InVID - Verification of Social Media Video Content for the News Industry

Issue 1 November 2016

InVID project http://www.invid-project.eu/

Welcome!

We would like to welcome you to the first issue of the InVID Newsletter. The aim of this issue is to introduce the project's vision and goals, and to inform the community, our readers and supporters, of what has been achieved and produced so far.

In particular, after describing the motivation and the goals of the project, the InVID concept and envisaged approach for achieving these goals is presented. Subsequently, we include in the current issue some key articles reporting on the progress and the main developments of the project, and we present the activities performed for disseminating the project's aims and results. The current issue ends with some brief information about the members of the InVID consortium, and details about contacting the project consortium and finding us online.

Our vision: "Protecting the news industry from distributing fakes, falsehoods, lost reputation and … lawsuits"

Project Goals

InVID is building a platform providing services to detect, authenticate and check the reliability and accuracy of newsworthy video files and video content spread via social media.

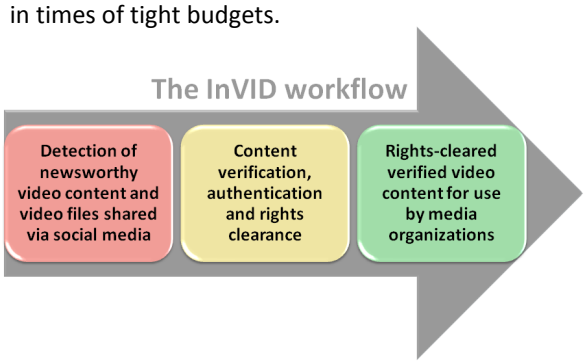
This platform will enable novel newsroom applications for broadcasters, news agencies, web pure-players, newspapers and publishers to integrate social media content into their news output without struggling to know if they can trust the material or how they can reach the user to ask permission for re-use. It will ensure that verified and rights-cleared video content is readily available for integration into breaking and developing news reports.

Project Motivation

In video veritas, if we divert the old Latin saying: **In video, there is truth!**

The digital media revolution and the convergence of social media with broadband wired and wireless connectivity are bringing breaking news to online video platforms; news organisations delivering information by Web streams and TV broadcast often rely on user-generated recordings of breaking and developing news events shared by social media to illustrate the story.

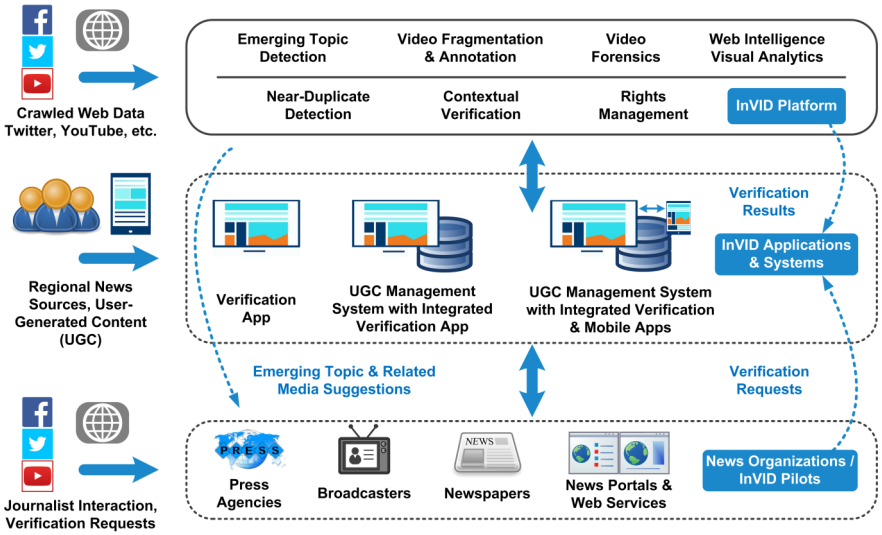
However, **in video there is also deception**. Access to increasingly sophisticated editing and content management tools, and the ease in which fake information spreads in electronic networks requires reputable news outlets to carefully verify third-party content before publishing it, reducing their ability to break news quickly while increasing costs in times of tight budgets.



Inside this issue:

InVID Concept and Approach

The timely on-demand verification and rights clearance of user-generated video is the cornerstone of the In-VID concept: InVID allows professional users to verify any piece of video, regardless of how it was brought to their attention. InVID also gives full editorial control over the verification and right clearance process to its users: it presents to them all the evidence produced by the different verification functionalities it offers, and allows them to make informed decisions on whether they can trust and re-use a piece of user-generated video more quickly, efficiently and reliably than currently possible, resulting in more responsive and reputable news distribution.



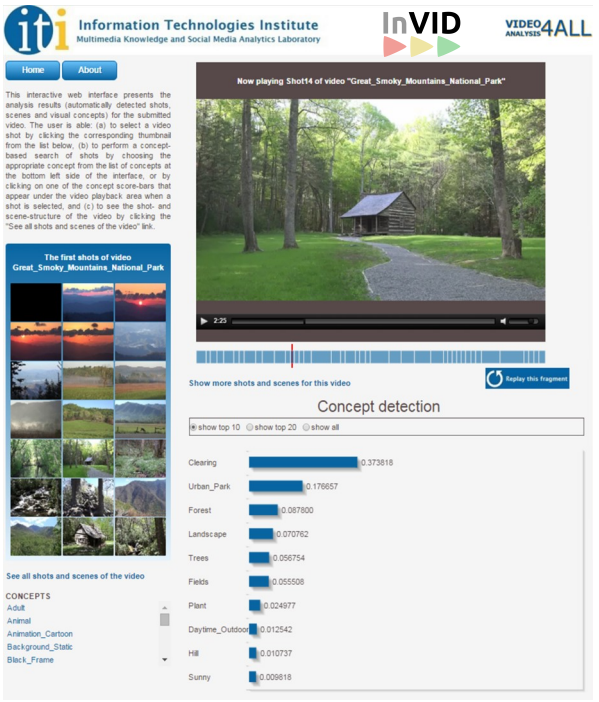
"InVID develops a knowledge verification platform to detect emerging stories & assess the reliability of newsworthy video files and content spread via social media"

InVID Tools and Services

InVID Video Analysis Service

This interactive on-line video analysis service allows the user to upload videos via a web interface. Then, it performs temporal fragmentation of the video into shots (i.e. frame sequences captured without interruption by a single camera) and scenes (i.e. story-telling video parts), and detects a number of visual concepts in the keyframes of the shots. This process defines a shot-level concept-based annotation of the video and it is several times faster than real-time.

The results are displayed in an interactive user interface, which allows the user to:
- navigate through the video structure (both shots and scenes)
- view the concept detection results for each shot of the video
- search by concepts within the video

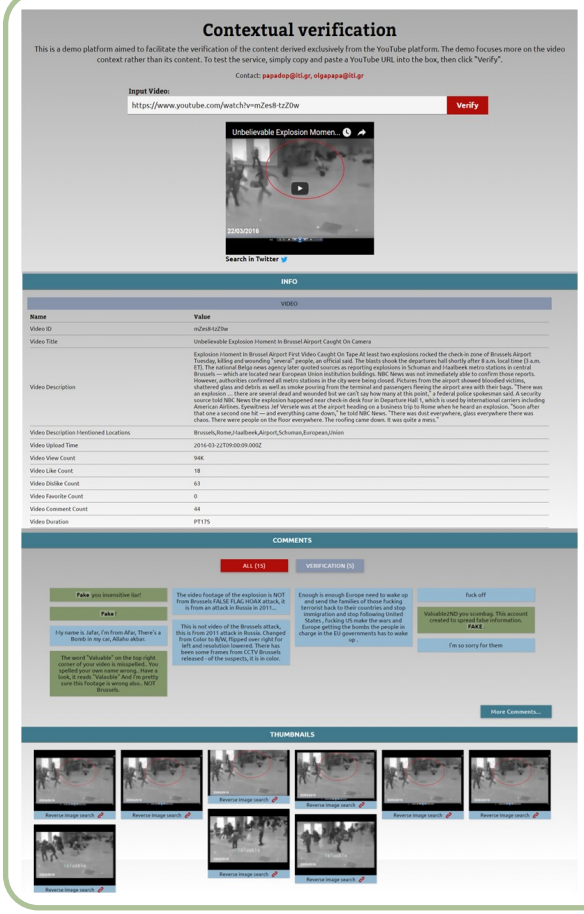


Try this service now at: http://multimedia2.iti.gr/onlinevideoanalysis/service/start.html

InVID Dashboard

The InVID Dashboard uses real-time synchronization mechanisms to provide an integrated view on the collected social media content, allowing users to pinpoint opinion leaders and investigate relations among referenced named entities - people, organizations, and locations. The dashboard is still under development, but selected innovations such as improved keyword calculations have already been incorporated into the US Election 2016 Web Monitor (https://www.weblyzard.com/us-election-2016-web-monitor/), another dashboard implemented by webLyzard technology, who develops also the

InVID Dashboard. Once released, the dashboard will include visual means to identify and track emerging stories, the ability to playback videos, means to inspect their verification status, and image thumbnails for major content clusters. These extensions will seamlessly integrate visual content into existing Web intelligence and knowledge co-creation workflows.



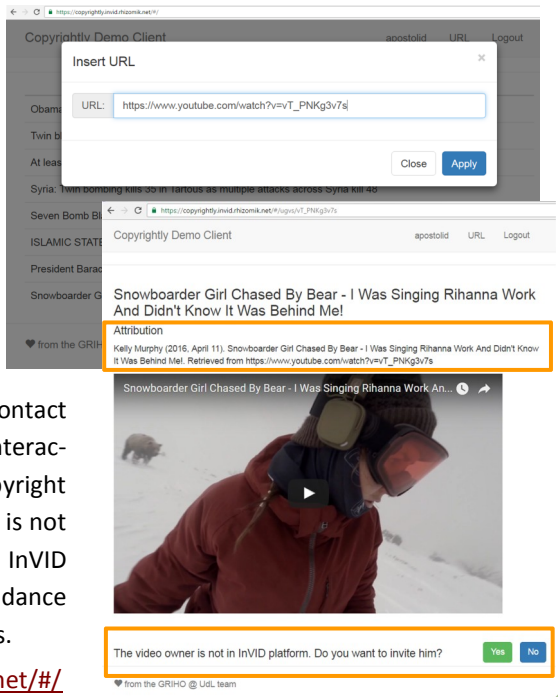
InVID Contextual Verification Service

The first version of the Contextual Verification service has been released and it focuses more on the video context rather than its content. This version aims to facilitate the verification of video content currently supporting YouTube.

The collected information covers details of the video itself, its channel, user comments and its thumbnails. Indicatively, the "Video Description Mentioned Locations" field presents the geographic locations mentioned either in the video title or description and provides hints regarding the location where the video was captured or locations that are relevant to the scene(s) depicted in the video. The "Comments" field presents all the assigned comments and additionally a subset of them filtered by a set of verification-related words (e.g. "fake").

Furthermore, the service automatically produces URLs, one per video thumbnail, which redirect to reverse Google image search. Other information exposed by the service contains the set of tweets that reference the particular video, as well as information related to the channel where the video appeared (channel view count, subscriber count, etc.), all of which could provide valuable clues for the journalists.

InVID Rights Management Service

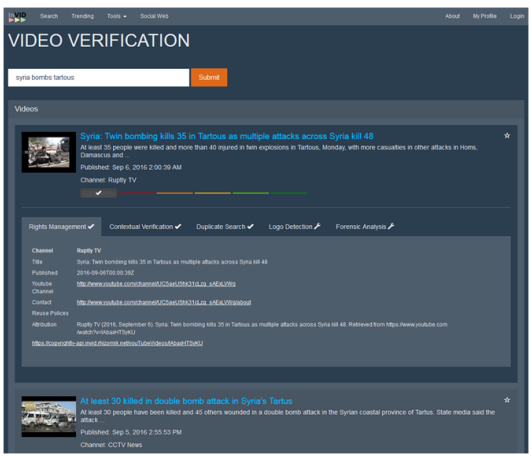


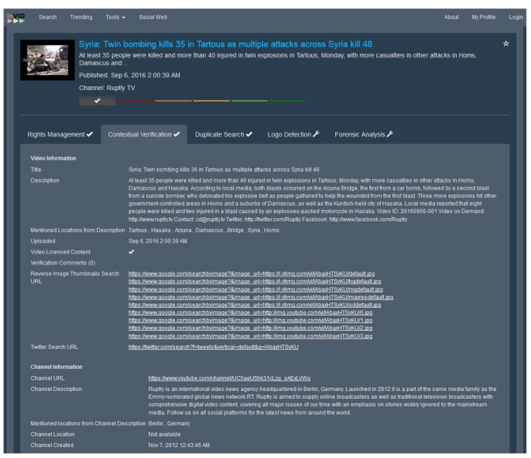
The first version of the InVID Rights Management Service has been released. This service aims to assist journalists through the process of clearing the copyright of User Generated Content that has been indicated as relevant and useful for presenting a story, in order to enable its reuse. The module guides the journalists through recommended copyright management workflows, like the one proposed by YouTube that includes the provision of proper attribution and the contact with the content owner. Moreover, it will keep track of interactions among journalists and content owners, including copyright agreements defining the terms for content reuse. When it is not possible to contact the content owner in due time, the InVID Rights Management service will provide journalists guidance about current event reporting exceptions to copyright laws.

Try this service now at: https://copyrightly.invid.rhizomik.net/#/

InVID Verification Application

A first version of the InVID Verification Application has been developed, which is planned to support journalists during the verification process in the next project phase. This application allows to retrieve User Generated Video related to a certain topic from the InVID platform. The journalist can select one of the returned videos for validation. The initial version of the application already uses the services for Rights Management (see image on the left below) and Contextual Verification (see image on the right below). The rights information is retrieved through the Rights Management Service, which returns general copyright and licenses data for the video (e.g. Standard YouTube license). The Contextual Verification shows detailed information related to the video, such as the long description, locations mentioned in the description and a set of thumbnails for subsequent near duplicate searches. Moreover, available information about the channel and the contributor of the video (such as whether the channel relates to a verified YouTube account) will be indicated. The additional InVID services for Video Analysis, Near-duplicate Detection, Logo Detection and Forensic Analysis will be integrated in next releases of the InVID Verification Application.





InVID Dissemination Activities

InVID joined the First Draft News Partner Network

In September 2016 InVID became a member of the First Draft News partner network. The network aims to tackle issues of trust and truth in reporting information that emerges online. The InVID members will join their efforts for developing technologies for video verification, with a group of over thirty major news and technology organizations including (but not restricted to) Google News Lab, Facebook, Twitter, YouTube, The New York Times, The Washington Post, CNN, ABC News, AFP and The Telegraph. Check the First Draft News public announcement for further details about this collaboration!

InVID's presence in industrial events and workshops

The InVID technologies and vision were promoted by members of the InVID consortium in a number of events and workshops, including the following:

- Crossmedia Day, Leipzig, Germany, March 4, 2016
- Computational Journalism Workshop, Rennes, France, March 15, 2016
- International Journalism Festival, Perugia, Italy, April 6-10, 2016
- FKTG Yearly Conference, Leipzig, Germany, May 9-11, 2016
- ARD Verification meeting, Mainz, Germany, April 26, 2016
- Workshop at EU-SEA Big Data Summit, Kuala Lumpur, Malaysia, May 4, 2016
- Futur en Seine digital festival, Paris, France, June 9-19, 2016
- Global Media Forum, Bonn, Germany, June 13-15, 2016
- European Data Forum 2016, Eindhoven, the Netherlands, June 29-30, 2016
- REVEAL workshop in September 2016, Athens, Greece, September 16, 2016
- IPTC Autumn Meeting 2016, Berlin, Germany, October 25, 2016
- NEM Summit 2016, Porto, Portugal, November 23-24, 2016

Articles about InVID

A brief presentation of the InVID project's vision, goals and expected outcomes was included in the Media and Learning News Newsletter that was published by the Media & Learning Association on May 2016. Moreover, three members of the InVID consortium, were interviewed by the Managing Editor of First Draft News Mr. Alastair Reid. They discussed the constantly increasing use of User Generated Content that is spread over social networks by media organizations and stressed the vital need to verify this content for its credibility, copyright and newsworthiness. In addition, they highlighted InVID's efforts to address these challenges via developing a verification platform for detecting emerging stories and assessing the reliability of newsworthy video files and content spread via social media.

Published InVID results

Scientific results of InVID have been published in a peer-reviewed international journal **(Image and Vision Computing Journal)** and two peer-reviewed international conference proceedings **(IEEE International Conference on Image Processing 2016, ACM Multimedia 2016)**. The full list of published and accepted for publication InVID results can be seen at the InVID Publications web page.

InVID Consortium

The list of the project partners with links to their official websites is given here.

A more detailed presentation of the InVID partners, with a description of their expertise and roles in the project can be found in the InVID consortium web page.

Find us online!

Web: **http://www.invid-project.eu/**

Twitter: **@InVID_EU, https://twitter.com/InVID_EU**

G+: **InVID Project, https://plus.google.com/u/0/110757878672407856390**

SlideShare: **InVID Project, http://www.slideshare.net/InVID_EU**

YouTube: **InVID Project, https://www.youtube.com/channel/UCFp4OyFkV7cwQsDLCFRyBJQ**

Zenodo: **InVID H2020 Project, https://zenodo.org/communities/invid-h2020**

Centre for Research & Technology Hellas - Information Technologies Institute
http://www.iti.gr

Modul Technology GmbH
http://www.modultech.eu

Universitat de Lleida
http://www.udl.cat

Exo Makina
http://www.exomakina.fr

webLyzard Technology GmbH
https://www.weblyzard.com

Condat AG
http://www.condat.de

APA-IT Informations Technologie GmbH
https://www.apa-it.at

Agence France-Presse
http://www.afp.com

Deutsche Welle
http://www.dw.com

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