

MIRRO



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The Leading Volunteer

Situation

Luca is a 118 rescue volunteer and begins his turn. He's assigned to a MSB (basic rescue vehicle) with 3 more rescuers, all volunteers - neither doctors nor professional nurses on board. The accident happens in a crowded public place, in the city-center. The patient faints while having fun/drinking something with his friends. The ambulance leaves its station to respond to the rescue call, detected as a low-severity code. When the ambulance arrives at the scene, Luca and another volunteer evaluate patient's conditions, which get gradually worse. Luca doesn't get into a panic, neither when some friends of the patient start despairing for his conditions. Luca coordinates the team at its best, charging a volunteer of calming down worried people and another one of keeping away curious people. At the same time, supported by the remaining volunteer, Luca follows and put in practice precisely medical protocols and rescue manoeuvres, he learnt during the courses. Thanks to his preparation and leading aptitude he stabilizes patient's conditions, while waiting for an advanced rescue vehicle, and reassures all bystanders. His job is widely recognized excellent, even by his rescue team.



The Leading Volunteer

Data collection

Coming back from mission, the team coordinator learns what Luca has done and decides to use his experience for a shared training session.

1. Context collection (Video/Audio, Text and Tag Annotation)

Before the training session, Luca is required to recreate and contextualize the scenario with the coordinator. Luca could record videos or audios to point out particular issues or to suggest behaviours, as well as using textual annotations. Other volunteers could then enrich or discuss his experience posting their feedbacks.

2. Individual reflection - practice collection

The coordinator introduces the scenario and asks attendants what they would have done. The task is done individually in order to acquire all possible solutions, right or wrong.

3. Collaborative reflection - best practice collection

At this point each task is discussed through an exchange of ideas/opinions between attendants, Luca and the coordinator. Solutions deemed appropriate for that specific situation need to be stored, in order to be made available and commented by other volunteers.

Reflective Learning

A similar case would be ideal to use different types of Apps to stimulate the reflection.

1) Matching Apps

Matching Apps proposed could respond to the curiosity and the will of both insecure and probing volunteers to refresh their knowledge/preparation, providing appropriate cases related to similar scenarios.

2) Game Apps

A Serious Game definitely could be a strong training tool through the simulation of Luca's experienced scenario in a safe environment.



Civil Protection Event

Situation

Stefano and Mario together with other members of the Italian Civil Protection monitor the risky zones as planned in the briefing phase of the event.

During urban events, at the moment, Civil Protection just relies on radios for any kind of communications overloading sometimes the network, meaning loss of critical information and not having the opportunity to record anything about the real experience.

Back to Stefano and Mario event, information is continuously exchanged in order to coordinate activities and to assure the safety of people.

Data Collection

Information could be acquired by different tools.

Civil Protection staff and participants in the event could report unpleasant and dangerous situation sending different kinds of information to the system from their handheld device.

This information could consist of textual messages or pictures with an associated meaningful string. In addition the Civil Protection staff could send their GPS location to help the personnel in charge of the debriefing and reflection phase to keep track of their position when an event happened. Furthermore the system would be able to capture data from environmental sensors such as noise level sensors and camera feeds from mobile and static checkpoints.



Civil Protection Event

Data collection

Through the use of a mobile device, volunteers/coordinators could feed and enrich operative scenarios they are experiencing, as well as event participants could tweet string information/strings.

1. Timeline Apps

They would be able to build a real-time interaction, even thanks to environmental sensors, tweeting annotations, recording videos, and much more.

Reflective Learning

The day after, Mario and Stefano, the coordinators in charge to reflect upon the event, could go to the place where it occurred. Stefano starts the reflection session choosing to navigate through the tweets left the previous day by individuals and other Civil Protection members participating in the event. Among these tweets he decides to reflect on those described by the keyword Overcrowding.

Therefore the system suggests Stefano where this kind of information is located in the space. Stefano moves toward these tweets. Stefano navigates through the tweets located in the space and reflect on them to understand what generated that unpleasant and dangerous situation. If the tweets only are not useful to understand what led to that situation he can choose to visualize pieces of information acquired from other source such as camera feeds, to have a better understanding. If this attempt is not useful he can move to an other zone suggested by the system where is present the same kind of information.

Moreover he can leave a comment on or rate the information to make aware his colleagues.

Stefano in addition wants to reflect on how the situation evolved over time. In particular he wants to understand how people moved in relation to that situation, check if after a certain time the situation is solved and where the personnel in charge of supervise that zone were located. Then he selects the time desired on a timeline on the screen.

Stefano finds an interesting tweets left by a participants in the event that it is helpful to understand the situation and decides to leave a comment in order to make Mario reflect on it.

Stefano finds a tweet quite relevant to understand what happened the night before so he decides to rate it. On a scale to one to five he assigns four stars "****" to the tweet.

During the reflection session, Stefano notice a puzzle of information that makes him think that such situation happened due to variables not foreseen in the planning phase of the event. Therefore he decides to share the snapshot of this information together with his GPS location with the disaster manager in order to make him reflect about the risky points not covered.

1) Timeline Apps

The aim is to recreate the context managed and let volunteers/coordinators go through the event, following its timeline, and experience all that has been recorded.

Users could interrupt the ongoing event on their device to capture/analyze some data or to annotate/tweet any concerns or opinions.



The Challenging Driver

Situation

Angela is a volunteer for Italian Civil Protection, whose task during a public crowded event consists in blocking a road for vehicle traffic. In low-severity events Civil Protection is not used to prepare its volunteers, letting them learn directly on the field but creating lots of troubles and dissatisfaction due to their lack of information and experience.

Angela is accompanied by a colleague unexperienced in dealing with troubles, as well as she is.

A driver, backed by others, doesn't accept to be stopped, questions the road block and volunteer's authority and insists on going through.

Both volunteers have little experience, have been placed far from the coordination base and can communicate with it only by a UHF radio.

They don't know either what to do specifically or what's happening in other areas manned by Civil Protection.

Angela is forced to take some decisions without the direct help of a coordinator or a senior volunteer, because she received no details or reasons to explain why the road has been blocked.

Her hesitation is clearly visible and the driver starts complaining and insulting her. Angela disregards the rude driver and suggests to others an alternative route, getting through the trouble.

Although Angela achieves her aim, she is offended by the rude driver's behaviour. She complains firstly with her colleague, then directly with her coordinator, about their own practical utility and the fact they were left alone without specific information.

The situation left her embittered to such an extent that she decides to quit the Civil Protection.



The Challenging Driver

Data collection

During the debriefing session the coordinator tells Angela's experience, as a real example. Seems to be clear the need of a device more advanced and useful than a simple UHF radio, like a mobile device / handheld computer.

1. Context collection

Storing data related to the scenario could be precious for future similar cases.

After the effective service volunteers could add annotations, perceptions and feedbacks about the event they're experiencing, by using a mobile device.

2. Individual reflection - practice collection

The coordinator would like volunteers to reflect on what they experienced, putting feedbacks and annotations about situations, even while they're experiencing in case there's enough time.

3. Collaborative reflection - best practice collection

During the debriefing session the coordinator would like to collect best actions/practices according to what have been decided after the group discussion.

Reflective Learning

1) Matching Apps

If unsure or concerned about particular situations during the effective service, volunteers could have the time to use a mobile device, find out similar cases and apply the best approach in order to calm down people and to solve the trouble.

2) Game Apps

On the one hand game apps could facilitate the identification of volunteers' aptitudes before taking them on the territory, on the other would help to choose training sessions suited to the effective job the volunteer will have to perform.

3) Mood Apps

Mood maps, through the volunteers' feedback, let coordinators best understand how to deal with teams professionally and personally.

