Wearable Technology and Implications for the Americans with Disabilities Act, Genetic Information Nondiscrimination Act, and Health Privacy

Kevin J. Haskins*

Introduction

Wearable technology excels at providing health data. Yesterday's pedometer has been relegated to the dustbin while today's fitness trackers, like those from Fitbit, Jawbone, Garmin, and Apple, track not only heart rate and burned calories, but also sleep patterns, walking patterns, sweat, diet, and a host of other health attributes when paired with mobile apps for tracking mood, fertility, and medication.[1] Although many of these devices are designed for the consumer market, they have become increasingly common in the workplace, often as part of employee wellness programs.[2] Companies are also finding wearable devices useful for enhancing worker safety. Devices capable of monitoring a worker's hydration, temperature, movement, and external hazards are already available, and research is continuing into how to use these tools as a "technological guardian angel" for workers.[3]

---

* Kevin J. Haskins is an employment law attorney with Preti, Flaherty, Beliveau & Pachios, Chartered, LLP, in Portland, Maine. He represents employers and helps them find effective solutions to workplace challenges, including privacy and the role of technology in the workplace.

1. *See* Kelsey Munro, *Data Collection: Wearable Fitness Device Information Tracking Your Life*, Sydney Morning Herald (Apr. 18, 2015), http://www.smh.com.au/digital-life/digital-life-news/data-collection-wearable-fitness-device-information-tracking-your-life-20150416-1mmzbq.html; My Nguyen, *We Will Make You Sweat*, Wearable Technologies (Feb. 17, 2016), https://www.wearable-technologies.com/2016/02/we-will-make-you-sweat/.

2. *See* Christina Farr, *How Fitbit Became the Next Big Thing in Corporate Wellness*, Fast Company (Apr. 18, 2016), https://www.fastcompany.com/3058462/how-fitbit-became-the-next-big-thing-in-corporate-wellness.

3. *See* Asaf Adi, *Putting Wearables to Work for Improved Safety*, IBM: IBM Research Blog (Jan. 6, 2016), https://www.ibm.com/blogs/research/2016/01/putting-wearables-to-work-for-improved-safety/; *see also* Aviva Rutkin, *Wearable Tech Lets Boss Track Your Work, Rest and Play*, New Scientist (Oct. 15, 2014), https://www.newscientist.com/article/mg22429913-000-wearable-tech-lets-boss-track-your-work-rest-and-play/; Ayliffe Brown, *A Smart Employee for a Productive Work Place*, Wearable Technologies (July 23, 2015), https://www.wearable-technologies.com/2015/07/a-smart-employee-for-a-productive-work-place/; Bruce Brown, *Real-Time Wearable Hydration Sensor*, Health Tech Insider (Feb. 2, 2017), http://healthtechinsider.com/2017/02/02/real-time-wearable-hydration-sensor/; Ies-

Unsurprisingly, workplace proliferation of wearable technology raises many legal questions.[4] In particular, the intersection of wearable technology and health implicates issues under the Americans with Disabilities Act (ADA), the Genetic Information Nondiscrimination Act (GINA), and health privacy laws like the Health Insurance Portability and Accountability Act (HIPAA).

Part I of this Article addresses the ADA and how its prohibitions on disability-related inquiries and discrimination may affect uses of wearable technology in the workplace. Part II addresses corollary issues under GINA. Part III concludes with an overview of HIPAA and how its privacy protections relate to workplace deployment of wearable technology.

I. Wearable Technology and the ADA

A. Wearable Technology and Disability-Related Inquiries

The ADA prohibits employers from administering medical examinations and making other disability-related inquiries to current employees unless the examination or inquiry "is job-related and consistent with business necessity."[5] Equal Employment Opportunity Commission (EEOC) enforcement guidance notes that a "medical examination" is any procedure or test "that seeks information about an individual's physical or mental impairments or health."[6] That same guidance also defines a "disability-related inquiry" as any question "likely to elicit information about a disability."[7]

Because wearable devices are adept at tracking health data and providing health analytics, employers' use of these devices may violate the ADA's prohibition on medical examinations and disability-related inquiries. The multiple health parameters that wearable devices track, and the granular nature of the information they can provide, means that wearable technology can give end-users, whether employers or employees, a detailed picture of the wearer's health. Even if a company's deployment of a wearable device lacks intent to conduct a medical examination, the device can still elicit information about an employee's

---

tyn Armstrong-Smith, *You Wear It So Well*, THE ANALYTICAL SCIENTIST (Jan. 24, 2014), https://theanalyticalscientist.com/issues/0314/you-wear-it-so-well/; John Boitnott, *Wearable Tech Is Improving Employee Productivity and Happiness*, ENTREPRENEUR (Apr. 28, 2015), https://www.entrepreneur.com/article/245458.

4. *See* Patience Haggin, *As Wearables in Workplace Spread, So Do Legal Concerns*, WALL ST. J. (Mar. 13, 2016, 10:12 PM), https://www.wsj.com/articles/as-wearables-in-workplace-spread-so-do-legal-concerns-1457921550.

5. 42 U.S.C. § 12112(d)(4)(A) (2012).

6. U.S. EQUAL EMP'T OPPORTUNITY COMM'N, 915.002, ENFORCEMENT GUIDANCE: DISABILITY-RELATED INQUIRES AND MEDICAL EXAMINATIONS OF EMPLOYEES UNDER THE AMERICANS WITH DISABILITIES ACT § 2 (2000), https://www.eeoc.gov/policy/docs/guidance-inquiries.html [hereinafter *Disability-Related Inquiries*].

7. *Id.*

disability. Wearable devices that monitor blood glucose[8] or cardiac conditions,[9] for example, could disclose an employee's diabetes or asthma.

Consequently, workplace use of wearable technology presents a risk under the ADA because it can provide an employer with employees' health-related information that it would not otherwise have and that may relate to or disclose an employee's underlying disability. Given this risk, companies deploying wearable technology should be prepared, at minimum, to explain to employees what information the technology collects, the limits on collection, and why the technology is job-related and consistent with business necessity.

There are two employer wearable technology practices that present fewer ADA legal risks: use of wearable technology in connection with employee wellness programs and use of wearable technology for safety-sensitive positions.

B. Wearable Technology and Employee Wellness Programs

Employers commonly offer employee wellness programs and, by some estimates, forty to fifty percent of them use health trackers.[10] One reason for this increase is that the ADA specifically allows employers to conduct medical examinations and disability-related inquiries as part of voluntary wellness programs.[11] Thus, the ADA permits employers to use wearable devices in connection with voluntary wellness programs, even though such use may constitute a medical examination or disability-related inquiry.[12]

The EEOC's current rules on workplace wellness programs[13] do not directly address use of wearable technology as part of wellness programs,

---

8. *See* Mellisa Tolentino, *Wearable Sensor Eliminates Painful Prick for Blood Glucose Monitoring*, SILICONANGLE (last updated Sept. 17, 2014, 3:28 PM EST), http://siliconangle.com/blog/2014/09/17/wearable-sensor-eliminates-painful-prick-for-blood-glucose-monitoring/.

9. *See* Stacy Lawrence, *Medtronic Launches Wearable Cardiac Monitor Acquired from Corventis*, FIERCEBIOTECH (Sept. 15, 2014, 11:35 AM), http://www.fiercebiotech.com/medical-devices/medtronic-launches-wearable-cardiac-monitor-acquired-from-corventis.

10. *See* Haggin, *supra* note 4.

11. 42 U.S.C. § 12112(d)(4)(B) (2012); *see also Disability-Related Inquiries*, *supra* note 6, § 22.

12. *Disability-Related Inquiries*, *supra* note 6, § 22.

13. Regulations Under the Americans with Disabilities Act, 81 Fed. Reg. 31,125, 31,126 (May 17, 2016) (codified at 29 C.F.R. pt. 1630). In October 2016, AARP sued to enjoin the Equal Employment Opportunity Commission's (EEOC) rules from going into effect, but a federal district court denied AARP's request for a preliminary injunction, and the rules became effective in January 2017. *See* Kevin McGowan, *Employer Wellness Incentives Get Boost as Court Clears EEOC Rules*, BLOOMBERG BNA (Jan. 3, 2017), https://www.bna.com/employer-wellness-incentives-n73014449233/. However, on August 22, 2017, the court granted AARP's motion for summary judgment, finding that the EEOC had failed to provide a reasoned explanation for the portion of its rule that allowed employer-sponsored wellness plans to offer employees incentives of up to thirty percent of the total cost of self-only coverage for divulging health information. AARP v. EEOC, 267 F. Supp. 3d 14, 38 (D.D.C. 2017). Although the court initially remanded the rules to the EEOC for reconsideration, the court subsequently vacated the challenged incen-

but describe how these programs can comply with the ADA and GINA, while also remaining consistent with HIPAA's wellness program rules.[14] The rules address the critical definition of "voluntary."[15] Although previous ADA regulations allowed employers to ask health-related questions and conduct medical examinations as part of a "voluntary" wellness program, the regulations did not define "voluntary."[16] Now, the rules clarify that, for a wellness program to be considered voluntary, employers may not require employees to participate in the program, deny employees access to health coverage for choosing not to participate, or take adverse actions based on employees' failure to participate.[17]

The rules also contain other requirements that indirectly affect wearable technology use. For example, employers must provide a notice that clearly explains what medical information will be obtained from employees in a wellness program.[18] The rules also require that wellness programs be "reasonably designed to promote health or prevent disease."[19] In other words, wellness programs must actually promote health and cannot include burdensome time requirements for participation, involve unreasonably intrusive procedures, or be used to shift insurance costs or gain sensitive medical information that would otherwise violate the law.[20] The ADA also requires employers to reasonably accommodate employees with disabilities to be able to participate in wellness programs.[21] Thus, if an employee's disability or other condition precludes wearing the technology, employers should consider reasonable accommodations that would allow participation in the wellness program without the technology.

In addition, the rules include two confidentiality provisions that affect wearable technology use. First, information from wellness programs may be disclosed to employers only in an aggregate form that does not identify specific persons.[22] Second, employers may not require employees to agree to sales of health information or waivers of confidentiality as a condition for participating in a wellness program or receiving an incentive.[23]

---

tive portions of the rules. AARP v. EEOC, No. 16-2113 (JDB), 2017 WL 6542014, at *5 (D.D.C. Dec. 20, 2017). To accommodate employers, though, the court stayed the effective date of its order until January 1, 2019. *Id.*

14. *See* Regulations Under the Americans with Disabilities Act, 81 Fed. Reg. at 31,126–28.

15. *See id.* at 31,133–34.

16. *See id.* at 31,128–29.

17. 29 C.F.R. § 1630.14(d)(2)(i)-(iii) (2017).

18. 29 C.F.R. § 1630.14(d)(2)(iv).

19. 29 C.F.R. § 1630.14(d)(1).

20. *Id.*

21. Regulations Under the Americans with Disabilities Act, 81 Fed. Reg. 31,125, 31,133, 31,138, 31,141 (May 17, 2016) (codified at 29 C.F.R. pt. 1630).

22. 29 C.F.R. § 1630.14(d)(4)(iii).

23. 29 C.F.R. § 1630.14(d)(4)(iv).

C. Wearable Technology and Safety-Sensitive Positions

The ADA's requirement that medical examinations and disability-related inquiries must be "job-related and consistent with business necessity" provides another potential legal use of wearable technology in the workplace.[24] The EEOC says that an inquiry is "job-related and consistent with business necessity" if an employer "has a reasonable belief, based on objective evidence, that (1) an employee's ability to perform essential job functions will be impaired by a medical condition, or (2) an employee will pose a direct threat due to a medical condition."[25]

Using wearable devices as an early warning system for employees in safety-sensitive positions might fall within this exception. For example, outfitting forklift operators with wearable devices that measure enzymes in sweat and send alerts if the operators become dehydrated or overly fatigued presumably (1) relates to employees' ability to perform essential job functions, and (2) addresses whether their physical condition poses a direct threat of harm. In addition, EEOC guidance suggests that medical inquiries may be warranted in certain circumstances in which safety is at issue.[26]

However, for an inquiry to be "job-related and consistent with business necessity," an employer must have a reasonable belief, based on objective evidence, that an employee will be impaired or will pose a direct threat due to a medical condition.[27] The standard arguably presumes that an observable medical condition already exists which gives rise to a reasonable belief that a medical inquiry is warranted due to the risk of impairment or a direct threat. When wearable technology is instead used to detect a medical impairment before it even occurs, the elements of reasonable belief and objective evidence that might support the technology's use are arguably absent.

In this area, much may depend on the particular data wearable technology collects. Wearable devices that detect environmental hazards like carbon monoxide, provide geolocation data, or enhance mobility or sensory perception, for example, may not raise any ADA concerns because they neither track employees' medical conditions nor elicit information about a disability. Rather, the use of these devices may raise other concerns, including issues regarding invasion of privacy and liability for accidents related to use of wearable technology.[28] The more continuously a wearable device monitors employees' health

24. 42 U.S.C. § 12112(d)(4)(A) (2012).

25. *Disability-Related Inquiries*, *supra* note 6, § 5.

26. *Id.* §§ 18, 21 (periodic medical inquiries may be appropriate for employees in positions affecting public safety and when required by other federal laws or regulations).

27. *Disability-Related Inquiries*, *supra* note 6, § 5.

28. *See, e.g.*, Jeremy P. Brummond & Patrick J. Thornton, *The Legal Side of Jobsite Technology*, CONSTRUCTION TODAY (June 22, 2016), http://www.construction-today.com/sections/columns/2752-the-legal-side-of-jobsite-technology.

conditions, and the more detailed the information provided, the more seriously the ADA is implicated.

D. Wearable Technology and Discrimination

Discrimination claims are another risk of workplace use of wearable technology. The ADA prohibits discrimination on the basis of disability.[29] Wearable technology can provide employers with a significant amount of employee-related health information to which they would not otherwise have access. When employers use wearable technology to evaluate job performance, employees could conceivably claim that discipline thereafter would not have been imposed but for the employer's discovery of a medical or health condition disclosed by the technology. The risk is arguably lower if wearable technology is used as part of an employee wellness program because third-party vendors often receive collected employee information, and employers receive only aggregated data that does not identify particular employees.[30] Even so, that "firewall" would not necessarily preclude an employee from claiming that an adverse action was based on a perceived disability, regardless of whether the collected information disclosed a disability, and regardless of whether the technology was part of a wellness program.

Wearable technologies also raise potential reasonable accommodation issues. As a general rule, employees must initiate discussions about the necessity of accommodations.[31] However, EEOC guidance suggests that employers may have an obligation to initiate discussions if they know or have reason to know that employees are experiencing workplace problems due to a disability.[32] Consequently, information that wearable technology collects may sometimes require employers to consider whether an employee's physical condition is contributing to performance problems.[33]

Finally, the EEOC has increased its focus on uses of "big data," including algorithms and predictive analytics for evaluating large amounts of information about employees.[34] At a recent panel hosted by the EEOC that explored the use of big data in employment, panel-

29. 42 U.S.C. § 12112(a) (2012).

30. *See, e.g.*, Jay Hancock, *Workplace Wellness Programs Put Employee Privacy at Risk*, CABLE NEWS NETWORK (last updated Oct. 2, 2015, 12:37 PM ET), http://www.cnn.com/2015/09/28/health/workplace-wellness-privacy-risk-exclusive/index.html.

31. *See* U.S. EQUAL EMP'T OPPORTUNITY COMM'N, 915.002, ENFORCEMENT GUIDANCE: REASONABLE ACCOMMODATION AND UNDUE HARDSHIP UNDER THE AMERICANS WITH DISABILITIES ACT (2002), https://www.eeoc.gov/policy/docs/accommodation.html.

32. *Id.*

33. *See* Haggin, *supra* note 4.

34. Press Release, U.S. Equal Emp't Opportunity Comm'n, Use of Big Data Has Implications for Equal Employment Opportunity, Panel Tells EEOC (Oct. 13, 2016), https://www.eeoc.gov/eeoc/newsroom/release/10-13-16.cfm.

ists identified wearable devices in employee wellness programs as an area of concern, in part because little is known about how data analytics companies interpret data collected from wearable devices, and because the data such technology provides may often be unreliable.[35] Given the EEOC's interest in "big data" and how employers use it to make employment decisions, the EEOC will likely be interested in how wearable technology in the workplace contributes to this emerging issue.

II. Wearable Technology and GINA

GINA prohibits discrimination in employment on the basis of genetic information.[36] The law defines "genetic information" as including information about a person's genetic tests, genetic tests of that person's family members, and the manifestation of disease or disorder in such family members (i.e., family medical history).[37] Among other protections, GINA makes it unlawful to "request, require, or purchase genetic information of an individual or family member of the individual."[38]

For wearable technology, GINA raises many of the same risks and concerns as the ADA. If an employee must wear a device that collects genetic information, or must provide that information to use such a device, use of wearable technology could constitute an unlawful request for genetic information. Depending on the information collected, GINA, similar to the ADA, also presents risks of discrimination claims.

While GINA generally prohibits requesting, requiring, or purchasing genetic information, there is an exception if employers offer voluntary health or genetic services to employees or their family members as part of a wellness program.[39] Many of the EEOC rules governing wellness programs under the ADA apply equally to GINA.[40] Thus, much of the discussion and analysis of wellness programs under the ADA[41] also applies to wellness programs under GINA.

Notably, a bill currently pending in the House of Representatives would make GINA inapplicable to workplace wellness programs.[42] Under the proposed bill, employers would be able to impose financial

35. Transcript of U.S. Equal Employment Opportunity Commission Meeting (Oct. 13, 2016), https://www.eeoc.gov/eeoc/meetings/10-13-16/transcript.cfm (last visited Aug. 17, 2017) (comments of Dr. Ifeoma Ajunwa).

36. 42 U.S.C. § 2000ff (2012).

37. 29 C.F.R. § 1635.3(c)(1) (2017).

38. 29 C.F.R. § 1635.8(a).

39. 29 C.F.R. § 1635.8(b)(2).

40. *See EEOC's Final Rule on Employer Wellness Programs and the Genetic Information Nondiscrimination Act*, U.S. Equal Emp't Opportunity Comm'n, https://www.eeoc.gov/laws/regulations/qanda-gina-wellness-final-rule.cfm (last visited Oct. 24, 2017).

41. *See supra* section I.

42. Preserving Employee Wellness Programs Act, H.R. 1313, 115th Cong. (2017).

penalties on employees who choose not to provide genetic information as part of a voluntary wellness program.[43] The fate of this bill remains uncertain.

III. Wearable Technology and Health Privacy under HIPAA

Wearable technology that collects employees' health-related information also implicates HIPAA, which establishes national standards for protecting individually identifiable health information—"protected health information" (PHI)—that covered entities and their business associates hold.[44] The HIPAA Privacy Rule defines the circumstances under which covered entities may disclose PHI.[45] The Security Rule lists procedures that covered entities must follow to ensure protection of PHI.[46] The Breach Notification Rule requires covered entities and their business associates to provide notification of breaches of unsecured PHI.[47]

However, HIPAA is inapplicable to employers as employers. Rather, HIPAA applies only to "covered entities" and their business associates.[48] HIPAA defines a "covered entity" as a health plan, a health care clearinghouse, and most health care providers.[49] Most employers that use workplace wearable devices that collect employees' health-related information are thus not subject to HIPAA.

Whether HIPAA rules apply to workplace wellness programs depends on whether an employer independently offers the program or whether it is offered as part of a health plan.[50] If an employer offers the program directly and independently of a health plan, HIPAA does not apply and any information collected from employees, including information collected from wearable devices, would not be HIPAA protected.[51] However, if an employer includes a wellness program as part of a group health plan, HIPAA rules would protect any PHI collected from participants.[52]

---

43. *See* Sharon Begley, *House Republicans Would Let Employers Demand Workers' Genetic Test Results*, STAT (Mar. 10, 2017), https://www.statnews.com/2017/03/10/workplace-wellness-genetic-testing/. Penalties could include charging employees more for health insurance (if the employer offers a group health plan), or loss of pay. *Id.*

44. *See* 45 C.F.R. §§ 160, 162, 164 (2017).

45. 45 C.F.R. §§ 160, 164.102–.106, 164.500–.534.

46. 45 C.F.R. §§ 160, 164.102–.106, 164.302–.318.

47. 45 C.F.R. §§ 162, 164.400–.414.

48. 45 C.F.R. § 160.102.

49. 45 C.F.R. § 160.103.

50. *See HIPAA Privacy and Security and Workplace Wellness Programs*, U.S. DEP'T OF HEALTH & HUMAN SERVICES, https://www.hhs.gov/hipaa/for-professionals/privacy/workplace-wellness/ (last updated Apr. 20, 2015) [hereinafter *Workplace Wellness Programs*].

51. 45 C.F.R. § 164.512.

52. *See Workplace Wellness Programs*, *supra* note 50.

Interestingly, some wearable device manufacturers in an abundance of caution are designing products to be HIPAA-compliant even though it is not necessary for most workplaces. Fitbit, for example, announced in September 2015 that its devices were HIPAA-compliant, enabling sales to HIPAA-covered entities.[53] In this quickly evolving area of wearable technology and employment, such a precaution likely also best serves the needs of employers and employees.

Conclusion

Wearable technology is fast becoming commonplace in workplaces. Businesses are increasingly incorporating wearable devices into their technology infrastructure, and each year offers new products capable of providing user information in more detail. For employers, this technology has tremendous potential—devices capable of tracking biometrics, geolocation, environmental hazards, and more will undoubtedly allow employees to perform their jobs better, faster, and more safely. But the ability of wearable devices to disclose employees' health-related information also presents risks for employers. Wearable technology can provide employers with a significant amount of employee-related health information that might not otherwise be available and, in some cases, might disclose more information than permitted under the ADA; GINA; and privacy laws, including HIPAA. To minimize risk, employers should carefully consider the benefits of wearable technology before deployment. That analysis should include review of the employer's business needs and how wearable technology can help meet them. Employers should then clearly explain to employees how wearable technology will be used, what information the technology collects, the limits on collection, and why the technology is necessary. Taking these steps may make it more likely that both employers and employees will be able to wear their technology without adverse consequences.

53. Press Release, Fitbit, Fitbit Extends Corporate Wellness Offering with HIPAA Compliant Capabilities (Sept. 16, 2015), https://investor.fitbit.com/press/press-releases/press-release-details/2015/Fitbit-Extends-Corporate-Wellness-Offering-with-HIPAA-Compliant-Capabilities/default.aspx.