



**2019/20**

# AI, INTEREST & NEWS CHANNELS IN FOCUS

## VA Barometer 2019/20 – VA Report 2019:9

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More information about the survey can be found at [www.v-a.se](http://www.v-a.se)

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These are some of the results of this year's VA Barometer:

- Interest in research in Sweden is increasing.
- Confidence in research remains high.
- The majority of Swedes access news about research every week.
- Digital media is an increasingly common channel for research news.
- Swedes are cautiously positive about future developments in AI.

The VA Barometer is based on around 1,000 telephone interviews with a random sample, representative of the Swedish population aged 16–74. It is the 18th Barometer survey since VA was founded in 2002. Read more about the survey on page 30.

# LAST YEAR THROUGH SWEDISH EYES

The **Yellow Vests** protest movement starts its demonstrations in France. The movement is initially motivated by a dissatisfaction with rising fuel prices, but grows into a protest against President Macron's policies.

The **January Agreement**, a deal between the Social Democrats, the Green Party, the Liberals and the Centre Party, results in Stefan Löfven becoming the Prime Minister of Sweden.

Large **demonstrations in Hong Kong** start as protests against a draft bill, but develop into demands for democracy and universal suffrage.

Britain's Prime Minister **Theresa May** resigns after failing to get her Brexit deal approved.

**Notre-Dame** cathedral in Paris suffers from a huge fire.

Summer in southern and central Europe breaks records as one of the **hottest ever**. The highest June temperature ever is recorded in Europe.

The Swedish women's **football** team wins **bronze** in the **World Cup**.

50 years since the first man set foot on the **moon**.

The free **Metro** news-paper is shut down.

The first Swedish female astronaut, **Jessica Meir**, is launched into space to work at the International Space Station, ISS.

Oct      Nov      Dec      2019      Jan      Feb      March      April      May      June      July      Aug      Sept

Severe **forest fires** hit the state of California in the USA. Tens of thousands of buildings are destroyed and almost 100 people die.

Scientists in China are reported to have **genetically modified humans**. Twin sisters Lulu and Nana are said to have had a gene modified using CRISPR/Cas9 technology to give them immunity to HIV. The news creates uproar within and outside the scientific community.

**NASA** announces that its **Opportunity** rover mission on Mars is over. Opportunity roamed the surface of **Mars** for nearly 15 years, sending over 200,000 images back to Earth.

Astronomers present the **first photo of a black hole**. The image shows a ring of light surrounding a black hole in a galaxy 55 million light-years from Earth.

A **giant squid** is caught on film for the second time in history.

The UN's scientific panel on **biodiversity, IPBES**, presents a report saying that Earth's biodiversity is heavily under threat. Almost one million species are at risk of extinction if the current trend continues.

Climate activist **Greta Thunberg** sails from Plymouth, England to New York, USA to speak to the US Congress and the UN, among others.

Researchers begin excavation of the **Gribshunden shipwreck**, a Danish warship that sank in 1495 in Ronneby archipelago in Blekinge, Sweden.

The **VA Barometer** interviews are conducted.

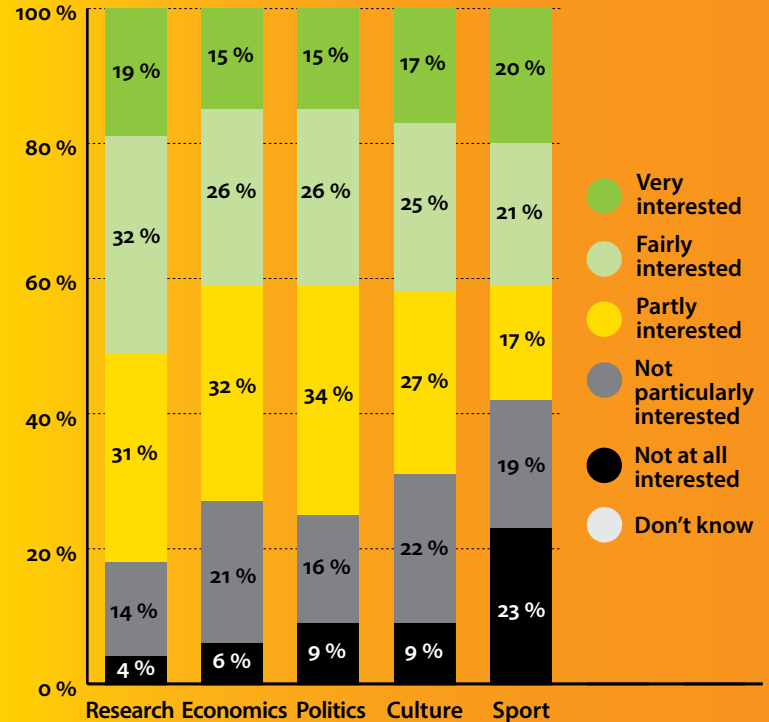
# RESEARCH IS OF INTEREST ...

Swedes are more interested in research than in economics, politics, culture or sport. Research comes top with 51 percent of respondents being *fairly* or *very* interested. The proportion that is *not at all* interested in research is also low, 4 percent, compared with 23 percent for sport.

There is a link between a person's level of education and the subjects they are interested in. Those with a university education are more interested in research, culture and politics, but less interested than others in sport. Women are more interested in culture; men are more interested in sport and economics. For research and politics, there are no differences between men and women.

*The graph shows responses to the question **How interested are you in each of the following subjects?***

NUMBER OF RESPONDENTS: 1,021

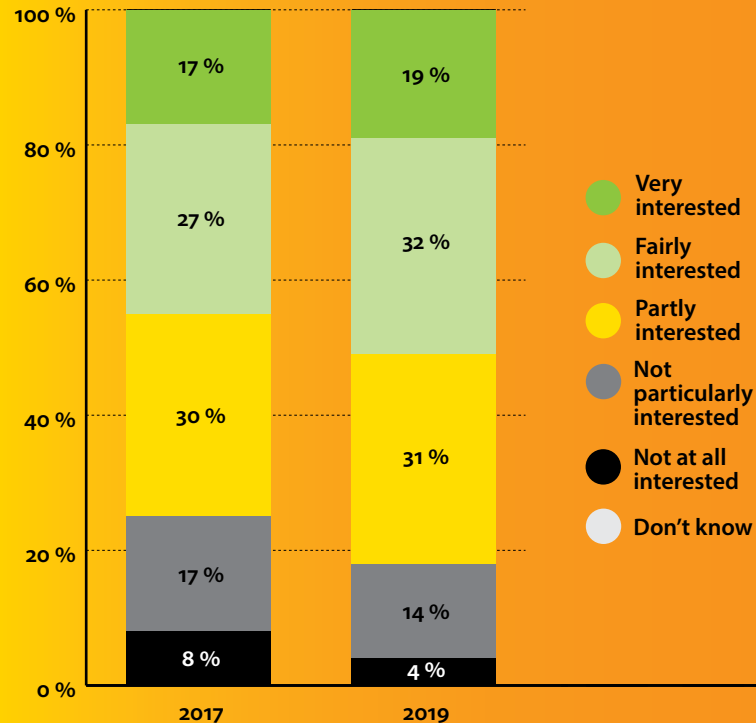


# ... AND INTEREST IS GROWING

Swedes' interest in research is greater in the 2019 survey than it was in 2017. The proportion of Swedes who say they are *fairly interested* has increased from 27 to 32 percent, while the proportion that is *not particularly interested* has decreased from 17 to 14 percent, and the proportion that is *not at all interested* has decreased from 8 to 4 percent.

*The graph shows responses to the question **How interested are you in research?** Asked in 2017 and 2019.*

NUMBER OF RESPONDENTS 2017: 1,021 – NUMBER OF RESPONDENTS 2019: 1,021



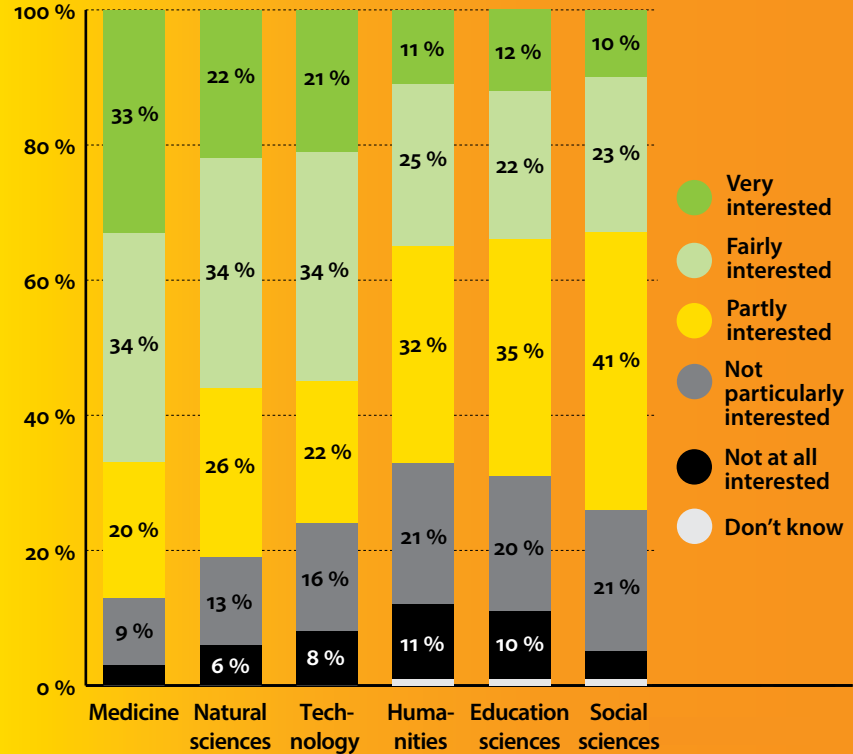
# GREATEST INTEREST IN MEDICINE ...

Interest in research varies widely depending on the subject. Sixty-seven percent of Swedes are *fairly* or *very interested* in research in medicine. The corresponding figure for the natural sciences is 56 percent, followed by technology (55 percent), the humanities (36 percent), the education sciences (34 percent) and the social sciences (33 percent).

People with a university education are more interested than others in research in the natural sciences, the education sciences, the humanities and the social sciences. Concerning research in medicine and technology, no differences between people with different levels of education can be seen.

*The graph shows responses to the question **How interested are you in research in the following subjects?***

NUMBER OF RESPONDENTS: 1,021

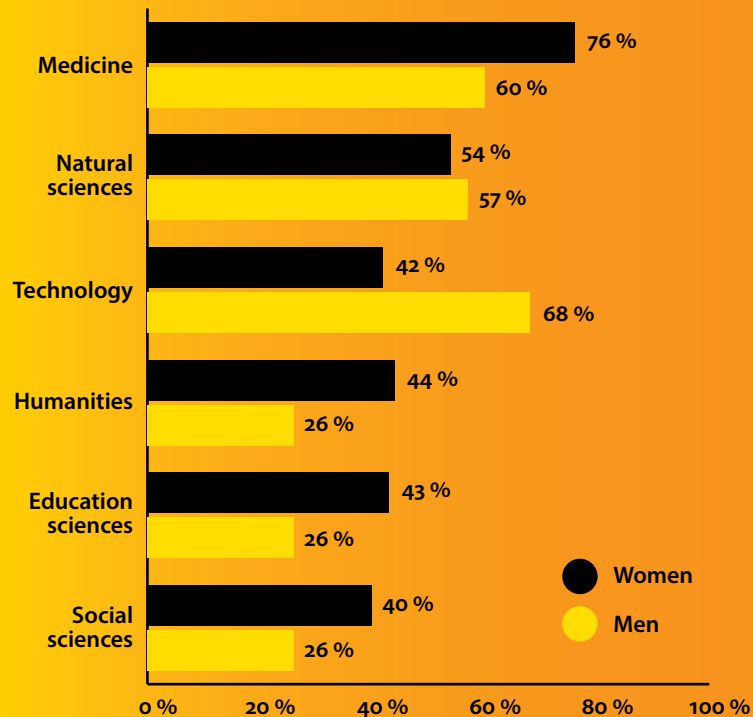


# ... BUT THERE ARE GENDER DIFFERENCES

There is no difference between men's and women's general interest in research. But clear gender differences can be seen in Swedes' interest in different research subjects. Men are more interested in research in technology; 68 percent of men are *fairly* or *very interested*, compared with 42 percent of women. When it comes to medicine, the education sciences, the humanities and the social sciences, women are more interested than men. Men and women are equally interested in research in the natural sciences.

*The graph shows men's and women's **interest in research in different subjects**. The bars show the combined proportions of those that are **fairly** or **very interested**. (Five-point scale: *Very interested, Fairly interested, Partly interested, Not particularly interested, Not at all interested*.)*

NUMBER OF RESPONDENTS: 526 (MEN) 495 (WOMEN)



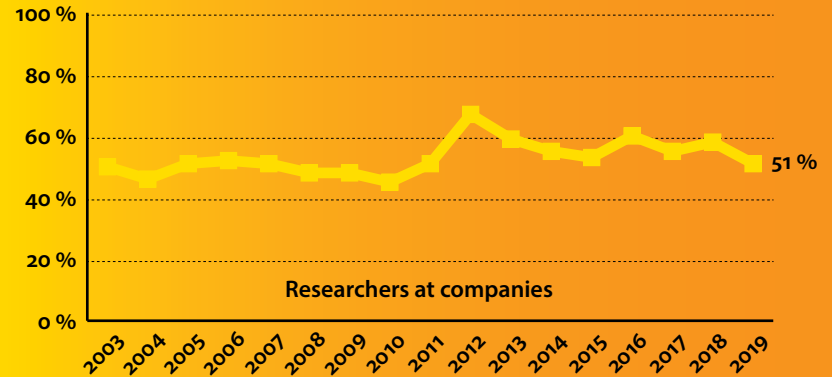
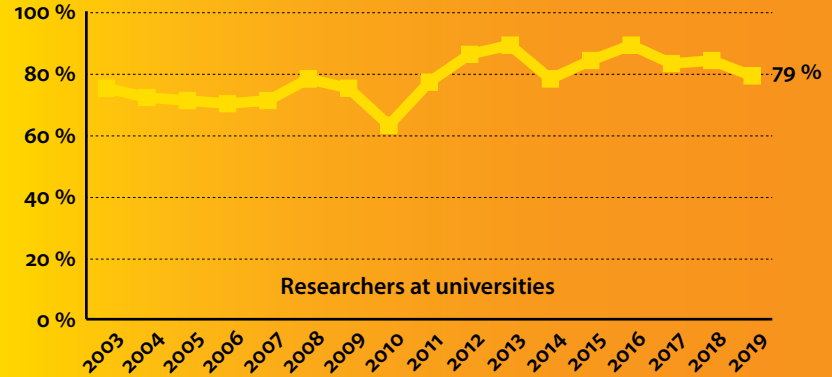
# HIGH CONFIDENCE IN RESEARCHERS ...

The proportion that has *fairly* or *very high* confidence in researchers at universities is 79 percent and the corresponding proportion for researchers at companies is 51 percent. We do not see any statistically significant differences between this year's results and last year's when it comes to Swedes' confidence in researchers.

People with a university degree have, as we have seen in the past, more confidence in researchers than people that aren't university-educated; the proportion with *fairly* or *very high* confidence in researchers at universities is 85 percent for people with a university degree and 75 percent for those without.

*The graph shows the proportion that has a **very** or **fairly high confidence** in researchers. (Four-point scale: Very high, Fairly high, Fairly low, Very low. Prior to 2013, the scale was: Very high, High, Low, Very low, No confidence at all.*

NUMBER OF RESPONDENTS: 509





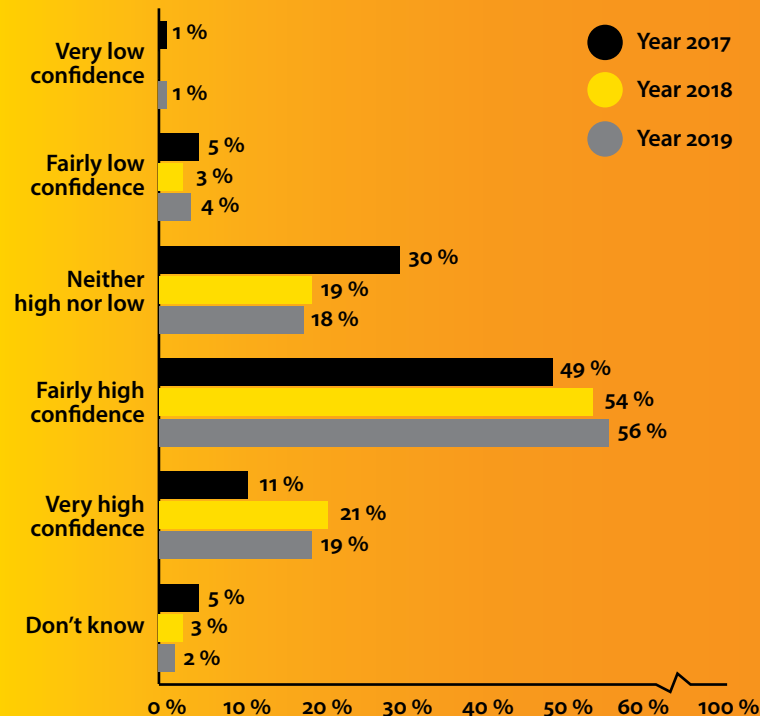
# ... AND LIKewise IN RESEARCH

For 18 years, the VA Barometer has investigated Swedes' confidence in researchers. In recent years we have also asked about their confidence in research in general.

This year, like last year, 75 percent of Swedes have *fairly* or *very high* confidence in research. Confidence is higher today than in 2017 when the corresponding figure was 60 percent. Among those living in or close to cities, 81 percent have *fairly* or *very high* confidence, which is higher than among residents of medium-sized towns (72 percent) or of smaller towns/rural areas (71 percent).

*The graph shows responses to the question **Generally speaking, how much confidence do you have in research?***

NUMBER OF RESPONDENTS 2017: 1,021 – 2018: 1,052 – 2019: 1,021



# WHAT DOES A RESEARCHER DO?

Swedes are interested in research and have high confidence in researchers. But what do they think that a researcher's work entails? When asked about what they think a researcher spends most of his/her working hours doing, almost one in five (18 percent) reply that they *don't know*. Among other respondents, common associations were *experimenting*, *applying for funding*, *teaching* and *reading*.

More respondents with a university degree say *applying for funding* or *teaching* compared to people without a university education. Instead the latter group are more likely to say *reading*, *researching* and *working in a lab*.

*The image shows responses to the question **What do you think a researcher spends most of his/her working hours doing?** Responses have been slightly reworded and grouped together to create the word cloud.*

NUMBER OF RESPONDENTS: 1,021



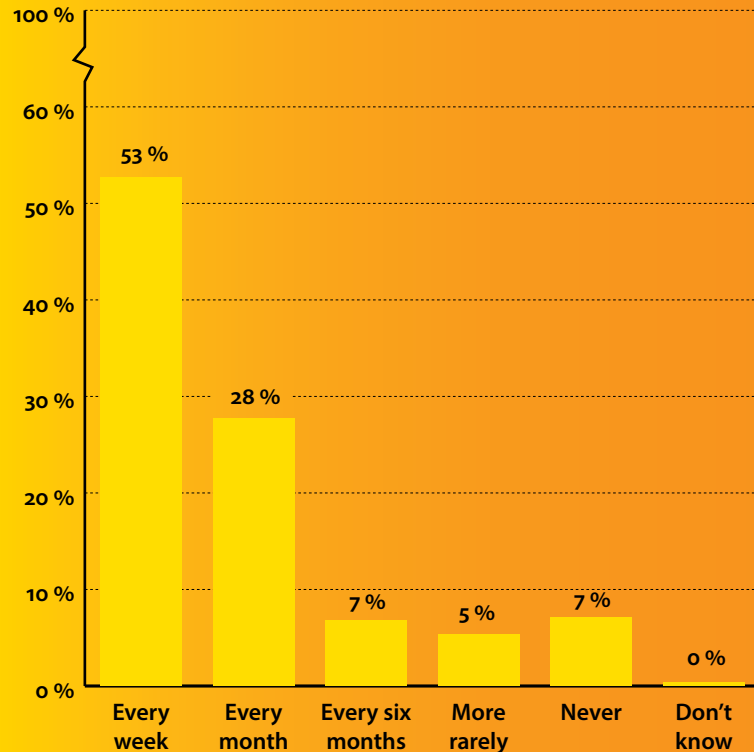
# RESEARCH NEWS ON A WEEKLY BASIS ...

Every other Swede (53 percent) accesses news about research *every week*. 66 percent of those with a university degree consume research news on a weekly basis, compared with 47 percent of people with an upper secondary education and 36 percent of those with only compulsory-level education.

Consumption of research news is greatest amongst the age groups 30–44 and 45–59, of whom 59 and 61 percent, respectively, consume research news every week. This is compared to younger people (16–29 years) and older (60–74 years), where 46 and 47 percent, respectively, access research news every week.

*The graph shows responses to the question **How often do you access news about research via the radio, TV, daily newspapers, social media or podcasts?***

NUMBER OF RESPONDENTS: 1,021



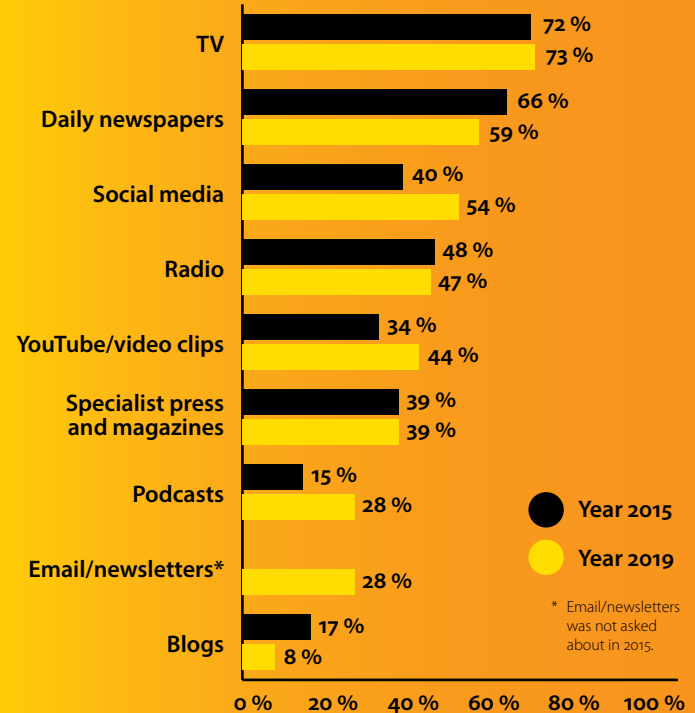
# ... INCREASINGLY VIA DIGITAL MEDIA

The most common channels for accessing research news are still *TV* and *daily newspapers*, but the use of digital channels is growing. *Social media*, *YouTube/video clips* and *podcasts* have become increasingly common channels in recent years. At the same time, *blogs* have fallen sharply from 17 to 8 percent over four years and today are the least important of the channels listed in the question.

The role of daily newspapers as a source of research news is diminishing, although it is still the second most common channel after television. Daily newspapers are a source of research news for 59 percent of Swedes.

*The graph shows responses to the question **Do you access news about research and science via [channel]?** (Each channel includes web-based versions) (Yes/No). The bars show the proportion that responded Yes in 2015 and 2019.*

NUMBER OF RESPONDENTS 2015: 1,011 – 2019: 1,021



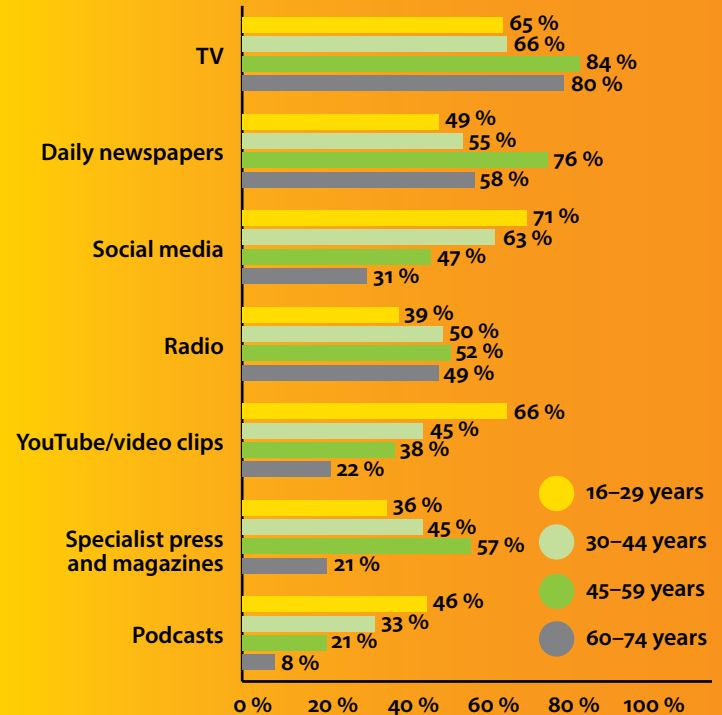
# AGE AFFECTS THE CHOICE OF CHANNEL

The channels through which research news is accessed are partly linked to age. For people aged 16–29, *social media* is the most important channel, followed by *YouTube/video clips* and *TV*.

For people between the ages of 60 and 74, *TV*, *daily newspapers* and the *radio* are the most important channels, although around a third (31 percent) also use social media to access research news.

*The graph shows the percentages that respond Yes to the question Do you access news about research and science news via [channel]? (Each channel includes web-based versions) (Yes/No), for respondents of different ages.*

NUMBER OF RESPONDENTS: 262 (16–29 YEARS) 268 (30–44 YEARS) 254 (45–59 YEARS) 237 (60–74 YEARS)

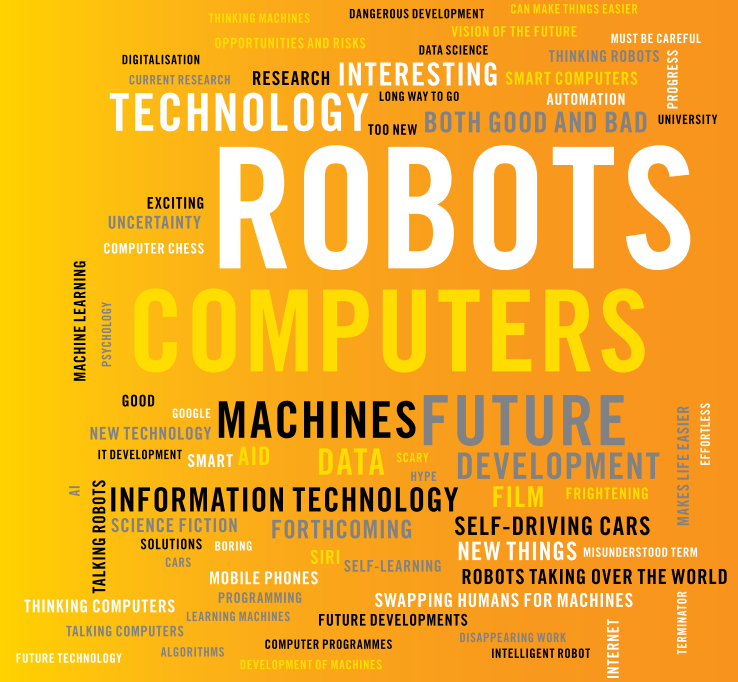


# “AI” CONJURES UP THOUGHTS OF ROBOTS

Respondents were asked to state what comes to mind when they hear the term artificial intelligence. About a quarter (26 percent) replied *nothing in particular*. This response is more common among those with only a compulsory-level education (48 percent) than among people with an upper secondary or university education (25 and 16 percent, respectively). Among those who gave an association with AI, some of the most common responses included *robots*, *computers*, *the future* and *machines*. Words with positive connotations can also be seen, such as *progress* and *effortless*, as well as negative words such as *frightening* and *scary*.

*The image shows the words that respondents associate with artificial intelligence. The option ‘nothing in particular’ has not been included in the word cloud. Responses have been slightly reworded and grouped together to create the word cloud.*

NUMBER OF RESPONDENTS: 1,021



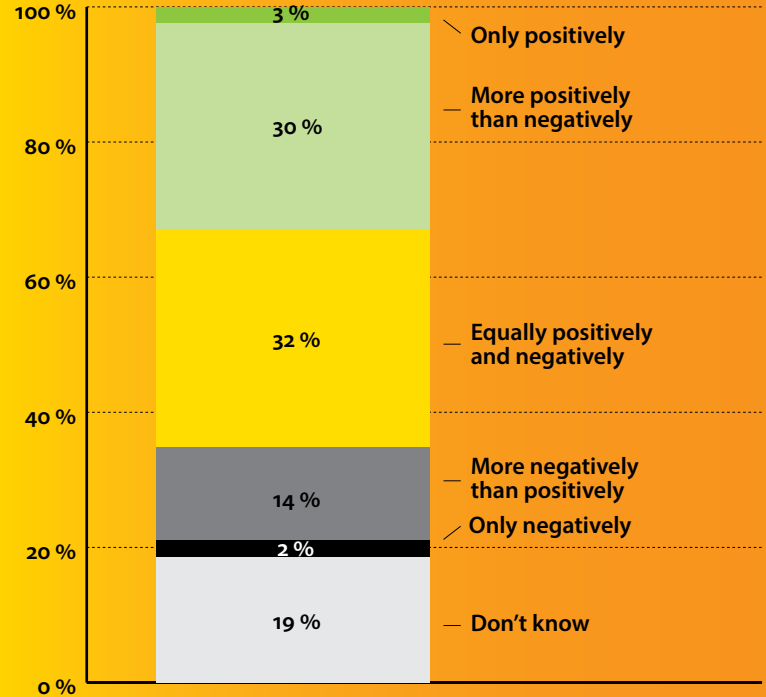
# THE IMPACT OF AI IN THE FUTURE?

Swedes have a cautiously positive attitude to how AI will affect us in the future. Thirty-two percent believe that developments in AI will affect us *equally positively and negatively*, 30 percent believe that developments will affect us *more positively than negatively*, while 14 percent believe *more negatively than positively*. Only 3 and 2 percent, respectively, believe that developments will be only positive or only negative. Among respondents with a university degree, 40 percent respond more positively than negatively, compared to 24 percent of those who do not have a university education.

One in five (19 percent) respondents say they *don't know*, which indicates that it is a difficult question to answer.

*The graph shows responses to the question **How do you think developments in artificial intelligence, AI, will affect us in the future?***

NUMBER OF RESPONDENTS: 1,021



# ABOUT THE SURVEY

The VA Barometer has been conducted annually since 2002. The survey is conducted via telephone interviews with a stratified random sample of the Swedish population, around 1,000 people (this year 1,021), aged between 16 to 74 years old. The response rate in this year's survey was 46 percent. Respondents are representative in terms of gender, age and place of residence. The results have been weighted retrospectively to ensure representativeness in terms of level of education. Only statistically significant comparisons between the response groups are mentioned. Note that percentages may not always add up to 100 due to rounding.

Interviews are conducted during September/October and are completed before the yearly announcement of the Nobel Prize winners due to media attention surrounding the Nobel Prize. For this year's survey, the field period ran from 2 to 29 September 2019.

Exquiro Market Research has carried out the interviews since 2012. A reference group with expertise in survey methodology helps to formulate the questions. The interview questions can be downloaded at [www.v-a.se](http://www.v-a.se).



**VA (Public & Science)** promotes dialogue and openness between researchers and the public, especially young people. The organisation works to create new and engaging forms of dialogue about research. VA is also developing new knowledge on the relationship between research and society through surveys and studies. Its members consist of some 90 organisations, authorities, companies and associations. In addition, it has a number of individual members.



Vetenskap & Allmänhet

*Read more at [www.v-a.se](http://www.v-a.se)*