



How Pega Voice AI supports inclusive productivity

Voice AI benefits for neurodivergent users and users with low vision

— WHITEPAPER



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Overview

Inclusion is paramount at Pega, along with productivity and efficiency. AI has enhanced this trajectory, but we wanted to understand the impact on persons with disability. **That's why we conducted a usability study on Pega's Voice AI features.**

Pega engaged six participants: four with neurodivergence (ADHD, Asperger's, TBI) and two with low vision for the study. Participants were asked to complete tasks with and without Voice AI assistance and provide feedback on their experience. **Pega's Voice AI feature allows for real-time conversation capturing, detecting impacts on current workflow, and suggesting or populating content into the live application based on the context.**

The goal was to assess user preferences, perceived value of these AI features, and areas for improvement.

Key finding (spoiler): Participants overall preferred the AI-enhanced workflow.



“The [AI] bypassed steps that I would otherwise have had to do manually.”



Users prefer the Voice AI workflow

The majority of participants preferred the experience with AI assistance enabled over the standard interface without AI. In fact, 5 out of 6 participants indicated that the AI features made their tasks easier or faster overall. For example, Brinda, a participant with cognitive disorder, remarked that having AI generate a draft call summary for her was far better than typing it from scratch. She'd "rather have it where this feature is available and could edit it... versus if it wasn't there at all." Similarly, Michael, a participant with low vision, found the AI-assisted address update "much easier. I would say that was a 1." 1 on a 5-point ease scale, where 1 is *very easy*, compared to a 2 for the manual version. He explained that with AI, "I didn't have to scroll through as many steps... it made it more streamlined for me to just put it in," whereas the non-AI process felt like it "had extra steps."

Even participants who were initially neutral or cautious came to appreciate the AI support. Tim, a participant with cerebral palsy, for instance, had some reservations about the voice-activated features, but still acknowledged that the AI suggestions "bypassed steps" and were helpful, ultimately rating the AI-assisted flow easier than the manual one. **By the conclusion of the sessions, no participant expressed a preference for the non-AI version of the interface.** Only one participant felt both modes were about the same difficulty, whereas all others explicitly favored the AI-augmented workflow. This sentiment aligns with the goal of AI features: to streamline user workloads. As one participant summarized, "The AI made it a little bit more fluid... it bypassed steps that I would otherwise have had to do manually."

Notably, participants still want the ability to control the AI. For instance, Brinda mentioned she would like an option to turn off an AI feature if it ever slowed her down or made mistakes. This desire for control echoes best practices in human-AI interaction design. Industry guidelines emphasize that giving users a simple override or edit mechanism is critical for maintaining trust. In our study, participants who knew they could intervene (e.g. edit an AI-generated note or ignore an AI suggestion) were much more enthusiastic about using the AI features. Overall, the preference was strongly in favor of keeping the AI assistance turned on. As long as the agent remains a helpful assistant and not a nuisance, users are happy to have it.

With AI, "I didn't have to scroll through as many steps... it made it more streamlined for me to just put it in," whereas the non-AI process felt like it "had extra steps."

– Michael, a participant with low vision



Overall participant sentiment



“More efficient and productive”

“Bypassed the need to manually create a case”

“Very helpful!”

“Bypassed steps”

“I love AI”

“Points you to the fastest route”

“I don't have to type the whole address”

“Definitely saved time”

“Much faster”

“Very easy”

“Got a lot of potential”

“Just queues it up for you, that was helpful for sure”

“Much easier”

“Sums up the interaction fairly well”

“More streamlined”

“I find it very helpful”

“Pretty spot on”

Users prefer features that improved efficiency

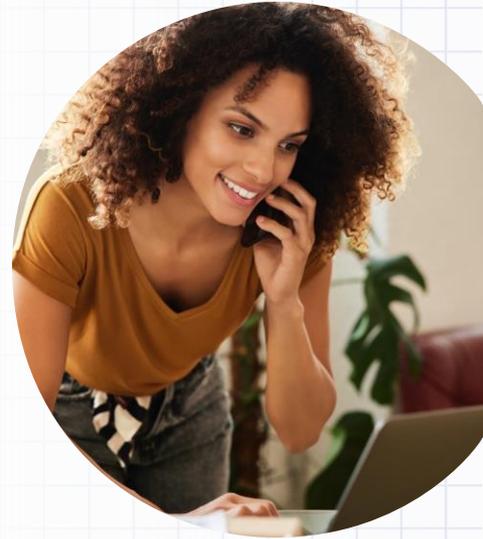
Users favorite features were the ones that saved time and made users more efficient.

When asked which specific AI capability was the most valuable, participants' opinions converged on two key features: the AI's suggested next actions and the AI's ability to automatically fill in information using voice. **Roughly half the group pointed to the AI-driven "Suggested Action" prompts as the single most useful addition.**

This feature would proactively highlight the likely next step or offer a one-click shortcut (for example, suggesting an "Address Change" case when a customer said they moved). Participants found this greatly reduced their mental load in navigating the system. "Suggested actions, I think, is the most helpful," said Brinda, noting how it saved her from hunting through menus to find the right option. Scott, a participant with Asperger's Syndrome, agreed, saying the suggestion feature "bypassed the need to manually create a case" and let him handle the caller's request more efficiently. In our observations, users almost always chose the AI-suggested shortcut when it was available.

The other half of participants were most impressed by the AI's **speech recognition and auto-fill capability**, which listens to the conversation and populates form fields automatically. For example, when the participant confirmed a caller's new address orally, the AI transcribed it directly into the address form. Cynthia, a participant with attention deficit disorder, highlighted this as "Very helpful. I didn't have to type the whole address," relieving her of a tedious task. Tim, a participant with cerebral palsy, was likewise struck by the convenience of voice autofill; after initially typing an address in the first scenario, he found it "much faster with the AI doing it" the second time and was pleased to see the system capture the city and ZIP code correctly. This feature directly reduced errors and retyping noted that normally you have to be careful to get codes exactly right, but the AI "pulled up and submitted [the payment] now... that has been submitted" without him needing to re-enter anything manually.

Additionally, participants also appreciated the AI-generated "Interaction Summary" (a draft wrap-up note). Several described this summary feature as a significant time-saver at the end of the call. For instance, Brinda loved that "It sums up the interaction fairly well, and I have the ability to just copy and paste it... so I wouldn't have to type it all up." **Every participant still reviewed the summary for accuracy, but none found major errors during these studies.** They generally found the summaries "pretty spot on, maybe not 100%, but close." The consensus was that the AI summary was highly useful as a first draft, as long as they could make small edits. ("Sometimes the AI doesn't grasp everything or word it the way I would, so I like that I can edit it," Brinda explained.) This ability to edit the AI's output was crucial - participants stressed that they would only embrace the autogenerated notes if they retained final say.



"Suggested actions I think was the most helpful, saving time hunting through menus."

- Brinda, a participant with traumatic brain injury (TBI) related cognitive disorder

Users embrace AI and all its benefits



“It definitely saved time,” highlighting that the AI features made him more “efficient and productive.”

– Scott, a participant with Asperger’s syndrome

Most participants were already regular users of AI technologies in their personal or professional lives, which influenced their comfort with the system’s features. Three of the six participants explicitly volunteered that they use tools like ChatGPT or other AI assistants “all the time.” For example, Brinda confessed, “I use AI all the time for my research. It’s super helpful.” She even shared that she pay[s] extra for ChatGPT premium because she finds it so valuable. Likewise, Scott said he relies on AI frequently for content creation and information finding: “I have a \$20 ChatGPT subscription. I use it primarily for research and writing my notes... I find it very helpful.” This existing familiarity meant that these users approached Pega’s Voice AI features with eagerness rather than skepticism.

Even participants who weren’t power-users of AI were at least somewhat exposed to it. Cynthia, for instance, said she uses AI “fairly frequently but not for anything complex.” None of the users needed much explanation for why or how the AI was behaving – they generally expected what an AI assistant might do. A couple of participants even referred to the AI as if talking about a colleague.

In general, our participants’ openness to AI aligns with broader consumer trends: recent large-scale analyses have found that user sentiment is more positive when AI systems are adaptable and assistive to user needs. Our users exemplified this – those who saw the AI adapting to their workflow (filling things in, giving tailored suggestions) responded with high satisfaction.

Overall, participants saw clear benefits of AI in this customer-service context. They repeatedly mentioned time savings and reduced effort as the primary advantages. “It definitely saved time... a lot of benefit,” noted Sam, highlighting that the AI features helped “make [him] more efficient and productive” in the simulated support calls. Several also brought up that AI can help less experienced agents. For example, Tim (who had some trouble initially finding the right procedure) said the AI guidance felt like a built-in coach: “It’s much easier... it points you to the fastest route so you don’t have to figure it out.” There was a general sense that AI assistance could improve consistency (by suggesting the best practice steps) and prevent errors (by catching misheard inputs, etc.).

Crucially, participants also voiced a positive outlook on AI’s role in customer service – none viewed it as a threat. On the contrary, they “hope for the best of AI” in the future, expecting it to “help people, especially people with disabilities” in routine processes. One participant even volunteered a personal anecdote: Brinda, who is in graduate school, said “I think it’s got a lot of potential for helping... especially people with disabilities.” She acknowledged “there’s a lot of ugly sides of AI and people don’t like it, but I’m hoping for the best... maybe I’m overly optimistic, but I like AI.” This hopeful sentiment was echoed by others. **In fact, not a single participant expressed fear that AI would replace their jobs or harm the user experience.**

Users want to maintain control

If the AI was slowing me down, I'd want the option to turn it off.



Participants offered valuable feedback on how the system and its AI features could be improved. **Many of their suggestions center on giving the user more control or feedback from the AI – ideas very much in line with human-centered AI design principles.**

- **Allow easy correction or disabling of AI suggestions:** Multiple users emphasized the need for control over the AI. They loved the AI help when it was accurate, but if it ever isn't, they want to seamlessly override it. "If the AI... was slowing me down, I'd want the option to turn it off," said Brinda, advocating for a simple toggle for features like the autofill if it misfires. Others echoed that sentiment – an override button or the ability to decline an AI's suggestion without fuss is important.
- **Improve visibility of AI prompts and status:** A couple of participants suggested the AI's interventions could be signaled more clearly. For example, Michael nearly missed the little orange text that appeared as an AI "Suggested Action" in the corner. He recommended using a more noticeable visual cue – to ensure the agent's suggestion "catches your eye." Additionally, participants wanted confirmation when the AI was listening or had finished processing. Tim also suggested the system could explicitly confirm when it fills something (e.g. a subtle highlight on the fields it populated), so the agent doesn't have to hunt to see what changed. These tweaks would make the AI's assistance more transparent.
- **Enhance accuracy and context handling of voice AI:** While the voice transcription worked well in our tests, one participant raised a forward-looking point

about robustness: the AI should handle different accents or noisy backgrounds. "What do you do if the person has a speech impediment... or it's super loud?" he asked hypothetically, noting that in real call centers those situations occur.

- **Personalization and accessibility options:** Celia's feedback was especially insightful here. As a low-vision user, she recommended adding a high-contrast or dark mode, and the ability to enlarge text. She struggled with some small fonts and noted that "Everything is pretty small... I'd want the type to be scalable." She also thought the interface was a bit cluttered for her needs. For example, a lot of screen space was taken by metrics (like Average Handle Time) that weren't needed during the call. She suggested introducing a focus or simplify mode during live call handling.
- **Training and onboarding:** Though not a direct UI change, a couple of participants noted that new agents should be briefed about the AI features so they know to trust (but verify) them. For instance, one said if she hadn't been told the system could autofill addresses from voice, she might have ignored it or been confused when fields magically populate. A brief onboarding or tooltip (perhaps an explanation that pops up the first time an AI suggestion appears) would set the right expectations.

Many of these suggestions relate to giving the human user as much clarity and control as possible, without sacrificing the convenience the AI provides. This finding reinforces known best practices in AI UX design. Our participants unanimously echoed that notion: They welcomed the AI's help, but on the condition that they remained the ultimate decision-makers.



Conclusion

Overall, these interviews suggest that integrating AI into the customer service interface can greatly enhance agent experience and performance, provided the design follows a **user-centered approach**. Participants see the AI not as a replacement for their role, but as a powerful assistant or partner. As Brinda enthusiastically summed up, “I love AI... I know some people have a love-hate with it, but I’m hoping for the best. It has a lot of potential, and I even pay for it myself – so I was excited to use it here.” This positive attitude was typical of the group.

By heeding their feedback – ensuring the AI remains adaptable, transparent, and under the agent’s control – we can confidently leverage these AI features to improve real-world call center outcomes. In summary, the study indicates that when carefully implemented, AI assistance can significantly benefit user productivity and satisfaction in customer service workflows, a finding corroborated by broader UX research and consistent with industry best practices for human-AI collaboration.



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