INVENTION DISCLOSURE

1. **Invention Title: Method to create and use tags based on voice or video sessions**

2. **Invention Summary.**
   This document describes a way to dynamically associate a video or voice stream with a tag which could be an object name or person. This method then serves in many usages, for example in a multi-party video conference for the application to select the video sessions to represent more effectively.

3. **Invention Description**.

a. Describe the invention in detail and/or attach a description, drawing(s) and/or diagram(s), if available. **Please include flow charts for descriptions of software processes, and block diagrams for descriptions of hardware systems**. Include the description/attachments in electronic form if possible.

The initial greeting exchanges of a voice call or video session usually contain audio samples of the persons' names. The idea behind this invention is for the voice or video application to analyze the audio session and automatically generate a tag associated with each communication party. This tag could be based on the voice recognition of a person's name in the first 10 seconds ("hello <u>mum</u>", "good morning <u>Joe</u>") or the number of times a given name is repeated in a call or an explicit indication of an object name given after a well-known key word ("*application-keyword* this is the <u>security camera number one</u> *application-keyword*").
The tag can then be used in many ways:
-   it can be displayed over the video stream as an identification tag
-   it can be saved after the voice or video call to be used for automatic voice dialing
    o   You call your mum and at the end of the call, the application asks you if you would like to save "tag=mum" with the dialed number
    o   You double-click on a person's name in an IM buddy list to launch the session, and the application automatically records a tag. Next time, you just say "call <tag>"
-   It can be used in photo applications that tag photos based on a person's name to add voice support
-   it can be used by a video conferencing application to better display the parties that matter in the communication exchange, not only the person who speaks but the person who is invoked in that speech.
    o   Alice, Bob, Matt and Nicolas are in a multi-party video call. The application has dynamically associated the video stream of each participant with his or her name.
    o   Matt addresses Alice. In many video applications today, Matt is often the party that is displayed to Alice, Bob and Nicolas. But because Matt says "I agree with you <u>Alice</u> but want to ask you a question", the application displays both Matt and Alice to Bob and Nicolas, therefore given them the facial

expression of Alice when Matt says he agrees with her. This mimics the typical dynamics you can observe in face-to-face meetings where half of the audience looks at the speaker, the others look at the person being addressed by the speaker to see the reactions (except for one person in the audience who looks at the ceiling or the sky).

There are 2 separate parts in this invention: one is the methods that can be used to create the tags and associate a tag with a particular person or object, and the other part is how this tag can be used in real-time communication applications.

b.   Why was the invention developed? What problem(s) does the invention solve? How is it better?
This invention improves the natural communication between people. It simplifies the automatic voice dialing applications found on phones where you have to pre-record names: now the names can be learned based on calls and proposed to the user.

c.   Briefly outline the potential commercial value and customers of the invention.
The commercial value could be real if parts of this invention can be patented given the way mobile phones are starting to mix voice, video and other applications like photo applications.

4.   HOW is your invention different from existing products, processes, systems?
Please list the closest publication(s), product(s), method(s), patent(s), etc. to your invention. For each item, how is your invention different?

This invention is different because it simplifies automatic voice dialing by dynamically proposing tags to associate with people's voice (not their phone numbers but their voice) an**d** then it explores how the tags can be used in many different ways.