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# Substantial increase in artificial intelligence research

Every five years, UNESCO publishes a report about trends in research and development. This year's edition results from contributions from 70 people from 52 countries.

## **Download the report.**

## Four main findings:

## 1. 44 percent increase

Every single day in 2019, 405 new research articles on artificial intelligence and automation were published by researchers globally. This amounts to a whopping 147.806 research articles in 2019 - 44 percent more than in 2015. In comparison, 18.714 research articles on biotechnology were published in 2019.

### 2. The richest countries dominate

The wealthiest countries dominate research on artificial intelligence, but increased global interest means that the G20 countries' share has nevertheless fallen.

## 3. EU closing in

China, India, the USA, and Germany top listen over the countries with the most published articles on artificial intelligence and automation. Every fourth research article on the topic was published in the EU.

## 4. 30 countries with Al-strategies

30 countries have now introduced their own strategies for the research and development of artificial intelligence.

## Credible ad servers still fund fake news

A study conducted by the University of Michigan shows that websites with fake news still depend on credible ad servers.

### Download the study.

Three main findings:

### 1. Most ads from credible ad servers

Fake news publishers are still strongly reliant on credible ad servers. The top-10 credible ad servers alone account for 66.7 percent and 55.6 percent of ad impressions for fake and low-quality, respectively.

## 2. Small portion of ad firms revenue

A back-of-the-envelope calculation shows that the top-10 ad firms received \$985.7K to \$1.15M monthly from web impressions on fake news sites, a negligible fraction of these firms' annual revenue.

## 3. Blacklist - a viable solution

The study suggests that having top ad firms blacklist known fake and low-quality publishers is a low-cost way to combat fake news.

# NOK 2.1 billion on mobile games every day

The COVID-19 pandemic has created tremendous growth for mobile gaming.

## Download the report.

## Four main findings

## 1. Mobile gaming skyrocketing

A year into the COVID-19 pandemic, demand for mobile gaming has remained strong with no sign of slowing down. Users are downloading 30 percent more mobile games per week in Q1 2021 than in Q4 2019 and spending 40 percent more than Q4 2019.

## 2. Primary driver og growth

Mobile gaming is now the primary driver of growth for digital games consumption and is set to extend its global lead to 3.1x home game consoles in 2021. In Q1 2021, global spending was NOK 2.1 billion on mobile gaming every single day.

## 3. The correct ad format is essential

Sentiment towards in-game mobile ads improved in Q3 2020 compared to Q3 2019. Not all ad formats are equally regarded, however. Rewarded video and playable ads were gamers' preferred ad formats. Ads that leverage an immediate value exchange tend to skew more positively than those that don't – especially video ads.

## 4. Less is more

Oversaturation could become a significant problem for games that monetize through ads. Consumer opinion of in-game ads is much better among gamers that see fewer of them.

# Replaces text in images – seamlessly

Over the past year, we've seen both Google (last year), and Apple (coming this fall) show you how to cut and paste words right from your mobile camera. Now Facebook has created a program that can recreate the font and change and replace words in pictures.

## Download the study.

Three main findings:

## 1. Rewrite texts seamlessly

The technology uses artificial intelligence to recreate fonts based on one word in an image - and rewrite the text and seamlessly insert it into the picture—all by using the mobile camera. The technology can also recreate unique handwriting.

## 2. A deepfake haven

The new technology can (and will) be used to falsify images and documents. Facebook, therefore, presents the findings and invites researchers and developers to help find solutions to uncover photos and videos with fake text.

## 3. ...but hugely useful

The technology enables seamless translation of documents, signs, menus and price tags (and so on) through the mobile camera - and in the future, the technology will likely be integrated into AR glasses and lenses.

# EU hints to the regulation of IoT technology

The European Commission has published the preliminary report on the initial findings of its ongoing competition sector inquiry into the consumer Internet of Things (IoT). The final report is expected in the first half of 2022.

## Download the report.

Three main findings:

## 1. Walled gardens

Exclusivity prevents the ability to change voice assistants on individual products. This is an obstacle to free competition and enables the abuse of market positions.

### 2. Access to user data

The operators of voice assistants get disproportionate access to user data and thus insights that will strengthen their market position at the expense of smaller competitors.

## 3. Not compatible

IoT products from various companies are mainly not compatible. This locks consumers into buying products from only one provider, which is advantageous for the most prominent companies in the market.

## 47 percent of Danes concerned about fake news

A report from the Danish government shows that almost half of Danes are worried about the consequences of fake news in Denmark.

## Download the report.

## Four main findings:

### 1. Concerned about fake news

A total of 47 percent of Danes are worried that fake news prevents them from knowing what is going on. 60 percent believe that there are parts of Danish media that are intentionally producing fake news.

## 2. Do not believe in complete editorial independence

48 percent of Danes believe Danish media are affected by business and commercial influence some of the time. 46 percent of Danes believe that the Danish media is affected by political or state influence some of the time.

## 3. Affected by fake news

Only 17 percent answer that Danish parliamentary elections are unaffected by fake news. However, only 4 percent believe that the elections are affected to a very high degree, 66 percent believe that they are affected to some (24%) or small (42%) degree.

## 4. Only 1 in 4 uses fact-checking media

Even though there is a certain level of skepticism, only a good quarter of the population answers that they use some form of fact-checking media. Men use them significantly more than women: 34 percent of men and 19 percent of women use fact-checking media.

# Growing trust and willingness to pay for digital news

Reuters Institute Digital News Report shows a somewhat fragmented development within the global media landscape.

## **Download the report.**

## Six main findings:

## 1. Growing trust in the news

Trust in the news has grown, on average, by six percentage points in the wake of the covid 19-pandemic – with 44 percent saying they trust most news most of the time. Finland remains the country with the highest overall trust levels (65%), and the USA has the lowest levels (29%).

## 2. Sharp decline in print newspapers

Print newspapers have seen a sharp decline almost everywhere as lockdowns impacted physical distribution, accelerating the shift towards a mostly digital future.

## 3. Increase in willingness to pay

There have been significant increases in payment for digital news in a small number of richer Western countries, but the overall percentage of people paying for online news remains low. Norway continues to lead the way with 45 percent (+3), followed by Sweden (30%), the United States (21%) and Finland (20%).

## 4. TikTok growing fast

Mainstream news brands and journalists attract the most attention around news on both Facebook and Twitter. Still, they are eclipsed by influencers and alternative sources in networks like TikTok, Snapchat, and Instagram. TikTok now reaches a quarter (24%) of under-35s, with 7 percent using the platform for news.

## 5. Al-powered news apps

While mobile aggregators play a relatively small part in the media eco-system of Western countries, they have a powerful position in many Asian markets. In India, Indonesia, South Korea, and Thailand, a range of human- and Al-powered apps like Daily Hunt, Smart News, Naver, and Line Today play an essential new role in news discovery.

## 6. Spotify gaining ground

Growth in podcasts has slowed, in part due to the impact of restrictions on movement. Spotify is continuing to gain ground over Apple and Google podcasts in many countries, and YouTube also benefits from the popularity of video-based and hybrid podcasts.