

Scismic

Enhancing and diversifying scientific hiring

Scismic was founded to help facilitate scientists' transition from academia to industry. Its two platforms – Scismic Job Seeker and Scismic Lab Seeker – ensure job-seeking scientists find fulfilling work that truly matches their unique skillsets. Scismic has overcome several weaknesses inherent in traditional hiring models, and provides a job-matching platform that saves time, alleviates confusion, and reduces the biases that tend to stifle diversity. Research Outreach caught up with co-founders Elizabeth Wu and Danika Khong, PhD, to discuss these problems, and to hear how Scismic is working to overcome them.

Inefficient scientific hiring breeds a myriad of problems for industry. Not only does it waste time and cause confusion for both employer and job seeker, but it also risks stifling scientific innovation further down the line. Numerous studies have highlighted a widespread mismatch between scientists and their jobs, meaning talent and expertise are not efficiently harnessed. This leads to personal dissatisfaction and hinders the dynamism of the wider industry. In addition, scientists undertaking PhDs often find that an academic trajectory is incentivised and clarified, while the route beyond academia into industry seems indistinct and confusing. This lack of transparency

only heightens the disparity between scientists and their professional roles.

Elizabeth Wu and Danika Khong, PhD, founded Scismic with these vital problems in mind. They sought to streamline, simplify, and diversify the hiring process. *Research Outreach* spoke with them about the history and future of Scismic, and about the broader issues faced by scientists seeking to transition from academia to industry.

Could you tell us a little about your professional backgrounds, and how these led to you founding Scismic?

We started our careers as scientists in academia, very passionate about

making discoveries that would eventually make a real impact on patients' lives. However, as we moved forward in our careers, we realised that the research that gets pushed to the clinic comes out of industry, from biotech and pharma companies. Like all scientists, our training was geared toward obtaining future academic positions, so we had no idea how to find jobs that fit our specialised skill sets outside of academia. We saw all around us that scientists were struggling to make the transition out of academia because there are very few resources to help, even though almost 80% of PhD scientists eventually pursue non-academic careers. This inefficient flow of talent into industry creates huge delays in innovation, since scientists are not equipped to find industry positions, and therefore can't reach jobs where they can use their strengths and make the most impact.

That's why we founded Scismic, which allows scientists to see the jobs they qualify for and how their training can be applied outside of academia. Often, scientists don't even realise they have



Dr. Danika Khong



Elizabeth Wu



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transferable skills that can be widely applied in industry! Scismic's platform matches these jobs to scientists to make them aware of their career options and connect them to jobs they'll excel in. In this way, Scismic is breaking down barriers for scientific talent and knowledge to move into the companies where they can drive innovations forward.

Amongst other things, Scismic is diversifying the process of scientific hiring. Could you give us more detail on this hiring process, and the weaknesses in the traditional model?

Traditional hiring methods are extremely inefficient and biased. Many qualified candidates get missed for several reasons, including:

1. Highly manual and time-consuming resume screening process: Most

hiring processes begin with resume screening, where hiring teams spend 35 hours just screening resumes for one job! Since each resume is scanned for only six seconds on the first pass, the process is inconsistent and many candidates get missed.

2. Keyword mismatch: Scientists often use a different language in their resume than companies use in their job descriptions. Many recruiters and talent acquisition professionals are not scientifically trained and only look for specific keywords, which misses qualified candidates with relevant or related skills.

3. Implicit biases: Research shows that biographical information of candidates can often affect whether they are moved forward in evaluation. At Scismic, our own research shows that recruiters without a scientific

background frequently substitute other factors, such as previous company, university, or lab, to determine if a candidate is qualified. This bases the selection decision on factors that are not related to how well the candidate can perform at the job, and excludes qualified candidates that did not work in a certain company or go to a certain school.

As a result of these inefficiencies, it takes companies two to three months to find a scientist.

How exactly does Scismic work, and who is benefitting from using the platform?

Scismic Job Seeker is a tech platform that helps companies find qualified scientists and grow diverse teams. We have built a specialised matching



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Scismic can help industries find the talent they need to develop their innovations.

algorithm to accurately target candidates for faster hiring, and are NIH-funded to reduce bias in candidate evaluation. We accomplish this in three ways:

1. Automated candidate screening:

Our technology matches Scismic candidates instantly to roles, replacing the manual, inconsistent resume screening process. Because of our specific upfront match, 50% of candidates are called back, compared to fewer than 10% using traditional hiring methods. As a result, most companies are able to identify their new hire in one week, rather than two to three months.

2. Specialised skills matching: Scismic's system understands how skills and fields of expertise relate to each other, so we can translate the language of a scientist to the language of a recruiter and eliminate keyword misses.

3. Reduced-bias algorithm: Our algorithm matches on skills and qualifications only, which gets

candidates of nontraditional backgrounds in front of hiring managers. As a result, Scismic is twice as effective in bringing underrepresented scientists to companies.

Both job-seeking scientists and hiring companies benefit from using Scismic.

- For scientists, it saves time in their job-browsing process by showing only jobs they qualify for. In addition, they are five times more likely to get called back by the hiring company when applying through Scismic.
- For hiring companies, Scismic provides a platform that saves time in the screening process and enables them to hire within one month, rather than two to three months. Because of our automated platform, Scismic is able to do this at an 80% lower cost than traditional methods.

What metrics does Scismic use to assess the laboratories?

Separate from Scismic Job Seeker, we also provide a platform called Scismic Lab Seeker, to help researchers who are seeking academic labs that fit their priorities and career goals. Labs on Scismic are evaluated based on five criteria: Funding, Institutional Policy, PI Management, Work-Life Balance, and Mentorship. This way, researchers can choose which academic labs to pursue based on what's most important to them.

Do you hope to see Scismic's model leading to broader advancements in hiring, and perhaps even professional hiring more generally?

Yes, the potential of Scismic is huge. We are currently serving the biotech, agtech, medtech, and pharma industries, but Scismic's technology can be applied to any role that requires technical expertise. That opens up endless possibilities in greentech, materials science, energy, and more, all of which need scientific expertise. Many academic scientists do

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not even realise they have transferable skills for these industries, and only learn through Scismic that they are qualified for these types of roles!

Ultimately, industries need talent to develop their innovations, and Scismic is the bridge to seamlessly connect academic talent to industry to drive more innovations to market.

How are you hoping to progress the platform, and do you hope to incorporate a wider array of disciplines?

Scismic is already growing beyond the life science industry. We are currently expanding our skills ontology to include

more fields of expertise, so our matching technology can become more versatile and accurate for other industries.

What can scientists and researchers do to help advance the platform?

If you are a scientist, you can help in a couple of ways:

1. Sign up for [Scismic](#) and fill out your profile! You may be surprised by jobs that you match.
2. If you know a scientist who is looking for jobs, or have contacts in companies that are seeking scientific talent, share Scismic with them. We're happy to help.
3. Looking for more information on

career options? Attend one of our career development events. You can stay up to date on [Twitter](#).



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