

Natural Language Processing (NLP) and Natural Language Understanding (NLU)

Description

Natural Language Processing (NLP) and Natural Language Understanding (NLU) technologies utilize the algorithms provided by artificial intelligence and serve as a complementary capability for omni-channel interaction platforms. These solutions can anticipate, automate and streamline customer and employee interactions, improving the overall experience.

From their roots in speech recognition, NLP and NLU vendors have progressed into real-time text-to-speech and speech-to-text capabilities. This also includes sentiment and meaning analysis, which leverages AI to interpret a customer's intent and emotional state from a wide array of spoken words.

By combining channel and NLP technologies, these vendors' platforms enable companies to provide their customers with a wide array of channels to communicate, allow seamless transition from one channel to another and enable customers to engage with businesses through self-service technologies.

Application

Rather than requiring customers to listen to long-winded, automated interactive voice response (IVR) menu options, progressive organizations are leveraging NLP and NLU technologies that allow customers to use natural, conversational language to indicate their intentions. This also applies to digital channels where advanced technologies can quickly determine what a customer wants based on free-form text sent via email or chat sessions.

Most companies desire to improve profitability through operational efficiencies. Technologies that can automate basic activities traditionally performed by humans while providing satisfying experiences for customers achieve the win-win.

Major Vendors:

Amazon Polly and Lex
Five9
Genesys
Google Dialogflow

Case Study:

[Transforming to an Omni-Channel Customer Experience](#)

Blog Post:

[Ten Signs that it's Time to Upgrade Your Contact Center](#)

White Paper:

[Next Generation Customer Experience](#)

How to Get Started

With most customer-initiated interactions, there are basic steps that almost always occur – the determination of who it is that is contacting you and why they are contacting you. These basic steps often take significant time to complete, especially given the importance of security and data privacy. Once those steps are complete, companies can then shift their attention and resources to automate the completion of entire transactions, end-to-end.

Companies that want to improve operational efficiencies while delivering satisfying experiences for their customers must evaluate several foundational areas:

- What channels do they utilize for customers and prospects to contact them – voice, email, webchat, etc.?
- What systems and data are available to identify/authenticate customers – CRM systems combined with compliance guidance and solution adherence?
- What are the reasons that customers and prospects engage your business using a specific channel? This requires a review of current channel management processes, systems and data to determine, rank and design new solutions that allow customers to easily communicate what they are trying to do.
- What additional context would help resolve or route the customer inquiry? as an example, understanding if the person contacting you recently completed a new order or recently submitted a service request can help companies illustrate that they truly see each customer individually and can personalize an automated experience.
- Can the inquiry be resolved in a completely automated manner that is acceptable to the customer? Many customers have no issues interacting exclusively through digital channels and if a transaction is straightforward in nature and the system can access all relevant data then the entire transaction can be automated while meeting customer expectations.

Our Services Include

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| Business Agility | Digital Transformation | Customer Experience |
| Advanced Analytics | Artificial Intelligence | IT Performance Improvement |
| Technology Architecture | Interim CIO, CDO & CTO | Critical Initiative Leadership |

About Cimphoni

Cimphoni is built on the premise that technology, when properly applied and led, can deliver innovative solutions that transform businesses. The Cimphoni team is comprised of technology, operations and business consultants with a thirst for innovation and a passion for leveraging emerging technologies to deliver exceptional, measurable results for our clients. Founded in 2012, Cimphoni serves customers throughout the United States from its headquarters in suburban Milwaukee. More information can be found at cimphoni.com