SIDEVAN

Congruence and Emotion Detection on Open Source for Neuromarketing.

Application to monitor the degree of trustfulness in spoken messages on VoIP systems for neuromarketing and contact centers.

Contact information

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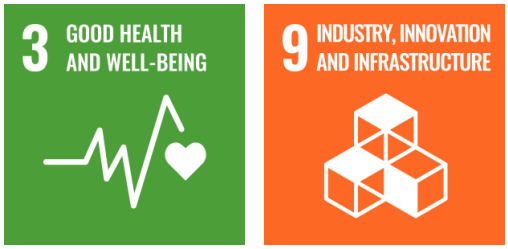
Technological Offers type

Technological solutions

Research and innovation areas

- Digital Technologies, Artificial Intelligence, Cybersecurity, 5G, Robotics
- Security, Defense and Disaster-Resilience

ODS



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Where?

Center for Biomedical Technology IT applied to Signal and Image Processing

Keywords: | security | veracity

Brief description of the technology solution and the added value it provides

The basic technology for the development of these systems relies in the advanced speech processing for the extraction of biometrical and emotional marks in phonation, difficult to be forged, and of high statistical reliability. This technology has been developed and patented by the team responsible of this technological offer, and is being used in restricted fields of Medicine, Neurology, Teaching, Homeland Security, Police Forces and Speaker Biometry. This technology is oriented to develop a special line devoted to electronic commerce and contact center assistance in neuromarketing and the web of things. Its main applications are to be found in platforms and services for commercial transactions by VoIP, emergency contact centers (health systems, catastrophic events…), tele-assistance to handicapped, third age , gender violence, threat to persons and facilities, tele-banking, etc.

Description of the technological base

The solution proposes an integrated man-machine interface to monitor the emotional state and the truthfulness degree on discourse systems based on VoIP supporting a specific attention service. This interface offers an on-line description of the spoken discourse, event spotting with semantic atoms, the production of html messages to attention servers, the documentation of each transaction regarding impact factor and legal and contractual conditions, etc.

This solution offers a substantial improvement on the treatment of client-service relations regarding Customer Resource Management as well as Customer Oriented Services creating a three-band fully automatized framework: Client-Server-Supervisor.

"The objectives of this technology are prioritizing user attention in resources and personnel, optimize transaction impacts, and associate statistical and juridical documentation"

Market demands

Secure Access to Facilities and Services

- Identity verification in health attention services, emergencies (gender violence, homeland security, third age attention, e-Health, etc.)
- Restricted access to applications and services for companies and institutions based on voice biometry.
- Oriented to public and private agencies in health services, third age care, security-based contractual services (juridical advice, financial advice, commercial and investment banking, etc.)

Customer Resource Management/Oriented Services

- Non face-to-face contracting services, customer attention incidence handling, VoIP marketing services, call-handling protocols in security centers (gender violence, threats to persons, facilities or resources)
- Tele-assistance and contact-center services.
- Service automatization and derived needs to improve transaction scores.

Neuromarketing

- Study of the impact of voice profiles and emotional states in client-agent transactions..
- Tele-marketing, tele-assistance, neuromarketing.
- Automatic monitoring of voice transactions.

"Handling this type of knowledge is of vital importance in neuromarketing and applications of the semantic web, in full alignment with the BRAIN Initiative promoted by NSF-NIH"

Competitive advantages

- Improvement in transaction hits up to a 200%, reduction in transaction attention times till 60%
- Implantation/adaptation costs under 50.000 € per center (for 100 posts)
- Easily implantable (ubiquitous, transparent, easily accepted by users compared to other systems, as facial, iris, or fingerprint)
- Highly reliable (false positive rates under 1 in 1 million accesses with false rejections under 1 in 100). Verification of emotional stress over a reliability of 99.45%.
- Grants juridical support against fraud, forgery or by the contracting part.
- Technology complementary to other existing ones.

Previous references

- Hospital Universitario Gregorio Marañón, Hospital del Henares, Consejo Superior de Investigaciones Científicas, Universidad Autónoma de Madrid, Universidade de Porto, Ecole Superior de Telecom de Tunisia, Centro de Rehabilitación del Lenguaje de Madrid, Servicio de Criminalística de la Guardia Civil...

Intellectual property

- Patent granted in Spain ES2364401
- Patent applied in USA 14/127,202

Development stage

- Concept