

## PRIVATE SECTOR CYBER DEFENSE: CAN ACTIVE MEASURES HELP STABILIZE CYBERSPACE?

WYATT HOFFMAN AND ARIEL E. LEVITE

The cyber revolution and ever-growing transfer of human activities into the virtual world are undermining the social contract between modern states and their citizens. Most governments are becoming unable and unwilling to protect citizens and private enterprises against numerous, sophisticated cyber predators seeking to disrupt, manipulate, or destroy their digital equities. Inevitably, states are focused on protecting governmental assets and national infrastructure, leaving themselves with modest residual capacity and resolve to underwrite other cybersecurity risks. Faced with this reality, private entities are reluctantly but increasingly complementing their passive cybersecurity practices with more assertive “active cyber defense” (ACD) measures. This approach carries substantial risks, but if guided by bounding principles and industry models, it also has the potential for long-term, cumulative benefits.

### Regulating an Emerging International Market

**The limitations of governance.** States are struggling to find a viable formula to regulate emerging private sector cyber activity. The challenge is compounded by the global and rapidly evolving nature of the cyber domain. Consequently, in many countries, national laws governing this space are either absent, vague, or difficult to operationalize. International understanding and conventions to harmonize national responses are also largely absent, complicating efforts to manage cross-border incidents with political ramifications.

**The benefit of experience.** The shipping industry’s experience with resurging piracy offers valuable insights. After it became clear that governments’ military efforts were insufficient responses to the problem, the demand for private sector security services increased dramatically. While governments initially resisted their involvement, they begrudgingly accepted that the active defense measures deployed by shipowners, in consultation with insurance providers, were helping to deter attacks and that the tradeoffs in risk were unavoidable. The bottom line—the private sector filled a critical gap in protection.

### Incentivizing Behavior for Minimum Risk, Maximum Benefit

**A principles-based approach.** To fill the vacuum in the cyber domain, companies are engaging attackers within and outside of the defender’s network to preempt, interfere with, or mitigate the consequences of cyberattacks. Rather than trying to enforce ineffectual laws and regulations, governments and stakeholders should seek to develop guiding principles for a spectrum of ACD, excluding “hacking back.” Such principles could be embedded in a range of mechanisms, for example a voluntary code of conduct for employing ACD.

**An industry-driven model.** International and domestic market mechanisms, including a corporate social responsibility initiative, could provide the incentives to ensure voluntary adherence to the principles and code and a degree of accountability. The insurance industry in particular could play a large role in minimizing risk and generating economic advantages for not just defenders but also those working with them or receiving their services.

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