STATEMENT OF RESEARCH FOR ETHAN BERNSTEIN

Does privacy make us productive?

I study how the sharing of information across and within boundaries affects learning, innovation, and performance. The prevailing body of knowledge on transparency and information sharing, in theory and practice, tends to adopt a lens of more is better, and focuses its attention on how to make groups, organizations, and networks more effective at information transfer. I, instead, focus on the circumstances under which sharing information can be detrimental to learning, innovation, and performance—or, put differently, the circumstances under which privacy makes us productive.

That theme is consistent across my three most recent publications, based on research conducted during my time at Harvard Business School:

- Bernstein, E. S. (2012). The Transparency Paradox: A Role for Privacy in Organizational Learning and Operational Control. Administrative Science Quarterly, 57(2). (Job Talk Paper)

Drawing on field experiments, lab experiments, and qualitative field work, this research contributes to a broad community of scholars in organizational behavior, focused on performance hypotheses involving information sharing. The remainder of this document highlights the key theoretical contributions of this research and concludes with a brief discussion of future directions.

Privacy and Transparency: Do Zones of Privacy Make Us More Productive?

We have grown accustomed to calls for transparency. Transparency, or accurate observability, of an organization’s low-level activities, routines, behaviors, output, and performance provides the foundation for both organizational learning and operational control, and it has an untarnished reputation: rarely does one hear about any negative effects of transparency or problems stemming from too much transparency. Nonetheless, using data from embedded participant-observers and a field experiment at the second largest mobile phone factory in the world, located in China, I introduce the notion of a transparency paradox, whereby maintaining observability of workers may counterintuitively reduce their performance by inducing those being observed to conceal their activities through codes and other costly means; conversely, creating zones of privacy may, under certain conditions, increase performance.
As stated in my sole-authored June 2012 article in the Administrative Science Quarterly titled, “The Transparency Paradox: A Role for Privacy in Organizational Learning and Operational Control,”

We typically assume that the more we can see, the more we can understand about an organization. This research suggests a counteracting force: the more that can be seen, the more individuals may respond strategically with hiding behavior and encryption to nullify the understanding of that which is seen. When boundaries to visibility fall, invisible boundaries to accurate understanding may replace them at a significant cost. In this research, that cost was a 10–15 percent detriment to performance.

Hence the transparency paradox: broad visibility, intended to increase transparency, can breed hiding behavior and myths of learning and control, thereby reducing transparency. Conversely, this paper suggests that transparency can actually increase within the boundaries of organizational modules, or what the operators called zones of privacy, when the visible component of transparency is decreased or limited between them.

Visual privacy is an important performance lever but remains generally unrecognized and underutilized. Paradoxically, an organization that fails to design effective zones of privacy may inadvertently undermine its capacity for transparency.

Additional work is currently underway to use longitudinal data from surveys of 590 operators before and during the field experiment to more deeply understand the behavioral drivers of the transparency paradox. The survey, which combines team psychological safety (Edmondson, 1999), sociometric/network, and motivation instruments, will be used to demonstrate interactions between privacy and related theoretical constructs.

**Privacy and Communication Networks: Does Privacy Improve Problem Solving in Networked Search?**

In networks, as on factory floors, design choices about the optimal number and strength of ties implicate the tradeoff between transparency and privacy.

“Problem Solving and Search in Networks,” a book chapter co-authored with David Lazer and published in the 2012 book, Cognitive Search: Evolution, Algorithms, and the Brain, uses a targeted literature review of networks and social psychology research, particularly as it relates to the tradeoff between exploration for new solutions versus convergence on existing ones, to frame a key question in problem solving search: how does the optimal level of information sharing differ when one searches as an individual versus when one searches as a group?

We provide a typology of search and use it to contrast theories at the individual and collective levels of analysis. Using existing research, we suggest that increasing connectedness is likely to improve problem solving performance of individuals when problem complexity is high and groups when problem complexity is low. Conversely, for individuals facing a low complexity problem, or groups facing a high complexity problem, less connectedness may result in better
outcomes. Indeed, we hypothesize that such a result helps to explain why teams have become more prevalent, not less, in environments with high-complexity problems even as technology has enabled much more powerful networked search.

I continue to explore this phenomenon with David Lazer in two studies, both involving complex problem solving protocols in lab experiments. The first uses an electronic version of the Traveling Salesmen Problem (TSP) to examine whether, in complex problem solving environments, maximizing the connectivity of intra-organizational communication networks sacrifices innovative exploration (new solutions, global optima) for imitative exploitation (pre-existing solutions, local optima). Consistent with previous simulation models (Lazer & Friedman, 2007), we find that the structure of communication networks partially determines the tradeoff between exploration and exploitation in a group. Our experimental design also permits us to observe the imitation process and consider how the conditions under which imitation occurs might mediate the relationship between communication network structure and exploration/exploitation.

The second study uses a lab-based, experimental problem solving platform developed by the United States Department of Defense’s Command and Control Research Program, named E.L.I.C.I.T, which is essentially a computerized game of Clue®: Individuals in a group of sixteen members are all presented with the same problem (predicting the details of an anticipated terrorist plot) and are given the capacity to search for and share clues in order to solve for the who, what, where, and when of the terrorist attack. Under a grant from the Department of Defense, we significantly customized the platform and then ran a large number of experiments, adjusting the communication networks between the sixteen participants between treatments (caveman, centralized, and small world networks). We then report the results of an experiment investigating the role of network topology on the balance between exploration and exploitation in group problem solving. The tradeoff we explore is between the need for the system to share information rapidly so that individuals can have all of the clues they need to solve the problem, and the need to preserve a diversity of theories among participants so as to increase the effectiveness of searching for new information.

Privacy: Implications for Leadership and Oversight

What are the implications for leaders of organizations in which privacy enables productivity?

The Transparency Paradox article briefly suggests that, to preserve privacy and the resulting productivity, “managing by standing still” may sometimes be preferable to managing by walking around. While this is the least developed stream of research in my portfolio, it is also the one that holds the greatest promise for the next phase of my research platform, especially as we enter an age when technological advances are making it more costly to guarantee privacy than to invade it.

In my published article with Frank Barrett, entitled “Strategic Change and the Jazz Mindset: Exploring Practices that Enhance Dynamic Capabilities for Organizational Improvisation,” we introduce an emergent leadership mindset which brings together three constructs—privacy,
dynamic capabilities (strategy), and organizational improvisation—using multiple case studies. As we state in the article:

We are describing a defined process by which improvisation can transform ordinary routines into dynamic ones – a meta-practice that itself is not improvised but rather quite specific. Jazz bands have a specific practice for building capabilities in improvisation and keeping the jazz mindset alive. This is a disciplined practice that allows adaptation and improvisation…..

The genius of strategic leaders such as those described above is not that they can see into the future. Instead, their genius is rooted in the construction of dynamic capabilities and improvisational competence in their organizations, through the practices of provocative competence (unlearning), affirmative competence (“yes to the mess”), leaping in and taking action with full-bodied engagement, minimal structures with maximum autonomy, hanging out in diverse communities of specialists, learning from errors, and alternating between soloing and supporting.

The value of privacy also has implications for approaches to oversight. For the past 20 months, I have been on-leave from Harvard Business School as an executive at the new Consumer Financial Protection Bureau in Washington D.C., serving first as the Deputy Assistant Director of Mortgage Markets and now as the Chief Strategy Officer in the Office of the Director. When I was asked by Elizabeth Warren in November 2010 to help stand-up the CFPB, part of the expectation was that it would be part of my research agenda, and I now have considerable data to discuss the relationship between oversight, privacy, and productivity in a novel environment: building the first new federal agency of its kind in over 70 years while under the great spotlight of Congress, politics, the press, and the public. Having helped lead the CFPB in its growth from an implementation team of 70 people to now over 1,000 employees, the qualitative data is rich with detail. The first of several articles based on this data, “The Consumer Financial Protection Bureau: Financial Regulation for the 21st Century,” will be published in the July 2012 issue of the Cornell Law Review.