INF352 Interpretation Assignment

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INF352 Information Design Studio II: How to Design

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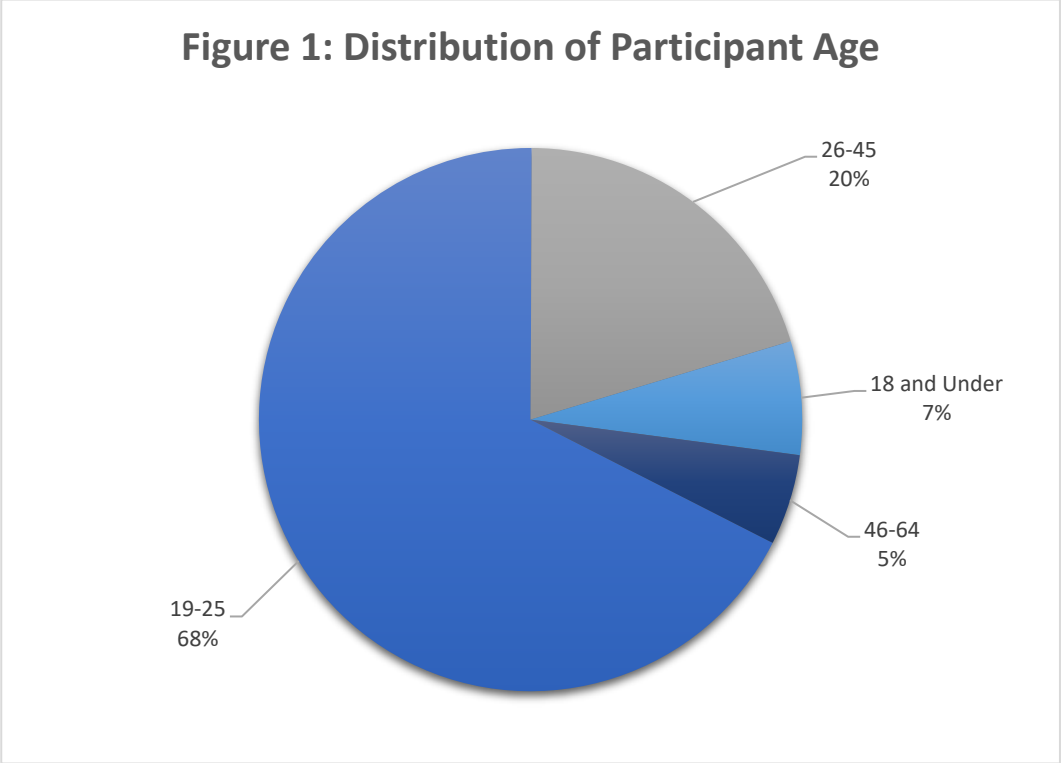
Data Analyses

Data Clean-up and Modification

Survey results were exported into a CSV file and edited and analysed in Excel. Data was preliminarily scanned and had any copies and other outliers removed. Copies were determined by similarity in the final question which was user input based. Any responses with finals answers that were identical, while also having the identical answers in other questions were removed bar one. One response was also removed due to the absurdity of the answers as the participant stated pigeons were the reason they received information from public health officials. For each question, further clean-up occurred for custom answers when sorting everything into categories. For example, two responses for "When are you most likely to search up information regarding COVID-19?" shared similarities and were grouped under the new category "Work-related". As the final question was completely user inputted, all answers were sorted in the same manner. Graphs were then made for each question based on the categories and displayed either in a pie chart or a bar graph. Central tendency measures were not calculated as the data was collected and categorised on a nominal scale.

For interviews, each interviewer took notes based on the participant's responses. While the interviews were not recorded, notable quotes were written down verbatim. These notes were then further broken down into an affinity diagram and categorised based on six main themes: information accessibility on COVID-19, filtering COVID-19 misinformation, bias of COVID-19 related information, media impact on COVID-19, performance of public health officials, and expectations for COVID-19 information sources. Responses for each participant were also colour-coded. Square post notes were

used to identify key statements with connected circular notes denoted as additional support or clarification.



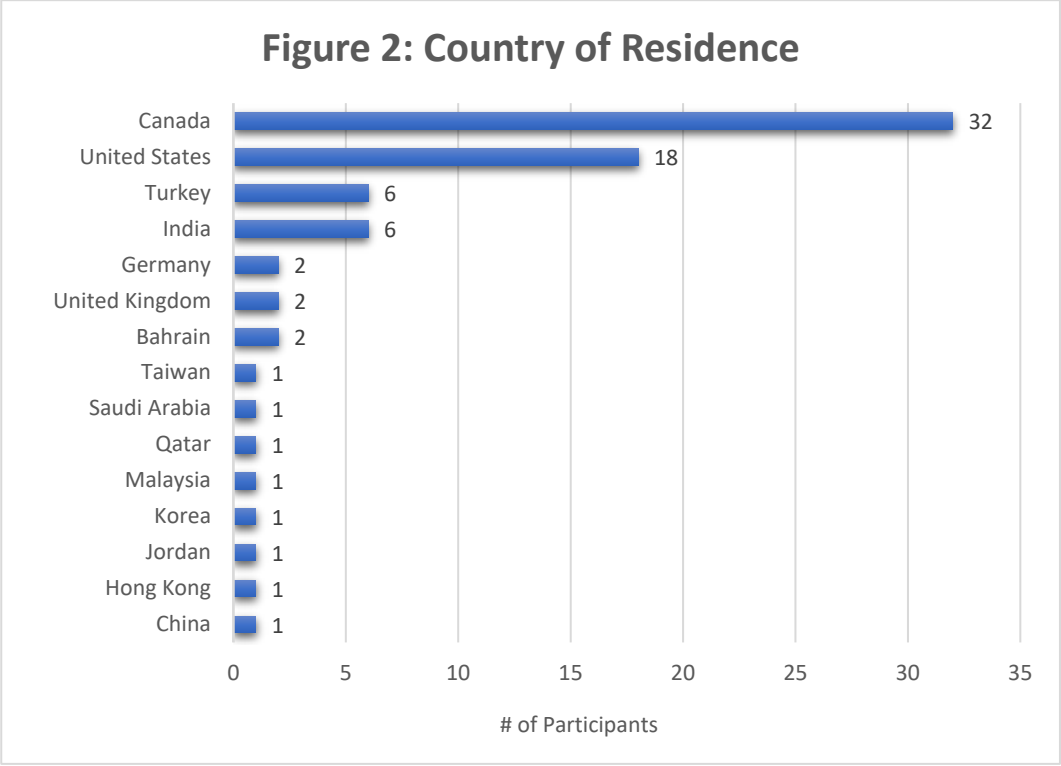


Figure 3: Reasons for Searching COVID-19 Info

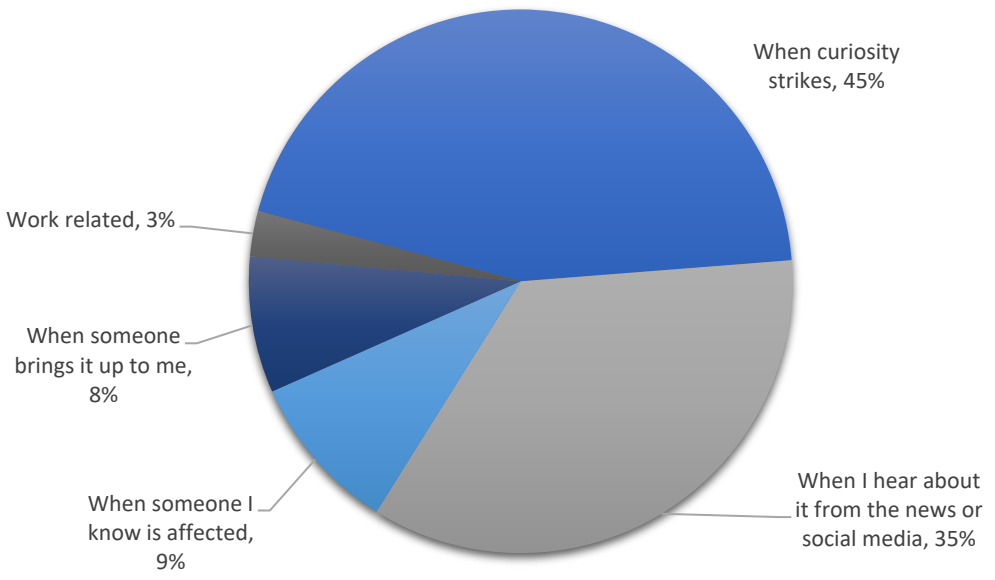


Figure 4: Preferred COVID-19 News Sources

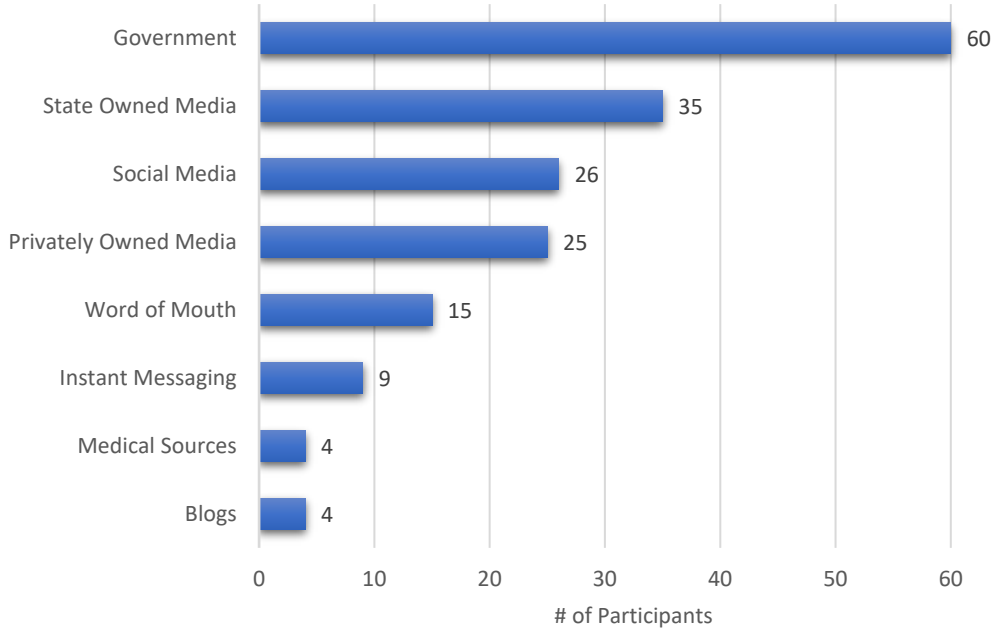


Figure 5: Preferred TV News Channels

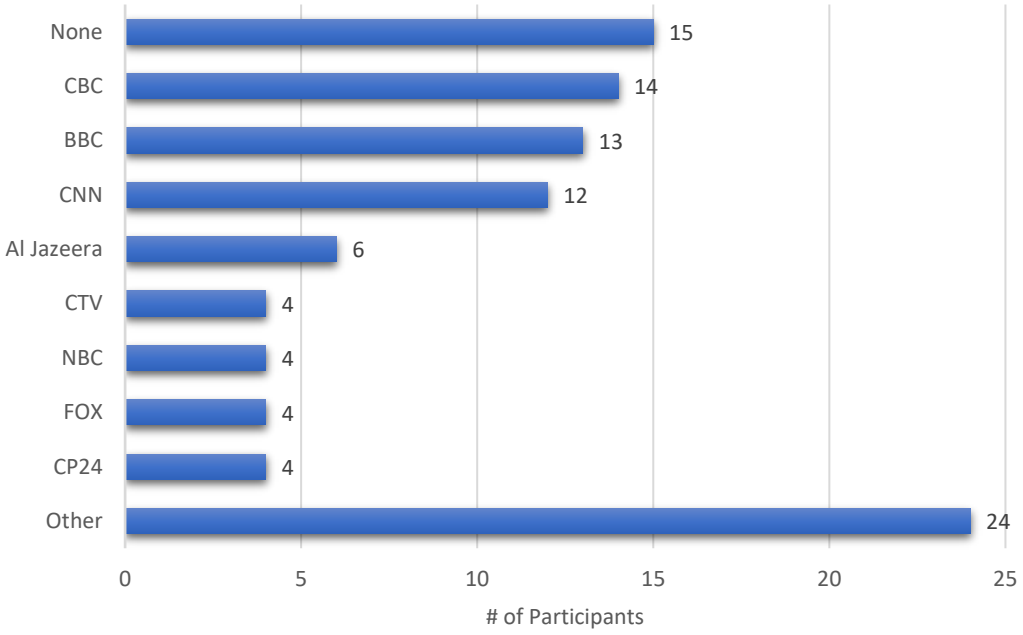


Figure 6: Preferred News Websites

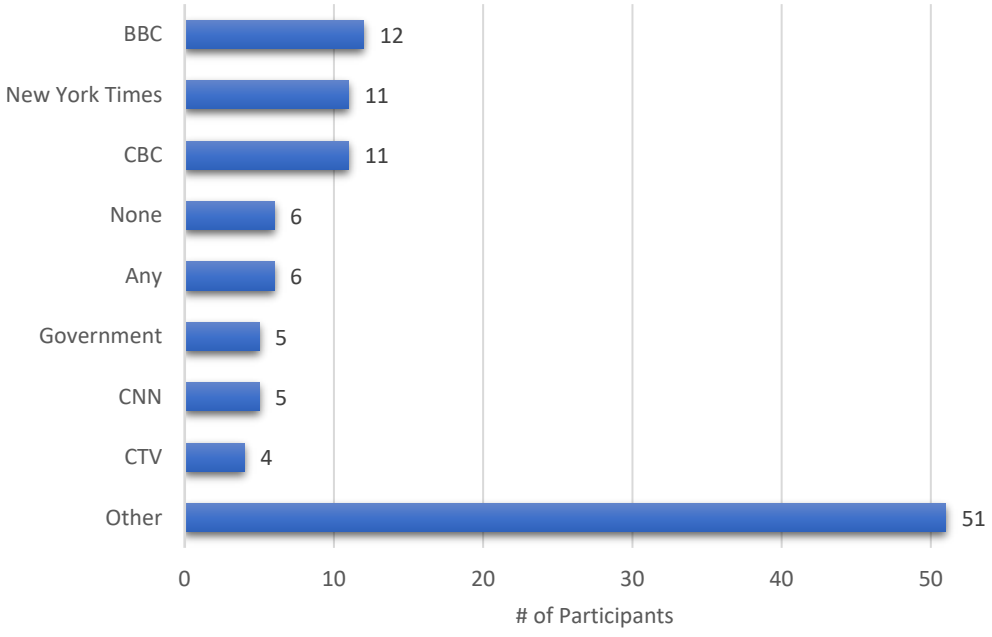


Figure 7: Most Trusted Sources

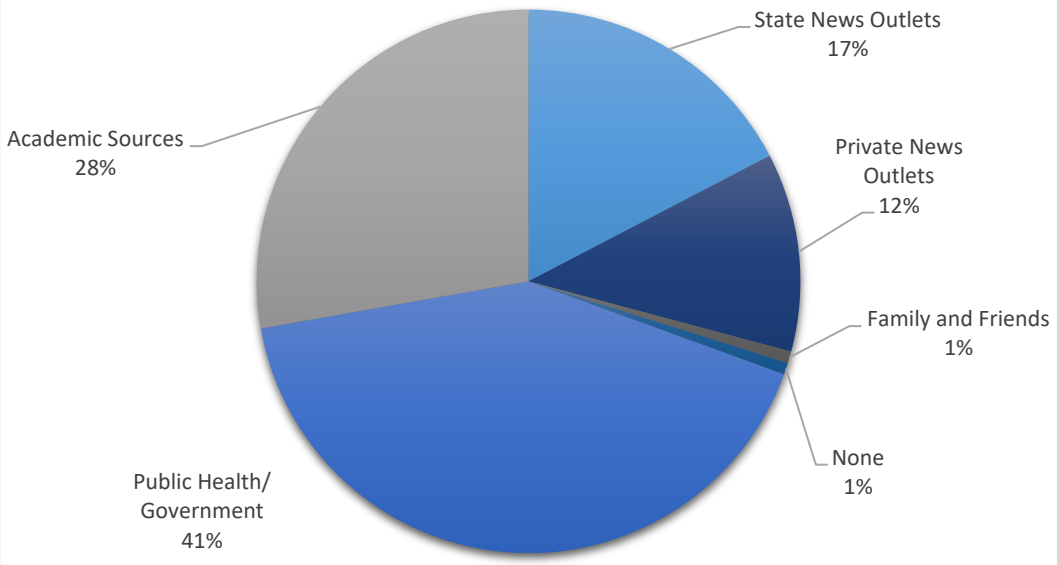


Figure 8: Quality of Information From Contacting Public Health Officials (Phone/Email/In-Person)

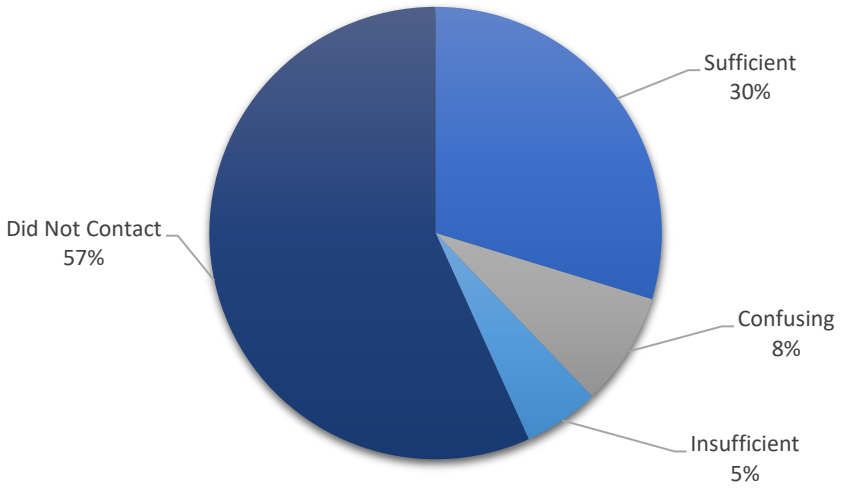


Figure 9: Simplicity of Contacting Process

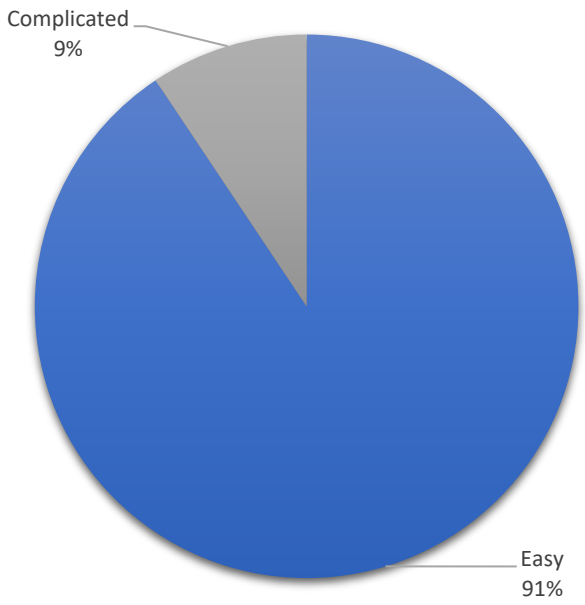


Figure 10: Percentage of Participants That Are Victims of Misinformation

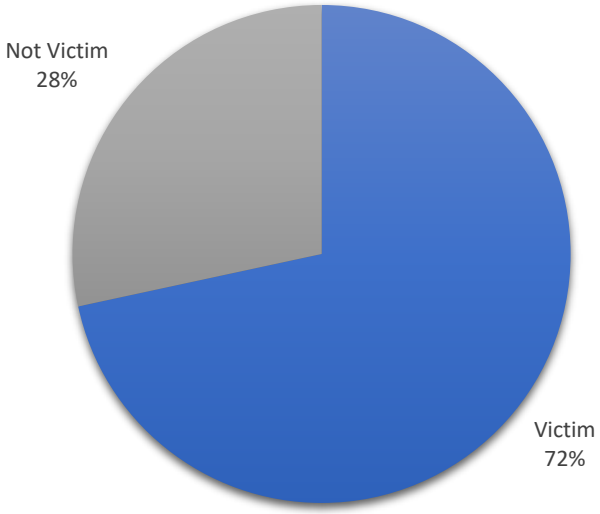
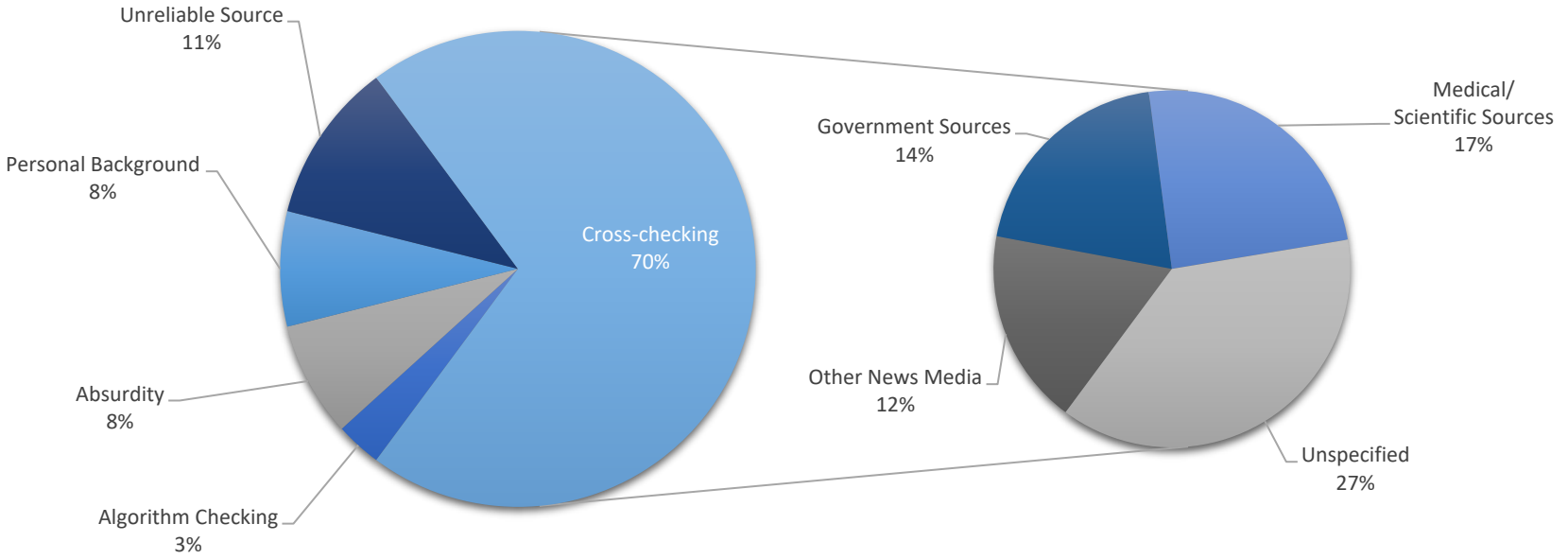


Figure 11: Reasons Misinformation Was Identified



Summary of Findings

In our secondary research, studies found that COVID-19 information by public health officials is generally better at reporting guidelines than digital media sources, especially regarding mask-wearing protocols (Hernández-García & Giménez-Júlvez, 2020). Incorrect and misleading information was also present in over half of digital links. This supported our suggestion that COVID-19 misinformation exists, particularly in digital media. Correlation between infodemic keywords, especially on social media, and controversial statements was also reported (Rovetta & Bhagavathula, 2020), leading us to identify when misinformation is most prevalent. Another study found that high levels of frustration and political polarisation (between parties and people) are a direct result of COVID-19 related information/misinformation (Bolsover & Tokitsu Tizon, 2020). Our last source finds that over 800 people have died worldwide as a result of COVID-19 related misinformation (Coleman, 2020). This shows the real-life impact of COVID misinformation on people's lives.

Of the 93 survey responses we received, 91 passed the screening question, with 74 responses remaining after outliers were removed. The majority of participants fell in the 19-25 year age category (68%), followed by 26-45 (20%), with most residing in Canada or the U.S. This was expected as we distributed the survey amongst our peers. However, residency was distributed over a total of 15 different countries. Most participants identified news and social media as popular drivers for searching for COVID-19 information and preferred using government sources over all others. BBC, CBC, and CNN were the preferred TV news channels of choice, though some identified that they did not watch any. BBC, CBC, and the New York Times were popular online sources. In Figures 5 and 6, the count for the "Other" category is due to a large number of foreign

sources, but the recorded number for individual sources did not go over 3. In terms of trustworthiness, most identified public health or government sources first (41%), with academic sources second (28%). Most participants report not contacting public health officials, but those that did reported that it was an easy process that provided sufficient data. 72% of participants report COVID-19 misinformation and most verified information by cross-referencing sources.

In our interviews, Participants 1, 2, 3, 4, 6, 8, 9, and 10 agreed that misleading, false, or biased information about COVID-19 exists (see Appendix C of Discovery Assignment, Question 5). Aside from Participant 9, each Participant reported conducting additional research. This further confirms that there are many sources of misleading COVID-19 information. Secondly, Participants 1, 3, 4, 5, 7 reported using social media sources to keep up-to-date (see Question 2), which should be kept in mind given what we learned from when and where misinformation is prevalent. Participants 1, 2, 4, 5, 6, 7, 8 reported COVID-19 information related to politics, such as differences between countries, inconsistencies, and information distribution (see Questions 2, 5, 7, 9), coinciding with the findings from Bolsover and Tokitsu Tizon. Lastly, Participants 6 and 8 have reported real-life problems related to COVID-related misinformation (see Questions 5, and 7), similar to what was reported by Coleman.

In total, six themes were identified, with the help of an affinity diagram. The first theme was Information Accessibility, found in Questions 1, 2, and 3 (see Appendix B). Participants generally agreed that information on COVID-19 was accessible. The second theme was Filtering Misinformation and Adaptation, found in Questions 5, 9, and 10. Most participants have reported fact-checking and using unbiased sources. The third theme was an Expectation of Information sources, found in Question 11. Participants

suggested options that would help better information sources. The fourth theme identified was Media, found in Questions 1, 2, 3, and 8. This reflected how the media portrayed COVID-19 during the pandemic. The fifth theme related to Biased Information, found in Questions 5, 6, and 7. Participants agreed that credible, and non-political sources have less bias. Lastly, the sixth theme was Public Official Performance, found in Question 7. Many participants agreed that not all public health officials have handled the pandemic well.

COVID-19 Misinformation

PERSON 1 | PERSON 2 | PERSON 3 | PERSON 4 | PERSON 5

PERSON 6 | PERSON 7 | PERSON 8 | PERSON 9 | PERSON 10

Information Accessibility on COVID-19

Information accessible as always	Started off very fast, now more slow and accurate	Easy to find, not always credible	Politics play a role in information accesibility	Localized information is sufficient
Information accessible as always	Information accessible as always	Will become more accessible as cases rise	Information accessible as always	More accessible as time goes on

Filtering COVID-19 MisInformation and Adaptation

Media runs readership, not accuracy	Different politics of newsources	Some platforms are more political (twitter)	Local news is generally better	Information is not comprehensive (ex: flights)
Satisfactory	Fact checking helps	Uses least biased source	Fact checking helps	

Expectations of COVID-19 Information Sources

Easy to follow stats and diagrams	More credible research, with clear plans	More localized, immediate information	Universal "FAQ" for information	A reference guide of credible sources
Government transparency, with plan updates	Interactive maps to show hotspots	Government transparency	More specific localized information	Symptoms and facilities

Media on COVID-19

Click bait headlines	More fact checking and accuracy now than before	Interest usually piques from social media	Hard to keep up, new information everyday
The media shapes how we percieve the pandemic	Media is sensationalist	Depressing, due to cases	Hard to keep up, new information everyday

Bias of COVID-19 related Information

Cross-referencing different sources	Relying on known credible persons	Fact checking helps	Sometimes sense of what seems wrong	Believes social media too much
Fact checking helps	Looks at only relevant sources	Fact checking helps	Avoids social media, uses credible sources	Fact checking helps
Localized information is much more biased	Politics are always involved			

Public Officials' Performance on COVID-19

Different cities maps are better than others	Guidelines can be confusing	There should be more unbiased sources	Politics play a huge role in the effectiveness of the information
Public health should be enacting COVID laws	Some countries are doing better than others	Some countries are doing better than others	Some politicians are doing better than others
Public health informing enough but not enforcing	There were daily updates on the news	Some provinces are doing better than others	COVID testing facilities are great

Proto-Persona

NAME:

Benjamin Chen

PORTRAIT:

"The media plays a very huge role in the information that we receive with any major crisis or world event"

"[The] news is lacking the nuance to understand topics in science and medicine and [I] have to rely on [my] own double-checking"

"[The ability to obtain information] has become harder since there is much more discussion on COVID now than before"

"I would like more updates about how the government is dealing with the pandemic"

"I wish more information was available about things happening in my community"

"I wish there was something more like a universal COVID information data system"

"Most of the COVID information I've found seems biased and inconsistent"

ATTITUDES:

Motivations

- Values health and safety
- Likes to stay up to date on news
- Cares about safety of family and friends
- Enjoys socializing
- Likes to be productive

Frustrations

- Has to constantly cross-check info
- Tired of quarantine
- Concerned about COVID affecting their family
- Confused by all the different information they read
- Unsatisfied with government COVID resources
- Misses normal life

GENERAL DESCRIPTION:

- University student
- 23 year old
- Enjoys daily news
- Moved back in with family because of pandemic
- Extrovert
- Enjoys the outdoors
- Had a busy schedule pre-covid
- Works part-time at a store
- Spent a lot of time with friends pre-COIVD
- Caring
- Enjoys travelling

Needs and Wants:

- Access to reliable COVID information
- Stay healthy
- Stay informed on the current restrictions in his community
- To go outside and socialize

GOALS:

- Avoid catching COVID
- Learn about how COVID is affected their community
- Learn how to spot misinformation
- Stay up to date on COVID news
- Understand the current COVID climate
- Be informed on traveling restrictions
- Be informed on quarantining proces

Persona

We created our persona Benjamin Chen to represent our established primary user based on our primary research findings. We concluded that a typical user of our future solution is someone who wants to stay informed about COVID-related news and is frustrated by the biased and convoluted nature of the existing sources. In addition to the user's goals and pain points, we included notable statements from our interviews to further emphasize these motivations. This persona serves as a guide for the decision-making throughout our design process.

Benjamin Chen-Primary User

Age: 23
Work: Sales Employee
Family: Single
Location: Toronto, Canada
Character: Archetype

Extrovert | Busy schedule | Social | Caring | Cautious | Enjoys news | University student | Enjoys outdoors

Goals

- Stay safe and healthy
- Stay informed on local hotspots
- Stay informed on travel restrictions
- Stay informed on quarantining process
- Stay up to date on reliable COVID news
- Learn how to spot COVID misinformation
- Learn about impact of COVID on local community
- Learn why some countries are affected more than others
- To read reliable local+international COVID news without questioning it

Quotes

- "[The] news is lacking the nuance to understand topics in science and medicine and [I] have to rely on [my] own double-checking"
- "I wish there was something more like a universal COVID information data system"
- "Most of the COVID information I've found seems biased and inconsistent"
- "[The ability to obtain information] has become harder since there is much more discussion on COVID now than before"

Ability/Knowledge

- Active on social media
- Good spotter of misinformation
- Knowledge on daily news
- General knowledge on past pandemics
- Reads COVID-19 scholarly articles

Frustrations

- Tired of quarantine; missing normal life
- Constantly cross-checking information
- Confused by variety of COVID information
- Unsatisfied with COVID government resources
- Worried about family safety

Motivation

Health
Family and friends
Productivity
Social
Watching news

Wants and Needs

- Wants to travel again
- Wants to see friends
- Needs to stay safe
- Needs to go back to work
- Wants and needs reliable information

Bio

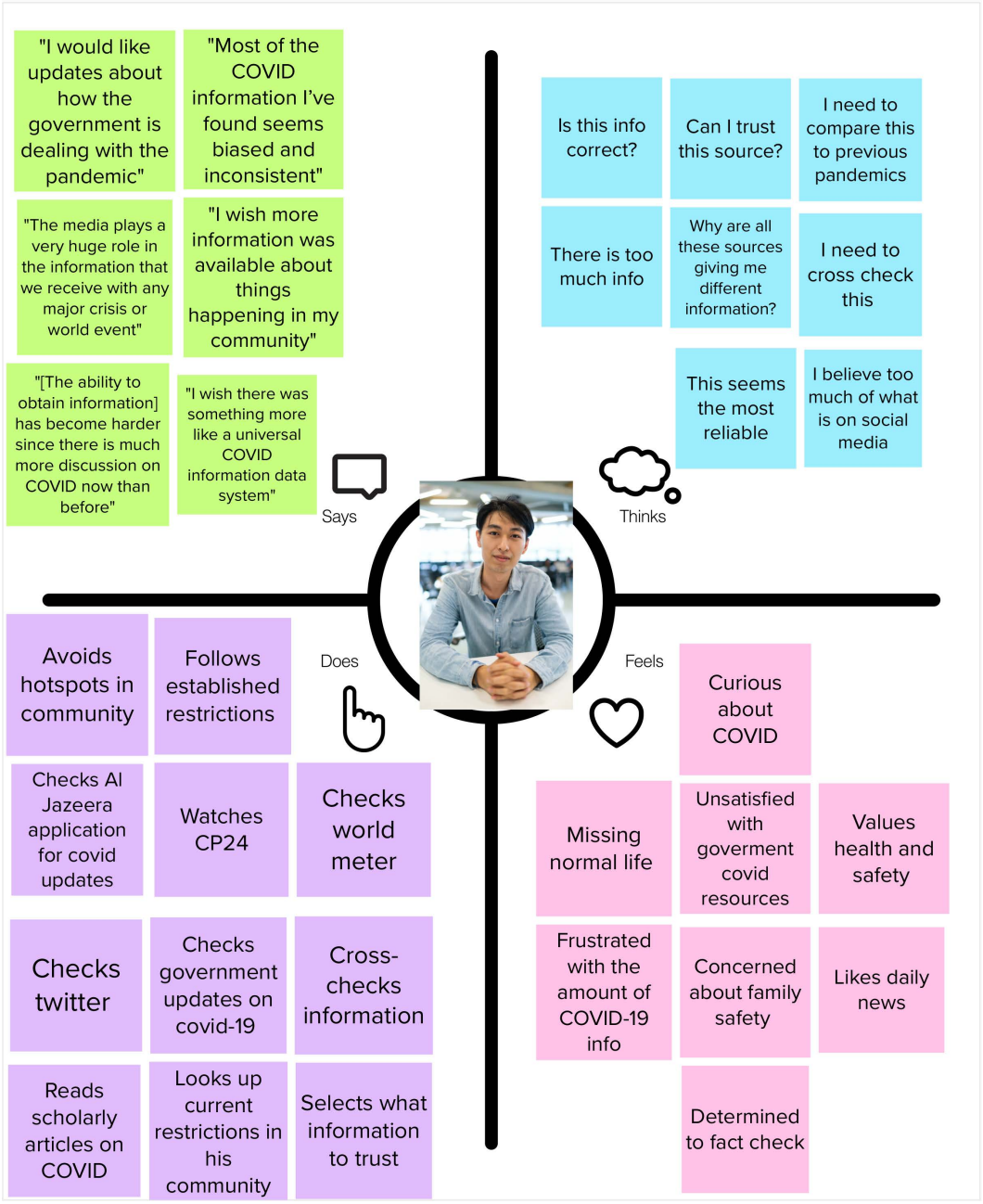
Ben is a current student at the University of Toronto studying International Relations. He usually lives close to campus, but has moved back home with his parents since the beginning of the pandemic. Most of his time is occupied with school work and his part-time job at a retail store. In his free time, he usually enjoys going out with friends, so he has been struggling in quarantine. He now spends a lot of his free time browsing social media platforms such as Twitter and Facebook.

Preferred News Channels

CP24
Al Jazeera
Twitter
Facebook
World Meter

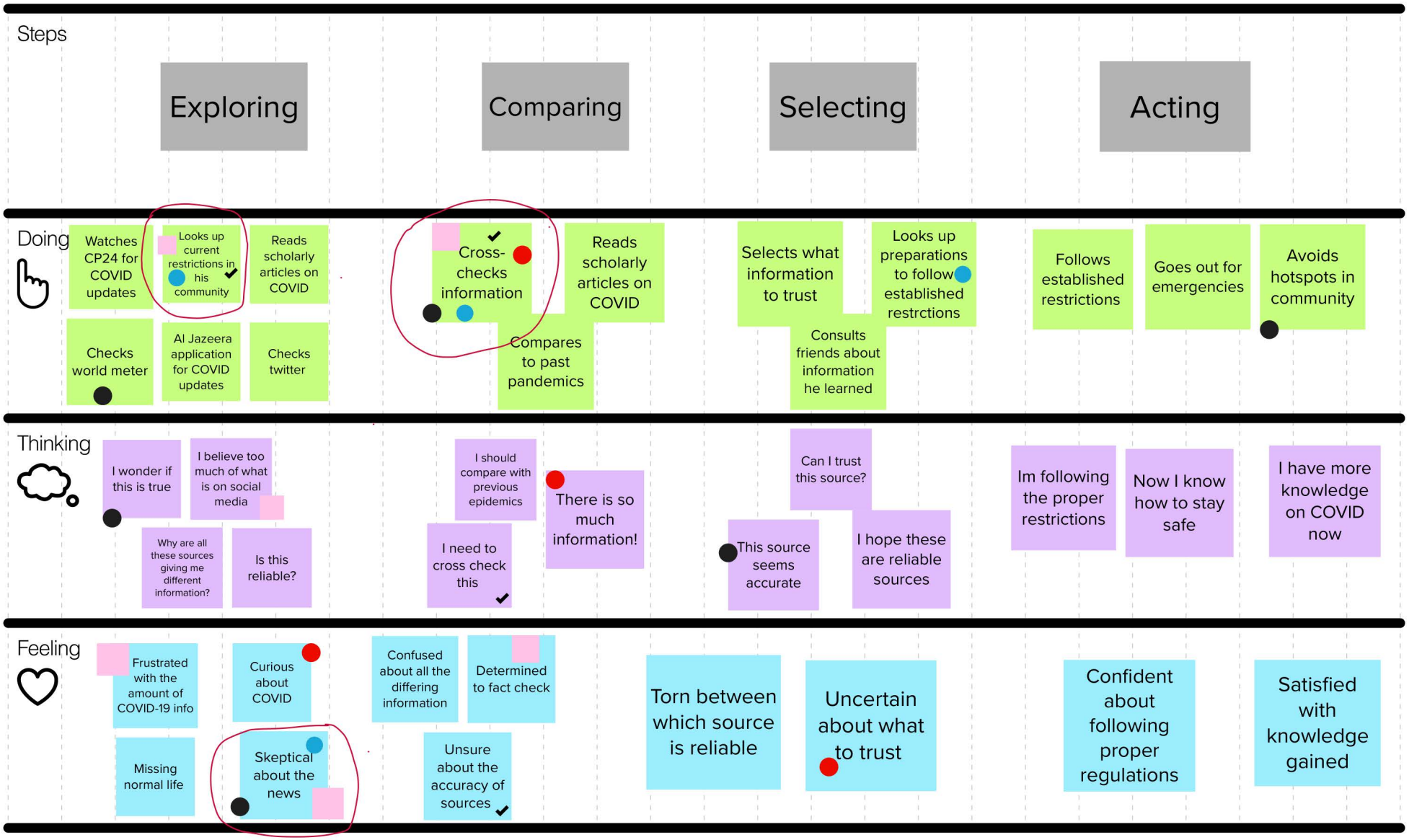
Empathy Map

To develop a holistic view of the user, we created an empathy map that outlines the user's sayings, thoughts, actions, and feelings. Each aspect was based on evidence from our primary research findings and our existing user persona. The map provides us with an overall better understanding of the user and helps us to better outline our user's journey.



As-Is Scenario

We created an As-Is Scenario to outline our user's current journey of finding COVID-related information. Based on our empathy map and primary data findings, we established the main steps of the user's current journey: 1) Exploring, 2) Comparing, 3) Selecting, and 4) Acting. Within these steps, we ideated potential activities that might occur, such as checking different media platforms in the exploring step, and included the user's thought process and emotional journey to gain a better understanding of the user's journey. Once we finalized our As-Is Scenario, we conducted dot voting which helped us conclude that the main areas of design opportunity are cross-checking information, looking up current community restrictions, and skepticism about the news.


Steps
Exploring
Comparing
Selecting
Acting
Doing
Watches CP24 for COVID updates
Looks up current restrictions in his community
Reads scholarly articles on COVID
Checks world meter
Al Jazeera application for COVID updates
Checks twitter
Cross-checks information
Reads scholarly articles on COVID
Compares to past pandemics
Selects what information to trust
Looks up preparations to follow established restrctions
Consults friends about information he learned
Follows established restrictions
Goes out for emergencies
Avoids hotspots in community
Thinking
I wonder if this is true
I believe too much of what is on social media
Why are all these sources giving me different information?
Is this reliable?
I should compare with previous epidemics
There is so much information!
I need to cross check this
Can I trust this source?
This source seems accurate
I hope these are reliable sources
Im following the proper restrictions
Now I know how to stay safe
I have more knowledge on COVID now
Feeling
Frustrated with the amount of COVID-19 info
Curious about COVID
Confused about all the differing information
Determined to fact check
Missing normal life
Skeptical about the news
Unsure about the accuracy of sources
Torn between which source is reliable
Uncertain about what to trust
Confident about following proper regulations
Satisfied with knowledge gained

References

Bolsover, G., & Tokitsu Tizon, J. (2020). Social Media and Health Misinformation During the US COVID Crisis. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3666955

Coleman, A. (2020, August 12). 'Hundreds dead' because of Covid-19 misinformation. *BBC News*. https://www.bbc.com/news/world-53755067

Hernández-García, I., & Giménez-Júlvez, T. (2020). Assessment of Health Information About COVID-19 Prevention on the Internet: Infodemiological Study. *JMIR Public Health and Surveillance*, *6*(2), e18717. https://doi.org/10.2196/18717

Rovetta, A., & Bhagavathula, A. S. (2020). Global Infodemiology of COVID-19: Analysis of Google Web Searches and Instagram Hashtags. *Journal of Medical Internet Research*, *22*(8), e20673. https://doi.org/10.2196/20673