

E106 Rescue the Living, Find the Missing, and Identify the Found: The Dentify.Me App

Sakher J. AlQahtani, PhD*, College of Dentistry, King Saud University, Riyadh 11545, SAUDI ARABIA; Shada Alsalamah, PhD*, King Saud University, College of Computer and Information Sciences, Riyadh 11545, SAUDI ARABIA; Joe Adserias Garriga, DDS, PhD*, c/ Balmes 62 30 la, Barcelona, SPAIN; Kenneth W. Aschheim, DDS*, 44 E 67th Street, New York, NY 10065; Amber D. Riley, MS*, 9855 Erma Road, #103, San Diego, CA 92131; Ricardo H.A. Silva, PhD*, USP-School of Dentistry of Ribeirao Preto, Avenida do Cafe, s/n, Bairro Monte Alegre, Ribeirao Preto, Sao Paulo 14040-904, BRAZIL; and Emilio Nuzzolese, PhD*, Ambulatorio Nuzzolese, Viale JF Kennedy 77, Bari, EU 70124, ITALY

After attending this presentation, attendees will have acquired a deeper understanding of how a new smart phone application (app) named Dentify. Me can become a valuable tool in mass disaster management. Each day, humans are subjected to catastrophic events. Horrifying mass fatality incidents have been witnessed in every corner of the planet, and the world mourns for victims of natural disasters, war, and violent acts.

This presentation will impact the forensic science community by increasing awareness of how Information Technology (IT) solutions can be used as a resource in mass fatality victims management.

In such incidents, all efforts should be coordinated to rescue living victims, find missing ones, and identify those found. First, all injured victims need to be located or reported so they can be provided with first aid paramedic services. Second, a manifest of missing victims needs to be created so rescue and/or Disaster Victim Identification (DVI) efforts can be utilized efficiently to find the missing; however, the creation of a missing persons' manifest is a time-consuming and often inaccurate process, especially in the early stages of an incident as it is constantly evolving as victims are found and others are reported missing. Deceased victims who have been recovered need to be identified to bring closure to their loved ones as well as receive justice in cases of homicide; however, rescue teams rely on victims and eyewitness reports created manually or on post-active systems for receiving emergency calls. Moreover, all pre- and post-disaster data, also known as Antemortem (AM) and Postmortem (PM) data, respectively, is collected and matched manually by DVI teams for reconciliation. There are no wide-ranging proactive systems today on the IT market to address all three issues at once.

The Dentify.Me app is a proactive application that utilizes a victim-centered solution that automates the process of notifying authorities with an S.O.S., locating victims, generating missing persons' manifests, and collecting and delivering AM data to authorities. Using a semi-structured interview process and document analysis, the software has been optimized to collect essential AM data.

The Dentify.Me app engages with eyewitnesses to automate the incident detection and identification process. It uses hard system's methodology to automatically identify and locate potentially affected victims, alert the rescue team to reach out for the injured, generate a list of the missing, and collect and deliver AM data to the DVI team to assist in the matching process. It is hoped that this proof-of-concept proposed solution, when implemented, will have a great impact on mass fatality victims management by *rescuing the living*, *finding the missing*, and *identifying the found*, to efficiently bring justice to the victims and peace of mind to their loved ones.

DVI, Antemortem Data, IT Solution