

Smart Health and Wellness Device

Consent to Participate

Purpose of the Survey

This survey is being conducted to understand participants' knowledge and perceptions of different Internet of Things (IoT) devices and application domains, as well as their awareness of related privacy and security concerns.

Data Being Collected

We will ask for basic demographic information (such as age range and region) along with your responses to the main survey questions.

Voluntary Participation

Your participation is completely voluntary. You may choose not to answer any question or exit the survey at any time.

Anonymity and Confidentiality

Your responses will remain anonymous and confidential. No personally identifiable information will be collected or shared.

Questions or Concerns

If you have any questions about this survey, please contact

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Consent Statement

By clicking "**Next**" and continuing with this survey, you indicate that you are at least [*minimum age, e.g., 18 years old*], have read the above information, and **agree to participate**.

No direct personally identifiable information (PII) will be collected.

Section: Demographic Profile

1. What is your age range?

Mark only one oval.

Under 18

18 - 24

25 - 34

35 - 44

45 - 54

55 - 64

65 or older

2. Which geographical area do you reside in?

Mark only one oval.

North America

South America

Europe

Africa

Asia

Australia/Oceania

Middle East

Other: _____

Section: Awareness and Understanding

3. Q1. What is your understanding of the term "**Internet of Things (IoT)**"?

Mark only one oval.

Devices connected to the internet that collect and share data

A network of computers communicating via a centralized server

A system of physical devices without internet connectivity

Not sure

4. Q2. What is your understanding of **Cyber-Physical Systems (CPS)**?

Mark only one oval.

- Systems where physical processes are controlled or monitored by computer-based algorithms
- Computers that simulate physical processes without any real-world data
- Devices that only communicate between each other locally
- Not sure

5. Q3 . What types of data do you think **IoT** and **CPS** devices typically collect? (Select all that apply)

Check all that apply.

- Personal identifiers (name, address, etc.)
- Location data
- Health and fitness data
- Environmental data (temperature, humidity, etc.)
- Behavioral data (habits, patterns)
- Other: _____

6. Q4. How do you think data collected by **IoT** and **CPS** devices is used? (Select all that apply)

Check all that apply.

- To improve device functionality and performance
- To share with third parties for advertising or marketing purposes
- To enhance user experience by personalizing services
- I don't know

Section: Privacy Perceptions

7. Q5. What privacy concerns, if any, do you have regarding **IoT** and **CPS** devices?
(Select all that apply)

Check all that apply.

- Data being shared without consent
- Security risks of unauthorized data access or breaches
- Loss of personal control over collected data
- Unclear data storage practices or retention
- Other: _____

8. Q6. Do you think **IoT** and **CPS** devices should inform users about what data is being collected and how it is used?

Mark only one oval.

- Yes, always
- Yes, but it should depend on the device or context
- No, it's not necessary for users to be informed
- Not sure

9. Q7. How concerned are you about the security of your personal data when using **IoT** and **CPS** devices?

Mark only one oval.

- Very concerned
- Somewhat concerned
- Not concerned at all
- Not sure

10. Q8. What measures do you believe should be taken to protect privacy in **IoT** and **CPS** systems? (Select all that apply)

Check all that apply.

- Encryption of data during transmission or storage
- User control over what data is stored or collected
- User authentication for accessing devices or data
- Regular software updates/patches for vulnerabilities
- Strict access controls and auditing of data usage
- I don't know

11. Q9. What does **GDPR** stand for?

Mark only one oval.

- General Data Protection Regulation
- Global Digital Privacy Rules
- Government Data Privacy Regulation
- Not sure

12. Q10. What does **HIPAA** protect?

Mark only one oval.

- Medical and health-related information
- Home security footage
- Financial account details
- Not sure

13. Q11. Are you aware of any regulations or standards protecting privacy in IoT and CPS systems (e.g., GDPR, HIPAA)?

Mark only one oval.

- Yes, I am aware of regulations like GDPR, HIPAA
- I have heard of them but don't know much about them
- No, I am not familiar with them
- Other: _____

Information on GDPR and HIPAA

What is GDPR?

→ A law in Europe that protects people's personal data and privacy.

Why is GDPR important?

→ It makes sure companies don't misuse or share your personal information without permission.

What kind of data does GDPR protect?

→ Your name, email, phone number, address, photos, and even your location.

Can a company collect your data without asking?

→ No. Under GDPR, they must ask for your clear permission first.

Can you ask a company to delete your data?

→ Yes. It's called the "right to be forgotten."

What is HIPAA?

→ A U.S. law that protects your health information and privacy.

What kind of information does HIPAA protect?

→ Your medical records, test results, doctor visits, and health insurance details.

Can your doctor share your health information with anyone?

→ No. They must keep it private unless you say it's okay.

Why is HIPAA important?

→ It keeps your personal health details safe from being misused or leaked.

Can you see your own medical records?

→ Yes. HIPAA gives you the right to view and get copies of them. GDPR (General Data Protection Regulation)

14. Q12 . Would you be willing to share personal data with **IoT** and **CPS** devices if there was a clear benefit to you (e.g., better services, personalization)?

Mark only one oval.

- Yes, if the benefits are significant
- Yes, but I need to know how my data will be protected
- No, I prefer not to share my personal data
- Not sure

15. Q13. What would make you trust **IoT** and **CPS** devices more regarding privacy?

Mark only one oval.

- Transparency about data collection and usage
- Control over data sharing and access settings
- Clear privacy policies with user-friendly knowledge
- Third-party certifications or audits on security practices
- Other: _____

16. Q14. Do you think **IoT** and **CPS** technologies have a significant impact on privacy in society today?

Mark only one oval.

- Yes, I believe they have a significant impact
- No, I don't think they affect privacy much
- I'm not sure

17. Q15. Would you like to see more information about privacy and data usage in IoT and CPS systems?

Mark only one oval.

- Yes, I would appreciate more resources
- No, I feel well informed
- Not sure

Section: Device/System Specific Questions

18. Companies may use the collected data for different purposes – some to improve your experience, and others for business or marketing. Based on what you know, how do you think this collected data is typically used? (e.g., service improvement, targeted ads, sharing with utilities, selling to third parties, etc.)

19. Q16. Which types of data are you **comfortable** sharing with IoT manufacturers or third parties regarding **Smart Beds**? (Select all that apply)

Check all that apply.

- Sleep patterns: Records of sleep duration and wake times.
- Pressure distribution data: How your body weight is distributed across the bed surface.
- Body temperature variations: Changes in body temperature detected during sleep.
- Sleep quality scores: Device-generated ratings of sleep quality.
- Bed usage history: Times when the bed was occupied or unoccupied.

20. Q17. Which types of data are you comfortable sharing with IoT manufacturers or third parties regarding **Smart Weighing Scales**? (Select all that apply)

Check all that apply.

- Weight history: Records of weight measurements over time.
- BMI calculations: Computed body mass index from weight and height data.
- Body composition data: Metrics such as body fat percentage, muscle mass, or water content.
- Heart rate readings: Heart rate captured during weigh-ins.
- Measurement frequency logs: How often the scale is used.

21. Q18. Which types of data are you **comfortable** sharing with IoT manufacturers or third parties regarding **Smart Air Quality Monitors**? (Select all that apply)

Check all that apply.

- CO₂ level history: Records of carbon dioxide concentration in your environment.
- VOC level history: Logged levels of volatile organic compounds in the air.
- PM2.5 concentration data: Fine particulate matter readings over time.
- Humidity trends: Historical humidity measurements.
- Ambient temperature history: Logged room temperature readings.

22. Q19. How comfortable are you with sharing your data with IoT manufacturers or third parties regarding **Smart Health and Wellness Devices**?

Mark only one oval.

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

Section: Privacy Implications

Implications: How Smart Health & Wellness Devices Use Your Data

Smart beds, connected weighing scales, and air quality monitors don't just track your comfort or fitness—they collect detailed data about your body, health patterns, and living environment. This information can help improve your well-being, but it may also be shared or monetized in ways you don't anticipate.

- ◆  **Targeted Recommendations:** Poor sleep quality? Expect ads for supplements or sleep aids. High BMI readings? You might see promotions for diet programs or gym memberships.
- ◆  **Data Sharing:** Your sleep, weight, and air quality data may be shared with fitness apps, wellness brands, insurance companies, or healthcare providers—sometimes influencing product offers or coverage.
- ◆  **Paid Features:** Detailed analytics, personalized health coaching, or advanced tracking may require subscriptions based on your recorded health data.
- ◆  **Behavioral Profiling:** Devices can learn your daily patterns—when you sleep, wake up, and exercise—building a personal health profile that can be used to tailor products or services.
- ◆  **Environmental Insights:** Air quality readings, temperature, and humidity levels can help improve your environment, but might also be sold to third parties for research or marketing.
- ◆  **Third-Party Access:** Health and environmental data could be accessed by insurers, employers, or even law enforcement—sometimes without explicit consent.

What This Means for You:

Smart health and wellness devices can enhance your lifestyle, but they also gather intimate details about your body and environment. Review privacy policies and device settings to understand how your health metrics, sleep logs, and environmental readings are stored, shared, and used. As with all connected devices—if it's tracking you, it's also learning about you.

Section: Device/System Specific Questions after Understanding Implications

"After reading **Implications: How Smart Health & Wellness Devices Use Your Data**, you will be asked the same set of **Device/System Specific Questions** again. Any changes you make will reflect how your views **shifted after learning** about these implications."

23. Q20. Which types of data are you **comfortable** sharing with IoT manufacturers or third parties regarding **Smart Beds**? (Select all that apply)

Check all that apply.

- Bed usage history: Times when the bed was occupied or unoccupied.
- Sleep quality scores: Device-generated ratings of sleep quality.
- Body temperature variations: Changes in body temperature detected during sleep.
- Pressure distribution data: How your body weight is distributed across the bed surface.
- Sleep patterns: Records of sleep duration and wake times.

24. Q21. Which types of data are you comfortable sharing with IoT manufacturers or third parties regarding **Smart Weighing Scales**? (Select all that apply)

Check all that apply.

- Measurement frequency logs: How often the scale is used.
- Heart rate readings: Heart rate captured during weigh-ins.
- Body composition data: Metrics such as body fat percentage, muscle mass, or water content.
- BMI calculations: Computed body mass index from weight and height data.
- Weight history: Records of weight measurements over time.

25. Q22. Which types of data are you comfortable sharing with IoT manufacturers or third parties regarding **Smart Air Quality Monitors**? (Select all that apply)

Check all that apply.

- Ambient temperature history: Logged room temperature readings.
- Humidity trends: Historical humidity measurements.
- PM2.5 concentration data: Fine particulate matter readings over time.
- VOC level history: Logged levels of volatile organic compounds in the air.
- CO₂ level history: Records of carbon dioxide concentration in your environment.

26. Q23. How comfortable are you with sharing your data with IoT manufacturers or third parties regarding **Smart Health and Wellness Device?**

Mark only one oval.

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

27. Challenges? What you will be missing due to limiting these data accesses?

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