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Research

2022



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STUDENT RESEARCH

The Doctoral Programs at Harvard Business School educate scholars who make a difference in the world through rigorous academic research that influences practice.

More than 125 strong, **Harvard Business School doctoral students** represent diverse experiences and backgrounds. They examine the most critical issues in management through relevant research, creating and disseminating new knowledge as the next generation of thought leaders. By the time they graduate, students will have authored and co-authored publications with Harvard Business School faculty members and Harvard University professors, who become important mentors, colleagues, and collaborators. After completing their degree, HBS doctoral alumni continue to conduct research with both students and faculty. Harvard Business School's ever growing community of scholars continue to build knowledge that makes a difference in the world.

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ABSTRACT



Kobilov, Botir, Ethan Rouen, and George Serafeim. "Predictable Country-level Bias in the Reporting of COVID-19 Deaths." *Journal of Government and Economics* 2 (Summer 2021).

We examine whether a country's management of the COVID-19 pandemic relate to the downward biasing of the number of reported deaths from COVID-19. Using deviations from historical averages of the total number of monthly deaths within a country, we find that the probability of underreporting of COVID-related deaths for countries with the most stringent policies was 58.6%, compared to a 28.2% for countries with the least stringent policies. Countries with the lowest ex ante healthcare capacity in terms of number of available beds underreport deaths by 52.5% on average, compared to 23.1% for countries with the greatest capacity.

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Blank, Michael, Samuel G. Hanson, Jeremy C. Stein, and Adi Sunderam. "How Should U.S. Bank Regulators Respond to the COVID-19 Crisis?" Hutchins Center Working Paper, No. 63, June 2020.

Bordalo, Pedro, Nicola Gennaioli, **Spencer Yongwook Kwon**, and Andrei Shleifer. "Diagnostic Bubbles." *Journal of Financial Economics* 141, no. 3 (September 2021).

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Egan, Mark, Alexander J. MacKay, and **Hanbin Yang**. "Recovering Investor Expectations from Demand for Index Funds." *Review of Economic Studies* (forthcoming).

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Ishii, Jun, and **David Hao Zhang**. "Options Compensation as a Commitment Mechanism in Oligopoly Competition." *Managerial and Decision Economics* 38, no. 4 (June 2017): 513–525.

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ABSTRACT



Bordalo, Pedro, Nicola Gennaioli, **Spencer Yongwook Kwon**, and Andrei Shleifer. "Diagnostic Bubbles." *Journal of Financial Economics* 141, no. 3 (September 2021).

We introduce diagnostic expectations into a standard setting of price formation in which investors learn about the fundamental value of an asset and trade it. We study the interaction of diagnostic expectations with learning from prices and speculation (buying for resale). With diagnostic (but not with rational) expectations, these mechanisms lead to price paths exhibiting three phases: initial underreaction, then overshooting (the bubble), and finally a crash. With learning from prices, the model generates price extrapolation as a by-product of beliefs about fundamentals, lasting only as the bubble builds up. When investors speculate, even mild diagnostic distortions generate substantial bubbles.

ABSTRACT



Egan, Mark, Alexander J. MacKay, and **Hanbin Yang**. "Recovering Investor Expectations from Demand for Index Funds." *Review of Economic Studies* (forthcoming).

We use a revealed-preference approach to estimate investor expectations of stock market returns. Using data on demand for index funds that follow the S&P 500, we develop and estimate a model of investor choice to flexibly recover the time-varying distribution of expected future returns across investors. Our analysis is facilitated by the prevalence of leveraged funds that track the same underlying asset: by choosing between higher and lower leverage, investors trade off higher return against less risk. Our estimates indicate that investor expectations are heterogeneous, extrapolative, and persistent. Following a downturn, investors become more pessimistic on average, but there is also an increase in disagreement among participating investors due to the presence of contrarian investors.

ABSTRACT

Zhuo, Ran, Bradley Huffaker, KC Claffy, and Shane Greenstein. "The Impact of the General Data Protection Regulation on Internet Interconnection." *Telecommunications Policy* 45, no. 2 (March 2021).

The Internet comprises thousands of independently operated networks, interconnected using bi-laterally negotiated data exchange agreements. The European Union (EU)'s General Data Protection Regulation (GDPR) imposes strict restrictions on handling of personal data of European Economic Area (EEA) residents. A close examination of the text of the law suggests significant cost to application firms. Available empirical evidence confirms reduction in data usage in the EEA relative to other markets. We investigate whether this decline in derived demand for data exchange impacts EEA networks' decisions to interconnect relative to those of non-EEA OECD networks. Our data consists of a large sample of interconnection agreements between networks globally in 2015–2019. All evidence estimates zero effects: the number of observed agreements, the inferred agreement types, and the number of observed IP-address-level inter-connection points per agreement. We also find economically small effects of the GDPR on the entry and the observed number of customers of networks. We conclude there is no visible short run effects of the GDPR on these measures at the internet layer.

HEALTH POLICY MANAGEMENT

Chen, Lucy, Richard G. Frank, and Haiden Huskamp. "Overturning the ACA's Medicaid Expansion Would Likely Decrease Low-Income, Reproductive-Age Women's Healthcare Spending and Utilization." *Inquiry* 57 (December 11, 2020).

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Kanter, Rosabeth M., and **Tuna Cem Hayirli**. "Creating High-Impact Coalitions: CEOs Can Lead the Charge on Society's Biggest Problems." *Harvard Business Review* 100, no. 2 (March–April 2022).

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Pany, Maximilian J., Michael E. Chernew, and Leemore S. Dafny. "Regulating Hospital Prices Based on Market Concentration Is Likely to Leave High-Price Hospitals Unaffected." *Health Affairs* 40, no. 9 (September 2021): 1386–1394.

Sommers, Benjamin D., **Lucy Chen**, Robert J. Blendon, E. John Orav, and Arnold M. Epstein. "Medicaid Work Requirements In Arkansas: Two-Year Impacts On Coverage, Employment, And Affordability Of Care." *Health Affairs* 39, no. 9 (September 2020).

ABSTRACT

Pany, Maximilian J., Lucy Chen, Bethany Sheridan, and Robert S. Huckman. “Provider Teams Outperform Solo Providers in Managing Chronic Diseases and Could Improve the Value of Care.” *Health Affairs* 40, no. 3 (March 2021): 435–444.



Scope-of-practice regulations, including prescribing limits and supervision requirements, may influence the propensity of

providers to form care teams. Therefore, policy makers need to understand the effect of both team-based care and provider type on clinical outcomes. We examined how care management and biomarker outcomes after the onset of three chronic diseases differed both by team-based versus solo care and by physician versus nonphysician (that is, nurse practitioner and physician assistant) care. Using 2013–18 deidentified electronic health record data from US primary care practices, we found that provider teams outperformed solo providers, irrespective of team composition. Among solo providers, physicians and nonphysicians exhibited little meaningful difference in performance. As policy makers contemplate scope-of-practice changes, they should consider the effects of not only provider type but also team-based care on outcomes. Interventions that may encourage provider team formation, including scope-of-practice reforms, may improve the value of care.

ABSTRACT

Marra, Caroline, Jacqueline L. Chen, Andrea Coravos, and Ariel D. Stern. “Quantifying the Use of Connected Digital Products in Clinical Research.” Art. 50. *npj Digital Medicine* 3 (2020).

Over recent years, the adoption of connected technologies has grown dramatically, with potential for improving health care delivery, research, and patient experience. Yet, little has been documented about the prevalence and use of connected digital products (e.g., products that capture physiological and behavioral metrics) in formal clinical research. Using 18 years of data from ClinicalTrials.gov, we document substantial growth in the use of connected digital products in clinical trials (~34% CAGR) and show that these products have been used across all phases of research and by a diverse group of trial sponsors. We identify four distinct use cases for how such connected products have been integrated within clinical trial design and suggest implications for various stakeholders engaging in clinical research.

MANAGEMENT

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Yang, Mu-Jeung, **Michael Christensen,** Nicholas Bloom, Raffaella Sadun, and Jan Rivkin. “How Do CEOs Make Strategy?” Harvard Business School Working Paper, No. 21-063, October 2020.

ABSTRACT

Takeda, Yusaku. “Enduring Effects of Nationalistic Ideology on Strategy Formation Process: The Case of Nippon Gakki 1938–1960.” *Academy of Management Best Paper Proceedings* (July 29, 2020).

The enduring effect of the intense ideological experience of key organizational actors—top executives—on their subsequent strategic decisions is explored through a longitudinal archival case study of Nippon Gakki Ltd. (present-day Yamaha Corporation), a Japanese musical instrument manufacturer that pursued the motorcycle industry in the 1950s. An intense nationalistic ideology during WWII imprinted future top executives of Nippon Gakki, who, in the Post-WWII era, sought to expand their businesses driven by their imperative to pursue national prosperity and prestige. The ideology influenced three

dimensions—organizational identity, organizational memory, and values—affecting managerial cognition and facilitated breaking out of their prior strategic frame to enable Nippon Gakki to explore a wide variety of strategic options unfettered by its extant product classes, industry affiliations, and technological competency. These findings invite further studies of the effects of political ideology on managerial cognition, their organizational mechanisms, and the managerial use of nationalistic ideologies.”

ABSTRACT



Yang, Mu-Jeung, **Michael Christensen**, Nicholas Bloom, Raffaella Sadun, and Jan Rivkin. “How Do CEOs Make Strategy?” Harvard Business School Working Paper, No. 21-063, October 2020.

We explore the critical question of how executives make strategic decisions. Utilizing a new survey of 262 CEO alumni of Harvard Business School, we gather evidence on four aspects of each executive’s business strategy: its overall structure, its formalization, its development, and its implementation. We report three key results. First, different CEOs use markedly different processes to make strategic decisions; some follow highly formalized, rigorous, and deliberate processes, while others rely heavily on instinct and intuition. Second, more structured strategy processes are associated with larger firm size and faster employment growth. Third, using a regression discontinuity centered around a change in the curriculum of Harvard Business School’s required strategy course, we trace differences in strategic decision making back to differences in managerial education.

MARKETING

Barasz, Kate, and **Serena Hagerty**. “Hoping for the Worst? A Paradoxical Preference for Bad News.” *Journal of Consumer Research* 48, no. 2 (August 2021): 270–288.

Chung, Doug J., **Byungyeon Kim**, and Byoung G. Park. “How Do Sales Efforts Pay Off? Dynamic Panel Data Analysis in the Nerlove-Arrow Framework.” *Management Science* 65, no. 11 (November 2019): 5197–5218.

Chung, Doug J., **Byungyeon Kim**, and Byoung G. Park. “The Comprehensive Effects of Sales Force Management: A Dynamic Structural Analysis of Selection, Compensation, and Training.” *Management Science* 67, no. 11 (November 2021): 7046–7074.

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Hagerty, Serena, and Kate Barasz. “Inequality in Socially Permissible Consumption.” *Proceedings of the National Academy of Sciences* 117, no. 25 (June 23, 2020): 14084–14093.

Hagerty, Serena, Bhavya Mohan, and Michael I. Norton. “Whose pay should be cut in economic crises? Consumers prefer firms that prioritize paying employees over CEOs.” *Behavioural Public Policy*, 1-18 (2021).

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Prinsloo, Emily, Kate Barasz, Leslie John, and Michael I. Norton. “Opportunity Neglect: An Aversion to Low-probability Gains.” *Psychological Science* (in press).

ABSTRACT

Chung, Doug J., **Byungyeon Kim**, and Byoung G. Park.

“The Comprehensive Effects of Sales Force Management: A Dynamic Structural Analysis of Selection, Compensation, and Training.” *Management Science* 67, no. 11 (November 2021): 7046–7074.

Science 67, no. 11 (November 2021): 7046–7074.

This study provides a comprehensive model of an agent’s behavior in response to multiple sales management instruments, including compensation, recruiting/termination, and training. The model takes into account many of the key elements that constitute a realistic sales force setting: allocation of effort, forward-looking behavior, present bias, training effectiveness, and employee selection and attrition. By understanding how these elements jointly affect agents’ behavior, the study provides guidance on the optimal design of sales management policies. A field validation, by comparing counterfactual and actual outcomes under a new policy, attests to the accuracy of the model. The results demonstrate a tradeoff between adjusting fixed and variable pay; how sales training serves as an alternative to compensation; a potential drawback of hiring high-performing, experienced salespeople; and how utilizing a leave package leads to sales force restructuring. In addition, the study offers a key methodological contribution by providing formal identification conditions for hyperbolic time preference. The key to identification is that under a multiperiod nonlinear incentive system, an agent’s proximity to a goal affects only future payoffs in nonpecuniary benefit periods, providing exclusion restrictions on the current payoff.

ABSTRACT

Barasz, Kate, and **Serena Hagerty**. “Hoping for the Worst? A Paradoxical Preference for Bad News.” *Journal of Consumer Research* 48, no. 2 (August 2021): 270–288.

Nine studies investigate when and why people may paradoxically prefer bad news — for example, hoping for an objectively worse injury or a higher-risk diagnosis over explicitly better alternatives. Using a combination of field surveys and randomized experiments, the research demonstrates that people may hope for relatively worse (vs. better) news in an effort to preemptively avoid subjectively difficult decisions (studies 1 and 2). This is because when worse news avoids a choice (study 3A) — for example, by “forcing one’s hand” or creating one dominant option that circumvents a fraught decision (study 3B) — it can relieve the decision-maker’s experience of personal responsibility (study 3C).

However, because not all decisions warrant avoidance, not all decisions will elicit a preference for worse news; fewer people hope for worse news when facing subjectively easier (vs. harder) choices (studies 4A and B). Finally, this preference for worse news is not without consequence and may create perverse incentives for decision-makers, such as the tendency to forgo opportunities for improvement (studies 5A and B). The work contributes to the literature on decision avoidance and elucidates another strategy people use to circumvent difficult decisions: a propensity to hope for the worst.

ORGANIZATIONAL BEHAVIOR

Abi-Esber, Nicole, Jennifer E. Abel, Juliana Schroeder, and Francesca Gino. “‘Just Letting You Know...’: Underestimating Others’ Desire for Constructive Feedback.” *Journal of Personality and Social Psychology* (forthcoming).

Abi-Esber, Nicole, Alison Wood Brooks, and Ethan Burris. “Feeling Seen: Leader Eye Gaze Promotes Psychological Safety, Participation, and Voice.” Harvard Business School Working Paper, No. 22-048, January 2022.

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Hofer, Marlise, **Hanne K. Collins**, Gita D. Mishra, and Mark Schaller. "Do Post-menopausal Women Provide More Care to Their Kin?: Evidence of Grandparental Caregiving from Two Large-scale National Surveys." *Evolution and Human Behavior* 40, no. 4 (July 2019): 355–364.

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Yoon, Jaewon, **Hayley Blunden, Ariella S. Kristal**, and Ashley V. Whillans. "Why Asking for Advice Is More Effective Than Asking for Feedback." Harvard Business Review Digital Articles (September 20, 2019).

ABSTRACT



Abi-Esber, Nicole, Jennifer E. Abel, Juliana Schroeder, and Francesca Gino. "Just Letting You Know...: Underestimating Others' Desire for Constructive Feedback." *Journal of Personality and Social Psychology* (forthcoming).



People sometimes avoid giving feedback to others even when it would help fix others' problems. For example, only 2.6% of individuals in a pilot field study

provided feedback to a survey administrator who had food or lipstick on their face. Five experiments (N = 1,984) identify a possible reason for the lack of feedback: People underestimate how much others want to receive constructive feedback. Initial experiments demonstrated this underestimation of others' desire for feedback in hypothetical scenarios (Experiment 1), recalled feedback experiences (Experiment 2), and real-time feedback among friends (Experiment 3). We further examine how people ascertain others' desire for feedback, testing how much they consider the potential consequences of feedback for themselves (e.g., discomfort giving feedback or harm to their relationship with the receiver) or the receiver (e.g., discomfort

receiving feedback or value from feedback). While we found evidence that people consider both types of consequences, people particularly underestimated how much receivers value their feedback, a mechanism not extensively tested in prior research. Specifically, in Experiment 4, two interventions—making feedback-givers consider receivers’ perspectives (enhancing consideration of receivers’ consequences) or imagine someone else providing feedback (reducing consideration of givers’ consequences)—both improved givers’ recognition of others’ desire for feedback compared to no intervention, but the perspective-taking intervention was most effective. Finally, Experiment 5 demonstrates the underestimation during a financially incentivized public-speaking contest and shows that giving less constructive feedback resulted in less improvement in feedback receivers’ performances. Overall, people consistently underestimate others’ desire for feedback, with potentially negative consequences for feedback-receivers’ outcomes.

ABSTRACT



Battilana, Julie, **Julie Yen**, Isabelle Ferreras, and Lakshmi Ramarajan. “Democratizing Work: Redistributing power in organizations for a democratic and sustainable future.” *Organization Theory*, 3:1-21 (March 2022).

Environmental destruction and social inequalities are increasingly urgent challenges. How can corporations, which have played a key role in creating and reproducing these problems, be part of the solution? In this paper, we advance that a shift to more democratic forms of organizing within corporations may be an important part of this transition. We first review scholarship on the disempowerment of workers. We then make the case for democratizing organizations, arguing that workers need to participate in firm decision-making so they can protect their rights and interests. We further suggest that democratic organizing practices may enable corporations to successfully pursue social and environmental objectives alongside financial ones, which is also important for addressing societal challenges. We then propose a research agenda for studying the democratization of organizations and its implications. In doing so, we highlight how organization scholars can build on prior research on democratic forms of organizing and draw from extant social science research outside of mainstream management scholarship. We conclude by calling for research that will document, and help us better understand, what it takes to develop democratic and sustainable organizations and societies.

ABSTRACT



Randle, Dominika Kinga, and Gary P. Pisano. “The Evolutionary Nature of Breakthrough Innovation: An Empirical Investigation of Firm Search Strategies.” *Strategy Science* 6, no. 4 (December 2021): 290–304.

Breakthrough innovation has been an important topic of study for generations of scholars. Previous research in this domain has focused on exploring the way breakthroughs emerge from cumulative combination and recombination of prior technologies and knowledge components across vast numbers of firms and inventors. However, far less understood are the internal firm-level processes that give rise to breakthrough inventions. How do firms search for and select technologies with which to innovate? Could the trajectory of this search process itself play a role in influencing the likelihood that a developed invention will be a breakthrough? We ask these questions in our research. Our analysis examines three decades of innovation histories of over two and a half thousand firms. Longitudinal firm-level data and a novel measure of search (technological focal proximity) enable us to characterize corporate activity at a detailed level and to examine search strategies that led to breakthrough innovations as well as those that did not. Contrary to the established consensus that breakthroughs are associated with explorative search and less impactful inventions emerge through exploitation, our firm-centric approach reveals that breakthroughs develop from a search process that evolves in phases and involves both exploration (initially) and exploitation (subsequently). In the early phases, firms that successfully develop breakthrough inventions explore unfamiliar terrain. However, as the process unfolds, they progressively shift their search strategies to exploitation of accumulated knowledge. Our findings call into question the strong dichotomy between exploration and exploitation that has played such a prominent role in theories about the origins of breakthrough innovation.

ABSTRACT

Whillans, Ashley V., Leslie Perlow, and **Aurora Turek**. "Experimenting During the Shift to Virtual Team Work: Learnings from How Teams Adapted Their Activities During the COVID-19 Pandemic." *Information and Organization* 31, no. 1 (March 2021).

Past research has focused on understanding the characteristics of work that are fully virtual or fully collocated. The present study seeks to expand our understanding of team work by studying knowledge workers' experiences as they were suddenly forced to transition to a fully virtual environment. During the height of the US lockdown from April to June 2020, we interviewed 51 knowledge workers employed on teams at the same professional services firm. Drawing from in situ reflections about teams' lived experiences, this paper explores how the *shift* to virtual work brought on by the COVID-19 pandemic illuminated the fundamental activities that team work requires, facilitated and undermined the performance of team activities, and prompted employees to adapt and reflect on their use of digital technology to perform these activities. Using the shift to virtual work as a unique learning opportunity, our findings demonstrate that team work entails several core activities (task, process, and relationship interactions) that require additional adjustments to successfully enact in the virtual (vs. collocated) environment.

STRATEGY

Choudhury, Prithwiraj, Tarun Khanna, Christos A. Makridis, and **Kyle Schirmann**. "Is Hybrid Work the Best of Both Worlds? Evidence from a Field Experiment." HBS Working Paper, No. 22-063, March 2022.

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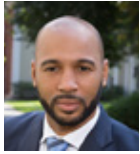
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ABSTRACT

Peterson, Aticus, and Andy Wu. "Entrepreneurial Learning and Strategic Foresight." *Strategic Management Journal* 42, no. 13 (December 2021): 2357–2388.

We study how learning by experience across projects affects an entrepreneur's strategic foresight. In a quantitative study of 314 entrepreneurs across 722 crowdfunded projects supplemented with a program of qualitative interviews, we counterintuitively find that entrepreneurs make less accurate predictions as they gain experience executing projects: they miss their predicted timeline to bring a product to market by nearly six additional weeks on each successive project. Although learning should improve prediction accuracy in principle, we argue that entrepreneurs also learn of opportunities to augment each successive product, which drastically expands the interdependencies beyond what an entrepreneur can anticipate. We find that entrepreneurs encounter more unforeseen interdependencies in their subsequent projects, and they sacrifice on-time delivery to address these interdependencies.

ABSTRACT

Eaglin, F. Christopher. “The Need for Speed: The Impact of Capital Constraints on Strategic Misconduct.” Harvard Business School Working Paper, No. 22-056, February 2022.

Under what conditions do firms engage in strategic misconduct? Why do they undertake actions that increase profitability yet break laws or violate strong norms often with costly consequences for public welfare? The strategic management literature offers two external constraints that might explain these actions. First, firms in highly competitive environments with few options for differentiation turn to strategic misconduct for survival. Second, firms that operate in weak regulatory environments adopt strategic misconduct to overcome market frictions that lack of regulation creates. This paper offers a third explanation — access to affordable financing. Existing research on capital constraints has demonstrated firms benefit greatly from additional capital but has yet to investigate its impact on strategic misconduct. I examine the impact of capital constraints on strategic misconduct in the minibus taxi industry in South Africa. Exploiting a natural experiment in which a financing company changed its interest rates due to nationwide protests, I assess the impact of declining interest rates on over 5000 firms from 2015 to 2020. Using an instrumental variable analysis, I find that firms given lower interest rates decrease strategic misconduct and are more likely to survive. Exploring potential mechanisms through survey and qualitative analysis, I find suggestive evidence that firms often turn to misconduct to avoid default which can carry high economic, social, and even physical consequences. My findings suggest that the reduction of capital constraints for firms under duress might increase both firm survival and public safety presenting implications for how we might approach building sustainable and resilient firms in challenging contexts.

TECHNOLOGY AND OPERATIONS MANAGEMENT

Allen, Ryan T., and Prithwiraj Choudhury. “Algorithm-Augmented Work and Domain Experience: The Countervailing Forces of Ability and Aversion.” *Organization Science* 33, no. 1 (January–February 2022): 149–169.

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ABSTRACT



Allen, Ryan T., and Prithwiraj Choudhury. "Algorithm-Augmented Work and Domain Experience: The Countervailing Forces of Ability and Aversion." *Organization Science* 33, no. 1 (January–February 2022): 149–169.

Past research offers mixed perspectives on whether domain experience helps or hurts algorithm-augmented worker performance. Reconciling these perspectives, we theorize that intermediate levels of domain experience are optimal for algorithm-augmented performance, due to the interplay between two countervailing forces—ability and aversion. Although domain experience can increase performance via increased ability to complement algorithmic advice (e.g., identifying inaccurate predictions), it can also decrease performance via increased aversion to accurate algorithmic advice. Because ability developed through learning by doing increases at a decreasing rate, and algorithmic aversion is more prevalent among experts, we theorize that algorithm-augmented performance will first rise with increasing domain experience, then fall. We test this by exploiting a within-subjects experiment in which corporate information technology support workers were assigned to resolve problems both manually and using an algorithmic tool. We confirm that the

difference between performance with the algorithmic tool versus without the tool was characterized by an inverted U-shape over the range of domain experience. Only workers with moderate domain experience did significantly better using the algorithm than resolving tickets manually. These findings highlight that, even if greater domain experience increases workers' ability to complement algorithms, domain experience can also trigger other mechanisms that overcome the positive ability effect and inhibit performance. Additional analyses and participant interviews suggest that, even though the highest experience workers had the greatest ability to complement the algorithmic tool, they rejected its advice because they felt greater accountability for possible unintended consequences of accepting algorithmic advice.

ABSTRACT



Valavi, Ehsan, Joel Hestness, Marco Iansiti, Newsha Ardalani, Feng Zhu, and Karim R. Lakhani. "Time Dependency, Data Flow, and Competitive Advantage." Harvard Business School Working Paper, No. 21-099, March 2021.

Data is fundamental to machine learning-based products and services and is considered strategic due to its externalities for businesses, governments, non-profits, and more generally for society. It is renowned that the value of organizations (businesses, government agencies and programs, and even industries) scales with the volume of available data. What is often less appreciated is that the data value in making useful organizational predictions will range widely and is prominently a function of data characteristics and underlying algorithms. In this research, our goal is to study how the value of data changes over time and how this change varies across contexts and business areas (e.g., next word prediction in the context of history, sports, politics). We focus on data from Reddit.com and compare the value's time-dependency across various Reddit topics (Subreddits). We make this comparison by measuring the rate at which user-generated text data loses its relevance to the algorithmic prediction of conversations. We show that different subreddits have different rates of relevance decline over time. Relating the text topics to various business areas of interest, we argue that competing in a business area in which data value decays rapidly alters strategies to acquire competitive advantage. When data value decays rapidly, access to a continuous flow of data will be more valuable than access to a fixed stock of data. In this kind of setting, improving user engagement and increasing user-base help in creating and maintaining a competitive advantage.

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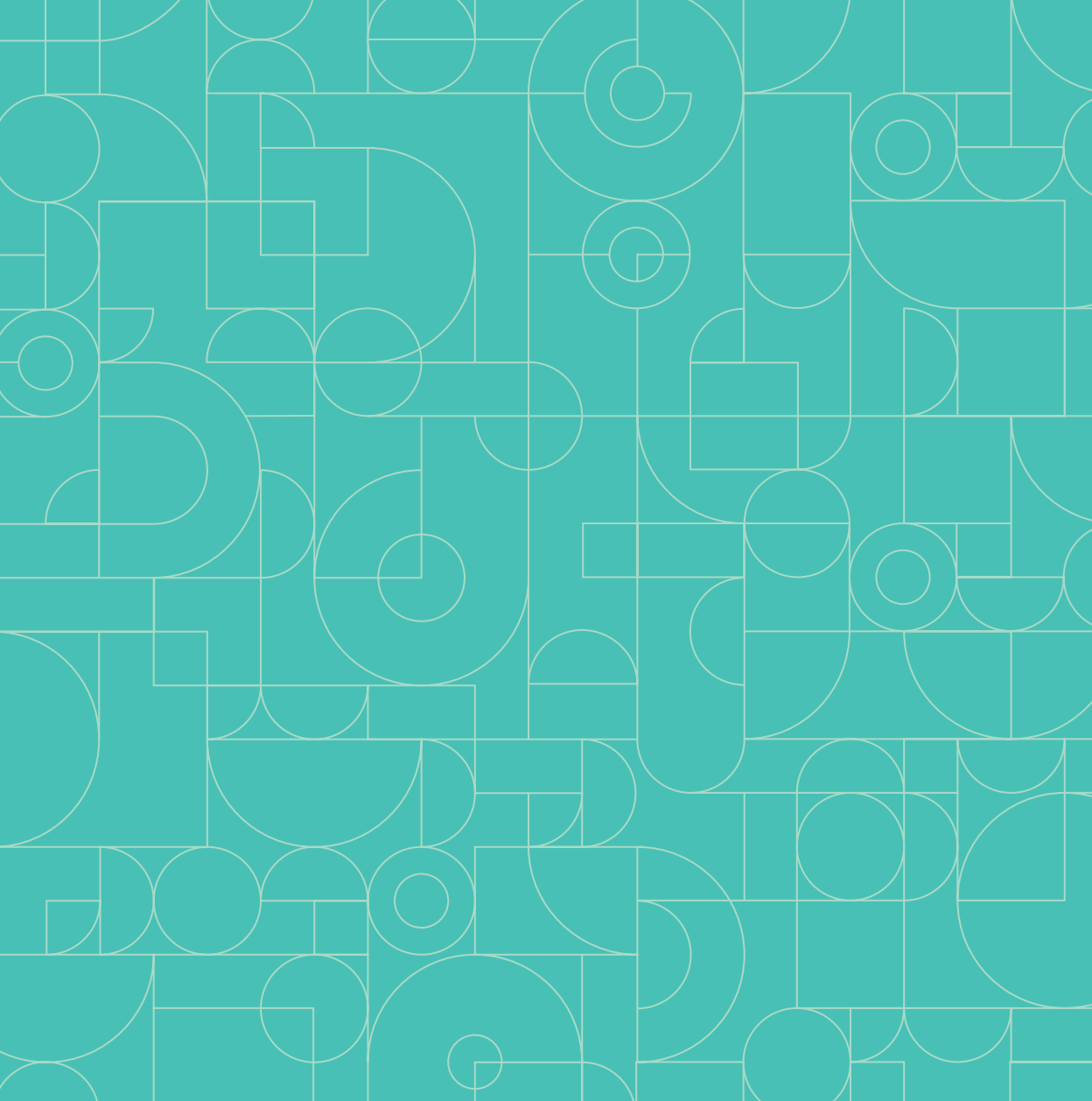
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