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DO ROBOTS CONSTITUTE A HELP IN CRISIS MANAGEMENT?

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ABSTRACT:

For many years, military, security and safety services have been experiencing and finally using unmanned tools.

First end users, Counter Improvised Explosive Devices squads, gave first acknowledgments to these unusual devices. A large employment of Unmanned Aerial Vehicles (UAVs) and Unmanned Ground Vehicles (UGVs) during Afghanistan and Middle East conflicts allows developing interfaces and sensors.

After a while, many services are now using UGVs especially in Chemical Biological Radioactive, Nuclear and Explosive (CBRNE) threats mitigation, security, and counterterrorist missions. Furthermore, a very promising future is gradually taking shape for UGVs in industrial safety.

Over military applications, UAVs are fully employed, in sensitive area survey, natural disaster fighting and law enforcement missions. But aerial imagery is also now very valuable in touristic use and in building industry i.e. for inspections.

The aim of the paper is to explain why these (now wide spread) tools, are now coming out of the professional sphere, and used nowadays by journalists and usual citizens.

Following questions will be examined:

Will robots replace humans?

Is there a place in crisis management, for artificial intelligence?

How to allocate missions to the different types of robots?

What are trends in UGVs development?

Which kind of future for these tools?

Does non professional use introduce a concern on crisis communication?

Regarding to ten years experience of robotics R&D and use in a fire brigade, the presentation will emphasize why and how robotics constitutes a help in crisis management, with their weaknesses and strengths.

KEYWORDS:

Crisis management, Robots, UAVs, UGVs, CBRNE, security, safety, counterterrorism.
