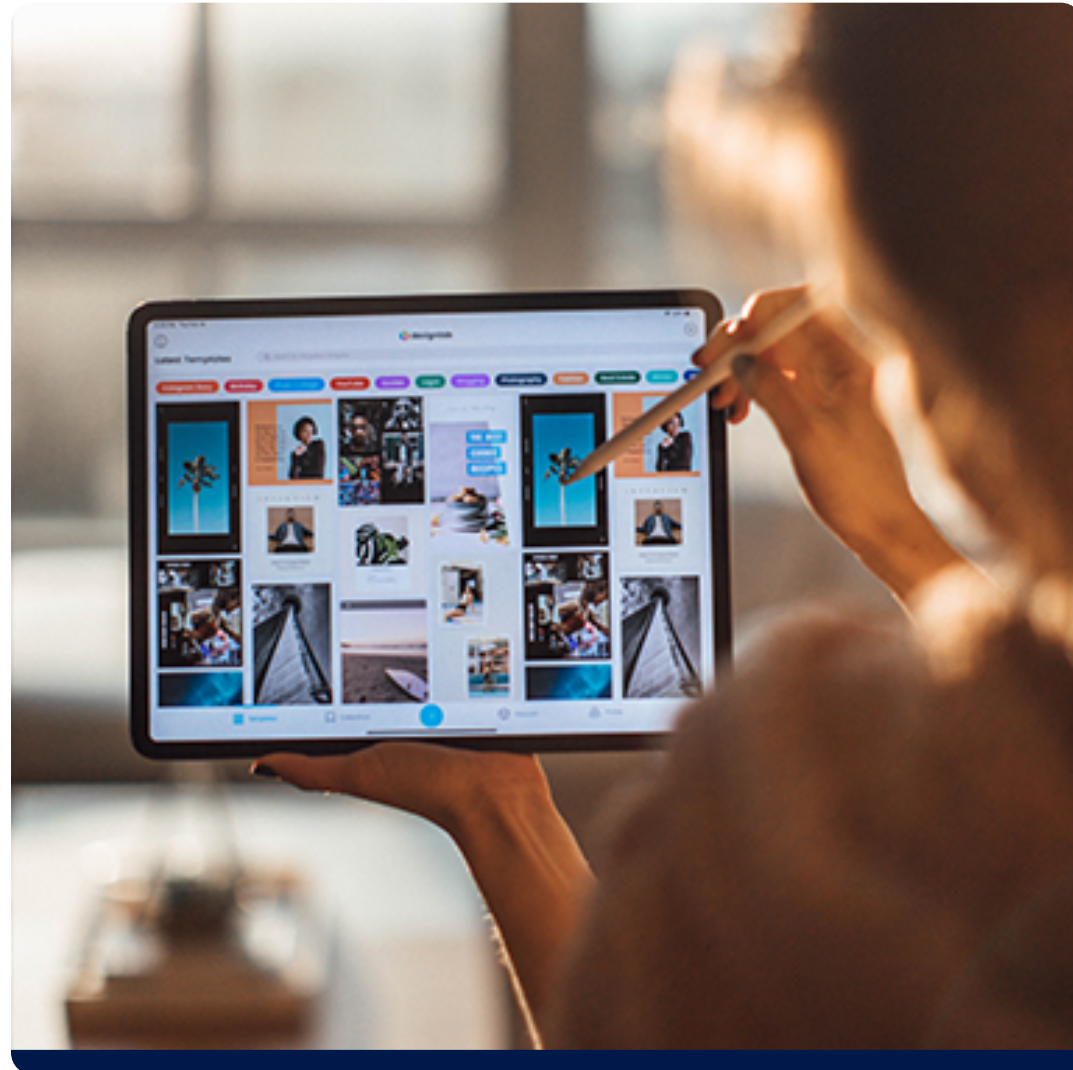
# The next decade of visual media

Much has changed over the last decade. Every single industry has undergone a fundamental transformation. From retail and health care, travel and entertainment, media and publishing, the way we find, consume and share content, research and purchase products has changed dramatically.

As the online world becomes infinitely more vast, consumers are showing preferences for a return to a back to basics, expecting brands to know us much like our local shopkeepers do. Our preferences, our needs, our desires.

**So how can brands balance the two?** Connecting with consumers who have an increased appetite for richer, more personalized content that speaks to them, but a decreased and shrinking attention span. How can companies deliver a modern, digital experience, while improving those “old fashioned” connections we all long for as customers?





## Enter the visual economy

Today's digital economy is a visual one — where beautiful, visual-centric experiences engage and convert. A world where an experience without visuals is often a missed connection. A failure to deliver the visual cues and connections that today's consumers want — and have come to expect — results in disappointment at best, and abandoned carts and lost loyalty at worst.

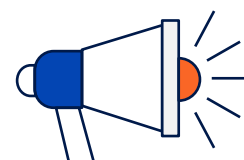
Clouduary and its customers are at the center of this new era. Images and videos are no longer just important elements of the story — they ARE the story. Delivering visual-first experiences that connect, engage and convert is no longer a hope or a goal. It must be the reality. Those living it, and taking full advantage of all the visual economy has to offer, will win.

This report looks into the what, why and how of visual-rich engagement, and offers advice on how companies can work smarter, not harder, to deliver more engaging experiences.

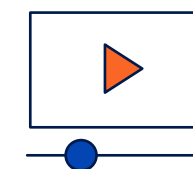
# Key Takeaways



MICROBROWSERS



SOCIAL & ADVERTISING



THE POWER OF VIDEO



GOING, GOING GLOBAL



NEXT-GEN FORMATS

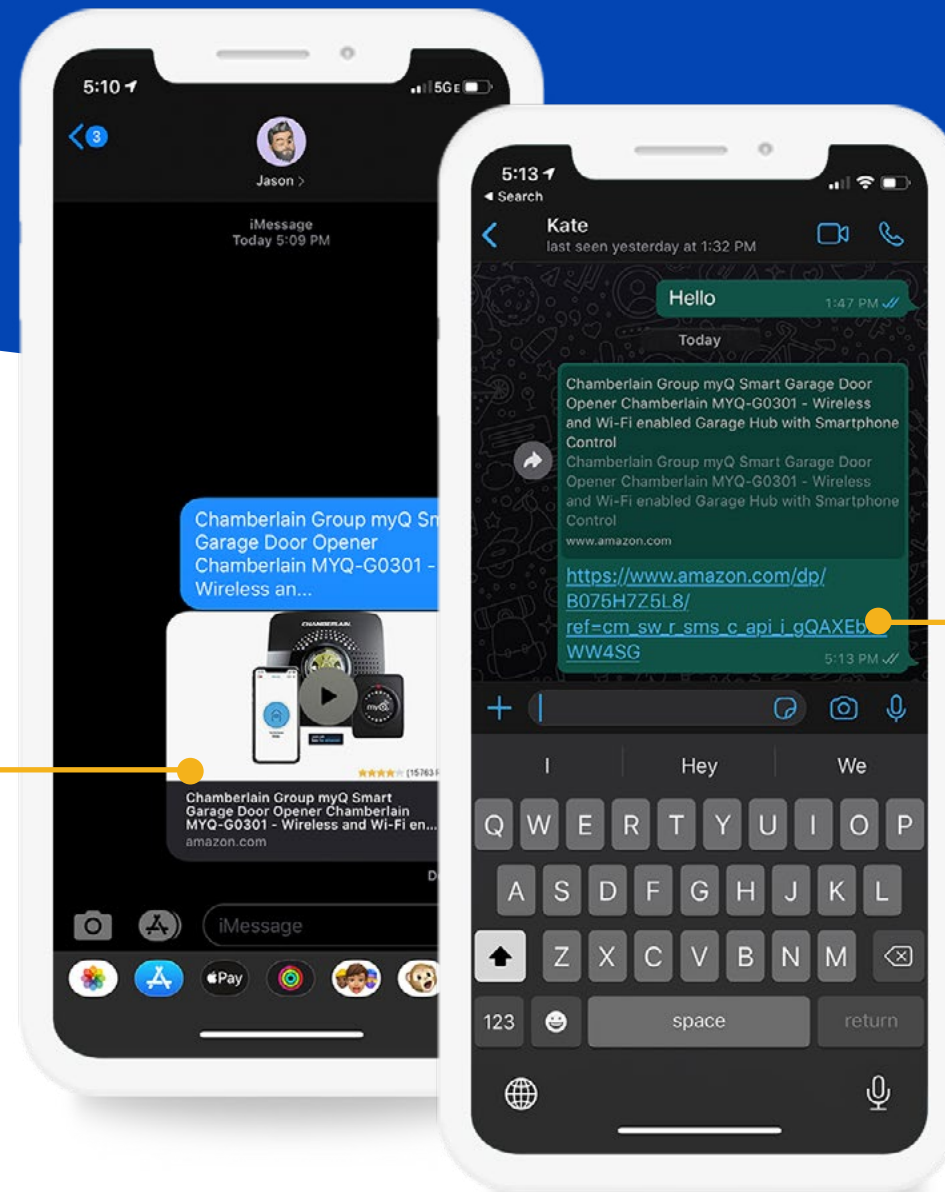


MEASURING FOR SUCCESS

## TAKEAWAY #1

# Microbrowsers

By creating compelling, informative links with images, video and text information specifically for microbrowsers, you increase the likelihood that peer-to-peer recommendations convert into clicks and sales.



These link previews provide huge engagement opportunities yet many brands often overlook how their site design might be impacting the generated preview.

## Small screens, big impact. Make the most of your microbrowser content.

**Microbrowsers.** You've seen them everywhere. That little thumbnail preview of a website mentioned in a tweet, the expanded description in a Slack channel, or in a WhatsApp group chat. These link previews provide huge engagement opportunities — possibly even more than SEO — yet many brands often forget to consider how their site design might be impacting the generated preview. What's more, most web analytics are blind to this traffic and can't show you how these Microbrowsers are interacting with your site.

These valuable peer-to-peer referrals happen “in the dark” in popular microbrowsers like Slack and WhatsApp. And while we can't — and shouldn't want to — change the private nature of these conversations, there are steps you can take to make these referrals more effective. By creating compelling, informative links with images, video and text information specifically for microbrowsers, you increase the likelihood that peer-to-peer recommendations in groups convert into sales and reads.

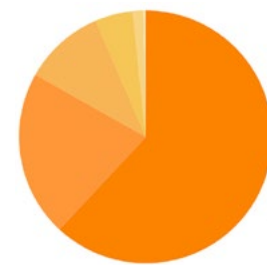
**77.5%**

**77.5% of link shares are through dark social.**

Source: GetSocial

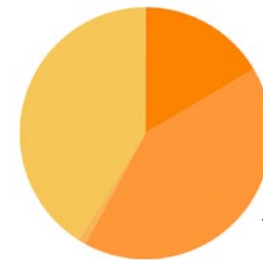
## Dynamic experiences, everywhere.

Brands must ensure a consistent and engaging experience no matter which messaging apps their audiences use — and no matter where they are in the world. Just as marketers understand the power of localized, personalized content, developers must work to ensure that experiences within messaging apps are optimized no matter how and where the content is viewed. What's more, understanding that small but very popular applications, like Viber, which is popular in Russia and other Eastern European countries, play a big role in driving vitally important engagement and peer-referrals. Brands that get this right won't miss big communication and experience opportunities.



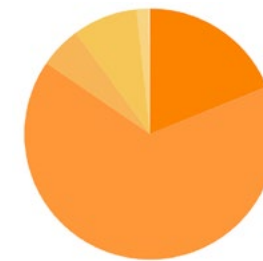
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NORTHERN AMERICA



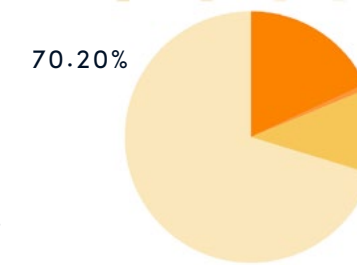
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LATIN AMERICA &amp; THE CARIBBEAN



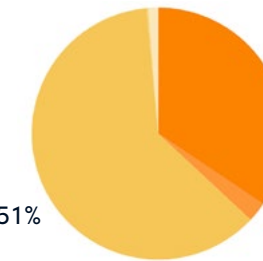
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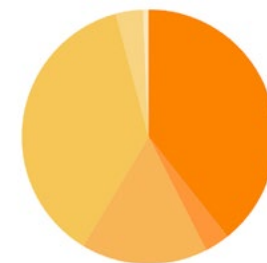
70.20%

EASTERN EUROPE



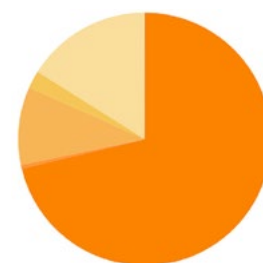
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SOUTHERN EUROPE



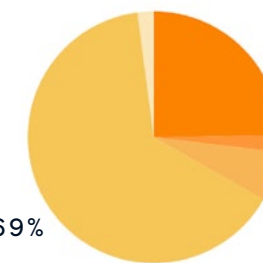
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WESTERN EUROPE



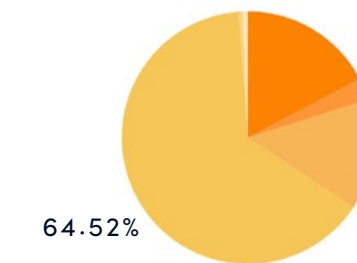
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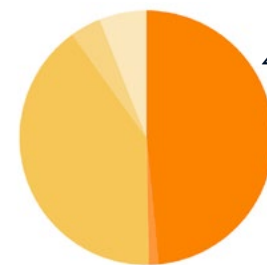
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SOUTHEASTERN ASIA



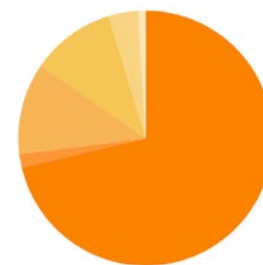
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SOUTHERN ASIA



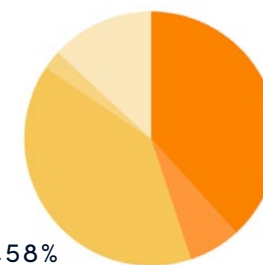
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WESTERN ASIA



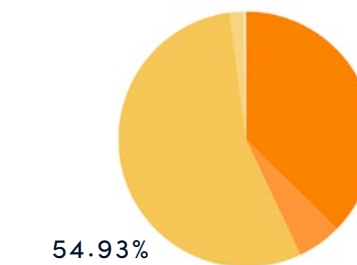
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AUSTRALIA &amp; NEW ZEALAND



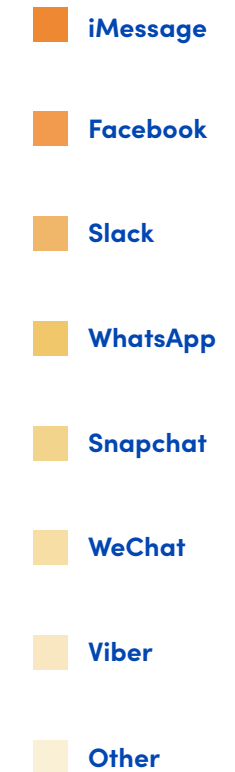
39.58%

NORTHERN AFRICA



54.93%

SUB-SAHARAN AFRICA



## BEST PRACTICES

- **Annotate everything** throughout your HTML-markup with **microdata** and on every page — not just the pages you market. All links should have a title, description and an image, and ensure that information is relevant to well-qualified consumers. **For best results, limit your title to 10 words and your description to 240 characters.**
- **Always use Open Graph as markup.** Different microbrowsers fetch links from your site in different ways. Since you don't know who is visiting, we recommend using Open Graph. Open Graph is a protocol that expands a website so its content becomes easier to share across social channels.
- **Less is more.** Since most microbrowsers use your **favicon**, annotate just one. It is common to list 4-5 favicons, but this actually creates confusion when the user agents crawls your site and looks for the content to fetch for link unfurling.
- **Prepare for all microbrowsers.** As every microbrowser renders links differently, you won't be able to deliver an identical user experience across systems. WhatsApp uses just one image, the first specified image it finds. iMessage will also look for and display video tags. Most of the microbrowsers will use your favicon. You can build a hierarchy based on this information to give the different microbrowsers the information they seek.
- **Use short video 'nanostories'** or animated GIFs for the few microbrowsers that currently display video (like iMessage). Video that shows key selling points in action can move well-qualified consumers to buy a product, read an article or donate to a cause. We have seen short video **nanostories** and animated GIFs work particularly well, for example, when selling new innovations and technical products. Only videos in MP4 format will **autoplay**. To play adaptive video streams in HLS or DASH format, viewers must click on them. When MP4 videos are autoplayed, they are by default muted and looped. Therefore it's best practice to add subtitles and keep them short. Size matters too. Ensure that the videos don't exceed 720p.

[CONTINUED...](#)

### <!-- OPENGRAPH DEVELOPER TIPS -->

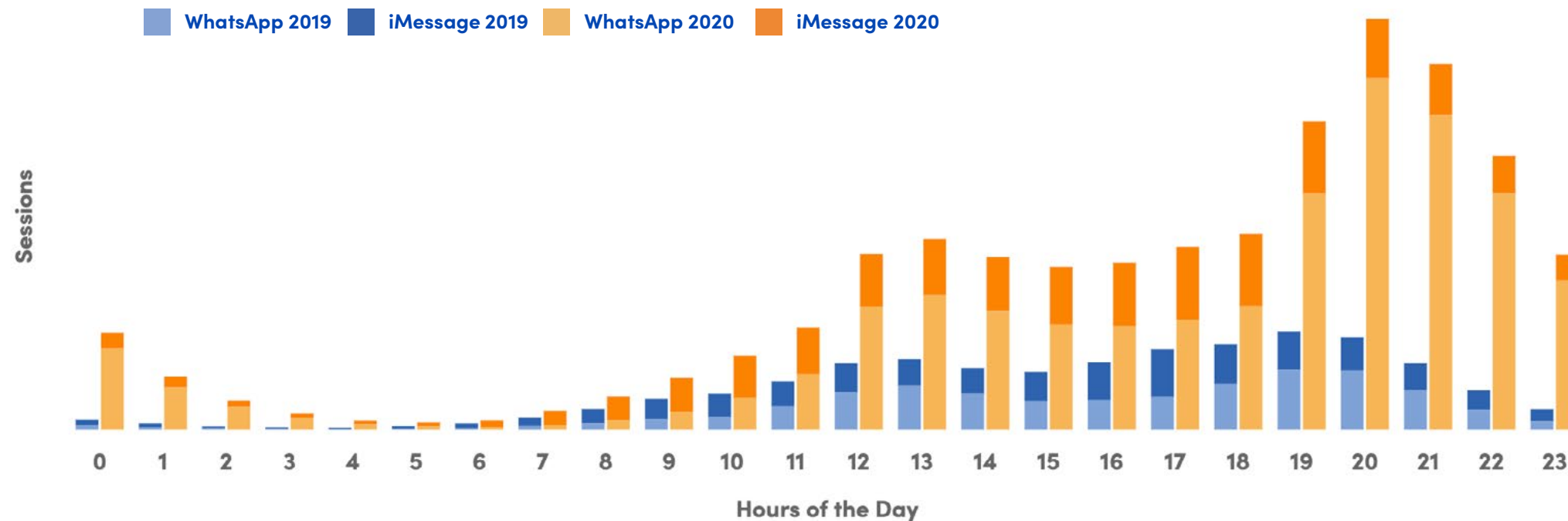


**Select a specific unfurl image**, ideally not the 'hero image', but one that compels the recipient to want to find out more information. For example, articles are often shared with an abstract stock **hero image** that isn't a compelling teaser.



**Give the image file a unique name so that you can count how often it has been fetched.** This provides anonymous clues about how often your brand is being discussed. It also lets you correlate how many new users were generated from a microbrowser impression. NB: platforms often request an unfurled image once but display it to hundreds of users. Don't worry if the absolute numbers appear low; the actual impression count is much higher.





## Unlocking hidden engagement opportunities.

In addition to offering important engagement opportunities, microbrowsers can provide us with helpful insights into audience patterns and preferences. Like the world we live in, user engagement patterns are always in flux. These insights can offer an important lens to help fine tune our messaging and content. Here, we're using food as an example to illustrate different user engagement patterns — food-related content viewed in the last quarter of 2019 compared to food-related content viewed during the month of April 2020 and the height of COVID-19 lockdown. We can't know for sure, but we can hypothesize that the lockdown shifted user behavior and how they engaged with certain brands; perhaps dinners are happening later in the day and or perhaps audiences are planning ahead?

## BEST PRACTICES

- **Performance still matters.** **Microbrowsers** are not (yet) optimized as normal browsers, so there can be latency problems. For example, when iMessage autoplays a video, first it fetches, downloads and discards the **favicon**, then does the same with the annotated images before it finally gets the video - often over a cellular network. If the link unfurling takes too long, it freezes and shows the user with an empty icon. This translates into a lost engagement opportunity. Our advice is to give the microbrowsers just enough so that something of value comes across.
- **Consider automating image generation and enrichment.** There's much you can do to improve the power of microbrowser URLs. However managing images and video at scale can become a Herculean effort and you might not stay committed. Fortunately there are free and commercial image management tools and Digital Asset Management systems that can automate much of the repetitive, time consuming, and tedious tasks involved.

## INSIGHT

## REMEMBER, YOUR AUDIENCE IS HUMAN.

When designing microbrowser content, the most important rule to remember is that your audience consists of humans, not machines! With trust in websites being compromised by bad actors, it's vitally important to appear legitimate. Do use short, word- and grammar-perfect descriptions while avoiding dense prose, SEO-optimized keywords and excessive jargon. Do include information that helps move along or close a sale such as star product ratings, price, availability and colors.

Images need to appear legitimate as well. These days people rarely click on links that appear only as URLs or come with a low-quality thumbnail. At best people ignore them for appearing uninteresting. Other users delete these immediately fearing them to be spam, or worse, phishing attempts.



“

The top messaging apps—WhatsApp, Facebook Messenger, WeChat, QQ and Skype—combine for nearly **5 billion monthly active users**. That's more users than the traditional social networks have worldwide.

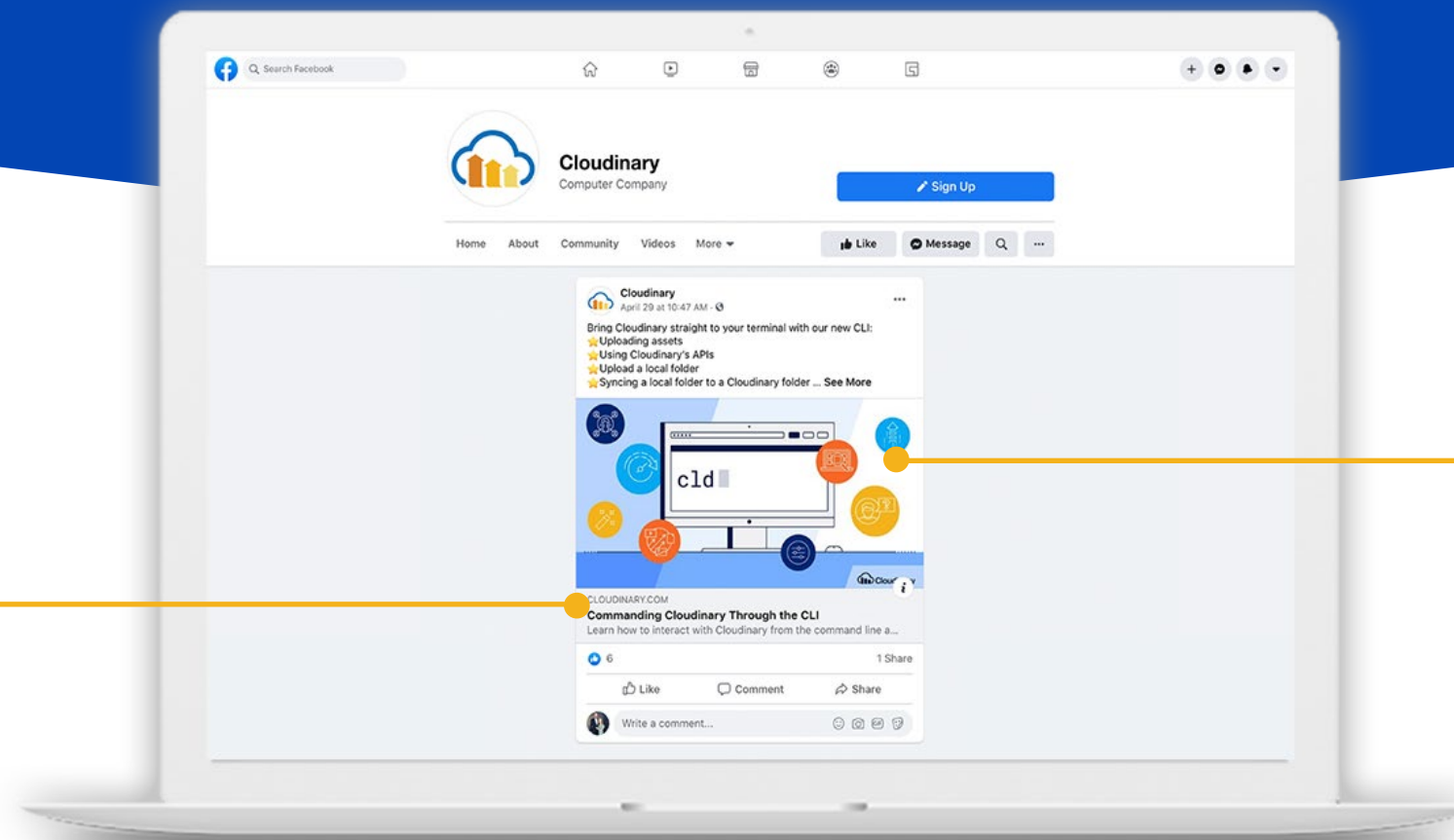


HOOTSUITE'S SOCIAL MEDIA TRENDS REPORT 2019

## TAKEAWAY #2

# Social & Advertising

A significant portion of a brand's traffic reported as Facebook is actually coming from a peer referral — a shared link from a Facebook page.



With so many different mobile devices and laptops, there are a staggering number of image and video viewing formats to accommodate. Adding to the complexity, different social networking channels favor specific formats.

## Mining the marketing gold you can't see.

The 'dark social' percentage of **direct traffic** flowing from **microbrowsers** to brands websites is growing and highly valuable. This trend is amplified during the Covid-19 lockdown as growing numbers of people rely on messaging apps for private group and family discussions. A portion of the traffic your reporting analytics leads you to think is coming from Facebook, is actually coming from a peer referral — a shared link from a Facebook page.

After the two most popular browsers in use, Chrome and Safari, there is an extremely '**long tail**' of others in use that varies significantly by country and device. You may be surprised to hear that applications and devices like Lotus Notes, NokiaSymbian and even Nintendo DS are very popular in certain countries. New browsers like Samsung Internet and Brave are also emerging that offer device-specific user experiences. **For more insights, see Key Takeaway #4, Going, Going Global.**

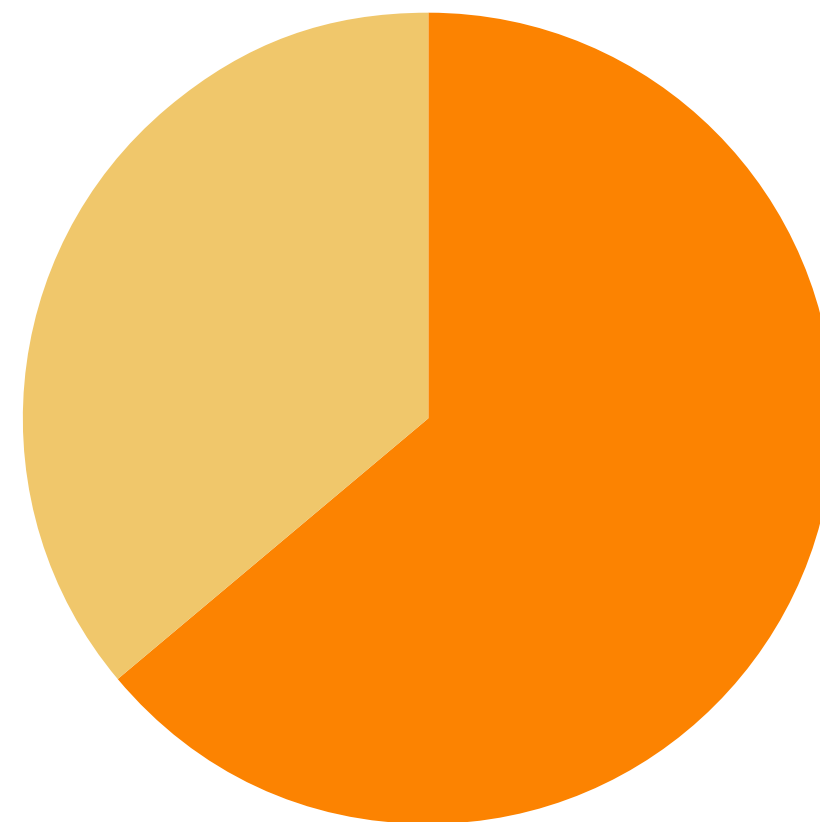
On the many different mobile devices and laptops, there are a staggering number of image and video viewing formats to accommodate. Adding to the complexity, different social networking channels favor specific formats.

**41.6**  
MILLION

In a 2019 internet minute, global online users sent over 41.6 million mobile messages.

■ Links With Campaign IDs

■ Links Without Campaign IDs



## Turning a light on “dark social”.

The data is from a very popular apparel brand’s Facebook campaign and offers a view into the power that microbrowsers and peer referrals have. Marketers understand that private shares and group chats within microbrowsers amplify content greatly. Here we can see that while nearly 64% of those links shared within microbrowsers have their campaign IDs intact, the other 36% don’t. Because users are sharing the link from your campaigns, that campaign is credited with the referral traffic. It’s not wrong to give Facebook a lot of the credit here, but there are missed opportunities in not understanding the bigger picture — and the power of referrals. Understanding microbrowser traffic and its relationship to social media can help correlate where your conversions are really coming from — and as a result boost or reduce spend accordingly to see a better ROI.



With more than **2 billion users** worldwide as of mid-February 2020, WhatsApp continues to lead the growing pack of popular social communication apps that includes Facebook Messenger, WeChat, Viber and QQ.

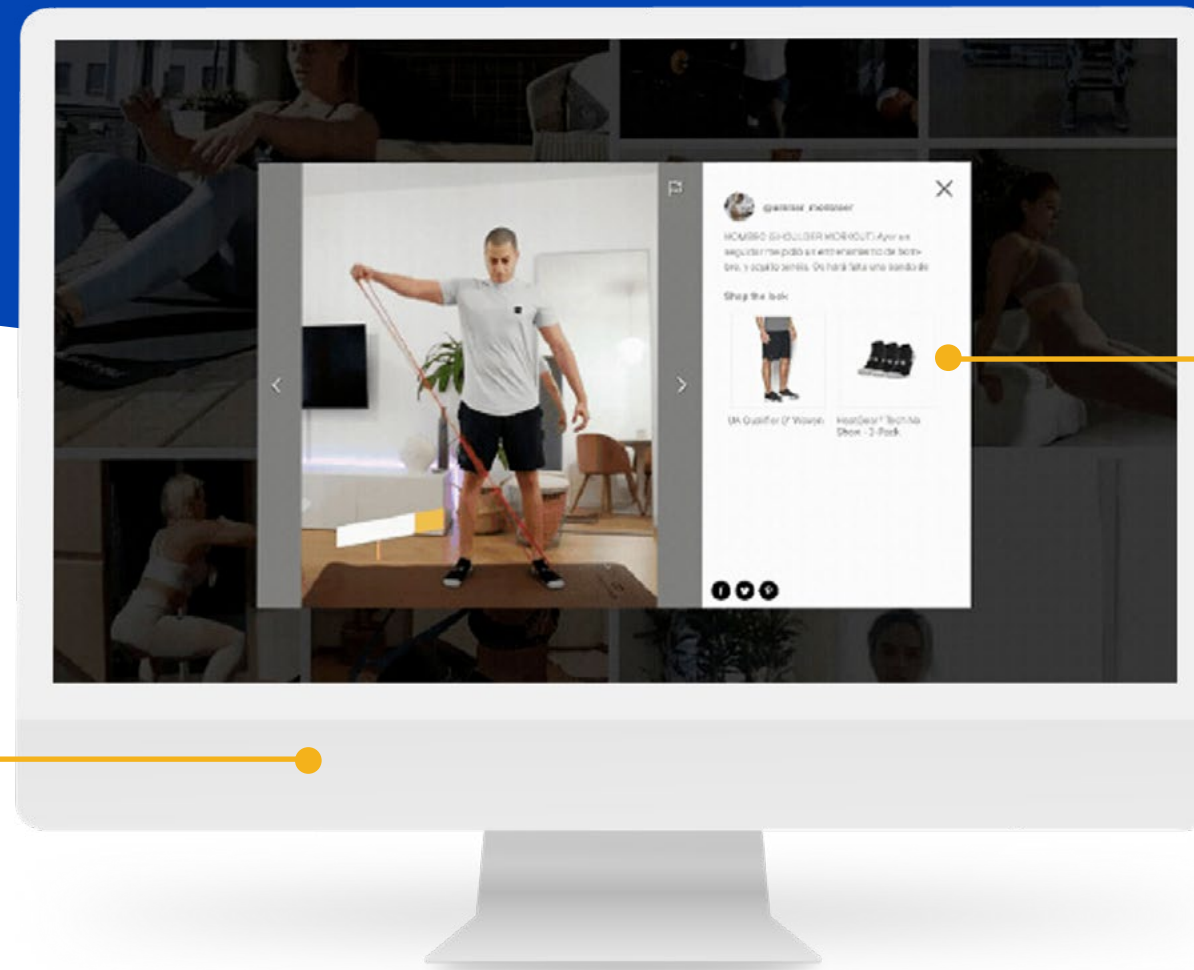


## BEST PRACTICES

- **For big returns on your social and advertising spend, think small!** Although you can't see where your direct traffic is coming from, all external data indicates that private messaging app usage is rising relative to social networks. Referrals that come through **microbrowsers** in these apps are often well-qualified prospects who are ready to buy your product or services.
- **Use visuals for organic amplification.** Just because you can't see activity taking place in messaging apps doesn't mean you can't dramatically amplify the performance of peer referrals in these environments. When a peer recommends a product, service, article or charity using a link inside a microbrowser, if the link unfurls a compelling image, or even better — a video — it becomes a much more powerful sales tool and raises your ad spend ROI.  
**For more insights, check out Key Takeaway #3, The Power of Video.**
- **Tailor ads for direct and indirect traffic.** Images and video ads that you design for **unfurled** links in microbrowsers should be tailored for prospects that just need those final bits of information (price, colors, availability, etc.) to take the sale over the finish line. On the other hand, ads you design for the main social networking sites like Facebook, Instagram, Twitter and others should aim to reel in less-qualified prospects by showing images and videos of preferred items/styles and offering first-time customer discounts.  
**For more guidelines, check out best practices in Key Takeaway #1, Microbrowsers.**
- **Use responsive image/video management to reach the most prospects.** Customer journey entry points vary significantly by country and user demographic. Since people share content throughout direct and indirect channels, the images and videos you publish must dynamically respond to whatever environment they land in and travel through. It would be almost impossible for web teams to hand code visual content to anticipate every scenario. Fortunately, intelligent image and video management tools use AI to detect the environment and dynamically adapt images and video.
- **Optimize visual content for portrait or landscape.** Intelligent image and video management tools can reformat your visual content to appear as expected when a user flips their device from portrait to landscape. However, before producing content you should consider what orientation is likely to be most popular, and optimize for that.

### TAKEAWAY #3

# The Power of Video



Micro-video content is typically just 10-20 seconds long but delivers big engagement and conversion gains.

Take advantage of the information in your headline area. If the video is your movie, the headline is your trailer.

## The impact of video cannot be overstated.

The old cliché ‘a picture says a thousand words’ may sound like an exaggeration, but it doesn’t begin to describe the profound impact of visual information on humans. MIT neuroscientists discovered that the brain can identify images seen for as little as 13 milliseconds (that’s 13 one-thousandths of a second). That means there is virtually no latency between the transmission, receipt and crucially — comprehension — of visual messages.

A thousand words takes the average person at least 3.3 minutes to read — if they bother to — and often requires re-reading and cross-referencing to fully comprehend. In a world where consumers are hit with thousands of advertisements and marketing messages every day, compelling video is simply one of the most powerful ways for brands to cut through the noise.

However, many brands lack the skill and vocabulary required to plan, produce and edit video as deftly as they can with the written word. This lack of ‘video literacy’ is by no means a criticism. The art and science of making video work in a consistent way across a wide range of laptops, mobile devices, web browsers and social channels is both complicated and laborious. It can entail a wide range of coding, visual artistry, communications, and even legal knowledge. Many of the tasks involved are detailed, repetitive and frankly, monotonous. Fortunately, these are ideally suited for AI, and there are tools available to relieve developers and creative teams of this burden.

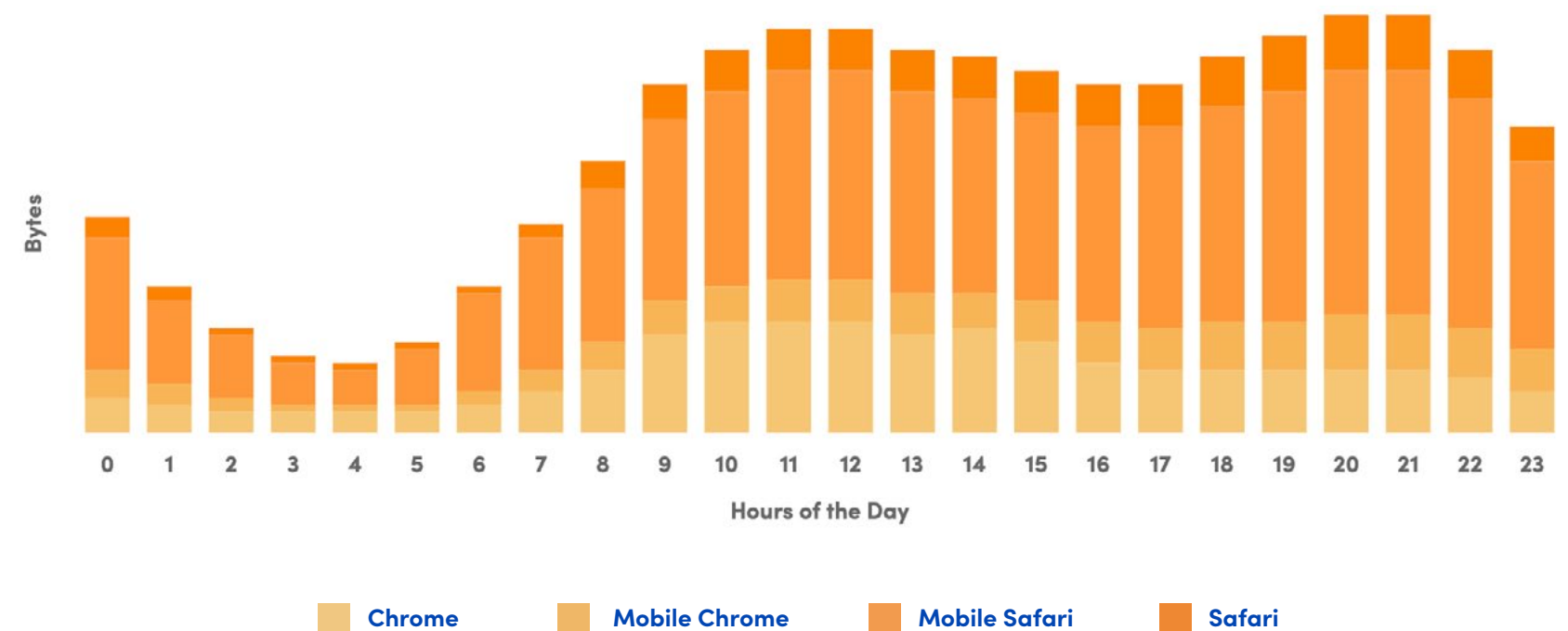


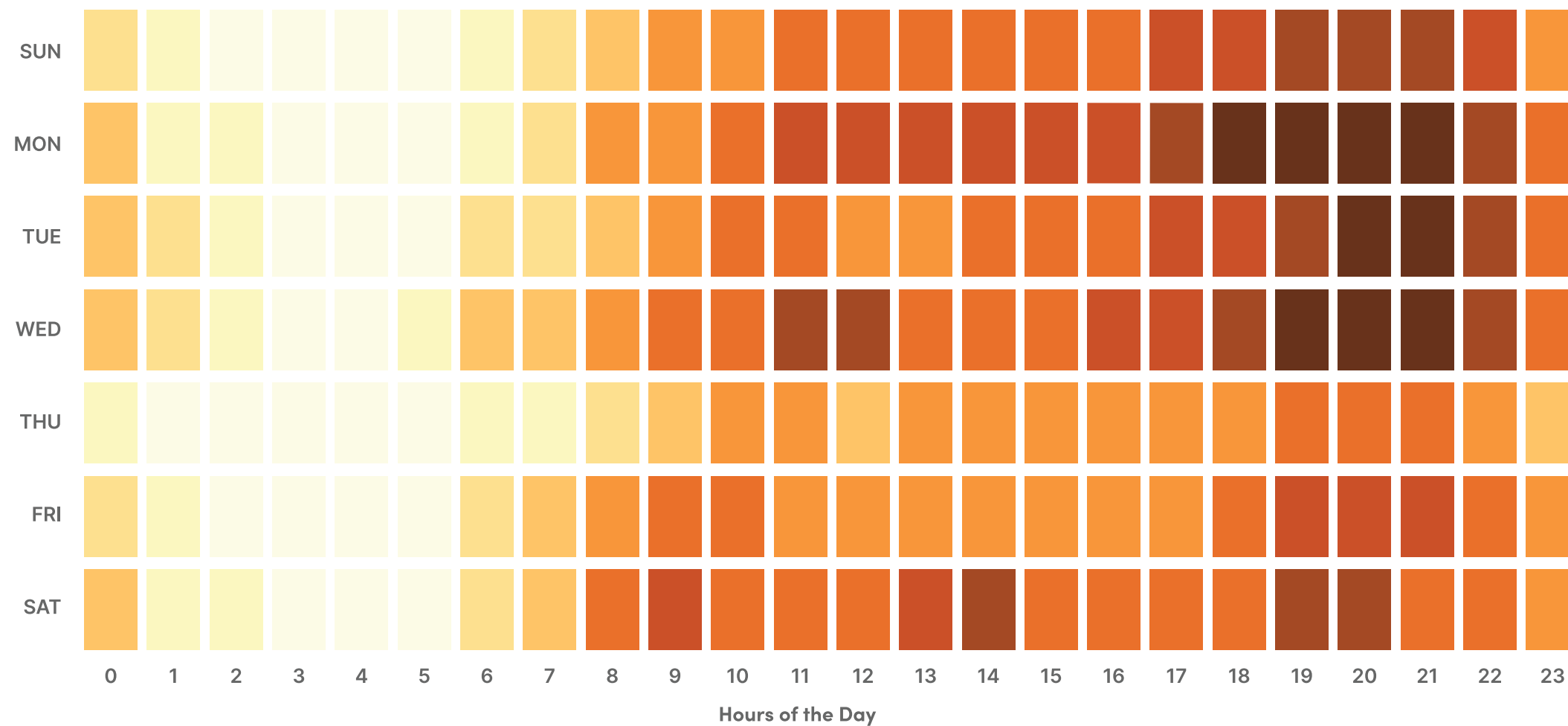
Companies often post all their video content on YouTube channels, rather than hosting it themselves, because it's easier. However to keep people on your site and also maintain optimal control over presentation across different environments, we recommend that, wherever possible, brands host video on their own sites, over multiple pages:

- **Home page** – this is where you tell your brand story, show product previews and direct visitors to other parts of your site. Customer stories and testimonials, as well as links to webinars are also useful here. This is also the main place to use preview video content.
- **Landing pages** – when visitors arrive at landing pages via search or promo links this is particularly valuable traffic. Visitors are looking for something specific, often a product or service that was recommended by a friend or through an online ad or social channel. Videos on landing pages really need to deliver high visual impact, and also provide practical details of features, functionality, price and benefits to help 'close' the transaction. This is a great place to host interviews, product demo videos – particularly product range videos – and even webinars and other previews.
- **Product pages** – The videos on your product pages can range from short ads and introductory content, to more detailed explainers, instructions, tutorials and customer testimonials. It can also be a place to host product-specific interviews.

## Be responsive and tell the story you aim to tell.

Today, all content, and perhaps especially video needs to adjust for portrait and landscape. It's not either, it's both. In order for a video to be responsive, the video should always expand to fill the width of its screen while maintaining its original aspect ratio. The goal is always to avoid static sizing that can break page layouts, distort the image, or display black bars around the video.



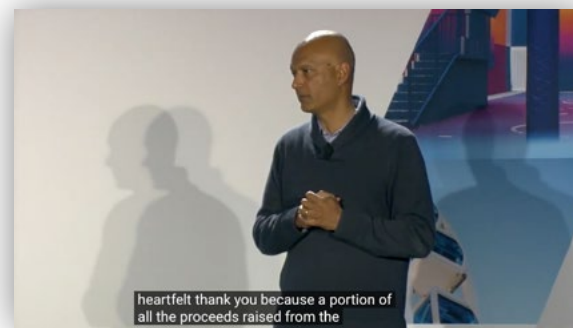
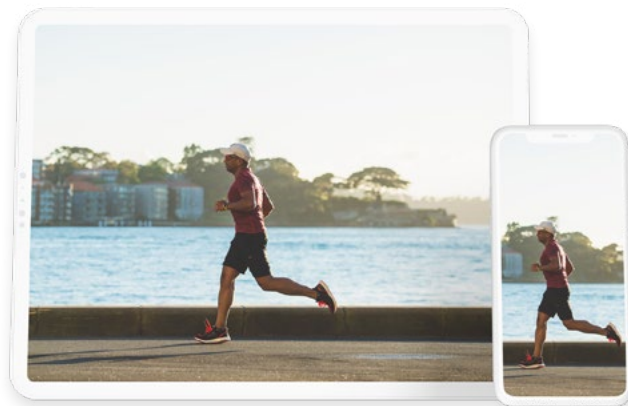


## The most powerful video opportunity you might be missing.

Not all video experiences are the same and understanding differences in video content is key to delivering optimal engagement and experiences. For example, longform video like a movie or TV program can vary in quality depending on the situation. On the other hand, micro-video content must be of the highest quality the entire time, every time, especially when used by e-Commerce brands to highlight a specific product or product feature. You have just a few seconds to get it right or miss a big opportunity altogether.

## BOOST YOUR VIDEO LITERACY

As this report goes to press, most countries are on Covid-19 lockdown. One positive action many are taking is to learn new skills that will benefit them in a radically transformed post-lockdown economy. One such skill is what we call 'video literacy'. Here are three fundamental principles to learn, all of which can be automated by using AI-enhanced video management software.

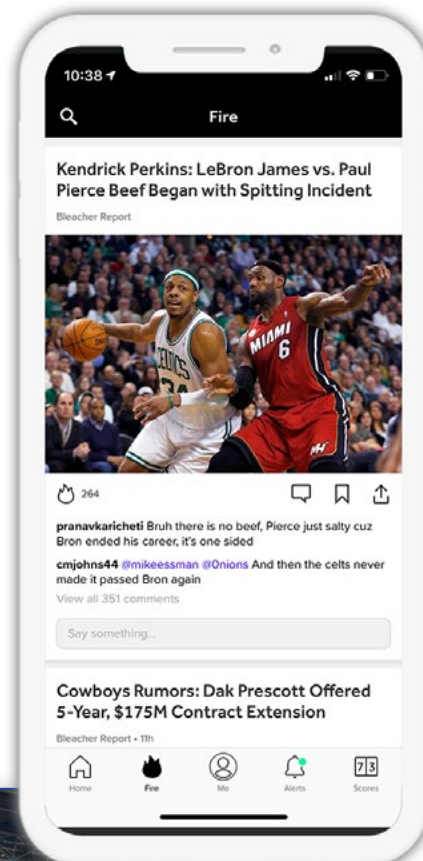


- Cropping** – making sure that the most important elements in a video remain visible in the viewing area can be really tricky as people view content on PCs, tablets and smartphones. On the latter two, people may orient their devices in either landscape or portrait. Adding to the complexity, people watch videos on Instagram, Facebook and other social channels, on different browsers and through different apps. Each device and site will require the content to adapt to the site and device it is being viewed on.
- Subtitles** – most people view YouTube videos with the sound on, but less so on social media sites and websites. In fact a surprising 85 percent of videos are played with no sound. This means it's best for each video to have subtitles to build user engagement. Adding subtitles also boosts SEO so adding them should be a must for all video content. Transcribing videos can create bottlenecks, but AI transcription is getting impressively fast and accurate.
- Auto previews** – most people will have seen the short previews that now run automatically when you land on a show on YouTube or Netflix. According to YouTube, these previews increase watch-time by 90 percent. In the same way Boomerang videos were the hot trend on Snapchat, previewing is today's hot trend. Something else will come along tomorrow, so how to keep up? Again, tools with AI provide solutions. Some will automatically generate short previews using the start and end time parameters that you set.

## CASE STUDY

Bleacher Report is a global digital destination for sports fans, creating and collaborating on content at the intersection of sports and culture. The company was seeking a way to further enhance its content offerings by delivering short video highlights while games were still in progress. But with nearly 85 percent of users accessing Bleacher Report content on mobile devices, the company needed to ensure that short video highlights could be created quickly and streamed flawlessly, regardless of the viewing device or bandwidth.

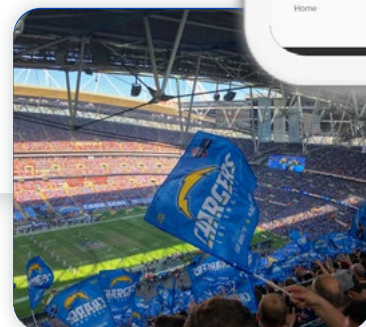
Bleacher Report uses Cloudinary to automatically transcode videos into a streamable format, adjust their quality and **resolution**, implement adaptive bitrate streaming and deliver them through a fast, reliable content delivery network. These features ensure that viewers experience a smooth playback irrespective of device requirements or internet connectivity.



- Increase in total video views by **25%** per month
- Increase in monthly highlight **20%** video views in the app
- Sped up content time to market

# 350%

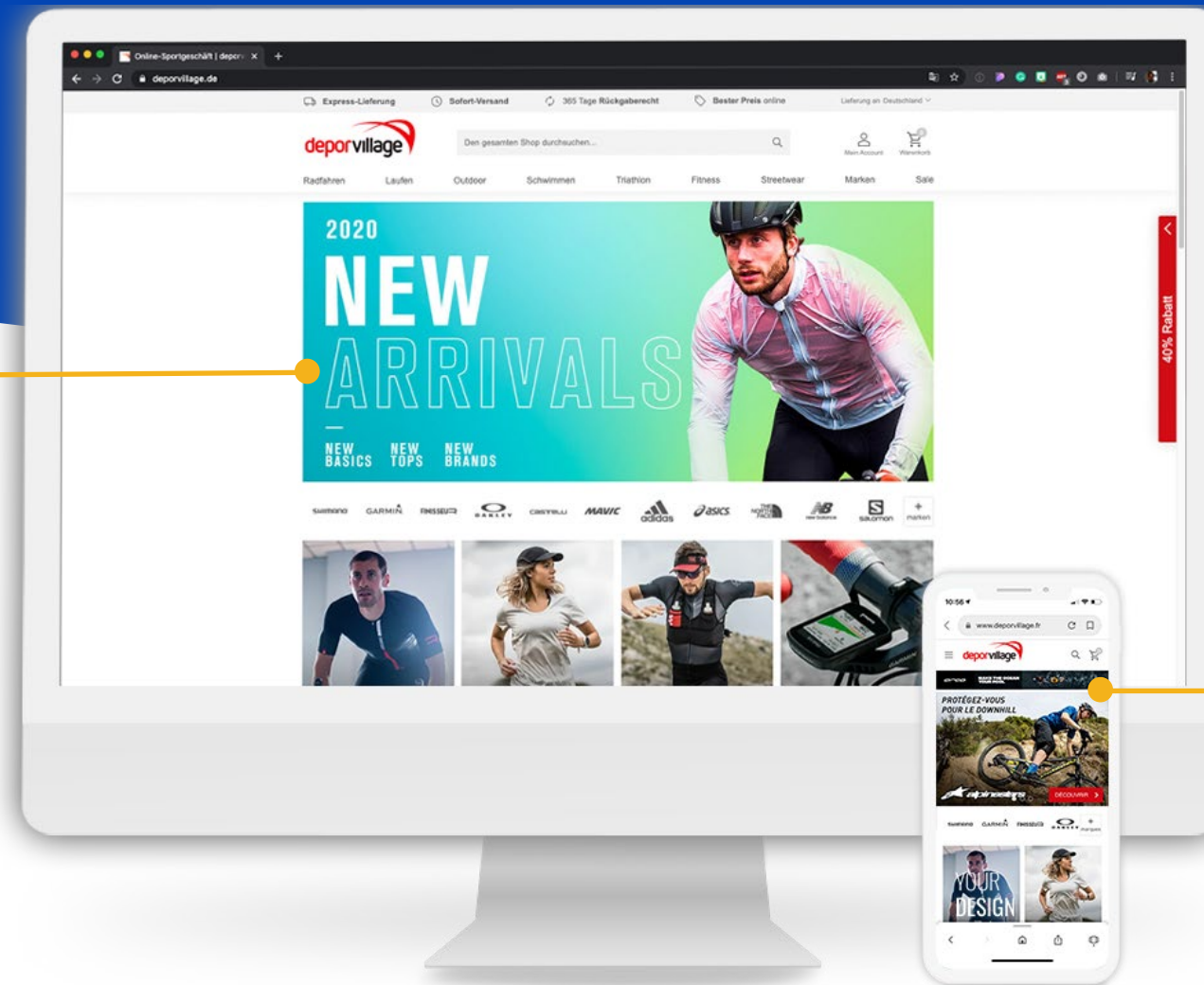
INCREASE IN  
VIDEO VIEWS



## TAKEAWAY #4

# Going, Going, Global

Personalize images and videos with dynamic text overlays for content localization.



An optimal balance between **resolution** and quality is critical for an uninterrupted visual experience no matter where audiences are engaging.

## Optimize across timelines, cultures and platforms.

The Internet is a diverse, multifaceted universe - and that is also true when it comes to how (browser) and with which device people surf it. And while it is the big players such as Chrome and Safari that continue to dominate the landscape, there exists a huge browser long tail with significant regional differences. To make things more complicated, the number of indirect traffic triggered by **microbrowsers** such as Slack, WhatsApp or TikTok is also growing significantly.

The Internet universe is also multifaceted when it comes to devices. It is not only the proliferation of devices that complicates things but as well the permeability of the customer journey. People don't just use one device but several different ones, depending on where they are. The days of the (artificial) duality of desktop versus mobile are gone. Today it is actually desktop plus mobile plus many more. If you are in Japan, your website will very likely see traffic coming from Nintendo DS devices whereas in Germany or Denmark you shouldn't be surprised by Lotus Notes traffic.

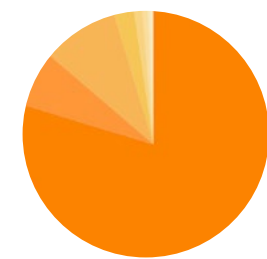
**+62%**

**NINTENDO DS**

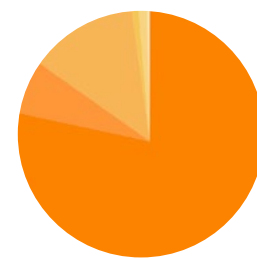
Represents browser traffic in Eastern Asia.

## The browser long tail doesn't need to compromise visual storytelling.

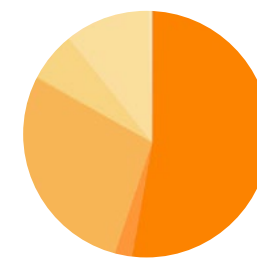
While Chrome and Safari continue to dominate the worldwide browser market (63.91% and 18.2% respectively), there are significant regional differences across lesser known variants. For example, our research shows that Nokia devices are still popular in some regions like Northern Europe and that Nintendo DS systems see a lot of traffic in certain Asian markets. There's even image traffic coming from the very old legacy office software, Lotus Notes.



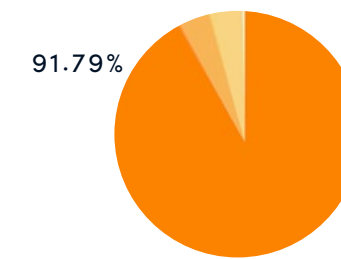
79.67%

NORTHERN  
AMERICA

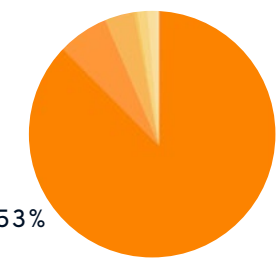
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LATIN AMERICA &  
THE CARIBBEAN

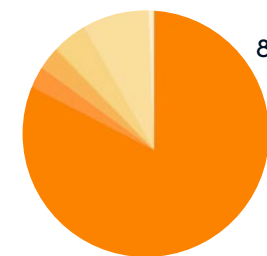
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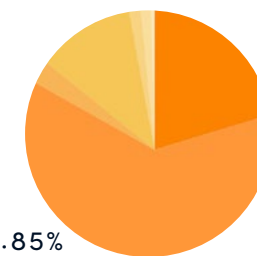
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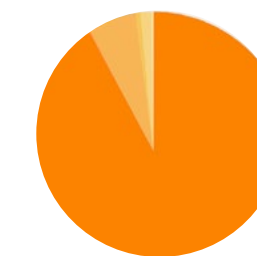
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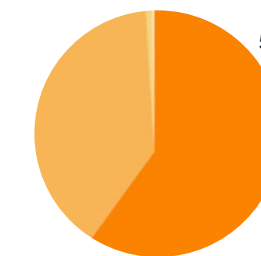
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WESTERN  
EUROPE

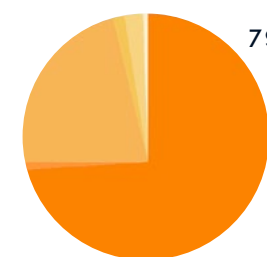
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EASTERN  
ASIA

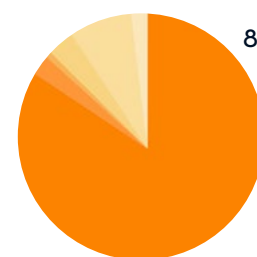
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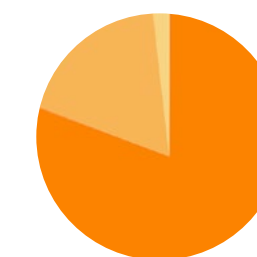
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SOUTHERN  
ASIA

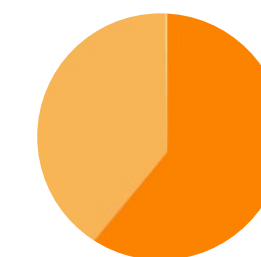
79.03%

WESTERN  
ASIA

84.40%

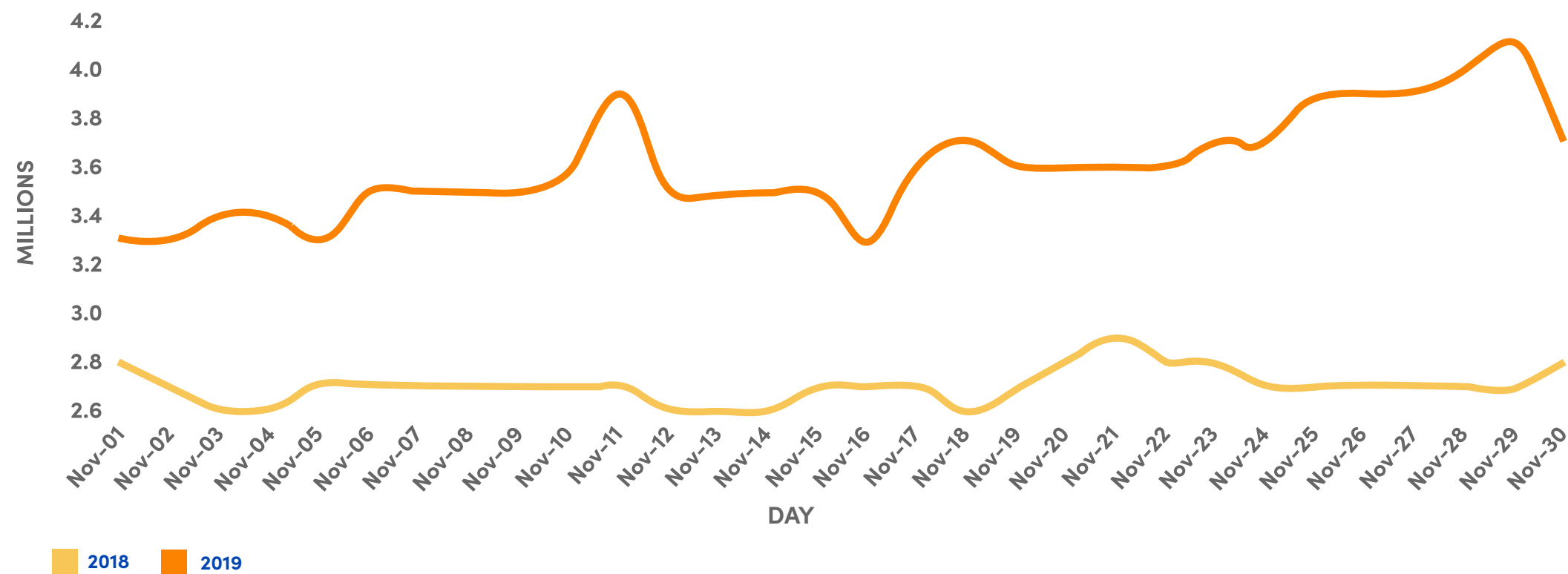
AUSTRALIA &  
NEW ZEALAND

80.67%

NORTHERN  
AFRICA

60.93%

SUB-SAHARAN  
AFRICA



## The varied device landscape and its impact on mobile engagement.

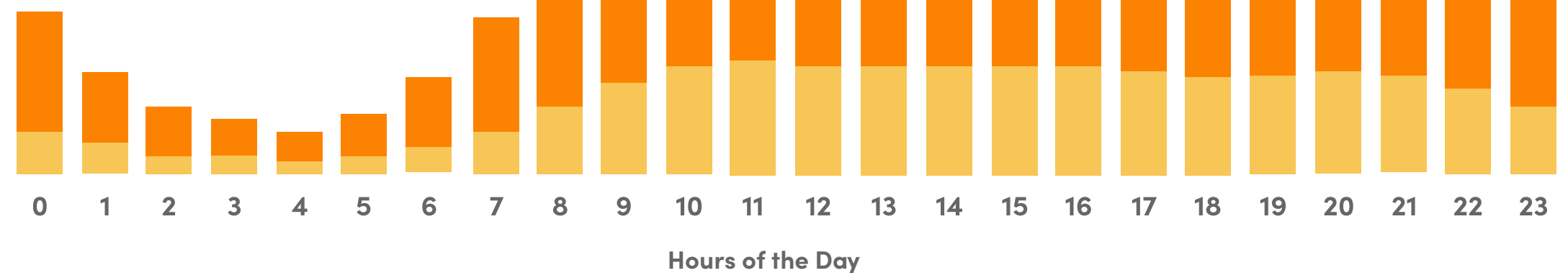
Devices today have a longer life cycle and have become “less disposable” thanks in large part to improved batteries. And as users hold onto their old phones longer, the variety of devices within the mobile ecosystem is more complex than ever. Employing responsive web techniques is critically important to ensure an optimal experience on every device.



## How progressive is your web design?

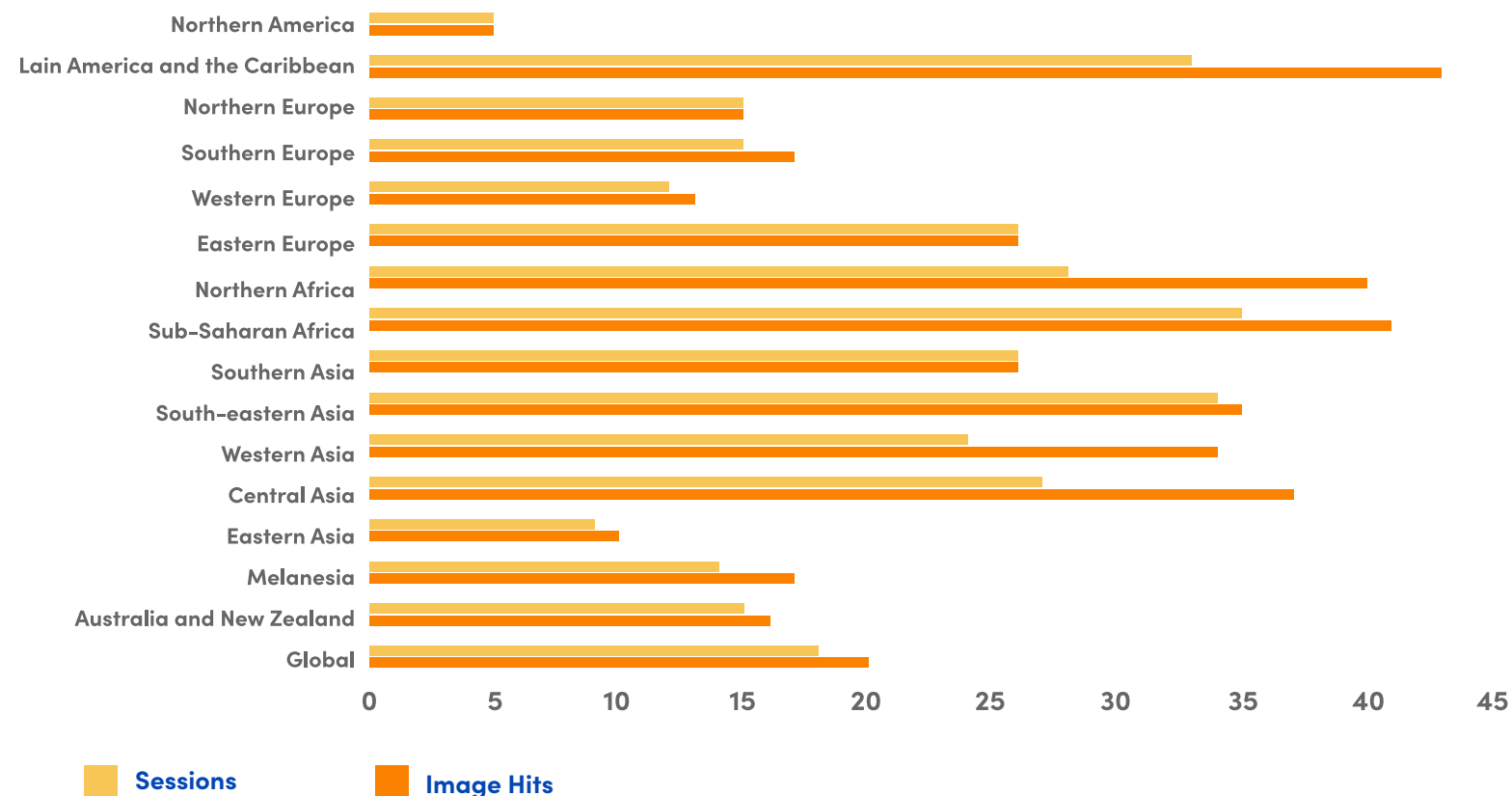
While the need for responsive layouts is critical, developers for global brands must also be adaptive for location to ensure their content is optimal no matter where it's being viewed. Since such a high volume of cellular traffic comes from laptops, it's also important for web developers to apply progressive enhancement — a design strategy that emphasizes core webpage content first. This strategy allows additional layers of presentation and features on top of the content as the end-user's browser and Internet connection will allow.

Hits



Laptop Web

Mobile Web



## What “Save-Data” (or lite mode) means for you and your users.

In April of 2020, 18% of global Android users enabled the Save-Data or lite mode function. Knowing this, developers can adapt visual content to ensure the experience will be optimal without losing performance. According to our data, web developers that work to optimize the lite mode experience benefit from longer engagement and see up to a 10% uptick in session engagement. Given the strong correlation between adapted content and longer engagement, why not ensure your content is adapted for this mode and its users?

## BEST PRACTICES:

Companies that want to serve all its customers equally well and offer a seamless brand and user experience, regardless of the location of visitors and which browsers and devices they use, need to prepare for this diversity, including:

- **Understanding and preparing for the browser long tail** - this is important as not all browsers support every image or video format you might use. [See more detailed information and best practices in Takeaway #5, Next-Gen Formats.](#)
- **Make your images and videos responsive** - Making sure your images and videos are responsive is more than just adjusting for the right layout. It is now, more than ever, about making sure that your content is making maximal use of landscape and portrait device orientations. A site designed responsively adapts its layout to the viewing environment, resizing and moving elements dynamically based on the properties of the browser or device the site is displayed on.
- **Do visual testing** - responsiveness alone is not enough, especially when it comes to some of the less mainstream devices out there. If there are devices in use in your targeted region that are a bit outside the norm, you should do visual testing to ensure the same user experience for all your customers.
- **Use visual content as a proxy to find out where you are missing data** - Google Analytics, Cookies, Session Tracking or any other known marketing tools don't work with Microbrowser-generated traffic. This means, you can't really analyze where your traffic is coming from. However (as discussed in the microbrowser section), you can work around this and shed some light on how often your brand is discussed, by using unique “microbrowser-images” to distinguish between page-views from browsers vs page-views from [microbrowsers](#).

## INSIGHT

## “MOBILE VERSUS DESKTOP” IS A THING OF THE PAST

On your way to work you check your WhatsApp messages on your mobile. A friend shared a link with you to a Facebook post that promotes a type of bag she knows you have been looking for. You do a bit more research on the bag during your commute. When the train arrives you put your smartphone in your pocket and forget about the bag until your lunch break, when you do more research on your desktop computer. At home, you show the bag to your family on your iPad. You found a nice product video that showcases a lot of the bag's details, fabric and texture. Finally, you take another look at the bag on your laptop, which has a bigger screen and better resolution. Finally, you decide to buy the bag.

This anecdote is very typical of today's customer journey, which is highly permeable across multiple devices and browsers. A journey rarely takes place on just mobile devices (including tablets) or desktop (including laptop PCs) but a combination of these. Surprisingly and against contrary beliefs, our data shows that this holds true everywhere around the globe. Even in India, where we see relatively high mobile usage, desktop consumption still remains.

To watch e-commerce and 'how-to' videos, people in most countries are inclined to view on laptop or desktop PCs. The larger screen sizes allow people to see more detail and view full images and video in landscape orientation. Even in countries like India with high mobile usage, this is the 'new normal'.

So forget the mobile versus desktop debate and prepare your visual assets for every possible viewing scenario. The visual web and its inhabitants are just as diverse, multifaceted and colorful as the real world!

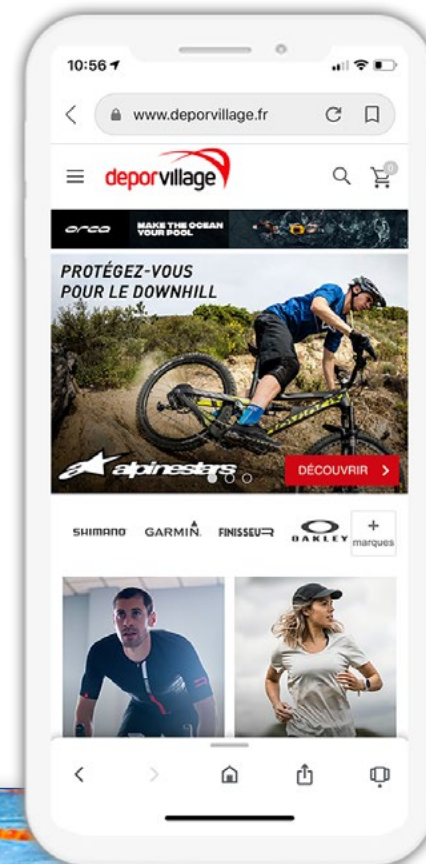


## CASE STUDY

With more than 60,000 premium-brand products, online sports retailer Deporvillage is expanding in Europe and plans to grow globally. Its site has 30 million monthly unique visitors and 8,000+ seasonal product images.

Deporvillage's engineering team struggled to dynamically adapt images to the wide range of browsers and devices its customers use. It needed at least 10 different versions of every image to fit all of the form factors.

With Cloudinary, the team can store one image, ensuring optimal versions are served to each visitor with minimal load times. Results include 30+% faster page load time; 240+ human hours saved every month and faster product launch cycles.

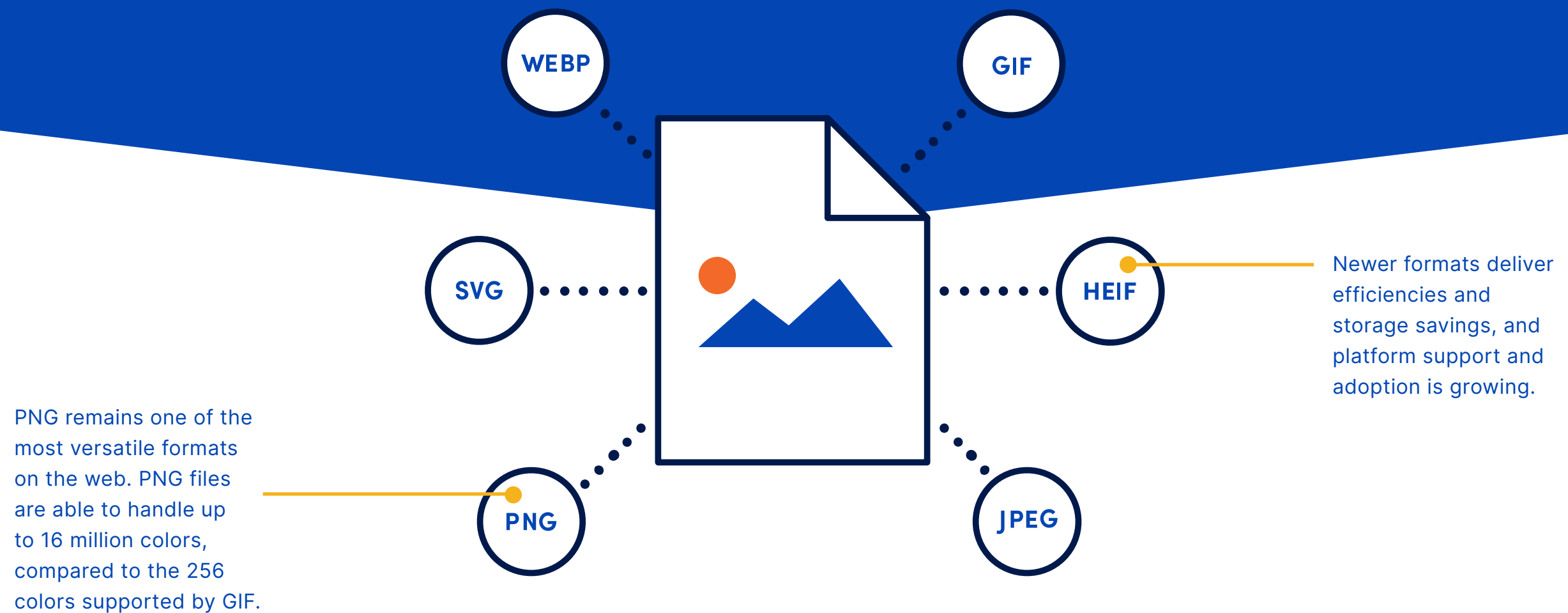
- **30+%** faster page load time
- **240+** human hours saved every month
- Faster product launch cycles

**30M**  
MONTHLY  
UNIQUE VISITORS

8,000+ new product  
images per season.

## TAKEAWAY #5

# Next-Gen Formats



## What's next for visual web?

Since the early days of the Internet, image formats such as JPEG, GIF and a little later PNG and SVG have prevailed. In recent years, light, high-performance formats such as Google's WebP and the High Efficiency Image File Format (HEIF) have emerged, which are better optimized for today's digital experiences. Others like AV1 Image File Format (AVIF) and JPEG XL are still in gestation. Every format has its pros and its cons and not every browser and devices support all formats.



These are exciting times for those of us involved in the world of standards and image formats, and especially for those of us directly involved in the development of what will hopefully soon be a major update – the first in almost 30 years – to the legendary JPEG format.

DR. JON SNEYERS,  
SENIOR IMAGE RESEARCHER AT CLOUDINARY,  
CO-CREATOR OF JPEG XL AND INVENTOR OF  
THE FREE LOSSLESS IMAGE FORMAT (FLIF)

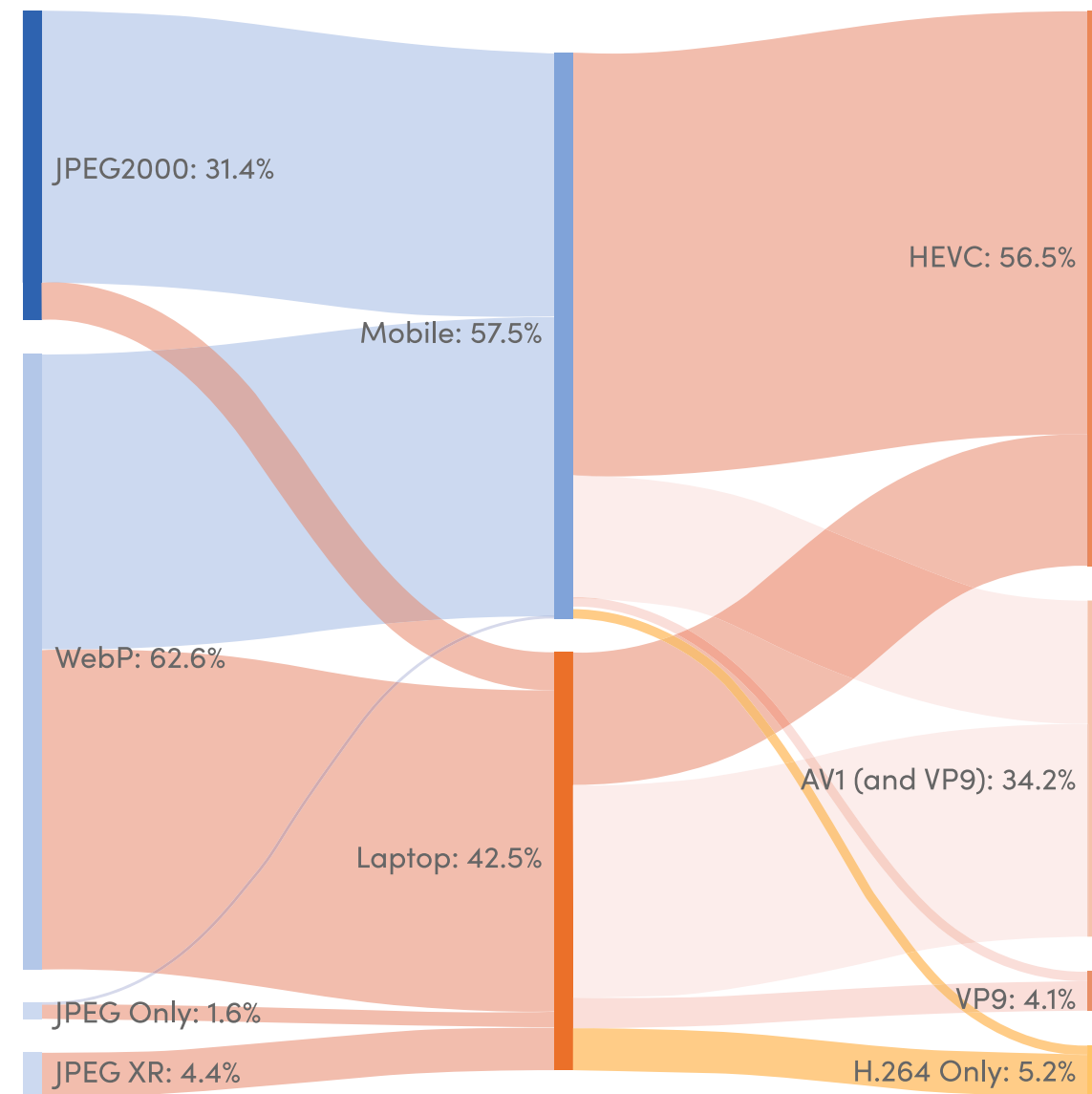
- **JPEG** - JPEG stands for the Joint Photographic Experts Group, which created the standard in 1992. The main basis for JPEG is the Discrete Cosine Transform (DCT), a **“lossy” image compression** technique that was first proposed by Nasir Ahmed in 1972. Because it uses “lossy compression” it doesn’t work well if the exact image information needs to be displayed. It’s not ideal for brand logos because it’s impossible to maintain the precise corporate color scheme. For e-commerce, JPEGs can’t support cool things like transparent backgrounds or animations. However, most browsers and devices support JPEG.
- **GIF** - uses **“lossless” compression** and allows the original data to be perfectly reconstructed from the compressed data, making the format suitable for illustrations/ graphics. Also, it preserves the exact color code. It is also possible to save images with a transparent background or animated them. The main drawback of GIFs is their huge file sizes.
- **PNG** - is a **raster-graphics** file format that also supports lossless data compression. It was conceived specifically for web usage and supports transparency. It is the most commonly-used image file format on the web today. However, it could not overcome the file size problem. Depending on use, PNG images are often larger than JPEGs and sometimes GIFs.
- **SVG** - is **vector-graphic** that supports interactivity and animation. SVGs are easily scalable without losing quality, and they tend to be smaller than other formats. Based on points and paths instead of pixels, they are great for illustrations but not suitable for photography or if color richness is required. Many older browsers don’t support SVG.
- **WebP** - employs both lossy and **lossless compression**. Released in 2010 by Google, it is a lightweight format that essentially tries to make images smaller. WebP enables transparency and can be animated. It is more about achieving faster image load times than higher image quality. However, it has a website use rate of less than one percent and is mainly limited to Chrome and Android-native applications.
- **HEIF** - was developed in 2015 by the Moving Picture Experts Group (MPEG). It is about 30-40 percent smaller than traditional JPEG. The quality of the original file is always conserved because edits are stored separately within the same file. It lets you create 3D-like images or ‘cinemagraph’ style moving images, creating an immersive, contextual experience. HEIF can store an extended range of color values. Apple OS11 and post devices support HEIF, but they comprise only one segment of devices and browser versions.

**3 BILLION**  
**JPEGs ARE CREATED**  
**EVERY DAY**

Because JPEG, GIF and PNG were developed in the early days of the Internet, they are the ‘lowest common denominator’ that work in most situations. However they load slower and offer a limited user experience. Practically, your website should be prepared for a mix of old and new image formats. While newer formats such as HEIF or WebP may better meet your marketing needs, the older formats allow audiences on legacy computers, smartphones and browsers to see images properly.

## Optimal experiences require a multidimensional approach.

Image formats have come a long way. While the majority of your customers and prospects still rely on popular browsers and devices, the long tail does exist. Developers can do a lot to improve user experience by thinking about and formatting for experiences that extend well beyond what's most popular — and building for what's best.



Next generation formats are landing in consumer devices



## INSIGHT

## DEVELOPING THE 'NEXT' JPEG

In the Spring of 2018, the JPEG Committee launched its “Next-Generation **Image Compression** Call for Proposals,” also known as JPEG XL. The goal was to “develop a standard for image compression that offers substantially better compression efficiency than existing image formats (e.g. >60% over JPEG), along with features desirable for web distribution and efficient compression of high-quality images.”

In early 2019, at the 82nd JPEG meeting in Lisbon, Portugal, it was decided to combine the FUIF (Free Universal Image Format) proposal from Clouinary's Dr. Jon Sneyers and Google's PIK proposal as the starting point for JPEG XL. Today, the bulk of the development work is done, and the codec is with the ISO member bodies for ballot review and feedback. And while there will be some tweaking to make JPEG XL the best image (and animation) codec it can possibly be before it becomes an International Standard in early 2021, the hope is that the new standard becomes as successful as JPEG and gains widespread adoption – eventually replacing JPEG, PNG, GIF and TIFF.

To help with this transition, it has been ensured that existing images in one of those four formats can be converted to JPEG XL in a pixel-exact way with guaranteed compression gains. New JPEG XL encoded images will need only one third of the bytes JPEG needs to reach the same perceptual quality.

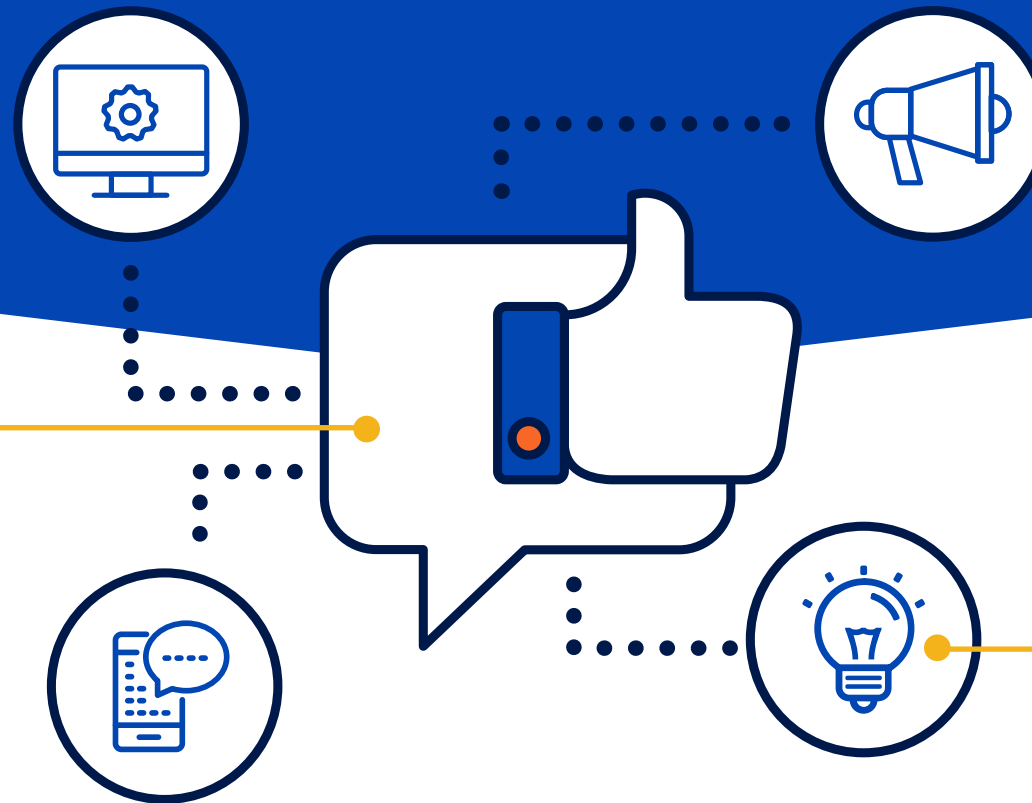
This is a big moment in the evolution of image compression and we are proud to be playing a pivotal role. We're excited to see how developers and designers will use this in their everyday work and how people around the world will consume it in their daily lives.



## TAKEAWAY #6

# Measuring for Success

Understanding the timing and cadence of when users are interacting with your images and videos are key to real insights.



Social plays such a big role in brand and user engagement, but does your data miss hidden interaction opportunities?

## Data-based decisions for the new decade.

Remember when a customer's purchase decision could be easily traced back to a single point of contact? Those were the good old days.

Digital has turned the business of marketing on its head. Fragmented and sometimes hidden purchase paths have made measurement a dizzying — and seemingly impossible — errand for brands, marketers and agencies alike. But with worldwide marketing spend exceeding \$1.6 trillion in 2019, and expected to grow exponentially in this new decade, it's an expensive errand to get wrong.

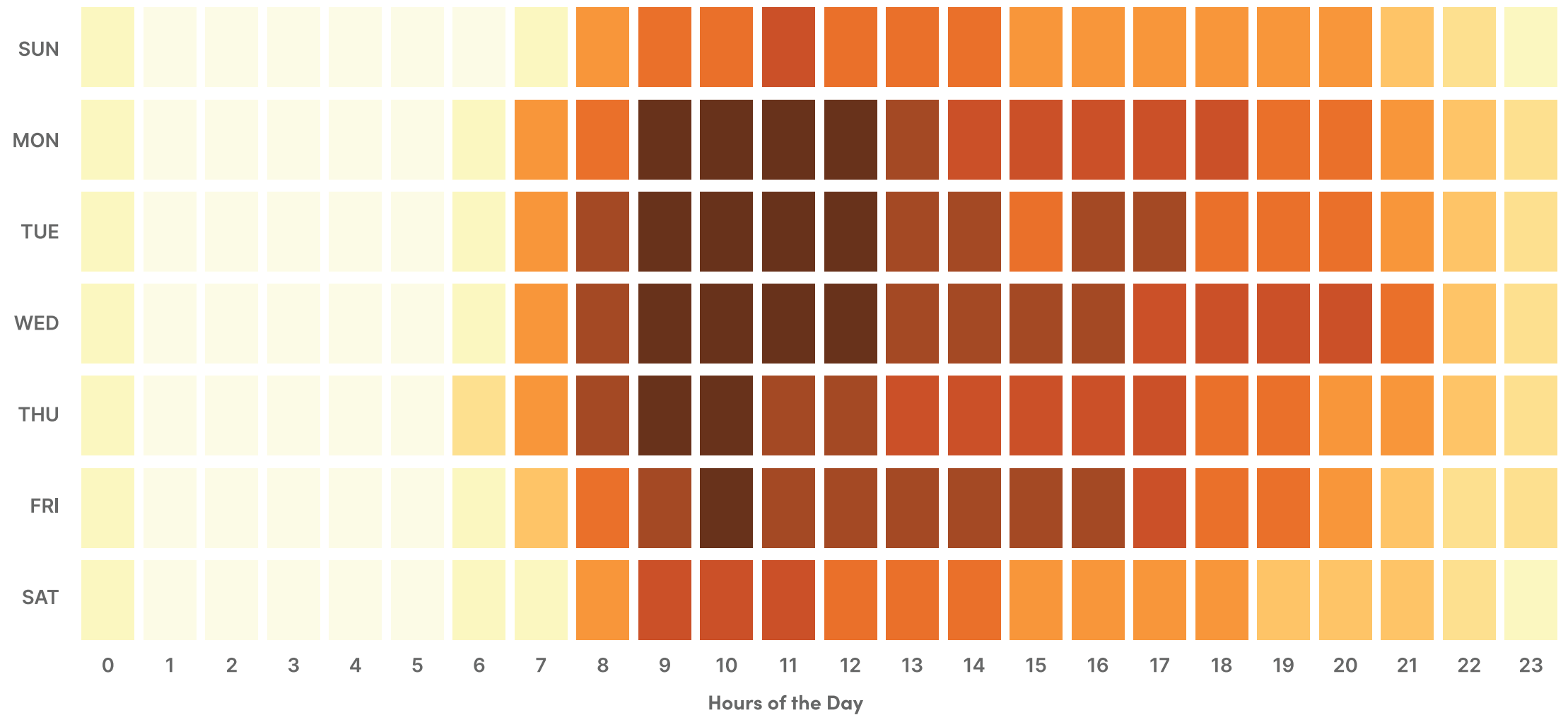
All too often brands are making investments based on perceptions versus reality. Executing campaigns without an accurate understanding of what's working and what's not is costing brands hundreds of thousands of dollars — if not millions — each year.

The good news is that within every great challenge is an enormous opportunity to get it right. To build winning campaigns that connect and convert, and to let go of the ones that aren't. Here are a few considerations that can help marketers build the tech infrastructure required to create and deliver modern campaigns, remove measurement blindspots — and in the end, work smarter not harder.

**\$1.6T**  
2019 WORLDWIDE  
MARKETING SPEND

## One size does not fit all.

Most brands understand successful global campaigns require global thinking, but many do not go far enough to understand the impact cultural differences have on engagement. Beyond time zone differences, workweeks vary all over the world. While most follow a Monday through Friday workweek, more than a dozen countries have a Sunday through Thursday workweek, and more than seven countries have a one-day weekend versus two. Understanding these differences and the cultural nuances that impact engagement levels and patterns, are critical considerations when planning global campaigns.



## BEST PRACTICES

### STEP 1: Improve alignment between marketing and IT.

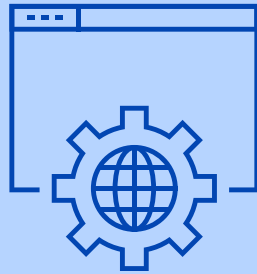
Marketers often deploy the tools they think they need, while developers tend to identify and deploy what they need. This leaves companies with several point solutions that fall short of a cohesive technology stack that works across the whole organization. More recently, marketing and IT have figured out the necessary processes to make the stack actually work for everyone and support broader business goals. Now more thinking is done in advance around all the various integration points, from sales and marketing to customer support and service.

Success today means that the lines that once divided marketing and IT teams are not just blurred but gone. For a marketing department to be successful, it must be armed with the data and intelligence flowing through the systems capturing, managing, analyzing and delivering these new data sets. Likewise, developers and engineers must have a firm understanding of the intelligence needed to make the entire business successful.

Because marketing has traditionally owned some tech tools, like digital asset management (DAM), those systems have often been siloed from the rest of the company. That's changing rapidly as more and more business leaders understand the powerful role martech solutions have in improving brand awareness, customer engagement and the overall customer experience. Systems that were once the sole purview of the marketing department are now more widely recognized as critical enterprise applications that must be more fully integrated into other systems. In this new more fully integrated environment, IT can offer valuable insights into how marketing's preferred solutions can be integrated with other systems to benefit the entire organization at scale.



## STEP 2: Apply best practices



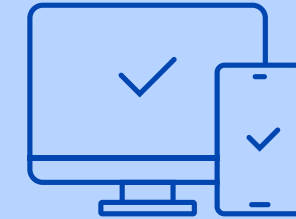
**1. Build for the future, today.** The need to meet goals quickly can lead marketers to adopt seemingly simple, low-cost systems. For media management, for example, marketers can use Dropbox, Google Drive and Excel. Those tools might do the job just fine — for a while. But they likely will not be able to meet the needs of a company as it grows, forcing marketers to reassess, make adjustments and, often, start over.

And a system's ability to scale isn't the only thing to consider. You need to plan for an unknown future, of which scale is just one aspect. As you start to work with larger customers with more complex requirements, you will need more sophisticated technical capabilities. Consider what tools it will take to support the business you're building, not the one you're running today.



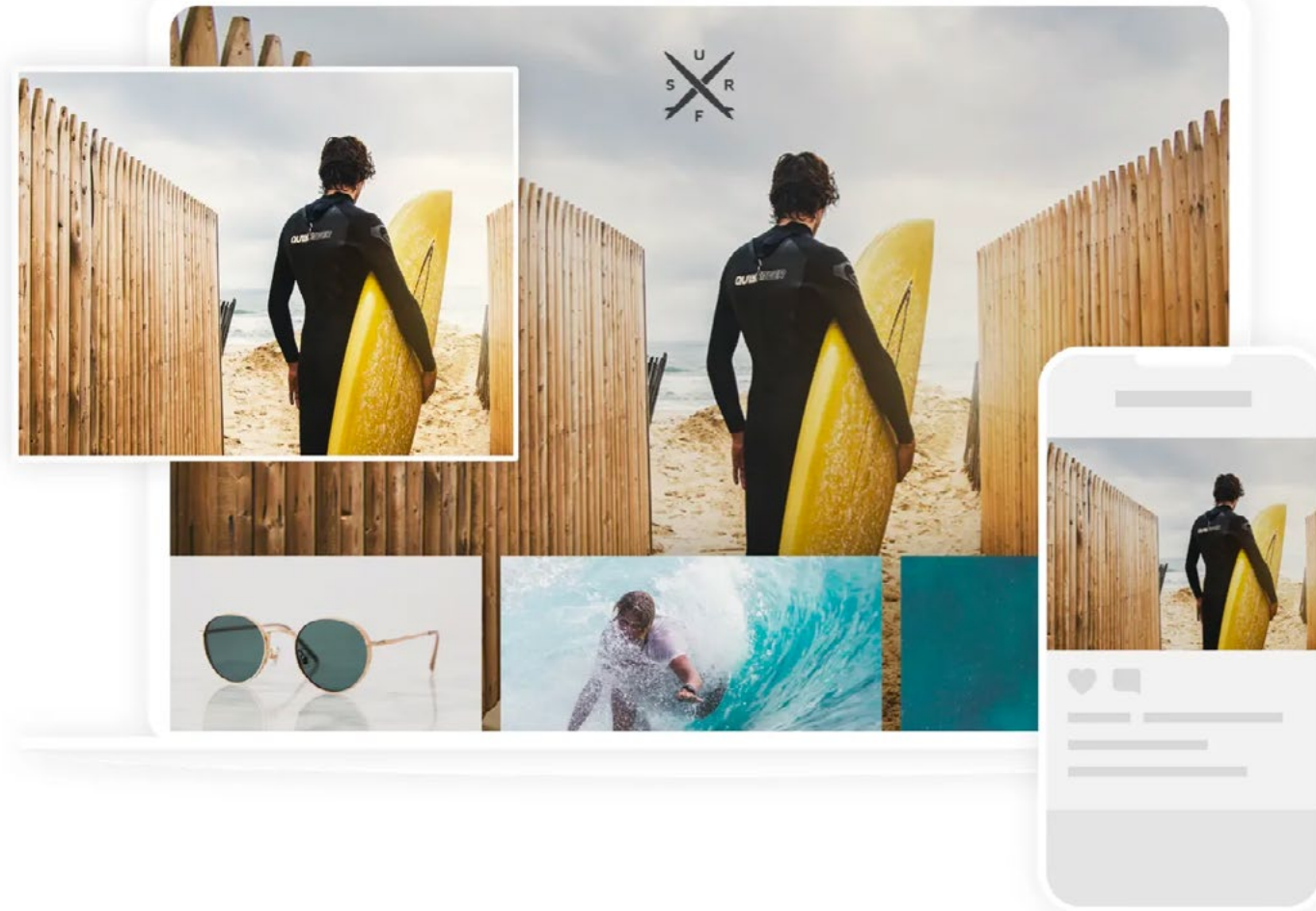
**2. Understand that not all insights are created equal.** Success means measuring and then acting on the right insights, and all too often brands miss the measurement mark. Even for brands that have invested in capturing data, many struggle to interpret it, and then most importantly, understand what to do with it. If the value from the insight is only gained upon action, what if the wrong insight informed (or misinformed) the action. Successful brands are winning consumers by leveraging technology to achieve two main things: to know more about their consumers, and then make better connections with them.

Unfortunately, data and Insights are often siloed and brands are missing on the advantages of diverse thinking and perspectives from different teams and personas that can ask new questions, interpret data differently and propose new opportunities to turn insights into action. Now more than ever, it's crucial for brands to democratize their data and Insights to all areas of the business to stimulate this as a cultural behavior and allow all areas of the business to be data driven.



**3. Omnichannel has evolved to Optichannel.** With the explosion of new digital touchpoints over the last decade, the focus was to reach as many as possible. As the landscape has evolved, brands have come to understand that it's far more valuable to focus on the right message, for the right audience, on the right channel or channels, at the right time.

What's more and with this in mind, each touchpoint requires slightly different storytelling, and the technology to do this that scale, in order to maximize impact. Brands should balance social connections that offer more authenticity to garner consumer trust and high-quality media and web experiences that represent the brand well.



### STEP 3: Move forward with purpose.

Customers are no longer just choosing products, they're choosing brands that resonate with their beliefs and ideals. Making your brand's purpose — your "why" — a central part of your story is more important than ever. The current pandemic crisis makes this even more critical. The customer has always been in charge and that won't change. Building real connections with customers requires not just a digital first strategy, but one that marries an optimal digital experience with authenticity and empathy.

Now is the time for brands to seek out and implement new and emerging technologies designed to help measure consistency, awareness and messaging. Understanding what's resonating and what's not, while ensuring that your brand's purpose is consistent and connecting will be what sets modern, successful brands from the rest.

## GLOSSARY

- **Autoplay** - This occurs when a video that appears in a user's feed plays automatically.
- **Dark social** - Dark social media, dark social, or dark traffic are social shares that do not contain any digital referral information about the source.
- **Device Pixel Ratio (DPR)** - refers to the ratio between the pixels of an image and actual physical pixels on a screen. For an image to be displayed correctly, it needs to match the DPR settings of the device.
- **Direct (web traffic)** - Direct is a category of web traffic whose referring source is unknown. Direct traffic comes from people who already know you, like employees or existing customers. Increasingly it comes through people following links in private microbrowser (see definition below) messages.
- **Favicon** - A file containing one or more small icons associated with a particular website or web page.
- **Hero image** - A large web banner image, prominently placed on a web page, generally in the front and center. The hero image is often the first visual element a visitor encounters on the site.
- **Image Compression** - is used to make a file less heavy and thus load faster.
- **Long tail** - A long tail is the part of a distribution curve that consists of many different types of items in small quantities. By contrast, the "head" or central part of the distribution curve consists of a few types of items in large quantities.
- **Lossless Compression** - allows the original data to be perfectly reconstructed from the compressed data. The resulting file size is large, but detailed.
- **Lossy Compression** - all image components are preserved but unnecessary pixels removed. This results in a compact file size, but with every saved version you lose more detail.
- **Microbrowsers** - the miniature previews of your site that proliferate inside discussions in private messaging apps like Slack and WhatsApp.
- **Microdata** - an HTML specification used to nest metadata (information about data) within existing content on web pages.
- **Nanostory** - A very short video that demonstrates the unique selling points of a product or service in action.
- **Raster graphics (bitmap)** - models images as a collection of pixels.
- **Resolution** - refers to the number of pixels in each dimension (width × height) that can be displayed on a screen.
- **Unfurled links** - Previews of web pages inside private message discussions in microbrowsers that create your brand's first impression and play a big role in whether or not the person on the receiving end will click through to buy, or read or engage.
- **Web annotation** - With a web annotation system, a user can add, modify or remove information from a Web resource without modifying the resource itself.
- **Vector graphics** - uses points, lines, curves, or polygons to model an image.



# Make the experience as powerful as your vision.

Visual storytelling will remain a blend of art and science.

Understanding how visual stories are consumed is essential to ensuring brands can deliver experiences that engage and inspire audiences — around the world and on every platform and device.

## ABOUT CLOUDINARY

Cloudinary's mission is to empower companies to deliver visual experiences that inspire and connect by unleashing the full potential of their media. With more than 30 billion assets under management and 6,500 customers worldwide, Cloudinary is the industry standard for developers, creators and marketers looking to upload, store, transform, manage, and deliver images and videos online. As a result, leading brands like Atlassian, Bleacher Report, Grubhub, Hinge, Lyft, NBC, Mediavine, Peloton, Petco and Under Armour are seeing significant business value in using Cloudinary, including faster time to market, higher user satisfaction and increased engagement and conversions. For more information, visit [cloudinary.com](https://cloudinary.com).

## ABOUT THE DATA

The data analyzed for this report comprises engagement patterns during the fourth quarter of 2019 through April of 2020 across more than 700 Cloudinary customers, spanning more than a dozen vertical industries and a representative sampling of over 200 billion transactions per month.



[cloudinary.com](https://cloudinary.com)

