DIGITAL MARKET OUTLOOK
PRODUCT & METHODOLOGY
Hamburg, March 2017
OVERVIEW

Product & methodology

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What is the Digital Market Outlook?
Statista’s Digital Market Outlook provides forecasts, detailed market insights and key indicators for the most relevant topics of the digital economy. This includes a broad range of products and services based on a digital distribution model.

All data is derived from reliable bottom-up market modeling, which makes it possible to take comprehensive statistical data from the Statista platform as well as market-related and regional trends and developments into account.

Our Claim
The Digital Market Outlook is a solution which gives you instant access to reliable, comparable and easy-to-use information about the most recent developments of digitalization on an international scale.
DIGITAL MARKET OUTLOOK

Your questions, our solution – convenient, fast and comprehensive

«What’s the size of the [...] market?»
«Which country has the highest number of [...] users?»
«What’s the projected development of the [...] market?»
«Which are the top 5 fastest growing [...] markets?»
«How long [...] will remain double digit growth?»
«What’s the potential of [...] by 2020?»
«When will [...] reach mass market adoption?»
«What’s the average customer value in [...]?»
**Digital Market Outlook**

**Full access to the Digital Market Outlook webtool**

+ **30,000 interactive statistics**
  - Direct downloads
  - Fully integrated into the Statista database

32 Outlook Reports included
- Qualitative and quantitative analysis
- Trends & top companies
- Deep Dive: Europe, USA, China
DIGITAL MARKET OUTLOOK

Topics – Nine digital verticals with 36 segments

**Digital Media**
- Video-on-Demand, Digital Music, Video Games, ePublishing

**FinTech**
- Digital Payments, Business Finance, Personal Finance

**eTravel**
- Online Travel Booking, Mobility Services

**Services**
- Event Tickets, Fitness, Dating Services, Food Delivery

**eHealth**
- Diabetes, Hypertension, Heart Failure

**Connected Car**
- Content & Services, Safety & Driving Assistance, Navigation Services, Diagnostics & Maintenance, Connectivity

**Smart Home**

**e-Commerce**
- Fashion, Electronics & Media, Food & Personal Care, Furniture & Appliances, Toys, Hobby & DIY

**Digital Advertising**
- Banner Ads, Video Ads, Search Ads, Social Media Ads, Classifieds

Revenue forecasts and user development, ad-hoc market research, segment-specific trend-reports as well as an additional breakdown into 92 different categories.
Coverage - 50+ international countries & regions

- **Asia:** China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Thailand, Vietnam
- **Europe:** Belgium, Bulgaria, Denmark, Germany, Estonia, Finland, France, United Kingdom, Ireland, Italy, Croatia, Latvia, Lithuania, Netherlands, Norway, Austria, Poland, Portugal, Romania, Russia, Sweden, Switzerland, Serbia, Slovakia, Slovenia, Spain, Czech Republic, Hungary
- **Africa & Middle East:** Israel, Saudi Arabia, South Africa, Turkey
- **Australia:** Australia
- **North America:** Canada, United States
- **Latin America:** Argentina, Brazil, Mexico

**50 countries** across all continents

~ 90% of worldwide economic power

~ 78% of global internet population

1 based on the global gross domestic product
DIGITAL MARKET OUTLOOK

Statista – Your single source supplier for digital market data

What makes us unique

Statista combines the powerful insights of market research and trend scouting and puts results in the context of regional and structural characteristics of different markets. The resulting outcome is an independent and unique forecast of market development in various areas of digitalization.

The foundation for the Digital Market Outlook is the vast number of sources and research knowledge which is part of our renowned statistics platform. By using complex techniques of data modeling and statistical forecasting, we are able to derive reliable predictions for dynamic evolving markets which have a high level of uncertainty.

Digital market data is often available in many different forms, scopes and segmentations, which makes it almost impossible to get reliable comparisons between two or more data sets. Consistent data on an international scale with unified definitions of what exactly is in-scope and what is out-of-scope is the key for realistic and successful business analysis and planning.

Therefore Statista’s Digital Market Outlook provides unique value in the area of digital market data. Our goal is to bring as much information as possible together, normalize data sets, separate the relevant parts and derive a consistent view on the market dynamics and rising trends of the global digital economy.

Current state analysis

› How is economic value currently generated in the market?
› How many current users/customers are there?
› How does an appropriate segmentation of users look like?
› Which players are market and innovation leaders?
› How does the price of various products and services evolve?

Trend scouting

› How will economic value be generated in the future?
› Are there analogies to the old economy or similar markets?
› Which kinds of products or business model innovations stand out as the most successful?
› Which areas of business will see rising venture capital investments?
› How is technological progress expected to develop in terms of performance, availability and pricing?
› When and where is market growth expected to reach its limit?
Start your research with our results

Our Approach

Data gains its value through three core dimensions: distinct definitions, contextual information and simple visualization. The day-to-day work with data and statistics gives us a clear view of how to combine these factors to ensure that meaningful information is published. Our goal is to simplify your research for digital information by preparing the data in a convenient way.

Our experts aggregate and update all relevant market data taken from renown sources and independent databases. We then align different information, validate sources and surveys using external analyst opinions and estimates, measurements and performance indicators from key player in the market.

We take care of time-consuming and costly research and synthesize the broad range of available market data to gain a clear and consistent view of the development of markets in terms of digitalization.

Research

- More than 18,000 sources in the Statista database
- Primary market research
- Third-party studies and reports

Analysis

- Synthesis of data sets and validation
- Experienced analyst estimates
- International comparisons

Visualization

- Comprehensible visualization of statistics
- Multiple download formats
- Direct processing of the data possible
We derive valuable insights from combining various types of data

Data sources

Our forecasts are based on **four types of relevant industry data:**

- Country-specific statistical offices and census data
- International organizations and associations
- Company information and economic clusters
- "Digital consumer profiling “ on a global scale
- Ad-hoc market research for trending topics
- Evaluation of all kind of relevant survey data (in-house and third-party)

- Company profiles and key performance indicators
- Startups and innovation dynamics
- Product and price monitoring
- News and trends
- Market analysis and analyst opinions
- Annual reports and industry analysis
- Academic reports
BENEFITS

Data quality is a question of an appropriate methodology

General weaknesses of market forecasts

- Unclear market definitions and scope
- Very rough top-down approaches with high susceptibility to errors in terms of basic assumptions
- Blending of inconsistent survey data with regards to the methodical approach
- Highly simplified linear projections based on the historic development of dynamic transforming markets
- Missing Benchmarks for effects like market saturation
- Unrealistic assumptions of abstract and high-level parameters for example the rate of diffusion of new technologies
- Missing differentiation between new and disruptive market developments and sustaining transformation or substitution
- Disregarding regional characteristics in terms of infrastructure, user behavior or economic development
- Limited or missing data for validation processes

Advantages of the Digital Market Outlook

+ Distinct and comprehensible market segmentation on the level of different products, services or business models
+ Operationalization of market drivers to derive validatable results with insights from market research or company analysis
+ Full comparability of data on a country level
+ Consideration of technology and product lifecycles through market and region-specific statistical models
+ Separation of market research and trend scouting:
  + Market research: Status quo
  + Trend scouting: Market potential and growth areas
+ Diverse and international data pool, including all resources from the Statista platform as well as in-house market research
+ Normalized indicators allow realistic assumptions and comparisons (per-capita-spending, penetration rates etc.)
+ More than 300 country-specific structural market indicators in the categories: economics, politics, demography and infrastructure
OUR APPROACH

Macro-economic analysis set the framework for reliable market-sizing

Regional analysis of indicators

The harmonization of different types of regional information requires standardized values in order to make correct and useful interpretations. The foundation of the process of normalizing values from different sources and surveys are the comprehensive country profiles based on statistical data.

The key to generating valuable insights is to find appropriate benchmark values, which are easily comparable and provide significant results. Therefore for each country covered in the Digital Market Outlook we collect a broad range of general statistical information about:

- the demographic structure of households and the population socio-demographic indicators such as age, income and education.
- the economic structure competitor landscape and consumption statistics.
- Infrastructural preconditions technical equipment and availability of public and private services.

This macro-level analysis builds the framework for the development of digital business models and provides insightful information about the structural differences between regions and markets. In addition, it allows for a long-term analysis of historic time series, complementing the rather short-term insights of digital trends and future developments.

Example – Indicators of internet usage

| Structural indicators (absolute) 2016: | 30.4 m ≈ 29.4 m |
| Monthly internet users: | 21.3 m ≈ 20.5 m |
| Smartphone users: | 22.4 m ≈ 20.3 m |

| Structural indicators (normalized) 2016: | 81.2 % > 69.3 % |
| Internet penetration: | 58.9 % > 46.8 % |
| Smartphone penetration: | 61.8 % > 46.3 % |
| Facebook penetration: |

Growth dynamic 2014 to 2016:

| Monthly internet users: | +3.9 % < +7.3 % |
| Smartphone users: | +16.3 % < +36.2 % |
| Monthly Facebook users: | +5.8 % < +12.8 % |

The context of information is key to derive reliable statements about market maturity and get comparable results for market developments.
OUR APPROACH

Up-to-date and reliable insights of primary and secondary data

Market Research

The status quo regarding usage, relevance and market maturity for each area within the digital economy is evaluated by primary and secondary market research results. Thus, we are able to generate highly topical insights and trends and we get a holistic picture of the demand structure in each segment.

The results derived thereof determine market size and consumer attitude or willingness to pay as well as the market readiness with respect to innovative technologies and business models. Consumer behavior can be determined by personal access and possession of technical equipment as well as through personal motivation and attitude towards digital trends.

In the final step, demographic segmentations of user groups by age, gender and income can be identified. This allows us to determine future market development based on the potential of the identified target audiences.

Consistent

- Access to international comparable structural surveys (e.g. Google Consumer Barometer with at least 1,000 respondents/country)
- Consistent collection of features, frequency of use and buying behavior

Up-to-date

- Exclusive representative ad hoc surveys in selected countries on specific current topics
- Analysis of up-to-date market research results from the data pool Statista
- Review of trends and updating data on a regular basis

Typology

- Analysis of user groups regarding demographic and qualitative characteristics
- Deeper understanding of user groups and their structure as a crucial element of market development
- Loyalty, motivation and willingness to take risks as indicators of future behavior
Market monitoring and evaluation of relevant developments

Key Player Analysis & Monitoring

In contrast to purely market research based methodical approaches, Statista’s Digital Market Outlook also conducts extensive and ongoing market monitoring and screening of key players in the industry to characterize the supply-side of the market.

This includes in-depth analysis of financial reports and statements of market leading companies, capturing product and pricing information on a regional level and ongoing monitoring of relevant news about early-stage developments and innovations, acquisitions, venture capital investment flows or similar indicators of the future market development.
OUR APPROACH

Identification of change and determination of implications

Trend scouting

To account for the natural limitations of standard market research with regard to future developments of technology and user behavior, the Statista Digital Market Outlook links the analyzed results of the status quo that are obtained by using up-to-date and well-proven tools with insights of trend scouting.

Thereby our experts examine numerous internationally renowned studies, market- and trend analysis of the digital economy. Additionally, market monitoring of up-to-date and relevant companies, technological product- or business model innovations is conducted. Thereby the focus is the identification of patterns and abstraction as well as an assessment of the impact of certain events on the market development.

Trend scouting impacts consumer behavior as well as product- and business model innovations which require a rethinking of existing formal and informal rules of a market. Trend scouting allows an early detection and determination of changes and implications, alluded to a number of different indicators, which will eventually become the status quo.

Our data quality benefits from access to the Statista data base, which contains numerous studies and data that has been benchmarked with externally conducted surveys and therefore contains validated data. Many of these sources and data which are part of the comprehensive database portfolio hold relevant information about the digital economy and can support us with the trend scouting process.
OUR APPROACH

Derive market sizes from their structure and value

**Market Calculations**

All market sizes are determined with a **bottom-up approach** based on **an individual logic** for each market segment. Demand-side factors, such as the number of users or companies, are linked to performance-oriented factors such as average customer turnover. These data are calculated from market-specific indicators such as product prices, purchase-/usage frequency and customer fluctuation. Based on this analysis, monetary market sizes can be represented in a way that relates to the user landscape.

Profound **insights into the socio-demographic user structure**, derived from the market research findings, provide valuable information of usage intensity and willingness to pay. This information is taken into account to ensure the quantification of market potential is as exact as possible.

Data-driven assumptions are made at the level **operationalizable factors** and are therefore less abstract and only have a small implication on the absolute size of the market. This distinguishes our approach from many one-dimensional assessments that have high error rates in estimation parameters.

Due to the large number of parameters as well as country- and market-specific characteristics in the market logic, an annotated disclosure of each assumption can not be provided.

A validation of the results is conducted via a top-down approach using publicly available indicators of market-leading companies and comparable market analysis and studies from external sources.
Example: Bottom-up derivation of the Smart Home market size

OUR APPROACH

Usage-rate Group 1
% Usage-rate Group 2
% Usage-rate Group 3

Number of Smart Homes

# customers × Ø revenue per customer = market

Revenue per Smart Home

Luxury Segment
Ø HH size
Products & services
Ø Number of installed devices
Ø Price per device

Mid-Range Segment
Ø HH size
Products & services
Ø Number of installed devices
Ø Price per device

Low-Price Segment
Ø HH size
Products & services
Ø Number of installed devices
Ø Price per device

% of connected Homes

High Income HH

Medium Income HH

Low Income HH

% of connected Homes

% of connected Homes

% of connected Homes
OUR APPROACH

Multidimensional data modeling results in realistic trends

Forecasts

Based on our four main dimensions of research and analysis:

- Macro-economic environment
- Market research insights
- Key-player analysis & monitoring
- Trend scouting & benchmark studies

Our team of interdisciplinary analysts develops individual market forecasts. We use our own data modeling tools and techniques derived from scientific statistical and mathematical methods to define realistic and independent predictions of developments and market potential.

Based on the status quo market sizing, we are able to put the most recent trends and assumptions in context with information about the macro-economic environment, historic development of key market drivers, speed of diffusion of innovation or lifecycle phases of different technologies, products and services.

We focus on data-supported assumptions and educated estimates of the future market development. This approach allows us to derive consistent and comparable forecasts. We validate our data intensively through analogies, regional comparisons and analysis of development cycles in different markets. As a result, we get profound results based on the information available even in areas with high uncertainty in future decision making processes.
OUR APPROACH

Forecast: Historic development and relevant influencing factors

Validation with empirical data

Parametrized forecasts

Schematic Illustration
OUR APPROACH

Parametrized forecasts: Example S-Curve model

5 parameters determine the projected market development:

- **Base Level** (starting point of market development / known threshold)
- **Jumping Height** (remaining potential until maximum market penetration)
- **Symmetry** (progression of market diffusion)
- **Steepness** (development speed / intensity of growth)
- **Inflection Point** (point of transition to starting market saturation)
Qualified information filter save time and create added value

Selection and Overview about our Sources

Numerous data and information are freely accessible online. To find, screen and examine their applicability and quality, however, requires the appropriate expertise and time.

As part of our methodological approach we disclose relevant sources of digital market and industry information and thus provide an overview of the main sources of information.

As classification criteria we also show whether a source deals with regional or global topics. In addition we provide information about whether a source is open source, paid access or just partly free and partly paid.

On the following pages you will find a structured overview of official and recognized sources for general statistical data and market indicators as well as general media, databases and information services, which provide information for almost all areas of the digital economy.

We also take into account market-specific sources, databases and companies whose annual reports and press releases provide market-specific and relevant information.

The data of the Digital Market Outlooks is composed of countless pieces of information from different data sources and news. Because of the amount of individual information and interpretations of the data and news by our analysts, a detailed representation of the data sources for each data point is not possible.

Instead, we provide an overview of regularly used sources of information that may be helpful for understanding, tracking and possibly own research.

Sources that concern the digital economy, particularly those with a focus on future developments are valuable from an academic context, but also include daily news portals, blogs and other platforms for opinions of innovative leaders and industry insiders.

Disclaimer: We do not claim to have a complete list of all sources. The following overview is intended to show a subjective selection of relevant news portals, databases and companies that publish relevant and regular information to the topics covered in the Digital Market Outlook. Furthermore Statista does not claim to have access to all paid sources or has necessarily used all sources for validation processes.
## Selected data providers

### Database

<table>
<thead>
<tr>
<th>($$)</th>
<th>Provider</th>
<th>Access</th>
<th>Geographic Focus</th>
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<tbody>
<tr>
<td>Alexa</td>
<td>open access</td>
<td>global coverage</td>
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<tr>
<td>Bloomberg</td>
<td>limited access</td>
<td>regional coverage</td>
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<tr>
<td>Bureau van Dijk</td>
<td>only paid access</td>
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<td>CB Insights</td>
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<td>Creditreform</td>
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<tr>
<td>($$$)</td>
<td>CrunchBase</td>
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<td>Dealroom.co</td>
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<td>Dun &amp; Bradstreet</td>
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<tr>
<td>eMarketer</td>
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<td>European Central Bank</td>
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<td>Eurostat</td>
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<td>GlobalWebIndex</td>
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<td>Google Consumer Barometer</td>
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<td>Hoovers</td>
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<td>IBIS World</td>
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<td>OICA</td>
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<td>Oxford Economics</td>
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<td>PrivCo</td>
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<td>Sensor Tower</td>
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<td>SimilarWeb</td>
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<td>The Economist</td>
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<td>Thomson Reuters</td>
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<tr>
<td>Trendwatching.com</td>
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<tr>
<td>United Nations Statistics Division</td>
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<td>World Health Organization (WHO)</td>
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<td>World Tourism Organization (UNWTO)</td>
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### News

| ($$$) Forbes | financial times |
| Harvard Business Review | |
| MarketWatch | |
| Mashable | |
| Meltwater Group | |
| Tech in Asia | |
| TechCrunch | |
| TechRadar.com | |
| The Motley Fool | |
| The Verge | |
| Trends der Zukunft | |
| VentureBeat | |
| WallStreet Journal | |
| Wired.com | |
| ZDNet | |
### Selected data providers

<table>
<thead>
<tr>
<th>News</th>
<th>Reports / Statistics</th>
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<tr>
<td>Basic Thinking</td>
<td>A.T. Kearny</td>
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<td>China.org.cn</td>
<td>ABI Research</td>
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<td>deutsche startups</td>
<td>Accenture</td>
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<td>etainment</td>
<td>App Annie</td>
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<td>Gründerszene</td>
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<td>Payment &amp; Banking</td>
<td>Berg Insight</td>
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<td>Smarthomewelt.de</td>
<td>BI Intelligence</td>
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<td>TechWeb.com.cn</td>
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<td>The Guardian</td>
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<td>Times of India</td>
<td>Capgemini</td>
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<td>VC Magazine</td>
<td>Center for the Digital Future</td>
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<tr>
<td>WirtschaftsWoche</td>
<td>Centre for Retail Research</td>
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</tbody>
</table>

#### Access information:
- open access
- limited access
- only paid access

#### Geographic focus:
- global coverage (G)
- regional coverage (R)

As of July 2016
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