Introduction to the Special Issue on Secrecy and Technologies

Clare Stevens
University of Portsmouth, clare.stevens@port.ac.uk

Sam Forsythe
Peace Research Institute Frankfurt, forsythe@hsfk.de

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Abstract

Many scholars have treated the inscrutability of technologies, secrecy, and other unknowns as moral and ethical challenges that can be resolved through transparency and openness. This paper, and the special issue it introduces, instead wants to explore how we can understand the productive, strategic but also emancipatory potential of secrecy and ignorance in the development of security and technologies. This paper argues that rather than just being mediums or passive substrates, technologies are making a difference to how secrecy, disclosure, and transparency work. This special issue will show how technologies and time mediate secrecy and disclosure, and vice versa. This article will therefore draw out the ways that themes of time, infrastructure, methodologies, and maintenance demonstrate the productive as well as negative dialectics of secrecy.

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Abstract

Many scholars have treated the inscrutability of technologies, secrecy, and other unknowns as moral and ethical challenges that can be resolved through transparency and openness. This paper, and the special issue it introduces, instead wants to explore how we can understand the productive, strategic but also emancipatory potential of secrecy and ignorance in the development of security and technologies. This paper argues that rather than just being mediums or passive substrates, technologies are making a difference to how secrecy, disclosure and transparency work. This special issue will show how technologies and time mediate secrecy and disclosure, and vice versa. This article will therefore draw out the ways that themes of time, infrastructure, methodologies, and maintenance demonstrate the productive as well as negative dialectics of secrecy.

Keywords
disclosure, infrastructures, maintenance, mediation, methodologies, power, secrecy, secrecy studies, security, technology, technologies, temporality, time, transparency

We are living through a profoundly technological moment (or so we are told), one in which there has been a proliferation of media through

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1 Clare Stevens is a Teaching Fellow in International Security with the University of Portsmouth. Her research is concerned with looking at the controversies and politics of defining "cybersecurity," including what those political efforts of definition can teach us more broadly about security, secrecy, and technologies in contemporary international security. She can be reached at clare.stevens@port.ac.uk

2 Sam Forsythe is a Doctoral Researcher in International Security at the Peace Research Institute Frankfurt, where his work explores the logic of deception in international statecraft and strategy. Sam was a participant in the *Secrecy and Technologies Workshop* that inspired this special issue, and is a member of the Research Group for the Use and Control of Emerging Disruptive Technologies in the Cluster for Natural and Technical Science Arms Control Research.

which secrets are transacted. As Brighenti (2010, 66) remarks, "[s]ecrecy is technically and technologically managed, and increasingly so." Some posit that such technologies signal an "end to secrecy," while others have made arguments about the effects of digital media on the capacity of states' to keep secrets and manage leaks, a "declining half-life of secrets" (Hables Gray 2016; Curran and Gibson 2013; Reppy 2014; Swire 2015, 2). At the same time that digital technologies are thought to make secrets and secrecy more motile, harder to contain and impossible to segregate, other scholars have highlighted the effects of media-technologies on practices of opacity, an end to privacy endemic to the operations of platform capitalism (Zuboff 2018; Beyes 2022). Yet the very technologies that are thought to facilitate these changes are themselves opaque and inscrutable, feeding a sense that we are living in a "black box society" (Pasquale 2015).

In all these accounts media-technologies are seen as structural forces. In other words, as unavoidable imperatives driving wider social trends, irresistibly shaping how secrecy and its cognate concepts are organized. In this way, popular and academic discourse is often characterized by "rupture talk," a focus on digital technologies as novel disruptors, with less attention to the mundane or everyday ways that secrecy regimes are shifting, or perhaps conversely, how they persist and remain durable despite systemic changes (Hecht 2002; Walters 2021). Even less is said about the unanticipated effects of technological

organization, such as the ways that "secrecy effects" emerge from the interrelations between structures and agents.

This special issue came about as a result of our own inquiries into the politics and "boundary work" of cybersecurity in United States governmental discourses, and the logic of deception in Western statecraft and strategy. In the case of cybersecurity, examining how doctrinal definitions emerge, evolve and recede, it became apparent that something more convoluted was happening to concepts of secrecy and disclosure than could be accounted for by technologically deterministic explanations. On the one hand, given the relative ease with which they could be leaked or lost, it seems to have become more difficult for states to maintain the secrecy and compartmentalization of their technical hacking capabilities. On the other hand, developing access to the vulnerabilities in software and hardware appeared to require a curiously anticipatory and speculative form of secrecy.

In the case of deception and trickery in international security, a study of the history, practice, and discourse of state deception reveals that secrecy is not only an auxiliary element of planning or operations but provides the basic blueprint for any act of deception, insofar as both secrecy and deceit involve misleading an adversary's beliefs through the concealment and manipulation of evidentiary signs. Every deception gives rise to a kind of mobile secret, circulating through time and place, reshaping the environment through well-timed acts of concealment and disclosure. As media technologies become increasingly networked and

affording of opacity, the logic of secrecy increasingly finds itself everted, integrated into the very structure and process of the environment, allowing secrets themselves to be easily reconfigured as the foundation for state disinformation or the seeds for runaway narratives of global conspiracy.

Thus, it became apparent to us that legibility, temporality and technologies all make a difference to how state actors conceptualize, organize and practice secrecy, and that there is more to the production of secrets and disclosures than strategic choice and intentional human action. However, while computers, technologies and networks might process information faster than human minds, it is still important to be able to analyze how politics and political meaning are created in the interstices that lie between these elements.

To the extent that the role of technology has been addressed within the secrecy literature, the tendency is to speak of technologies in two ways: as passive substrates that merely facilitate secret keeping or enable the management of transparency (Hansen and Flyverbom 2015); or, the ways that technological materiality is itself subject to practices of secrecy (Kearns 2017; Walters 2021; Wellerstein 2021). Yet nuclear secrecy, for example, was never a static or stable edifice: it required constant negotiation and maintenance as time, technologies and politics changed (Galison 2010; Wellerstein 2010). With the constant emergence of new knowledge, what counted as "secret" required continual maintenance by those involved in its designation and preservation

(Wellerstein 2010). Meanwhile, the burgeoning secrecy studies literature has highlighted how secrecy is made manifest through material arrangements and techniques of ordering, exploring secrecy's "inextricably spatial" tendencies towards organizing and segregating people (Paglen 2010; Anaïs and Walby 2016; Walters 2021; Walters and Luscome 2017; Walters 2020; Kearns 2021; Masco 2002; Grey and Costas 2016).

While these studies have vividly demonstrated how secrecy produces particular relations between people and things (the unruly materials, leakages and mobile elements that produce secrecy as much as strategies of containment and segregation), when technologies are included in the analysis of secrecy, transparency or disclosure, they tend to play the role of a "neutral transmission belt" along which information travels (Hansen and Flyverbom 2015, 874). Secrecy or disclosure, as concepts in and of themselves, are not affected by these posited technological trends, only influencing the frequency with which the disclosures of information occur, or their resistance to control. In this view, materials may leak, but the materials or technologies in question are unlikely to be affected in the process of transmission, and the practices of disclosure are not fundamentally altered by the technologies in question either. It thus seems to be the case that more needs to be said about the relations and mutual effects of technologies and secrecy, their emergent and contingent interactions, their temporalities and their organization.

The seeds for this special issue were sown in an early career workshop in 2021, convened to bring together scholars who wanted to move from understanding secrecy as the absence of knowledge to something essential to its production, and to therefore treat secrecy itself as contested, political and productive (Moffette and Walters, 2018). Building on emerging literatures that have demonstrated the productive power of secrecy and ignorance in isolation, the workshop sought contributions from early career researchers working at the intersection of international relations, security studies, Science and Technology Studies, agnotology, critical secrecy and intelligence studies. Participants were asked to propose frameworks for inquiry into the ways that secrecy and forgetting, ignorance and knowledge (un)making can function as essential elements of the structures of power/knowledge in technological systems, including through resistant and dissenting practices.

As the burgeoning literature on critical secrecy studies has highlighted—and for which this journal is a crucial outlet - secrecy and disclosure are not just agential and intentional strategic actions, but also emerge in the spaces and relations between structure and agency. Shifting away from understanding secrecy in terms of intentional action alone and incorporating changes in and through time, we find that the usual narratives of speed, acceleration and essentialized technological characteristics of "network" temporalities are actually more complicated, indeed much *slower*, than many accounts would suggest. As Flyverbom (2016: 104) and colleagues point out, "we need to think about secrecy

less as only a subjective, interpersonal enterprise and more in terms of the technological affordances that enable it on a grand scale today." This points towards a concept of secrecy distinct from the personal domain of knowledge creation and compartmentalization, and towards secrecy as an emergent effect, dependent on human behavior yet operating autonomously through the aggregate parts and interactions of technological environments. Furthermore, an approach that moves away from an emphasis on secrecy-as-containment, with the associated hermeneutic tendency to view secrecy in informational terms, can also encourage analysis to focus on context and specificity rather than on grand narratives of technological change (Van Veeren et al forthcoming).

To this end, this introductory article, and the special issue, will make the case for a more dialectical and processual account of the relations between technologies, people, and secrecy regimes. Rather than merely being mediums or passive substrates, holders of secrets, we argue that technologies are making a difference to how secrecy and its adjacent concepts (like disclosure, transparency, ignorance and so on) actually *work*.

In order to understand how secrecy and its related regimes are effects of their specific times and technologies, both this introductory article and the special issue as a whole highlight the utility of thinking about the *mediating* role of technologies. Mediation is a useful way to navigate between what Aagaard (2021: 370) has identified as the "Scylla of instrumentalism, the idea that technologies do nothing, and the

Charybdis of determinism, the idea that technologies do everything."

Such an approach can usefully help analysts trace how technology does *something* to secrecy practices, even if it doesn't predetermine what that *something* is (Aagaard, 2021). Mediation is thus a useful way to understand how technologies and people are not so much distinct poles which interact, but instead emerge and are shaped through their interactions (Verbeek 2015). Following the insights of philosopher Bernard Stiegler, technologies are not simply objects or products, nor simply the instrumental pursuit of a predetermined task, but instead can be thought of as something that is both mediating and mediated, "in constant interaction with its milieu, transforming living matter and simultaneously being transformed by its milieu" (quoted in Beyes et al. 2022, 1002). Additionally, drawing on theorizations of technology in terms of technique and method, and not just as digital or material hardware, can help us move away from rupture talk, enabling us to capture the mundane, the background, and the temporal. As the four articles in this special issue demonstrate, shifting our conception of technologies from passive substrates, or as mere containers for things contained, helps draw out how contemporary secrecy involves both technical practices and technological milieus, arises from context-specific forms in time and space and emerges in the space of relations between people and things.

This perspective has useful parallels to arguments made by Clare Birchall, William Walters and others, who have convincingly demonstrated the value of a nominalist approach to secrecy, tracing it as an emergent

effect rather than an outcome of intention, without assuming a purposive rationality (Walters 2021; Birchall, 2021). In this sense we can imagine a secrecy without subjects, technological forms of secrecy that do not require agency, as in the case of unknowable or unreadable algorithms or the deep time of nuclear waste (Birchall 2011). Like mediation then, secrecy regimes can emerge as effects of the interactions between people and technologies, each shaping the other in turn, giving rise to new relations, new effects, new affordances. Conceptualizing the generative capacities of technologies as mediators can thus help us shift our understanding of secrecy and disclosure away from an informational and hermeneutic approach to a more emergent and context-specific understanding of technologies as difference-makers, rather than the grand narratives of technological determinism.

Many scholars have treated the inscrutability of technologies, secrecy, and other unknowns as moral and ethical challenges that can be resolved through transparency and openness (cf: Fenster 2015; Stampnitzky 2020). This special issue instead wants to explore how we can understand the productive, strategic but also emancipatory potential of secrecy and ignorance in the development of security and technologies, or the development of (non)knowledge (Leonardi 2012; Vermeir and Margócsy 2012; Flyverbom et al. 2016; Aradau 2017; Birchall 2021; Walters 2021). The issue will look too at how secrets *do things*, how they are active agents (both on the side of power such as through state agents) as well as the inverse (through discussions about the right to

opacity, for example). By taking these premises as the starting point, the political and conceptual task is thus no longer to "reveal" or unearth the hidden secret, but instead to see the roles played by both secrets and secrecy-as-process, understanding how they operate, how they become productive, and why they are deployed.

Building on the work of critical secrecy studies, this special issue aims to "thicken" the understanding of secrecy and technologies within security discourses and studies of international politics. In doing so the aim is to disrupt and overturn conceptual binaries that continue to reproduce secrecy as absent and unproductive, which focus on intentional and strategic secrecy practices, reproduce the association of knowledge with vision and virtue and ignore the contributions of feminist, critical race and queer theorists and their contributions to understanding power/knowledge and technologies as connected to secrecy.

Articles in the Special Issue

The four articles that form the rest of this special issue focus on different empirical puzzles and sites, ranging from a nuclear waste facility in France through to prison infrastructures in the UK, refugee governance regimes in Germany, cybersecurity discourses in the US, and the methodological and ethnographical challenges of secrecy research. When viewed together, several themes - as well as productive tensions - emerge across these articles, captured by concepts of *temporality*,

infrastructures, *methodologies, and maintenance*. Together, these themes emerge as the authors have developed concepts of secrecy not only drawing on the familiar frameworks of information, experience, and knowledge, but also through complex understandings of time, movement, flows and leakages. After all, these "are not so much secondary or incidental features of secrecy but typically intrinsic and ongoing" (Walters 2021, 19). As we will see in more detail, secrecy regimes are processes *of* and *in* time, a set of 'social relation[s] imbued with time, rather than a space to visit or a thing to be understood' (adapted from Lijla et al 2015, 413). As Lisa Stampnitzky (2020) as well as Fan and Liu (2022) have argued, the relationship between secrecy/revelation is similarly more complex and non-linear.

What secrecy *means*, what it *does*, how it *works*, is a product (and productive) of the space-time in or through which it is located. As such, the power of speed, rhythms, tempos and circulations of secrecy are constitutive parts of learning and forgetting, knowing and un-knowing. As Lilja et al (2015, 413) highlight, the "possibility of heterogeneous, multiple temporalities gives us new analytical means to understand power, resistance, and change." A shift from information to effects, from technologies to relations, allows for a shift in our analytical orientation, towards time and temporality and mobilities (Ingold 2009).

Infrastructures, Secrecy Effects, and Methods

This special issue has examples of both a temporality that outlives human scales as well as a futurity of secrecy not oriented around the concealment of elements of the past. In Villette's paper on the management of nuclear waste at La Hague in northern France we see an emblematic case of the ways that secrecy regimes struggle with the material realities of leakage and fluid wastes, and the accompanying difficulties of managing the deep time frames of radioactive waste. Here we see a kind of materiality that has such longevity that it exceeds our intentions, outliving human agency: can we even 'communicate' the dangers of nuclear fallout to those who may encounter it in the future? (Trauth et al 1993; Lapidos 2009). On the other hand, in contrast to the slowness and deep time of radioactive half-lives, Stevens highlights how, despite the imperative of claims regarding network speeds and the necessity of rapid and timely action, disclosure practices emerge as a timing mechanism of their own. Rather than arguing for the effects of time as an abstract variable, vulnerabilities only make sense as a matter of *timing* (Stevens, 2016; Hom, 2018). Thus, disclosure is not the simple transmission of knowledge from sender to receiver, but can be modulated by time and reshaped by timing. For example, time can delay the total disclosure of information; timing can moderate how the secret can operate and what effects it can have; timing can be used to modulate the disclosure of vulnerabilities so that the relationship between secrecy and disclosure is not a simple binary relationship (Birchall 2011; Fenster

2015); information can be "lost to time," destroyed or compromised by the very kinds of operations that US government actors are currently trying to justify. As we will see, with vulnerabilities and secrecy, timing is everything. This is a form of speculative, future-oriented secrecy, of efforts to make room *now* for anticipated (but currently unknowable) knowledge *later*.

A further theme that emerges from the papers is the importance of process, of feedback loops and recursivity. As Hudson and Percival (this issue) emphasize in their discussion of the OASys prisoner management data system in the United Kingdom, concepts like transparency and accountability are built into the system in such a way that it forecloses the possible options available to its subjects. Rather than a store of discrete data nuggets, information added into the OASys is often productive of future risk assessments "generating a recursive, layered charting of an individual's time in prison" (Hudson and Percival, this issue). Likewise, in their discussion of the methodological challenges of studying a topic like refugee governance in Germany, data gathered to create knowledge of individuals can iterate in unpredictable ways, complicating narratives about linear cause-and-effect relations between inputs and outputs, or between secrecy and transparency.

A tendency shared by all four papers share is a move away from a hermeneutic approach to secrecy, away from the methodological and epistemological struggle to "uncover" secrecy and "reveal" the secret. Instead, the papers here trace secrecy's effects and the ways that

leakages and disclosures are productive of secrecy, rather than simply its antonyms. Each paper is interested in understanding secrecy in terms of the infrastructures, arrangements of people, materials and processes in such a way that is agnostic as to whether they are digital and "new" or mundane and "analogue." For example, in the case of Stevens' paper on disclosure practices, we see the efforts of government actors to adapt existing bureaucracies and regimes of secrecy to the distinctive challenges of managing software and hardware vulnerabilities, so that notions and procedures of disclosure are altered over time by the efforts. Meanwhile, Villette's paper shows how material infrastructures of concrete edifices and water drainage management have come undone, or failed to contain, the unruly materials that they were intended to contain. This in turn has shaped the particularities of the secrecy regime that the French government and its contractors have sought to implement at La Hague, a secrecy regime that is made of physical infrastructure as much as informational flows, archives and blockages.

Meanwhile, rather than a physical edifice, Welfens and Muller use the metaphor of Kafka's Castle in order to elucidate the research journey of encountering and trying to overcome the logics of containment. Instead, their account highlights how taking a processual approach to secrecy can instead provide research insights of their own. Rather than trying to work *against* secrecy, they set out three productive analytical frames or methodological tools for working *with* secrecy. Like Villette's arguments for the insights that can be gleaned from studying the leaks,

the excesses, the traces of nuclear secrecy, Welfens and Muller similarly demonstrate how a hermeneutic approach to secrecy can more often be an unproductive impediment to research. In many respects, the articles in this special issue all share ideas and approaches that highlight the difficulties and ethical considerations of looking for what is hidden, instead offering alternative narratives and counter-methods that take seriously both the aesthetics of secrecy and the limits of transparency. That said, the article by Hudson and Percival also highlights the *limits* of ideas of transparency as accountability, with real political consequences for those that are subject to these data practices.

Maintenance

When looking at the four articles in this special issue, one final theme that has emerged, perhaps unintentionally, is the relationship between secrecy and maintenance. Analyzing secrecy and its related practices in terms of infrastructures is helpful, because, following recent insights from Science and Technology Studies, the concept of maintenance can be seen as an alternative framing from innovation that allows us to "break with a definition of material order as a ''once and for all'' stabilized state and recognize the importance of maintenance work in the ceaseless performance of a stabilized world" (Denis and Pontille 2015). In so far as they are the result of intentional or strategic action, secrecy regimes can be seen as efforts at maintenance, as well as

infrastructures that themselves require maintenance. Following the insights of Andrew Hom, secrecy regimes may be thought of as a form of maintenance against entropy, leaks, excess, a way of maintaining the existence of the state as much as its mistakes (Hom, 2018). Controlling information is thus the means by which government actors can impose a sense of order on a messy ecosystem in ways conducive to orientation and control, a way of forestalling entropy, as much as gaining them a decision advantage (Hom, 2020). This is what Eva Horn (2011, 108) has described as "the conservative power of secrets and secrecy," "a force directed toward the present and the future in that it keeps open future possibilities" and "secures the here and now of the state."

Bureaucracies and secrecy regimes can therefore be thought of as maintainers of (state) orders. As historian of technology Dan Holbrook observed: "The fundamental thing that is maintained is order. Unordered entities do not need maintenance; indeed, once maintenance (that is, work upon them) happens, they no longer remain unordered" (quoted in Russell and Vinsel 2018, 8). So, while technologies may help facilitate secrecy regimes, these technologies and infrastructures also exceed human agency too, suggesting methodological and ethnographic openings for scholars studying secrecy effects. As Muller and Welfens highlight, using ethnographic methods to trace the maintenance and care efforts of the people charged with managing such infrastructures, rather than looking for secrets as entities, can have productive consequences. More

work on the maintenance, or labor of secrecy would be a productive line for future research.

Conclusion

Through an exploration of the effects that emerge and evolve through the interactions of secrecy, technologies and power, the aim of this special issue is to deepen, thicken and draw out the concept of secrecy beyond the logic and imaginaries of information and containment. By focusing on the affordances of time, infrastructure, methodology, and maintenance, the authors endeavor to demonstrate the productive as well as negative dialectics of secrecy. In doing so this issue aims to contribute to an understanding of secrecy as a practice that is both ever-changing and stubbornly persistent, shaping and being reshaped by intentional decisions and autonomous contingencies, an ongoing processes of mediation that creates, enforces, maintains and even sometimes unmakes its own regimes. In this way, we can begin to see secrecy not only as that which conceals the world but as a process essential to the production of its legibility, a mediation between human intentions, interior spaces, deep times and complex infrastructures.

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3 For more on SPIN, see https://secrecyresearch.com/about/.

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