OLTRE IL CRM

Customer Management *insights*

CONFERENCE

CEDAT 85

Converting language into a digital asset

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Cedat 85 Group
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Cedat85

Pioneer in Automatic
Speech Recognition

Named in the Gartner Competitive landscape 2018 for Speech-to-Text Applications. Considered in the top 11 world-wide players for Speech to Text applications and in the top 5 in Europe.

Working on speech recognition since 1985

Organic growth (10%+ YoY)

Internal R&D Department (computer scientists, Linguists, Physicists, Mathematicians, Philosopher) with internal software development

85% graduate from highest international universities

Investing more than 35% of revenues in Innovation

More than 30+ years expertise in Speech digital processing, Text Analysis, Deep Neural Networks, Machine Learning

Average 20+ years Senior management international experience in the company management

300+ Customers and over 3 Millions hours of transcription every year

Our Solutions

TV - Radio Broadcaster, Media companies, Press offices

Government, Public Institutions, Municipalities

Legal affairs anc compliance offices

ASR to support innovation

Depts, System Integrators

Contact centers, marketing departments, Customer Service Operations

- ➢ Batch and real-time processing
- ➢ Speaker indipendent
- ➢ Speaker coverage: dialect, speaking style, gender, age, non-native
- ➢ Channel coverage: mobile phone, VoIP, microphones
- ➢ Environmental noise: office, car, train, public places
- ➢ Limited power computing resources
- ➢ Audio segmentation (no audio length limit)
- ➢ Online speaker adaptation
- ➢ Client APIs (Https / websockets Interface for streaming, synchronous & asynchronus off-line transcription)
- ➢ Available languages
- ➢ Hosting – On premises - hybrid

Our customers

and 250+ Municipalities, Universities, Foundations, private customers
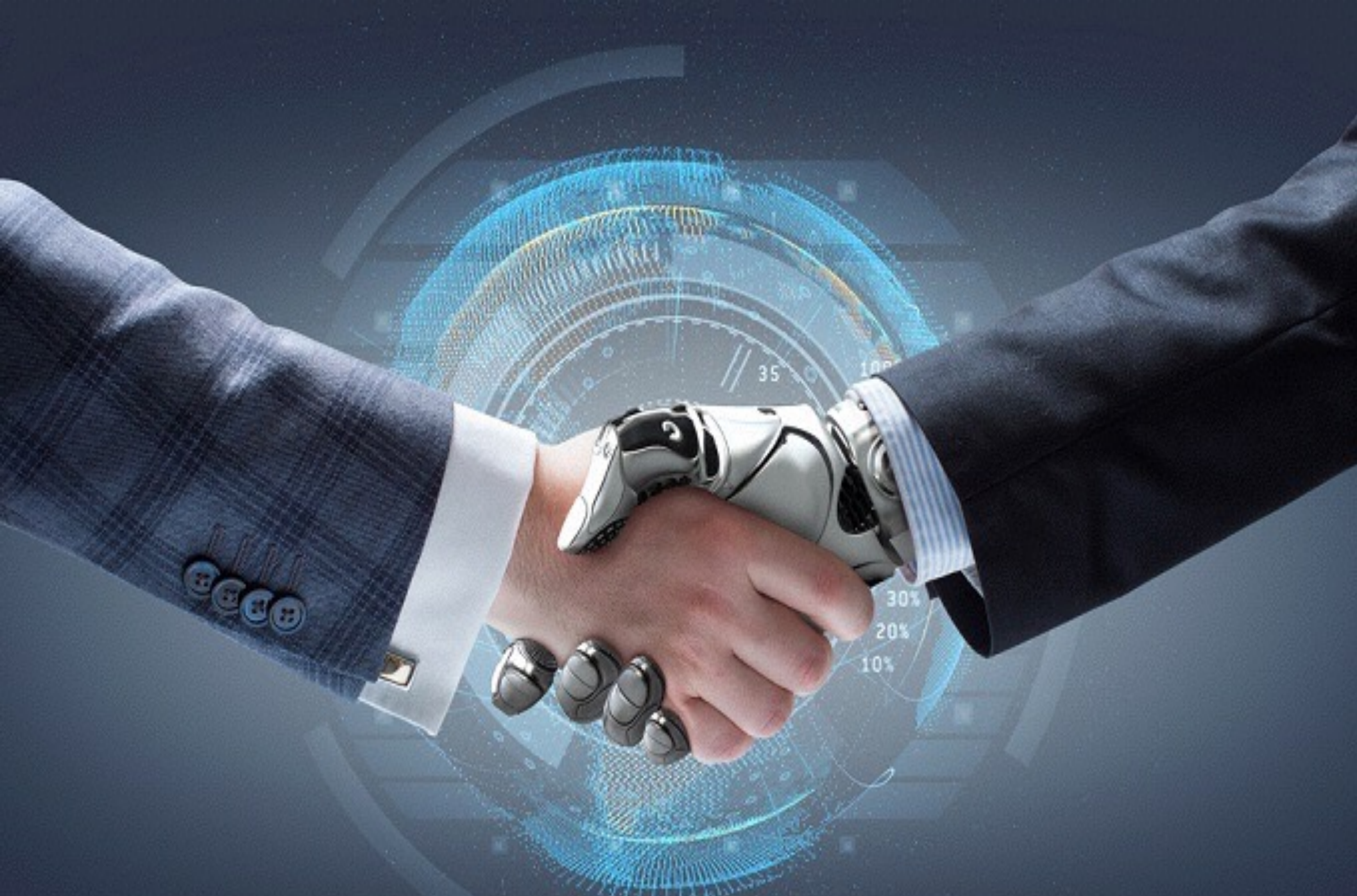
How STT applications are transforming conversational user experiences

The role of the "Voice" in customer interactions

From commodity service to an indispensable Digital Asset

A key element to **improve service**, **reduce costs** and **free up valuable resources**

Wide new range of applications that could just become profit centers

Big data and analytics can really disregards "Voice"?

An ever changing environment

Technologies for treating the Voice channels are rapidly evolving
With A.I. improvements, Voice role is going to become even more important
"By 2020, 40% of users will be interacting with primarily new applications that support conversational UIs with artificial intelligence (AI)."
- Gartner's Competitive Landscape 2018 – Speech to text Applications
STT applications can be stand-alone or embedded within a larger suite of services of conversational platforms, including automation equipment and natural-language processing (NLP).
STT technology is fundamental, and broadly useful, as part of a broader AI technology stack.
This potentially disruptive situation often leads to highly customization, flexibility and adaption to different applications' requirement.

The voice transformation into a Digital Asset

Speech to text technologies have to face new compelling challenges and profound business model innovation / renovation, considering areas of applications where they never played before

TV/Radio – Contact centers – Conference – Devices – Automotive – Chat Bots – Industry 4.0 – Smart homes - Security

Voice as mean for interactions

Voice as source for analytics

Voice as knowledge base repository

Area of voice based digital asset transformation provided by Cedat85 solutions

✓ **Customer Centers**

✓ **Voice ChatBots**

✓ **Virtual Assistants**

✓ **Verbal Orders**

✓ **Medical and Health**

✓ **Government and Public Administrati**

✓ **Publishers – Broadcasters – Media a** **Advertising agencies**

✓ **Public Safety**

✓ **Interview Recording**

✓ **Legal and Justice Administrations**

✓ **Conferences and webcasting**

✓ **Board of directors**

ASR technologies combined with custom made solutions and applications for vertical markets are transforming voice into text, data and consequently in a digital assets.

**Contact centers
Customer experiences
Verbal orders**

Context

Where ASR

take actions?

The contact between customer and customer service
Through a Virtual Customer Assistance technology (VCA) is possible to recognize and better manage customer request integrating ASR, NLP, Semantic, giving control to human operators only when necessary.

Call analysis – Speech Analytics
Understanding and analyzing information coming from the direct voice of the people involved in the call, the operator and the client. With this direct approach is possible to identify unsatisfied customers and manage the situations in a proper way, offering new business potential and problem solving, improving quality, reducing time gaining more satisfied customers.

Closing customers' contact
Classify, verify Vocal Orders with compliance check with contractual rules an contract contents, such as: correct customer contact detail, sales terms and conditions and other relevant data. Each recording that is below the quality value set by the company are taken apart for a «Manual» auditing by qualified employees.

Case studies

Use Case # 1
BeSmartCall

KEY FEATURES

- **DASHBOARD**: Instant analytical

- report with customizable update frequency
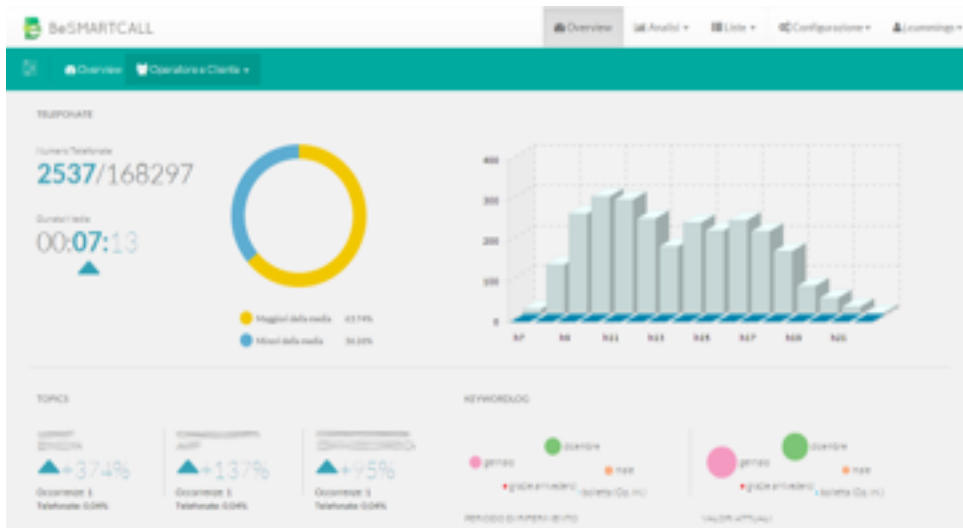
- TRENDS: Customizable Reports including sta graphics

- dynamically and automatically calculated on subsets

Use Case # 1 BeSmartCall

KEY FEATURES

- **FILTERS:**

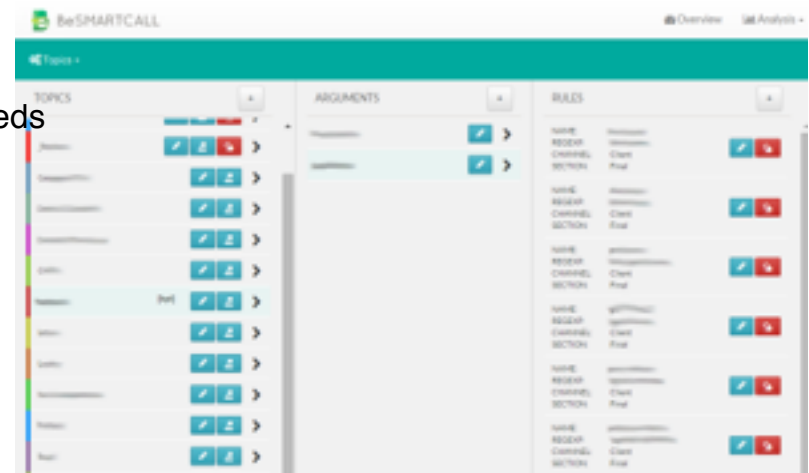- Calls can be filterd by topic, type, silence, etc.

- **STATISTICS**

    Real time statistics
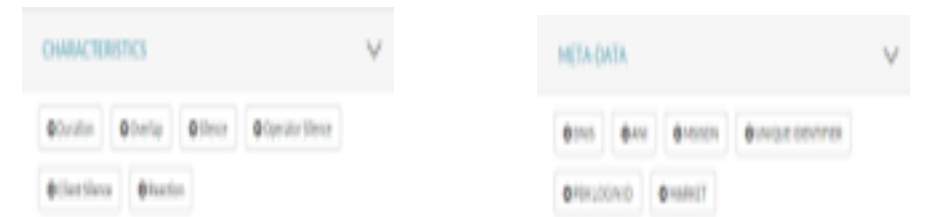
Use Case # 1
BeSmartCall

EXAMPLE

- CONFIGURATION:
- Easy Web Interface configuration. Customizable analysis for specific needs

- ANALYSIS:

- 100% of the calls are analyzed and transcribed

Use Case # 1 BeSmartCall

Listen the customer voice through analysis and transcription of direct calls allowed to:

KEY POINTS and RESULTS

Over 2 millions/ year of recorded calls

- Identify unsatisfied customers for a better handling and service

- Create new business opportunities, up selling, cross selling

- Reach better quality in customer services

- Get time reduction and problem solving

Use Case #2

Vocal Order Validation

OBJECTIVE

Reduce to minimum potentially "Zero" the manual verification of Vocal Orders.

THE PROJECT

The project had the scope **to Classify, verify Vocal Orders** with compliance check with contractual rules an contract contents, such as: correct customer contact detail, sales terms and conditions and other relevant data. Each recording that is below the quality value set by the company are taken apart for a «Manual» auditing by qualified employees.

Use Case #2

Vocal Order Validation

KEY FEATURES

- **V.O. acquisition –**
- The V.O. are uploaded in a database for script download and audio-files analysis.

- **Manage of script sections –**
- Scripts are organized in sections so that can be specify additional information such as:
  -Type (Vocal or Pre-Vocal)
  -Level of attendance (OK or NOT-OK)
  -Keywords

Use Case #2

Vocal Order Validation

Example of Validation

The manual validation is the confirmation or the rejection of each single call.
- Reduction of validation time
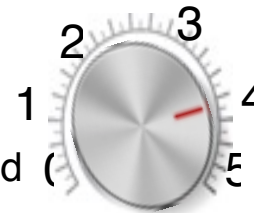- Increasing of confirmed V.O. by the operator

Use Case #2

Vocal Order Validation

KEY POINTS and RESULTS
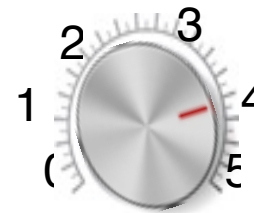
Costs reduction

Manual verification

Normally on 10% of Vocal Order is checked

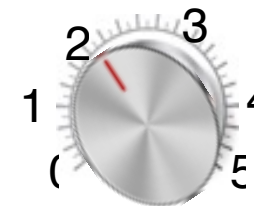Dedicated Team for manual verification of Vocal Order

Vocal Order Management

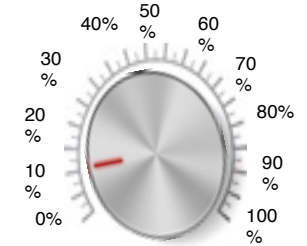The system is now able to validate 100% of Vocal Orders with the same team

Now is possible to accurate fine tuning between allocated resources and % of validated Vocal Orders
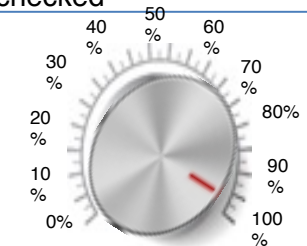
Same team allocated for checking Vocal Orders

Team reductions
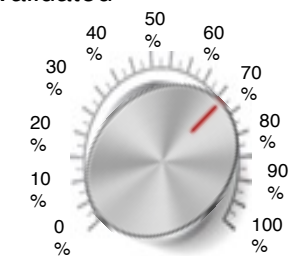
Dedicate operators

Vocal Order validated

Only 10% of Vocal Orders is manually checked

100% of Vocal Order validated

Percentage of validated Vocal Order depending on incumbent needs

The contact centres of the future

✓**big data:** finding the patterns in large amounts of varied, fast moving data

✓<u>natural language processing</u> : allowing computers to parse language as spoken and written by humans (as in Gartner Top trends for 2017 analysis)

✓<u>machine learning</u>: allowing computers to effectively program themselves by adapting to changing circumstance and data (as described by Harward Business Review

Big Data   **NLP**   **Machine Learning** **Intelligent Contact Centre**

Artificial Intelligence
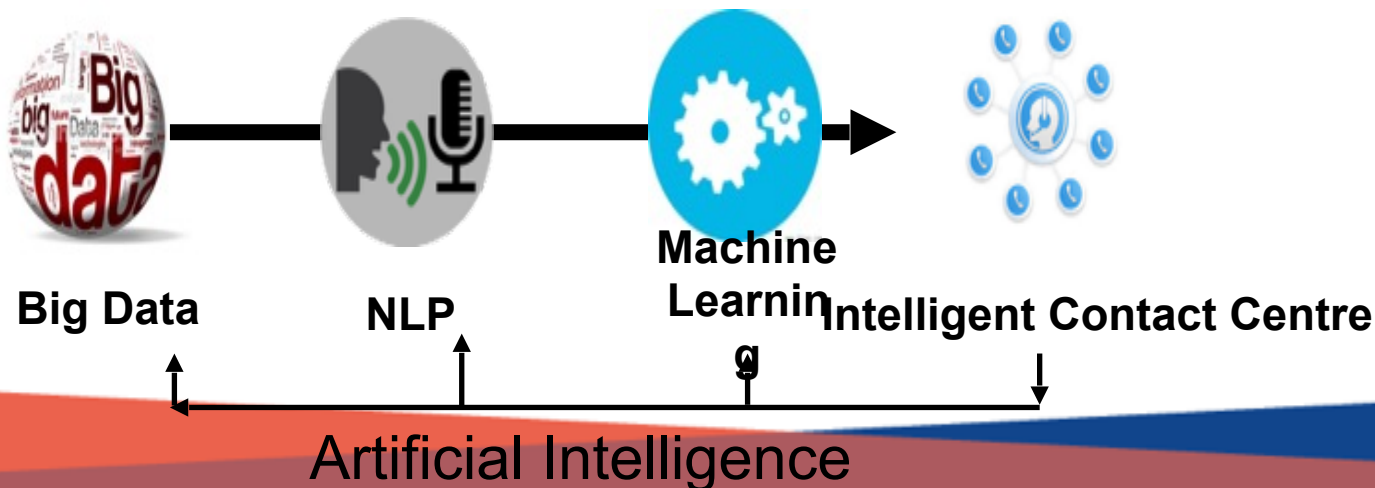
Thank you!
Grazie!

OLTRE IL CRM
IL CLIENTE 4.0

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