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The Phallus-y Fallacy: On Unsexy Intimate Tracking

Karen Levy, Cornell University

In "The Quantified Relationship," Danaher, Nyholm, and Earp (2018) catalogue a number of ethical and social objections to what they term the "quantified relationship" and its attendant technologies. They typologize eight objections raised in the scholarly literature on the topic, including in my own work (Levy 2015), and scrutinize the validity and context dependence thereof. Based on their analysis, Danaher and colleagues advocate "cautious openness" (10) toward these tools, based on the possibility that, under certain conditions, they may be used to support healthy intimate relations.

Danaher and colleagues' piece is a welcome, thoughtful addition to the critical research on intimacy and technology. By delineating specific objections to the technologies at issue, the work brings precision to an area of tech criticism often characterized by inchoate anxiety around the "creepiness" of a given technology, but with insufficient attention to reasons and mechanisms. Sometimes such feelings are the product of the perceived infiltration of market logics into the sacred spheres of sex and love (Zelizer 2007); in other cases, they reverberate after a particularly egregious data breach or public gaffe (e.g., the 2011 revelation that Fitbit was inadvertently revealing intimate data about users' sexual practices (Loftus 2011)). Creepy feelings are often an important clue to look more deeply at the technology at issue, and to determine what precisely raises our hackles about its use; however, too often, we end our ethical inquiry without completing this crucial analytic step, to which Danaher and colleagues pay close and deserved attention. And Danaher and colleagues' conclusion-that relationship quantification technologies have some acceptable uses and should not be vilified whole-cloth-resonates with the tenets of science and technology studies, which emphasize the importance of context and interaction between the social and technical worlds. Such recognition does not give technology a normative "free pass"-as technology historian Melvin Kranzberg (1986) famously put it, "technology is neither good nor bad; nor is it neutral"-but implies that uniform celebrations or condemnations of particular technologies are unlikely to be analytically useful. Danaher and colleagues' conclusions accord with this point of view-in my estimation, correctly.

This said, I wish to draw attention to an aspect of intimate tracking that I believe deserves more thorough scrutiny. I suggest that the true scope of "quantified relationship technologies" in wide use extends well beyond those described by Danaher and colleagues, and that a more complete view of how technologies are used in the management of intimate relations affords us a

Address correspondence to Karen Levy, Department of Information Science, Cornell University, 107 Hoy Rd. Rm. 207, Ithaca, NY 14853, USA. E-mail: karen.levy@cornell.edu

better sense of the values and assumptions at play in this context.

Danaher and colleagues' evaluation of quantified relationships centers on a set of tools they term "quantified relationship technologies"—a set of phone apps, wearables, and platforms dedicated explicitly to intimate tracking, gamification, and surveillance. The technologies they detail range from sex trackers and toys—like Lovely, a ring that fits around the penis and records data like calories burned and intensity of thrusts during sex—to romance trackers, which facilitate location tracking and gamify loving gestures, and surveillance apps, which (often surreptitiously) track a partner's whereabouts and communications.

To be sure, tools of this sort are interesting and important to analyze, and throw some issues around intimate tracking into sharp relief. However, we must not conflate the phenomenon of intimate tracking with the market for such explicitly dedicated devices and services. There is rapid churn in this market segment (as Danaher and colleagues note), and relatively low uptake of such products. Many of the tools in this space are technically unsophisticated, and bear the mark of novelty or niche; in a sense, they caricaturize the much broader and more diffuse phenomenon of intimate tracking. Focusing exclusively on explicitly designated "relationship trackers" significantly understates the breadth and pervasiveness of this phenomenon. Most intimate tracking occurs not through an Internet-connected cock ring or a romantic-gesture leaderboard, but through e-mail, messaging, push notifications, social network platforms, and the other general-purpose technologies that populate our broader digital lives. Letting analysis of the part stand in for the whole risks an incomplete analytic assessment of the phenomenon of intimate tracking, and the ethical implications thereof.

To illustrate, I note here three other sets of tools that are commonly used for intimate tracking. First, "dual-use apps" are a class of tools that have some advertised use unrelated to intimate partner tracking-finding a lost phone, monitoring the browsing of a minor child, preventing theft, keeping tabs on a corporate-owned device, and the like-but that are easily and effectively repurposed for intimate partner surveillance, often with the tacit support of app vendors. Though not facially intimate tracking apps of the sort considered by Danaher and colleagues, these tools can be-and are-readily employed for "off-label" use, most typically for surreptitious monitoring of a partner's location, communications, and behaviors. (I am presently working with a team of researchers at Cornell University and New York University to quantitatively assess the size and complexity of this category of apps, as well as to describe the technical and economic features that make them attractive for intimate partner surveillance.)

A second set of relevant technologies is the broad set of tools and platforms we all use in day-to-day life for communication, information retrieval, entertainment, and other purposes. Suspicious partners frequently snoop through Web browsing histories, phone contacts, messaging apps, e-mail accounts, and social media profiles. They may do so with or without the authorization of the surveilled partner; monitoring can occur directly through the partner's device, on a shared device, or through publicly accessible profiles (e.g., "Facebook stalking" to glean a partner's activity or location). Such tools can play important roles in the definition and maintenance of positive, healthy relationships (Levy 2013); intimate partners may, for example, derive information from one another's social media profiles out of interest and curiosity, rather than out of a desire to control. Yet they also can facilitate intrusive and abusive behavior (Freed et al. 2017), and can reveal a good deal of private information without the knowledge or intent of the authorized user. These monitoring techniques leverage the digital traces we all leave behind on the general-purpose devices and platforms we all use, rather than specifically relationship-centered apps and tools. Such quotidian data gathering is inarguably the dominant route through which digital tracking has infiltrated intimate relations.

Finally, the user interfaces of our devices can divulge a good deal of sensitive information to a physically present intimate partner. This sort of monitoring can be deliberate (e.g., peering over a partner's shoulder to see whom she is texting) or incidental; families routinely share devices (Matthews et al. 2016) and leave them unattended in shared spaces. Many mobile operating systems display the content and sender of text messages on the lock screen of a device by default; operating systems on laptop and desktop computers also commonly show headers of incoming e-mails, text messages, Twitter direct messages, and other forms of contact on screen. Many user interfaces offer seamless integration of content across devices, under the apparent assumption that each of a user's devices will be used by her alone; for instance, if a user has an iCloud account to which two devices are registered, iOS will by default sync iMessages across those devices, potentially and inadvertently revealing their contents to a family member using one of them. This form of intimate disclosure may seem different in nature than the others discussed, since it may be nonvolitional on the part of either partner. But this is precisely what makes it ethically interesting: The very design of the technology makes determinations about the scope of intimate privacy, and bears some ethical responsibility for the disclosure.

The three classes of monitoring tools I have described involve the decidedly unsexy stuff of everyday digital life, which doubtlessly occupy a principal role in data-gathering about intimate partners—far more than a connected sex toy or a romance app. It's easy to fixate on the latter group; they represent the most amplified, visible exemplars of the phenomenon of intimate tracking. And some of the ethical concerns that they introduce, and which Danaher and colleagues so carefully critique, may well apply more broadly to intimate tracking using more general tools.

But I suggest that focusing on the broader, less "sexy" tools of intimate tracking opens up the possibility of reflecting on further ethical issues. The fact that such tools can so readily be put to use for these purposes tells us quite a bit about the values and assumptions about intimate life that are built into our most common technologies. Technology companies are beginning to grapple with some of the most acute risks, like revenge porn and account spoofing, but within frameworks that still tend to rely on assumptions about the nature of privacy threats as coming from outside intimate relations. When our technologies, for example, pop up the content of our incoming texts by default across all our devices, they demonstrate a perceived value of seamless usability and always-on notification-and they lay bare an assumption that our devices are used by atomized individuals, rather than as part of social patterns of use, access, and sharing. Technology choices like these establish that intrarelationship privacy threats-be they from an abusive partner in the most extreme case, or less nefariously in everyday life-are not cognized by digital tools and interfaces. Because digital tools play such central roles in our closest relationships, these design choices represent an interesting confluence of bioethics and technology ethics, and one that deserves further analysis.

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Algorithmic Bloodhounds

Evan Selinger, Rochester Institute of Technology Brett Frischmann, Villanova University

In "The Quantified Relationship" John Danaher, Sven Nyholm, and Brian Earp (2018) significantly enhance normative discussions about quantified relationships and their core technologies. Our modest goal is to show how their analysis can be improved. We use debates about menstruation tracking to make three points.¹

First, Danaher, Nyholm, and Earp's characterization of quantified relationship technologies should be softened by explicitly acknowledging that the categories are fluid boundaries.

Second, Danaher, Nyholm, and Earp should more carefully distinguish their method of analysis from their substantive claims. It is methodologically sound to create a taxonomy of seven objections to quantified relationships by abstracting each concern from prior scholarship. This is the right way to generate a comprehensive ethical framework: it avoids reinventing the wheel and gives others due credit. Still, proceeding this way risks framing the objections as discrete grievances. Since the problems with quantified relationships can be holistic, not atomistic, the potential synergy of objections should be highlighted.

Third, Danaher, Nyholm, and Earp should scrutinize more closely the assumptions linking what people believe they know to when they believe they should help others manage gaps in knowledge. The core epistemological convictions guiding the quantified self movement can exacerbate ethical issues in quantified relationships. We need to better understand why this is the case.

Danaher, Nyholm, and Earp identify three different types of technologies that support quantified relationships: sex tracking apps, romantic behavior tracking apps, and surveillance apps. They place fertility tracking apps in the category of romantic behavior tracking. They further observe that some of these apps are designed for

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Address correspondence to Evan Selinger, Rochester Institute of Technology, 92 Lomb Memorial Drive, Rochester, NY 14623, USA. E-mail: evan.selinger@rit.edu