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.
InVID Concept and Approach

The timely on-demand verification and rights clearance of user-generated video is the cornerstone of the InVID 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 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](http://multimedia2.iti.gr/onlinevideoanalysis/service/start.html)
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.
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

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!

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
- 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

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.

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

Project and Contact Details

Full title: “In Video Veritas – Verification of Social Media Video Content for the News Industry”

Project identifier: H2020-687786
Start date: 1st January 2016
Duration: 36 months

Funding agency: The InVID project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 687786.

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