

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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WHATFIX INC.,  
Petitioner,

v.

WALKME LTD.,  
Patent Owner.

Patent No. 10,819,664

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*Inter Partes* Review No. IPR2023-01368

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**REPLY DECLARATION OF DR. HOMAYOON BEIGI**

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| IT World Canada, "Using artificial intelligence to optimize the value of robotic process automation," <a href="https://www.itworldcanada.com/assets/using-artificial-intelligence-">https://www.itworldcanada.com/assets/using-artificial-intelligence-</a> | 1013             |

|                                                                                                                                                                                                                                                                                                                                                                                                |      |
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| <a href="#">to-optimize-the-value-of-robotic-process-automation</a> , IT World Canada (Sept. 16 2017)                                                                                                                                                                                                                                                                                          |      |
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| P. Ferscht <i>et al.</i> , “Robotic Automation Emerges as a Threat to Traditional Low-Cost Outsourcing,” <a href="https://www.horsesforsources.com/wp-content/uploads/2016/06/RS-1210_Robotic-automation-emerges-as-a-threat-060516.pdf">https://www.horsesforsources.com/wp-content/uploads/2016/06/RS-1210_Robotic-automation-emerges-as-a-threat-060516.pdf</a> , Horses for Sources (2012) | 1028 |
| M. Lacity <i>et al.</i> , “What Knowledge Workers Stand to Gain from Automation,” <a href="https://hbr.org/2015/06/what-knowledge-workers-stand-to-gain-from-automation">https://hbr.org/2015/06/what-knowledge-workers-stand-to-gain-from-automation</a> , Harvard Business Review (June 19,                                                                                                  | 1029 |

|                                                                                                                                                                                                                                                                                                                                                                                           |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 2015)                                                                                                                                                                                                                                                                                                                                                                                     |                             |
| P. Bornet, “Intelligent automation is about creating synergies between RPA, cognitive, chatbots and AI,” <a href="https://www.linkedin.com/pulse/from-robotic-process-automation-rpa-artificial-ai-journey-bornet">https://www.linkedin.com/pulse/from-robotic-process-automation-rpa-artificial-ai-journey-bornet</a> , LinkedIn (Apr. 22, 2017)                                         | 1030                        |
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| Cambridge English Dictionary, “computer program,” <a href="https://dictionary.cambridge.org/us/dictionary/english/computer-program">https://dictionary.cambridge.org/us/dictionary/english/computer-program</a>                                                                                                                                                                           | <b>1038</b><br><b>[NEW]</b> |
| Collins English Dictionary, “computer program,” <a href="https://www.collinsdictionary.com/us/dictionary/english/computer-program">https://www.collinsdictionary.com/us/dictionary/english/computer-program</a>                                                                                                                                                                           | <b>1039</b><br><b>[NEW]</b> |
| A. Freed, “Demo of natural language processing with rules and machine-learning based approaches” (Jan. 13, 2017), <a href="https://freedville.com/blog/2017/01/13/demo-of-natural-language-processing-with-rules-and-machine-learning-based-approaches/">https://freedville.com/blog/2017/01/13/demo-of-natural-language-processing-with-rules-and-machine-learning-based-approaches/</a> | <b>1040</b><br><b>[NEW]</b> |
| X. Huang, “Microsoft researchers achieve new conversational speech recognition milestone” (Aug. 20, 2017), <a href="https://www.microsoft.com/en-us/research/blog/microsoft-">https://www.microsoft.com/en-us/research/blog/microsoft-</a>                                                                                                                                                | <b>1041</b><br><b>[NEW]</b> |

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I, Homayoon Beigi, make this declaration in connection with the proceeding identified above.

**I. INTRODUCTION**

1. I have been retained by counsel for Petitioner Whatfix Inc. (“Whatfix” or “Petitioner”) as a technical expert in connection with the proceeding identified above. I submit this reply declaration in support of Petitioner’s Reply to Patent Owner Response in connection with the *Inter Partes* Review of U.S. Patent No. 10,819,664 (“the ’664 Patent”) (EX1001). I described my qualifications in detail in my opening declaration dated August 30, 2023, which I understand is Exhibit 1003 to this proceeding. (August 30, 2023, Beigi Decl. (EX1003).)

2. I am being paid at my standard consulting rate. I am also being reimbursed for expenses that I incur during my work. My compensation does not depend on the results of my study and analysis, the substance of my opinions, or the outcome of any proceeding involving the Challenged Claims. I have no personal or financial interest in the outcome of this proceeding or in any litigation involving the ’664 patent.

3. I have personal knowledge of the facts and opinions set forth in this declaration and believe them to be true. If called upon to do so, I would testify competently thereto. I have been warned that willfully false statements (and the like) are punishable by fine or imprisonment, or both.

4. Although I am not a lawyer and will not provide legal opinions, I have been advised to apply certain legal standards in forming my opinions. I set forth my understanding of those legal standards in my opening declaration. (EX1003, ¶¶42-50, 53.)

5. I understand that Patent Owner and its expert, Mr. Zatkovich, have argued that the prior art does not teach certain limitations of the Challenged Claims of the '664 patent, including under their proposed constructions of “computer program” and “displayed user interface of the computer program.” (EX1001, 25:27-29, 27:20-22, 28:32-34 (Claims 1, 19, and 29, in part).) I offer the following opinions in response.

6. I also note that Mr. Zatkovich alleges (citing my testimony) that I do not dispute that the “'664 Patent is aimed at both ‘provid[ing] for a user-friendly manner of defining functionality of chat bots’ and ‘enable[ing] defining automation processes in a manner that enable them to be implemented even if changes are performed to the underlying platform.’” (EX2001, ¶41 (citing EX2004, 342:3-343:22).) However, the cited testimony relates to the '732 patent, not the '664 patent.

## **II. CLAIM CONSTRUCTION**

7. I understand that Mr. Zatkovich believes that “computer program” has a “special” meaning, and propose construing it as a “‘target system’ which is

where the functionality is invoked through its displayed user interface.” (EX2001, ¶94.) I understand that Patent Owner and Mr. Zatkovich believe that “displayed user interface of the computer program” also has a “special” meaning, and propose construing it as the “user interface of the target system that the user may utilize to activate the functionalities of the target system.” (POR, 28; EX2001, ¶95.) I disagree with their constructions for the reasons set forth below.

**A. A POSITA Would Have Understood “computer program”  
And “displayed user interface of the computer program”  
According To Their Ordinary And Customary Meanings**

8. A POSITA would have understood that the ordinary and customary meaning of “computer program” is “instructions carried out by computer(s),” and the ordinary and customary meaning of “displayed user interface of the computer program” is “displayed user interface of the instructions carried out by computer(s).” These constructions are supported by both intrinsic evidence and extrinsic evidence from the perspective of a POSITA.

9. For intrinsic evidence, the ’664 specification describes a “**computer program** product [as] includ[ing] a computer readable storage medium (or media) having computer readable program **instructions** thereon for causing a processor to **carry out aspects of the present invention.**” (EX1001, 22:61-65 (emphases added).) As the specification explains, the “computer program” may generally be “a web-based application, a native mobile application, or a desktop program.”

(EX1001, 2:34-36.) The specification provides additional descriptions that support a “computer program” as being instructions carried out by computer(s). For example:

- 13:11-17 of the specification describes the automation process “execute[d] . . . on a desktop application that is executed on a non-sandboxed operating system, such as WINDOWS™ or LINUX™. An agent may be installed on the user device. The agent may *access other applications, including their UI elements, manipulate such elements and create new elements.*” (EX1001, 13:11-17 (emphasis added); *see also* 14:18-28 (“The automation process may be executed on the client device. In some exemplary embodiments, the user may a-priori install a computer program product on her client device, such as a desktop agent, a browser extension, or the like, to enable execution of automation processes for target programs and systems that do provide direct support for the disclosed subject matter.”).)
- 8:37-51 describes a computer program as providing a solution to “use [of] *different software tools* for different purposes. . . . A chat bot, on the other hand, may abstract away the actual system. Instead of relying on the user’s familiarity with the system, the automation

process may be in charge of the actual use of the system.” (EX1001, 8:37-51 (emphasis added).)

- 24:24-32 describes the computer program as instructions that are loaded onto a single computer or multiple computers. “The computer readable program instructions may also be *loaded onto a computer, other programmable data processing apparatus, or other device to cause a series of operational steps to be performed on the computer, other programmable apparatus or other device* to produce a computer implemented process, such that the instructions which execute on the computer, other programmable apparatus, or other device implement the functions/acts specified in the flowchart and/or block diagram block or blocks.” (EX1001, 24:24-32 (emphasis added).)

10. For extrinsic evidence, the Cambridge Dictionary and the Collins Dictionary confirm the ordinary and customary meaning of “computer program.” The Cambridge Dictionary definition is “a set of instructions that makes a computer do a particular thing.” (EX1038.) The Collins Dictionary definition is “a set of instructions for a computer to perform some task.” (EX1039.) These dictionary definitions are consistent with the specification’s descriptions.

11. Thus, the meaning of “computer program” as instructions carried out by computer(s) encompasses instructions that can access other applications and their UI elements, can access different software tools, and can be loaded onto multiple computers. The ’664 specification provides a desktop application as one example “computer program.” I note that Mr. Zatkovich testified, that in his opinion, “computer program product” in 22:61-65 (EX1001) differs from a “computer program” because a “computer program product” is “describing how you might package or market the invention.” (EX1036, 110:10-24.) This testimony is consistent with my opinion. A POSITA would have understood a “computer program product” as including a “computer program,” thereby supporting my citation to 22:61-65 and thus supporting my opinion that “computer program” should be given the above ordinary and customary meaning.

**B. The ’664 Specification Does Not Show Clear Intent To Give “computer program” A Special Meaning**

12. Mr. Zatkovich argues that the meaning of “computer program” is a “‘target system’ which is where the functionality is invoked through its displayed user interface.” (EX2001, ¶94.) Mr. Zatkovich’s assertions that “computer program” has (what Mr. Zatkovich calls) a “special” meaning suggests that Mr. Zatkovich believes the ’664 inventor(s) acted as a lexicographer. (EX2001, ¶94.) I disagree. I have been informed that an inventor may act as his or her own lexicographer in defining a term, but must show clear intent to redefine the term.

To support his argument, Mr. Zatkovich relies on the specification's passage at 8:9-16, which states that:

“[t]he **target system**, generally referred to as the computer program, may be a website, a web-based system, a native mobile application (e.g., executed in a protected sandbox), a desktop application (e.g., executed in a process of a non-sandbox based operating system), or the like. The **target system** may have a user interface, such as a Graphical User Interface (GUI), that the user may utilize in order to activate the functionalities of the target system.”

(EX2001, ¶94 (citing EX1001, 8:9-16).) However, this passage does not suggest that a “computer program” must be a “target system,” or that the two terms are synonymous as Mr. Zatkovich asserts. (EX1036, 108:7-10.) Instead, the passage states that a “target system” is generally referred to as a “computer program,” not the converse (this passage does not state that a computer program is generally referred to as a target system). Furthermore, the use of the term “generally” weakens any assertion of identity between the two terms.

13. Mr. Zatkovich also tries to impose certain restrictions in “computer program,” such as being a “separate” or “single” computer program (EX2001, ¶¶108, 118) with “its own” user interface (EX2001, ¶73) operated on a single computer device (EX2001, ¶¶109, 118). None of these terms is in the claim language. Moreover, Mr. Zatkovich's interpretation and construction of “computer

program” would exclude embodiments of the ’664 patent that I discuss in paragraph 9. Excluding embodiments of the ’664 specification conflicts with Mr. Zatkovich’s acknowledgment that some of these embodiments should be included within the meaning of “computer program.” For example, Mr. Zatkovich states that the ’664 patent describes a computer program that accesses UI elements of other user interfaces. (EX2001, ¶90 (citing EX1001, 13:11-17, 14:18-28).) Mr. Zatkovich also states that the ’664 patent seeks to overcome problems related to using different software platforms. (EX2001, ¶66 (citing EX1001, 8:37-44).) Thus, in my opinion, Mr. Zatkovich’s construction of “computer program” is flawed because the specification does not show that the inventors intended to redefine the terms (lexicography), it is inconsistent with the claim language and the ordinary and customary meaning, and it would improperly exclude embodiments of the ’664 specification. Mr. Zatkovich’s construction of “displayed user interface of the computer program” is wrong for the same reasons.

### III. SYMONS-WILLIAMS

#### A. Symons-Williams Teaches “using a natural language interface” And A “natural language conversation” (Elements 1[a], 19[a], And 29[b])

##### 1. Symons teaches a “natural language interface”

14. Mr. Zatkovich agrees that Symons discloses a chatbot, but argues that it is not a “natural language interface.” Not only did Symons use the word “chat bot,” but he also explains what a “chat bot” is: “[c]hatbots enable organizations to

offer a more intuitive *natural way to interact* with their customers.” (EX1004, 2 (emphasis added); see also EX1009, 2.) “[T]he *chatbot collects all the necessary information in a friendly, interactive manner.*” (EX1004, 2 (emphasis added); EX1009, 2.) Symons’ explanation accords with the testimony that I provided: a “chatbot” may be a “natural language interface . . . that will allow you to do natural language communication with the software.” (EX2003, 64:14-17.) In other words, Symons provided sufficient details to determine that its chatbot is a “natural language interface” and that it teaches a “natural language conversation.” (EX2001, ¶¶135-136, 148, 150.) Baetens also confirmed: “the team . . . implemented the *chatbot* as *an interface for a natural language conversation* with the user.” (EX1010, ¶8 (emphases added).) Contrary to Mr. Zatkovich’s assertions, I pointed to this evidence in my opening declaration. (EX1003, ¶¶69, 80.)

15. Because Symons discloses a chatbot, Mr. Zatkovich tries to distinguish over Symons by arguing that Symons had a different definition for a “chatbot” (than the ’664 patent). I disagree. The ’664 patent explains that “[a] [c]hat bot is a computer program implementing a *natural language interface* to conduct a conversation via auditory or textual methods with the user.” (EX1001, 1:21-23 (emphasis added).) The ’664 patent also explains that a “chat bot” broadly includes both “sophisticated natural language processing systems” and “simpler

systems [that] scan for keywords within the input, then pull a reply with the most matching keywords, or the most similar wording pattern, from a database.”

(EX1001, 1:23-29.) For example, the chatbot’s communications “may be fixed and predetermined.” (EX1001, 13:51-52.) Thus, a “chatbot” in the ’664 patent encompasses a natural language interface, including ones that use natural language processing. Mr. Zatkovich is thus incorrect that the ’664 patent and Symons have different meanings for a “chat bot.” (EX2001, ¶149.)

16. To further support his argument that the ’664 patent and Symons have different meanings for a “chat bot,” Mr. Zatkovich relies on EX2007 to argue that rule-based chatbots often use buttons and do not use natural language processing. I disagree. As EX1040 (Freed) explained, “[t]here are two main approaches to natural language processing: *rule-based NLP* and machine-learning-based NLP.” (EX1040, 1 (emphasis added).) Further, EX2007 is irrelevant because it is not the case that “only buttons are used” in Symons, and it is dated after the time of the alleged ’664 invention. (EX2001, ¶139.)

17. Mr. Zatkovich also relies on EX2008, but he misreads this article. This article is in fact consistent with the ’664 specification and its expansive definition of chatbot. (EX2001, ¶140.) It states that “[h]istorically, chatbots . . . operated like an interactive FAQ, and *while they worked well for specific questions and answers on which they had been trained*, they failed when

presented with a complex question or one that hadn't been predicted by the developers. Over time, chatbots have integrated *more* rules and *natural language processing*.” (EX2008, 3 (emphases added).) A POSITA would have understood that the older chatbots being trained to handle specific questions and answers would have used natural language processing so that it could process the specific questions and provide appropriate answers. This passage also explains that there are simpler and complex systems that use natural language processing, just like the '664 specification explained (as I discuss in paragraph 15). (EX1001, 1:25-29.)

18. Mr. Zatkovich argues that a POSITA would not look to patents, including the '664 patent, to understand Symons' and Baetens' definition of a “chat bot.” (EX2001, ¶148.) I have been informed that POSITA is presumed to have known about the relevant art, which includes patents, at the time of the invention. Further, the '664 patent describes the ordinary and customary meaning of a “chatbot,” a meaning that a POSITA would have already known about regardless of whether he or she looked at the '664 patent. And Mr. Zatkovich's argument that “back in 2017, chatbots that use natural language understanding were less prevalent than today” should be rejected because his comparison to *today's* chatbots is irrelevant. (EX2001, ¶142.) Thus, Symons teaches a “natural language interface.”

## 2. The claims do not require natural language processing

19. Mr. Zatkovich argues that Symons does not teach elements 1[a], 19[a], and 29[b] based on his incorrect interpretation of the claims. To start, Mr. Zatkovich incorrectly alleges that I agree that the '664 claims require natural language processing, citing paragraph 40 of my opening declaration for support. (EX2001, ¶130 (citing EX1003, ¶40).) But in paragraph 40 of my opening declaration, I am discussing the prior art discussed during prosecution, not natural language processing.

20. The claims do not recite “natural language processing,” but instead recite a “natural language interface.” I provided testimony that the two terms (“natural language processing” and “natural language interface”) do not have the same meanings, to which Mr. Zatkovich does not dispute. (EX2001, ¶132 (citing EX2003, 63:15-64:17).) Patent Owner asked me “when you talk to other people about *natural language processing*, what is it that you understand it to mean, in your own words, not the expert reports?,” and I answered “Exactly what you just did. *You spoke with me and I processed that language, which is a natural language, and I responded to it using again natural language.* What natural language processing in the computer science sense is to mimic that kind of processing using machinery or a software.” (EX2003, 63:15-64:17 63:15-64:8 (emphasis added).) Then Patent Owner asked me “what would be a natural

language interface to the same group of people,” and I responded, “[a] *natural language interface* is an interface that will *allow you to do natural language communication* with the software.” (EX2003, 64:9-17 (emphases added).)

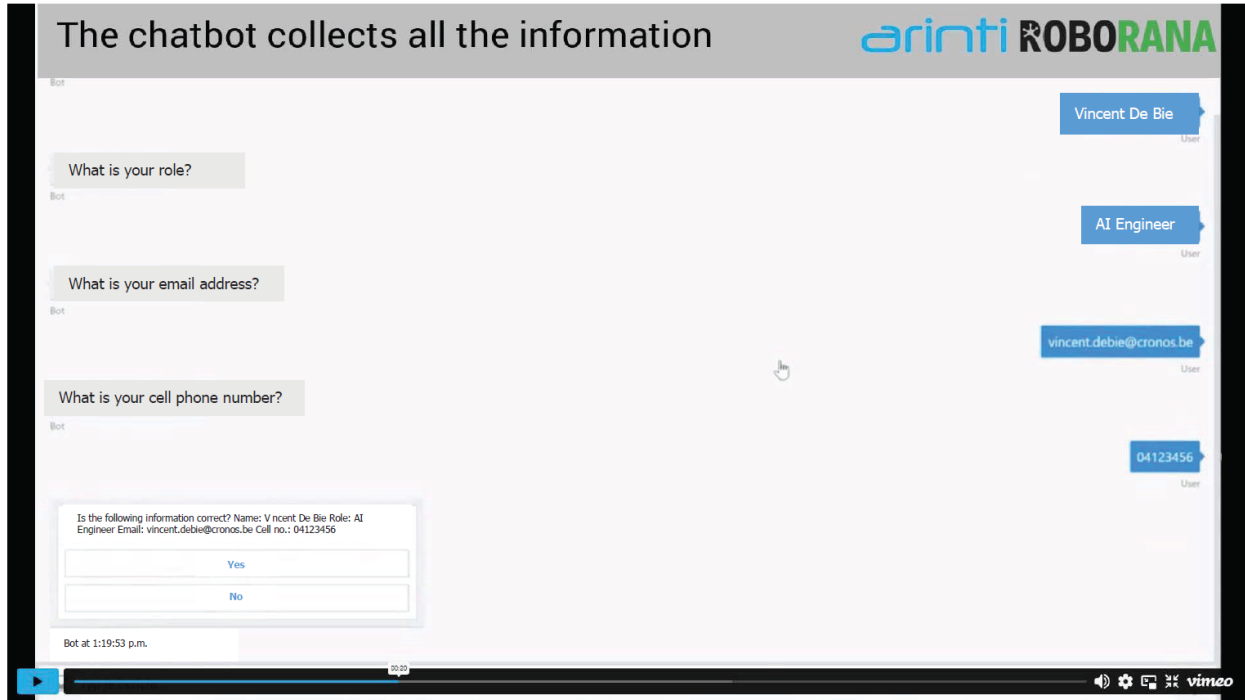
21. The ’664 specification also treats “natural language processing” and “natural language interface” as having different meanings. The specification at 13:38-43 states that “[b]ased on *processing* of the user’s interaction with the chat bot, such as using *Natural Language Processing (NLP)* techniques, it may be determined which conversation is the most likely conversation and such a conversation may be suggested to the user for confirmation.” (EX1001, 13:38-43 (emphases added).)

22. Compare this to the specification’s discussions regarding a “natural language interface.” The specification states “[t]he chat bot may implement a *natural language interface* such as a text-based *conversation*, an oral *conversation*, or the like.” (EX1001, 8:6-8 (emphases added).) The specification describes a “natural language interface [as] receiv[ing] input from the user.” (EX1001, 8:66-67.) The specification also describes a “natural language interface” as gathering data: “environment variables, user-associated data, or other available data sources not gathered by the natural language interface.” (EX1001, 19:10-12.)

23. Mr. Zatkovich also seems to recognize that the claims do not recite “natural language processing,” and, as a result, Mr. Zatkovich turns to the word “feedback” in the claims to argue that the claims require natural language processing. (EX2001, ¶133.) However, a POSITA would have understood that “feedback” merely requires a response. It does not require *processing and* “an appropriate feedback,” as Mr. Zatkovich argues. (EX2001, ¶133.) I note that Mr. Zatkovich does not dispute that Symons’ “I want a new signature” is a response (thereby teaching a “natural language feedback”). (EX2001, ¶135.)

### **3. Symons teaches natural language processing**

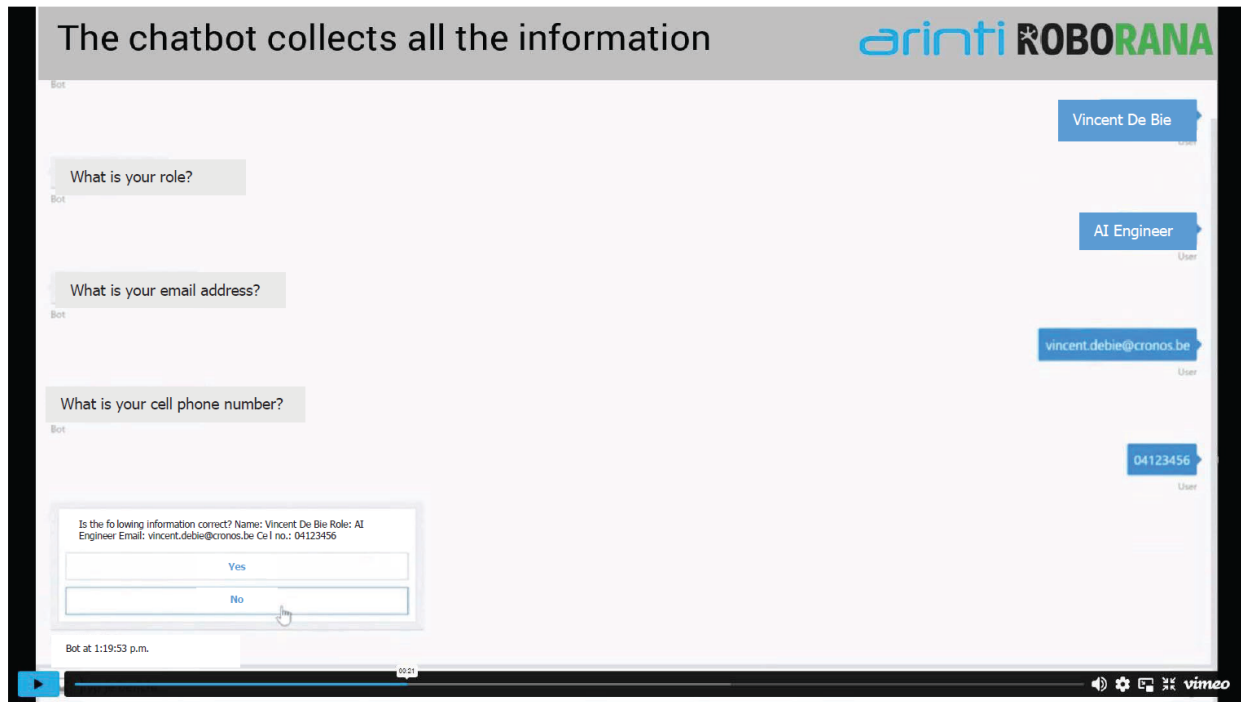
24. As I explained above, the claims do not require natural language processing. But if, for some reason, the claims require natural language processing, Symons’ chatbot still uses natural language processing. After the chatbot collects the user’s information, as shown in the screenshot below, the chatbot asks: “[i]s the following information correct?” (EX1006, 6.)



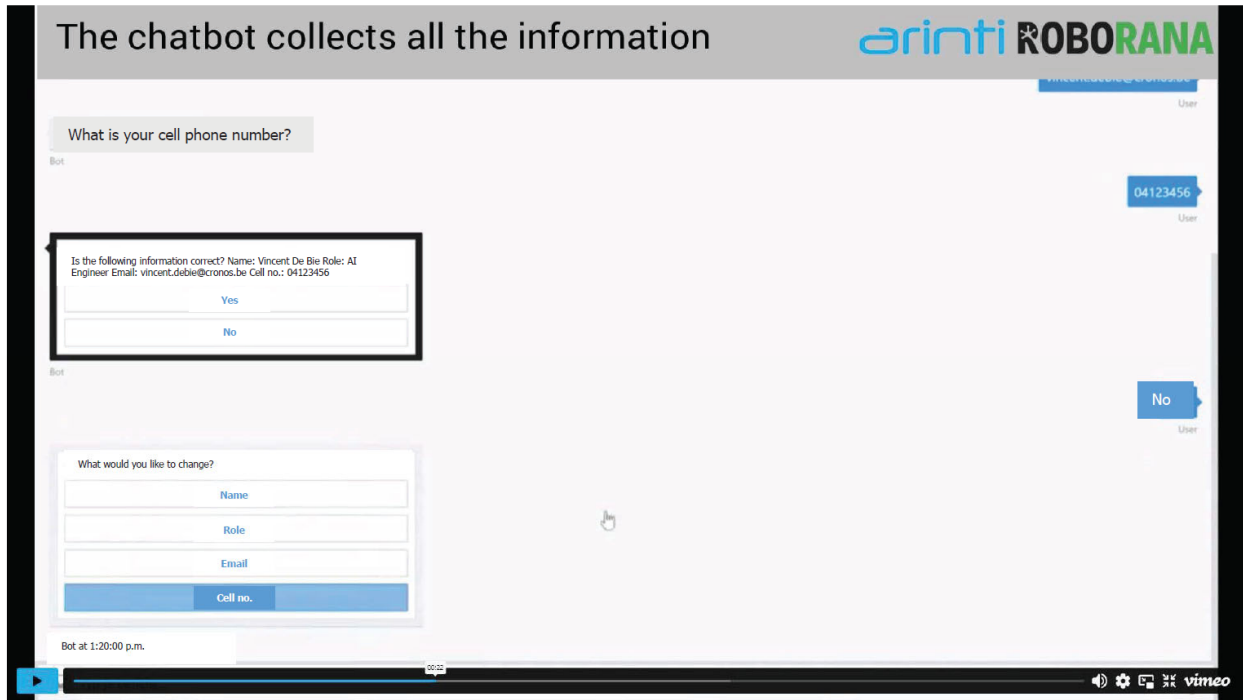
25. Symons then presents two different scenarios: one where the user's input is a "Nee" (No) and another where the user's input is a "Ja" (Yes). The actions that follow differ for the two different scenarios, showing that Symons' chatbot "process[es]" the user's input.

26. As shown in the screen shots below, when the user's input is "Nee" (No) (EX1006, 7), the chatbot asks the user "What would you like to change?" (EX1006, 8), the user responds with "Cell no." (EX1006, 8), and the chatbot allows the user to change the cell number (EX1033, 0:27 (showing the chatbot asking the user "Wat is uw gsm-nummer?" ("What is your cell number?") (translation by Google translate)). The chatbot's response to the user's input shows that the chatbot processed (what Mr. Zatkovich calls "comprehend, or at

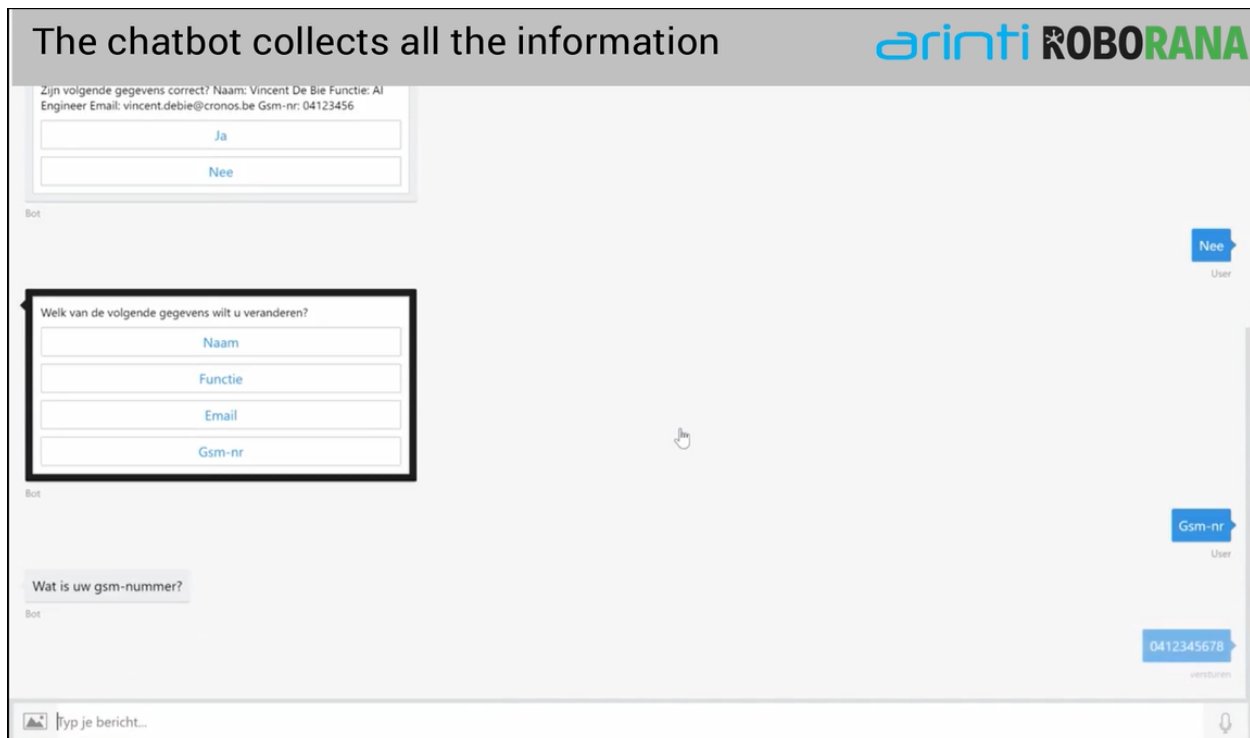
least recognize” (EX2006, 2)) the user’s input. If the chatbot did not comprehend or recognize that user’s input of “No” or “Cell no.,” then a POSITA would have expected a different response.



(EX1006, 7.)

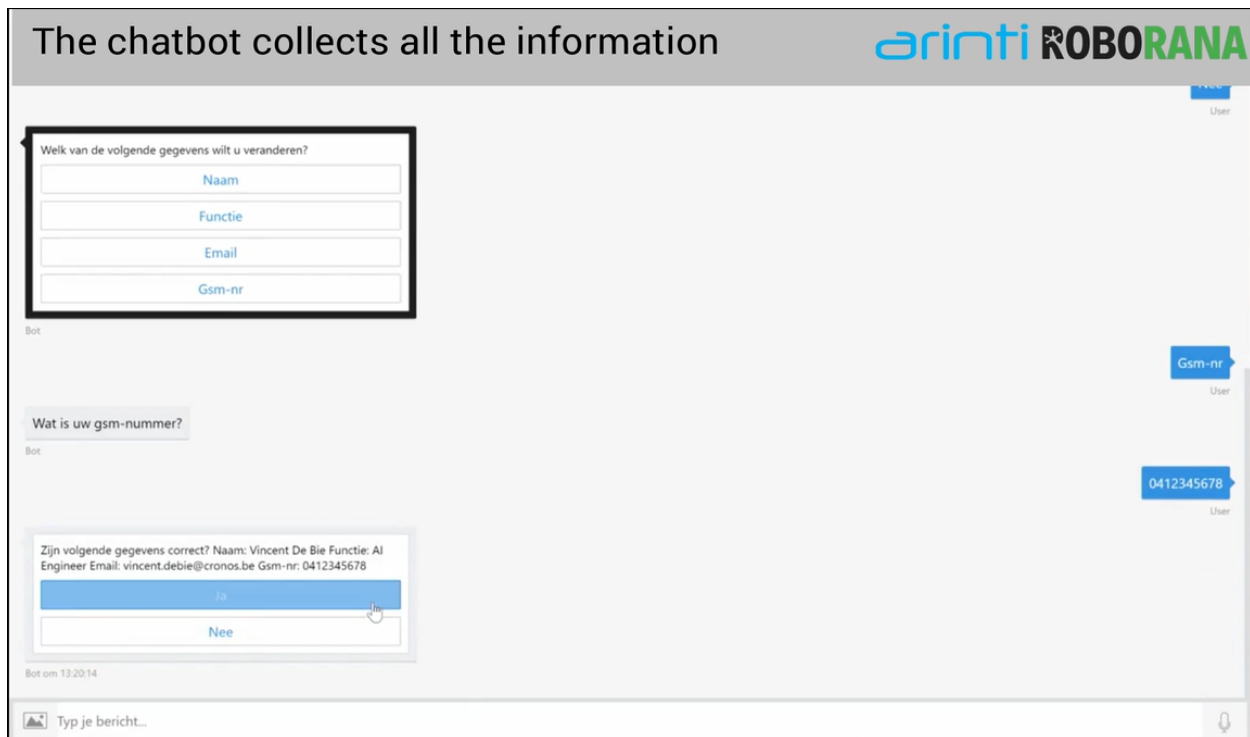


(EX1006, 8.)

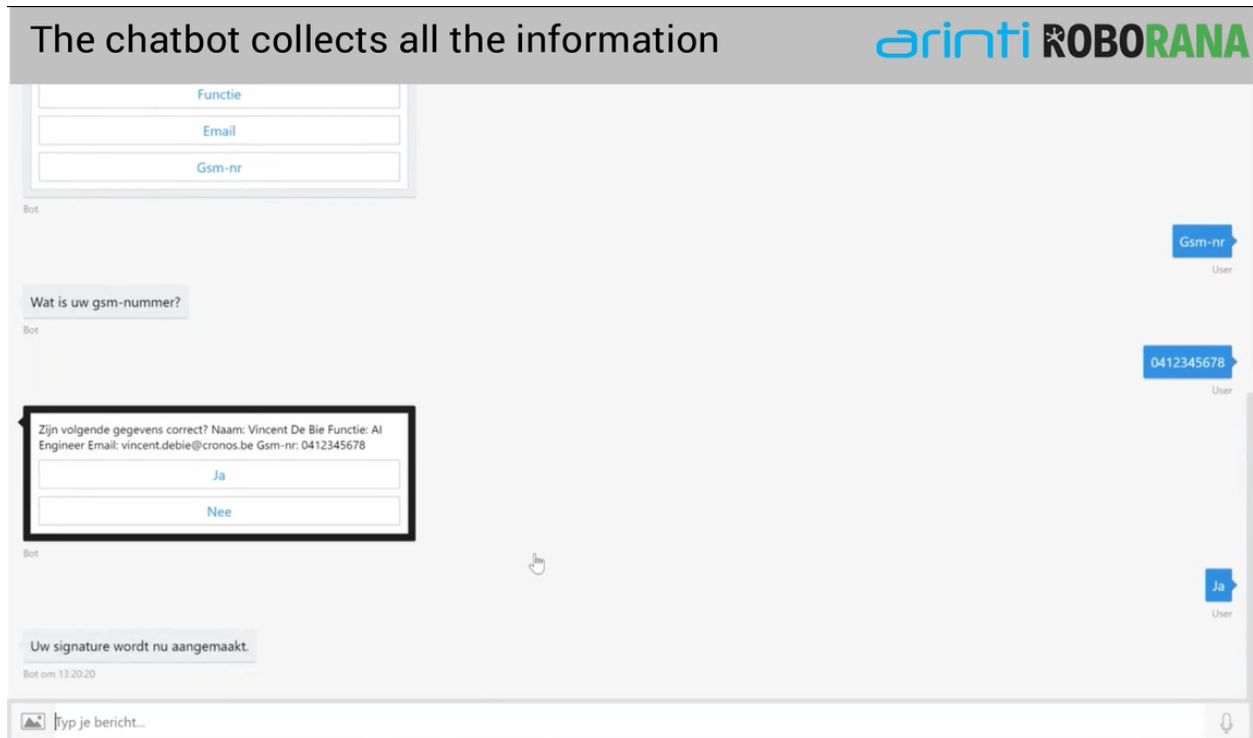


(EX1033, 0:27.)

27. As shown in the screen shots below, when the user's input is "Ja" (Yes) (EX1033, 0:00:28), that chatbot does not ask the user "What would you like to change?" like it did when the user's input is "Nee" (No). Instead, the chatbot responds with "UW signature wordt nu aangemaakt" ("Your signature will now be created") (translation by Google translate). (EX1033, 0:00:31.) The chatbot's response to the user's input shows that the chatbot processed the user's input. Thus, Symons' chatbot uses natural language processing at least in the "[i]s the following information correct?" scenario. And this scenario also shows that Symons' chatbot is not a single conversation or a hardcoded conversation, as Mr. Zatkovich alleges. (EX2001, ¶¶106, 157.)



(EX1033, 00:28.)



(EX1033, 00:31.)

## **B. Symons-Williams Teaches “determining . . . an automation process” (Elements 1[c], 19[c], And 29[d])**

### **1. Symons teaches “determining”**

28. Mr. Zatkovich does not dispute that Symons’ chatbot triggers the RPA bot (automation process). (EX2001, ¶161.) As I discuss in paragraphs 89-99 of my opening declaration, Symons determines an automation process by its chatbot receiving the collected information from the user (“based on the first and second natural language inputs from the user”) and triggering the RPA bot. (EX1003, ¶¶89-99.) This is like an embodiment of the ’664 patent, which discloses “defin[ing] [] a conversation flow which automation process is invoked thereby and which parameters are passed thereto.” (EX1001, 11:51-54.) The ’664 patent

also discloses an embodiment (that Mr. Zatkovich acknowledges) where “the conversation may be associated with a single [automation process] that is selected upon reaching the end of the flow of the conversation.” (EX1001, 14:10-12; EX2001, ¶85.) A POSITA would have understood that “single conversation” in 14:10-12 of the ’664 specification should read “single automation process” as shown in the quote with brackets. The passage is within the discussion of “Step 240, an automation process may be selected” (EX1001, 14:4-6), and the automation process is what is “selected upon reaching the end of the flow of the conversation.” (EX1001, 14:10-12.) A POSITA would not have understood that a “conversation” is selected upon reaching the end of the “conversation.” Because Symons maps to an embodiment of ’664 patent where a single automation process is determined, Symons teaches “determining” as recited in the claims.

## 2. The claims do not require a single automation process

29. Mr. Zatkovich argues that Symons does not disclose elements 1[c], 19[c], and 29[d] because Symons discloses a single automation process. (EX2001, ¶155.) However, the claims do not require multiple automation processes, and the specification supports the claims as encompassing a single automation process. For example, 9:64-67 describes “*one* or more automation processes,” and 19:34-36 describes “a specific (*single*) automation process.” (EX1001, 9:65-67, 19:36-38 (emphases added); *see also* 14:10-12.)

30. Mr. Zatkovich argues that “determining” means “selecting” or choosing among multiple automation processes (EX2001, ¶85.) But dependent claim 8 states “wherein said determining comprising selecting the automation process.” Thus, claim 8 narrows element 1[c]’s “determining” to comprise “selecting,” which means that “determining” in claim 1 is broader than “selecting” in claim 8. (EX1001, Claim 8.)

**3. The claims do not require a single chatbot-RPA that handles multiple requests at once in the same conversation thread**

31. Mr. Zatkovich then argues that neither Symons nor Williams teaches: a (1) single chatbot-RPA (2) to handle multiple requests (3) at once (4) in the same conversation thread. (EX2001, ¶¶118, 155, 165.) The claims do not recite or require a single chatbot-RPA, handling multiple requests simultaneously, or a single conversation thread. And Mr. Zatkovich fails to identify any support for his assertions. Rather, the ’664 specification supports the claims as encompassing multiple bots: “HR Bot may be assigned several conversations that are different from those of a CRM Bot.” (EX1001, 17:28-30.) The passage at 17:28-30 also shows that the claims further encompass multiple conversation threads. Similarly, 11:58-59 describes “[e]ditor 110 may define several different conversation[s] for a single chatbot (e.g., HR Bot),” and 9:64-67 explains that “a chat bot service may be associated with different conversation flows. Each conversation flow may be

associated with one or more automation processes that can be invoked.” (EX1001, 9:64-67, 11:58-59.)

32. The claims also encompass non-simultaneous handling of requests. The specification describes “a plurality of automation processes may be performed sequentially (either immediately one after the other, or with intermediate questions therebetween).” (EX1001, 17:21-24.) Additionally, “in some cases, a conversation may execute a plurality of automation processes in sequence.” (EX1001, 19:38-41.)

**4. Symons-Williams teaches a single chatbot-RPA that handles multiple requests at once in the same conversation thread**

33. Mr. Zatkovich argues that Williams does not disclose a single chatbot-RPA that handles multiple requests for a single conversation thread. (EX2001, ¶165.) Mr. Zatkovich is incorrect. Williams discloses “[t]hese chatbots can engage in natural language dialog with the caller *[(single conversation thread)]* and discern, through a series of interactions, the nature of the call *[(multiple requests)]* and then capture information further required to handle the request. The chatbot will then trigger a robot *[(single chatbot-RPA)]*.” (EX1011, 3.) Williams also describes “contact centers . . . obtaining travel and expense and payment status, updating our backend systems, and closing the inquiry,” thereby handling multiple requests. (EX1011, 3.)

34. Additionally, Williams discloses multiple automation processes.

Williams refers to automation processes as “RPA operations” (plural) and “robots” (plural). (EX1011, 3.) Williams also discusses “robotic work dispatching” and “assignment of tasks to robots for execution,” which a POSITA would have understood as multiple robots and automation processes handling multiple requests at once. (EX1011, 5.) This shows that Mr. Zatkovich is wrong when he argues that Williams is directed to “at most to using chatbots ‘in a variety of other processes and across industries.’” (EX2001, ¶165.)

35. Further, Mr. Zatkovich’s argument that Williams simply provided “broad generalizations,” and “a taxonomical definition of RPAs and IPAs, nothing more” is incorrect. (EX2001, ¶126.) Figure 1’s “diagram shows **IBM**’s intelligent automation continuum” comprising an RPA and an IPA. (EX1011, 4.) And Williams provided “specific examples of complex process automation and intelligent automation using IBM Watson® in business process services,” such as “chatbots or digital assistants [] deployed within helpdesk functions to interact with an end user, replacing the human agent in a traditional call center.” (EX1011, 2, 3.) Another example is “a real-life example within HR operations [involving] the virtual agent [] help[ing] our contact centers improve over 50 percent of our first contact resolutions, obtaining travel and expense and payment status, updating our

backend systems, and closing the inquiry in record time.” (EX1011, 3.) Williams provides even more examples, such as:

- “[c]hatbots can be used in a variety of other processes and across industries such as mortgage, banking, insurance, healthcare and others to help reinvent call center operations” (EX1011, 3);
- a “financial operations” example where the robot “ingest[s] [] unstructured documents and extract[s] the relevant fields, thus removing additional manual work from the end-to-end process” (EX1011, 3);
- a “specific use case [] from a global company that uses IBM’s solution to automate the extraction of data from their invoices, which are often in different formats” (EX1011, 4);
- an example “in procure-to-pay invoice processing” system (EX1011, 4);
- “IBM uses Watson Analytics to harvest the rate of unexpected job terminations within the operational footprint of deployed robots across business process services” (EX1011, 5); and
- “[i]ntelligent automation using AI technologies [that] replaces human involvement in work dispatching” (EX1011, 5).

36. And Mr. Zatkovich is incorrect that Symons' chatbot was only programmed to implement a single conversation thread. (EX2001, ¶¶118, 157.) As I discuss in paragraphs 24-27, Symons' chatbot performs natural language processing, which means that Symons did not teach a single conversation, or merely hardcoding a single conversation, as Mr. Zatkovich alleges. (EX2001, ¶¶106, 157.)

37. Further, Mr. Zatkovich's emphasis that Symons *alone* does not teach "determining . . . an automation process" shows that he is ignoring the combination presented in my opening declaration, which relies on Symons *in combination with Williams*. (EX2001, ¶155.) In fact, Symons' welcome message ("at this moment, you can only use me to create a new Cronos signature") suggests multiple automation process, as Williams teaches. (EX1006, 2 (emphasis added).) And a POSITA would not have understood Symons teachings as being rigid or strictly limited as Mr. Zatkovich argues. Mr. Zatkovich's argument that "given the single purpose nature of the Symons chat-RPA bot, there would be no need to determine the automation process" is incorrect. (EX2001, ¶166.)

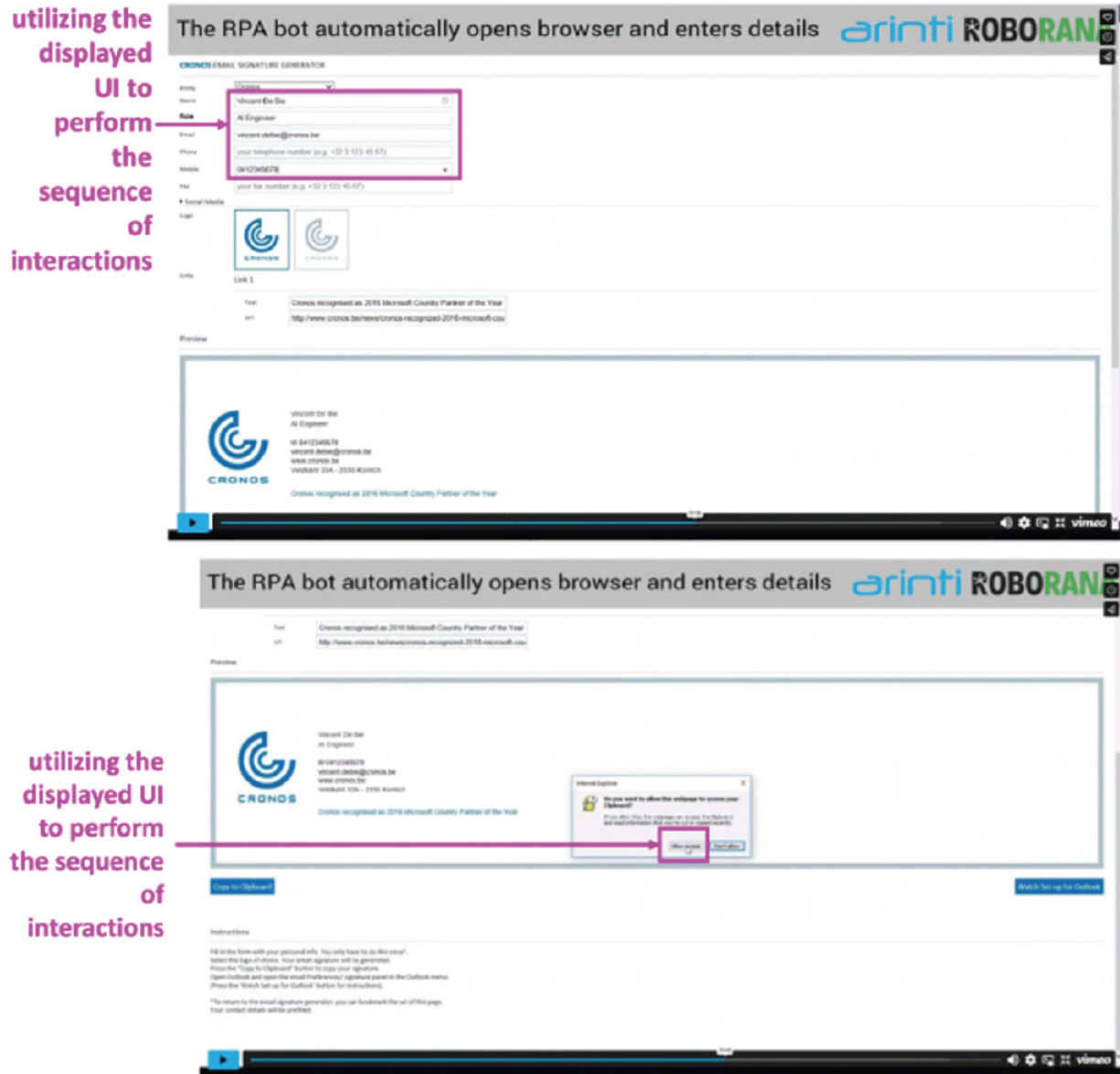
**C. Symons-Williams Teaches "utilizing the displayed user interface of the computer program" (Elements 1[f], 19[f], And 29[g])**

38. Mr. Zatkovich argues that Symons does not disclose elements 1[f], 19[f], and 29[g] because its RPA does not use a single "computer program" with a

single user interface. (EX2001, ¶168.) As I discuss in paragraphs 7-13 of the claim construction section, Mr. Zatkovich's construction of "computer program" is wrong. Additionally, claim 1 recites a "method comprising:" and three steps: "receiving" step, a "determining" step, and an "executing step." Because the claim uses the word "comprising," its scope allows for additional steps outside of the three steps explicitly recited. As a result, claim 1 is not limited to an automation process that utilizes the displayed user interface of *only* a single "computer program" (under Mr. Zatkovich's construction).

39. But if, for some reason, Mr. Zatkovich's constructions were correct, Symons' teachings satisfy Mr. Zatkovich's construction. Mr. Zatkovich's construction relies on 8:9-16 (EX1001) of the '664 specification, which states that "[t]he target system . . . may be . . . a desktop application" and the "target system may have a user interface, such as a Graphical User Interface (GUI)." According to Mr. Zatkovich, a "desktop application" is a "native installed and operated application residing on a desktop computer." (EX1036, 96:21-25.) Similarly, Symons teaches a single RPA software (desktop application, installed and operated on Symons' desktop computer) that is a separate computer program with its own user interface (*see* EX1006 showing the GUI of Symons' RPA) operated on a single device (Symons' computer).

40. As shown below, the GUI of Symons' desktop application displays what Mr. Zatkovich calls "the text fields of the Cronos signature generator," and the same GUI and desktop application displays "a modal window or other form of pop-up associated with Internet Explorer." (EX2001, ¶171.) Symons' desktop application is similar to what the '664 patent describes as providing a "unified, and simple, conversational-based user interface" that works with multiple platforms (software tools). (EX1001, 10:67-11:3.)



(EX1003, ¶103.)

#### D. Mr. Zatkovich Mischaracterizes The '664 Claims And Symons/Baetens

41. Symons Video, Symons Article, and Baetens Article: Mr. Zatkovich argues that the Symons Article and the Baetens Article should be referred to as blogs. (EX2001, 22 fn. 1.) But this argument is a red herring. Regardless of

whether or not the Symons Article or the Baetens Article is a blog (to which I do not agree), the Symons Article and the Baetens Article show that Symons teaches the '664 patent claims before the date of the alleged invention.

42. Mr. Zatkovich also argues that Symons RPA software was executed on a different computer device than the computer device that the chatbot was executed on. (EX2001, ¶¶109-111, 118.) However, the claims do not require that the chatbot and RPA be executed on the same computer device. (EX1001, Claim 1.) Mr. Zatkovich agrees. (EX1036, 55:25-56:9.) Further, the '664 specification discloses different computer devices (“the chat bot may be implemented on a different system than the target system itself”) as an embodiment covered by the claims, as Mr. Zatkovich acknowledges. (EX1001, 9:29-34; EX2001, ¶71.)

43. Additionally, I disagree with Mr. Zatkovich that the use of different languages, different user login names, different magnifications for different software, and that the email signature is sent via email necessarily means that the chatbot and RPA software are executed on different devices. (EX2001, ¶¶110-111.) I also disagree that the screenshots of Symons Video show different resolutions. (EX2001, ¶¶110-111.) A POSITA would have understood that the same computer device may be used for different languages, the same computer device may be used with different login names, different magnifications may be

used for different software (including different views in Word), and it is known for one to send emails to oneself.

44. Mr. Zatkovich also makes other assumptions that are not supported by evidence and that I disagree with. For example, Mr. Zatkovich alleges that the Symons “video was put together very quickly (less than 17 days after Mr. Symons began working at RoboRana as a ‘showcase’”).) (EX2001, ¶144.) Mr. Zatkovich also alleges that “the Arinti chatbot that was identified as being used, was not publicly available at the time.” (EX2001, ¶144.) But Mr. Zatkovich acknowledged that someone else could have been working on the Symons chatbot-RPA before Symons began working at RoboRana, and that the Arinti chatbot not being publicly available was based on his opinion. (EX1036, 118:3-119:8.)

45. The “internals”: Mr. Zatkovich also suggests that the Symons chatbot-RPA was not built/developed, and Baetens was intentionally hiding details for that reason. (EX2001, ¶¶102, 104, 118, 144.) There are many reasons why companies do not share low-levels details about their products that do not mean the system had not been developed. For example, companies typically do not disclose low-level details to the public because this delays competition, and competition may exist at all stages in the development and growth of a technology. Mr. Zatkovich agrees. He testified that companies keep some of the details of their products secret because “it would give a competitive edge,” where “they would lose their

competitive edge if that information was disclosed.” (EX1036, 24:22-26:4.) As Mr. Zatkovich explained, it was common practice and companies used nondisclosure agreements (NDAs), including even when the technology was not new. (EX1036, 25:5-26:23.)

46. And knowing (what Mr. Zatkovich calls) the “internals” of Symons is not required for purposes of determining that Symons teaches the broad scope of the challenged claims. (EX2001, ¶104.) Claim 1 requires “using a natural language interface,” “determining . . . an automation process,” and “executing the automation process.” The claims do not require that the chatbot be created in a specific way, that the chatbot messages are displayed for specific reasons, that the RPA bot is triggered in a specific way or under certain conditions, or that the automation process must be created in a specific way, as Mr. Zatkovich suggests. (EX2001, ¶¶104, 107, 108, 117, 158.) The ’664 claims do not require the level of specificity that Mr. Zatkovich appears to demand. And I do not agree with Mr. Zatkovich that any conclusion can be deduced based on outsider questions related to the Symons Article that were posted on Medium. (EX2014, ¶¶392-402; EX2005; EX2015; EX2016; EX2017.) These questions were posted a year later, and there is no evidence that Symons or Baetens saw the questions.

47. As Mr. Zatkovich acknowledges, the ’664 claims broadly require “using a natural language interface,” “determining . . . an automation process,” and

“executing the automation process.” (EX2001, ¶72.) I note that the ’664 specification does not provide information about its “internals.” For example, the ’664 specification generally describes “invok[ing] the automation process in a simple manner” (EX1001, 9:31-34). The specification also generally describes the “conversation flow [] be[ing] associated with one or more automation processes that can be invoked.” (EX1001, 9:65-67.) Further, the automation process is generally described as being “invoked thereby and which parameters are passed thereto” and comprising “steps in a predefined order.” (EX1001, 11:51-54, 14:29-33.)

48. Mr. Zatkovich’s computer program: Mr. Zatkovich also created a computer program that allegedly “match[es]” Symons’ computer program. (EX2006, EX2009, EX2010; EX2001, ¶145.) But I disagree with Mr. Zatkovich’s computer program and his conclusions. Although the “internals” are not needed to determine that Symons-Williams teaches the claims (because the claim elements recite broad limitations), the “internals” are needed to create a computer code that is presented as matching Symons’ computer program. And Mr. Zatkovich admits that he himself does not know the “internals” of Symons. (EX2001, ¶¶104, 156.)

49. Without knowing the “internals,” Mr. Zatkovich does not know that his computer code gathers the same information in the same manner as Symons’ computer program. (EX2001, ¶146.) Mr. Zatkovich does not know that his

computer program passes information to another system such as an RPA bot in the same manner as Symons' computer program. (EX2001, ¶146.) For example, Mr. Zatkovich states that "[o]nce the user has approved the information they have entered, that information (name, role, and phone number) is transmitted to the RPA server." (EX2006, 2.) But Mr. Zatkovich fails to show where Symons or Baetens describes an RPA server or where Symons or Baetens describes transmitting the information to a server (if at all). Instead, as Mr. Zatkovich testified "the title at the bot says, the chatbot triggers the RPA bot. And *I'm assuming* it's referring to the Cronos server." (EX1036, 121:8-122:22.) And according to Mr. Zatkovich, not every RPA bot is a server. (EX1036, 122:6-7.)

50. I note that Mr. Zatkovich's description of his computer code contradicts his testimony. He testified that "[i]t's not clear" whether the chatbot transmits information to an RPA server and "[n]either I nor Dr. Beigi could make that determination as to how or if that information is transmitted." (EX1036, 120:13-21.) Yet, he made the "determination" when creating his code and providing a description of it. He also testified that he was not sure that the chatbot transmits information to the RPA bot via an HTML method called POST a URL because "[a]gain, neither Dr. Beigi nor I had any view into the internals of how that worked. So I could not verify that particular method." (EX1036, 122:23-123:9.) However, Mr. Zatkovich's description of his computer code states "[t]he

information that is collected by the chatbot is sent to a Server (e.g. an RPA Server).

This is done the most common HTML method known as POST a URL.”

(EX2006, 6.)

51. Additionally, Mr. Zatkovich fails to explain why the collected email address in his computer program is not part of the information transmitted, even though the Symons Article states that “the chatbot *collects all* the necessary *information*” and “[t]his *information gets passed* on to the RPA robot.” (EX1004, 2 (emphases added).) As Mr. Zatkovich argues, one (including himself) is left “to conjecture to the actual method of implementation and underlying code in Symons.” (EX2001, ¶159.)

52. And Mr. Zatkovich provides no evidence that his computer program is an accurate match to the Symons Video. At best, Mr. Zatkovich justifies creating a hardcoded conversation without a “determination” step because it was “a logical way” (EX2001, ¶162) and “*could* easily have been implemented as merely hardwiring a conversation.” (EX2001, ¶157.) But one “logical way” and “could easily have” does not mean that Mr. Zatkovich’s computer code matches Symons. Mr. Zatkovich argues that Symons “*could* easily be programmed to proceed to prompt ‘what is your name’ regardless of what the user typed.” (EX2006, 3 (emphasis added).) But Symons could have also easily been programmed not to proceed.

53. As shown in the side-by-side comparisons below, Mr. Zatkovich's computer program does not appear to be a "match" to the Symons Video. First, the chatbot messages are different. In Symons, the chatbot asks "[i]s the following information correct?," and the user answers "No." (EX1006, 8.) In Mr. Zatkovich's program, the chatbot asks "[d]o you want to change anything? (yes/no)," and the user answers "Yes." (EX2006, 6.)

**Symons**

Is the following information correct? Name: Vincent De Bie Role: AI Engineer Email: vincent.debie@cronos.be Cell no.: 04123456

Yes

No

Bot

No

User

**Mr. Zatkovich's Program**

vincent.debie@cronos.be Phone: 04123456 Do you want to change anything? (yes/no)

Yes

No

Bot

Yes

User

54. The options that the chatbot displays for the “What would you like to change?” question are different. In the Symons Video, the options are “Name,” “Role,” “Email,” and “Cell no.” (EX1006, 8.) In Mr. Zatkovich’s program, the options are “Change Name,” “Change Role,” “Change Email,” and “Change Phone.” (EX2006, 6.)

**Symons**

What would you like to change?

Name

Role

Email

Cell no.

**Mr. Zatkovich's Program**

What would you like to change?

Change Name

Change Role

Change Email

Change Phone

Bot

User

55. After the user chooses to change the “Cell no.,” Symons’ chatbot asks “Wat is uw gsm-nummer?” (“What is your cell number?”) (translation by Google translate) (EX1033, 0:27), whereas Mr. Zatkovich’s chatbot says “Please enter the new phone number:” (EX2006, 6.) Then after changing the cell phone number, Symons’ chatbot says “Zijn volgende gegevens correct?” (“Is the following data correct?”) (translation by Google translate). (EX1033, 0:27.) Mr. Zatkovich’s chatbot, on the other hand, says “Do you want to change anything else? (yes/no)?” (EX2006, 6.)

56. Second, Mr. Zatkovich’s computer program adds information that is not described anywhere in the Symons Video, the Symons Article, or the Baetens Article. For example, Mr. Zatkovich’s chatbot provides a message that says “[s]ending your information to Server.” (EX2006, 6.) As shown in the Symons

Video, its chatbot never provides a “[s]ending your information to Server” message. (EX1033.) Despite Mr. Zatkovich alleging that his chatbot has “the equivalent functionality of [the] Symons reference as described by [the] Symons Blog” (EX1004), Mr. Zatkovich fails to show where Symons or Baetens describes an RPA server. (EX2006, 1.) This is because neither Symons nor Baetens describes an RPA *server*. (EX1004; EX1006; EX1008; EX1009; EX1010; EX1033.)

**E. Symons-Williams Teaches A “chat bot service” (Claims 2 And 3)**

57. Mr. Zatkovich argues that Symons does not teach the “chat bot service” of claims 2, 3, and 20 because Symons’ chatbot is not a third-party service. To start, claim 20 does not recite a “chat bot service.” (EX2001, ¶172.)

58. The ’664 patent connects the terms “chat bot” and “chat bot service”: “[t]he *chat bot may be a service* that simplifies the end-user experience by collecting data from him and executing a predefined automation flow on the target system.” (EX1001, 8:4-6.) Mr. Zatkovich cites 7:64-8:3 and 8:24-27 of the ’664 specification in support of his arguments that claims 2 and 3 require a third-party chatbot service. (EX2001, ¶172.) However, both passages use the word “third-party.” The ’664 specification explicitly uses the term “third party” to describe a service when the service is a third-party service. (EX1001, 7:67 (“third-party services”), 8:24 (“third-party messaging service”), 9:31-32 (same), 12:22-23

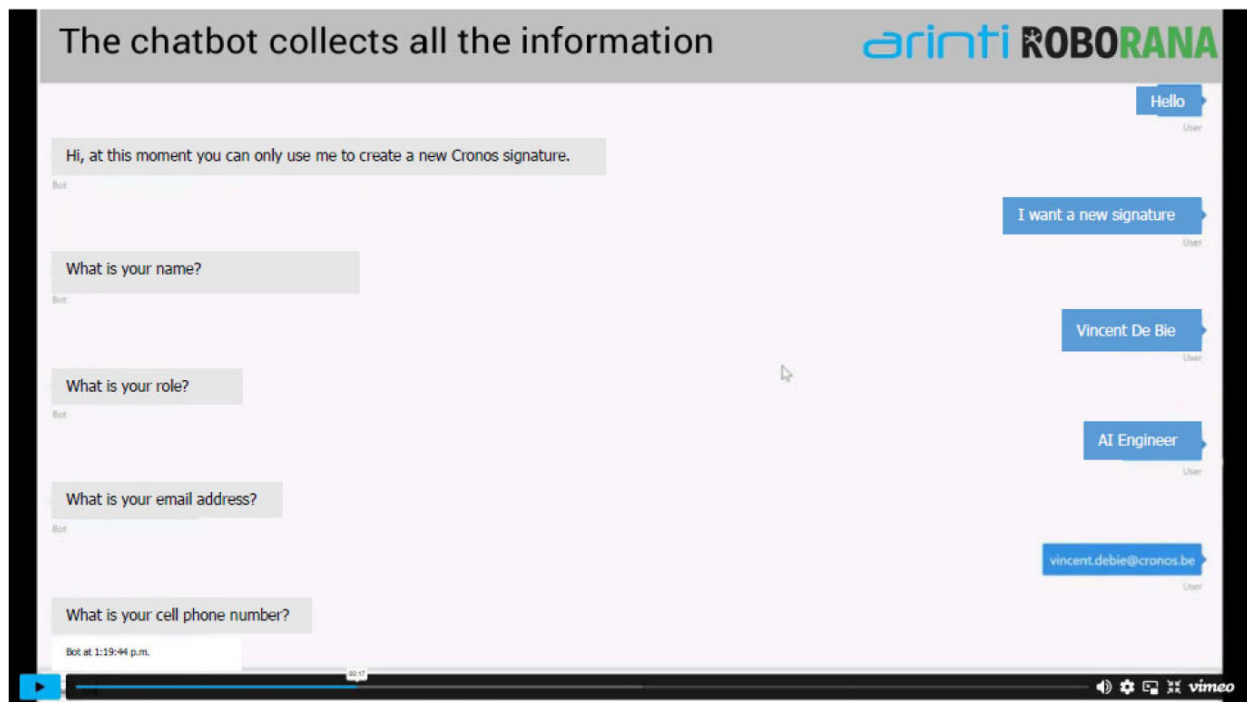
(“third-party communication service”), 13:29-30 (same).) Mr. Zatkovich agrees. (EX1037, 183:8-184:23.) Claims 2 and 3 do not recite “third-party.” Compare this to claim 1 of the ’317 patent, which does recite “third-party.” (EX1001 of IPR2024-00065, 25:40-41.)

59. Symons discloses the “chat bot service” described by 8:4-6 of the ’664 patent. Symons’ chatbot “collects all the necessary information in a friendly, interactive manner” (collects data) and “[t]his information gets passed on to the RPA robot, which will then automatically generate the signature, save it, and email it back to the requester” (executes a predefined automation flow on the target system). (EX1006, 5; EX1004, 2.)

60. I also note that Mr. Zatkovich’s arguments are contradictory. In paragraph 74 of his declaration, he makes a distinction between a “chatbot on a target system” and a “chat bot service.” (EX2001, ¶74.) This means that according to Mr. Zatkovich, the natural language interface’s “chat bot service” is not implemented on a “target system” / “computer program.” But yet for claim 1, Mr. Zatkovich criticizes Symons’ RPA software for being “execut[ed] on a different device than the user device on which the chatbot was implemented,” thereby arguing that the “natural language interface” must be implemented on the “target system” / “computer program.” (EX2001, ¶118.)

61. If, for some reason, a “chat bot service” requires a third-party chatbot service, Arinti is a third party to, *e.g.*, RoboRana. Symons’ chatbot is an Arinti chatbot, as Mr. Zatkovich acknowledges. (EX2001, ¶173.)

62. Claim 2 requires that the “chat bot service [be] operable to converse with the user in natural language.” Claim 3 requires the “chat bot service [be] configured to prompt the user to provide a value for the parameter.” As the screenshot below shows and as I explained in my opening declaration, Symons’ chatbot service converses with the user in natural language (claim 2) and prompts the user to provide values for parameters (claim 3). (EX1006, 5; EX1003, ¶¶104-107.) Thus, Symons teaches claims 2 and 3.



**F. Symons-Williams Teaches “the displayed user interface” (Claims 5 And 22)**

63. Mr. Zatkovich’s only argument for claims 5 and 22 is that the interactable GUI elements are not of the same “displayed user interface.” (EX2001, ¶¶175-177.) This is the same argument that Mr. Zatkovich made for element 1[f]. (See EX2001, ¶177.) As I discuss in paragraphs 38-40, Mr. Zatkovich’s arguments are incorrect.

**G. Symons-Williams Teaches “wherein the database is updatable . . . via a Graphical User Interface (GUI) capable of . . . updating existing automation processes retained therein” (Claim 8)**

64. For claim 8, Mr. Zatkovich argues that Williams’ database stores rules and policy changes, not automation processes. (EX2001, ¶¶181-182.) But as Williams explains, “[b]*usiness processes typically contain rules and policies* that must be followed during transaction processing.” (EX1011, 4.) In other words, the rules and policy changes are part of the automation process, and as a result, are stored together. Mr. Zatkovich also argues that the plurality of automation processes are not selected by a conversation. (EX2001, ¶181.) But the claims do not require that the automation process be selected by a conversation.

65. Mr. Zatkovich does not dispute that Williams discloses a GUI, but instead argues that Williams does not disclose updating its database via a GUI. (EX2001, ¶182.) I disagree. Williams discloses “using normal conversational

text,” which may include using a GUI. (EX2001, ¶183.) For example, Williams discloses “[t]he text . . . can be changed by simply logging into WPML as an administrator and editing the [text] field with new information.” (EX1011, 4.) A POSITA would have understood that an administrator logging in and editing a text field would involve a GUI since these actions involve the user (administrator) being able to see the login screen and text field (viewing a displayed user interface). Mr. Zatkovich does not dispute this. (EX1037, 190:18-194:5.)

**H. Symons-Williams Teaches The “client device of the user” (Claim 12)**

66. For claim 12, Mr. Zatkovich makes similar arguments regarding Symons disclosing different devices for the chatbot and RPA. (EX2001, ¶¶185-193.) As I discuss in paragraphs 42-43, Mr. Zatkovich is incorrect.

**I. A POSITA Would Have Been Motivated To Use A “voice-based service” (Claim 13)**

67. Mr. Zatkovich argues that a POSITA would not have been motivated to use a voice-based service for Symons because such services are “notoriously poorly suited,” add significant complexity, and lead to significant errors. (EX2001, ¶¶197-198.) Mr. Zatkovich is incorrect. The performance of voice-based services at the time of the ’664 invention was comparable to human transcribers (who made mistakes). For example, on August 20, 2017, Microsoft

“announce[d] that [its] research team reached [the] 5.1 percent [human parity word] error rate with [its] speech recognition system.” (EX1041, 2.)

68. Mr. Zatkovich also argues that it would have been more convenient to have the user type with a keyboard. But there are also instances where it would not have been more convenient for a user to type with a keyboard. For example, it may not be more convenient to type when the user’s hands are occupied, the keyboard is not easily usable or accessible (*e.g.*, for a disabled person), or for users who may not be proficient at typing. I disagree that a POSITA would not have been motivated to use a voice-based services in such instances, since no extra equipment is required (Mr. Zatkovich does not dispute) and the word error rate was comparable. In such instances, the benefits (convenience) would outweigh the small costs.

**J. Symons-Williams Teaches The “displayed user interface . . . is presented to the user” (Claims 16, 26, And 31)**

69. For claims 16, 26, and 31, Mr. Zatkovich makes similar arguments regarding Symons disclosing different devices for the chatbot and RPA. (EX2001, ¶¶200-204.) As I discuss in paragraphs 42-43, Mr. Zatkovich is incorrect.

**IV. ALLEN**

**A. Allen Teaches “using a natural language interface, receiving input from a user” (Elements 1[a], 19[a], And 29[b])**

70. Mr. Zatkovich argues that Allen does not disclose “using a natural language interface” because Allen only displays the automation process during the

training of the automation process, not during the execution of the automation process. (EX2001, ¶215.) According to Mr. Zatkovich, Allen's displays (task log 16 and speech interface display 20) are used only for training. But Allen's descriptions show that its displays are also used for executing an automation process. Allen discloses that its "system [] allows a user to teach a computational device how to perform complex, repetitive tasks that the user usually would perform using the device's graphical user interface (GUI)." (EX1014, Abstract.) The user "using the device's graphical user interface (GUI)" and the computational device performing what the "user usually would perform" means that automation process utilizes the GUI (displayed user interface) during execution of the automation process. And a POSITA would have understood from Allen's description that "[t]he present invention can be configured to apply to virtually any computational device employing a graphical user interface ("GUI")" means that a displayed user interface is used for both training and executing. (EX1014, 1:50-52.)

71. As Allen explains, the task log 16 and speech interface "displays allow the user to monitor his or her interaction with PLOW." (EX1014, 5:17-20.) And "[t]he system communicat[ing] with a user in natural dialog-based language" applies to both the "user teach[ing] the system . . . [and] the system . . . automatically execut[ing]" what it learned. (EX1014, 6:60-65.)

72. Further, Allen’s “method for learning and *executing executable tasks* using language . . . comprising: . . . providing software running on said computational device and supported *GUI-based interaction with said user*; . . . wherein said software includes a *natural dialog-based interface* whereby said user can communicate with said software using natural dialog-based language” shows that its GUI and natural dialog-based interface are not limited to just training. (EX1014, 18:38-49 (emphases added).)

73. Additionally, the descriptions of Figures 9 and 10 discuss the system executing a task that “assist[s] the user” (the system and user work together). The user identifies the title (EX1014, 15:25-28), and the system performs a search (EX1014, 15:28-31). As part of the description of this collaborative and iterative task, Allen discloses “*the user can readily observe the [system’s] mistake* and take action to correct it.” (EX1014, 15:39-40 (emphasis added).) This is another disclosure of Allen that shows that it displays the automation process during execution.

74. Thus, Allen teaches a natural language interface associated with executing an automation process. (EX2001, ¶¶217, 229.) Mr. Zatkovich points to Figures 2, 3, 7, and 8 to support his argument. (EX2001, ¶215.) Although the example shown in Figures 2, 3, 7, and 8 may be specific to training, given Allen’s disclosures, a POSITA would have understood that the GUI shown in Figures 2, 3,

7, and 8 and Allen's displays would also be used for displaying during executing the automation process.

**B. Allen Teaches The “natural language conversation comprises a first language input from the user, a natural language feedback . . . , and a second natural language input” (Elements 1[b], 19[b], And 29[c])**

75. Mr. Zatkovich argues that Allen does not teach element 1[b] because it does not teach a “natural language conversation.” Mr. Zatkovich also alleges that I did not argue that the “natural language interface” for obtaining the first natural language input is the same interface for the natural language feedback and second natural language input. (EX2001, ¶231.) But Mr. Zatkovich is ignoring my explanation in paragraph 155 of my opening declaration. (EX1003, ¶155.) As I explained, the conversation at 12:62-13:1 (EX1014) in Allen is a single conversation involving the user communicating with the software. Allen explains that its invention involves “a natural dialog-based interface” that “us[es] natural dialog-based language.” (EX1014, 18:47-49.) Thus, the inputs and feedback of this single conversation are part of the same natural language interface.

76. Mr. Zatkovich points to Figure 6 of Allen and alleges that Figure 6 is used to ask for the book title. (EX2001, ¶¶232-233.) But Mr. Zatkovich is wrong. The question in Figure 6 (“What is the name of the book you are looking for?”) is different from the question (“What is the title of the book?”) in the natural language conversation at 12:62-13:1 (EX1014). And Mr. Zatkovich agreed.

(EX2001, ¶234.) Additionally, Figure 6 relates to training (“observing the user’s actions in *teaching* the step”), not executing the automation process. (EX1014, 10:25-30 (emphasis added).) Mr. Zatkovich’s reliance on Figure 6 is improper, especially since the theory that I presented in my opening declaration did not rely on Figure 6.

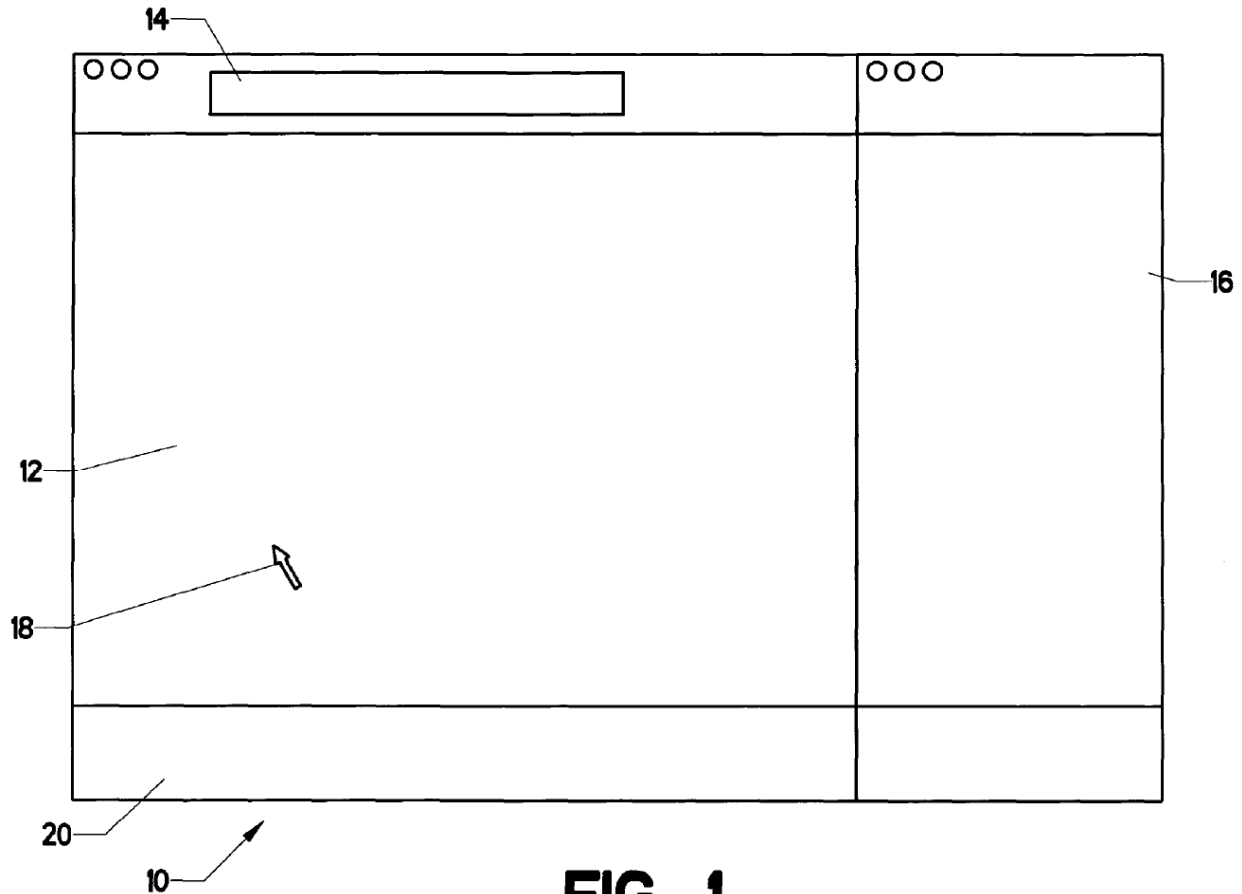
77. Mr. Zatkovich alleges that I testified that Allen’s Figure 6 is not a “natural language interface.” (EX2001, ¶¶232-233 (citing EX2003, 60:24-61:3).) But Mr. Zatkovich mischaracterizes my testimony. The question that Patent Owner asked me was regarding “a form where you fill in name, address, telephone number,” which is not shown in Figure 6. And in 257:20-24 of my deposition transcript, Patent Owner asked me whether Figure 6 is “an example of how the system asked it using the word ‘name’ instead of title.” (EX2003, 258:20-24.) Patent Owner did not ask me whether Figure 6 is a “natural language interface.”

**C. Allen Teaches “an automation process configured . . . to simulate user interactions with the displayed user interface of the computer program” And “executing a functionality of the displayed user interface” (Elements 1[f], 19[f], And 29[g])**

78. Mr. Zatkovich argues that PLOW is not a “computer program” under his construction, but as I discuss in paragraphs 7-13, his construction is wrong. (EX2001, ¶239.)

79. However, PLOW still meets Mr. Zatkovich's construction of "computer program." It is a single "software" (desktop application) that is a separate computer program with its own user interface (GUI 10 of FIG. 1) "running on a user's computer" (single computer device). (EX1014, 4:63-65.) As the '664 specification explains, a "computer program" may be "one of: a web-based application, a native mobile application, or a *desktop program*." (EX1001, 2:34-36 (emphasis added).) PLOW executes the book buying automation process through interaction with the GUI 10, such as by inputting the title in the title entry box 30 of GUI 10, navigating to an online vendor site of GUI 10, pulling down and selecting the "Books category" of GUI 10, picking and inputting data in the text entry box 58 of GUI 10, actuating the "GO" button of GUI 10, opening a specific book page of GUI 10, identifying the book price of GUI 10, and entering the book price on the purchase form of GUI 10. (EX1014, 12:11-61.)

80. Mr. Zatkovich argues that PLOW does not teach a "computer program" under his incorrect construction because it displays multiple user interfaces. (EX2001, ¶240.) But Figure 1 (below) shows that GUI 10 is a single user interface. And browser display 12 is part of GUI 10. As Allen explains, "FIG. 1 shows a representative graphical user interface 10. Browser display 12 is presented on the left side of the display area." (EX1014, Fig. 1, 5:6-8.)

**FIG. 1**

81. Mr. Zatkovich also argues that PLOW’s interactions do not activate functionalities of the target system because the book buying task is performed at a website, not by PLOW. (EX2001, ¶¶240-241.) For the book buying task (and similarly for the www.mapquest.com search), PLOW does activate functionalities, specifically receiving, entering, and submitting information via interaction with GUI 10, for buying the book. “**PLOW** . . . perform[s] the steps it was previously taught and **complete[s] the transaction.**” (EX1014, 12:66-13:1 (emphases added).) That is, PLOW’s interaction with GUI 10 causes the process of buying the book. I note that the claim recites that the “functionality” be “of the **displayed user**

*interface.*” (EX1001, Claim 1.) The claim does not recite that the “functionality” is “of the target system,” as Mr. Zatkovich alleges. (EX2001, ¶241.)

82. Mr. Zatkovich incorrectly alleges that I recognized that PLOW is not a target system in the ’317 IPR. (EX2001, ¶242 (citing IPR2024-00065, EX1003, ¶¶170, 171, 181).) However, those cited paragraphs of my declaration discuss [www.widgico.com](http://www.widgico.com), [www.amazon.com](http://www.amazon.com), and [www.mapquest.com](http://www.mapquest.com) as being target systems. I did not testify that everything else (including PLOW) is excluded from being a target system.

83. Additionally, the descriptions of Figures 9 and 10 discuss the system executing a task that “assist[s] the user” (the system and user work together). For example, the user identifies the title (EX1014, 15:25-28), and the system performs a search (EX1014, 15:28-31). As part of the description of this collaborative and iterative task, Allen discloses “the user can readily observe the [system’s] mistake and take action to correct it.” (EX1014, 15:39-40.) This is another example that shows that the executed automation process is displayed.

#### **D. Allen Teaches A “chat bot service” (Claims 2 And 3)**

84. For claims 2 and 3, Mr. Zatkovich again argues that a “chat bot service” requires a third-party service. (EX2001, ¶¶245-249.) But as I discuss in paragraphs 57-58, Mr. Zatkovich is wrong. I note that claim 20 does not recite a “chat bot service.”

85. And Mr. Zatkovich is wrong that it would not have been obvious to make Allen's chatbot service a third-party service because a third-party chatbot would not be enabled to train Allen's system. (EX2001, ¶250.) As I discuss in paragraph 150 of my opening declaration, it is the user that trains Allen's system. (EX1003, ¶150.) Allen's chatbot does not train its system, as Mr. Zatkovich argues. (EX2001, ¶250.) Further, as I testified, a POSITA would have been motivated to use a third-party chatbot service because it would expand Allen's customer base. (EX2003, 303:8-13.) Also, Mr. Zatkovich testified that third-party chatbot services were known (EX1037, 186:23-187:15), and there are benefits to using a third-party chatbot service, such as not needing to "implement a separate [chatbot] service," where the downsides are that "[y]ou have to, in some cases, purchase it. You may have to maintain it. You may have to configure it yourself" (EX1037, 185:9-16). In other words, there are benefits to using a third-party chatbot service including that "[i]t could be cheaper and it could be less complicated to maintain." (EX1037, 185:17-186:10.)

**E. Allen Teaches The "displayed user interface is a Graphical User Interface (GUI) comprising" "one or more input fields" (Claims 4 And 21) And "one or more interactable GUI elements" (Claims 5 And 22)**

86. For claims 4/21 and 5/22, Mr. Zatkovich makes arguments similar to the arguments he made for element 1[f]: that the "one or more input fields" and "one or more interactable GUI elements" are part of a website, not part of PLOW

or its GUI 10. (EX2001, ¶¶252-257.) As I discuss in paragraphs 81-82, Mr. Zatkovich is wrong. The website is shown in browser display 12, which is part of PLOW's GUI 10. As I explained in paragraphs 174 and 175 of my opening declaration, PLOW interacts with the input fields and the interactable GUI elements of GUI 10. (EX1003, ¶¶174-175.) Thus, the input fields and interactable GUI elements are part of GUI 10 ("displayed user interface").

**F. Allen Teaches "updating existing automation processes"  
(Claim 8)**

87. Mr. Zatkovich's argument that Allen does not teach updating tasks that have already been defined is flawed. (EX2001, ¶¶259-261.) Allen describes "add[ing] a new step *to the process* of buying a book, such as going to a particular web page." (EX1014, 8:18-21 (emphasis added).) Allen is thus adding a new step to the existing book buying automation process. A POSITA would not have understood this disclosure to mean adding a new process of buying a book, as Mr. Zatkovich suggests.

88. Allen also describes "introduc[ing] another step or sub task." (EX1014, 11:14-18.) Allen further describes a "new sub-task of going to a new website" for the existing book buying task. (EX1014, 12:35-37.) Since a sub-task is part of a task, a POSITA would have understood that creating a sub-task would mean that the task (automation process) is already in existence.

**G. Allen Teaches “determining a parameter . . . based on the second natural language input” (Claim 14)**

89. For claim 14, Mr. Zatkovich’s repeats his arguments from element 1[b] that Allen’s Figure 6 is not a “natural language interface.” (EX2001, ¶¶262-265.) Mr. Zatkovich’s arguments are incorrect as I explain in paragraphs 76-78. (EX2001, ¶¶262-265.)

**H. Allen Teaches “wherein the displayed user interface of the computer program is a user interface of a web browser, wherein said executing the automation process comprises activating the web browser to cause the displayed user interface to be displayed” (Claims 18 And 28)**

90. Mr. Zatkovich notes that, for claim 15, GUI 10 is displayed prior to the natural language conversation. (EX2001, ¶266.) But then Mr. Zatkovich argues that the mapping of Allen’s GUI 10 to “displayed user interface” for claim 15 is inconsistent with claim 18, which requires “activating the web browser to cause the displayed user interface to be displayed.” (EX2001, ¶267.) In other words, Mr. Zatkovich argues that claim 18 requires that “activating the web browser” occur prior to the displayed user interface being displayed. I disagree since the language of claims 18 and 28 does not have language such as claim 15’s “prior to” language.

91. However, even if, for some reason, the claims require activating the web browser prior to the displayed user interface being displayed, Allen still teaches claim 18. In Allen, browser 12 is the user interface of the web browser.

(EX1003, ¶201.) The automation process navigates to the URI (activates the web browser), which causes the user interface of the web browser to be displayed (*e.g.*, browser 12 displays amazon.com or widgico.com). (EX1014, 6:4-12.)

## **V. ALLEN-DAYANANDAN**

### **A. Dayanandan Is Analogous Art**

92. Mr. Zatkovich argues that Dayanandan is not in the same field of endeavor as the '664 patent because Dayanandan does not deal with automation processes. (EX2001, ¶¶278-282.) But Dayanandan is relied on for its teachings of claim 9. And claim 9 requires “identifying [an] element in [a] displayed user interface.” (EX1001, Claim 9.) Dayanandan relates to application development, and part of the application development involves “identify[ing] one or more data objects to be mapped or associated with one or more GUI screens of the application.” (EX1015, Abstract.) Thus, both the purported invention of claim 9 and Dayanandan relate to identifying GUI elements and displayed user interfaces. That is, Dayanandan is directed to the same function and structure, and as a result is in the same field of endeavor as claim 9 of the '664 patent.

93. Mr. Zatkovich also argues that Dayanandan is not reasonably pertinent to the problems faced by the '664 inventors because the '664 claims are meant to address difficulties related to improving chatbots and automated processes. (EX2001, ¶283.) But, according to Mr. Zatkovich, this is just one of

the many problems faced by the '664 inventors (as Mr. Zatkovich acknowledges (EX2001, ¶¶65-71)). Another problem faced by the '664 inventors (specific to claim 9) is that GUI elements may change, and thus identifying GUI elements based on parameters may lead to “identify[ing] such [UI] element correctly.” (POR, 64; EX1001, 10:22-64, 8:63-65.) Mr. Zatkovich also acknowledged that this is a problem. (EX2001, ¶¶67, 289.)

94. Dayanandan similarly recognized that a problem faced with GUI screens is that a GUI element may change (“dynamic components”), and then Dayanandan presents a solution of identifying GUI elements based on multiple aspects leading to identifying the best match for a user interface element (“a ‘best’ match may be determined”). (EX1015, 22:8-44.) Thus, Dayanandan is reasonably pertinent to the problems faced by the '664 inventors.

**B. Dayanandan Teaches “identify[ing] the element” (Claim 9)**

95. Mr. Zatkovich does not dispute that Dayanandan teaches identifying a GUI element, but argues that the GUI element is an abstract data object and the GUI is a potential screen. (EX2001, ¶294.) However, claim 9 merely requires identifying “an element in the displayed user interface,” without limiting the type of element in the displayed user interface. And whether or not a potential screen, Dayanandan nevertheless teaches a “GUI screen.” (EX1015, 22:16.)

96. Additionally, Mr. Zatkovich points to different teachings of Dayanandan than I relied on and discussed in my opening declaration. Mr. Zatkovich points to 24:6-8 of Dayanandan for allegedly disclosing “abstract” data objects and “a potential screen.” (EX2001, ¶295.) However, 24:6-8 is discussing the “*new* data object” of step 314, whereas my theory relied on Dayanandan’s teachings of a similarity score regarding an “*available* data object” (discussed in EX1016, 22:38-48) of steps 310 and 312 as discussed in 22:38-48. (EX1003, ¶¶230-242.) Mr. Zatkovich did not rebut the discussions I provided in paragraphs 230-242 of my opening declaration. Dayanandan teaches claim 9, and the combination renders the claim unpatentable.

## **VI. KRISHNAN-RADHAKRISHNAN**

### **A. Radhakrishnan Is Analogous Art**

97. Mr. Zatkovich argues that Radhakrishnan is not in the same field of endeavor as the ’664 patent because Radhakrishnan does not teach invoking an automation process based on a natural language input. (EX2001, ¶¶327, 329.)

98. But, as Mr. Zatkovich admits, the ’664 relates to executing an automation process comprising a sequence of interactions. (EX2001, ¶326.) And this is in line with Radhakrishnan. Radhakrishnan describes its invention as “leverag[ing] the unique interactions of a robotic process automation module with

a user interface of an application to simulate user operations with [a] user device.”  
(EX1018, Abstract.)

99. Mr. Zatkovich improperly tries to narrow Radhakrishnan’s field of endeavor specifically to file diagnosis and correction, in order to differentiate over the ’664 patent. (EX2001, ¶¶ 329, 330.) However, I have been informed that art for purposes of determining whether it is analogous can be based on the broad scope of the field, not necessarily the specific problem being solved. For Radhakrishnan, file diagnosis and correction is a specific problem being solved.

100. Mr. Zatkovich also tries to focus on chatbots and invoking automated processes using a natural language interface as the reasonably pertinent problems faced by the ’664 inventors. (EX2001, ¶¶331-332.) But both the ’664 inventors and Radhakrishnan describe problems that pertain to automation processes and using them to perform user tasks to improve the user experience. The ’664 patent describes it as “simplif[ying] the end-user experience by collecting data from him and executing a predefined automation flow.” (EX1001, 8:4-6.) The ’664 patent also describes “[t]he automation process may be executed in a manner that manipulates the GUI of the target system, in a similar manner to the manner in which the user operates.” (EX1001, 9:1-4.) Mr. Zatkovich acknowledges the problems discussed at 8:4-6 and 8:65-9:4 of the ’664 patent. (EX2001, ¶¶87, 331.) Radhakrishnan describes it as “computer systems are relied upon to complete

various tasks and increase user and/or process efficiency.” (EX1018, 1:7-9.)

Radhakrishnan also describes “interactions of a robotic process automation module with a user interface of an application to simulate user operations with the user device.” (EX1018, Abstract.) Mr. Zatkovich acknowledges the problems discussed at 8:4-6 and 8:65-9:4 of the ’664 patent. (EX2001, ¶¶87, 331.)

**B. Krishnan-Radhakrishnan Teaches “wherein the natural language conversation comprises . . . a second natural language input” (Elements 1[b], 19[b], And 29[c])**

101. Mr. Zatkovich argues that Krishnan does not teach a “second natural language input” because Krishnan presents buttons for selection, and according to Mr. Zatkovich, buttons are not a “natural language input.” (EX2001, ¶¶337-340.)

102. To support his assertions, Mr. Zatkovich points to my testimony regarding bots using buttons and not being a natural language input as a result. A POSITA would have understood that an “input” that is part of a “natural language conversation” is a “natural language input” (including a “second natural language input”). A POSITA would not have viewed Krishnan’s button selection for one input in isolation and conclude that it is not a “natural language input.” And Mr. Zatkovich mischaracterizes my testimony. (EX2001, ¶341 (citing EX2003, 199:11-200:25; EX2004, 336:5-337:3).) My testimony discussing a form that is not human natural language refers to “*where you would just have the choice of just that one thing* that you would either click or select or something like that”

(EX2004, 336:21-24) such as where “[t]hey ask you a question in English, and you *click yes or no or you select something and then say next.*” (EX2003, 200:15-19.)

This is not the scenario in Krishnan. The user in Krishnan does not click “yes” or “no,” and then select “next.”

103. Krishnan’s chatbot provides more than just a yes/no selection followed by clicking next. The user types “Book Flight,” and also selects among multiple destination locations. (EX1016, Fig. 1.) Further, Krishnan’s disclosures support that its chatbot receives user input via typed words, including for destination 130 (mapped to a “second natural language input”), such as “the user typ[es] in ‘Europe’.” (EX1016, 11:4-6.) A POSITA would have also understood that the user provides inputs to the chat via typed words for “dates of travel, . . . and credit card information” (EX1016, 3:1-3.) Thus, Krishnan teaches a “second natural language input.”

**C. Krishnan-Radhakrishnan Teaches “executing the automation process, wherein said executing comprises utilizing the displayed user interface of the computer program” (Elements 1[f], 19[f], And 29[g])**

104. Mr. Zatkovich argues that 2:33-35 (EX1016) of Krishnan mentions a “backend system,” and thus, Krishnan teaches away from “utilizing the displayed user interface.” (EX2001, ¶347.) However, 2:33-35 of Krishnan is discussing a chatbot, whereas elements 1[f], 19[f], and 29[g] refer to the displayed user interface of an automation process. Additionally, 2:33-35 states “one or more

backend databases *or other information processing systems*,” which means its invention works with non-backend systems.

105. Further, Mr. Zatkovich assumes a backend database and displayed user interface cannot be used together. (EX2001, ¶345.) But this is wrong. A database is for storing, and a displayed user interface is for displaying. The two can co-exist in the same system. For example, Krishnan teaches the “chat bot may respond to customer input by retrieving *[(backend database)]* and providing the requested information, requesting additional input or information from the user *[(chatbot)]*, or performing an action and providing the user with status updates about the progress of the action *[(automation process)]*.” (EX1016, 2:40-44.) Thus, Krishnan teaches that the use of a backend database works together with—and not instead of—an automation process.

106. Regarding Radhakrishnan, Mr. Zatkovich acknowledges that Radhakrishnan mirrors the user’s operations on a displayed user interface, but tries to distract from these teachings by placing emphasis on Radhakrishnan’s disclosure of an “operation record.” (EX2001, ¶347.) Radhakrishnan explains that “the RPA module . . . monitor[s], detect[s], reproduce[s], and store[s] the actual user operations to [] populate the operation record.” (EX1018, 11:52-60.) In other words, the RPA module’s use of a displayed user interface is used to generate the operation record. It is irrelevant whether the operation record is used to execute

the functionality of the automation process, as Mr. Zatkovich argues. (EX2001, ¶347.)

107. Mr. Zatkovich also argues that Radhakrishnan’s user operations are not displayed because its RPA works “within a virtual environment.” (EX2001, ¶¶313, 348.) That is, Mr. Zatkovich is alleging that “a virtual environment” is not displayed. This is incorrect. A POSITA would have understood that a “virtual environment” refers to a computer-simulated environment that allows user interactions via an interface, and one type of interface is a displayed user interface.

108. Radhakrishnan confirms in stating, “[i]n some embodiments, the RPA module interacts directly with a *presentation layer* of the application *within a virtual environment*.” (EX1018, 11:41-47 (emphases added).) A POSITA would have understood that a presentation layer refers to a displayed user interface. Radhakrishnan explains, “[t]he RPA module may typically interact[] with *a presentation layer of the computer system (i.e., the UI)*.” (EX1018, 5:10-12 (emphasis added).) Radhakrishnan further explains that “bots” are “trained to mimic user *activity directly with a UI*.” (EX1018, 5:49-50 (emphasis added); *see also* 6:29-34.) Since the user operations are with a displayed user interface and the RPA mimics the user operations, the RPA utilizes a displayed user interface, as I explained in my opening declaration. (EX1003, ¶¶253-256, 265-267.)

**D. A POSITA Would Have Been Motivated To Combine  
Krishnan And Radhakrishnan**

109. Mr. Zatkovich argues that a POSITA would not have been motivated to combine Krishnan and Radhakrishnan. To start, Mr. Zatkovich mischaracterizes the Krishnan-Radhakrishnan combination, which relies on Krishnan's teachings of a chatbot and automation process and Radhakrishnan's teachings of an automation process. (EX2001, ¶319.)

110. Mr. Zatkovich alleges that I did not show that Krishnan is supported by its provisional application. (EX2001, ¶301.) Mr. Zatkovich is wrong. I provided over 6 pages of discussion in ¶243 of my opening declaration. (EX1003, ¶243.) Also, the Krishnan provisional discloses "process[ing] the request to book the flight." (EX1017, [0004]; EX2001, ¶305.) Mr. Zatkovich's argument also fails because, as I have been informed, motivation to combine need not appear explicitly in the prior art reference, nor do specific examples which would be part of POSITA knowledge. (EX2001, ¶¶301, 352.)

111. Mr. Zatkovich argues that a POSITA would request information directly from databases without the need of an automation process that utilizes a displayed user interface. (EX2001, ¶¶307, 353.) As I discuss in paragraph 105, where a backend database is used, Krishnan teaches using it together with an automation process. (EX1016, 2:40-44.) Mr. Zatkovich's argument that it would be less efficient to access the backend database through a user interface is

misplaced. The claims require executing an automation process that utilizes a displayed user interface. The claims do not require accessing a database by utilizing a displayed user interface, and the obviousness combination does not replace a database or access it utilizing a displayed user interface, as Mr. Zatkovich suggests. (EX2001, ¶¶306-307.)

112. And besides, Mr. Zatkovich is wrong that it would be more costly and less efficient to update a database using a displayed user interface. (EX2001, ¶307.) A POSITA would have known about the benefits that RPA has to offer when performing complicated tasks at the presentation layer (displayed user interface). As Radhakrishnan explains, it “reduce[s] the amount of computing resources required to execute tasks when compared with executing the same tasks using a traditional application programming interface (API)” and “avoid[s] the costly and time-consuming process of building a new and complicated API-based systems from the ground up.” (EX1018, 6:22-29.) “[I]nteraction through the data layer would require more complex programming requiring additional resources for development and operation.” (EX1018, 6:36-38.) “The bot application [] interacts with the application at the user interface level and has the ability to input information or data into another application, whereas a typical application would be waiting for an input.” (EX1018, 6:38-42.) Thus, contrary to Mr. Zatkovich’s

arguments, reducing computing resources is an advantage of RPA bots even if used to access a database using a displayed user interface. (EX2001, ¶352.)

113. Because Radhakrishnan names multiple benefits to RPA and interaction with a displayed user interface, Mr. Zatkovich then argues that Radhakrishnan's discussion about "reduc[ing] the amount of computer resources" in 6:20-38 (EX1018) is specific to error detection, and does not apply to other RPA bots. (EX2001, ¶352.) I disagree because Mr. Zatkovich's argument is contrary to what Radhakrishnan says. 6:21-34 (EX1018) of Radhakrishnan states: "*[b]y leveraging robotic process automation technology, the present invention reduces the amount of computing resources* required to execute tasks when compared with executing the same tasks using a traditional application programming interface (API)." (EX1018, 6:21-34 (emphases added).) The phrase "[b]y leveraging" means that what follows after (robotic process automation technology) is the cause for the effect (reducing the amount of computing resources). Radhakrishnan did not say "by leveraging error detection," as Mr. Zatkovich suggests. Krishnan teaches a natural language interface (which Mr. Zatkovich does not dispute) and automatically invoking an automation process. Radhakrishnan teaches an automation process that simulates a sequence of interactions with a displayed user interface. A POSITA would have understood that Radhakrishnan's teachings are not rigid or strictly limited to "file diagnosis and correction." A POSITA would

have understood that Radhakrishnan's RPA bot can be used to automate other processes, such as automating the process of booking a ticket for a flight.

114. Thus, a POSITA would have been motivated to combine the teachings of Krishnan (chatbot that invokes an automation process) and Radhakrishnan (an automation process that simulates user interactions with a displayed user interface), as I explained in paragraphs 257-259 of my opening declaration. (EX1003, ¶¶257-259.)

**E. Krishnan-Radhakrishnan Teaches “the chat bot service configured to prompt the user to provide a value for the parameter, wherein said executing comprises utilizing the value of the parameter” (Claims 3 And 20)**

115. Mr. Zatkovich argues that Krishnan-Radhakrishnan does not teach claims 3 and 19 because, according to Mr. Zatkovich, the “combination relies on Radhakrishnan for implementing the automation process” as part of a conversation with a chatbot. (EX2001, ¶356.) But again, the combination relies on teachings from **Krishnan and** Radhakrishnan. Mr. Zatkovich does not provide any rebuttal against the combination.

**F. Krishnan-Radhakrishnan Teaches The “displayed user interface is a Graphical User Interface (GUI),” “said utilizing the displayed user interface comprises inputting data received by the natural language interface” (Claims 4 And 21), And “said utilizing the displayed user interface comprises performing interface interaction with the one or more interactable GUI elements” (Claim 5 And 22)**

116. For claims 4/21 and 5/22, Mr. Zatkovich repeats and refers back to some of the arguments he made for element 1[f] and claims 3/20, that Radhakrishnan’s virtual environment is not a “displayed user interface” and that its automation process does not utilize values from a natural language conversation. (EX2001, ¶¶358-359.) I explained why Mr. Zatkovich’s arguments are incorrect in paragraphs 107-108 and 115.

117. Mr. Zatkovich also tries to differentiate the claims and Radhakrishnan by arguing that Radhakrishnan *alone* does not obtain user input “prior to observing or simulating the automation process itself,” or “later performing a completed automation process.” (EX2001, ¶360.) But, again, it is the combination of Krishnan and Radhakrishnan that teaches claim 4, 5, 21, and 22, as I discuss in paragraphs 270-275 of my opening declaration. (EX1003, ¶¶270-275.)

**G. Krishnan-Radhakrishnan Teaches “the database is updatable . . . via a Graphical User Interface (GUI) capable of . . . updating existing automation processes” (Claim 8)**

118. Mr. Zatkovich alleges that I failed to point to any teaching in Krishnan or Radhakrishnan of updating a database of automated processes via a

GUI. (EX2001, ¶365.) But as I explained in ¶284 of my opening declaration, Radhakrishnan discloses “[b]ots may further comprise a process recorder for capturing and recording a sequence of user actions for further training or completing tasks.” (EX1003, ¶284 (citing EX1015, 5:64-6:8).) “[R]ecording” means there is a database. The sentence is talking about bots and tasks, which means the database is storing automation processes. Additionally, Radhakrishnan uses the phrase “*further* training” which means updating an existing automation process since there is additional training on top of the training that has already happened.

119. Mr. Zatkovich’s argument that “further training” can mean “during training” is incorrect. (EX2001, ¶366.) Radhakrishnan explains that information “may be stored by a maintaining entity in a central repository or database for *future reference and further training* and configuration of RPA modules for customized tasks.” (EX1018, 12:29-32.) Along with “further training,” “future reference” does not suggest “during.”

120. Radhakrishnan explains that “these bots can be ‘trained’ or essentially programmed to execute tasks simply by even a non-tech-savvy user through the use of simple drag and drop task functionality or configuration wizards.” (EX1018, 5:59-64.) A POSITA would understand that training (including “further

training”) by a non-tech-savvy user via drag and drop task functionality means updating via a GUI.

121. Mr. Zatkovich’s argument that “further training” can mean “during training” is incorrect. (EX2001, ¶366.) Radhakrishnan explains that information “may be stored by a maintaining entity in a central repository or database for *future reference and further training* and configuration of RPA modules for customized tasks.” (EX1018, 12:29-32.) Along with “further training,” “future reference” does not suggest “during.”

**H. Krishnan Teaches “said executing is performed on a client device of the user” (Claim 12)**

122. For claim 12, Mr. Zatkovich argues that using a client device goes against Krishnan’s teachings of using a backend database. (EX2001, ¶372.) But as I discuss in paragraphs 104, Krishnan teaches using a backend database for one embodiment, and teaches non-backend systems in another embodiment. (EX1016, 2:33-35.)

123. Additionally, Mr. Zatkovich’s argument that a client device does not have access to a backend database is incorrect. (EX2001, ¶372.) The ’664 patent even provides an example of a client device that has access to a backend database: “[t]he definitions of the automation process may be stored in a database and retrieved on the client-side for execution.” (EX1001, 14:29-32.)

**I. Radhakrishnan Teaches “the displayed user interface of the computer program is presented to the user” (Claim 16)**

124. Mr. Zatkovich’s argument for claim 16 is a repeat from his argument for element 1[f] regarding Radhakrishnan’s “virtual environment.” (EX2001, ¶274.) This argument is flawed for the same reasons that I provided in paragraphs 107-108.

**J. Radhakrishnan Teaches “said executing the automation process comprises activating the web browser to cause the displayed user interface to be displayed” (Claims 18 And 28)**

125. Mr. Zatkovich argues that Krishnan-Radhakrishnan does not teach claims 18 and 28 by repeating his argument that the combination of Krishnan and Radhakrishnan does not teach an automation process that utilizes a displayed user interface. (EX2001, ¶374.) I addressed this argument in paragraphs 104-108.

126. Mr. Zatkovich also argues that Krishnan-Radhakrishnan further does not teach claim 18 because the web browser may be opened by the user, and as a result, there is no “activating.” (EX2001, ¶375.) However, Mr. Zatkovich ignores that Radhakrishnan’s automation process “reproduces the actual operations of the user in real-time.” (EX1018, 2:4-6.) As a result, if a user opens a web browser, then the automation process activates the web browser at the same time, thereby “activating the web browser to cause the displayed user interface to be displayed.” Regarding Mr. Zatkovich’s argument that the web browser may have already been

open, Radhakrishnan discloses that “the system detects a *first* operation executed by the user.” (EX1018, 11:22-23 (emphasis added).) As a result, the web browser would not have been open before the RPA module executes the automation process.

127. Mr. Zatkovich also makes the same motivation to combine arguments that I addressed in paragraphs 109-114. (EX2001, ¶¶376-377.)

## **VII. LEVEL OF ORDINARY SKILL IN THE ART**

128. For the level of ordinary skill in the art, Petitioner proposed: “[a] person of ordinary skill in the art (‘POSITA’) in the field of the ’664 patent would have a bachelor’s degree in engineering or computer science and two years of experience working on NLP and automation processes. Alternatively, a POSITA would have five to six years of experience working on NLP and automation processes.” (Petition, 5-6.) I agree with Petitioner’s proposed level. (EX1003, ¶¶51-52.)

129. I understand that Patent Owner and Mr. Zatkovich disagree with Petitioner’s proposed level. (POR, 25; EX2001, ¶40.) Mr. Zatkovich argues that Petitioner’s proposed level is inconsistent with factor 4 (“rapidity with which innovations are made”), factor 5 (“sophistication of the technology”), and factor 6 (“educational level of active workers in the field”). (EX2001, ¶40.) I disagree with Patent Owner and Mr. Zatkovich for the reasons set forth below.

130. In my opinion, the evidence shows that Petitioner's POSITA level is proper.

- EX1014 (Allen) shows that the combination of a chatbot and automation process was known by at least 2007. (See EX1003, ¶¶ 59, 154-163.)
- EX1031 (Le Clair) described a robotic automation tool by EdgeVerve as of 2013 and its integration with chatbots: “In *January 2013*, EdgeVerve launched its AssistEdge robotic automation tool and now has 80 customers, mostly in banking, interactive commerce, distributive trade, credit servicing, and customer service.” (EX1031, 13 (emphasis added).) “EdgeVerve implemented a *chatbot for a technology company that will launch RPA scripts* based on user interactions. Several vendors had *integrated a voice or chatbot interface into their RPA platforms*, had customers in beta test, or had self-service portals or interactive voice response (IVR) deployments on their road maps, but only a handful had live integrations.” (EX1031, 4 (emphases added).)
- Le Clair (EX1031) also discusses the integration of chatbots (conversational understanding) and RPAs in 2015, including “for nonprogrammers.” “In *2015*, [WorkFusion] turned to RPA. It

specializes in conversational understanding to improve how people interact with machines.” (EX1031, 12 (emphasis added).) LeClair described that WorkFusion’s combination of chatbot and RPA as being “[l]ater to the market than others and not as purely focused on the RPA game plan.” (EX1031, 12.)

- EX1032 (Arya) discusses the chatbots in 1994 and 1995 that used natural language processing (NLP). “*ELIZA*: It is considered to be the first chatbot in the history of Computer Science . . . It was in **1994** that the term ‘Chatterbot’ was coined.” (EX1032, 3 (emphasis added).) “*ALICE*: It was developed in 1995. . . . , the ALICE chatbot was able to use natural language processing.” (EX1032, 3.)
- EX1028 (Ferscht) discusses RPA and its presence in 2012, including “Blue Prism’s novel idea is to give business units a tool to automate these ad hoc processes on their own, addressing their custom requirements without relying on an expensive, lengthy IT development process . . . It calls this concept ‘robotic automation,’ and refers to the custom applications produced by its software and methodology as ‘robots.’” (EX1028, 4.)

I note that neither Patent Owner nor Mr. Zatkovich disputes this evidence, including EX1011 (Williams), EX1016 (Krishnan), EX1018 (Radhakrishnan),

EX1026 (Melendez), EX1029 (Lacity), and EX1030 (Bornet). This evidence shows that the “rapidity with which innovations are made” was low and “sophistication of the technology” was high as there is a 10 year difference from Allen (in 2007) to the ’664 patent (in 2017), thereby showing that Petitioner’s proposed POSITA level is proper.

131. For factor 4 (“rapidity with which innovations are made”) and factor 5 (“sophistication of the technology”), Mr. Zatkovich alleges that the combination of RPA and chatbots was new and innovative. (EX2001, ¶42.) But in reaching this conclusion, Mr. Zatkovich misrepresents the Symons Article and the Baetens Article. The Symons Article and the Baetens Article did not claim or suggest that combining RPA bots and chatbots was “so new and purportedly innovative.” (EX2001, ¶42.) Instead, Symons stated: “[w]e decided to join forces with Arinti, specialized in chatbot and AI technologies within the Cronos Group, to explore the possibilities to combine RPA bots with chatbots.” (EX1004, 1 (emphasis added).) Baetens similarly stated that, “[a]s soon as *we’ve heard about our new colleagues at RoboRana*, we’ve been figuring out how to combine these technologies in a customer case.” (EX1009, 2 (emphasis added).) As Symons explained, RoboRana specialized in “developing intelligent automation such as Robotics Process Automation (RPA).” (EX1008, 1.) And as Baetens explained, Arinti specialized in “transforming data using artificial intelligence (AI); one example application

includes conversational AI bots.” (EX1010, ¶2.) As I explained in paragraph 130 and in paragraphs 17-21 of my opening declaration, the combination of chatbots and automation processes was known at the time to a POSITA. Since RoboRana specialized in one aspect of the combination and Arinti specialized in the other aspect, a POSITA would have understood Symons and Baetens passages as suggesting that if anything was new, it was specific to the RoboRana and Arinti collaboration.

132. Additionally, Symons’ “evolving rapidly” statement refers generally to the “technology landscape.” (EX2001, ¶42 (citing EX1004, 1).) A POSITA would have understood that this “evolving rapidly” statement does not refer to the combination of chatbots and RPA, since the very next sentence discusses both “[n]ew technologies” and “older technologies.” (EX1004, 1.) Further, Baetens’ comment that “we can’t share much about the results of our joint effort (yet)” does not suggest that its chatbot-RPA or the chatbot-RPA technology had not been developed. As I discuss in paragraph 45, there are other reasons for a company not to disclose low-level details that are unrelated to the level of sophistication in the technology.

133. For factor 6 (“educational level of active workers in the field”), Mr. Zatkovich assumes that Symons had less experience than Petitioner’s proposed level by only counting Symons’ time at RoboRana. (EX2001, ¶43.) That is, Mr.

Zatkovich improperly ignores Symons' time before his employment at RoboRana, thereby his conclusion that Symons only had 19 days of experience is flawed. In my opinion, time spent studying a specific area while in school counts as experience. Mr. Zatkovich testified that he also counts his time during school as experience. (EX1036, 16:7-25.)

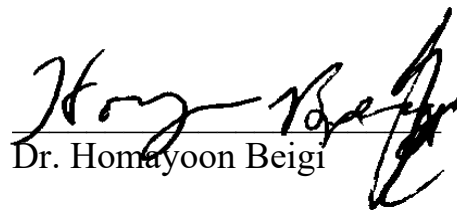
134. Mr. Zatkovich proposed level of ordinary skill is: "a POSITA would have had some education either formal or informal in computer science and some work experience (e.g., 1-2 years) with chatbots using NLP or automation process." (EX2001, ¶44.) I disagree with Mr. Zatkovich's proposed level for the reasons stated above. I also disagree because it is unclear what "some education, formal or informal" or "some work experience" means.

135. If Mr. Zatkovich's proposed level is adopted, my analysis would be the same. Mr. Zatkovich agrees. (EX2001, ¶45.) And Mr. Zatkovich misunderstands my testimony regarding my analysis and opinion from the perspective of a POSITA. (EX2001, ¶141 (citing EX2003, 194:4-13).) As I testified, while I have more experience than a POSITA, my qualifications allow me to provide analyses and opinions from the perspective of a POSITA.

\* \* \*

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code.

Dated: Oct. 17, 2024

  
Dr. Homayoon Beigi