

## AI AND RESEARCH NEWS IN FOCUS

## VA Barometer 2023/24 - VA Report 2023:4

ISSN: 1653-6843
ISBN: 978-9I-89039-23-O
Published by: Vetenskap \& Allmänhet, VA
Grev Turegatan, II4 46 Stockholm
E-mail: info@v-a.se
Website: www.v-a.se
Facebook/Instagram/LinkedIn/TikTok/X: vetenskapoallm YouTube: vetenskapoallmanhet

Authors: Gustav Bohlin, Erik Falk, Lina Rådmark
Translation: Helen Garrison
Photography: Erik Cronberg, Gabrielle Beans, Vendela Kjerner,
Klas-Herman Lundgren, Martin Holtmann, Adrian Pehrson, David Borgström Graphic design: Pelle Isaksson

More information about the survey can be found at www.v-a.se
You are welcome to quote from this report provided that VA is cited as the source.

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

- More cautious outlook on the future of AI
- Age influences how Swedes consume research news
- Growing interest in social science research
- Confidence in researchers remain high

The VA Barometer 2023/2024 is based on I,OI7 telephone interviews with a representative sample of the Swedish population aged $16-74$. It is the 22nd Barometer survey since VA (Public \& Science) was founded in 2002.

Read more about the survey on page 30 . The interview questions can be downloaded at www.v-a.se.

## LAST YEAR THROUGH SWEDISH EYES

## The AI too

 ChatGPT is launched by the company OpenAI, attracting 100 million users within two monthsThe International
Criminal Court in
the Hague issues
an arrest warrant
for Russian
President Vladimir
Putin, for war
crimes during the
invasion of Ukraine.
the Hague issues an arrest warrant for Russian
President Vladimir
Putin, for war
invasion of Ukraine

The IPCC releases its sixth assessment repor which, among other things, states that emis sions of greenhouse gases must peak before 2025 at the latest in order to limit global warming to 1.5 degrees.

An open letter signed by a thousand people active in the field of Al calls for a pause in the development of Al systems for six months, to ensure that the
systems do not present a risk to society.
Germany
shuts down
its last three
nuclear power
reactors.

Germany
its last three
nuclear power
reactors.

Charles III is crowned King of Great Britain, following the death of Queen Elizabeth II.

An early drought affects
large parts of Sweden.

The government announces that Marcus Wandt will be the next Swedish astronaut to go into space. The trip will take place sometime in 2024.

The Russian Wagner Group, led by Yevgeny Prigozhin, begins an armed rebellion against Russia's military over the handling of the invasion of Ukraine. The rebellion is called off after negotiations led by Belarus President Aleksandr Lukashenko.

| Oct | Nov | Dec | N | Jan | Feb | March | April | May | June | July | Aug | Sept |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

The Tidö Agreement
is set out by the Christian Democrats, the Liberals, the Moderates and the Sweden Democrats. Three days later, Ulf Kristersson is Ulf Krist as is elected as the new prime minister by the Swedish Parliament.

The Swedish Nationa
Board of Health and
Welfare is tasked by the government to counteract rumour-spreading and disinformation about social services' care for Muslim children.

Europe's worst earthquake in 100 years: Turkey and Syria are hit hard with more than 30,000 killed.

## The commercia

 bank Silicon Valley Bank is closed by US authorities, creating turbulence in the financial market. The Swedish pension company Alecta loses six billion kronor.
## The Swedish

 Parliament decides that Sweden will apply for NATO membership ending 200 yearsof non-alignment

The Jetline roller coaster at Gröna Lund theme park in Stockholm derails, resulting in one killed and several injured

To tackle inflation,
the Riksbank raises the policy interest rate for the seventh time since spring 2022.

After previously announcing it would leave the International Space Station after 2024, Russia decides to extend its support until 2028.

This year's VA Barometer interviews are conducted.

The Earth's global average temperature rises 1.5 degrees above pre-industrial times for the first time. The three-month period June-August was the warmest on record

## HIGH CONFIDENCE IN RESEARCHERS

Almost nine out of ten (87 percent) Swedes have fairly or very high confidence in researchers at universities, while 55 percent have the equivalent confidence in researchers at companies. Confidence in researchers at companies is higher among men than among women: 60 percent of men, compared to 50 percent of women, have fairly or very high confidence in researchers at companies.

The percentage of Swedes with fairly or very high confidence in science journalist and news journalists are 73 and 48 percent respectively. Those with a university education have greater confidence in both journalists and researchers compared to those without.

The graph shows the proportion of Swedes with fairly or very high confidence in researchers at universities, researchers at companies, science journalists, and news journalists. Four-point scale: Very high, Fairly high, Fairly low, Very low).
number of respondents: I,OI7


## ...AND IN RESEARCH

Eight out of ten Swedes (79 percent) have fairly or very high confidence in research. This is slightly less than last year when the corresponding proportion was 84 percent.

As in previous years, there is a strong correlation between confidence in research and level of education, whereby Swedes with a university education have higher confidence in research than those without: 85 percent of Swedes with a university education, compared to 74 percent among those without a university education, have either fairly or very high confidence in research.

The graph shows responses to the question: Generally speaking,

## how much confidence do you have in research?

NUMBER OF RESPONDENTS: I,O52 (2018) I,O2I (2019) I,OI8 (2020) I,O16 (2021) I,009 (2022) I,OI7 (2023)

## RESEARCHERS ARE BENEVOLENT

Researchers want to make the world better for ordinary people. This is the opinion of nearly two-thirds ( 63 percent) of Swedes.

One in two Swedes ( 50 percent) believe that researchers produce accurate knowledge about the world.

A smaller percentage ( 14 percent) thinks that researchers are transparent about who funds their work.

There is a clear correlation between confidence in researchers and responses to these questions. Swedes who agree with the three statements to a fairly or very high extent have higher confidence in researchers compared to those who agree to a low extent.

The graph shows responses to the questions: To what extent do you think researchers ... want to make the world better for ordinary people? ... produce accurate knowledge about the world?
... are transparent about who funds their work?
nUMBER OF RESPONDENTS: I,OI7

## GREATEST INTEREST IN MEDICAL RESEARCH

Swedes are most interested in research in medicine and the natural sciences. Sixty-one and sixty percent of the respondents are fairly or very interested in research in these subjects, respectively.

When it comes to social science research, just under half (47 percent) of the respondents are fairly or very interested, while the education sciences and the humanities elicit slightly lower interest (both 39 percent).

The graph shows responses to the question:
How interested are you in research in ...?
nUMBER OF RESPONDENTS: I,OI7

## SOCIAL SCIENCES SEE AN INCREASE

Interest in research within the social sciences has increased by 14 percentage points since 2019. Particularly high interest in the social sciences is found among residents living in and around larger cities, where the proportion with fairly or very high interest is 54 percent.

Interest in research within the education sciences and humanities has also increased since 2021, although no clear differences are observed compared to 2019.

Interest in research within medicine has slightly declined over time. For research within the natural sciences and technology, there are no statistically significant differences between the years.

The graph shows the proportion who answer fairly or very interested to the question: How interested are you in research in ...? Five-point scale: Very interested, Fairly interested, Partly interested, Not particularly interested, Not at all interested.
nUMBER OF RESPONDENTS: : I,O2I (2019) I,OI6 (202I) I,OI7 (2023)


## YOUNG PEOPLE KEEN TO DO RESEARCH

Among younger people (aged $16-29$ ), nearly one in four ( 23 percent) respond yes when asked whether they would like to work in research in the future. Almost as many ( 17 percent) respond maybe.

Interest in working in research is substantial amongst other age groups as well, (where $17-20$ percent answer yes). Both men and women express an equal desire to do research.

Interest in working in research is highest among Swedes with a university education and those living in and around larger cities. Additionally, proximity to research - such as having a family member, relative, or close friend who is a researcher - positively influences the desire to become a researcher.

The graph shows responses to the question: Would you
like to work as a researcher in the future?
nUMBER OF RESPONDENTS: 255 (16-29 YEARS) 264 ( $30-44$ YEARS) 264 ( $45-59$ YEARS) IIo ( $60-65$ YEARS)

## MOST WANT TO RESEARCH MEDICINE

Those who answered yes or maybe to the question of whether they would like to work in research in the future prefer to focus on doing research in the field of medicine. Other common responses include AI, the climate and environment, and technology.

Both $A I$ and the climatelenvironment are more prevalent responses today than in 2021, the last time the question was asked. However, medicine was the most popular subject area then too.

Preferences for research subjects differ between men and women. Medical research tops the list for both genders, but men are more inclined to choose technology and the natural sciences, while women tend to choose children and youth, the climate and environment, and language.

The illustration shows responses to the question: What would you like to do research about? Responses have been slightly reworded and grouped together to create the word cloud.
number of respondents: 3 I4


## AI BOTH EXCITING AND FRIGHTENING

When asked about their thoughts on the concept of artificial intelligence，many respondents mention robots，the future，and ChatGPT．We see both positively charged words such as aid or development，as well as negative words like frightening or uncertainty．

Eleven percent have no specific association with AI， a significantly lower percentage than in 2019 when one－fourth （ 26 percent）responded with nothing in particular．

The word cloud illustrates 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：I，oI7


## MORE CAUTIOUS OUTLOOK ON AI

Swedes seem to have a more cautious view of how AI will impact us in the future compared to in 2019. Half of the respondents ( $s$ I percent) believe that its development will affect us equally positively and negatively. The corresponding percentage in 2019 was 32 percent. The proportion of those who believe that developments in AI will impact us more positively than negatively has decreased from 30 to 2 percent, while the percentage believing it will impact more negatively than positively has increased from I4 to 18 percent.

One in twenty ( 5 percent) responds don't know in this year's survey, compared to one in five (19 percent) in 2019. Swedes with a university degree have a more positive view of how AI will impact us in the future compared to those without a university education.

The graph shows responses to the question: How do you think the development of artificial intelligence, AI, will affect us in the future? NUMBER OF RESPONDENTS: I,O2I (2019) I,O17 (2023)


## WHY APPREHENSION OR HOPE?

Swedes who believe that AI will have a positive impact in the future often justify it by stating that AI improves efficiency and makes easier, and that they have a positive view on development in general. Other common justifications include AI's assistance in decision-making and its potential in healthcare.

Among those who believe that AI will have a negative impact, common reasons include uncertainty around AI and the risk of increased unemployment. Justifications such as people becoming lazier, the possibility of AI being misused, and the spread of false information were also frequently mentioned.

Common responses to the question: For what reason did you choose only positively/more positively than negatively or only negatively/ more negatively than positively to the question about how do you believe AI will impact us in the future?


## LESS RESEARCH NEWS AMONG THE YOUNG

Six out of ten Swedes ( 60 percent) say that they consume news about research every week. There are no significant differences compared to 2019 and 2021 when the question was previously asked.

Among younger people (aged 16-29), 47 percent access research news every week. The highest consumption of research news is observed amongst the age groups $30-44$ years ( 70 percent) and $60-74$ years ( 68 percent). Those with a university education as well as those who have a family member, relative, or close friend working in research state that they consume research news more frequently than those without a university education or who don't have a close connection to a researcher.

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: 255 (I6-29 YEARS), 264 (30-44 YEARS), 264 ( $45-59$ YEARS), 234 ( $60-74$ YEARS)

## RESEARCH NEWS VIA DIFFERENT CHANNELS

There are significant differences between different age groups and the channels through which individuals access news about research and science. Among older Swedes (aged 60-74), the most common channels are TV, radio, and daily newspapers. Younger people (16-29 years) primarily consume research news through social media, YouTubelvideo clips, and TV.

The most notable difference is in the use of social media and YouTubelvideo clips, where there is a difference of 52 and 44 percentage points between the youngest and oldest age groups.

The graph shows the percentage of respondents answering yes to the question: Do you access news about research and science via (channel)? (Each channel includes web-based versions).
(Yes/No), among respondents of different ages.
NUMBER OF RESPONDENTS: I OI7 (TOTAL) INCLUDING 255 (I6-29 YEARS) AND 234 (60-74 YEARS)


## 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 $\mathrm{I}, \mathrm{ooo}$ people (this year 1,017), aged between 16 to 74 years old. The response rate in this year's survey was 42 percent. The response rate has decreased over time since the survey began, but has stabilised somewhat in the last five years, when it has varied between 42 and 46 percent.

Respondents are representative in terms of gender, age and place of residence. The results have been weighted since 2014 (2013 for confidence in researchers too) to ensure representativeness in terms of level of education. Only statistically significant comparisons between the response groups are commented. Interviews are conducted between August and October and completed before the yearly announcement of the Nobel Prize laureates due to media attention surrounding the Nobel Prize. For this year's survey, the field period ran from I4 August to I October 2023. Exquiro Market Research has carried out the interviews since 2012. A reference group with expertise in survey methodology helps to formulate the questions.

VA (Public \& Science) promotes dialogue and openness between researchers and the public. 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 over IOO organisations, including including authorities, companies and associations. In addition, it has a number of individual members.

Read more at www.v-a.se/english

Vetenskap \& Allmänhet

