MAKE YOUR VOICE SHINE

Conversational Design

REPORT Q3 2019
Globant
The Sentinel Report is one of Globant’s initiatives to help our clients stay relevant through the observation of market trends, insights, and industry behavior from all over the world.

This information is meant to inspire new thoughts and initiate new conversations about products, services, ideas, and opportunities in an effort to help us be more creative and innovative in our solutions.

Observation and action are at the core of any sustainable strategy, and we believe that this is a great way to start a positive trend.

We encourage you to share this information with your colleagues and deepen your understanding of the concepts and ideas we present here.

**Take a look and enjoy!**
“Customers are transforming faster than we are, and if we don’t catch up, we’re in trouble.”

Ian Schafer
Why you need to think about voice
Language and voice are some of the most powerful tools we've evolved for conveying a message. In conversations we can share more than just information, expressing mood, passions, and ideas.

At this stage, technology can catch up with our own understanding of healthy communication. That's where Conversational Design comes in: putting our understanding into practice, moving from plain transactional experiences into a conversational world in which brands can communicate freely and engage with users in a more natural and organic way.

Now, don’t be fooled; if you are not up to the task you'll miss out on many opportunities.

Welcome to the new Sentinel Report.
Customers are certainly transforming—they are downloading fewer apps than ever. The average phone owner now downloads zero new apps each month.

**Fig. 3: US app downloads declined more than 20% YoY as the largest platforms are showing maturation.**

Global app downloads, million

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**55% of homes**

As of 2017, 13% of all households in the United States owned a smart speaker, and that number is predicted to rise to 55% by 2022.

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**Source:** SensorTower, Nomura Research.
Technology continuously evolves. For that reason, the way we connect with technology also changes, bringing new interaction patterns to communicate with devices in a much more natural and intuitive way.

We are living in the post-screen era; we are moving from GUI (Graphical User Interfaces) to VUI (Voice User Interfaces), bringing new opportunities for designers in quite a different scenario.

As designers, we need to be prepared for this challenge. We have to understand the benefits and constraints of designing for voice, as well as understand the current possibilities and limitations of available technology.

But most importantly, we've got to understand how people interact with objects that “speak.” Then we can work on designing conversations to sound as natural as possible, creating frictionless and intelligent conversations between devices and users.
Time for a new discipline

This discipline will be responsible for creating the personality of the bots, the main conversation flows, and how bots evolve over time.

Conversational Design is also responsible for following the strategy of the brand, defining KPIs, and adjusting the bot based on performance. It must understand what is success and failure for that specific bot, what will happen when it fails, and the list continues.

In short, Conversational Design defines how the bots will interact and connect with people. Over the next few years, we will see job growth for designers in the next phase of this field.
Start with the CONVERSATION
4 pillars of a good conversation

Some guidelines from the philosopher Paul Grice.

- **Be Relevant**
  Really seek to answer the user's query.

- **Be Accurate**
  Give answers that the evidence supports.

- **Be Clear**
  Avoid fortune-cookie vagueness.

- **Don’t say more (or less) than what is needed**
  Get to the point.

Source: https://www.linguisticsnetwork.com/semantics-gricean-maxims-1-2
Approaching this challenge

Seems like a completely different world, right? Still, there’s a lot of established UX designer knowledge that applies here. **We don’t need to start from zero, but we do need to change some models and patterns.**

According to Thomas Hebner, Nuance Communications’ senior director of the UX design practice, “the worst mistakes in voice design happen when user goals and business goals don’t line up.”

**When designing for voice we should apply the basics of UX**—understanding the user, knowing the use context, and ensuring that products are both useful and usable—the same way we do when designing for screens, services, or anything else. We will do research the way we already do for GUI; we will apply the same design process we apply for any other product or service to ensure the user feels he/she is having a normal conversation.

Zero UI or VUI represents a **whole new dimension for designers** to wrestle with. Designers need to think about what a user is trying to do right now in any given workflow. Designers will need to think non-linearly. They’ll need to be able to build a system capable of adjusting on the fly.

“It’s like learning to play 3-D chess, we need to think away from linear workflows, and towards multidimensional thought process”, says Andy Goodman, group director of Fjord.

Source: [https://www.oreilly.com/ideas/designing-for-voice-and-audio-technology](https://www.oreilly.com/ideas/designing-for-voice-and-audio-technology)  
Conversational interfaces offer a range of benefits to your users: **immediacy, ubiquity, authenticity and the feeling of connection**, and that’s unlike anything that’s been available in the past—which is why everyone from search engine giants to small startups are clamoring to build their own.

Owen Williams
Andy Goodman (group director of Fjord) is serious: screens will soon stop being the primary way we interact with the devices around us. He admits, though, that “there are always going to be user interfaces in some form of another,” but it’s time to distance ourselves from our screen focus.

We need to keep in mind that the richness of devices is that most of them have multiple forms of input and output (for ex: small screens + voice) which bring interesting challenges for designers. Always remember: adding voice either as input or output should be done because it makes the product better. As with anything else in design, it should serve the needs of users and solve a problem.

Key here is how we combine voice with other methods of input and output to design a successful product.

According to Laura Klein, author of the book “Design For Voice Interfaces”:

**Consider Using Voice and Audio for...**
- Shared interfaces in smart homes
- Languages that are hard to type
- Complicated things that people can articulate
- Safety in hands- or eyes-free environments:

**Don’t Use Voice and Audio for...**
- Anything requiring negotiation or a lot of variables
  (Most successful interactions are one, or at most two, sentences long)

- Huge amounts of input or output

- Hard-to-describe input: Just because voice input works for some interactions in a context, it doesn’t mean that it’s right for all of the interactions.

- Comparing lists of complicated things

Understanding **how and when the user interacts** with a product will help us define the best combination of methods to improve the experience.
The biggest challenge ahead is to make conversations as frictionless and relevant as possible for the users: to give conversations a real feel. We will create more interesting and useful products than ever before.

Gabriela Moirano
Build
YOUR VOICE
Interacting with humans is hard. Doing that through voice alone, even harder.

To accomplish this, AI helps carry over the conversation behind the scenes in different ways. For instance, “translating” from voice to text and back—finding what the person might have wanted to accomplish, or recommending something like a movie, product, or song.

We’ve seen an explosion of tools and devices that enable us to interact this way, from assistants on our phones, smart home devices, and many more. That is the role of AI as an enabler, a crucial part of the conversation. But conversations are much more than just producing messages back and forth.

AI can take us so much higher, as it can not only resolve the nuts and bolts, but also be creative, generative, trustworthy. When we mix this up with the capacity of AI to generate new content—like what we can see on new images with “BigGANs”—then AI is not a medium anymore, it’s an agent in itself!

Mimicry, for instance, is a social cue for many interpersonal interactions, and it’s useful for AI too. It has been studied that the AI adapting and mirroring the conversational style of the person is a pathway for building trust.

But that’s only the starting point. A conversational agent might adapt to our mood as it detects it, or even our expressions, and as a result change the tone, content or direction of the conversation.

The human needs to feel human. The AI will learn. This conversation is only warming up.


JJ Murphy
Tech Director of AI and Big Data

Build your voice
Secure and private conversations

In a personal conversation, where both parties are physically present, it’s pretty easy to ensure privacy and security.

With voice interfaces, however, we might face security and privacy challenges, especially since the technology is advancing. A parrot once ordered gift boxes through Alexa; a South Park episode triggered the viewers’ Google Home, Alexa and Siri devices.

Voice interfaces keep actively listening, awaiting a keyword. After identifying the keyword, the interface uses speech recognition and natural language understanding to convert the speech into commands. The encrypted command then goes to the cloud—where all the intelligence is—for analysis, and a reply is sent back.

The use cases here are almost endless: setting alarms, playing music, and interacting with your TV. But there are security and privacy risks at play. The biggest security variable of voice interfaces are unexpected voices, whether from people in the room or recordings on TV, radio, websites, etc. There are even instances of inaudible ultrasound frequencies that trigger the devices.

On the privacy side, the fact that the devices are always on, listening, creates an obvious tension. There’s also the question of devices storing recordings, both for logs and for the learning process of the speech recognition. Compromised accounts could possibly lead to leaked recordings.

Sources: https://www.mirror.co.uk/news/uk-news/parrot-manages-fool-amazons-alexa-11207953
https://www.hollywoodreporter.com/live-feed/south-park-premiere-messes-viewers-alexas-google-home-1039035
Here are some tips that can help reduce the risks

- Setting a passcode and confirmation requirement for purchases.
- Splitting wifi connectivity between trusted and unfamiliar devices, you can avoid unwanted communication with your smart devices.
- Deciding on and limiting which functions you’ll allow the interface to complete. For instance, perhaps it’s not a good idea to give your smart speaker the power to lock you out.
- Clearing historical records from time to time to minimize the impact if you ever were to be compromised.

Voice devices are on the rise, and the amount of available use cases grows day by day. As use increases, the need for security and privacy grows. Governments are already preparing for this, with GDPR and CCPA among others, but some responsibility falls to the device user as well. A healthy dose of suspicion goes a long way, so that we can enjoy our voice devices with confidence.
THERE IS SO MUCH MORE
you can do with these insights!

We are a team of professional researchers, designers, technologists, and subject-matter experts who put knowledge into action. We create strategy reports and envision scenarios that help build a strategy for the future.

Contact us at sentinel@globant.com and take the next step into a more insightful strategy.
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