In Silicon Valley, human capital trumps intellectual capital

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Job postings are a key tool for attracting qualified tech workers. However, companies face a dilemma: On the one hand, they want to provide enough information to attract the right candidates; on the other

hand, they want to keep the information about their product development and planning private. Sometimes it is just hard to get both.

In a recent paper published in *Contemporary Accounting Research*, accounting professor Yi Cao of the Donald G. Costello College of Business at George Mason University argues that highly competitive companies are more likely to post specific job requirements in order to find qualified workers even at the cost of potentially leaking proprietary trade secrets. The paper was co-authored by Shijun Cheng of Shanghai Jiao Tong University, Jenny Wu Tucker of the University of Florida, and Chi Wan of the University of Massachusetts Boston.

Generally, companies reveal less information during fierce competition to avoid giving their competitors an advantage. However, Cao finds that "when the technological competition is more fierce, companies provide more information into the labor market because they have to do this in order to attract talents, which is the essential driving force of innovation.

"They're balancing the trade-off between not leaking secrets but not hiring the matching candidates, versus leaking some of the trade secrets while more likely to hire matching employees. So between these two trade-offs, obviously, we find that companies choose to bear the risk of leaking information in order to acquire talents."

To examine the relationship between technological competition and skill specificity in job postings for tech positions, the researchers used a novel job posting database provided by Burning Glass Technologies (BGT). They calculated the skill-specificity scores of the job ads based on the level of information disclosed in the skill-requirements of the job postings and the taxonomy of skills, and then aggregated it annually by firm.

Cao's paper is the first to propose a taxonomy theory-based measure of

term specificity in the business field. This provides companies with a handy tool for measuring the specificity of textual documents and precisely determining how much information to disclose.

Cao uses the example of a company looking for workers with AI experience to demonstrate how the measure works. The company could post a job listing that simply says, "We are looking for someone to build machine learning tools." This is a relatively vague job posting that would not provide job seekers with detailed information about the specific skills that the company is looking for.

The company could also reword the post more specifically, e.g., "We are looking for someone to use Python and decision tree algorithms for credit card risk." Alternatively, they could be even more specific with language like, "We are looking for someone who have experience with random forest algorithms to specifically apply a portfolio level of prediction of credit card defaults." This description provides job seekers with detailed information about the specific tasks and skills that the company is looking for, while at the same time revealing information about existing technology.

Cao found that on average, firms disclose an additional 27 specific skills in their job ads when facing intense technological competition. The results reveal that the benefits of quickly attracting desired tech talent outweigh the potential costs of revealing proprietary information.

The findings did not apply to job advertisements for lower-level non-tech positions, such as food preparation and cleaning staff. However, they were observable for senior non-tech positions, e.g., directors of marketing or finance. These nuances suggest that both tech and managerial talent were valuable enough to motivate a higher degree of disclosure from employers.

Additionally, the effect on disclosure was much stronger for incremental innovators—firms whose patents tended to build on past knowledge, rather than strike out in new technological directions. The researchers speculate that breakthrough innovators would have too much to lose if they were to signal their plans through job postings.

While more detailed job postings can be helpful for finding qualified workers, they also could reveal proprietary information about the company's products and strategies. Cao emphasizes, "[Companies are] basically telling the world what [they're] trying to create. With higher level of detail you're trying to describe, you're disclosing more information to potentially everyone. And that information is beneficial in terms of labor demand because it attracts the right employee. But it's a concern in terms of competition because you basically show cards to your opponents."

As an accounting scholar, Cao is intrigued by the possibilities inherent in the discovery that labor-market pressures can force employers to divulge potentially compromising information. "In financial reporting, we don't capitalize human capital; we consider it an expense," he says. "But that's not necessarily the case when the labor market is tight and when the labor is essential in productivity. Our paper shows how the labor market, product market, and capital market are not segregated, but connected."

More information: Yi Cao et al, Technological peer pressure and skill specificity of job postings, *Contemporary Accounting Research* (2023). DOI: 10.1111/1911-3846.12870

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