



Article

Doing Visibility: Understanding Gender and Discipline Differences in Science Communication on Social Media and in the Press

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Abstract: Nowadays, visibility is playing an increasingly important role in science communication. The topic is particularly significant for female experts, as their visibility not only inspires other women but also challenges gender stereotypes in academia. This article provides the first insights into the actual public visibility of scientific experts in Germany and presents potential factors that influence visibility. The analysis is based on the theoretical concept of *doing visibility* and identifies factors that influence the decision to increase visibility via social media. Our complex dataset comprises 139 experts (59 from computer science and 80 from social sciences), who took part in our online survey about visibility and personal information. Additionally, we tracked the respondent's online footprint to ascertain their actual visibility in social media and press. The study reveals significant differences in creating visibility and the perception of visibility by sex and discipline. Computer scientists are more active on social media, while male social scientists are more visible in the press. Male computer scientists (57%) post their work on social media most frequently, followed by female computer scientists (35%), female social scientists (24%), and male social scientists (17%). Furthermore, the engagement on social media depends on the discipline, age, and media affinity of the experts. Overall, female experts gain less visibility on LinkedIn and in the press, although the gender differences in IT are smaller in this respect. Based on the results, we discuss potential reasons for the unequal distribution of visibility and suggest targeted interventions to close the gender visibility gap, such as (social) media or interview training. In addition, organisations and media representatives should be trained to actively contribute to breaking down gender stereotypes.



Academic Editors: Kathryn Shine and Robert L. Peralta

Received: 5 December 2024

Revised: 28 January 2025

Accepted: 18 February 2025

Published: 25 February 2025

Citation: Spagert, Lina, and Elke Wolf. 2025. *Doing Visibility: Understanding Gender and Discipline Differences in Science Communication on Social Media and in the Press*. *Social Sciences* 14: 138. <https://doi.org/10.3390/socsci14030138>

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Keywords: visibility; doing visibility; science communication; gender equality; gender stereotypes; social media; LinkedIn; news media; women in the news

1. Introduction

The dissemination of scientific knowledge is essential for social and technological progress. New knowledge contributes to the improvement of everyday life, the development of new technologies and solutions to social, ecological and economic challenges. Likewise, access to research results enables citizens to participate actively in evidence-based political discussions and to resist populist forces that sow misperceptions and spread fake news. Finally, transparency and accessibility to research findings is a precondition of trust and credibility in science, without which the potential of scientific knowledge for social good would remain untapped (Jarren 2017).

Ideally, the public should therefore be informed as comprehensively as possible about new scientific findings. This requirement goes far beyond publication in scientific journals. However, good science communication is costly, both for the scientists who have to give interviews, participate in photo shootings, and proofread the articles, and for their institutions, which need to build bridges to newspapers and popular science magazines. Media companies also need to invest time and money in translating the messages of scientists, who are often not particularly media-savvy, into everyday language without becoming inaccurate. As a result, only selected scientific studies are presented to the public in a popular science format.

Of course, science communication not only makes the findings of research visible but also the researchers themselves. Given the omnipresent gender differences, it is not surprising that female researchers are far less involved in science communication and less visible in the media. In Germany, 74% of experts on television are male, although there are some disciplines such as the healthcare or education sector, where more women than men are working (Prommer et al. 2021). The STEM fields provide an interesting exception: although only 15% of those working in STEM in Germany in 2020 were women, they accounted for 24% of STEM experts in the media (Prommer et al. 2021). The Geena Davis Institute has been monitoring the presence of STEM women in film and television for many years. From 2007 to 2017, it noted that 37% of STEM researchers were women. This percentage has only increased by one percentage point in the years up to 2022 (Conroy et al. 2024).

A similar picture emerges at scientific conferences. Keynote speeches and conference contributions are more frequently given by men, even though there is a growing awareness of the need to avoid all-male panels. Numerous disciplines therefore report a gender speaker gap (Cooper et al. 2018; Mehta et al. 2018; Schroeder et al. 2019). Not surprisingly, women are less likely to be recognized for their achievements. Only 6.7% of all Nobel Prize winners are female (Meta IFiF 2023). In addition, it is now known that some prizes have been awarded to men, even though the intellectual achievements were predominantly made by women (e.g., the cases of Lise Meitner and Rosalind Franklin).

Regardless of the causes behind the lower visibility of female scientists—whether this is due to discrimination or behavioural differences between men and women—these gender gaps hinder the positive impact that visibility can have on the professional development of women in science, as well as on perceptions of gender.

First of all, visibility contributes significantly to a scientist's reputation among their peers and the broader academic community (Eisenegger 2005; Schimank 2010; Shepherd 1981). Such recognition leads to more attention for one's own topics or opinions and also has economic effects as it is pivotal for advancing career prospects, securing funding, and obtaining senior positions in academia (Paulitz and Wagner 2020). Second, female scientists serve as role models. Their prominence can thus positively affect the career paths and performances of other women, potentially inspiring them to pursue similar success (González-Pérez et al. 2020; Quimby and Santis 2006). Finally, visibility helps to combat gender stereotypes that disadvantage women by presenting female experts as equally competent and valuable contributors to men within their discipline of expertise (Wharton 2005). Increasing visibility can challenge biases that otherwise undervalue women's achievements (Goldin and Rouse 2000; Lincoln et al. 2012; Ross et al. 2022). In sum, enhancing visibility is crucial for the individual advancement of female scientists, inspiring the next generation, and fostering gender equity in the academic sphere.

But of course, gender is not the only characteristic that favours or hinders the visibility of experts. The topic, and hence the discipline on which the expert is presenting obviously has a major influence on public interest and visibility in various media. Some disciplines, for instance medicine, have a stronger urge to make their results accessible to the public

in order to generate their added value for society (such as cancer research) (Clegg Smith et al. 2010). The COVID pandemic also revealed that a single event can have a major impact on interest in certain topics. While the health and virology sector received a lot of attention, the social sciences received little media coverage (Joubert et al. 2022). In addition, Neresini et al. (2023) showed for Italy that certain scientific experts gained high media visibility during the COVID-19 pandemic due to their expertise in virology or epidemiology, even if they had lower academic reputations. This implies that topics and disciplines receive different levels of media attention depending on current social events and political debates.

As illustrated above, visibility is not trivial but is subject to various mechanisms that give some people more visibility than others. Furthermore, creating visibility does not come for free but requires resources, such as time, skills, or support (e.g., from their organisations). With this in mind, we want to answer the main question of whether there is a gender gap in public visibility among German experts and to identify factors that play a role in expert's visibility. In detail, the present article deals with the following questions:

- (1) Are there gender and discipline differences in terms of the visibility of experts in the media?
- (2) Which factors determine an expert's actions for visibility on social media?
- (3) Is there a difference in the perception of male and female experts? Do male and female experts differ with regard to their responses to the presentation of their results and achievements?

We apply the theoretical framework of *doing visibility* to analyse the gender visibility gap among experts in Germany (see Section 2). Based on this framework, we obtain a hypothesis on the difference in visibility between men and women, according to discipline and other determining factors (see Section 2.3). In Section 4 we test these hypotheses using a unique dataset that includes a set of personal characteristics of the experts as well as a comprehensive footprint of their work in the media (see Section 3). This allows us to link individual resources to different indicators of visibility in the public. Following our theoretical model, we use different sets of determinants to analyse action for visibility (Section 4.1) and their perception (Section 4.2) of male and female experts in the media. Section 5 summaries the results, and we draw our final conclusions in Section 6.

2. Visibility of Experts in the Public—Concept and Determining Factors

To begin with, we want to establish a common understanding of visibility. What do we mean by visibility and how can we understand the emergence of visibility? To approach this question, we apply the concept of *doing visibility* by Philipp et al. (2025), a comprehensive model which describes the complex process of creating visibility.

2.1. Doing Visibility

Doing visibility is derived from the practice theory of *doing gender* (West and Zimmerman 1987) and refers to a continuous process between the action for visibility and the perception of visibility, or acting, seeing, and being seen. First, visibility must be created through concrete activities, either by experts themselves or with the help of their institutions or the media. These actions for visibility include everything that a person does to become visible, for example, publishing an article, holding presentations, giving an interview, participating in a talk show, etc. (Philipp et al. 2025).

Next, these actions for visibility must be recognized by others to be considered successful. Actions for visibility that are not perceived by the “audience” do not contribute to one's visibility. This process is called perception of visibility. Altogether, *doing visibility* is an interpersonal process, and individuals always take on the role of both sides: we

simultaneously produce visibility and perceive visibility. In practice, the experiences with our own visibility or the perception of other people's visibility influences one's own actions for visibility. The term "doing" therefore refers to the ongoing nature of the process of construction, indicating that it is not a complete or final state (Philipp et al. 2025).

This process is influenced by determining factors, which can affect both actions for visibility and perception of visibility. These conditions include enabling structures, such as the available time resources or support from personal networks or one's organisation, as well as factors that have a subconscious effect. For example, socio-structural factors, such as gender or age, social norms, and stereotypes, not only affect whether and how experts try to become visible, but also the way in which we perceive and evaluate these activities. They probably even have an influence on the above-mentioned individual resources for visibility and supportive structures (Philipp et al. 2025).

2.2. How Do Experts Create Visibility in Public? (Action for Visibility)

There are different ways to become visible as a scientific expert in public, and scientists even see it as part of their job to talk about their research in media (Peters 2013). A basic distinction can be made between social media and the public media, such as newspapers, television, and radio (Könneker et al. 2019). The former are characterized by the fact that anyone can decide to post on social media, as there are no gatekeepers in the sense of journalists and editors. We focus on the social media activity of scientists, since using these platforms allows scientists to easily and quickly establish their presence. Collins et al. (2016) analysed the social media use of scientists from 31 different (mostly English-speaking) countries in 2013 and showed that Twitter (X) was the most used tool for scientific communication among academics, followed by Facebook, LinkedIn, WordPress, Google Scholar, Instagram, ResearchGate, and other social media platforms. In Germany, LinkedIn was the most used professional networking platform in 2022 (Heintze 2022). There is also some evidence that these activities in social media have positive spillover effects on scientists' visibility in academia (Eysenbach 2011; Peoples et al. 2016; Thelwall et al. 2013; de Winter 2015). It is therefore interesting to understand the underlying factors which determine the social media activity of scientists. In the following section we discuss determinants that influence the process of *doing visibility*.

2.2.1. Sociodemographic Factors

First, we can discuss the influence of sociodemographic factors on visibility. Different disciplines might have different approaches to visibility. Ke et al. (2017) analysed Twitter posts from 45,867 scientists and discovered that computer scientists and social scientists in particular used Twitter disproportionately compared to the total number of scientific employees. There were also differences in *how* members of different disciplines used Twitter. Natural scientists, for example, were more likely to do scientific communication on Twitter than sociologists, who used Twitter more for non-scientific communication (Holmberg and Thelwall 2014). This fits with the results of Könneker et al. (2019), who asked almost 1000 researchers from all over the world about their science communication. In that study it was found that computer scientists participated more in social media discussions, published more videos, and engaged more in blogging than scientists in other disciplines.

Another possible influencing factor is gender. In 2019–2020 there was no significant gender difference in Germany concerning the use of social media in general, with 75% of women and 77% of men engaging in social media activities (Faktenkontor 2024). A survey on the Twitter use of 3148 health science researchers also confirmed this finding among researchers: female and male health scientists used Twitter equally often (Zhu et al. 2019). But there are differences in *which* social media platforms as well as *how* social media is used.

Female researchers post significantly less on Twitter in comparison to male researchers (Zhu et al. 2019). A survey on German social media users from 2018 to 2020 showed that women used more platforms with a focus on pictures and messaging (such as WhatsApp, Instagram, or Snapchat) while men use more professional websites and video platforms (such as Twitter, Xing, LinkedIn, Twitch, or TikTok) (Beisch and Schäfer 2020).

Social media usage also differs according to age. In Germany, LinkedIn is mostly used by people aged 20–49 and is less frequently used by people older than 50 or younger than 20 years old (Heintze 2022). Koch (2023), who analysed the social media usage in Germany, found out that individuals in the age bracket of 14–29 years old mostly used different social media platforms, such as Instagram, TikTok, or LinkedIn, except for Facebook, which was used mostly by people aged 30–49. People above 50 years used social media less often or very rarely (Koch 2023).

2.2.2. Personal Resources

Next, we explore the personal resources which an individual can use to increase their visibility. Creating visibility requires resources in terms of skills, time, and sometimes even money. Increasing visibility on social media platforms is no longer as trivial as it used to be. Algorithms that determine the success of a contribution change constantly, become more and more inscrutable, and differ according to the social media platform in question. This suggests that a profound knowledge of these mechanisms and consistent compliance with the rules of the game is crucial for obtaining “reach” from a content contribution. Today, there are also numerous guides, books, workshops, and tools on how to increase one’s visibility on social media. (Gebel 2020) shows that knowledge of the underlying mechanisms of these online platforms and media affinity can help to increase one’s visibility. Thus, people with a high level of media affinity might have an advantage in terms of obtaining visibility.

Another important personal resource is time. To create visibility for the public takes a lot of time, time which is then cut from performing other academic tasks (Kryzys Acord and Harley 2013). According to actual time use surveys, women still do most of the unpaid housework and care work, irrespective of income and qualification (Bundesamt für Statistik 2021; Samtleben 2019). This creates a greater lack of time among women and makes it more difficult for them to invest the time required to achieve visibility. This situation intensified during the COVID pandemic, when it was even harder for women to balance family life and their careers (Kohlrausch and Zucco 2020). As a result, female scientists published fewer articles than men during the pandemic compared to the period before the pandemic (Andersen et al. 2020; Cui et al. 2022; King and Frederickson 2021; Ribarovska et al. 2021).

2.2.3. Organisational Resources

Organisations can benefit from the personal visibility of their employees, because this may enhance corporate reputation and trust, increase outreach, and open new business opportunities (Ivens and Schaarschmidt 2015). Concerning universities, the new governance of science compels them to intensify their legitimization efforts and increases their interest in visibility (Jansen 2007; Kehm and Lanzendorf 2007). Hence, depending on the expected benefits, companies or science organisations establish structures and policies enhancing the visibility of their employees. However, the distribution of personal support depends on power relations within organisations. According to Bourdieu (1988), not only the job position but also other factors such as social background, discipline, or the prestige of academic training influence the extent to which power and opportunities are allocated among individuals. This implies that organisational resources can be interpreted as capital that is not made available to everyone equally.

Marcinkowski et al. (2014) showed that the activity of the internal PR departments had the most prominent influence on the media efforts of scientists. The more often PR professionals ask for news items, the stronger the effect of scientists complying with such demands, especially when it comes to researchers' self-initiated and PR-assisted press releases. Researchers at the University of Kuwait also found out that insufficient support and encouragement from one's university was the most inhibiting factor to use social media for the dissemination of research findings. Another 47.2% of the scientists answered that time was a limiting resource (Al-Daihani et al. 2018). Time is a precious resource, both in the realm of science (Arpin and Granjou 2015) and in the process of transferring scientific findings to society (Felt and Irwin 2024). Hence, organisational support and available time can influence scientists' use of social media to become visible.

2.3. How Are Experts Perceived by Society? (Perception of Visibility)

In order to fully grasp the complexity of visibility according to the concept of *doing visibility*, we also address the perception of visibility. Public perception is much more difficult to measure, as the "potential perceivers" cannot be precisely identified and questioned. We therefore use other indicators that provide information about how experts are perceived by the public.

In the context of social media, a person's number of followers is an adequate indicator of one's perception of visibility for two reasons. Firstly, if you decide to follow a person, you must have become aware of this person before. Second, when you follow somebody, you receive information and posts from them in your newsfeed, which creates continuous visibility (LinkedIn 2024).

Another indicator of perceived visibility in public is press articles. German newspapers reach over 80% of the population through print and digital media (Zeitungsmarktforschung Gesellschaft der deutschen Zeitungen 2023). For example, the weekly newspaper "Die Zeit" had around 1.66 million readers in 2022. Due to the high reach of mainstream newspapers, it can be assumed that experts who appear in newspaper reports are perceived more and thus become visible. In contrast to social media, a person's mention in published media depends on the evaluation and thus the perception of journalists or publishers of the newspaper. We therefore argue that the contributions given by experts in newspapers should rather be interpreted as indicators of describing their public perception. According to (Crettaz von Roten 2011), journalists apply a specific logic when looking for appropriate interview partners. The most significant criteria for selecting experts are the position, age, and gender of the person. Reports from journalists suggest that women are more likely to reject enquiries than men (Graydon 2014; Rougas 2017).

In this article, we analyse how experts use social media to create their visibility, in order to answer the first research question of whether there are gender- and discipline-specific differences in visibility. Based on the theoretical background and empirical preconditions, we expect that male experts use social media more often than female experts (H1) and that computer science experts use social media more often than social science experts (H2). Concerning the perception of visibility in public, we ask how visible experts are in the press and whether female experts reject media invitations more often than male experts. Based on the theory presented, we expect that male experts are perceived more in public than female experts (H3) and that in Germany, social science experts are also perceived more in the press than computer science experts (H4). Additionally, we use our data to measure the impact of selected sociodemographic, personal, and organisational factors on the decision to become visible on social media, in order to answer the second research question. This also helps us to gain empirical information on the concept of *doing visibility* to better understand which conditions support people in creating visibility.

3. Methods and Measurements

3.1. Methods

To answer our research questions and according to the concept of *doing visibility* (Philipp et al. 2025), we need data on both components of visibility (action and perception) and individual information on personal characteristics. Therefore, we conducted a pseudonymised online survey on visibility behaviour, focusing on the personal and socio-demographic characteristics of German-speaking experts. The questionnaire was developed based on the theoretical framework of the *doing visibility* model as well as insights gathered from expert interviews on the visibility of scientists. To ensure reliability, we carried out a pre-test with 12 people from our target group. Furthermore, we only used questions with predefined answer categories so that the potential influence of personal interpretations was limited, and a high validity of the results was achieved. In addition, we tracked the respondent's online footprint regarding their actual visibility on social media and in the press. To achieve this, we searched for the names of the selected experts in major German newspapers¹ and counted the number of all press articles. Additionally, we checked whether the experts had a LinkedIn profile and recorded the number of LinkedIn posts and followers. These two sources of information were matched, which provided us with a complex dataset of respondents' personal characteristics, as well as a comprehensive picture of their observable visibility in the media. Data were analysed with the statistic software IBM SPSS (29). To test our hypotheses H1–H3, we used descriptive statistics, such as means and shares. To test group-specific differences, we performed *t*-tests for metric variables and chi-squared tests for categorical variables. The one-way ANOVA test was applied to analyse differences between more than two groups and the Bonferroni test allowed us to see between which groups the differences were significant. A binary logistic regression analysis was used to predict the influence of determining factors on the action of visibility and to answer H4. We used social media posts as dependent variable and created three models where we integrated the set of independent variables in a step-by-step process. As predictors, we used the following variables: gender, discipline, age, affinity for social media, housework and care work, organisational support, and time leeway at work. To have a goodness-of-fit measure for logistic regression, we used Nagelkerke's R^2 , which indicates how well the model explains the variation in the binary outcome variable. The test statistic is a scaled value (0 to 1) for easier interpretation and comparison between models (Nagelkerke 1991).

To define our basic population, we selected experts from the social sciences and computer science on a previously defined topic. These two disciplines were chosen to allow for a maximum contrast concerning gender balance and professional culture. As the topic itself can influence one's visibility, we made sure that we did not compare experts on a very popular topic with experts whose knowledge related to more niche topics. To identify a suitable topic within the two disciplines, we set three criteria. Firstly, the topic was agreed upon to be particularly relevant, so that there were enough experts in this field. Secondly, the topic was agreed upon to have already been established for some time, so that experts could also establish themselves in this field in the long term. Thirdly, the topic was agreed upon to be narrow enough so that we could clearly assign the experts to the discipline of social sciences or computer science, respectively. To select the most relevant topics in these fields, we searched different national and international journals, conferences, and publishers for special issues and articles for the period 2017–2021. The topics and titles of articles identified were then categorized. In the case of the social sciences, "poverty" was the most common category. Since this area also satisfied the two other criteria, it was our first choice. In computer science, "digitalization of business processes" was the most common topic. As it was difficult to identify whether the experts on this topic had a

background in computer science or in business, we opted for the next relevant topic, which was “software architecture”. For this topic, we were able to find experts with a computer science background. Furthermore, the topic satisfied the other criteria, since it was neither a trend nor a niche topic.

In a second step, we searched journals and publishers for experts on the chosen topics. There were two criteria for the selection of experts. First, the experts ought to have at least one publication on the selected topic as a (co)author, either in a journal or a book, or a presentation at a conference. This criterion for the selection of experts was set rather low to create greater diversity among the experts (from the less visible to the very visible) and to achieve a gender balance, especially among computer scientists. The second criterion was to ensure that there was a way to contact the experts, such as through an email address, phone number, LinkedIn profile, etc.

With these criteria, we selected 412 experts, who were contacted via email in November 2022 and invited to participate in a pseudonymised online questionnaire covering questions on visibility and personal characteristics. The survey period started on 3 November 2022 and ended on 17 January 2023. A total of 139 experts consented to the pseudonymised research design and took part in our survey; thus, we had a very high response rate of 34%.

3.2. Sample Characteristics

The gender distribution in our sample was rather equal, with 45% women and 55% men taking part. Concerning disciplines, social scientists were more represented (42% computer scientists and 58% from the social sciences). Table 1 below summarizes the relevant characteristics of the sample.

Table 1. Sample characteristics.

	Total n (%)	Male n (%)	Female n (%)
Discipline			
Social sciences	80 (58%)	35 (44%)	45 (56%)
Computer science	59 (42%)	42 (71%)	17 (29%)
Age			
21–30	2 (1.4%)	0	2 (3.2%)
31–40	28 (20.1%)	9 (11.7%)	19 (30.6%)
41–50	35 (25.2%)	25 (32.5%)	10 (16.1%)
51–60	42 (30.2%)	25 (32.5%)	17 (27.4%)
>60	31 (22.3%)	16 (23.4%)	13 (21.3%)
Missing	1 (0.7%)	-	1 (1.6%)
Highest degree			
Habilitation	17 (12.2%)	10 (13%)	7 (11.3%)
Doctorate	83 (59.7%)	47 (61%)	36 (58.1%)
Master’s degree, diploma	31 (22.3%)	16 (20.8%)	15 (24.2%)
Bachelor’s degree	3 (2.2%)	2 (2.6%)	1 (1.6%)
Others	5 (3.6%)	2 (2.6%)	2 (4.8%)

3.3. Measurements

To measure *action for visibility* in public, we asked experts whether they used social media to post about their work (“I post about my work/research on social media”² (1 = yes; 0 = no)). Since LinkedIn is mostly used in a professional context and users can be easily identified, as they use their real name instead of a pseudonym, we focused on that platform and used our web analytics to check whether they had a profile and how often they posted content about their work on LinkedIn.

We used two variables to describe the *personal resources* of experts that might impact their action for visibility: affinity for social media and average proportion of house-and-care-work. Affinity for social media was measured by the following question: “I have an affinity for social media”³ (1 = yes; 0 = no). To capture time used for housework and care work, we asked: “What proportion of the total housework and care work do you do on average in your household?”⁴ (1 = 0–20%; 2 = 21–40%; 3 = 41–60%; 4 = 61–80%; 5 = 81–100%).

The *organisational resources* were described by the support experts received from their organisation. The underlying question was: “Visibility requires various prerequisites. Which of these apply to you? (multiple answers possible)”. To measure organisational support, we selected two of the requirements mentioned in the questionnaire, namely “I am supported by my organisation”⁵ (1 = yes; 0 = no) and second, “I have time leeway during work”⁶ (1 = yes; 0 = no).

To measure the *perception of visibility* in public, we used the results of our web analytics, that is, the number of LinkedIn followers and press articles. To find out more about the experts’ interaction with media, two questions were asked: (1) “I actively ask, e.g., at PR-offices, newspapers, or publishers whether they would like to report about my research”⁷ (1 = yes; 0 = no), and (2) “I gladly accept invitations to discussions, talk shows, interviews, etc.”⁸ (1 = yes; 0 = no).

Figure 1 illustrates the concept of *doing visibility* as developed by Philipp et al. (2025) as well as the measurements we use to analyse visibility. The circular arrows symbolize the interdependent process between the action for visibility and the resulting perception in the environment of the acting person. This process is embedded in the sociodemographic, personal, and organisational determining factors.

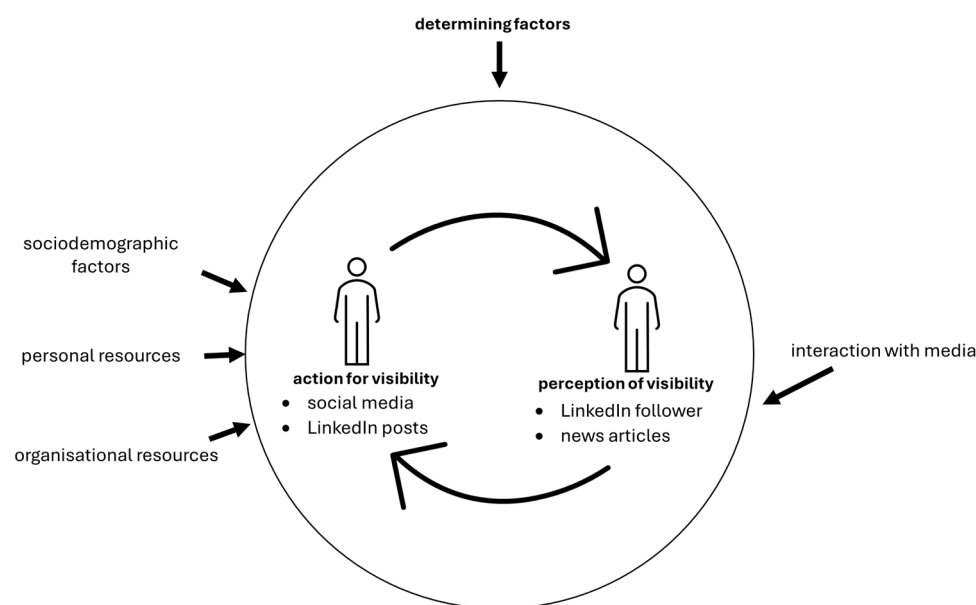


Figure 1. Measurements according to the concept of *doing visibility*. Own illustration based on the concept of *doing visibility* by (Philipp et al. 2025).

4. Results

4.1. How Do Experts Create Visibility for the Public?

More than half of the computer scientists (51%) posted about their work on social media, compared to around a fifth of social scientists (21%); this marked a significant difference as the chi-squared test showed ($\chi^2(1) = 13.29, p < 0.001, \phi = -0.309$). The largest difference could be observed between male social scientists (17%) and male computer

scientists (57%). Interestingly, the difference was considerably smaller among female social scientists (24%) and female computer scientists (35%) (see Figure 2). Regardless of the discipline, male experts stated more often (39%) that they posted about their work on social media than female experts (24%). This difference, however, was not statistically significant ($\chi^2(1) = 2.04, p = 0.153, \phi = -0.121$).

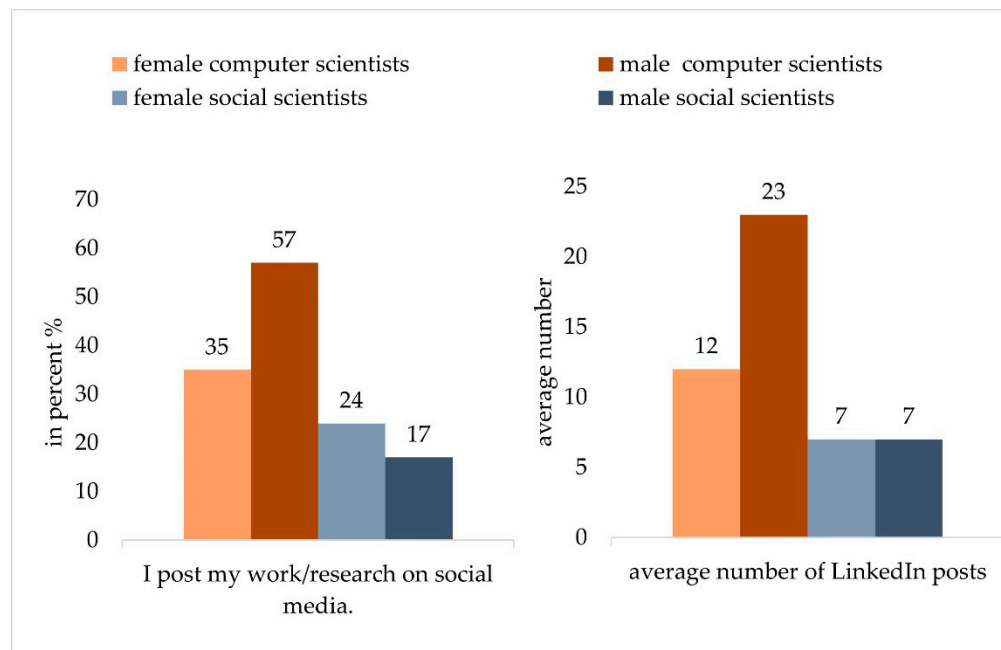


Figure 2. Actions for visibility differentiated by gender and discipline.

The same pattern was replicated when analysing the number of contributions (see Figure 2, right graph). Men posted on average about twice as much on LinkedIn as women. Computer scientists had nearly three times more contributions on LinkedIn than social scientists. In this respect, male computer scientists differed significantly from the other groups, as the one-way ANOVA showed ($F(3) = 4.46, p = 0.003$).

4.2. Which Factors Determine Actions for Visibility on Social Media?

According to our theoretical framework, we argue that apart from sex and discipline, personal and organisational resources determine the activities to create visibility. Table 2 summarizes the descriptive figures of the predictor variables that were included in the binary logistic regression which calculated the decision to become visible on social media. Most experts stated that they had no affinity for social media. Female experts reported that they had significantly less affinity for social media in comparison to male experts. Female experts in our sample also reported doing more housework and care work than male experts. A one-way ANOVA showed that there was a significant difference between discipline and gender when it came to the reported proportion of housework and care work ($p < 0.001$). According to the Bonferroni test, the differences were mainly between male computer scientists and female computer scientists ($p = 0.005$), as well as female social scientists ($p < 0.001$).

When it comes to organisational support, male computer scientists (69%) reported receiving support from their organisation significantly more often than the other groups. Only 35% of female computer scientists stated that they were supported by their organisation. Again, male computer scientists exhibited an outstanding position concerning time leeway during work. The chi-squared test showed that there were significant differences in our sample when it came to time leeway, $\chi^2(3) = 22.97, p < 0.001, \phi = 0.40$. In comparison to

the other groups, male computer scientists reported having time leeway almost five times more often during work.

Table 2. Mean values of the predictor variables.

Variable	<i>n</i>	Computer Science		Social Sciences		<i>p</i>
		Female	Male	Female	Male	
<i>Personal resources</i>						
Affinity for social media ¹ (0 = no; 1 = yes)	139	0.06	0.14	0.04	0.17	0.234
Average percentage of housework and care work (1 = 0–20%; 2 = 21–40%; 3 = 41–60%; 4 = 61–80%; 5 = 81–100%)	138	3.59	2.51	3.42	2.97	0.024
<i>Organisational resources</i>						
Organisational support ¹ (0 = no; 1 = yes)	139	0.35	0.69	0.42	0.43	<0.001
Time leeway during work ¹ (0 = no; 1 = yes)	139	0.12	0.50	0.13	0.11	<0.001

¹ = Mean can be interpreted as the share of experts that answered “yes”; *n* = valid values; *p* = *p*-value for the ANOVA or chi-squared test at the 5%-level.

Apart from these theoretically derived influencing factors, we were interested in the impact of sociodemographic characteristics, such as gender, discipline, and age. To examine whether gender, discipline, age, and the selected determinants had an impact on the decision to become more visible on social media, we conducted a binary logistic regression analysis with social media posts serving as the dependent variable. In model 1, we limited the list of determinants to sociodemographic factors. Regression model 1 was statistically significant, $\chi^2(3) = 23.04$ ($p < 0.001$), while the amount of explained variance as shown by Nagelkerke’s R^2 was 0.213. Discipline ($p < 0.001$) and age ($p = 0.004$) showed significant effects while gender showed no significant effect ($p = 0.479$). The estimated coefficients indicated that social scientists had a higher probability of posting on LinkedIn and that the propensity to post decreased with age.

In the next step, we added the two variables describing personal resources, namely, affinity to social media and the amount of housework and care work, to the list of explanatory variables. Regression model 2 was statistically significant, $\chi^2(5) = 34.001$ ($p < 0.001$), while Nagelkerke’s R^2 increased to 0.304. Discipline ($p < 0.001$) and age ($p = 0.010$) again contributed significantly to predict social media posts, as well as affinity for social media ($p = 0.004$). Gender ($p = 0.779$) and housework and care work ($p = 0.286$) showed no significant effect. As expected, social media affinity correlated with the propensity to post on LinkedIn.

Model 3 additionally included organisational variables, namely, organisational support and time leeway at work. The last regression model was also statistically significant, $\chi^2(7) = 36.398$ ($p < 0.001$), while Nagelkerke’s R^2 increased slightly to 0.322. Discipline, age, and affinity for social media were again significant, while time leeway and organisational support had positive effects on the decision to use social media in a business context. However, the effects were not significant at the 5% significance level. All model coefficients can be found in Table 3.

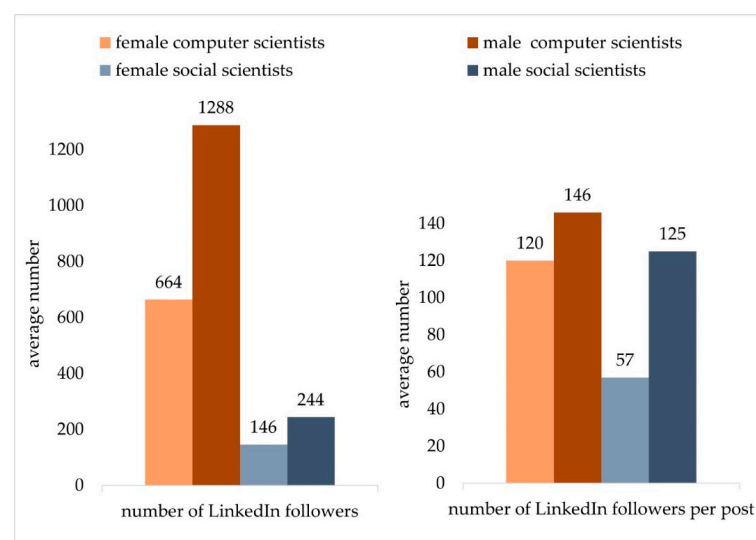
Table 3. Binary logistic regression analysis on social media posts.

	Model 1		Model 2		Model 3	
	B	p	B	p	B	p
Constant	2.709	0.005	2.828	0.011	2.093	0.083
Sociodemographic factors						
Gender ^a	−0.299	0.479	0.135	0.779	0.214	0.664
Discipline ^b	−1.455	<0.001	−1.610	<0.001	−1.531	0.001
Age	−0.557	0.004	−0.516	0.010	−0.495	0.015
Personal factors						
Affinity for social media ^c	−	−	2.045	0.004	1.891	0.010
Housework and care work	−	−	−0.212	0.286	−0.149	0.470
Organisational resources						
Organisational support ^d	−	−	−	−	0.610	0.159
Time leeway (at work) ^e	−	−	−	−	0.263	0.599
R ²	0.213		0.304		0.322	
n	139		137		137	

R² = Pseudo R² (Nagelkerke's square); B = standardized regression coefficient; p = p-value; ^a = reference group is male; ^b = reference group is computer science; ^c = reference group is no social media affinity; ^d = reference group is no support; ^e = reference group is no time flexibility.

4.3. How Visible Are Scientific Experts to Society?

Next, we focused on the perception of visibility actions to ascertain whether there were gender- or discipline-specific differences. A *t*-test showed that in our sample, male experts had almost twice as many followers on LinkedIn (namely, 140 on average) than female experts, who had 87 followers on average (a significant difference ($t(72) = 2.4$, $p = 0.019$). However, the difference was even larger between disciplines: while the average number of LinkedIn followers among computer scientists was 1088, among social scientists it was only 189 ($t(52) = 4.2$, $p < 0.001$). We also looked at the number of LinkedIn followers per post. Male experts had more followers per post than female experts, although this result was not statistically significant. When differentiated by gender and discipline, we could see that male computer scientists stood out in having the most followers and followers per post. Figure 3 shows the average number of LinkedIn followers and followers per post, differentiated by gender and discipline.

**Figure 3.** Number of LinkedIn followers, differentiated by gender and discipline.

Finally, we turned to the average number of press articles. In this respect, male social scientists stood out with an average of 12.6 press articles, while female social scientists had less than half as many articles (4.98), even though they dealt with the same topics. There were almost no newspaper reports about computer scientists and their work, regardless of gender. Hence, the difference between the mean values of social scientists (8.31) and computer scientists (0.27) was statistically significant; $t(137) = -2.68, p = 0.003$. Figure 4 shows the average number of newspaper articles, differentiated by gender and discipline.

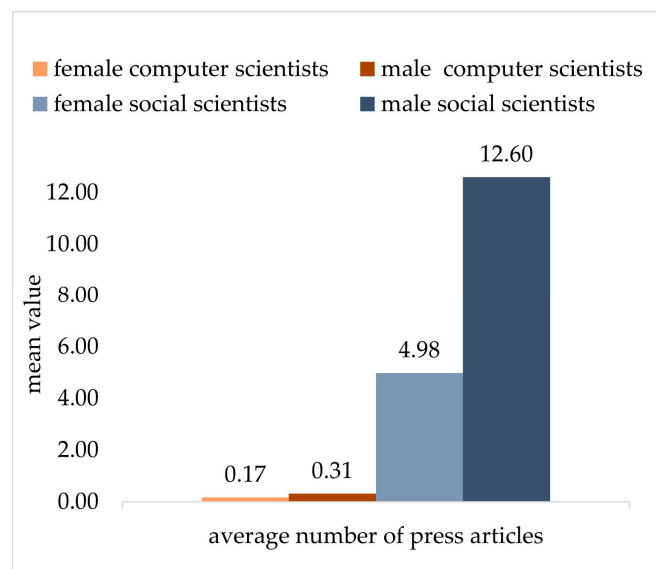


Figure 4. Appearance in the press differentiated by gender and discipline.

Potential reasons for these differences may lie in the way that experts interact with the press and the media, e.g., whether they actively approach journalists or editors and how they respond to requests from the media. Figure 5 shows that 14% of male social scientists actively inquired with PR offices, newspapers, or publishers, while the other groups hardly ever actively approached media representatives. This difference was significant ($t(3) = 8.53, p = 0.036$).

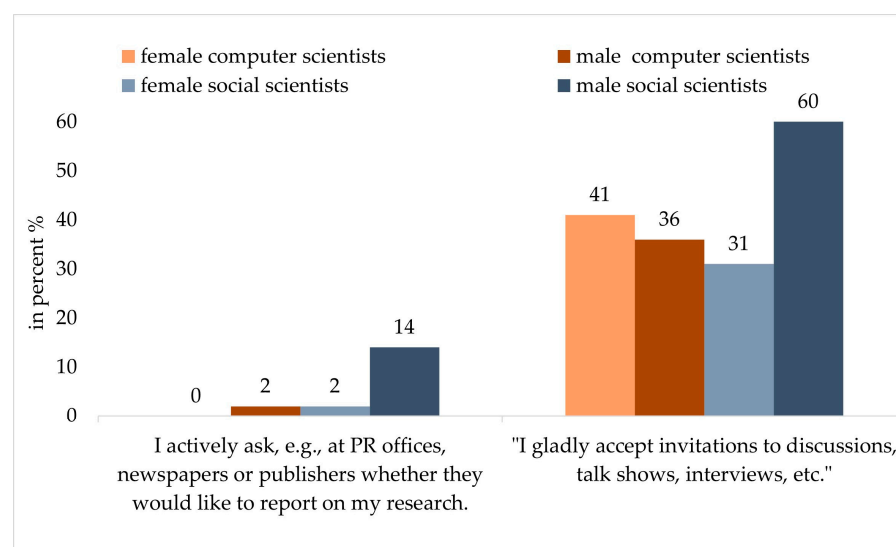


Figure 5. Handling the press and media, differentiated by gender and discipline.

A similar picture emerged when we compared the acceptance of invitations to discussions or talk-shows. Here, again, male social scientists stood out: 60% of the male social

scientists gladly accepted invitations, while among female social scientists, just 31% did so. However, the gender difference was the opposite in computer science: slightly more female computer scientists reported that they gladly accepted invitations compared to their male counterparts. Figure 5 provides the results for interactions with media differentiated by gender and discipline.

5. Discussion

These findings provide new insights into how experts in different disciplines create visibility and how they are perceived in the public on social media and in the press. The concept of doing visibility has proven to be a suitable model for developing an understanding of individual differences in visibility. Our results show, for instance, that equal actions for visibility do not necessarily result in equal perception. This demonstrates that visibility does not only depend on the individual activities to build one's own stage but are also subject to other factors shaping the visibility of experts in the public eye. Social norms and gender stereotypes are probably some of the factors that have an impact on both the access to resources that are required to create visibility as well as the evaluation of individual visibility efforts.

The key finding is that there are significant differences between computer and social scientists as well as between male and female experts concerning visibility. Male computer scientists stand out when it comes to action for and perception of visibility on social media, while male social scientists have a particularly high perception of visibility in the press. Gender differences are particularly evident regarding the perception of visibility. In this section, we discuss our results and hypotheses, relate them to other findings, and offer suggestions for further research.

5.1. Actions for Visibility on Social Media

First, we take a look at the active part of the concept of doing visibility, namely the actions for visibility on social media. Our first hypothesis (H1) was disproven by our analysis; we found no significant difference between female and male experts in the use of social media in general and especially in the use of LinkedIn as a professional networking platform. Interestingly, there were small gender-specific differences between the disciplines: female computer scientists used social media less than male computer scientists, and the result was the opposite for social scientists. These findings stand in contrast to [Zhu et al. \(2019\)](#), who analysed the use of Twitter among health researchers at the AcademyHealth's 2018 Annual Research Meeting. This apparent contradiction might be due to the differences between Twitter and LinkedIn. While LinkedIn is mainly used for professional exchanges, Twitter is more often used for social or personal issues. Yet, considering the observation that women are more likely to connect with women (according to the similarity bias ([Byrne 1972](#))), the lower participation of female computer scientists on LinkedIn is hardly surprising. For instance, [Brooke \(2021\)](#) as well as [Ford et al. \(2017\)](#) both showed that female users of Stack Overflow, the world's largest question-and-answer forum when it comes to programming, preferentially interacted with other saliently female users. As users tend to communicate more often within gender-specific boundaries, male users benefit from being the majority group. Due to the lower number of female computer scientists, there are inevitably fewer contact opportunities within LinkedIn.

The significant gender-specific differences in experts' visibility activities can be partly attributed to the different levels of relevant resources, such as the amount of housework and care work. As expected, women in our sample reported doing more unpaid care work than men, which stands in line with other studies ([Bundesamt für Statistik 2021](#); [Samtleben 2019](#)). Based on the binary logistic regression analysis, care work had no significant impact

on social media posts, though. When it came to organisational support and time leeway, male computer scientists reported having the most resources of all the studied groups. However, there were significant differences between the disciplines: women in computer science stated that they had less organisational support and time leeway than their male colleagues, but there were no gender differences among social scientists. One reason for the gap between male and female computer scientists could be the multiple workloads for women in male-dominated disciplines. The so called “academic housework” is unequally distributed between women and men (Heijstra et al. 2017). Due to the low proportion of women, it can be assumed that the few women are more frequently involved in company co-determination bodies or community-promoting projects. This can include positions in committees, work councils, or equal opportunities offices, where women should be adequately represented. McKinsey (2022), for instance, report that female leaders are twice as likely as male leaders to spend a substantial amount of time on DEI (Diversity, Equality, and Inclusion) work, which dramatically improves retention and employee satisfaction but is not formally rewarded in most companies. This suggests that the few women who work in male-dominated workplaces tend to take on more tasks and thus have less time to pursue their own goals. Among the experts in social sciences, no gender differences were recognizable. This result is consistent with our interpretation of the results, because the share of women is much higher in this field, so that the burden of social tasks is spread over more shoulders.

Concerning our second hypothesis (H2), we can confirm that experts in computer science in our sample used social media more than social science experts. These empirical findings fit with the results of the study by Holmberg and Thelwall (2014), who found that researchers from the disciplines of biochemistry, cheminformatics, astrophysics, and digital humanities used Twitter more for science communication than researchers from sociology, economics, history of science, and social network analysis. We suppose that discussions among computer scientists tend to be very specific and are less interesting and suitable for the public and the public media, so that the exchange within the specialist community via social media is even more important. In addition, it can be assumed that individuals in the IT sector possess a deeper understanding and knowledge of social media compared to social scientists. The importance of the discipline for one’s presence on social media, and especially one’s presence on LinkedIn, is also emphasized by the results of the binary logistic regression models. Apart from age and media affinity, discipline turned out to be a significant predictor variable for social media posts.

5.2. Perception of Visibility in Press and on LinkedIn

Next, we examine the perception of visibility actions according to the concept of *doing visibility* (Philipp et al. 2025), which can be less influenced by individuals. Although there were no significant gender differences concerning the use of social media, we identified significant differences in the perception of visibility. We can confirm our hypothesis 3 (H3) that male experts receive more public attention from the press than female experts. This was evident from the differences in the number of followers on LinkedIn, as well as the number of articles in newspapers. On LinkedIn, female experts had about half the number of followers than men. These findings are consistent with the results from Zhu et al. (2019), which indicate that male scientists have about twice as many followers on Twitter in comparison to women. The gender difference was most evident among social scientists; in our sample, female and male social scientists had the same amount of LinkedIn posts but differed in the number of LinkedIn followers. Thus, we assume that the impact of posts from male social science experts is greater than those of female experts. Since the reach of a post depends, among other things, on the number of followers of the author,

each new post by male experts is seen by more people than a new post by female experts. The basic question is therefore: Why do male experts get more attention than female experts? One obvious explanation could be the underlying gender stereotypes that are often to the disadvantage of women. The explanation for why male experts receive more attention than female experts can be understood through the “doing gender” framework by [West and Zimmerman \(1987\)](#). This concept asserts that gender is performed in social interactions, leading to the reinforcement of stereotypes. Literature on gender stereotypes shows that regardless of observable expertise, women are seen as less competent, and their achievements are less rewarded and recognised ([Goldin and Rouse 2000](#); [Lincoln et al. 2012](#); [Wharton 2005](#)). This finding also supports [Marwick’s \(2013\)](#) thesis that platform rating systems continue to enable sexism and discrimination but in a more subtle and seemingly democratic way, by influencing success towards masculine identities and behaviours. Furthermore, interviews in newspapers or LinkedIn posts on one’s own professional events, successes, and achievements are to a certain extent a form of self-promotion. Self-promotion has been shown to enhance the perceived competence of both men and women. However, self-promotion is an agentic behaviour and contradicts gender prescriptions for women (being modest and unassuming). As a result, self-promoting women, but not men, are seen as less socially appealing and are less welcome in social networks ([Carli et al. 2016](#); [Heilman 2015](#)).

Another reason for the lower follower ratio could be the different preferences of men and women on social media platforms. Women use social media more frequently to maintain existing contacts, while men use social media platforms more to connect with new people ([Mazman and Usluel 2011](#); [Muscanell and Guadagno 2012](#)). Hence, the disparity in attention can be rooted in these socially constructed gender norms that are aligned with socially constructed gender norms. In short, *doing gender* by [West and Zimmerman \(1987\)](#) seems to contribute to both the action and the perception of visibility.

While computer scientists dominate social media, social scientists are more frequently featured in traditional media, which confirms our hypothesis 4. Over the past few decades, there has been an enormous increase in social science experts in newspapers. Since the 1990s, social sciences have dominated the media much more compared to natural sciences or computer science ([Albæk et al. 2003](#); [Peters 2013](#)). This trend might be attributed to the fact that topics from the social sciences and humanities appeal to a broader audience than the typically more specific topics of the natural sciences ([Bentley and Kyvik 2011](#)). As we chose the topics “software architecture” and “poverty” to select experts, it seems obvious that fewer articles about computer scientists and their findings would appear in the newspapers. In addition, researchers in computer science report having the fewest contact with media compared to other disciplines, according to the findings of a survey about 1600 researchers in Germany by [Peters \(2013\)](#).

This result also fits our findings that computer scientists very rarely actively engage with the press or other media. Among social scientists, we see again clear gender differences: female experts have half as many press articles, which confirms our hypothesis 3. This gender imbalance can also be found in Switzerland. An analysis of 18,695 contributions from 60 Swiss media outlets in 2020 shows that only 23% of the articles are about women, which indicates an even greater discrepancy ([fög—Forschungsinstitut Öffentlichkeit und Gesellschaft 2021](#)). One reason for these findings may lie in the way that men and women respond to media inquiries. In our sample, women stated that they accepted invitations to discussions and interviews less frequently than men. Male social scientists, however, more often actively asked PR offices and newspapers to report about their work. This result also corresponds to other studies. Women reject opportunities more often that would be helpful for their professional career ([Edmunds et al. 2016](#)). In addition, journalists

report that women refuse requests for interviews more often for several reasons, such as care responsibilities or impostor syndrome, as they believe that they are not good enough to offer their expertise (Graydon 2014; Rougas 2017; Scholz 2017). Obviously, a lack of competence is often not the case; rather, it indicates that the social construction of gender according to the concept of *doing gender* (West and Zimmerman 1987) also plays a role here. In fact, men tend to overestimate their achievements and women tend to underestimate their performance (Cooper et al. 2018; Rammstedt and Rammesayer 2002; Reilly et al. 2022; Reuben et al. 2012). Again, the fact that visibility contradicts the female normative requirement to be modest and communal conflicts with being a renowned scientist (Carli et al. 2016). The decision of women can therefore be interpreted through the lens of “doing gender”. Women prioritize their tasks depending on gender norms and the resources available to them in a patriarchal society.

5.3. Limitations and Guidance for Future Research

This study used a novel research design, but this comes with some limitations. These should be carefully considered when interpreting the results but should also be seen as avenues for future exploration.

First, the relatively small sample size poses a significant constraint. This limitation was primarily due to the intensive data collection process and the study’s design, which aimed to compare highly homogeneous experts within a narrowly defined field. While this approach ensured a high level of specificity and control, it also limits the generalisability of the findings across broader contexts. Leveraging Big Data methods could offer significant advancements in this area. Automated data collection from various social media platforms and online publication databases could allow researchers to analyse large volumes of data and derive even more significant results.

Second, the selection of topics used to identify relevant experts was based on logical criteria. However, this highlights the potential for alternative approaches. Future studies could explore different methodologies for expert identification, thereby uncovering new insights into how selection criteria influence research outcomes.

Third, the study focused on LinkedIn and therefore, this limits the transferability of the findings to other social media environments. Social practices and community dynamics can differ significantly across platforms, meaning that the behaviours and interactions observed on LinkedIn may not be the same on other social networks.

Fourth, the indicators we used to assess perceptions of visibility—such as the number of articles in newspapers and LinkedIn followers—are indirect indicators and provide a first approximation of the theoretical concept. Future research could build on this by developing more direct measures of audience perception and engagement, capturing a more comprehensive picture of how visibility is constructed and interpreted.

Finally, the selection of resources required to establish visibility was limited. Although the study focused on factors that were easily measurable and seemed particularly influential, other characteristics, such as personality traits, could also be relevant. Researchers are encouraged to explore these broader influencing factors to enrich the understanding of what contributes to visibility in professional networks. Overall, this study not only highlights key aspects of expert visibility but also provides a springboard for future research that can deepen and broaden the understanding of this complex phenomenon.

6. Conclusions

To sum up, the study revealed that visibility is not equally distributed as there are gender- and discipline-specific differences regarding actions for and perception of visibility. Recent discussions about preserving democracies and combating fake news show how

important it is for experts to engage with the public and disseminate their findings. It is essential for opinion-forming and decision-making that people are aware of scientific findings. However, this requires that male and female experts have equal access to the media and receive equal attention from the public. To achieve this goal, gender-specific stereotypes must be overcome so that as many female experts as possible have their say, their expertise is equally valued, and that as many different perspectives on a topic as possible can be discussed.

We found three significant variables which predicted social media posts: discipline, age, and media affinity. These findings are especially relevant for universities and scientific organisations to establish targeted interventions for employees to increase their online visibility. Science communication for public audiences is not an easy thing to achieve. It takes time and resources, such as a good camera or professional pictures, and most scientists are not well prepared for the task. Moreover, the implementation of mentorship programs that connect female experts with experienced mentors can provide guidance on increasing their visibility in academic and public spheres. Furthermore, the visibility of scientists to the public is less recognized than their visibility to the scientific community (Krauss et al. 2023). Hence, we suggest that organisations should implement training for their employees, such as camera training, voice modulation, dealing with the media, conducting interviews, introduction to social media platforms or writing workshops for press articles. In particular, older people, who did not grow up with social media and people from the social sciences can benefit from training to increase their affinity with social media. In addition, institutions can introduce reward programs to incentivize researchers to actively reach out to the public and disseminate their findings beyond the traditional academic world.

When it comes to gender differences in visibility, it is particularly concerning that female social scientists are less recognised when compared to their male colleagues, despite their higher engagement in the form of LinkedIn posts. We discussed different possible reasons for this, such as impostor syndrome, the different use of LinkedIn as a platform, the preferences of men and women on social media platforms, and gender stereotypes. Interestingly, the gender differences are smaller or the opposite in computer science. In this context, further research is needed to uncover possible reasons for this phenomenon. Nevertheless, it is essential to support women in their interactions with the media. Given the multiple hurdles which women encounter, whether this is distorted self-perception, inappropriate comments from colleagues about a media appearance, or efficiency-driven practices of journalists, women need spaces to exchange ideas about these structural challenges and learn from each other. For this reason, women may especially benefit from gender-sensitive media trainings and targeted coaching programs. In addition, the implementation of mentorship programs that connect female experts with experienced mentors, can provide guidance on increasing their visibility in academic and public spheres.

At the same time, it is just as important to sensitize media representatives on methods to reduce gender stereotypes and gender norms and to create equal visibility for women and men. Thus, the study also emphasizes the role of journalists, PR offices, and organisations as they can contribute significantly to create equally distributed visibility. Cheryan et al. (2013) showed that students in the United States had stereotypical perceptions of computer scientists that were in conflict with normative expectations of femininity. However, the study also revealed that women who read texts about computer scientists that diverged from these common stereotypes exhibited a greater interest in studying computer science (Cheryan et al. 2013). This implies that even small interventions can change our assessment of relevant and recognizable knowledge. This potential could be used by the media to

break down gender stereotypes and to promote gender equality, both in science and in society in general.

Author Contributions: Conceptualization, E.W.; methodology, E.W. and L. S.; formal analysis, L.S.; investigation L.S.; resources, L.S.; data curation, L.S.; writing—original draft preparation, L.S. and E. W.; writing—review and editing, L.S. and E.W.; visualization, L.S.; supervision, E.W.; project administration, E.W.; funding acquisition, E.W. All authors have read and agreed to the published version of the manuscript.

Funding: The project Prof:inSicht—Sichtbarkeit von Professorinnen an Hochschulen für angewandte Wissenschaften is promoted with funds from the Federal Ministry of Education and Research under the reference number 01FP21054. Responsibility for the contents of this publication lies with the authors.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Munich University of Applied Sciences (EK011HM–10_22, 26 October 2022).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data presented in this study are available from the corresponding author upon reasonable request.

Conflicts of Interest: The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Notes

- ¹ The newspapers searched were those with the widest reach in Germany, namely: *FAZ*, *Die Welt*, *SZ*, *TAZ* and *Die Zeit*.
- ² German version: “Ich poste meine Arbeit/Forschung über Social Media”.
- ³ German version: “Ich habe eine Affinität zu sozialen Medien”.
- ⁴ German version: “Welchen Anteil der gesamten Haus- und Care-Arbeit übernehmen Sie durchschnittlich in Ihrem Haushalt?”.
- ⁵ German version: Sichtbarkeit erfordert verschiedene Voraussetzungen. Welche treffen auf Sie zu? (Mehrfachantworten möglich) “Ich werde durch meine Organisation unterstützt”.
- ⁶ German version: Sichtbarkeit erfordert verschiedene Voraussetzungen. Welche treffen auf Sie zu? (Mehrfachantworten möglich) “Ich habe zeitliche Freiräume während meiner Arbeitszeit”.
- ⁷ German version: “Ich frage aktiv, z. B. bei PR-Stellen, Zeitungen oder Verlagen an, ob sie über meine Forschung berichten möchten”.
- ⁸ German version: “Ich nehme gerne Einladungen zu Diskussionen/Talkshows/Interviews/etc. an”.

References

- Albæk, Erik, Peter Munk Christiansen, and Lise Tøgeby. 2003. Experts in the Mass Media: Researchers as Sources in Danish Daily Newspapers, 1961–2001. *Journalism & Mass Communication Quarterly* 80: 937–48. [\[CrossRef\]](#)
- Al-Daihani, Sultan Muhaya, Jumanah Salem Al-Qallaf, and Sara Ali AlSaheeb. 2018. Use of social media by social science academics for scholarly communication. *Global Knowledge, Memory and Communication* 67: 412–24. [\[CrossRef\]](#)
- Andersen, Jens Peter, Mathias Wullum Nielsen, Nicole L. Simone, Resa E. Lewiss, and Reshma Jaggi. 2020. COVID-19 medical papers have fewer women first authors than expected. *eLife* 9: e58807. [\[CrossRef\]](#) [\[PubMed\]](#)
- Arpin, Isabelle, and Céline Granjou. 2015. The right time for the job? Insights into practices of time in contemporary field sciences. *Science in Context* 28: 237–58. [\[CrossRef\]](#) [\[PubMed\]](#)
- Beisch, Von Natalie, and Carmen Schäfer. 2020. Ergebnisse der ARD/ZDF-Onlinestudie 2020: Internetnutzung mit großer Dynamik: Medien, Kommunikation, Social Media. *Media Perspektiven* 9: 462–81.
- Bentley, Peter, and Svein Kyvik. 2011. Academic staff and public communication: A survey of popular science publishing across 13 countries. *Public Understanding of Science* 20: 48–63. [\[CrossRef\]](#)
- Bourdieu, Pierre. 1988. *Homo Academicus*, 1st ed. Berlin: Suhrkamp.
- Brooke, Siân. 2021. Trouble in programmer’s paradise: Gender-biases in sharing and recognising technical knowledge on Stack Overflow. *Information, Communication & Society* 24: 2091–12. [\[CrossRef\]](#)

- Bundesamt für Statistik. 2021. Durchschnittlicher Zeitaufwand der schweizer Wohnbevölkerung für Haus- & Familienarbeit nach Geschlecht in ausgewählten Jahren von 2010 bis 2020 (in Stunden pro Woche). Available online: <https://de.statista.com/statistik/daten/studie/1232226/umfrage/durchschnittl-zeitaufwand-fuer-haus-und-familienarbeit-nach-geschlecht-schweiz/> (accessed on 2 December 2024).
- Byrne, Donn Erwin. 1972. The attraction paradigm. *Behavior Therapy* 3: 337–38. [CrossRef]
- Carli, Linda L., Laila Alawa, YoonAh Lee, Bei Zhao, and Elaine Kim. 2016. Stereotypes About Gender and Science. *Psychology of Women Quarterly* 40: 244–60. [CrossRef]
- Cheryan, Sapna, Victoria C. Plaut, Caitlin Handron, and Lauren Hudson. 2013. The Stereotypical Computer Scientist: Gendered Media Representations as a Barrier to Inclusion for Women. *Sex Roles* 69: 58–71. [CrossRef]
- Clegg Smith, Katherine, Rachel Friedman Singer, and Elizabeth Edsall Kromm. 2010. Getting Cancer Research Into the News: A Communication Case Study Centered on One U.S. Comprehensive Cancer Center. *Science Communication* 32: 202–31. [CrossRef]
- Collins, Kimberley, David Shiffman, and Jenny Rock. 2016. How Are Scientists Using Social Media in the Workplace? *PLoS ONE* 11: e0162680. [CrossRef]
- Conroy, Meredith, Elizabeth Belding, Erin C. Cassese, Cameron Espinoza, Michele Meyer, Alexis Romero Walker, and Larissa Terán. 2024. *Portray Her 2.0: An Analysis of 15 Years of Women in STEM On-Screen, 2007–2022*. Marina del Rey: The Geena Davis Institute. Available online: <https://geenadavisinstitute.org/research/portray-her-2-0-an-analysis-of-15-years-of-women-in-stem-on-screen-2007-2022/> (accessed on 2 December 2024).
- Cooper, Katelyn M., Anna Krieg, and Sara E. Brownell. 2018. Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology. *Advances in Physiology Education* 42: 200–8. [CrossRef] [PubMed]
- Crettaz von Roten, Fabienne. 2011. Gender Differences in Scientists' Public Outreach and Engagement Activities. *Science Communication* 33: 52–75. [CrossRef]
- Cui, Ruomeng, Hao Ding, and Feng Zhu. 2022. Gender Inequality in Research Productivity During the COVID-19 Pandemic. *Manufacturing & Service Operations Management* 24: 707–26. [CrossRef]
- de Winter, Joost C. F. 2015. The relationship between tweets, citations, and article views for *PLoS ONE* articles. *Scientometrics* 102: 1773–79. [CrossRef]
- Edmunds, Laurel D., Pavel V. Ovseiko, Sasha Shepperd, Trisha Greenhalgh, Peggy Frith, Nia W. Roberts, Linda H. Pololi, and Alastair M. Buchan. 2016. Why do women choose or reject careers in academic medicine? A narrative review of empirical evidence. *The Lancet* 388: 2948–58. [CrossRef]
- Eisenegger, Mark. 2005. *Reputation in der Mediengesellschaft*. Wiesbaden: VS Verlag für Sozialwissenschaften. [CrossRef]
- Eysenbach, Gunther. 2011. Can tweets predict citations? Metrics of social impact based on Twitter and correlation with traditional metrics of scientific impact. *Journal of Medical Internet Research* 13: e123. [CrossRef]
- Faktenkontor. 2024. Bedeutung von Social Media: Social-Media-Nutzung nach Alter und Geschlecht. Available online: <https://www.faktenkontor.de/corporate-social-media-blog-reputationzweinull/der-blinde-fleck-des-social-web/attachment/210623-fk-blinde-flecke-grafik-2/> (accessed on 2 December 2024).
- Felt, Ulrike, and Alan Irwin, eds. 2024. *Elgar Encyclopedia of Science and Technology Studies*, 1st ed. Elgar Encyclopedias in the Social Sciences Series; Cheltenham: Edward Elgar Publishing Limited. [CrossRef]
- Ford, Denae, Alisse Harkins, and Chris Parnin. 2017. Someone like me: How does peer parity influence participation of women on stack overflow? Paper presented at VI/hcc 2017: 2017 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Raleigh, NC, USA, October 11–14; Piscataway: IEEE, pp. 239–43. [CrossRef]
- fög—Forschungsinstitut Öffentlichkeit und Gesellschaft. 2021. Jahrbuch Qualität der Medien Hauptbefunde 2021: Die Corona-Pandemie als Katalysator für die strukturelle Krise des Informationsjournalismus. Universität Zürich. Available online: <https://www.foeg.uzh.ch/de/jahrbuch-qdm/hauptbefunde.html> (accessed on 2 December 2024).
- Gebel, André. 2020. Mehr Sichtbarkeit in Social Media. In *Social Media im Tourismusmarketing: Wie Urlaubsanbieter in Sozialen Medien Sichtbar Werden*. Edited by André Gebel. Wiesbaden: Springer Gabler, pp. 95–196. [CrossRef]
- Goldin, Claudia, and Cecilia Rouse. 2000. Orchestrating Impartiality: The Impact of “Blind” Auditions on Female Musicians. *American Economic Review* 90: 715–41. [CrossRef]
- González-Pérez, Susana, Ruth Mateos de Cabo, and Milagros Sáinz. 2020. Girls in STEM: Is It a Female Role-Model Thing? *Frontiers in Psychology* 11: 2204. [CrossRef] [PubMed]
- Graydon, Shari. 2014. Why Women Decline Interviews—And How We’re Trying to Change That. *Informed Opinions*. Available online: <https://informedopinions.org/why-women-decline-interviews-and-how-were-trying-to-change-that/> (accessed on 2 December 2024).
- Heijstra, Tamar M., Þorgerður Einarsdóttir, Gyða M. Pétursdóttir, and Finnborg S. Steinþórsdóttir. 2017. Testing the concept of academic housework in a European setting: Part of academic career-making or gendered barrier to the top? *European Educational Research Journal* 16: 200–14. [CrossRef]

- Heilman, Madeline E. 2015. Gender Stereotypes: Impediments to Women's Career Progress. In *Auswahl von Männern und Frauen als Führungskräfte: Perspektiven aus Wirtschaft, Wissenschaft, Medien und Politik*. Edited by Isabell M. Welpe, Prisca Brosi, Lisa Ritzenhöfer and Tanja Schwarzmüller. Wiesbaden: Springer Gabler, pp. 73–84. [CrossRef]
- Heintze, Roland. 2022. *Wettstreit der beruflichen Netzwerke: LinkedIn erstmals vor Xing!* Faktenkontor. Available online: <https://www.faktenkontor.de/corporate-social-media-blog-reputationzweinull/wettstreit-der-beruflichen-netzwerke-linkedin-erstmal-vor-xing/> (accessed on 2 December 2024).
- Holmberg, Kim, and Mike Thelwall. 2014. Disciplinary differences in Twitter scholarly communication. *Scientometrics* 101: 1027–42. [CrossRef]
- Ivens, Stefan, and Mario Schaarschmidt. 2015. Does Reputable Employee Behaviour in Social Networks Affect Customers' Trust and Word of Mouth? An Experimental Study. Paper presented at 23rd European Conference on Information Systems, ECIS 2015, Münster, Germany, May 26–29.
- Jansen, Dorothea. 2007. *New Forms of Governance in Research Organizations*. Dordrecht: Springer. [CrossRef]
- Jarren, Otfried. 2017. *Social Media und digitale Wissenschaftskommunikation: Analyse und Empfehlungen zum Umgang mit Chancen und Risiken in der Demokratie Stellungnahme* (1. Auflage). Schriftenreihe zur wissenschaftsbasierten Politikberatung Stellungnahme. acatech—Deutsche Akademie der Technikwissenschaften; Nationale Akademie der Wissenschaften Leopoldina; Union der deutschen Akademien der Wissenschaften. Available online: <http://nbn-resolving.org/urn:nbn:de:gbv:3:2-114395> (accessed on 2 December 2024).
- Joubert, Marina, Lars Guenther, and Lili Rademan. 2022. Expert voices in South African mass media during the COVID-19 pandemic. *South African Journal of Science* 118: 12480. [CrossRef]
- Ke, Qing, Yong-Yeol Ahn, and Cassidy R. Sugimoto. 2017. A systematic identification and analysis of scientists on Twitter. *PLoS ONE* 12: e0175368. [CrossRef]
- Kehm, Barbara M., and Ute Lanzendorf. 2007. The Impacts of University Management on Academic Work: Reform Experiences in Austria and Germany. *Management Revue* 18: 153–73. [CrossRef]
- King, Molky M., and Megan E. Frederickson. 2021. The Pandemic Penalty: The Gendered Effects of COVID-19 on Scientific Productivity. *Socius: Sociological Research for a Dynamic World* 7: 237802312110069. [CrossRef]
- Koch, Von Wolfgang. 2023. Ergebnisse der ARD/ZDF-Onlinestudie 2023: Soziale Medien werden 30 Minuten am Tag genutzt—Instagram ist die Plattform Nummer eins. *Media Perspektiven* 26: 1–8.
- Kohlrausch, Bettina, and Aline Zucco. 2020. Die Coronakrise trifft Frauen doppelt—Die Folge der Re-Traditionalisierung für den Gender Care Gap und Gender Pay Gap. *Feministische Studien* 38: 322–36. [CrossRef]
- Könneker, Carsten, Philipp Niemann, and Christoph Böhmert. 2019. *Young Researchers and Science Communication: Results of an Extensive Survey*. Available online: <https://www.lindau-nobel.org/de/blog-young-researchers-and-science-communication> (accessed on 2 December 2024).
- Krauss, Alexander, Lluís Danús, and Marta Sales-Pardo. 2023. Early-career factors largely determine the future impact of prominent researchers: Evidence across eight scientific fields. *Scientific Reports* 13: 18794. [CrossRef]
- Kryzys Acord, Sophia, and Diane Harley. 2013. Credit, time, and personality: The human challenges to sharing scholarly work using Web 2.0. *New Media & Society* 15: 379–97. [CrossRef]
- Lincoln, Anne E., Stephanie Pincus, Janet Bandows Koster, and Phoebe S. Leboy. 2012. The matilda effect in science: Awards and prizes in the US, 1990s and 2000s. *Social Studies of Science* 42: 307–20. [CrossRef] [PubMed]
- LinkedIn. 2024. *Folgen und Vernetzen auf LinkedIn | LinkedIn Hilfe*. Available online: <https://www.linkedin.com/help/linkedin/answer/a702683> (accessed on 2 December 2024).
- Marcinkowski, Frank, Matthias Kohring, Silke Fürst, and Andres Friedrichsmeier. 2014. Organizational Influence on Scientists' Efforts to Go Public. *Science Communication* 36: 56–80. [CrossRef]
- Marwick, Alice E. 2013. *Status Update: Celebrity, Publicity, and Branding in the Social Media Age*. London: Yale University Press. [CrossRef]
- Mazman, Güzin, and Yasemin Koçak Usluel. 2011. Gender Differences in Using Social Networks. *Turkish Online Journal of Educational Technology* 10: 133–39.
- McKinsey. 2022. *Women in the Workplace*. Available online: <https://leanin.org/women-in-the-workplace/2022/were-in-the-midst-of-a-great-breakup> (accessed on 2 December 2024).
- Mehta, Sangeeta, Louise Rose, Deborah Cook, Margaret Herridge, Sawayra Owais, and Victoria Metaxa. 2018. The Speaker Gender Gap at Critical Care Conferences. *Critical Care Medicine* 46: 991–96. [CrossRef] [PubMed]
- Meta IFiF. 2023. *Frauenanteil Nobelpreis -: Wie hoch ist der Frauenanteil Unter Nobelpreisträger*innen?* Available online: <https://www.innovative-frauen-im-fokus.de/infopool/daten-und-fakten/gender-award-gap/frauenanteil-nobelpreis/> (accessed on 2 December 2024).
- Muscanell, Nicole L., and Rosanna E. Guadagno. 2012. Make new friends or keep the old: Gender and personality differences in social networking use. *Computers in Human Behavior* 28: 107–12. [CrossRef]
- Nagelkerke, Nico J. D. 1991. A note on a general definition of the coefficient of determination. *Biometrika* 78: 691–92. [CrossRef]

- Neresini, Federico, Paolo Giardullo, Emanuele Di Buccio, Barbara Morsello, Alberto Cammozzo, Andrea Sciandra, and Marco Boscolo. 2023. When scientific experts come to be media stars: An evolutionary model tested by analysing coronavirus media coverage across Italian newspapers. *PLoS ONE* 18: e0284841. [CrossRef]
- Paulitz, Tanja, and Leonie Wagner. 2020. Professorinnen—Jenseits der “Gläsernen Decke”? Eine qualitative empirische Studie zu geschlechtshierarchisierend. *GENDER—Zeitschrift Für Geschlecht, Kultur Und Gesellschaft* 12: 133–48. [CrossRef]
- Peoples, Brandon K., Stephen R. Midway, Dana Sackett, Abigail Lynch, and Patrick B. Cooney. 2016. Twitter Predicts Citation Rates of Ecological Research. *PLoS ONE* 11: e0166570. [CrossRef] [PubMed]
- Peters, Hans Peter. 2013. Gap between science and media revisited: Scientists as public communicators. *Proceedings of the National Academy of Sciences of the United States of America* 110: 14102–9. [CrossRef] [PubMed]
- Philipp, Ronja, Gabriele Fischer, Lina Spagert, Stephanie Thiemichen, Veronika Thurner, Stefanie Urchs, and Elke Wolf. 2025. Doing visibility. *Open Gender Journal*. under review.
- Prommer, Elizabeth, Julia Stüwe, and Juliane Wegner. 2021. *Sichtbarkeit und Vielfalt: Fortschrittsstudie zur Audiovisuellen Diversität*; Universität Rostock. Available online: https://www.imf.uni-rostock.de/storages/uni-rostock/Alle_PHF/IMF/Forschung/Medienforschung/Audiovisuelle_Diversitaet/Sichbarkeit_und_Vielfalt_Praesentation_5-Oktober2021.pdf (accessed on 2 December 2024).
- Quimby, Julie L., and Angela M. De Santis. 2006. The Influence of Role Models on Women’s Career Choices. *The Career Development Quarterly* 54: 297–306. [CrossRef]
- Rammstedt, Beatrice, and Thomas H. Rammsayer. 2002. Gender differences in self-estimated intelligence and their relation to gender-role orientation. *European Journal of Personality* 16: 369–82. [CrossRef]
- Reilly, David, David L. Neumann, and Glenda Andrews. 2022. Gender Differences in Self-Estimated Intelligence: Exploring the Male Hubris, Female Humility Problem. *Frontiers in Psychology* 13: 812483. [CrossRef] [PubMed]
- Reuben, Ernesto, Pedro Rey-Biel, Paola Sapienza, and Luigi Zingales. 2012. The emergence of male leadership in competitive environments. *Journal of Economic Behavior & Organization* 83: 111–17. [CrossRef]
- Ribarovska, Alana K., Mark R. Hutchinson, Quentin J. Pittman, Carmine Pariente, and Sarah J. Spencer. 2021. Gender inequality in publishing during the COVID-19 pandemic. *Brain, Behavior, and Immunity* 91: 1–3. [CrossRef]
- Ross, Matthew B., Britta M. Glennon, Raviv Murciano-Goroff, Enrico G. Berkes, Bruce A. Weinberg, and Julia I. Lane. 2022. Women are credited less in science than men. *Nature* 608: 135–45. [CrossRef]
- Rougas, Stavros. 2017. Why Women Do Fewer Media Interviews: 4 Takeaways from My Life as a Journalist. *Expertise Finder*. Available online: <https://expertisefinder.com/women-fewer-media-interviews-women-fewer-media-interviews-4-takeaways-life-journalist/> (accessed on 24 February 2025).
- Samtleben, Claire. 2019. Auch an erwerbsfreien Tagen erledigen Frauen einen Großteil der Hausarbeit und Kinderbetreuung. *DIW Wochenbericht* 10: 139–44. [CrossRef]
- Schimank, Uwe. 2010. Reputation statt Wahrheit: Verdrängt der Nebencode den Code? *Soziale Systeme* 16: 233–42. [CrossRef]
- Scholz, Anna-Lena. 2017. Mediale Sichtbarkeit: Das schüchterne Geschlecht. *ZEIT Campus*. March 30. Available online: <https://www.zeit.de/2017/14/mediale-sichtbarkeit-emanzipation-repraesentation-oeffentlichkeit-frauen-unconscious-bias/komplettansicht> (accessed on 2 December 2024).
- Schroeder, Esther, Connor Rochford, Maike Voss, and Sabine Gabrysch. 2019. Beyond representation: Women at global health conferences. *The Lancet* 393: 1200–1. [CrossRef] [PubMed]
- Shepherd, R. Gordon. 1981. Selectivity of Sources: Reporting the Marijuana Controversy. *Journal of Communication* 31: 129–37. [CrossRef]
- Thelwall, Mike, Stefanie Haustein, Vincent Larivière, and Cassidy R. Sugimoto. 2013. Do altmetrics work? Twitter and ten other social web services. *PLoS ONE* 8: e64841. [CrossRef] [PubMed]
- West, Candace, and Don H. Zimmerman. 1987. Doing Gender. *Gender & Society* 1: 125–51. [CrossRef]
- Wharton, Amy S. 2005. *The Sociology of Gender: An Introduction to Theory and Research*. Key Themes in Sociology. Malden: Blackwell Publ.
- Zeitungsmarktforschung Gesellschaft der deutschen Zeitungen. 2023. *Crossmediale Reichweiten*. Available online: <https://zmg.de/services/reichweiten-der-zeitungen/crossmediale-reichweiten> (accessed on 2 December 2024).
- Zhu, Jane M., Arthur P. Pelullo, Sayed Hassan, Lillian Siderowf, Raina M. Merchant, and Rachel M. Werner. 2019. Gender Differences in Twitter Use and Influence Among Health Policy and Health Services Researchers. *JAMA Internal Medicine* 179: 1726–29. [CrossRef] [PubMed]

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