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## **Worth the Cost? Researchers' Use and Experience With Commercial Services for Research Outreach**

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## RESEARCH ARTICLE

# Worth the Cost? Researchers' Use and Experience With Commercial Services for Research Outreach

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## ABSTRACT

**Introduction:** Research outreach activities aim to communicate specific research findings to non-specialist audiences. In recent years, commercial outreach services have emerged that offer fee-based assistance in transforming research findings into accessible reader-friendly content, including multimedia content, and promotional material aimed at broader audiences. They may also publish the content on their own platforms, such as magazines or websites, to further enhance research visibility and dissemination. The experiences associated with these services are poorly understood. This study examined the motivation for use, challenges, and perceived value of commercial services for research outreach among researchers.

**Methods:** An online questionnaire surveyed researchers who had published with two commercial services, ResearchOutreach.org or ResearchFeatures.com, between January 2022 and February 2024, yielding 104 responses (20% response rate).

**Results:** Most respondents used commercial services to increase their research visibility and reach a broader audience. Factors influencing researchers' decision to use commercial services included convenience, professionalism, broad audience access, and insufficient university outreach support. Most respondents (91.5%) were satisfied with the representation of their research, and about half faced no challenges. One-third said they would recommend the service; however, issues like content quality, time consumption, and high costs were noted. Interestingly, a third of the participants paid personally, and around 67% reported no significant impact from the publication on their work.

**Discussion:** While commercial outreach services can enhance research visibility, their cost-effectiveness and impact vary. A significant portion of researchers reported little to no tangible benefits from these services, which raises concerns about their cost-effectiveness and the accuracy of marketing claims.

**Conclusion:** This study reveals a mix of positive and negative experiences with commercial outreach services, which highlights that their usefulness depends on individual circumstances and expectations. Concerns around cost and effectiveness persist. More transparent evaluations are needed. Collaboration between institutions and service providers might help support effective research dissemination and ensure equitable access to outreach resources.

**Keywords:** research outreach, science outreach, public engagement, research communication

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## IMPLICATIONS FOR PRACTICE

1. Researchers should carefully evaluate the cost and benefits of commercial outreach services before use, as outcomes may vary.
2. Universities and academic libraries, particularly those that expect researchers to engage in public outreach and enhance research visibility, should consider providing stronger in-house support and training for these activities.
3. Collaboration between researchers and commercial providers is crucial to ensure the accurate representation of research content.
4. Policymakers should consider integrating outreach training and support within research funding frameworks to promote equitable access.

## INTRODUCTION

Science outreach (also known as public engagement with science) includes a range of activities such as public lectures, interactive forums, scientists visiting schools, science fairs, and popular press articles “in which scientists communicate their research or broader scientific concepts to those outside the scientific community” (Johnson et al., 2014, para. 1). Research outreach, a subset of science outreach, specifically focuses on communicating findings and research processes to a wider public.

In response to the growing demand for research visibility, private companies have begun offering commercial research outreach services. These companies typically identify a recent study, project, or article; contact the researcher; and offer to create engaging, reader-friendly content—such as written articles, multimedia summaries, animations, and visualizations—for a fee. They then publish this content on their platforms, including magazines and websites, to enhance research dissemination. Examples of such services include ResearchOutreach.org, ResearchFeatures.com, TheAcademic.com, and ResearchImpact.pub. Other companies like SciTube.io and Sciani.com specialize in animation and visualization, creating 2D or 3D animations about research results or processes. Pricing varies; for instance, as of May 2024, ResearchFeatures charged £1,260 for a basic paid service called “Digital Only Article,” covering writing, editing, professional design, a dedicated webpage, DOI assignment, a PDF brochure of article, and search engine optimization. More expensive services might include a podcast, video abstract, and social media campaign.

While science outreach has been extensively studied, research outreach—particularly the role of commercial services—remains underexplored. Science outreach, considered to be a responsibility of every scientist by some experts such as Woolley (2002), is done for various

reasons, including filling the gap in the public's perceived science knowledge; building or repairing the public's trust in science; fulfilling the "third mission," where universities are expected to directly connect to the external worlds (Johnson et al., 2014); or simply connecting the scientific community and the general public (McClure et al., 2020). Outreach has become increasingly important in the post-truth era, which is characterized by the denial of scientific theories without evidence (*Nature Nanotechnology*, 2017), its role in public education (Hinde et al., 2021), and its strengthening of societal decision-making (Silva-Flores et al., 2021).

However, outreach activities rely on specialized skills that are different from traditional academic communication skills, and even the success of the training of scientists in this area depends on certain characteristics (Falkenberg et al., 2021). Many scientists do not engage in outreach activities for various reasons, including lack of time (Andrews et al., 2005), discipline-specific barriers, or gender-specific rationales. For instance, physicists are likely to see them as outside of the scientific role and a threat to their reputation, while biologists are more likely to engage in outreach, and women are more likely to do it than men (Johnson et al., 2014). There is also the "Sagan effect," which simply means that engaging in outreach can hurt a scientist's research quality and performance (Ecklund et al., 2012).

Given the emphasis on research impact, particularly societal impact, in the past decade (Fecher & Hebing, 2021), researchers are increasingly expected to communicate their research results to the public. This is important because, while the number of scientific articles available as open access is considerable and growing (at least 28%; Piwowar et al., 2018), a large proportion of articles are not yet freely available to the public. While some researchers try to communicate their results using blogs (Bik et al., 2015) or Facebook (McClain, 2017) or other means, there are several barriers to outreach, such as lack of time, resources, and support (Woitowich et al., 2022). As a result, some researchers turn to commercial outreach services.

However, the extent to which researchers utilize the commercial services, their perceived value, and the impact on various aspects of research remain underexplored. While these services are not inexpensive, there has not been any independent evaluation of such services to inform researchers' decisions for their use. This study aims to fill this gap and provide empirical evidence about the use and value of commercial outreach services.

Therefore, the overall aim of the study is to provide some evidence for researchers to understand the role, benefits, and challenges of commercial outreach services so they can make an informed decision with regard to using these services. More specifically, the research seeks to find out why researchers use these services; what benefits, outcomes, and challenges these

services have; how researchers fund the cost of the services; and if they would recommend the service to other researchers.

## METHODS

A short online questionnaire survey (see [Appendix](#)) including a combination of open and closed questions was used for the data collection. The survey was hosted on SurveyMonkey (May 14 through June 3, 2024).

Two active and common commercial outreach services, ResearchFeatures.com and Research-Outreach.org, were used to identify potential participants. These two companies were chosen because they were among the first in this area and have thus had sufficient clients over the past few years to form a pool of potential participants. Moreover, their services and pricing are very similar. They both as of now (February 2025) belong to or are associated with the same parent company: Karger Publishers. The first article published by ResearchFeatures was in 2016, and the first article by ResearchOutreach was in 2018.

The researcher browsed the outreach articles published by these two services and collected information about researchers who have used these services from January 2022 to February 2024 (inclusive). The information included title, name, country of work (based on address), email address, gender (based on name and picture), and subject category of their article. It should be said that 407 of the articles had one author, 104 articles had two authors, and the remaining 73 had more than two authors. Only the information of the first author, who was the corresponding and seemingly the main author, was collected. Although the majority were affiliated with universities and research institutions, there were 45 articles whose authors were affiliated with the private sector.

Both services use the same broad subject categories to group the articles they publish. Their categories are Arts & Humanities, Behavioural Sciences, Biology, Business & Economics, Earth & Environment, Education & Training, Engineering & Technology, Health & Medicine, and Physical Sciences. Only articles classified under one of these categories were included in the sample. Articles published under “Thought Leaders,” “Uncategorised,” or “Blog” were not included as they are different in nature.

Personalized invitation emails, addressing each researcher by their title and surname, were sent using the researcher’s institutional email. A reminder was sent after 1 week. In total, 584 researchers were invited to complete the survey, nine emails bounced back, and 33 emails resulted in out-of-office auto-reply. Overall, 109 respondents completed the survey, which equals to 20.1% response rate. Five of the responses were removed from the data because

they only answered the first few questions and did not reach the end of the survey. The remaining 104 completed questionnaires were analyzed.

To analyze the data, simple statistics (frequency and percentage) were used for closed questions. Free-text answers to the open-ended questions were analyzed using inductive thematic coding. To ensure the reliability of the thematic coding, first the researcher developed a code book based on a sample of responses for the four major open-ended questions, and then a second coder (with a PhD in information science) using the code book independently coded a random sample of 20% of the responses. We calculated the level of agreement between coders, and the coding achieved a good level of reliability with 83% agreement. Disagreements were discussed and minor adjustments were made to the code book before the final coding was done by the researcher.

The study has some limitations. Although respondents well represented the research population, online surveys are self-selective; therefore, caution should be taken when generalizing the findings. A qualitative study that involves interviewing some of the service users would be beneficial for a more in-depth understanding of their experience as well as the benefits and challenges of the services.

## **Ethics statement**

Ethics approval for this study was obtained from the Human Research Ethics Committee of Charles Sturt University (protocol number = H24032). All participants were over 20 years old. Extended implied informed consent was obtained from all participants. The consent was extended, which means the data could be used for this study or any near future study on the same area by the same researcher. But it did not include permission to publicly share the data. This was because sharing the data would create the risk of participants being identifiable given the limited number of those who have used the service.

## **Characteristics of respondents**

The characteristics of the sample and respondents of the study are demonstrated in [Table 1](#). Gender distribution showed a higher percentage of males (74.0%) compared to females (25.0%). Discipline-wise, respondents primarily belonged to Health & Medicine (32.7%), followed by Physical Sciences (17.3%) and Earth & Environment (12.5%). The sample included researchers from 49 different countries, but only top countries with more than 20 articles are included in the table. Respondents were from 30 different countries, but the majority of them were from the United States (28.8%), followed by Japan and Australia (both 6.7%).

The comparison of the respondents with the sample indicates that respondents well represented the sample in all characteristics, except for the service used. While there was an even split in the sample between those engaging with Research Features and Research Outreach, the latter was slightly more represented among respondents (64.4%). Chi-squared tests for goodness of fit were calculated for country ( $X^2 = 6.41$ ,  $P = 0.49$ ,  $df = 7$ ), gender ( $X^2 = 0.37$ ,  $P = 0.82$ ,  $df = 2$ ), and discipline ( $X^2 = 12.98$ ,  $P = 0.11$ ,  $df = 8$ ), which showed there was no statistically significant difference between observed (respondents) and expected number of responses.

Variables	Categories	Sample		Respondents	
		<i>N</i>	%	<i>N</i>	%
<b>Service</b>	Research features	290	49.7	37	35.6
	Research outreach	294	50.3	67	64.4
<b>Country</b>	USA	208	35.6	30	28.8
	Japan	49	8.4	7	6.7
	UK	38	6.5	6	5.8
	Germany	29	5.0	4	3.8
	Australia	28	4.8	7	6.7
	China	27	4.6	3	2.9
	Canada	21	3.6	6	5.8
	Other countries	184	31.5	41	39.5
<b>Gender</b>	Female	160	27.4	26	25.0
	Male	423	72.4	77	74.0
	NA	1	0.2	1	1.0
<b>Discipline</b>	Arts & Humanities	26	4.5	7	6.7
	Behavioural Sciences	35	6.0	8	7.7
	Biology	42	7.2	7	6.7
	Business & Economics	27	4.6	6	5.8
	Earth & Environment	55	9.4	13	12.5
	Education & Training	31	5.3	5	4.8
	Engineering & Technology	49	8.4	6	5.8
	Health & Medicine	242	41.4	34	32.7
	Physical Sciences	77	13.2	18	17.3
<b>Year</b>	2022	316	54.1	45	43.3
	2023	206	35.3	44	42.3
	2024	62	10.6	15	14.4
<b>Total</b>		<b>584</b>	<b>100</b>	<b>104</b>	<b>100</b>

**Table 1.** Characteristics of the sample and respondents

The survey included two other demographic questions about age and work situation (Table 2). Respondents were more likely to be in middle or older age bands. It is notable that slightly more than a third of them were 65 and above. Just under half of them were academics, and again it was notable that a fifth of them (21.2%) were retired academics. Thirteen chose “Other” for their work situation, and most of these were those who had multiple roles, such as being academic and running a start-up or being a retired professor and doing consultancy at the same time. Among work situations they mentioned were retired (3), independent researcher (2), international organization (1), and not-for-profit organization (2).

Demographic	Category	N	%
Age	25–34	4	3.8
	35–44	15	14.4
	45–54	22	21.2
	55–64	22	21.2
	65–74	22	21.2
	75–84	13	12.5
	85 or over	3	2.9
	Prefer not to say	2	1.9
Work situation	I am a retired academic	22	21.2
	I am currently an academic	47	45.2
	I own my own business	9	8.7
	I work for government	4	3.8
	I work for private sector	9	8.7
	Other (please specify)	13	12.5

**Table 2.** Age and work situation of respondents

In the findings section below, where quotations are presented from respondents, the name of the service they used (RF for ResearchFeatures and RO for ResearchOutreach) and their geographic regions are presented in brackets to provide some context.

## FINDINGS

The majority of respondents (94, 90.4%) were first-time users of a commercial outreach service. When asked how they learned about the service, direct email or phone call (some said “a direct cold call”) from the service was the main way (94; 90.4%). Other methods included recommendation by a friend (2, 1.9%), website advertisement (3, 2.9%), and others (3, 2.9%).



## Reasons for using the service

An open-ended question asked respondents, “What were you hoping to achieve by using this service?” Thematic analysis of 102 responses showed diverse objectives for using commercial outreach services. The overarching theme in the overwhelming majority (83) of the comments was broader dissemination and increased reach and visibility of research. Words such as visibility (10), exposure (10), and disseminate (9) were used most frequently. Researchers aimed to transcend the boundaries of their specific field and engage diverse audiences, including the general public (27), researchers from other fields (9), potential collaborators (5), policymakers/decision-makers (4), industry professionals (3), and stakeholders (2).

Some commercial and promotional goals were mentioned by 12 researchers, including advertising a product or service to attract clients (7), increasing book sales (3), and increasing citations (3). Another 12 respondents aimed to enhance their professional visibility and credibility within their respective fields by showcasing their research achievements. Two example comments given in response to this question are presented below.

*More industry and public awareness of my company and the services we provide.  
(RF, East Asia)*

*My goal in using this commercial outreach service was to extend the visibility of my scientific research beyond my field, reaching a wider audience including interdisciplinary researchers, industry professionals, and the general public. I aimed to promote broader engagement with my work and potentially encourage cross-disciplinary collaboration. Although I estimated that the likelihood of finding cross-disciplinary collaborations through this service was slim. (RF, Europe)*

Another open-ended question asked them for more specific reasons why they used a particular service. The question was, “Given that researchers are increasingly being trained or mentored for outreach and many universities provide some outreach service, what was the main reason for your decision to use a commercial service? Please elaborate on any specific strengths or features of the commercial service that were valuable to you.” The thematic analysis of 100 responses showed that respondents’ decisions to use commercial outreach services were influenced by a combination of factors, including accessibility, professionalism, convenience, and a desire for broader reach and impact. The main factors were:

### Access to a larger audience (N = 24).

The primary motivation for using a commercial outreach service was the potential to reach a broader audience beyond academic circles. Respondents valued the commercial service's ability to distribute research findings to diverse stakeholders, including policymakers, industry partners, and the public, thus facilitating wider dissemination and visibility. In one of the respondent's words, "*The commercial service gave a possibility of bigger distribution of the questions and needs related to the topic for a bigger audience, also the audience that might not be associated with academia such as policymakers who will be ones to that can introduce change at the legislative level*" (RF, Europe). Respondents' hope to reach a larger and broader audience seemed to be partly based on the claims made by the service to be able to deliver such an outcome. Example comments that pointed to such claims are: "*The commercial service promised to distribute my article to lots of databases and users...*" (RF, Oceania), "*The claim that they could reach a broader audience than I could through my social media channels*" (RO, Oceania); and "*The suggestion made was that the Outreach journal was read by hundred thousands of readers and 'in many cases' had resulted in new contacts between scientists and industrial partners to accelerate commercialisation/application of new knowledge in medical practice*" (RO, Oceania).

### Lack of adequate institutional support (N = 24).

Some respondents cited the absence or inadequacy of outreach services provided by their institutions as a reason for their decision to use a commercial service. It might be the case that some institutions have some support in this area, but researchers are not aware of them. Four of the comments clearly indicated that the researcher was not aware of such support at their institution (rather than an absence of support). This lack of support (training, resources, or service) or an awareness of support led them to explore alternative options for disseminating their research. One said, "*Unfortunately, my university and related Governmental Organism do not provide such service, neither a training for outreach*" (RF, Europe).

### Quality and convenient service (N = 19).

Several respondents appreciated the professionalism, expertise, and convenience offered by commercial outreach services. They highlighted features such as fast turnaround times, quality presentation, and easy-to-use service as well as features such as videos. The perception of a quality service and the convenience to outsource their task contributed to their decision to use the service. A respondent said, "*They were very professional, timely and easy to use*" (RF, East Asia), and another one stated, "*The main reason for our decision to use a commercial service was the need for a reliable and professional solution that could ensure high-quality results and efficiency. Several specific strengths and features of the commercial service were particularly valuable to*

*us: Expertise and Experience, Time Efficiency, Quality Assurance and Confidentiality and Security....*" (RO, North America).

#### Exploratory or experimental motives (N = 15).

Some respondents indicated that curiosity, experimentation, or a desire to explore new outreach opportunities drove their decision to use a commercial service. They saw it as a chance to test the effectiveness of different outreach strategies and try something new. One, for instance, said, "*The main reason was that the person who was leading the overall research project wanted to give this a try and was willing to do so*" (RO, East Asia). Another respondent said, "*I was a junior professor and was just trying out stuff*" (RO, North America).

#### Marketing and promotion (N = 4).

A few respondents viewed commercial outreach services as a marketing or promotional opportunity. One saw the service as "*relatively low-cost marketing*" (RO, East Asia), and another one stated, "*we understood this was mostly a marketing opportunity*" (RO, Europe).

#### Lack of time or skills (N = 4).

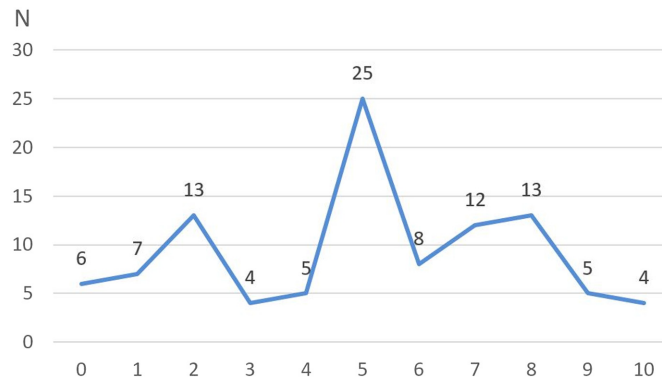
A few respondents pointed to their lack of time ("*I did not have the time to do it myself*" (RO, Europe)) or lack of the necessary skills to do an outreach activity by themselves, hence the decision to use a commercial service. One respondent said, "*We are not specially trained for vulgarisation, so I was thinking it could help*" (RF, Europe).

Other comments included one saying, "*don't know*"; another one saying, "*I am retired*," perhaps alluding to not having access to institutional resources; and another one saying it was a "*personal choice*." Two used the service because it was free for them, and another one cited "*Ignorance and old age*" (RF, North America), alluding to their regret perhaps. Another respondent said, "*I didn't know it was commercial and it wasn't really advertised as such*" (RO, Europe). One respondent had some money and a deadline to spend it, so they decided to use it for an outreach service. Four respondents complained about the service quality instead of saying why they chose it; their comments included "*It was a waste of money IMO* [in my opinion]" (RO, North America) and "*We did not get a single inquiry about our research*" (RF, North America).

#### Quality of service

Using a scale of 0 (failed to achieve my goal) to 10 (fully achieved my goal), respondents were asked if they achieved the goals they had. Both mean and median were 5, and, as [Figure 1](#)

shows, there was a pick in the middle (25 chose 5), but overall, more people landed on the more positive side of the scale with 42 respondents choosing above 5 compared with the other side (35 respondents chose below 5). A Mann-Whitney U test showed no statistically significant difference between the two services ( $U = 1495$ ,  $P = 0.108$ ).



**Figure 1.** The success of the service in achieving goals.

It was also important to know how happy researchers were with the content of the outreach article and if the articles accurately represented their research. Table 3 presents the result. Most participants (91.5%) were either somewhat or strongly satisfied with the representation of their research. Specifically, 58 respondents (55.8%) indicated that the published content perfectly captured the essence of their work and effectively communicated their message, which demonstrates a strong level of satisfaction. A smaller portion of respondents had fewer positive views. Six respondents (5.8%) indicated a neutral stance and acknowledged that the content captured the main points but also noted some inaccuracies or misinterpretations.

Whether the Outreach Piece Reflected Researcher's Work	N	%
The content significantly deviated from my research and did not effectively represent my message (Dissatisfied)	2	1.9
The content captured the main points, but there were some inaccuracies or misinterpretations (Neutral)	6	5.8
It accurately represented my research findings, but could have better emphasized some key points (Somewhat Satisfied)	37	35.6
It perfectly captured the essence of my work and effectively communicated my message (Strongly Satisfied)	58	55.8
I am unsure/I don't remember (Uncertain)	1	1.0
<b>Total</b>	<b>104</b>	<b>100</b>

**Table 3.** To what extent do you feel the final published content accurately represents your research?

Only two respondents (1.9%) were dissatisfied, stating that the content significantly deviated from their research and did not effectively represent their message.

A free-text box also gave respondents a space to elaborate on the accuracy of the content if they wished, and 39 respondents used the opportunity to comment. The comments highlighted the importance of active collaboration, thorough editing, and ensuring a deep understanding of the research topic to accurately represent research findings in commercial outreach publications. Many respondents (21) mentioned actively collaborating with the commercial service and engaging in extensive editing to ensure that the final published content accurately represented their research. They engaged in providing feedback, making corrections, and suggesting revisions to improve the accuracy and clarity of the content. About 15 comments indicated mixed levels of accuracy and effectiveness. They expressed varying degrees of satisfaction with the accuracy and effectiveness of the final published content. While some felt that it accurately captured their research findings, others found it to be superficial, inadequately researched, or poorly written. An example comment is: *“The content was accurate, but wasn’t as effective as I was expecting to make explanations accessible to a general public... I had to help correcting the text a lot for it to make sense. Even so, I felt that the article was somehow very superficial”* (RO, East Asia).

Several respondents (10) commented on the quality of writing and the level of understanding demonstrated by the commercial service. They noted instances of inaccurate information, misinterpretations, and a lack of scientific background in the initial drafts, which required extensive revisions or rewriting. Despite challenges, some (9) respondents expressed overall satisfaction with the collaboration and highlighted the learning experience gained from working with the commercial service. They appreciated the opportunity to improve their communication skills and refine the presentation of their research. A few respondents (8) noted having significant control over the content and collaborative process, either by providing most of the content themselves or by closely guiding the writing process. They emphasized the importance of ensuring accuracy and alignment with their research objectives. Finally, 13 responses reflected a mix of positive and negative experiences with the commercial service. While some respondents praised the professionalism and flexibility of the service, others expressed disappointment with the quality of the final product and the level of understanding demonstrated by the writers.

## Outcomes

Table 4 outlines the outcomes experienced by respondents following the publication of their outreach pieces. As this was a checkbox question, respondents were able to select

multiple options. About a third (34, 22.7%) believed that there was no specific outcome as the result of the outreach article. The most frequently reported outcome was an increase in social media mentions of their research, as indicated by 31 respondents (29.7%). A similar portion of respondents (31, 29.7%) reported that the visibility of their research and profile increased. An increase in views and downloads of their articles was observed by 28 respondents (26.9%), reflecting heightened interest in their work post-publication. Media inquiries about their research were received by 24 respondents (23.1%). A smaller proportion (8, 7.7%) noted an increase in citations to their articles. Additionally, 14 respondents (13.5%) selected the “other” category and left comments, including nine responses that can be categorized as “don’t know” (*don’t know, not sure, did not follow up*) and three who said it was too early to know. One respondent said the article resulted in another researcher approaching them and then forming a collaboration. One participant reported a negative side effect: a spike in marketing emails received from predatory journals or low-quality conferences. This could be because their name and email are made available on the open web. However, it is also possible that individuals who demonstrate a willingness to pay to publish in these services are perceived as more likely to pay article processing charges, thus making them targets for these emails.

It should be noted that all these outcomes were based on the perception of researchers. Some of these are easier to know (a spike in social media mentions), and some are difficult to attribute (e.g., it is not easily possible to know if the outreach article caused more citations). Therefore, the researchers were asked if the service provider provided them with any data or report on the impact of the outreach article (e.g., website traffic, social media mentions). The majority (72, 69.2%) said they have received such reports, and 31 (29.8%) said no. A text box was also provided if they wanted to elaborate, and 67 respondents did. Most of the comments were neutral, simply explaining the type of information provided to them, including statistics on website traffic, views, downloads, social media mentions, impressions (e.g., Twitter or Facebook), and so on, with some of these stratified by country/location and demographics. However, 12 respondents commented on the usefulness of the data provided. Only one of these was positive (“*They have a sheet with media appearance what was somewhat impressive*” (RG, Europe)). The other 11 comments all alluded to little value or use the data had for the researchers (comments like “*But for me not that useful*” (RF, Europe) or “*It was of no value to me*” (RO, North America)). One respondent said, “*It made it look very good, whereas we never saw those results. They also tried to upsell us, of course*” (RO, Europe). Two of the comments indicated that the researchers drilled down to the data, and they found that “*most Twitter impressions were done by bots*” (RF, Oceania) and “*it seems it is mostly spam accounts*” (RO, North America).

Outcome of the Service	N	%
No specific outcome	34	32.7
Social media mentions of my research increased	31	29.8
Visibility of my research and my profile increased	31	29.7
Views and downloads of my articles increased	28	26.9
I received enquiries from media about my research as a result of this	24	23.1
I received more citations to my article	8	7.7
Other	14	13.5

**Table 4.** What outcome did you see after the publication of the outreach piece (choose as many options as apply).

To better understand nuances of any outcome and impact that the service generated, an open-ended question asked, “Can you please describe any impact at all (long term or short term, positive or negative) that this publication has had on your research or work?” The analysis of 94 responses varied widely, with some indicating positive outcomes such as increased visibility and recognition, while others reported limited impact or negative experiences. Four said it was too early for them to make a comment about any impact. The findings suggest that the effectiveness of the publication in influencing research or work outcomes varies depending on individual circumstances and expectations. A Chi-squared test of categories of the comments ( $X^2 = 3.27$ ,  $df = 3$ ,  $P = 0.35$ ) showed no difference between the two services. The main themes were (note the percentages are out of a total of 94 comments):

#### Limited impact or no observable effect ( $N = 53$ ; 56.4%).

Many respondents indicated that they did not observe any significant impact or noticeable changes in their research or work because of the publication. They mentioned that they did not receive increased visibility, collaboration opportunities, or citations related to the published content. Some of the comments showed disappointment or a negative experience. Some example responses are: “*No impact, we already have a strong publication presence*” (RO, Europe), “*I would say no impact at all*” (RF, Europe), “*Not much that I’m aware of*” (RF, North America), “*No effect*” (RO, North America), “*No noteworthy impact*” (RF, Europe), “*My feeling is that the publication has had no tangible impact*” (RO, Europe), “*It created lots of anxiety and loads of additional work*” (RF, Oceania), “*I paid out of pocket for the service with no apparent benefits*” (RO, East Asia), and “*Unfortunately, I did not get any impact after publication*” (RO, East Asia).

### Some impact (N = 27, 28.7%).

Some respondents were positive about the impact of outreach piece and mentioned increased visibility, recognition, and inquiries including from potential collaborators and media outlets. They noted that the publication helped to promote their work and attract attention to their research findings. Example comments are: “*The short-term impact was the satisfaction that my work was being promoted and recognised. The long-term impact was the huge amount of social media impressions...*” (RF, North America), “*It has given opportunity to expand my project*” (RO, North America), “*It exposed me and got the attention I was looking for*” (RF, East Asia), and “*... Increased Visibility*” (RF, North America). However, a few of the researchers who were happy with the outcome seemed to be satisfied because they could use the publication itself for different purposes such as adding it to their CV, using its content on their website or on their institution’s website, or using it for distribution to audience when engaging non-academics. One simply said, “*I gained an experience*” (RF, Europe).

### Mixed or uncertain impact (N = 10, 10.6%).

A few respondents expressed mixed feelings or uncertainty regarding the impact of the publication. They mentioned receiving some positive feedback or opportunities but were unsure about the overall effect on their research or work. Example comments are: “*Short term, the article improved the visibility of my research work, but I couldn’t detect any significant long-term effect (neither positive nor negative)*” (RF, Europe) and “*It’s hard to know. I think I have to treat it as a short PR [public relations] burst that was amplified a little at the time with all the social media platforms. It is fleeting, just as any social media platform, but if someone read it, it would be a little more of a meaningful plug than just the tweets*” (RF, Europe).

## Challenges

Table 5 details the challenges faced by respondents when using the commercial outreach service. Nearly half of the respondents (49, 47.1%) reported no challenges. However, the process being very time-consuming was a challenge for 16 respondents (15.4%). Issues with the quality or accuracy of the final published content were noted by 15 respondents (14.4%), and another 12 respondents (11.5%) faced time constraints in coordinating with the service provider.

Other challenges included a lack of clarity in communication (9 respondents, 8.7%), limited customization options (6 respondents, 5.8%), and cost (7 respondents, 6.7%).



Additionally, 8 respondents (7.7%) had difficulty understanding the process or requirements, and 4 respondents (3.8%) faced a language barrier because English was not their first language. Sixteen respondents (15.4%) specified other challenges, which included cost of the expensive service (7), having to do most of the writing or a lot of rewriting (4), and slow service or response (2). One simply stated they did not remember, and another mentioned change of staff. One of the comments was positive, appreciating “*the ample opportunities to correct*” (RO, North America). Those who commented on having to do most of the writing or a lot of rewriting also acknowledged that “*the process of translating many years of research into accessible form simply takes time and effort to accomplish*” (RF, North America).

Challenges	N	%
No challenge	49	47.1
Lack of clarity in communication from the service provider	9	8.7
Language barrier as English is not my first language	4	3.8
Difficulty in understanding the process or requirements	8	7.7
Limited customization options for tailoring the outreach content	6	5.8
Time constraints in coordinating with the service provider	12	11.5
A very time-consuming process	16	15.4
Issues with the quality or accuracy of the final published content	15	14.4
Other (please specify)	16	15.4

**Table 5.** What challenges, if any, did you face in using this service? (Check all that apply)

### Payment sources

The outreach services are not inexpensive, and research funding tends to be scarce. When respondents asked how they paid for the service (Table 6), about two-thirds (41, 39.4%) utilized funding from their research to cover the service fee. About a third (35, 33.7%) paid with their own money. Institutional or workplace funding was used by 20 respondents (19.2%). A small number of respondents indicated that either their colleague or collaborator paid the fee (2 respondents, 1.9%) or that they used a free service provided (2 respondents, 1.9%). It seems some services offer a free service in selective cases when researchers are willing to write their own pieces (Anderson, 2020). Three respondents (3.8%) selected “other” funding sources.

<b>Funding the Cost</b>	<i>N</i>	<i>%</i>
I did not pay; they had a free service that I used	2	1.9
I had funding for my research, and the funding covered this service fee	41	39.4
I paid with my own money	35	33.7
My colleague/collaborator paid the fee	2	1.9
My institution/workplace paid the fee	21	20.2
Other (please specify)	3	2.9
<b>Total</b>	<b>104</b>	<b>100</b>

**Table 6.** How did you pay for the service?

### Service recommendation and final feedback

Table 7 illustrates whether respondents would recommend the use of commercial outreach services to other researchers. The majority expressed a neutral stance, with 38 respondents (36.5%) indicating that the usefulness of such services depends on the researcher and project. Twenty-eight respondents (26.9%) would not recommend using these services for research communication. Conversely, 21 respondents (20.2%) somewhat recommended them, suggesting they could be helpful depending on specific needs, while 12 respondents (11.5%) strongly recommended them, believing they offer significant value. Lastly, five respondents (4.8%) were unsure due to insufficient experience.

<b>Recommend or Not</b>	<i>N</i>	<i>%</i>
Do Not Recommend: I would not recommend using a commercial outreach service for research communication	28	26.9
Neutral: The usefulness of commercial services depends on the researcher and project	38	36.5
Somewhat Recommend: Commercial services could be helpful depending on specific needs	21	20.2
Strongly Recommend: I believe commercial outreach services offer significant value for researchers	12	11.5
Unsure: I don't have enough experience to make a recommendation	5	4.8
<b>Total</b>	<b>104</b>	<b>100</b>

**Table 7.** Considering your experience, would you recommend using similar commercial outreach services to other researchers in your field?

The survey ended with a text box saying “Finally, if you have any other comments about these services that might help other researchers, or about this survey, please share here.” Fifty-three left comments. The comments provided insights into the diverse experiences and perspectives

surrounding commercial outreach services. Their feedback highlighted the importance of transparency, cost-effectiveness, and alignment with research goals in evaluating the utility of these services for academic outreach and dissemination. The main themes that emerged from coding the comments were:

#### Positive experience ( $N = 16$ ).

Several comments had an overall positive tone and mentioned specific aspects of the service they were happy with, such as “*a professional service*” (RO, North America), “*superlative graphics*” (RF, North America), “*excellent writing*” (RF, North America), “*professional and efficient*” staff (RO, North America), “*good editors*” (RO, Oceania), “*very good experience*” (RF, North America), having “*no regret*” (RO, North America) using the service, and “*an excellent job translating a very technical article*” (RO, North America). Three of these, while positive, also indicated that the service was expensive. Some other comments were more specific, two of which highlighted the potential of commercial outreach services for advocacy and policy change efforts. They emphasized the value of using accessible language and concise communication to engage decision-makers and facilitate discussions on implementing innovations or policy reforms.

*I do believe this kind of service can be useful for advocacy for policy change and discussions on implementation of innovation or new models. Easier, non-academic and more concise language is very useful if meeting with decision makers. (RF, Europe)*

A few respondents emphasized the importance of translating complex research into accessible formats to engage diverse audiences effectively. They suggested using commercial services selectively and ensuring that outreach efforts align with research goals and audience interests.

*As academics, we need to do a much better job of translating the work we do into a form that other academics and non-academics can understand. That is important from the standpoint of promoting interdisciplinary collaboration as well as enhancing access and engagement by colleagues, students, administrators, funders, and policy makers. Academics typically are not trained to translate scholarly complexity into accessible form, but rather, are often encouraged – implicitly and explicitly – to focus our publication efforts on forums that are highly specialized and far removed from anyone who does not share our expertise. As long as they are credible, and have integrity, systems like [anonymised] provide an invaluable service not only to us and our colleagues, but to the many publics we serve. (RF, North America)*

### Negative experience (N = 14).

Several respondents left negative comments about the experience with the service. A few of the comments were general such as “*I would not use such a service again*” (RF, North America), “*The service is not worth it*” (RO, North America), “*Don’t use a service like this especially if they contact you first...*” (RO, Europe), or calling it “*paid advertisement*.” Some other comments were more specific, using terms such as “predatory” to describe these practices, reflecting participants’ concerns about exploitative behaviors:

*I believe these services are predatory. Their account reps quit constantly as I imagine they are under a lot of pressure to sell certain products. Their prices are insane for the services they provide. If you make a deal with somebody, by the time the product is out, that person no longer work for the company. At least this was my experience, but I believe it may be a common pattern. (RF, Oceania)*

*A very costly process with no feedback or benefits after publication. I would call this as ‘predatory’ publishing. (RO, North America)*

### Mixed views on effectiveness and value (N = 7).

Some respondents expressed mixed views on the effectiveness and value of commercial outreach services. While some found them useful for reaching broader audiences or enhancing visibility, others questioned the quality of the outcomes and the relevance of the service for their research objectives. The overall message of this group probably was, as one respondent put it, “*usefulness depends on what you want to get out of it and your expectations*” (RF, Oceania), or, as another one said, “*...the use of such service is only meaningful if it maps an identified need on your side that you do not have the capacity to fulfill professionally...*” (RO, Europe).

*Although we were aware of the marketing scope of this research outreach and the final product is certainly beautiful, I feel the results are not really research. (RO, Netherlands)*

### Concerns about cost and pressure for additional payments (N = 7).

Several respondents expressed concerns about the cost of commercial services and perceived pressure to make additional payments for extended visibility or detailed outcome reports. Their complaint was not simply about the high cost but also about unclarity in communicating the cost and how the fee is requested.

*After that the process has been engaged, the provider stresses regularly to pay more and more to have more and longer visibility and have more detailed report about the outcome. This was even a little bit harassing at the end. (RF, Europe)*

### Suggestions for improvement ( $N = 6$ ).

Respondents offered suggestions for improving commercial outreach services, such as distributing the articles to specific target audience, offering in-depth analysis of social media activity, and enhancing transparency in pricing and outcomes. They also highlighted the need for better communication and collaboration between researchers and service providers.

Four respondents specifically commented on the survey and suggested making the results widely available for researchers so they know about the experiences and challenges associated with commercial outreach services. Another four respondents said it was too early for them to judge or that they did not have enough experience or knowledge to comment.

## DISCUSSION

This is the first study on the use of commercial outreach services, and the results provide insight into researchers' experiences and perceptions regarding the use of such services for academic dissemination. The findings come at a critical time when academics are increasingly being asked to engage in activities such as outreach and public engagement and to communicate their research to broader audiences beyond academia. In some countries such as Japan (Koizumi et al., 2013), Australia (Nicholson & Howard, 2018), or the UK (Johnson et al., 2019) there has been national push towards this direction. While past research shows that in some countries such as the UK, engagement has become part of the research landscape, researchers' public engagement efforts are constrained because the research sector is driven by funding and rewards for research, teaching, and other activities (Burchell et al., 2017). The study shows how a market has emerged for commercial outreach services, with some researchers turning to these services for various reasons, including lack of institutional support.

It should be noted that not every piece of research is relevant to or appealing to the public. For instance, the findings showed a predominance of health and medicine articles in commercial outreach services, likely because health sciences (Noel et al., 2019) tend to be more relevant to the daily lives than some physical sciences.

Several key themes emerged from the data that highlight both the benefits and challenges associated with these services.

## **Mixed views on effectiveness and quality**

Despite the positive aspects, there were mixed views regarding the effectiveness and quality of commercial outreach services. While some respondents were strongly satisfied with the representation of their research, a minority expressed dissatisfaction and cited issues such as superficial coverage and a lack of scientific understanding in the initial drafts. This might be resolved through closer collaboration with researchers during the content creation process. There were also mixed views on the outcome and effectiveness of the services. While researchers reported some increased social media mentions or higher views and downloads of their articles, a significant portion of respondents believed that there was no specific outcome from the outreach article. Researchers need to have clear objectives in what they want to achieve by using a commercial service and a good understanding of what such services can actually deliver.

## **Recommendations for improvement**

Respondents made suggestions for improving the services, which ranged from better or targeted distribution of outreach material and in-depth analysis of social media activity to enhancing transparency in pricing and outcomes. The marketing style of these services, which might be intrusive or too persistent at times, along with how pricing is communicated might make researchers perceive them as predatory, and they should revisit their marketing styles (it should be said the two services investigated here have clear pricing on their websites now in 2024). Moreover, the motivations to use these services were diverse beyond visibility and reach and included enhancing professional credibility to achieving commercial benefits.

## **Challenges and barriers**

Several challenges and barriers for using commercial outreach services were identified, including the cost, particularly for those without dedicated funding. Additionally, there was apprehension about the services' effectiveness in achieving promised outcomes. The satisfaction levels were mixed. This indicates a need for further transparent and evidence-based evaluations of these services' impact.

## **Lack of institutional support and high cost of services**

The lack of outreach support by institutions was one of the drivers for the use of commercial services. This along with the high cost of commercial services raises some questions regarding disparity in access to outreach resources, which may disadvantage researchers from less affluent institutions or those in developing countries. This is an issue of accessibility and inclusivity. Several authors have pointed to the need for training or advocated for training (e.g.,

Andrews et al., 2005; Leshner, 2007; Dilger & McKeith, 2015; Falkenberg et al., 2021). Consequently, academic institutions have an opportunity to enhance their outreach support services and provide more training. Besides training, it might be more effective if institutions engage communication professionals or commercial outreach services at the institutional level (some kind of partnership perhaps) to offer tailored support to researchers. This model might work better than researchers individually engaging with commercial services. Given these challenges, institutions and policymakers may need to rethink their approach to research outreach support.

### **Policy implications**

The increasing emphasis on impact and societal engagement in research funding and evaluation criteria necessitates a rethinking of how outreach is supported and evaluated. Policymakers should consider integrating outreach training and support into research funding frameworks, which could involve incentivizing collaboration between researchers and professional communicators or providing grants specifically for outreach activities.

### **Ethical implications**

There should be some discussions around the ethical implications of using these commercial services. Some ethical issues include potential biases in the selection of research to promote or in selection of research findings to communicate. Some researchers use these services for commercial purposes (book sales or selling a product or a service), and they need to consider the ethical implications of such use cases. The transparency of these services' operations is also important, especially in the context of the commercialization of academic work. Researchers need to understand the terms and potential consequences of using these services to ensure academic integrity and public trust in science will not be damaged. The use of these services can have long-term implications for the academic community. What is the impact on the credibility of research, and will it in any way undermine the authenticity or integrity of scientific communication? While some researchers were satisfied with the professionalism and quality of the content produced by commercial services, there were also concerns about the representation of their work. Misrepresentation or oversimplification can undermine the credibility of the research and researcher. These concerns highlight the need for clearer ethical guidelines and more transparency in commercial outreach practices.

### **Implications for librarians**

The study did not directly examine the role of libraries in commercial research outreach, and developing research outreach materials is generally the domain of science communication rather than librarians. However, increasing research visibility and enhancing scholars' profile

are among main motivations for using these commercial services, and academic and research librarians already play an active role in supporting research visibility (Dang, 2017; Kumar, 2020). Librarians provide support and guidance on a range of activities related to engagement, impact, and visibility, including open access advocacy, institutional repositories, altmetric training, and the use of social networking platforms. Given the existing expertise, there is an opportunity for librarians to take on a stronger role in this area by increasing awareness of these commercial services and their potential benefits and drawbacks. Librarians could also collaborate with other institutional units, such as research offices and media teams, to expand training and support for outreach or to explore the development of institutional alternatives to commercial services. Further research and professional dialogue are needed to explore how libraries can best support researchers in relation to research outreach.

## CONCLUSION

In conclusion, commercial outreach services have emerged as a response to gaps in traditional research dissemination, and some researchers turn to these services due to diverse pressure and needs for engagement, outreach, and impact. While these services can extend the reach of academic work, their effectiveness and alignment with researchers' expectations vary. Universities and research institutions could play a more proactive role in supporting outreach efforts and potentially reduce the reliance on commercial services. Additionally, a closer collaboration between commercial services and researchers could enhance the accuracy and depth of content. Addressing these challenges would allow both academic institutions and commercial providers to improve research dissemination practices.

There are other aspects surrounding commercial outreach services, such as cost-effectiveness and ethical implications, that warrant further investigation. Although most universities have media and engagement offices, little is known about the services they offer, how effective they are, what gaps exist, and whether they meet the needs of researchers. It would also be interesting to investigate the impact generative artificial intelligence will have in this area. On the one hand, such tools might add to the efficiency of the service providers, and on the other hand, if the tools are readily available to researchers, they might see less need for using commercial services.

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## APPENDIX: THE QUESTIONNAIRE

1. How did you learn about the service that you used?
  - Email marketing
  - Recommendation from a colleague/friend Website advertisement
  - Other (please specify) [text box]
2. Was this the first time you used a commercial outreach service?
  - Yes, this was my first time
  - No, I have used such services before
3. What were you hoping to achieve by using this service? Please explain. [text box]
4. On a scale of 0 to 10, to what extent did this service help you achieve your goals? [sliding bar 0-10]
5. Given that researchers are increasingly being trained or mentored for outreach and many universities provide some outreach service, what was the main reason for your decision to use a commercial service? Please elaborate on any specific strengths or features of the commercial service that were valuable to you. [text box]
6. . To what extent do you feel the final published content accurately represents your research?
  - It perfectly captured the essence of my work and effectively communicated my message. (Strongly Satisfied)
  - It accurately represented my research findings, but could have better emphasized some key points. (Somewhat Satisfied)
  - The content captured the main points, but there were some inaccuracies or misinterpretations. (Neutral)
  - The content significantly deviated from my research and did not effectively represent my message. (Dissatisfied)
  - I am unsure/ I don't remember. (Uncertain)
  - Please elaborate if you wish. [text box]
7. What outcome did you see after the publication of the outreach piece. (Choose as many options as apply.)
  - Social media mentions of my research increased.
  - Views and downloads of my articles increased.
  - I received enquiries from media about my research as a result of this.

- I received more citations to my articles.
  - Visibility of my research and my profile increased.
  - Other (please specify) [text box]
  - No specific outcome
8. Can you please describe any impact at all (long term or short term, positive or negative) that this publication has had on your research or work? [text box]
9. Did the service provider provide you with data or reports (e.g., website traffic, social media mentions) to show the impact of the outreach service on your research?
- No
  - Yes

if yes, please elaborate on the nature of data/report provided: [text box]

10. How did you pay for the service?
- I did NOT pay; they had a free service that I used.
  - I had funding for my research, and the funding covered this service fee.
  - My institution/workplace paid the fee.
  - I paid with my own money.
  - My colleague/collaborator paid the fee.
  - Other (please specify) [text box]
11. Considering your experience, would you recommend using similar commercial outreach services to other researchers in your field?
- Strongly Recommend: I believe commercial outreach services offer significant value for researchers.
  - Somewhat Recommend: Commercial services could be helpful depending on specific needs.
  - Neutral: The usefulness of commercial services depends on the researcher and project.
  - Do Not Recommend: I would not recommend using a commercial outreach service for research communication.
  - Unsure: I don't have enough experience to make a recommendation.
12. What challenges, if any, did you face in using this service? (check all that apply)
- Lack of clarity in communication from the service provider
  - Language barrier as English is not my first language

- Difficulty in understanding the process or requirements
- Limited customization options for tailoring the outreach content
- Time constraints in coordinating with the service provider
- A very time-consuming process
- Issues with the quality or accuracy of the final published content
- Other (please specify) [text box]
- No challenge at all

13. Which option best describes your current work situation?

- I am currently an academic
- I am a retired academic
- I work for private sector
- I own my own business
- I work for government
- Other (please specify) [text box]

14. What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75-84
- 85 or over
- Prefer not to say

15. Finally, if you have any other comments about these services that might help other researchers, or about this survey, please share here. [text box]