

# Safeguarding the Online Presence of LGBTIQ Refugees

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**Sponsored By:**



**May 14th, 2021**

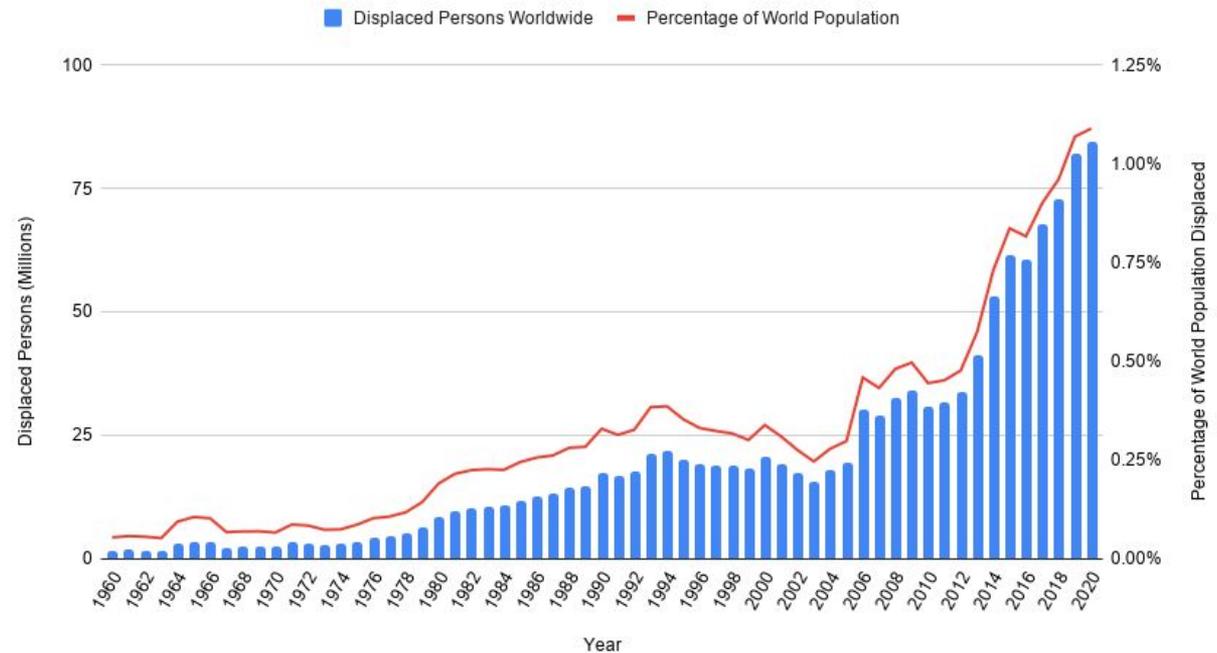


**WPI**

# Over 80 million people are currently displaced worldwide

- An estimated **4.5%** of people identify as LGBTIQ
- This implies that around **3.5 million** LGBTIQ individuals are displaced

World Refugees: Totals and Percentages



# Refugees face numerous obstacles

- Asylum seekers struggle with mental health conditions such as **PTSD**
- Health conditions complicate the asylum process

**Table 5. Common Presenting Health Problems in Refugees**

**Mental health problems**

Adjustment disorder  
Anxiety  
Depression  
Posttraumatic stress disorder  
Sleep problems  
Social isolation

**Nutritional problems**

Anemia  
Overweight/obesity  
Vitamin B<sub>12</sub> deficiency  
Vitamin D deficiency

**Pain**

Abdominal pain  
Headache  
Musculoskeletal pain  
Pelvic pain in females

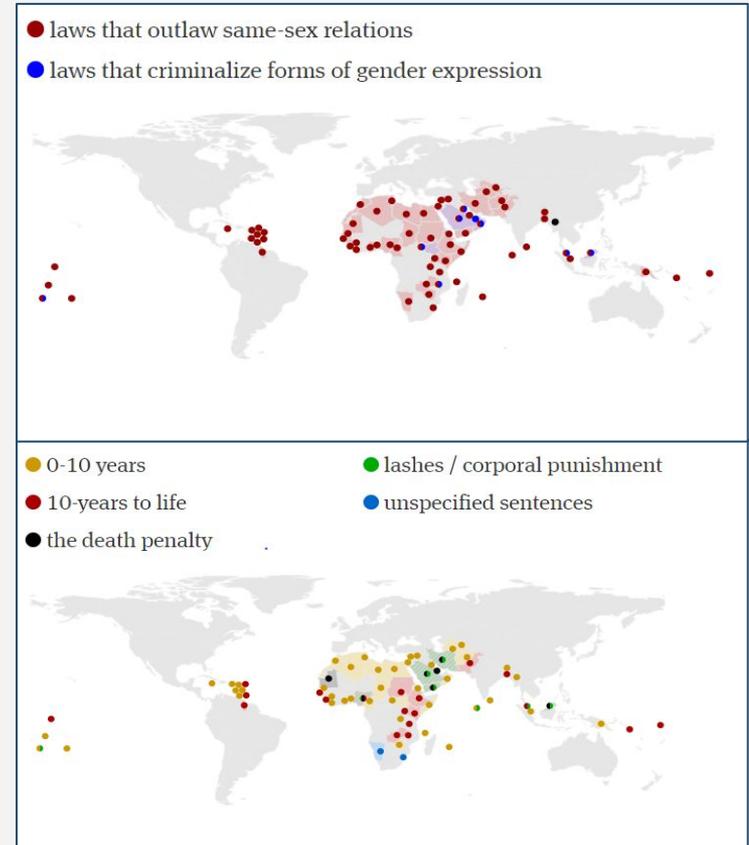
**Undiagnosed chronic conditions**

Asthma  
Chronic obstructive pulmonary disease  
Diabetes mellitus  
Dyslipidemia  
Hypertension  
Impaired fasting glucose levels  
Oral health problems

*Adapted with permission from Eckstein B. Primary care for refugees. Am Fam Physician. 2011;83(4):432.*

# LGBTIQ refugees with sensitive data are at greater risk online

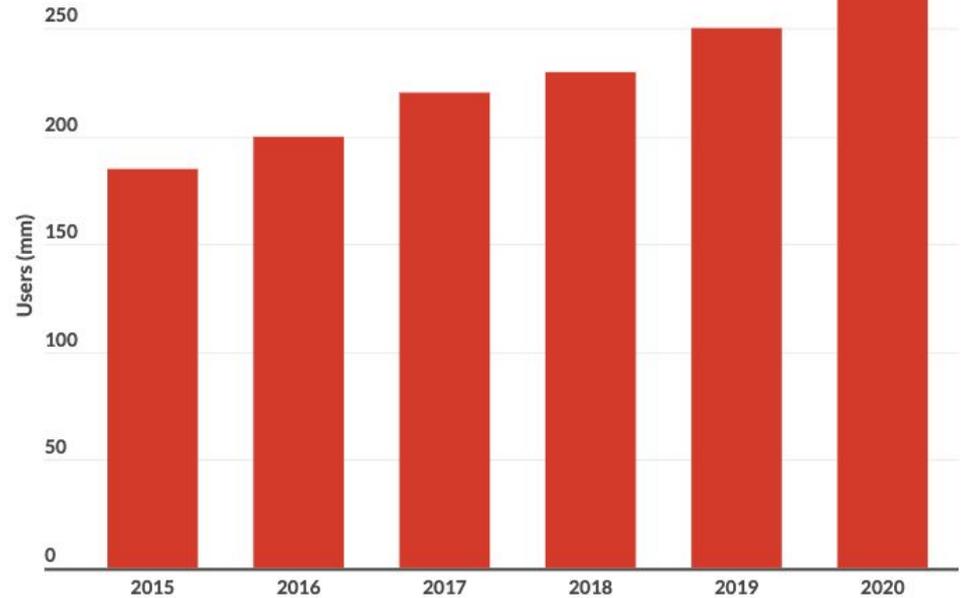
- LGBTIQ refugees are at risk for **persecution** in certain countries
- Data can be **exploited** by malicious groups



# Dating apps expose LGBTIQ individuals to specific risks

- Usage has increased by **45%** over the last five years
- Grindr had over **27 million** users as of 2017 (BBC News, 2018)
- LGBTIQ individuals are being **outed** on these dating apps

Global Dating App Users



Sources: IAC, MagicLab, Statista

# Refugee organizations offer support to asylum seekers



United Nations High Commissioner for Refugees (UNHCR, 2021)



International Rescue Committee (Rescue, 2021)



UNICEF (Unicef, 2021)



Refugee Council (Refugee Council, 2021)



(LGBT Asylum Task Force, 2021)



(ORAM, 2021)

# Worcester LGBT Asylum Task Force has supported almost 200 individuals during their asylum-seeking process



Housing



Food



Clothing



Resources



# ORAM has been providing legal assistance to refugees and asylum seekers since 2008



- Provides legal assistance to refugees seeking asylum
- Focuses on LGBTIQ refugees
- Manages a web-app which provides resources and assistance to asylum seekers

Welcome to the Digital Platform.

**Seeking Help?**

Fill out this form to get filtered resources for your situation.

<p><b>LGBT+ Status</b></p> <p>Are you interested in resources for LGBT+ people?</p> <p>Choose... <input type="text"/></p>	<p><b>Location</b></p> <p>Please input the country or area you are located in or near.</p> <p>Choose... <input type="text"/></p>
<p><b>Kind of Help</b></p> <p>Please select what kind of assistance you are interested.</p> <p>Choose... <input type="text"/></p>	<p><b>Additional Comments</b></p> <p>Please input any additional comments you may have.</p> <p><input type="text"/></p>

## Our Mission

This project seeks to aid ORAM in developing a **secure web presence** by proposing safe practices to sustain a web-based tool that assists LGBTIQ individuals seeking asylum

# Our Objectives

1



## Identify

obstacles LGBTIQ  
refugee groups face  
when accessing  
technology

2



## Evaluate

ORAM's interaction with  
refugees and asylum  
seekers

3



## Determine

security measures and  
data collection  
methods that ORAM  
can adopt to keep  
their online  
applications safe

1



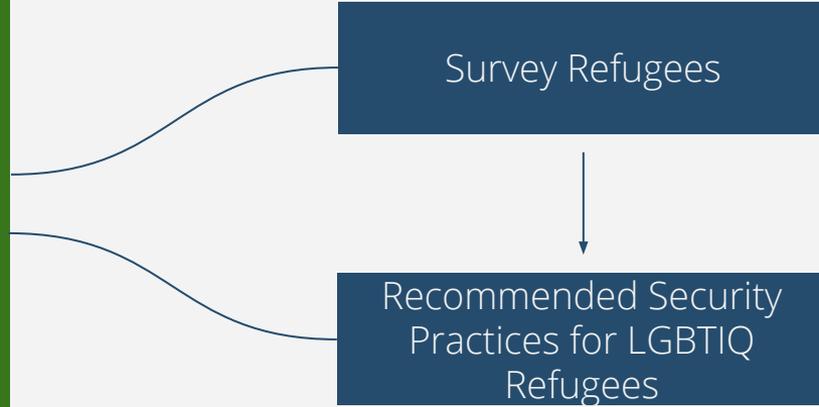
## Identify

obstacles LGBTIQ  
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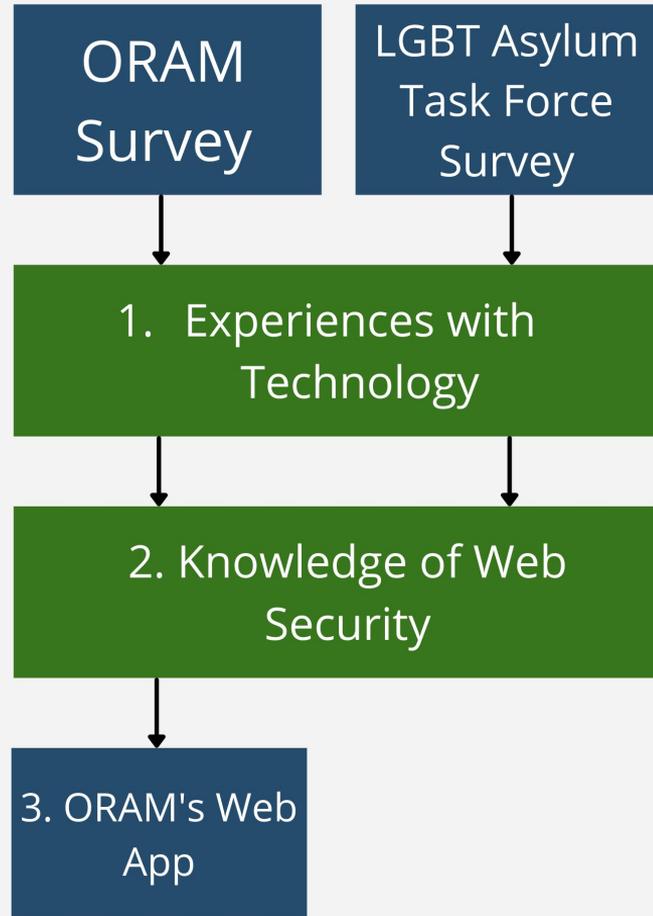
Survey Refugees



Recommended Security  
Practices for LGBTIQ  
Refugees

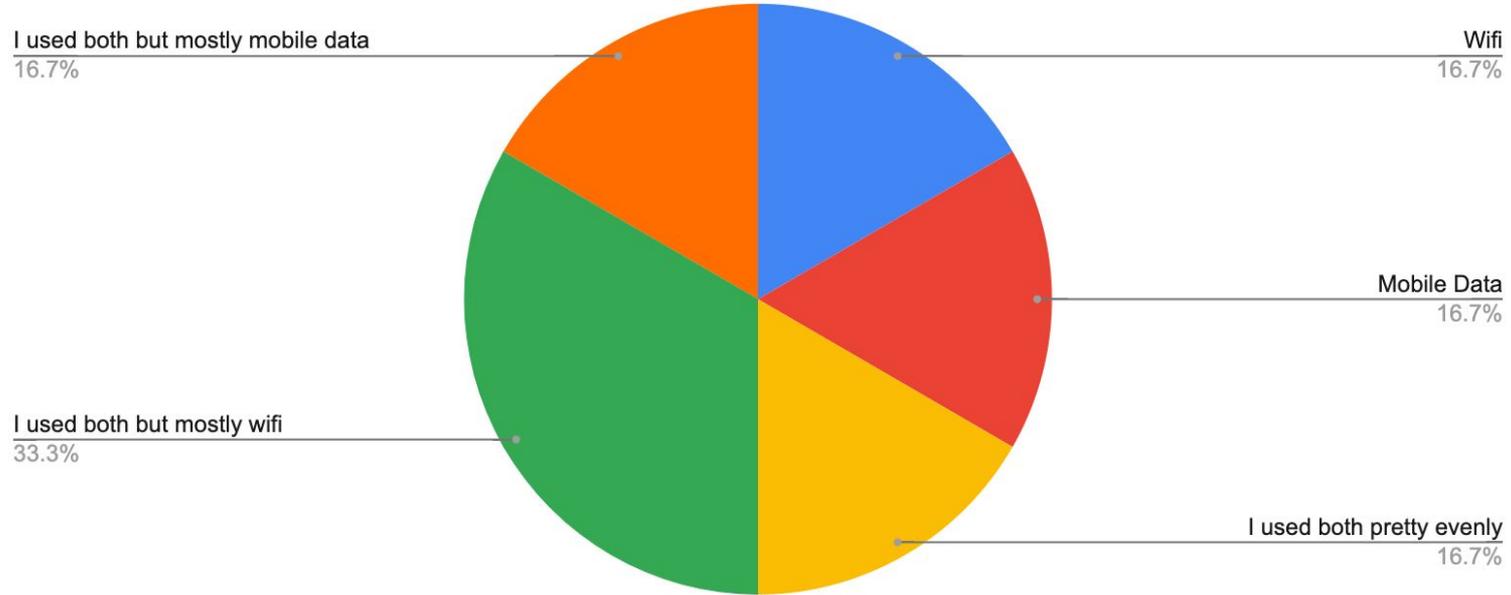


# Survey Refugees



# Half of asylum seekers use Wifi during their asylum process

Refugee Wifi and Mobile Data Usage During Their Asylum Process



# Asylum Seekers Should Be Cautious When Using Public Wifi



## Wifi

- Check network names
- Use VPNs
- Disable Bluetooth

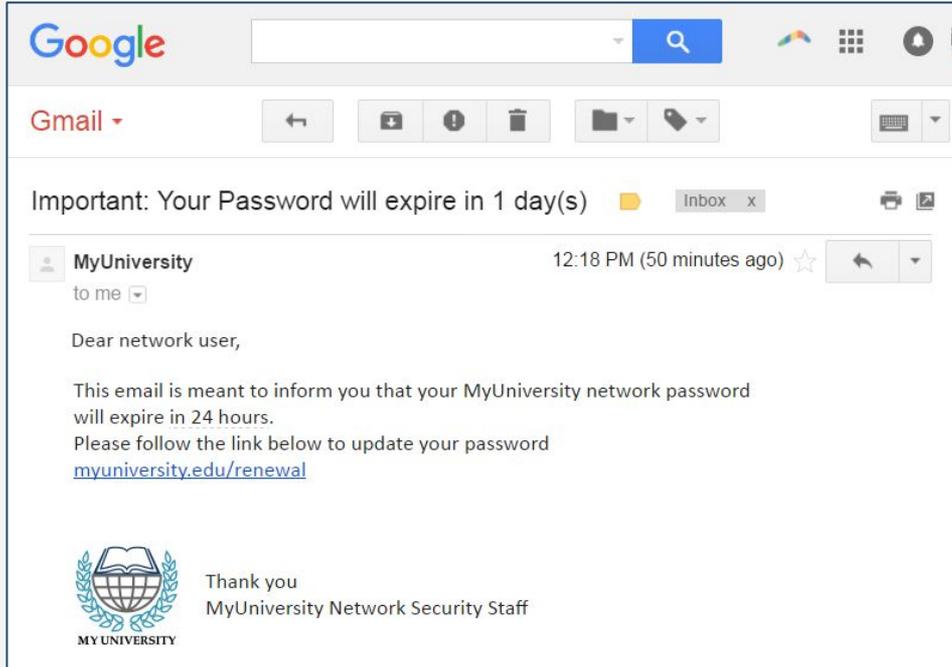


## Passwords



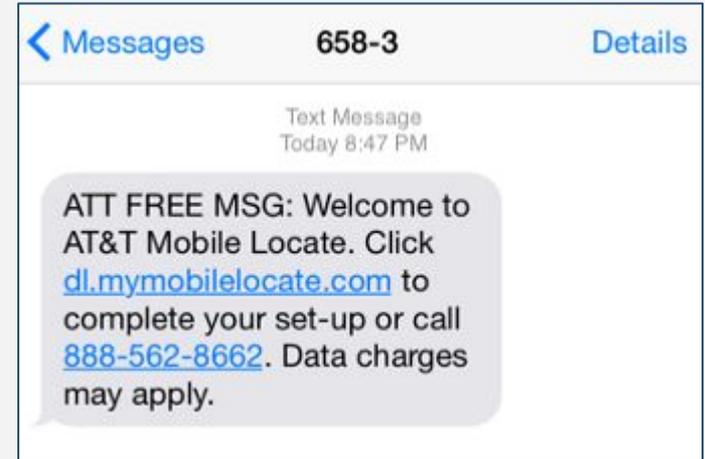
## Social Media

# Refugees were able to recognize phishing attacks



**77%** wouldn't respond to Phishing email #1

(Imperva, 2021)



**62%** wouldn't respond to Real Text #1

(Grant, 2015)

## Refugees had poor password usage



### Repeated passwords

23% respondents use the same password for most things



### Identifying data used

15% use phone numbers, birthdays, or addresses in their passwords



### Poor storage techniques

23% of respondents physically write their passwords down

# Refugee Password Usage Needs Improvement



## Wifi



## Passwords

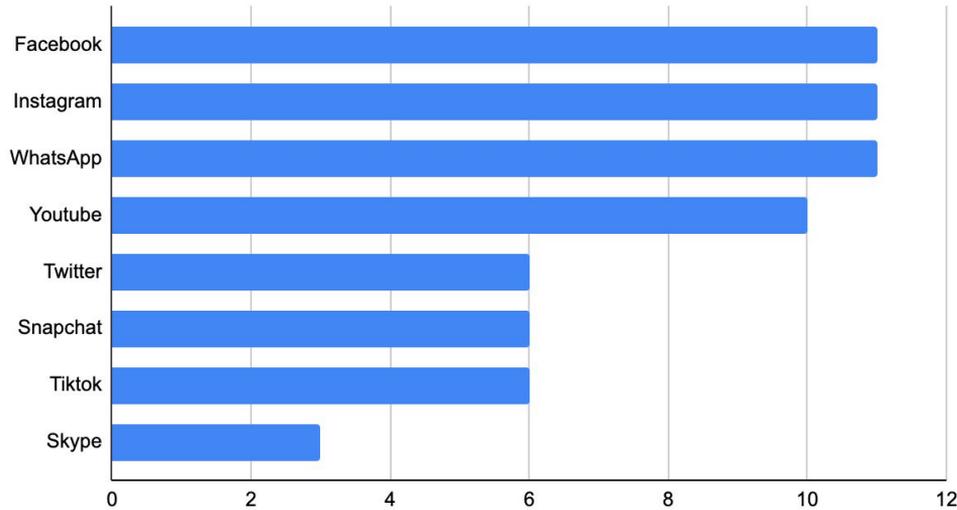
- “Passphrases” instead of passwords
- Password managers
- No identifying data
- Organize passwords into logical groups



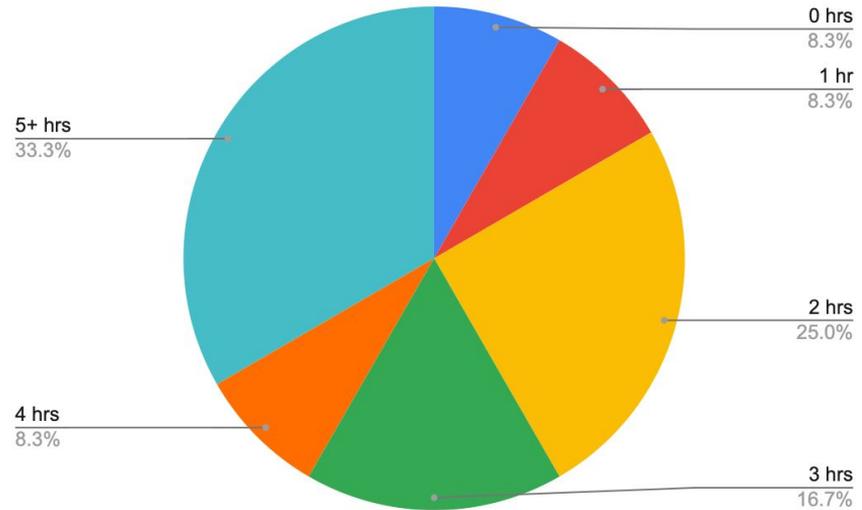
## Social Media

# The majority of Refugees Use Social Media for over 3 hours a day

Number of refugees who interact with social media



Hours a day refugees use social media



- **62%** of refugees share their LGBTIQ status but only **31%** of respondents use an alias
- Malicious actors can target LGBTIQ refugees through social media

# Refugees Should Not Overshare On Social Media



## Wifi



## Passwords



## Social Media

- Don't Overshare
- Don't give away personal information in calls, emails, or texts

# Recommended Security Practices for LGBTIQ Refugees



## Wifi

- Check network names
- Use VPNs
- Disable Bluetooth



## Passwords

- “Passphrases” instead of passwords
- Password managers
- No identifying data
- Organize passwords into logical groups



## Social Media

- Don't Overshare
- Don't give away personal information in calls, emails, or texts

2



## Evaluate

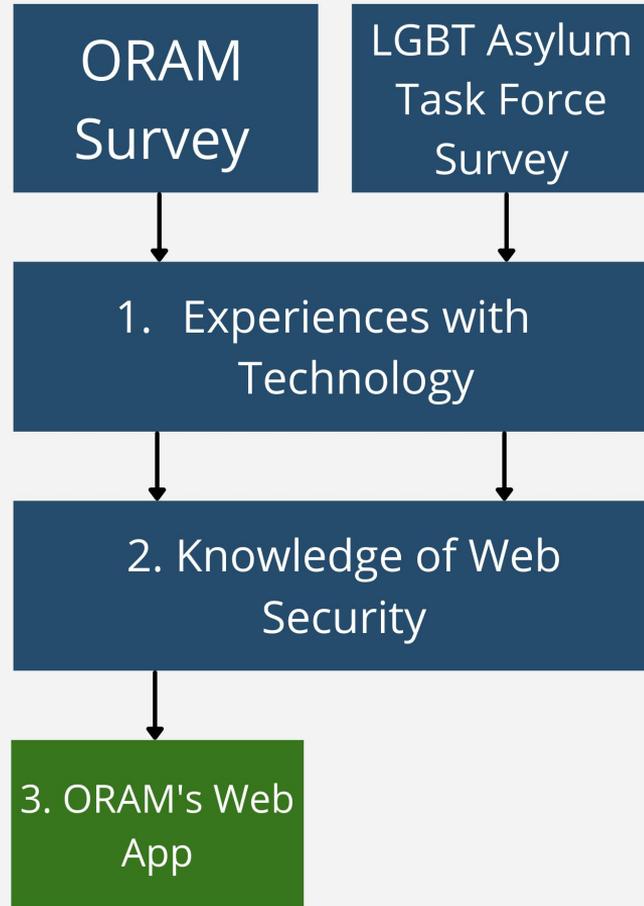
ORAM's interaction with  
refugees and asylum  
seekers

Survey ORAM Refugees



Recommended  
Improvements for ORAM's  
Web App

# Survey ORAM Refugees





### 3. ORAM's Web App



#### **Knowledge of ORAM's web app**

Awareness

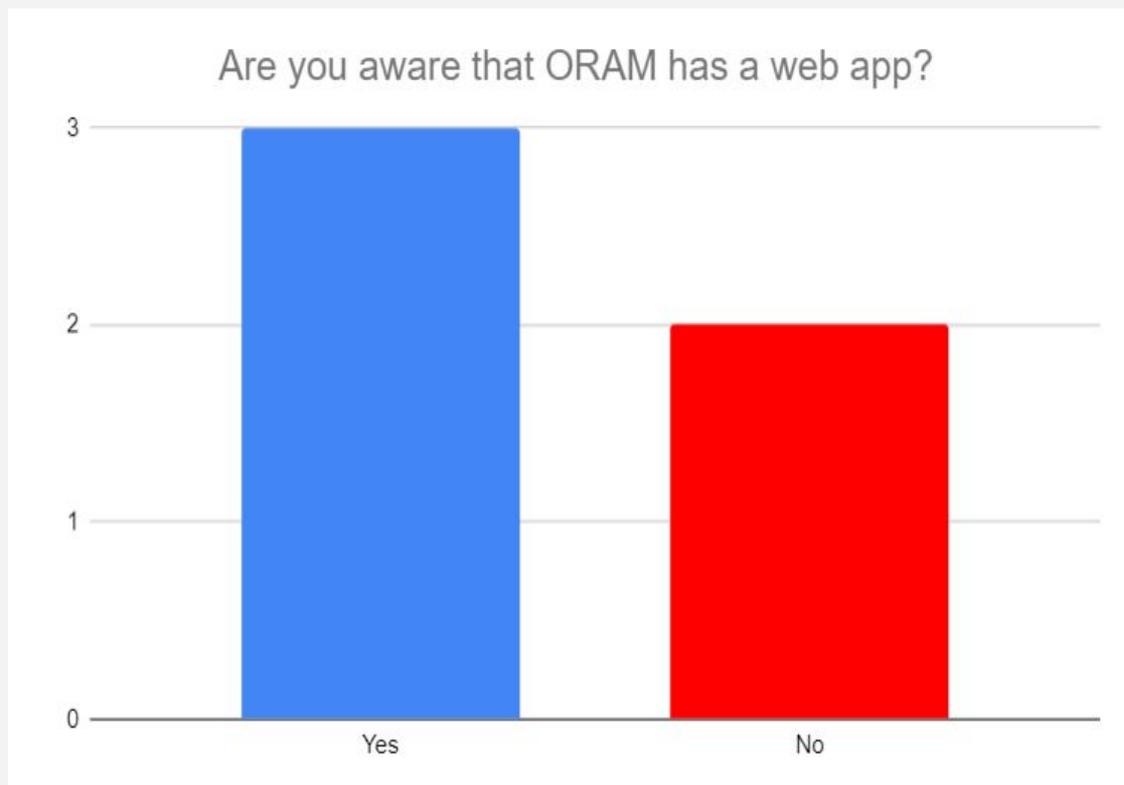
#### **Needs for ORAM's web app**

Resources provided

#### **Improvements for ORAM's web app**

Recommendations

## The Majority of Refugees Were Aware ORAM Had a Web App



- ORAM's web app was created in 2020
- Refugees surveyed were already going through the asylum process

## The Majority of Refugees Requested Additional Resources and Communication Via Email

- “We don’t know their email or where we can find it.”
- “I would request ORAM to consider LGBTQ Refugees who are not staying in safe houses for help like Rent, Food and maybe medication. We have an organization they can go through called Refugee Independence Support Organisation(RISO).”
- “Swahili..”
- “Email..”

# Recommended Changes to ORAM's Web App



## Communication

Connect to refugees through email



## Language

Add languages to support all refugees



## Resources

Contact local refugee support groups

# Recommended Design for ORAM's Web App from a Mobile View



**Seeking Help?**

## Welcome to the Digital Platform

**Seeking Help?**  
Fill out this form or contact us at [help@oramrefugee.org](mailto:help@oramrefugee.org).

Are you interested in resources for LGBTIQ+ people?

Choose...

Please input the country or area you are located in or near

Choose...

Please select what kind of assistance you are interested.

Choose...

Please input the country you are looking to seek refuge in.

Choose...

Is there more than one refugee in need of help? If so, how many?

Please input your email if you would like to be contacted.

**Submit**



**Seeking Help?**

## Welcome to the Digital Platform

**Seeking Help?**  
Fill out this form or contact us at [help@oramrefugee.org](mailto:help@oramrefugee.org).

Are you interested in resources for LGBTIQ+ people?

Choose...

Please input the country or area you are located in or near

Choose...

Please select what kind of assistance you are interested.

Choose...

- English (United States)
- Française (France)
- Español (España)

3



## Determine

security measures and data collection methods that ORAM can adopt to keep their online applications safe

Interview IT Professionals at WPI

Interview ORAM's IT Volunteer

Recommended Security Protocols for ORAM

# Interview IT Professionals at WPI



## Data collection

What methods can ORAM use to safely gather data



## Data storage

How can ORAM store their users' data securely



## Security Measures

What other features and practices can ORAM implement to protect their users

## Interview ORAM's IT Volunteer: Alex Bourgeau



### Experience

Previous work  
experience in IT



### Knowledge

Cyber security



### Future Improvements

Future plans  
for app

# ORAM IT Interview Takeaways



## **New Hosting Service**

JP Morgan is helping them transition to Wix



## **3rd Party Plug-Ins**

The site does utilize several 3rd party services



## **Experience**

Has not done much work with security before

# Evaluate and Provide Security Protocols for ORAM



## Affordability

How much does each security measure cost to implement



## Ease of Use

How feasible is it for ORAM to implement each security measure



## Security

How effectively does each security measure protect sensitive data

Service	Affordability (/3)	Ease of Use (/3)	Security (/3)	Total (/9)

1. File Encryption
2. Data Storage

# Encryption Protects Sensitive Information



## Client-Side Encryption

By encrypting files locally prior to sharing them, not even the cloud storage service can see the data

## Built-in Encryption

Some cloud storage services implement client-side encryption by default, such as Tresorit and NordLocker

## Third-Party Services

Most cloud storage services need a separate program—such as VeraCrypt, Boxcryptor, or BitLocker—to encrypt files locally

# Protect LGBTIQ Refugees' Data by Using Encryption

Service	Affordability (/3)	Ease of Use (/3)	Security (/3)	Total (/9)
Office 365	3	3	3	9
Cryptomator	3	2	3	8
Boxcryptor	2	3	3	8
VeraCrypt	3	1	3	7
BitLocker	1	2	3	6

## Office 365

- “Encrypt with password” feature
- Easy for ORAM to begin using

## Cryptomator

- Works on non-Office files
- Less user-friendly

# Cloud Storage can be used if Files are Encrypted Locally



## Security Measures

- Files are securely encrypted both in transit and at rest
- Google Drive also breaks up the file into chunks, and encrypts the chunks separately



## Vulnerabilities

- There is a brief period where the file is decrypted and susceptible to hackers
- The cloud service could decrypt and view the files at any time

# Safeguard LGBTIQ Refugees' Data by Utilizing Cloud Storage Services

Service	Affordability (/3)	Ease of Use (/3)	Security (/3)	Total (/9)
Google Drive	3	3	2	8
OneDrive	3	3	2	8
NordLocker	2	2	3	7
Tresorit	1	2	3	6
Dropbox	1	3	2	6

## OneDrive

- Comes with Office 365, which ORAM already has

## Google Drive

- Breaks data into chunks and stores separately

# Use Strict Access Controls



## **Minimize who has access**

Fewer people with access means fewer opportunities for data leaks

## **Principle of Least Privilege**

Users should only have access to data that is necessary for them to do their job

## **Dynamically adjust access**

Revoke permissions when they are no longer required

# Pseudonymize Personal Data



## Pseudonymization

- Replaces all personally identifying information with pseudonyms, such as a unique ID number
- Only an authorized user can re-identify the data

## Anonymization

- Changes or removes all personally identifying information
- Can never be re-identified by anyone

## Expand IT Support

ORAM's IT volunteer's expertise is not in security work

Encryption/security services that require little technical knowledge

ORAM should look at expanding their IT staff as they continue to grow



MARIELLE &  
MARSHA



ORAM

ORAM

Organization for Refuge, Asylum and Migration

# Contact Us!

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**Sponsored By:**  
The Organization for Refuge, Asylum & Migration

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