



## CAP 6938 Research Proposal Draft #1 Rubric

*This rubric will be completed by both your instructor (50%) and two peer-reviewers (50%).*

**Paper Author(s):**     Rajib and Sayma    

| Criteria                             | Description   | Points Possible | Points Earned |
|--------------------------------------|---|-----------------|---------------|
| <b>Motivating the Research Topic</b> | The authors clearly motivated the topic and defined the problem-space for the research to be conducted. They included adequate references (at least five) in their introduction to support their arguments and showed the overall importance of why this work needs to be done.                               | 20              | 12            |
| <b>Research Questions</b>            | The authors articulated the main research questions in their introduction that will be addressed by the proposed research.  | 10              | 9             |
| <b>Literature Review</b>             | The authors carefully and adequately scoped the relevant bodies of literature and synthesized (at least 10) peer-reviewed articles as related work. The authors convinced the readers that their proposed research was novel and will make a significant contribution to the extant literature in this field. | 25              | 19            |
| <b>Methods Overview</b>              | The authors chose appropriate methods for addressing their research questions or hypotheses. They justified these methods well and gave some descriptive detail to know what they plan to do to carry out the work.   | 15              | 10            |
| <b>Feasibility</b>                   | The authors proposed a feasible plan for executing their study by the end of the semester. This plan was well-thought-out, not overly ambitious, and well-specified.  | 15              | 10            |
| <b>Writing Quality</b>               | The proposal draft was well-written, easy-to-understand, and conformed to the old CHI two-column paper template. It was approximately 3-5 pages in length (not including references) and followed the guidelines for "How to Write a CHI Paper."  | 15              | 10            |

### Grading Scale

**Total Score:**     70    

- **90 – 100** = 5, Definitely Accept
- **80 – 89** = 4, Probably Accept
- **70 – 79** = 3, Maybe acceptable (with significant modifications)
- **60 – 69** = 2, Probably Reject
- **< 60** = Definitely Reject



## Mozilla IoT

Rajib and Sayma

**Summary:** The authors propose conducting a user study with 10 AirBNB hosts and guests to understand their needs around smart home Internet of Things.

**Strengths:** The authors have chosen an important and timely topic of inquiry and have proposed a rigorous user study, that if successfully executed would make a novel contribution to the extant literature.

### Areas for Improvement:

- **Writing Quality:** Overall, this draft is very hard-to-follow and the ideas being presented in the paper are disjointed. The sentences don't logically flow with one another, and you do not do a good job of explaining why those sentences matter for your research topic. This paper needs a major reorganization and refocus to make it tell a coherent story.
- **Paper Title:** Your paper needs a real title.
- **Feasibility and Participants:** I don't think it will be feasible or useful to conduct this study with both AirBNB hosts and guests. I strongly suggest that you focus only on AirBNB hosts who use smart home IoT on their properties. I also suggest that you only do a short pre-screening survey (5 min) followed by a 30 minute phone interview.
- **Scoping Your Topic:** Your research is on Smart Home IoT usage for AirBNB. Therefore, you need to contextualize your entire paper to this specific topic. You should not be talking about the ubiquity of the internet or IoT security and adoption in general. Using this level of scoping is too broad and not directly related to your paper. It is unnecessary filler.
- **Referencing Peer-Reviewed Academic Research:** You seem to draw too much from tech industry reports than academic research. This is a research paper. You need to primarily focus on peer-reviewed research when motivating your research.
- **Going Too Deep in the Introduction:** You start going too much in the weeds in your introduction by starting your literature review too early. The introduction should 1) motivate the importance of the topic, 2) clearly define your research problem, 3) define your over-arching research questions, 4) explain how you answer those research questions, and 5) summarize your key findings and contributions. As a result, your introduction is a little too long. RQs should be in the second column on the first page.
- **Reframing Research Questions:** Research questions should be at the end of the first page. Reframe your questions as follows:
  - **RQ1:** What smart home devices are AirBNB hosts currently using on their properties and for what purpose?
  - **RQ2:** What are the benefits and concerns of use for AirBNB smart home hosts?
  - **RQ3:** What unique needs do AirBNB hosts have for managing and sharing access control to their smart home devices with AirBNB guests?
- **Statement of Contributions:** When you say synthesizing the current scenario, I think you mean providing a better understanding of the status quo of how AirBNB hosts are currently using smart home IoT. Design recommendations can be a contribution, but I would tone down the



claim of recommendations for lawmakers and policy. The third bullet point doesn't sound like a research contribution.

- **Contextualizing Your Literature Review:** While you summarize some related work, you don't do a good job of helping the reader understand what this related work has to do with the current research. You summarize a lot of papers that don't seem relevant to your research topic.
- **Avoid Editorialized Narratives, Fear-baiting, and deficit-based framing:**
  - *Editorializing* is stating an opinion as if it were fact without providing a citation to back up your claims.
  - *Fear-baiting* is over-problematizing/sensationalizing the topic to invoke fear. For example, don't over state the privacy vulnerabilities of smart home IoT.
  - *Deficit-based framing* is where you use the lack of research in an area to motivate the reason for doing the research, rather than the strengths of the research itself.
- **Suggested Reorganization:** Since this paper needs a major overhaul, I am suggesting a complete reorganization below, rather than giving point-by-point feedback on the draft:
  - **Abstract:** [Define sharing economy and introduce AirBNB] [Define problem as hosts giving access to their property to untrusted strangers] [Show how some AirBNB hosts have tackled this problem by using Smart Home IoT] [Therefore, we need to know more about their needs in regard to sharing Smart Home IoT devices with guests.] [Describe the study you are conducting to do this.]
  - **Introduction:**
    - **First Paragraph:** [Introduce sharing economy and prevalence of AirBNB] [Explain the problem of granting strangers access to your property] [Transition into the use of Smart home IoT being one way to help alleviate this problem.]
    - **Second Paragraph:** [Introduce the prevalence of Smart Home IoT and what it is] [Introduce this as an interesting case study on privacy/access control as most prior work has focused on access control sharing within families in the home or with trusted individuals] [Introduce your research questions]
    - **Third Paragraph:** Describe your methods to answer your research questions.
  - **Related Work**
    - **The Sharing Economy and AirBNB:** In this sub-section, you should synthesize the research that has been done at the intersection of the sharing economy and AirBNB. Basically, show that most of the research in this area has been on the phenomenon itself, not in the use of smart home use.
    - **Smart Home Access Control and Privacy:** In this sub-section, summarize the related research on smart home access control and privacy. Basically, point out that most of this work has focused on access control within families in the home and within trusted connections.
    - **Smart Home for AirBNB:** Cite any research that has done research at the intersection of Smart Home and AirBNB. Show how your work builds upon this research and extends it.
  - **Methods:** I strongly suggest that you frame this only as an interview study with a brief pre-screening survey and ONLY interview 10 hosts who currently use smart home IoT.
    - **Participant Recruitment:** Put your selection criteria upfront before you describe your recruitment strategies.



- **Study Design:** I don't think you can reasonably ask someone to do a 52-question survey and an interview for a \$10 incentive. Also, do you plan to pay this incentive out-of-pocket? I suggest you do a brief pre-screen survey to see if they use one or more smart home IoT devices in their AirBNB property and which ones. Then invite them to participate in the semi-interview. Therefore, your methods should focus more on the interview questions than the survey questions.
- **Data Analysis Approach:** This is fine for now, but the details will need to be hashed out in more detail by your second draft
- **Feasibility Plan:** Your feasibility plan does not give actual deadlines. It needs to.
- **Minor Issues:**
  - Instead of "other researchers," use Lastname et al. to give people credit for their work.
  - After a main section heading you should include signposts, which give an indication of the content that will be presented in the following sub-sections.
  - Get rid of beginning sentences that start with "Recent research . . ." Instead, just state the findings as fact with a citation. The citation implies it was research.
  - Your paper should be anonymized. Remove any mention of UCF and Orlando.
  - Don't write "we hope," it makes your proposal sound too tentative. Write only what you will actually do and make it so.

Overall, I focused more on your research motivation, framing, and literature review as the methods are the focus on the next draft. You made some study design decisions that I don't think will be feasible, so please talk to me about how best to revamp your methods. I think it would also be best if you wrote a high-level outline of each section and what you are trying to say before you start to write. I can give you more tips in office hours.

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**Paper Author(s): Rajib Dey & Sayma Sultana**

| Criteria                             | Description   | Points Possible | Points Earned |
|--------------------------------------|---|-----------------|---------------|
| <b>Motivating the Research Topic</b> | The authors clearly motivated the topic and defined the problem-space for the research to be conducted. They included adequate references (at least five) in their introduction to support their arguments and showed the overall importance of why this work needs to be done.                               | 20              | <b>14</b>     |
| <b>Research Questions</b>            | The authors articulated the main research questions in their introduction that will be addressed by the proposed research.  | 10              | <b>7</b>      |
| <b>Literature Review</b>             | The authors carefully and adequately scoped the relevant bodies of literature and synthesized (at least 10) peer-reviewed articles as related work. The authors convinced the readers that their proposed research was novel and will make a significant contribution to the extant literature in this field. | 25              | <b>15</b>     |
| <b>Methods Overview</b>              | The authors chose appropriate methods for addressing their research questions or hypotheses. They justified these methods well and gave some descriptive detail to know what they plan to do to carry out the work.   | 15              | <b>8</b>      |
| <b>Feasibility</b>                   | The authors proposed a feasible plan for executing their study by the end of the semester. This plan was well-thought-out, not overly ambitious, and well-specified.  | 15              | <b>7</b>      |
| <b>Writing Quality</b>               | The proposal draft was well-written, easy-to-understand, and conformed to the old CHI two-column paper template. It was approximately 3-5 pages in length (not including references) and followed the guidelines for "How to Write a CHI Paper."  | 15              | <b>5</b>      |

### Grading Scale

**Total Score: 56**

- **90 – 100** = 5, Definitely Accept
- **80 – 89** = 4, Probably Accept
- **70 – 79** = 3, Maybe acceptable (with significant modifications)
- **60 – 69** = 2, Probably Reject
- **< 60** = Definitely Reject

**CHI 2018 Metrics:** *Of 2,592 submitted papers, the modal score was 2.0, and 49% of reviews gave a submission a score of 2.0 or 2.5. Just under 16% of review scores were 4.0 or greater.*

## **Rajib Dey & Sayma Sultana – Mozilla IOT Project**

### **Blind Peer Review**

#### **Summary**

This paper seeks to address the growing concerns over the use of IoT devices in shared economy systems such as property rentals through AirBnB. The sharing of IoT devices with strangers who gain access to the controls of these devices creates a security risk for the device owners. Similarly, users in the shared economy may not appreciate have IoT devices present, out of fear that they may be monitored against their will. The research proposed seeks to gain insight from both property owners and guests about their perspectives concerning the current status of IoT device sharing, and their needs with respect to their security and privacy needs.

#### **Strengths**

- The literature is excellently covered in the Related Work section, discussing the current issues with IoT devices and their lack of user-centered design, how security/privacy is treated with the use of IoT devices, and how trust factors into the shared uses of these devices.
- The description of the interview process is well detailed and helps readers get a clearer idea of what specific insights the authors hope to obtain from Shared Economy property owners.
- The Research Questions are well-scoped and achievable within the timeframe of the study

#### **Introduction**

- The introduction does a good job of defining the problem space from multiple perspectives, but the various concepts like Shared Economy and IoT devices are explained poorly, or not at all in some cases. Some terms are used alternatively, like 'smart home devices' and 'IoT devices', which readers may think are different things altogether.
- While the introduction describes the current problems with IoT device sharing, with suitable research questions, the contributions are extremely wide in scope and should be narrowed down. While a synthesis of the current state of perspectives with regard to IoT device sharing is feasible, providing both recommendations for policy makers and device developers seems far beyond the scope of an exploratory study like this one.

#### **Related Work**

- The section on Smart-Home access control is detailed but scattered among the various problems like security risks from rushed development on devices, laws made that curb the use of smart devices, and so on. It would be better to focus this section on the core issue specific to this study: that IoT devices are not user centered.

- The section on security and privacy in a closed circle doesn't seem necessary as the paper is primarily concerned with the security of IoT devices between conflicting parties, like property owners and property guests/renters.

## **Methods**

- The survey section needs to be expanded to explain the purposes of conducting it, the insights the authors hope to obtain, and at least a rough description of the types of questions that will be asked. Simply appending the survey to the end of the paper is not enough, as it would take much more effort for the reader to understand the survey's purpose.
- While a description of the questions asked during the interview is helpful, organizing them into point form would make them much more readable.

## **Feasibility**

- The feasibility timeline needs to be improved to a more specific level of detail, including proposed dates, time for submission of IRB protocol, and not just estimated timespans.

## **Recommendations**

- I highly recommend making several writing passes of this paper, as there are numerous grammatical and formatting errors, including faults with sentence structure, capitalization, and spelling.
- Use the beginning of your introduction to explain the terms used in your paper before describing the problem space. This makes the explanation of the problem much easier for the reader to comprehend.
- Revise the Related Work section to focus the background of the problem more specifically to your research questions. Covering a fair amount of literature is good for providing a wider understanding of the issue but causes the relation to the research to lose focus.
- Revise the Methods section to more clearly describe the survey and interview process, and format accordingly to ensure easier readability
- Improve the feasibility timeline with proposed dates for project execution and completion of data collection/analysis.



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**Paper Author(s):** Rajib Dey and Sayma Sultana

| Criteria                             | Description   | Points Possible | Points Earned |
|--------------------------------------|---|-----------------|---------------|
| <b>Motivating the Research Topic</b> | The authors clearly motivated the topic and defined the problem-space for the research to be conducted. They included adequate references (at least five) in their introduction to support their arguments and showed the overall importance of why this work needs to be done.                               | 20              | 10            |
| <b>Research Questions</b>            | The authors articulated the main research questions in their introduction that will be addressed by the proposed research.  | 10              | 10            |
| <b>Literature Review</b>             | The authors carefully and adequately scoped the relevant bodies of literature and synthesized (at least 10) peer-reviewed articles as related work. The authors convinced the readers that their proposed research was novel and will make a significant contribution to the extant literature in this field. | 25              | 25            |
| <b>Methods Overview</b>              | The authors chose appropriate methods for addressing their research questions or hypotheses. They justified these methods well and gave some descriptive detail to know what they plan to do to carry out the work.   | 15              | 15            |
| <b>Feasibility</b>                   | The authors proposed a feasible plan for executing their study by the end of the semester. This plan was well-thought-out, not overly ambitious, and well-specified.  | 15              | 11            |
| <b>Writing Quality</b>               | The proposal draft was well-written, easy-to-understand, and conformed to the old CHI two-column paper template. It was approximately 3-5 pages in length (not including references) and followed the guidelines for "How to Write a CHI Paper."  | 15              | 9             |

### Grading Scale

**Total Score:** 80

- 90 – 100 = 5, Definitely Accept
- 80 – 89 = 4, Probably Accept
- 70 – 79 = 3, Maybe acceptable (with significant modifications)
- 60 – 69 = 2, Probably Reject
- < 60 = Definitely Reject

**CHI 2018 Metrics:** *Of 2,592 submitted papers, the modal score was 2.0, and 49% of reviews gave a submission a score of 2.0 or 2.5. Just under 16% of review scores were 4.0 or greater.*

**This rubric should be accompanied with a 1.5-2.5 paged single-spaced, high quality, anonymous peer-review of this manuscript. Submit as one PDF.**



## Summary

The paper discusses the use of smart home devices in a short-term rental or house-sharing (“sharing economy”) environment. In such situations both the hosts and guests can have reservations about the security and privacy of such devices as the devices have been designed for use by individuals or close-knit groups. It seeks to answer the questions of what, how and why smart home devices are being used in the current sharing economy, what issues hosts and guests have with using these devices and what types of changes they want to see implemented in those devices and others to make them more palatable for use in a sharing economy. In order to gather this information, the paper proposes a survey of 30 sharing economy hosts and guests with an interest in smart home technology. 10 of these participants will be invited for an in-depth follow-on interview to further discuss their smart home device usage in the context of the “sharing economy”. After analyzing this data, the paper hopes to be able to identify what kinds of changes are desired for different types of devices in a sharing economy in order to provide recommendations to policymakers overseeing the sharing economy and to developers of smart home devices.

## Positive points

- The topic is well defined and your research questions and contributions for the research seem reasonable.
- The literature review is comprehensive and seems to focus on the research topic well.
- The method described in the paper seems well thought out including the questions for the initial survey.

## Items to review

### Motivating the topic

I had a problem understanding the motivation of the paper. It states that there are two issues that it will address: the worries of the property owners and the worries of the guests.

- Regarding the first issue, it says that property owners are worried about a loss of information and physical privacy. This sentence is vague and no additional information is shared in the following section. An example that immediately springs to mind is that one of the devices that the property owner is worried about sharing is a smart lock because a guest might retain access rights to the lock after they have checked out but in this case it seems like it would be easy to reset the device with a different password after the guest has left. If this is the case it doesn't help prove that research is needed to solve the problem because there is a simple if inconvenient solution to the problem. It might help to add an example showing the type of issues that property owners might face with such smart devices and a concrete example of how the existing architecture is lacking.
- For the second issue it states that guests are also worried about their data being misused. Once again, this is a vague statement and an immediate example would have been helpful. There is an example two paragraphs down but it's not very compelling. The example discusses a camera outside a room that a guest might not be comfortable with. I'm not sure if the camera is meant

to be something like an exterior security camera covering a public area or a camera covering an interior area that is part of the guest's rental area. In the first case I'm not sure why the guest would have a problem with the camera at all and in the second case the owner presumably put the camera there to keep an eye on the guest and that's more a case of what the guest is willing to endure. In either case I don't see a case for a more nuanced form of access control.

## Feasibility

The one worry that I had regarding feasibility is that the schedule calls for analyzing all the data and forming conclusions within five days. During that time, it calls for the researchers to code 30 surveys containing 8 long answer questions, transcribe and code up to a maximum of 5 hours of audio and then draw analyze that data to draw meaningful conclusions. I'll freely admit that I'm not an expert at coding participant responses but from my reading [1,2] I believe that it takes 4-6 hours to transcribe and code each hour of audio which would result in 20-30 hours spent on the interviews alone. It's possible that the interviews will fall well short of the 30-minute maximum which would greatly reduce this estimate but as a worst case scenario I feel that preparing the data should have at least a week scheduled with a second week for analyzing it and drawing conclusions.

## Writing Quality

The paper seemed well thought out and structured but has a very large number of grammatical errors to the point where I had to reread some sentences to try and understand their meaning from the context. I've included several of these sentences below with the sections they came from in parentheses.

- We will conduct interview with 10 guests and owners of such property to understand present situation and demand of both the owners and the guests of these houses with smart home devices (Abstract)
- It is true for the other way also (Introduction)
- We will begin by exploring the situations which have encouraged participants to share smart home IoT devices with almost stranger people and further granular access control and form of access control mechanisms - they want to possess in the future (Result)

There were also many instances of inconsistent pluralization, missing or incorrect punctuation and odd sentence structure. For example, the Smart-Home access control section opens with the sentence "Smart devices have so many use cases that it should have been already in each and every household by now". The sentence shows both inconsistent pluralization and odd sentence structure.

## Overview

As I stated in the review and as is reflected in the rubric grade, I thought that the paper's research questions, literature review and proposed method were all solid. One minor issue I had is that is that the paper had what I assume is a working title with no relation to what it will be called when finished. Another is that in the literature review the paper uses the term agentic without ever describing what it means.

The major issues that I had with the paper were that I didn't feel that the motivation was clearly stated in such a way that it seemed like a real problem, the timeline seemed overly optimistic and the quality of the writing was below what I considered acceptable.

- To address the problems with the motivation I suggest including detailed examples of how both the owners and guests of the sharing economy would benefit from using smart devices and how existing smart devices fail to meet their needs.
- To address the problems with the timeline I suggest reviewing the amount of time the researches plan to spend preparing the data. Given the length of the timeline it seems like there's still time to push the start date of the timeline forward to accommodate this additional time at the end without having to shorten the times budgeted for the other activities.
- To address the problems with the writing quality I suggest the researchers have other people review the paper or try reading it out loud.

## References

[1][https://www.researchgate.net/post/How can I estimate time required for a qualitative research project](https://www.researchgate.net/post/How_can_I_estimate_time_required_for_a_qualitative_research_project)

[2][https://sociology.dartmouth.edu/sites/sociology.dartmouth.edu/files/coding\\_in\\_depth\\_semi.pdf](https://sociology.dartmouth.edu/sites/sociology.dartmouth.edu/files/coding_in_depth_semi.pdf)



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**Paper Author(s):** Rajib and Sayma

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| <b>Research Questions</b>            | The authors articulated the main research questions in their introduction that will be addressed by the proposed research.  | 10              | 10            |
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### Grading Scale

**Total Score:** 92

- 90 – 100 = 5, Definitely Accept
- 80 – 89 = 4, Probably Accept
- 70 – 79 = 3, Maybe acceptable (with significant modifications)
- 60 – 69 = 2, Probably Reject
- < 60 = Definitely Reject

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**This rubric should be accompanied with a 1.5-2.5 paged single-spaced, high quality, anonymous peer-review of this manuscript. Submit as one PDF.**



Brief Summary: The Sharing Economy has need of various access control options for smart devices located in/on the property being shared. This need stems from security and privacy concerns of sharing with strangers. This project aims to determine which features of access control are needed specifically in relation to both the property owner and the property renters.

As a reviewer, my background is in software design and implementation. I also have extensive experience with internet protocols and online communication. Additionally, I have some experience running user studies. I lack any previous knowledge about the “Sharing Economy.”

Overall, really good paper. There are a few formatting issues, but the idea seems novel and the author’s literature review shows how there is a lack of devices designed for more than individual use. They provide good motivation for the purpose of the topic.

The abstract is 199 words by my count. This is under Wobbrock’s suggested limit of 200 words, but it exceeds CHI’s required 150 word limit.

Keep in mind that the abstract is the most read piece of the paper and it is read by people of various backgrounds and disciplines. If jargon is used within the abstract, it should be clearly defined there as well. More specifically, “Sharing Economy” would be considered jargon, as it is not a common term across all disciplines. In fact, it is a term to which I was unfamiliar and I had to look it up to fully understand what the paper is about.

CCS Concepts Section > Haptics was chosen as a keyword, but it does not relate. It seems that this section was just left as the default from the template as it still contains the directions text. The template provides a link to obtain the correct associated conference keywords. Follow the link, find the sections that relate to the specifics of your study, select them, and it will provide the LaTeX code to copy and paste into the paper to have the proper CCS Concepts filled out. Here is a copy of the link for convenience: [https://dl.acm.org/ccs/ccs\\_flat.cfm](https://dl.acm.org/ccs/ccs_flat.cfm)

Keep in mind that not every reader has the same background as the authors, so jargon should be defined when first used to clarify its meaning, especially when it comes to acronyms. The paper uses “IoT” repeatedly, but never defines it as “Internet of Things”. It is possible that “IoT” stands for the “Indiana Office of Technology” (<https://www.in.gov/iot/>). The first time the shorthand version is used, it should be defined so that those that read the paper and do not already know what it means don’t have to go look it up somewhere to understand what the paper is telling them. There are two ways that come to mind for which this can be accomplished. It can be worded as, “... Internet of Things (IoT)...” or as, “... the Internet of Things or IoT...”.



It's not a big deal, but the method section is called, "METHOD", which is what Wobbrock explicitly states not to name this section in his, "How to Write for CHI" paper. A few alternative options could be, "Experiment", "Study", "User-Study", "Experimental Design", and many more.

Method Section > Recruitment Subsection > Be cautious about sending bulk emails. Sending out 150+ emails within a short time period could get them immediately flagged as spam. There was no mention of avoiding this or working around it in the paper so it is unclear if the authors have thought about this potential road block. Be aware of the specific limits of your email provider to reduce the likelihood of being flagged as spam. One example of limits is Google: <https://support.google.com/mail/answer/22839?hl=en>  
A couple of sites that provide info on how to avoid being flagged as spam when sending bulk email are: <https://support.google.com/mail/answer/81126>,  
<https://sendgrid.com/blog/10-tips-to-keep-email-out-of-the-spam-folder/>

Method Section > Online Survey Subsection > There is no mention that the survey to be used is attached at the bottom of the paper. Without the survey, the paper is within the page limit, but the survey adds on 7 additional pages that should probably be noted as an appendix section. The paragraph that talks about it should call out the appendix with something similar to the following, "See Appendix A for the full survey."

Method Section > Feasibility Analysis Subsection > Figure 1 > There appears to be a dot leading the subtitle of the figure. It seems out of place and doesn't add anything to the figure description. I'd recommend removal of this dot.

My only concern with the feasibility is that it may take longer than anticipated to receive responses back from the email to invites. If there are too few responses, there is no backup plan laid out for how to get an appropriate number of participants.

References Section > The references are not in alphabetical order by first author's last name as required by CHI and mentioned by Wobbrock in his paper of "How to Write for CHI". When using the LaTeX CHI template, the proper code to order this section is listed at the bottom of the proceedings.tex, `\bibliographystyle{SIGCHI-Reference-Format}`.

The survey has a difficult to follow numbering system. I understand that several questions were omitted as they are similar to other questions being shown, however it is difficult to understand why it jumps from Q22.10 to Q52.11.

The survey has some random blue circles with Xs in them. There is no explanation as to what these are or why they are there. Since it only appears on some of the answers, it could bias the users into thinking that is the correct answer.



Additional notes to authors: It can be helpful to know that there is a way to group multiple citations together in the text. In LaTeX, you can use `\cite{paper1, paper2, etc.}`. This will produce formatting that looks like this: [1, 2]. When there are multiple consecutive papers, it will look like this: [1-5].



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| Criteria                             | Description   | Points Possible | Points Earned |
|--------------------------------------|---|-----------------|---------------|
| <b>Motivating the Research Topic</b> | The authors clearly motivated the topic and defined the problem-space for the research to be conducted. They included adequate references (at least five) in their introduction to support their arguments and showed the overall importance of why this work needs to be done.                               | 20              | <b>16</b>     |
| <b>Research Questions</b>            | The authors articulated the main research questions in their introduction that will be addressed by the proposed research.  | 10              | <b>9</b>      |
| <b>Literature Review</b>             | The authors carefully and adequately scoped the relevant bodies of literature and synthesized (at least 10) peer-reviewed articles as related work. The authors convinced the readers that their proposed research was novel and will make a significant contribution to the extant literature in this field. | 25              | <b>15</b>     |
| <b>Methods Overview</b>              | The authors chose appropriate methods for addressing their research questions or hypotheses. They justified these methods well and gave some descriptive detail to know what they plan to do to carry out the work.   | 15              | <b>10</b>     |
| <b>Feasibility</b>                   | The authors proposed a feasible plan for executing their study by the end of the semester. This plan was well-thought-out, not overly ambitious, and well-specified.  | 15              | <b>12</b>     |
| <b>Writing Quality</b>               | The proposal draft was well-written, easy-to-understand, and conformed to the old CHI two-column paper template. It was approximately 3-5 pages in length (not including references) and followed the guidelines for “How to Write a CHI Paper.”  | 15              | <b>10</b>     |

### Grading Scale

**Total Score: 72**

- **90 – 100** = 5, Definitely Accept
- **80 – 89** = 4, Probably Accept
- **70 – 79** = 3, Maybe acceptable (with significant modifications)
- **60 – 69** = 2, Probably Reject
- **< 60** = Definitely Reject

**CHI 2018 Metrics:** *Of 2,592 submitted papers, the modal score was 2.0, and 49% of reviews gave a submission a score of 2.0 or 2.5. Just under 16% of review scores were 4.0 or greater.*

**This rubric should be accompanied with a 1.5-2.5 paged single-spaced, high quality, anonymous peer-review of this manuscript. Submit as one PDF.**



**Summary**

The study proposed by the authors attempts to understand a number of ideas about sharable smart home technologies, particularly those that are shared between owners and guests. These include understanding which devices smart home users are sharing currently, which devices they are willing to share in the future, what kinds of security issues exist, and what kind of access these users want. The ultimate goal is to influence the design of smart home devices to make them (and the home itself) more secure and private. To do this, the researchers will conduct surveys and interviews to gain insights from smart home users.

**Overview**

This paper is organized fairly well. The literature review was comprehensive, though author-centric. There were some ideas that did not connect across the paper (such as government intervention and policymaking).

I didn't find that the term "sharing economy" contributed much to the paper. The entire paper could have been written simply describing the sharing of smart phone devices, and this may have even been more clear and direct.

The paper has many grammatical and syntax errors and incomplete sentences throughout, making reading somewhat taxing (Abstract: "*As they are sharing...*"; Introduction, Paragraph 5: "*Where to give someone else access*"; Related Work, Paragraph 1: "*Which is causing those ...*", etc.)

Individual parts of the paper have been critiqued in detail below.

**Title**

The title should be something interesting, and not just stating the name of the assignment, but describing the research itself (i.e. "Perceptions on and Improving the Sharing of Smart Home Devices Outside of the Home").

**Abstract**

The opening sentence is a bit abstract, making it difficult for the visual reader understand the statement. Perhaps save the term "sharing economy" for later, to be used and defined in the introduction, and give an example and describe what is meant by this "sharing economy" instead (i.e. "As the internet becomes more ubiquitous, more and more people are using technology to share more of their lives with others...such as checking to restaurants in on social media, sharing their location with friends and family..."). This way the abstract isn't cluttered with definitions and don't confuse readers with potentially unfamiliar terms.

Stating "...there is a lack of understanding..." is not sufficient for motivating the research topic. Perhaps instead describe why there needs to be understanding in this area (i.e. "Understanding what kind of access control is needed in this kind of setting will lead to improved privacy and security...").

**Introduction**

Why is there "...a growing sense of fear for the loss of information and physical privacy among..." smart home users? These aren't entirely intuitive, and a brief explanation of this would be helpful for the reader (saving them from reading the associated source).

Overall, the introduction is quite lengthy, given the size of the paper as a whole. It also gives more examples than is needed to present the concept to the reader, and feels as if it were written to take up more space on the paper.

The contributions are too lengthy. These should be simple, straightforward points so the reader can easily understand the outcomes of the research and reference later. These should only be the main outcomes that matter the most, not everything. The second contribution presents a new concept (government and policy level) that was not introduced beforehand (nor is it used until the conclusion of the paper), which makes the contribution seem like it was not considered well. Describe the concepts beforehand, in the main body of the introduction, so the contributions can be simplified and feel more fitting. (i.e. “Provide recommendations for lawmakers on privacy and security issues to help users feel more at ease”, “Provide recommendations to improve access-control for future technologies.”)

### **Related Work**

The literature review does a good job at reviewing what was done, but doesn’t give the takeaways from each of the three sections. This is what it means for the lit review to be author-centric and not concept-centric (it should be concept-centric instead). List particular studies as examples to help get the main point across, but state the main points, too. Also, after each section, mention why the findings of this area of research is relevant to your research and why it matters. Also, at the end of the lit review, 1) describe the takeaways as a whole, 2) describe what is different/novel about your research, and 3) list your novel contributions.

### **Method**

Stating, “We will recruit...from different states of the country,” does this mean you will recruit participants who are sharing smart home devices across different states (i.e. Jane from Florida is sharing her devices with John from Kansas), or does it just mean that participants will be recruited from around the country? More clarity would be helpful here.

Why are you conducting online surveys and interviews? Justify your reasoning for choosing these methods as opposed to some other methods.

In the Recruitment subsection, it states, “Hopefully, we will be able to find...” Avoid using words like “hopefully”, since these give off a sense of a lack of confidence. These can be rephrased to sound more confident without overpromising (i.e. “We plan to recruit at least 15 hosts...”). The same goes for the Ethics subsection (“We hope...”) and Feasibility Analysis subsection (“In the meantime, hopefully...”).

As survey of 52 questions appears to be quite large to only take 15 minutes at most. Perhaps describe how you calculated the length of the survey, whether that is gathering an average through pilot tests or simply estimating based on the complexity of the questions. Some justification here would be helpful.

Regarding the follow-up interview, why were interviews over the phone chosen instead of in-person? How and when will the gift cards be sent to participants (i.e. sent via email, mailed to physical address, sent after the phone interview, etc.)?

Acronyms should be defined before their use, unless they are common knowledge within the discipline. Earlier in the paper, perhaps use the term like so: “sharing economy (SE)”. Then, feel free to use SE at any time afterward.

### **Conclusion**

As mentioned before, the concept of guiding policymakers is not presented in the paper except for the conclusion and introduction. If this is a main contribution, it needs to be better supported within the rest of the paper.