First Responders Social Network Requirements Methodology

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Introduction

- Social Media use is on the rise. Every day, we write:
  - 294 billion emails
  - 2 million blog posts
  - Over 40 Million Tweets

- First Responders, including Emergency Medical Personnel, Firefighters, and Police Officers, have active online communities on Social Media websites.

- How can we leverage Social Media sites
  - ...to gather requirements for active First Responders?
  - ...to identify stakeholders within those First Responder communities?

Requirements Gathering Toolbox

Passive Monitoring:
- Gather data from social media channels and analyze to discover important people and topics of discussion.
- Useful for identifying candidates for active monitoring techniques.
- Visualization tools enable at-a-glance summary of the atmosphere of community interactions.

Active Monitoring:
- Engage known stakeholders directly in order to gather more information.
- Interviews and surveys can be conducted both online and offline.
- May reveal additional channels to monitor passively.

Passive Monitoring

- Analyze known hashtags used by the community.
- Discover new hashtags: potential new topics or channels to follow.
- Identify which users are the most active, the most followed, or the most retweeted. These are potential stakeholders.
- Determine the most frequent subjects of discussion. These could lead to finding requirements.

Crawl and Parse Data

```
"results": []
{
  "iso_language_code":
  "to_user_name",
  "to_user_id_str":
  "profile_image_url_https":
  "from_user_id_str":
  "source":
  "text":
  "from_user_name":
  "profile_image_url":
  "id":
  "to_user":
  "entities": { "user mentions": []},
```

Future Work

- Further refine visualization tools for versatility and readability
- Enable visualizations to reflect change over time
- Develop example questionnaires and surveys

Open Technologies Used

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Glossary:
RPI – Rensselaer Polytechnic Institute
TWC – Tetherless World Constellation at Rensselaer Polytechnic Institute
NIST – National Institute of Standards and Technology

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