

CAREERS

INDUSTRY Women in tech roles are feeling increasingly isolated **p.276**

ACTIVISM ‘March for Science’ organizers hope to repeat last year’s success **p.276**

CAREER PATHS Science PhDs remain greatly valued in the job market **p.277**

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COLUMN

Boost your market value

To get grants and jobs, know where your skills will be valued and how to promote them.

BY PETER FISKE

Most academic researchers might not be familiar with marketing, but my own long stint in the private sector and my recent return to academia have taught me that a market strategy can be a crucial step in winning grants, building a scientific reputation and advancing your career.

When I left academia in 2000 to launch my first company, I thought that marketing and sales were the same thing. To my mind, they both involved showing potential customers my company’s amazing technology and believing that they would want to buy it. But after several months, I hadn’t closed on a single sale.

Why? I hadn’t done a market analysis to learn whether my product would actually meet my customers’ needs. And I had not developed a market strategy to attract their attention.

A business-adviser colleague explained that sales involves presenting your product or service to prospective customers and addressing the decisions and steps that they must take before they buy. Marketing, by contrast, is a two-part process: figuring out what that product or service needs to be (in other words, carrying out a market analysis), and then working out how best to promote and present it (coming up with a market strategy).

ADJUSTING THE FOCUS

I soon learnt that even the best technology does not ‘sell’ itself. I was certain that our high-precision optical tools were superior to those of our competitors, but I did not understand or appreciate what might keep potential customers from switching to our product.

So I interviewed customers to determine exactly what they lacked and to work out how we could provide it to them. Our sales took

off as soon as I had learnt that my clients were desperate for two things: rapid order fulfilment and test-certified optical components.

How does all this apply to scientists? Some might think that market analyses and market strategies have nothing to do with their work. Take grants, for example. Requests for grant proposals (RFPs) already specify the funder’s requirements and the boundaries of the research problem to be funded. It would seem that no market analysis is required.

But if you’re seeking funding from any source — whether a government agency, a foundation or a business — bear in mind that long before a funder issues an RFP, it assesses key areas of research need. Funders might organize invitation-only workshops to gather feedback from research or industry leaders. Often, a funding agency will have published a strategic plan or technical road map that identifies the priority areas for research. The US ►

INDUSTRY

Women alone in tech

US corporate-training programmes aimed at retaining female researchers in technology might be focusing on the wrong targets. A report published in February examines the results of in-depth interviews with 23 women in information-technology jobs across industry, including some at manufacturers, software-development firms and an insurance company (H. Annabi and S. Lebovitz *Inf. Syst. J.* <http://dx.doi.org/10.1111/isj.12182>; 2018). The authors sought to identify challenges faced by female researchers in this field. Employers often invest in female-centred mentoring and professional development, but the study participants said that they still feel forced out by their work environment. Fifteen respondents reported feeling isolated and excluded at work, and 13 said that a male-dominated workplace causes feelings of alienation. “There’s a mismatch with these investments in training and the barriers that women actually face,” says lead author Hala Annabi, an information-systems scholar at the University of Washington in Seattle. A Pew Research Center report (see go.nature.com/2esrhz5) found that the proportion of women in computer-related fields in the United States has dropped from 32% in 1990 to 25% today.

SCIENCE ACTIVISM

March for advocacy

The second March for Science is scheduled for 14 April in Washington DC (marchforscience.com). Organizers hope to recapture the energy and enthusiasm of last year’s event, when more than 1 million researchers and others — in 600 cities around the world — marched in support of evidence-based policy and the application of science for the greater good. Organizers worldwide expect events with fewer marchers, placards and chants but more advocacy-related activities. Berlin is planning a ‘local hero’ programme in which scientists will give public talks at cafes and other venues. March-related activities in Portland, Oregon, will include speeches by local politicians and a science expo with at least 30 presenters. The election and inauguration of Donald Trump as US president helped to spur marchers last year. But Caroline Weinberg, an organizer of the march, says that science activism shouldn’t depend on controversial events to draw interest and participation. “We can’t allow our advocacy to be tethered to those moments,” she says.

PLAY TO YOUR STRENGTHS

Marketing tips for a job search

- Understand yourself. List your key technical skills, experience, perspective and approach to problem-solving. What problems do you solve best, and in which situations or environments do you produce your best work? When have you been your happiest at work and what were you doing? Knowing this will help you to identify the types of employer for whom you can add the greatest value.
- Conduct a market analysis for the jobs and fields that interest you. Seek out people who received their PhD in the same field as yours, or in one that’s similar, but who have gone in different professional directions. Ask them where scientists with your background and strengths have been successful. Identify industries in which your skills and experience are relevant and valued, and investigate organizations whose mission aligns with your work. Gain a ‘market perspective’ on an industry

by joining a professional organization or taking a short course or workshop to understand how your scientific background might align with that interest.

- Expand your network. Reach out each week to people in positions that interest you, and meet them in person, if possible, to learn more about what they do. Follow up with them periodically to let them know your professional trajectory. Not only will you gain insights into positions or roles that interest you, but you might get help from these contacts in your job search.
- Focus on opportunities. Identify those organizations that you feel are the best fit for your skills, interests and values. Conduct informational interviews with key managers — who may be expanding their teams in the future — to get a feel for the work environment. Find out the managers’ goals and needs and see how your skills and background could help. **P.F.**

► Department of Energy’s Advanced Manufacturing Office, for example, has published a five-year plan (see go.nature.com/2elyc71). You should review such documents, as well as past RFPs from the agency concerned, and aim to learn from colleagues or associates what took place at earlier planning workshops.

If you don’t personally know former programme managers at an agency, you can search for them on LinkedIn, and find out which research ideas overall have proved most successful at that agency. And you can contact the funder itself and speak to a grant administrator or programme manager to learn whether your specific research idea pertains to the funder’s strategic interest (see *Nature* **482**, 429–431; 2012). (Grant-writers should first study a funder’s website and grant materials to learn the funder’s priorities, and glean background information and context.)

STREAMLINE YOUR SEARCH

Many early-career scientists fail to conduct a market analysis or develop a market strategy for their job search. They wait for a job advertisement to appear and then submit a CV — a compendium of every element of their research career so far — and hope that their background and research experience will merit further review.

Instead, before applying for specific jobs, you should deploy the market analysis-and-strategy template outlined above (see ‘Play to your strengths’). Sound out people who are already working in a field or for organizations that interest you (see *Nature* **538**,

417–418; 2016). Ideally, aim to connect with scientists whose backgrounds are similar to yours — perhaps they earned a PhD in the same field or from the same institution — and who have enough experience to directly advise you on where your skills and interests fit, and how best to present yourself.

As part of your market strategy, you should also craft and maintain a professional online persona. Use a platform such as LinkedIn or ResearchGate to create a detailed profile emphasizing key skills and experience, and to link up with others in relevant organizations or fields of research.

Use online technical forums to ask about skills and experience needed in an industry or for a specific position (part of your market analysis), and answer technical questions posed by others. Taking part in such dialogues can make recruiters notice you and seek you out regarding prospective openings.

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