$R \cdot I \cdot T$

Rochester Institute of Technology

INSTITUTIONAL REVIEW BOARD

585-475-7673 ~ www.research.rit.edu/hsro ~ hsro@rit.edu

Office Use Only	
Signed original received:	
Received by:	
Electronic copies received:	

FORM A: Request for IRB Review of Research Involving Human Subjects

- ❖ To be completed by the investigator after reading the RIT Policy for the Protection of Human Subjects in Research, found in the *Institute Policies and Procedures Manual*, Section C5.0, and on the Office of Human Subjects Research website, http://www.rit.edu/research/hsro/process geninfo.php.
- Submit BOTH an electronic version to hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu AND the hsroomit.edu (consents, instruments, tasks, etc.) to HSRO, University Services Center, Suite #2400

CDC Duamagal # (Dagwingd ifi-t-1 -it)	M Permissions	"III ' DADE
SRS Proposal # (Required if associated with a sponso	ored project, # assigned by SRS and a	vailable in RAPID:
Investigator's Name:	Investigator's Phone:	Investigator's Email:
Daniel Krutz, Yasmine Elglaly	5-2896	dxkvse@rit.edu & ynevse@rit.edu
Investigator's College and Department: Golisano College of Computing and Information Scie	nces, Software Engineering	
Project Start Date:	Date of IRB Request:	Data Collection Start Date:
5/1/206	03/16/2016	05/01/2015
If Student, Name of Faculty Supervisor:	Faculty's Phone:	Faculty's Email:
If Not Employed or a Student at RIT, List Name, College & Dept. of RIT Collaborator:	RIT Collaborator's Phone:	RIT Collaborator's Email:
Will this project be funded externally? Yes	No Is the Investigate	or a student? Yes No
If yes, name of funding agency and proposal #:	•	
Status of project: Submitted on	☐ Funding pen	ding
Do you have a personal financial relationship wi	th the sponsor? Yes N	lo
f yes, please read RIT policy C4.0 - Conflict of Inter	est Policy Pertaining to Externally Fu	unded Projects. Complete the Investigator's
Financial Disclosure Form and attach it to this Form	A. All information will be kept conf	îdential.
CONDUCTING RESEARCH WITH HUM needed during the course of this project, I agragree to immediately report to the IRB any awith this project.	ee to seek approval from the H	RB prior to their implementation. I furth
Josh	ring	0/16/16
Ignature of Investigator	W 1 1 204	Date
		70x 10°
Signature of Faculty Advisor (for Student) or RI	T Collaborator (for External Inve	stigator) Date
Signature of Faculty Advisor (for Student) or RI	T Collaborator (for External Inve	stigator) Date
100 miles	T Collaborator (for External Inve	, m.
Signature of Department Chair or Supervisor		3/16/16 Date
Signature of Department Chair or Supervisor Complete the attached Research Protocol Out Attachments required for all projects:		3/16/16 Date
Signature of Department Chair or Supervisor Complete the attached Research Protocol Out	tline and attach to this cover for	Date rm with other required attachments.
Signature of Department Chair or Supervisor Complete the attached Research Protocol Out Attachments required for all projects: Project Abstract Human Subjects Research (HSR) Com Training information at http://www.rit	tline and attach to this cover for	Date rm with other required attachments.
☐ Human Subjects Research (HSR) Com Training information at http://www.rit Attachments required where applicable: ☐ Informed Consent Materials	tline and attach to this cover for	Date The with other required attachments. It at (https://www.citiprogram.org/)
Signature of Department Chair or Supervisor Complete the attached Research Protocol Out Attachments required for all projects: Project Abstract Human Subjects Research (HSR) Com Training information at http://www.rit Attachments required where applicable: Informed Consent Materials Questionnaire or survey	tline and attach to this cover for apletion Report. Create an account.edu/research/hsro/training Cover letter to subjects and External site IRB approval	Date The with other required attachments. It at (https://www.citiprogram.org/) Id/or parents or guardians
Signature of Department Chair or Supervisor Complete the attached Research Protocol Out Attachments required for all projects: Project Abstract Human Subjects Research (HSR) Com Training information at http://www.rit Attachments required where applicable: Informed Consent Materials	tline and attach to this cover for apletion Report. Create an account.edu/research/hsro/training Cover letter to subjects and External site IRB approval	Date The with other required attachments. It at (https://www.citiprogram.org/) Id/or parents or guardians

Form A (continued): Research Protocol Outline

- The RIT Institutional Review Board (IRB) categorizes <u>Human Subjects Research</u> into three <u>Risk Types</u> (<u>Exempt</u>, <u>No Greater than Minimal Risk</u>, and <u>Greater than Minimal Risk</u>, defined at the end of this form). The IRB makes the final determination of risk type.
- Please complete this entire form (1 through 10 below). ENTER A RESPONSE FOR EVERY QUESTION. If a question does not apply to your project, please enter "N/A". Leaving questions blank may result in the form being returned to you for completion before it is reviewed by the IRB.
- Underlined terms are defined at the end of this form.

FOR ALL PROJECTS, please complete 1-10 below.

- 1) If you believe your project qualifies for <u>Exemption</u>, which <u>exemption number(s)</u> apply? (Note: The IRB makes the final determination of Exemption)
- 2) Describe the research problem(s) your project addresses.

This project aims to evaluate the new permissions used by Android with respect to three measurements: ease of recall, understandability, and comfort of use.

3) Describe expected benefits to subjects and/or knowledge to be gained from your project.

We expect that the results of our research will enhance Android's permissions and hence will lead to better user experience and more mindful decisions for the users with respect to downloading apps and their security consequences.

- 4) Describe the population sample for your project.
 - a) How many subjects will participate in this project?
 - b) How will these subjects be identified and selected for participation?

We plan to recruit users of mobile devices who are at least 18 years old.

c) Describe the rationale for inclusion or exclusion of any subpopulation.

We are interested in users who are familiar with Android system as our research focuses on evaluating Android's permissions.

d) How will you recruit subjects?

Word of mouth, Imagine RIT advertising

e) Describe any incentives for participation you plan to use.

None.

5)

V	Vill you include any of the following vulnerable populations in your research? (Check any that apply)
	Children Mentally Ill
	Prisoners Mentally Handicapped/Retarded
	Pregnant Women Fetuses
I	f any of these populations are to be included, please addresses the following:
a) Rationale for selecting or excluding a specific population:
b) Description of the expertise of project personnel for dealing with vulnerable populations:
c) Description of the suitability of the facilities for the special needs of subjects:
d) Inclusion of sufficient numbers of subjects to generate meaningful data:

, U) es		escribe the data conection process.			
		Will the data collected from human subjects be <u>anonymous</u> ? X Yes No			
	b)	Will the data collected from human subjects be kept confidential? Xes No			
	c)	Describe your procedures for ensuring anonymity and/or confidentiality:			
		We will assign an id number for each participant, and this is how we plan to refer to his/her data. We also			
		plan to keep the data on a software engineering department machine that is secure.			
	d)	How much time is required of each subject? 10 minutes			
	e)	If subjects are students, will their participation involve class time? no			
	f)	What methods, instruments, techniques, and/or other <u>sources of material</u> will you use to gather data from human subjects?			
		We plan to record the participants' clicks on a tablet using custom software. We will also collect data using a questionnaire.			
7)	***				
7)		ill this research be conducted at another university or site other than RIT? Yes No yes, describe location:			
		te: If you will be conducting human subjects research at another university or college, you will also need obtain IRB approval from that institution. Attach a copy of that approval to this application.			
8)	Describe potential <u>risks</u> (beyond <u>minimal risk</u>) to subjects:				
	a)	Are the risks physical, psychological, social, legal or other?			
	,	None			
	L				
	D)	Assess their likelihood and seriousness to subjects: None			
	c)	Discuss the potential benefits of the research to the population from which your subjects are			
		drawn:			
		The subjects will gain a better understanding of Android permissions.			
	d)	Discuss why the risks to subjects are reasonable in relation to the anticipated benefits to subjects			
	u)	and others, or in relation to the importance of the knowledge to be gained as a result of the			
		proposed research:			
		There are no substantial risks.			
	->				
	e)	Describe the planned procedures for protecting against or minimizing potential risks, including			
		risks to confidentiality, and assess their likely effectiveness:			
		Tiva			
	f)	Where appropriate, describe plans for ensuring necessary medical or professional intervention in			
		the event of adverse effects to the subjects:			
		n/a			
9)	Wi	ll you be seeking informed consent? Yes No			
- /		res, describe:			
		What information will be provided to prospective subjects?			
)	The morning will be provided to prospective subjects.			
	b)	What (if any) information will be concealed prior to participation, and why?			
	c)	How will you ensure consent is obtained without real or implied coercion?			
	-,	inspired control			
		W			
	d)	How will you obtain and document consent?			

- e) Who will be obtaining consent? Provide names of specific individuals, where available, and detail the nature of their preparation and instructions for obtaining consent.
- Attach a copy of all additional materials (Consents, protocol, scripts, instruments, tasks, etc.- everything a subject does or sees) to this application.

Abstract

The new Android M permission model allows developers to ask for individual permissions at runtime. In previous versions, users were prompted to accept or deny all permissions when installing the app. Our work will seek to understand user perception of this new permission structure: Do users perceive apps that use the new model to be more secure? Does this impact the app's ratings and feedback? Are users now more informed about the app's permissions and their possible impact?

Study Outline

At Imagine RIT, we plan to set up a station where users can learn more about Android permissions, and will provide us with data for our study. In our analysis, random visiting at Imagine RIT will visit our table and will be asked two use one of two very simple Android apps. One will be written with the new Android `M' permission model, while the other set will use the same app, but created using the old permission model. The intent of this analysis is to further understand user's perception toward the new Android M permission model. At the conclusion of the approximate 5 minute activity, users will answer a brief and anonymous survey,

Study Questions

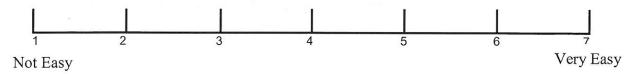
User experience Questionnaire for M Android

Please indicate your level of agreement. Remember, we are not evaluating you. You are evaluating the technology, so please feel free to give your honest opinions.

1. How easy was it to recall what permissions you accepted?



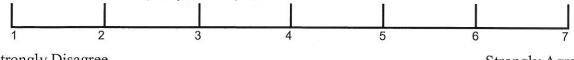
- 2. Which of these permissions did your app request?
 - A) Permission 1
 - B) Permission 2
 - C) Permission 3
 - D) Permission 4
 - E) Permission 5
- 3. How easy was it to recall what permissions you rejected?



- 4. Which of these permissions did your reject?
 - A) Permission 1
 - B) Permission 2
 - C) Permission 3
 - D) Permission 4
 - E) Permission 5
- 5. How helpful was the "pop up" permission request in taking the decision to accept/reject the permission?



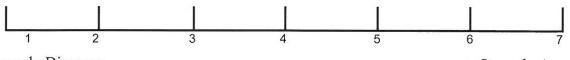
6. The explanation statement came with the pop up permission request helped me taking the decision to accept/reject the permission?



Strongly Disagree

Strongly Agree

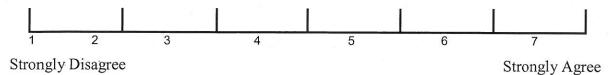
7. I felt in control accepting/declining the permissions on one by one basis.



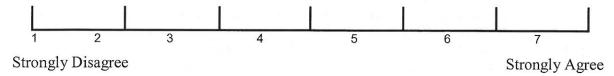
Strongly Disagree

Strongly Agree

8. I felt secure accepting/declining the permissions on one by one basis.



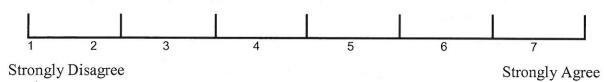
9. I prefer to know all the permissions required by the app in advance.



10. I do not mind installing an app and discover the permissions it requires while using it.



11. I would recommend the app to a friend.



12. Is there anything else you want to share with us about your experience with Android apps?

RIT IRB Risk Type Classification

Exempt

<u>Research activities</u> in which the only involvement of <u>human subjects</u> will be in one or more of the following six categories of **exemptions** are not covered by the regulations:

- (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (a) research on regular and special education instructional strategies, or (b) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. If the subjects are children, this exemption applies only to research involving educational tests or observations of public behavior when the investigator(s) do not participate in the activities being observed. [Children are defined as persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law or jurisdiction in which the research will be conducted.]
- (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior that is not exempt under section (2) above, if the human subjects are elected or appointed public officials or candidates for public office; or federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
- (5) Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (a) public benefit or service programs; (b) procedures for obtaining benefits or services under those programs; (c) possible changes in or alternatives to those programs or procedures; or (d) possible changes in methods or levels of payment for benefits or services under those programs.
- (6) Taste and food quality evaluation and consumer acceptance studies, (a) if wholesome foods without additives are consumed or (b) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the US Department of Agriculture.
- **No Greater than Minimal Risk** The probability and magnitude of harm or discomfort anticipated in the research *is no greater than* those ordinarily encountered in daily life or in the performance of routine physical and psychological examinations or tests.
- **Greater than Minimal Risk** The probability and magnitude of harm or discomfort anticipated in the research *is greater than* those ordinarily encountered in daily life or in the performance of routine physical and psychological examinations or tests.

Human Subjects Research - Definitions

- **Anonymity** Anonymity offers the best insurance that disclosure of subjects' responses will not occur. Research data that is anonymous contains no information that would link the data to the individual who provided the information.
- Confidentiality Confidentiality refers to (a) identifiable data (some information about a person that would permit others to identify the specific person, such as a non-anonymous survey, notes or a videotape of the person) and (b) agreements about how those data are to be handled in keeping with respondents' interest in controlling the access of others to information about themselves. The two critical elements of this definition of confidentiality indicate the critical role of informed consent, which states how the researcher will control access to the data and secures the respondent's agreement to participate under these conditions.
- Child (Definition of) and Use of Children in Research Children are defined as persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law or jurisdiction in which the research will be conducted. In New York State, a person age 18 is considered an adult and can provide consent without parental permission. However, some students at RIT are under age 18. To use children (individuals under the age of 18 years) in research, you must first obtain the permission of the parent(s) and then obtain assent from the child.
- Human Subjects The regulations define human subject as "a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information." (1) If an activity involves obtaining information about a living person by manipulating that person or that person's environment, as might occur when a new instructional technique is tested, or by communicating or interacting with the individual, as occurs with surveys and interviews, the definition of human subject is met. (2) If an activity involves obtaining private information about a living person in such a way that the information can be linked to that individual (the identity of the subject is or may be readily determined by the investigator or associated with the information), the definition of human subject is met. [Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a school health record).]
- Informed Consent Informed consent is a process by which individuals learn about a study the substantive issue investigated, participation demands (including time expenditure, types of activities), participant rights (voluntariness, confidentiality), risks, benefits, costs/compensation, contacts if further questions arise, etc. There are multiple ways to convey these elements of consent: by written document, oral presentation with script, oral presentation without script. In addition, there are various ways to document consent: written signature of the participant, written indication of participant's study identification number, oral recording of consent, oral consent documented by the investigator. In addition, sometimes it is important to obtain separate consent for the use of photographs or videotaped images. The different ways to obtain consent include:
 - (1) Written consent with written documentation by participant.
 - (a) formal style (for study involving mothers and children)
 - (b) informal style
 - (c) formal style for at-risk population
 - (2) Written consent with written indication of participant's study identification number.
 - (3) Written consent without documentation (for no/minimal risk survey studies).
 - (4) Oral presentation with script with oral consent documented by the investigator.
 - (5) Oral presentation with script without documentation (includes contact card).
 - (6) Oral presentation without script without documentation (provides rationale for request for waiver of written documentation and indicates what will be said).
 - (7) Written consent with written documentation by participant for use of photos.

Population Sample

- Describe the proposed involvement of human subjects in your project.
- Describe the characteristics of the subject population, including their anticipated number, age range, and health status.
- Identify the criteria for inclusion or exclusion of any subpopulation.
- Explain the rationale for the involvement of special classes of subjects.

Research Activity - The ED Regulations for the Projection of Human Subjects, Title 34, Code of Federal Regulations, Part 97, define research as "a systematic investigation, including research, development, testing and evaluation, designed to develop or contribute to generalizable knowledge." If an activity follows a deliberate plan whose purpose is to develop or contribute to generalizable knowledge, such as an exploratory study of the collection of data to test a hypothesis, it is research. Activities which meet this definition constitute research whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities.

Risks in Research – As with any activity, there is potential for harm in the social and behavioral sciences – from inconvenience or embarrassment to stigma or legal or economic consequences. Typically, however, in these sciences both the potential harms and the risks of them are minimal and not of the type routinely being assessed in biomedical research. Much of the risk relates to disclosure of the identity of human subjects or the information they provide; thus, considerable effort in these sciences is devoted to safeguarding subjects' privacy and the confidentiality of the data they provide even when the information has no or minimal potential for harm.

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. "Risk" refers to a probability that some harm will occur. "Harm" refers to a specific outcome(s) or event(s) – and can be inconvenience, physical, psychological, social, economic, or legal in nature. If human subjects are exposed to a degree of harm roughly equivalent to what one would expect in the course of daily life or in the course of routine tests and examinations, then "minimal risk" applies.

Sources of Materials

- Identify the sources of research material to be obtained from individually identifiable living human subjects in the form of specimens, records, or data.
- Indicate whether the material or data will be obtained specifically for research purposes or whether use will be made of existing specimens, records, or data.