# **Researcher Survey Screen Shots**

# **Information Page**

### Information Sheet

### OMB Control #0693-0043 06/30/2025

# NIST Human-Centered Security Survey

You are invited to participate in a research study. Your participation is voluntary. You should read the information below and ask questions about anything that you do not understand. A researcher will be able and available to answer your questions.

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#### PURPOSE

The purpose of this study is to understand current human-centered security researcher-practitioner interaction points and associated challenges throughout the entire research lifecycle. Study insights can inform the creation of bridges between human-centered security researchers and cybersecurity practitioners. We are conducting an online, anonymous survey of human-centered security researchers. We are asking you to take part in this research study because you are an adult (18+ years of age) who has conducted human-centered security research.

### PARTICIPANT INVOLVEMENT

If you decide to take part in this study you will be asked to complete an online, anonymous survey. The survey has an expected completion time of twelve (12) minutes. During the survey, you will be asked about your research experience, your current organization, and your consultation of and involvement with practitioners and practitioner resources throughout the human-centered security research lifecycle. You will not be compensated for your participation.

#### CONFIDENTIALITY

The members of the research team, NIST Research Protections Office (RPO) to include the Institutional Review Board (IRB), and the Office for Human Research Protections (OHRP) may access the data. The IRB reviews and monitors research studies to protect the rights and welfare of you, the research subject.

Your information is strictly anonymous. No identifiers, data, or information are collected that can be traced back to you. The data provided is not associated or linked back to you by anyone, including the researchers.

When the results of the research are published or discussed in conferencesor journals, no identifiable information will be used. Results will be reported in aggregate.

### POSSIBLE RISKS

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study. There is a very small risk that someone who is not authorized could get access to the data. However, data will be anonymized and not linked back to you. Data will be stored on protected NIST computers and servers requiring multi-factor authentication. Data will be retained per NIST record-keeping requirements for five (5) years after the study is closed.

### **INVESTIGATOR CONTACT INFORMATION**

If you have any questions about this study, please contact Julie Haney at julie.haney@nist.gov.

### **RPO/ IRB CONTACT INFORMATION**

If you have any questions about your rights as a research participant, please contact the NIST Research Protections Office and/or Institutional Review Board at 301-975-5445 or email rpoffice@nist.gov.

You should only decide to participate if the following is true for you:

I understand the above description of the research and the risks and benefits associated with my participation as a research subject. I understand that by proceeding to the next page, I am choosing to take part in this research voluntarily with this survey.

You may download a copy of this information sheet here.

# **Terminology Page**

# Page Header

Terminology

### Terminology Intro

The following terms are used throughout the survey:

### Terminology

Security will be used as shorthand for "cybersecurity."

Human-centered security research (sometimes called "usable security research") considers the human, social, and organizational factors related to security processes, technologies, products, policies, etc. It involves the relationships and interactions between people and cybersecurity, including people's perceptions, the challenges they encounter, and designing usable systems, products, and services that also result in improved security outcomes.

Research refers to human-centered security research you are currently conducting or have conducted in the past.

Practitioners are individuals who engage in a profession either directly related to security or significantly involving security considerations. Examples include, but are not limited to:

- Security practitioners for example, administrators, analysts, architects, consultants, trainers whose primary job involves security
- IT practitioners for example, system administrators, help desk staff, system and network architects
- · Developers for example, software and hardware developers who implement security features or mechanisms in their products
- Organizational leadership for example, managers and executives
- Policy makers who include security considerations in their directives
- · Educators and trainers who teach people about security

Practitioner resources are those sources that are developed by or written for practitioners and are not published in research forums. Examples include industry reports and market surveys; technical white papers, standards, and guidelines; regulations and policies; and government reports.

# Information About You and Your Human-Centered Security Research

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Information about You and Your Human-Centered Security Research

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What is your current research position? If you are also a practitioner, you will have an opportunity to indicate that in the next question.

- Undergraduate student
- Graduate student (Master's or PhD)
- Tenure-track faculty
- Non-tenure-track faculty
- Other type of researcher (non-faculty)

Other:

# Q2

Have you ever worked as a software/hardware developer, a security practitioner, or an IT practitioner?

Yes, in the past

Yes, and I currently still am a practitioner

O No

### Q3

# 👻 🛄 Display this question

- If Have you ever worked as a software/hardware developer, a security practitioner, or an IT practiti... Yes, in the past Is Selected
- Or Have you ever worked as a software/hardware developer, a security practitioner, or an IT practiti... Yes, and I currently still am a practitioner Is Selected

What kind of practitioner have you been? Select all that apply.

- Security practitioner
- IT practitioners
- Software or hardware developer
- Manager or executive
- Policy maker
- Educator/trainer

Other:

### Q4

How many years have you conducted human-centered security research?

Less than 1

0 1-5

- 0 6-10
- O 11-15
- 0 16-20

More than 20 years

# Q5

- What is the highest level of education you have completed?
- O High school or equivalent
- O Some college/university
- Associates (2 year college/university) degree
- O Bachelor's degree
- O Master's degree or equivalent
- O PhD, JD, or other professional degree
- Other:

# Q6

In what disciplines are your degrees or current area of study? Select all that apply.

- Human-Computer Interaction/Human-Centered Computing
- Computer Science or Information Technology
- Cybersecurity
- Information Science
- Information Systems
- Business
- Human Factors
- Cognitive Science
- Sociology
- Psychology
- Economics
- Design
- Political Science
- Privacy Engineering
- Other:

# Q7

Which of the following best describes your current, primary organization/institution?

- Academic
- Private industry
- Non-profit
- O Government
- O Other:

### Q8

- In which region is your current organization?
- Africa
- 🔿 Asia
- Europe
- North America
- Oceania
- South America
- Caribbean Islands
- O Pacific Islands

# Q9

What user populations have been the focus of your research? Select all that apply.

- General public end users
- Organizational end users (employees)
- Security practitioners
- Students
- IT practitioners
- Developers
- Organizational leadership
- Policy makers
- Educators/trainers
- Other:

Q10

- Which populations could make use of or put into practice the implications and recommendations from your human-centered security research? Select all that apply. General public end users Organizational end users (employees) Students
- Security practitioners
- IT practitioners
- Developers
- Organizational leadership
- Policy makers
- Educators/trainers

Other:

### Q11

Which type of funding has supported your human-centered security research? Select all that apply.

- Public funding from a government (international, national, or local) or other organization supported in part or in full by revenue generated by a government
- Private funding from a corporate organization or other organization not publicly funded
- No specific funding
- 🗌 🔅 I'm not sure
- Other:

# Q12

What type(s) of human-centered security research have you conducted? Select all that apply.

Basic (fundamental) research focused on the advancement of knowledge

Applied research focused on providing practical solutions to specific problems

🗌 🔅 I'm not sure

Q13 Rate your level of agreement with the following statement:					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Being able to make an impact on security practice is a priority in my research.	0	0	0	0	0
My human-centered security research has directly impacted security practice.	0	0	0	0	0

# **Research Conceptualization**

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# Page Header

# Research Conceptualization

# Reminder

Remember: For the purposes of this survey, "research" refers to human-centered security research you are currently conducting or have conducted in the past.

Q14					- ġ.
How often do you consult practitioners or p	ractitioner resources when	performing the following	g research activities?		
	Never	Rarely	Sometimes	Often	Always
Identifying a new research topic or problem	0	0	0	0	0
Developing research questions or hypotheses	0	0	0	0	0
Conducting a literature review	0	0	0	0	0

## Q15

What do you think is the level of importance of consulting practitioners or practitioner resources when performing the following research activities?

	Not Important	Slightly Important	Somewhat Important	Moderately Important	Extremely Important
Identifying a new research topic or problem	0	0	0	0	0
Developing research questions or hypotheses	0	0	0	0	0
Conducting a literature review	0	0	0	0	0

Q16						-Ô.
What is the level of challenge you have expe	erienced when consul	ting practitioners or	practitioner resources	for the following res	earch activities?	
	Not Challenging	Slightly Challenging	Somewhat Challenging	Moderately Challenging	Extremely Challenging	No experience to judge
Identifying a new research topic or problem	0	0	0	0	0	0
Developing research questions or hypotheses	0	0	0	0	0	0
Conducting a literature review	0	0	0	0	0	0

# Study Design

Page Header
Page Header Study Design
Q17

How often do you consult practitioners or practitioner resources when performing the following study design activities for your human-centered security research?

	Never	Rarely	Sometimes	Often	Always
Deciding which research methodology is most appropriate	0	0	0	0	0
Developing and piloting research instruments (such as surveys and interview protocols) and experiments	0	0	0	0	0
Developing a plan for sampling/recruiting research participants	0	0	0	0	0

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# Q18

What do you think is the level of importance of consulting practitioners or practitioner resources when performing the following study design activities?

	Not Important	Slightly Important	Somewhat Important	Moderately Important	Extremely Important
Deciding which research methodology is most appropriate	0	0	0	0	0
Developing and piloting research instruments (such as surveys and interview protocols) and experiments	0	0	0	0	0
Developing a plan for sampling/recruiting research participants	0	0	0	0	0

219						-Q-	
What is the level of challenge you have experienced when consulting practitioners or practitioner resources for the following study design activities?							
	Not Challenging	Slightly Challenging	Somewhat Challenging	Moderately Challenging	Extremely Challenging	No Experience to Judge	
Deciding which research methodology is most appropriate	0	0	0	0	0	0	
Developing and piloting research instruments (such as surveys and interview protocols) and experiments	0	0	0	0	0	0	
Developing a plan for sampling/recruiting research participants	0	0	0	0	0	0	

# **Participant Recruitment**

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Participant Recruitment

## Q20

Have you conducted research for which you recruited practitioners as participants? Select all that apply.

- Yes, for surveys
- Yes, for interviews
- Yes, for focus groups or workshops
- Yes, for an experiment
- Yes, for another purpose
- 🗆 🔅 No

## Q21

## 👻 🔄 Display this question

If Have you conducted research for which you recruited practitioners as participants? Select all tha... Yes, for surveys Is Selected

- Or Have you conducted research for which you recruited practitioners as participants? Select all tha... Yes, for interviews Is Selected
- Or Have you conducted research for which you recruited practitioners as participants? Select all tha... Yes, for focus groups or workshops Is Selected
- Or Have you conducted research for which you recruited practitioners as participants? Select all tha... Yes, for an experiment Is Selected
- Or Have you conducted research for which you recruited practitioners as participants? Select all tha... Yes, for another purpose Is Selected

In what ways have you attempted to recruit practitioners? Select all that apply.

- Professional contacts
- Snowballing
- Online forums
- Mailing lists
- Social media (for example, Twitter, Instagram, Reddit, Facebook)
- Flyers
- Online advertisements (for example, Craigslist)
- Research panels or crowdsourcing platforms (for example, Mechanical Turk, Prolific, Qualtrics)
- Other:

Q22					ġ.
🕒 Display this question					
If Have you conducted research for which you recruited practition	ners as participants? Select all tha	Yes, for surveys Is Selected			
Or Have you conducted research for which you recruited practit	ioners as participants? Select all tha	Yes, for interviews Is Selected			
Or Have you conducted research for which you recruited practit	ioners as participants? Select all tha	Yes, for focus groups or workshops	Is Selected		
Or Have you conducted research for which you recruited practit	ioners as participants? Select all tha	Yes, for an experiment Is Selected			
Or Have you conducted research for which you recruited practit	ioners as participants? Select all tha	Yes, for another purpose Is Selecte	d		
Or In what ways have you attempted to recruit practitioners? Se	lect all that apply. Other: Is Selected	i			
What is the level of challenge you have exp	erienced when recruiting	practitioners for your rese	earch?		
	Not Challenging	Slightly Challenging	Somewhat Challenging	Moderately Challenging	Extremely Challenging
Level of Challenge		-	-	0	-

# **Data Analysis**

# Page Header

Data Analysis

923 How <i>often</i> do you consult practitioners or pr	actitioner resources when	performing the following	g data analysis activities fo	r your human-centered	ःुः security research?
	Never	Rarely	Sometimes	Often	Always
Analyzing data (for example, statistical analysis or qualitative data coding)	0	0	0	0	0
Developing implications, recommendations, or solutions based on research results	0	0	0	0	0

#### Q24

What do you think is the level of importance of consulting practitioners or practitioner resources when performing the following data analysis activities?

	Not Important	Slightly Important	Somewhat Important	Moderately Important	Extremely Important
Analyzing data (for example, statistical analysis or qualitative data coding)	0	0	0	0	0
Developing implications, recommendations, or solutions based on research results	0	0	0	0	0

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### Q25

What is the level of challenge you have experienced when consulting practitioners or practitioner resources for the following data analysis activities?

	Not Challenging	Slightly Challenging	Somewhat Challenging	Moderately Challenging	Extremely Challenging	No Experience to Judge
Analyzing data (for example, statistical analysis or qualitative data coding)	0	0	0	0	0	0
Developing implications, recommendations, or solutions based on research results	0	0	0	0	0	0

#### Q26

Thinking about your research conceptualization, recruitment, design, and analysis activities, what barriers, if any, have you encountered when attempting to consult practitioners or practitioner resources? Select all that apply.

- There is little or no incentive for me to consult these.
- My research is not relevant to practitioners.
- Practitioner problems aren't of interest to my funding sources.
- There is little funding or resources to do this.
- I don't have time.
- Practitioners don't have time to participate.
- Practitioners don't see the value in participating.
- Practitioners' organizations don't permit them to participate.
- I'm not sure how to best reach practitioners.
- Practitioner resources may not be based on rigorously gathered evidence.
- Practitioners don't have a research background, so their help would be limited.
- I'm not sure, but I've had problems.
- k I haven't experienced any barriers, even though I've consulted practitioners and practitioner resources.
- A I haven't experienced any barriers because I haven't tried to consult practitioners or practitioner resources.

Other:

# **Research Dissemination**

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**Research Dissemination** 

Q	27						ΰQ <sup>*</sup> -
н	low often are your research outputs (e.g., p	apers/articles, presenta	ations, blogs, tools)	targeted at practitione	ers?		
			,				I do not produce or have
							not yet produced
		Never	Rarely	Sometimes	Often	Always	research outputs
F	Frequency	0	0	0	0	0	0
Q	28						
- 2	Display this question						
If	How often are your research outputs (e.g., papers/articles, pre	sentations, blogs, tools) targeted	- Rarely Is Selected				
	r How often are your research outputs (e.g., papers/articles, pr			I			
01	r How often are your research outputs (e.g., papers/articles, pr	esentations, blogs, tools) targeted.	Often Is Selected				
01	r How often are your research outputs (e.g., papers/articles, pr	esentations, blogs, tools) targeted.	Always Is Selected				
In	n what ways have you disseminated your p	ractitioner-focused rese	arch outputs? Sele	ect all that apply.			
	] Discussions with practitioners						
	] Papers/articles in practitioner-focused publications						
	Presentations at practitioner-focused conferences, meeti	ngs, or other events					
	) Podcasts						
	) News media						
	) Videos						
	) Websites, blogs, other online forums						
	) Social media						
	) Mailing lists						
	) Tools or other software or hardware						
	) Knowledge and data repositories						
	) Government publications						
	) Standards documents						
	Other:						

Q29					Q
What do you think is the level of importance	of producing or contribut	ing to research outputs ta	argeted at practitioners?		
	Not Important	Slightly Important	Somewhat Important	Moderately Important	Extremely Important
Level of Importance	Not Important	Slightly Important	Somewhat Important	Moderately Important	Extremely Important

	Not interested at all	Slightly interest	ted Somewhat	t interested Mod	erately interested	Extremely interested
Practitioner Interest	0	0	(	C	0	0
31						Ô.
Vhat is the level of <i>challenge</i> you have exp	Not Challenging	Slightly Challenging	Somewhat Challenging	Moderately Challenging	'S? Extremely Challenging	No Experience to Judge
Level of Challenge	0	0	0	0	0	0
32						
32	en producing or contribu	uting to research outp	outs targeted at prac	titioners? Select all 1	hat apply.	
-		uting to research outp	outs targeted at prac	titioners? Select all t	hat apply.	

I'm not sure where to disseminate my research results.

It is difficult to get my article/presentation accepted to practitioner-focused publications and forums.

Lack of interest or uptake from practitioners

A the second second

Other:

## Q33

Please share any other thoughts you have regarding interactions with practitioners in human-centered security research.

# Conclusion

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**Conclusion** 

# Conclusion

### Thank you for participating in our survey!

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection is observed. Who will be approved DMB control Number for this information collection is 0693-0043. Without this approval, we could not conduct this survey/information collection. Public reporting for this information collection is estimated to be approximately 12 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National institute of Standards and Technology. 100 Bureau Drive, Gathersburg, MD 20899, Attr: Dr. Julie Haney <u>(Jule Haney Ginst, gov.</u>)

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