

Survey Instrument

Project Title

Risk Assessment of Phishing Victims at a University

Purpose of the Study

This research is being conducted by Dr. Michel Cukier at the University of Maryland, College Park. We are inviting you to participate in this research project because you have been selected as part of a random sample of members of the university. The purpose of this research is to provide the university with information on computer usage behavior from students, faculty and staff.

Procedures

The procedures involve completing a personality survey, a series of questions about your behavior online and offline, and demographic information. You will complete the survey from your personal computer. The survey should take less than 20 minutes to complete. After completing the survey, you will be entered in a drawing for 50 \$10 gift cards. All prize winnings are considered taxable income; gift card winners are responsible for any taxes assessed on the \$10 prize.

Example Questions:

Rate each item on a scale of 1 to 5, with 1 being Strongly Disagree, 3 being Neutral, and 5 being Strongly Agree.

I have frequent mood swings

I make quick decisions.

Potential Risks and Discomforts

There is little direct risk in participating in this survey. There is a small risk of embarrassment, as you will be asked questions about sensitive topics such as your drinking habits and sexual history. All information will be kept confidential and secured. You do not have to answer any question that makes you feel uncomfortable. You may quit the survey at any time or skip any question with which you are uncomfortable, for any reason. Your participation in this research is completely voluntary. You may choose not to take part at all.

Potential Benefits

This survey will help researchers and campus policy makers better understand the factors that make faculty, staff, and students vulnerable to phishing attacks. We hope that the university will be able to use this research to create better strategies and educational materials aimed at keeping our community safe from cyber threats. Your responses are a valuable component in helping enhance campus security and shape information technology policy.

Confidentiality

Any potential loss of confidentiality will be minimized by taking all appropriate measures to protect your data. If we write a report or article about this research paper, your identity will be protected to the maximum extent possible. All results will be reported in aggregate, with no personal identifiers attached that could facilitate identification. A hard copy of your consent form will be saved in a secure location. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.

Right to Withdraw and Questions

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. Your academic standing or professional position will not be affected by your decision to terminate participation.

If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator:

Dr. Michel Cukier

Phone: 3013142804

Address: 3149 AV Williams, University of Maryland

Email: mcukier@umd.edu

Participant Rights

If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:

University of Maryland College Park

Institutional Review Board Office

1204 Marie Mount Hall

College Park, Maryland, 20742

E-mail: irb@umd.edu

Telephone: 301-405-0678

This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Statement of Consent

Your consent indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You are advised to print a copy of the consent form for your records.

If you agree to participate, please click “I Consent” below.

Section 1: Personality Traits (IPIP)

Please indicate to what extent each of the following statements applies to you.

(1) Very Inaccurate, (2) Moderately Inaccurate, (3) Neither Inaccurate nor Accurate, (4) Moderately Accurate, (5) Very Accurate.

Extraversion

1. I feel comfortable around people.
2. I make friends easily.
3. I am skilled in handling social situations.
4. I am the life of the party.
5. I know how to captivate people.
6. I have little to say.
7. I keep in the background.
8. I would describe my experiences as somewhat dull.
9. I don't like to draw attention to myself.
10. I don't talk a lot.

Agreeableness

11. I have a good word for everyone.
12. I believe that others have good intentions.
13. I respect others.
14. I accept people as they are.
15. I make people feel at ease.
16. I have a sharp tongue.
17. I cut others to pieces.
18. I suspect hidden motives in others.
19. I get back at others.
20. I insult people.

Conscientiousness

21. I am always prepared.
22. I pay attention to details.
23. I get chores done right away.
24. I carry out my plans.
25. I make plans and stick to them.
26. I waste my time.
27. I find it difficult to get down to work.
28. I do just enough work to get by.
29. I don't see things through.
30. I shirk my duties.

Neuroticism

31. I often feel blue.
32. I dislike myself.

33. I am often down in the dumps.
34. I have frequent mood swings.
35. I panic easily.
36. I rarely get irritated.
37. I seldom feel blue.
38. I feel comfortable with myself.
39. I am not easily bothered by things.
40. I am very pleased with myself.

Openness to experience

41. I believe in the importance of art.
42. I have a vivid imagination.
43. I tend to vote for liberal political candidates.
44. I carry the conversation to a higher level.
45. I enjoy hearing new ideas.
46. I am not interested in abstract ideas.
47. I do not like art.
48. I avoid philosophical discussions.
49. I do not enjoy going to art museums.
50. I tend to vote for conservative political candidates.

Risk-Avoidance

51. I would never go hang-gliding or bungee jumping.
52. I would never make a high-risk investment.
53. I avoid dangerous situations.
54. I seek danger.
55. I am willing to try anything once.
56. I do dangerous things.
57. I enjoy being reckless.
58. I seek adventure.
59. I take risks.
60. I do crazy things.

Section 2: Decision-Making Style (GDMS)

Please indicate to what extent you agree or disagree with each of the following statements, according to the five-point scale below ranging from Strongly Disagree to Strongly Agree.

(1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly Agree.

1. When I make decisions, I tend to rely on my intuition. (*Intuitive*)
2. I rarely make important decisions without consulting other people. (*Dependent*)
3. When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it. (*Intuitive*)
4. I double check my information sources to be sure I have the right facts before making decisions. (*Rational*)
5. I use the advice of other people in making my important decisions. (*Dependent*)

6. I put off making decisions because thinking about them makes me uneasy. (*Avoidant*)
7. I make decisions in a logical and systematic way. (*Rational*)
8. When making decisions I do what feels natural at the moment. (*Spontaneous*)
9. I generally make snap decisions. (*Spontaneous*)
10. I like to have someone steer me in the right direction when I am faced with important decisions. (*Dependent*)
11. My decision making requires careful thought. (*Rational*)
12. When making a decision, I trust my inner feelings and reactions. (*Intuitive*)
13. When making a decision, I consider various options in terms of a specified goal. (*Rational*)
14. I avoid making important decisions until the pressure is on. (*Avoidant*)
15. I often make impulsive decisions. (*Spontaneous*)
16. When making decisions, I rely upon my instincts. (*Intuitive*)
17. I generally make decisions that feel right to me. (*Intuitive*)
18. I often need the assistance of other people when making important decisions. (*Dependent*)
19. I postpone decision making whenever possible. (*Avoidant*)
20. I often make decisions on the spur of the moment. (*Spontaneous*)
21. I often put off making important decisions. (*Avoidant*)
22. If I have the support of others, it is easier for me to make important decisions. (*Dependent*)
23. I generally make important decisions at the last minute. (*Avoidant*)
24. I make quick decisions. (*Spontaneous*)
25. I explore all of my options before making a decision. (*Rational*)

Section 3: Online Security Behaviors (SeBIS)

Please indicate your response to the following questions based on how they apply to you.

(1) Never, (2) Rarely, (3) Sometimes, (4) Often, (5) Always.

1. When I'm prompted about a software update, I install it right away. (*Updating*)
2. I try to make sure that the programs I use are up-to-date. (*Updating*)
3. I manually lock my computer screen when I step away from it. (*Device Securement*)
4. I set my computer screen to automatically lock if I don't use it for a prolonged period of time. (*Device Securement*)
5. I use a PIN or passcode to unlock my mobile phone. (*Device Securement*)
6. I use a password/passcode to unlock my laptop or tablet. (*Device Securement*)
7. If I discover a security problem, I continue what I was doing because I assume someone else will fix it. (*Proactive Awareness*)
8. When someone sends me a link, I open it without first verifying where it goes. (*Proactive Awareness*)
9. I verify that my anti-virus software has been regularly updating itself. (*Updating*)

10. When browsing websites, I mouseover links to see where they go, before clicking them. (*Proactive Awareness*)
11. I know what website I'm visiting based on its look and feel, rather than by looking at the URL bar. (*Proactive Awareness*)
12. I do not change my passwords, unless I have to. (*Password Generation*)
13. I use different passwords for different accounts that I have. (*Password Generation*)
14. I do not include special characters in my password if it's not required. (*Password Generation*)
15. When I create a new online account, I try to use a password that goes beyond the site's minimum requirements. (*Password Generation*)
16. I submit information to websites without first verifying that it will be sent securely (e.g., SSL, "https://", a lock icon). (*Proactive Awareness*)

Section 4: Risk-Taking Preferences (DOSPERT)

For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation.

(1) Extremely Unlikely, (2) Moderately Unlikely, (3) Somewhat Unlikely, (4) Not Sure, (5) Somewhat Likely, (6) Moderately Likely, (7) Extremely Likely.

1. Admitting that your tastes are different from those of a friend. (*Social*)
2. Going camping in the wilderness. (*Recreational*)
3. Betting a day's income at the horse races. (*Financial*)
4. Investing 10% of your annual income in a moderate growth mutual fund. (*Financial*)
5. Drinking heavily at a social function. (*Health/Safety*)
6. Taking some questionable deductions on your income tax return. (*Ethical*)
7. Disagreeing with an authority figure on a major issue. (*Social*)
8. Betting a day's income at a high-stake poker game.
9. Having an affair with a married person. (*Ethical*)
10. Passing off somebody else's work as your own. (*Ethical*)
11. Going down a ski run that is beyond your ability. (*Recreational*)
12. Investing 5% of your annual income in a very speculative stock. (*Financial*)
13. Going whitewater rafting at high water in the spring. (*Recreational*)
14. Betting a day's income on the outcome of a sporting event. (*Financial*)
15. Engaging in unprotected sex. (*Health/Safety*)
16. Revealing a friend's secret to someone else. (*Ethical*)
17. Driving a car without wearing a seat belt. (*Health/Safety*)
18. Investing 10% of your annual income in a new business venture. (*Financial*)
19. Taking a skydiving class. (*Recreational*)
20. Riding a motorcycle without a helmet. (*Health/Safety*)
21. Choosing a career that you truly enjoy over a more prestigious one. (*Social*)
22. Speaking your mind about an unpopular issue in a meeting at work. (*Social*)

23. Sunbathing without sunscreen. (*Health/Safety*)
24. Bungee jumping off a tall bridge. (*Recreational*)
25. Piloting a small plane. (*Recreational*)
26. Walking home alone at night in an unsafe area of town. (*Health/Safety*)
27. Moving to a city far away from your extended family. (*Social*)
28. Starting a new career in your mid-thirties. (*Social*)
29. Leaving your young children alone at home while running an errand. (*Ethical*)
30. Not returning a wallet you found that contains \$200. (*Ethical*)

Section 5: Demographic questions

We would like you to tell us about your background so that we can review our practices and develop new strategies to improve online security for all our community members.

1. What is your gender?
 - Male
 - Female
 - Trans male/trans man
 - Trans female/trans woman
 - Gender queer/gender non-conforming
 - Different identity
 - Decline to respond

2. What is your age? (respondents should be 18 or over) (pick one)
 - 18 – 24
 - 25 – 34
 - 35 – 44
 - 45 – 54
 - 55 – 64
 - 65+

3. What is your ethnicity? (check all that apply)

Are you of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin
- Unavailable/Unknown
- Decline to respond

4. What is your race? (check all that apply)
- American Indian/Alaska Native
 - Asian
 - Black or African American
 - Native Hawaiian/Other Pacific Islander
 - White
 - Some other race
 - Decline to respond
 - Unavailable/Unknown
5. What is your highest level of education? (pick one)
- Some high school
 - High school graduate
 - Some college/Currently in college (undergraduate)
 - College graduate
 - Some graduate/Currently in graduate or professional program
 - Graduate degree or professional program completed
 - Other _____
6. Are you: (pick one)
- Not currently a student (skip 6a)
 - A student in an undergraduate program
 - A student in a graduate program
 - A student in some other type of program? Specify:

- 6.a. What is your undergraduate major or name of your graduate program?

7. Employment status: are you currently? (check all that apply)
- Employed for wages
 - Self-employed
 - Out of work and looking for work
 - Out of work but not currently looking for work
 - A homemaker
 - A student
 - Military
 - Retired
 - Unable to work
8. What is your marital status? (pick one)
- Single, never married
 - Married or domestic partnership

- Widowed
- Divorced
- Separated

9. Are you a citizen of the United States? (pick one)

- Yes, born in the United States (skip 9a)
- Yes, born in Puerto Rico, Guam, the U. S. Virgin Islands, or Northern Marianas.
- Yes, born abroad of US citizen parent or parents
- Yes, US citizen by naturalization. Print year of naturalization: ___ ___ ___ ___
- No
- **9.a. When did you come to live in the United States?** (If you came to live in the US more than once, print latest year) ___ ___ ___ ___

10. Do you speak a language other than English at home?

- Yes (please answer 10a and 10b)
- No (skip 10a and 10b)
- 10.a. What language(s) do you speak at home? _____
- 10.b. How well do you understand/read written English? (pick one)
- Beginner
- Intermediate
- Advanced
- Native proficiency

11. Rate your level of experience with computers/Internet: (pick one)

- None
- Beginner
- Intermediate
- Advanced
- Expert

11. Do you use any of the following types of computers? (check all that apply)

- | | | |
|---|-----------|----------|
| a. Desktop | _____ yes | _____ no |
| b. Laptop | _____ yes | _____ no |
| c. Tablet or other portable wireless computer | _____ yes | _____ no |
| d. Some other type of computer | _____ yes | _____ no |

12. How many hours do you average online per day? (pick one)

- 0-2
- 3-4
- 5-6

- 7-8
- 9 or more

