

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WHATFIX INC.,
Petitioner,

v.

WALKME LTD.,
Patent Owner.

Patent No. 11,258,732

Inter Partes Review No. IPR2023-01379

REPLY DECLARATION OF DR. HOMAYOON BEIGI

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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. 11,258,732 (“the ’732 Patent”) (EX1001). I described my qualifications in detail in my opening declaration dated September 20, 2023, which I understand is Exhibit 1003 to this proceeding. (September 20, 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 ’732 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, ¶¶37-45, 48.)

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 '732 patent, including under their proposed constructions of “computer program” / “displayed user interface of the computer program”; “defining” / “defining an automation process” / “defining a conversation;” the order of elements 1[a], 1[b], and 1[d]; and “at least one of: a message element and a condition element.” (EX1001, 22:15-39, 23:23-49, 24:23-50 (Claims 1, 11, and 18, in part).) I offer the following opinions in response.

II. CLAIM CONSTRUCTION

6. I understand that Patent Owner and Mr. Zatkovich believe that several terms of the '732 patent have “specific” meanings. Patent Owner and Mr. Zatkovich propose construing “computer program” as a “a target system whose functionality is invoked through by the automation process using its displayed user interface, such as a graphical user interface.” (POR, 25; EX2001, ¶100.) I understand that Patent Owner and Mr. Zatkovich believe that “displayed user interface of the computer program” also has a “specific” meaning, and propose

construing it as “the displayed user interface of the target system that the user may utilize to activate the functionalities of the target system.” (POR, 25; EX2001, ¶100.)

7. Patent Owner and Mr. Zatkovich also allege that “defining,” “defining an automation process,” and “defining a conversation” have “specific” meanings. Patent Owner proposes construing “defining” as “the process of allowing non-programmers and novice users to create automation processes and conversations without relying on programming skills.” (POR, 27-28; EX2001, ¶100.) Mr. Zatkovich proposes construing “defining” as “generating by a non-programming user via a user interface a flow in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages, or the like.” (POR, 27; EX2001, ¶100.)

8. Patent Owner and Mr. Zatkovich propose construing “defining an automation process” as “generating by a non-programming user via a user interface an automation process flow including a sequence of interactions in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages or the like.” (POR, 28; EX2001, ¶¶100, 106.)

9. Patent Owner and Mr. Zatkovich propose construing “defining a conversation” as “generating a conversation flow and its associated parameters (to be implemented by a natural language interface) by a user via software operating

on the user device in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages or the like.”

(POR, 29; EX2001, ¶¶100, 107.)

10. Patent Owner and Mr. Zatkovich also allege that the claims require an order of the steps in elements 1[a], 1[b], and 1[d]. According to Patent Owner and Mr. Zatkovich, the relative order is first the “defining” step (element 1[a]), then the “associating” step (element 1[b]), and then following the “publishing” step (element 1[d]). (POR, 29-30; EX2001, ¶¶61, 65, 67, 100.) For element 1[b]’s “associating the conversation with the automation process,” Mr. Zatkovich proposes construing this term as “connecting or matching a conversation configured to obtain from the user one or more values to one or more parameters with a parameterized automation process depending on the one or more parameters.” (EX2001, ¶100.) And for element 1[d]’s “publishing the conversation,” Mr. Zatkovich proposes construing this term as “making the conversation accessible to a user via the natural language interface, wherein the user is enabled to interact with the natural language interface in accordance with the conversation.” (EX2001, ¶100.)

11. Finally, Mr. Zatkovich proposes construing “at least one of: a message element and a condition element” of claims 3 and 13 as “at least one message

element and at least one condition element.” (EX2001, ¶100.) I disagree with their constructions for the reasons set forth below.

A. “computer program” / “displayed user interface of the computer program”

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

12. 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.

13. For the intrinsic evidence, the ’732 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, 19:60-65 (emphases added).) The specification provides additional descriptions that support a “computer program” as being instructions carried out by computer(s). For example:

- 10:14-16 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, 10:14-16 (emphasis added); *see also* 11:15-22 (“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.”).)
- 15:34-38 describes the 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, 15:34-38 (emphasis added).)
- And 21:24-32 describes the computer program as instructions that are loaded onto a single 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, 21:24-32 (emphasis added).)

14. For the 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.)

15. 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. 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.

2. The '732 Specification Does Not Show Clear Intent To Give “computer program” A Specific Meaning

16. Mr. Zatkovich argues that the meaning of “computer program” is a “target system whose functionality is invoked through by the automation process using its displayed user interface, such as a graphical user interface.” (EX2001, ¶100.) 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 give the term a “specific” meaning. To support his argument, Mr. Zatkovich relies on the specification’s passage at 5:9-13, 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, ¶¶109, 115 (citing EX1001, 8:5-13).) 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. (EX2001, ¶109; 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.

17. And I disagree that dependent claims 9 and 10 show that the term “computer program” itself requires functionality that is implemented based on parameters from the conversation. (EX2001, ¶¶111-112.) Claim 9 depends from claim 1, and thus, it is the limitations of claim 9 (not the meaning of “computer program”) that further limit claim 1’s “automation process” to one that is “configured to execute a new functionality of the computer program, wherein the new functionality is defined based on the values to the one or more parameters.” It is not that the meaning of “computer program” imports such requirements. Similarly, claim 10 depends from claim 1, and thus, claim 10 (not the meaning of “computer program”) further limits the “functionality of the computer program” to “inputting data to a field in the displayed user interface.” Neither claim shows show clear intent to give “computer program” a “specific” meaning.

18. Mr. Zatkovich also tries to impose certain restrictions in “computer program,” such as being a “separate” or “single” computer program (EX2001, ¶¶148, 153) with “its own” user interface (EX2001, ¶65) operated on a single

computer device (EX2001, ¶153). None of these terms is in the claim language. Moreover, Mr. Zatkovich's interpretation and construction of "computer program" would exclude the embodiments of the '732 patent that I discuss in paragraph 13. Additionally, Mr. Zatkovich's arguments that the "natural language interface" must be generated by software different from the "computer program" is not supported by the claims or specification. (EX2001, ¶68.) 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 term (lexicography), it is inconsistent with the claim language and the ordinary and customary meaning, and it would improperly exclude embodiments of the '732 specification. Mr. Zatkovich's construction of "displayed user interface of the computer program" is wrong for the same reasons.

B. "defining" / "defining an automation process" / "defining a conversation"

1. A POSITA Would Have Understood "defining," "defining an automation process," And "defining a conversation" According To Their Ordinary And Customary Meanings

19. A POSITA would have understood that the ordinary and customary meaning of "defining" is "configuring." This construction is supported by the intrinsic evidence and extrinsic evidence from the perspective of a POSITA.

20. The '732 specification describes “defining” generally as “configuring.” For example,:

- 9:4-5 of the specification describes “Chat Bot Front-End Module 130 may be *configured* to enable a User 190 to interact with a chat bot.” (EX1001, 9:4-5 (emphasis added).)
- 9:27-29 describes “Automation Execution Module 140 may be *configured* to execute, on the client-side, the automation process.” (EX1001, 9:27-29 (emphasis added).)
- 5:29-32 describes “*defining* the chat bots without the need of using dedicated APIs, programming languages, or the like. It may be desired that non-programmers may be able to *define* the automations that invoked by the chat bots.” (EX1001, 5:29-32 (emphases added).)
- 5:49-61 describes a “non-trivial” method for “*defining* [the] automation processes in a manner that enables them to be implemented even if changes are performed to the underlying platform.” (EX1001, 5:49-61 (emphasis added).)
- And several passages describe “defining” as being performed by something other than a user, such as the “*automation process may define* a sequence of steps to be performed” (EX1001, 7:5-7 (emphasis added)), the “*flow may define* announcements that the chat

bot service would provide to the user” (10:45-47 (emphasis added)), the “*flow may define* conditions . . .” (10:55-57 (emphasis added)), the “*flow may define* questions . . .” (10:57-59 (emphasis added)), and the “*questions may define* a name of a parameter . . .” (10:59-60 (emphasis added)).

Thus, the meaning of “defining” is “configuring” including configuring via non-trivial methods (*e.g.*, not a user interface) and by more than just non-programming users.

2. The '732 Specification Does Not Show Clear Intent To Redefine “defining,” “defining an automation process, Or “defining a conversation”

21. Mr. Zatkovich argues that the '732 specification redefines “defining” because the patent intends to address one specific technical problem (providing a user interface for a non-programmer user to define the automation process or conversation). (EX2001, ¶¶102-104.) I disagree. Although this may be one technical problem, it is not the only technical problem in the '732 specification, as Mr. Zatkovich acknowledged. (EX2001, ¶57.) And in my opinion, stating one technical problem does not show clear intent to redefine the term.

22. Further, the '732 specification discloses embodiments where the automation process or conversation is not defined via a user interface or by a non-programmer user. For example, the embodiment described at 5:49-61

“defin[es] [the] automation processes in a manner that enables them to be implemented even if changes are performed to the underlying platform.” As the specification explains, this is a “non-trivial task,” which suggests that a non-programmer would not be able to define the automation process via a user interface.

23. Additionally, claim 9 depends from claim 1 and recites “wherein the new functionality is *defined* . . . without relying on a dedicated Application Programming Interface (API) of the computer program.” (EX1001, 23:16-19 (emphasis).) Because claim 9 depends from claim 1, claim 1’s “defining” would be broader than claim 9’s “without relying on a dedicated Application Programming Interface (API) of the computer program.” In other words, “defining” is not limited to Mr. Zatkovich’s “without needing to use dedicated APIs, programming languages or the like.” (EX2001, ¶100.)

24. And Mr. Zatkovich alleges that I do not recognize the technical problems and solutions that the ’732 patent seeks to address and present. (EX2001, ¶¶195-198.) But as I discuss in paragraphs 19-24, “defining” encompasses defining by a non-programmer user and defining via a user interface, which covers the ’732 technical problems and solutions. Mr. Zatkovich’s construction is narrower, not covering all of the ’732 technical problems and solutions, including “defining automation processes” by a programmer (*e.g.*, “in a

manner that enables them to be implemented even if changes are performed to the underlying platform”) that I discuss in paragraph 223. (EX1001, 5:49-61.) The ’732 patent relates to “user-interfaces for automation processes that utilize chat bots.” (EX1001, 1:19-21.) As Mr. Zatkovich acknowledges, it identifies several technical problems and technical solutions/effects. (EX2001, ¶57.) The ’732 claims are not limited to the passages cited in 4:59-61 (describing defining chatbots) and 5:29-33 (describing chatbots and non-programmers defining an automation process) of the specification, as Mr. Zatkovich argues.

25. Mr. Zatkovich then points to the prosecution history of the ’317 patent and alleges that the Examiner recognized in a restriction requirement that “defining an automation process” and “using a natural language interface to input data or execute functionality” are two different inventions. (EX2001, ¶201.) Setting aside that the restriction requirement was a restriction in the file history of the ’664 patent, I note that the claims involved in the restriction requirement did not recite “using a natural language interface to input data or execute functionality,” but instead recited “utilizing the user interface of the computer program to input data thereto or execute functionality thereof” (as part of “executing the automation process”). (EX1002 of IPR2023-01368, 90, 94.) Hence, Mr. Zatkovich’s argument is misplaced, as I did not state that “defining an automation process” is the same as “executing the automation process.”

26. Mr. Zatkovich also tries to impose certain restrictions into “defining,” such as defining the conversation using separate software from the “natural language interface.” (EX2001, ¶190.) But neither the claims nor the specification support Mr. Zatkovich’s assertions.

27. Finally, I disagree with Mr. Zatkovich’s proposed constructions because it is unclear what “in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages or the like” means. Mr. Zatkovich’s constructions of “defining an automation process” and “defining a conversation” are wrong for the same reasons.

C. Order Of “defining a conversation” (Element 1[a]), “associating the conversation with the automation process” (Element 1[b]), And “publishing the conversation” (Element 1[c])

28. Claim 1 of the ’732 recites three steps: a “defining” step, an “associating” step, and a “publishing” step. I have been informed without clear language in the claim, the order of the elements listed in a claim alone does not impose a specific order. And the claim does not include language that requires a specific order, especially not the order that Mr. Zatkovich argues is required. (EX2001, ¶¶61, 65, 67, 100.)

29. Mr. Zatkovich argues that the order of the steps shown in Figure 3 of the ’732 patent reflects the order required by the claim. (EX2001, ¶¶123-125.) I have also been informed that the order of the steps shown in a figure alone does

not define the order required by the claim. This is especially true here since the '732 specification states “the functions noted in the block may occur *out of the order noted in the figures*. For example, . . . the blocks may sometimes be executed in the reverse order, depending upon the functionality involved.”

(EX1001, 21:41-46 (emphasis added).) The claims do not involve functionality that requires a specific order. Thus, the claims encompass the conversation being “associat[ed]” with the automation process whether “defining” occurs before or after.

30. Mr. Zatkovich also offers proposed constructions for “associating the conversation with the automation process” and “publishing the conversation” in attempt to reinforce his arguments regarding the order of steps. (EX2001, ¶100.) For example, Mr. Zatkovich argues that Radhakrishnan does not teach “associating the conversation with the automation process” because the conversation is not defined beforehand. (EX2001, ¶479.) As I discuss in paragraphs 29-31, the claims do not require a specific order of elements.

31. I note that Mr. Zatkovich argues that the “publishing the conversation” step must be performed by software different from the “natural language interface” and the “computer program.” (EX2001, ¶70.) The claims do not impose such a requirement, and Mr. Zatkovich does not identify support for his arguments.

D. “at least one of: a message element and a condition element”

32. Mr. Zatkovich argues that “at least one of: a message element and a condition element” of claims 3 and 13 means “at least one message element and at least one condition element.” (EX2001, ¶100.) However, this is inconsistent with the specification, which discloses the ability to independently choose different elements. (EX1001, 15:52-16:6, Fig. 5A, Figs. 7A, 7B (showing only message elements).) For example, the user may click on the “Add Message Button 552 . . . configured to add a message step.” (EX1001, 15:56-57.) A POSITA would have understood that the user clicking on “Add Message Button 552” would not itself lead to adding a condition element. The user may alternatively click on the “Add Condition Button 556 . . . configured to add a condition step.” (EX1001, 15:67-16:1.) A POSITA would have understood that the user clicking on “Add Condition Button 556” would not itself lead to adding a message element. And Mr. Zatkovich agreed that “there are four separate buttons [in the ’732 patent’s Figure 5B] to allow the user to independently add a message, question, condition or action [to a conversation].” (EX1036, 74:15-19.) Thus, a POSITA would have understood that “at least one of: a message element and a condition element” means “at least a message element *or* a condition element.”

III. SYMONS-WILLIAMS

A. Symons-Williams Teaches “defining an automation process” Of Elements 1[pre], 11[pre], And 18[pre]

1. Symons teaches “defining an automation process”

33. Mr. Zatkovich argues that Symons-Williams does not disclose elements 1[pre], 11[pre], and 18[pre] based on his incorrect construction of “defining.” (EX2001, ¶¶188-210.) As I discuss in paragraphs 22-28 of the claim construction section, Mr. Zatkovich’s constructions of “defining” and “defining an automation process” are wrong.

34. Notably, Mr. Zatkovich does not dispute that in order for Symons’ RPA bot to be able to automatically generate an email signature, the automation process must have been defined. And he is incorrect that Symons describes nothing other than a chatbot. (EX2001, ¶205.) As I explained in paragraph 77 of my opening declaration, Symons also describes an automation process. (EX1003, ¶77.)

2. Williams teaches “defining an automation process”

35. Mr. Zatkovich then argues that Williams does not teach “defining an automation process,” but I disagree. (EX2001, ¶204.) Mr. Zatkovich argues that Williams does not disclose a single chatbot-RPA for a single conversation thread that handles multiple requests. But 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.)

36. Additionally, Williams discloses multiples 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 “at most to using chatbots ‘in a variety of other processes and across industries.’” (EX2001, ¶205.)

37. Further, Mr. Zatkovich’s argument that Williams simply provided “broad generalizations,” and “a taxonomical definition of RPAs and IPAs, nothing more” is incorrect. (EX2001, ¶163.) 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).

38. Mr. Zatkovich’s next argument, that Williams’ disclosure regarding “rules and policies” does not relate to defining an automation process, is also incorrect. (EX2001, ¶206.) Patent Owner and Mr. Zatkovich are ignoring Williams’ disclosure of “draft[ing] [and] creat[ing].” (POR, 44 (suggesting that Williams’ only discloses updating). As Williams explains, “programming [certain] rules become[s] more problematic. In light of this situation, IBM has introduced Watson Policy Management Library (WPML), which allows business process owners to *draft, create and amend rules and policy changes outside of the RPA product* using normal conversational text.” (EX1011, 4.) This means Williams teaches defining an automation process. Further, “using normal conversational text” means without needing to use dedicated APIs, programming languages or the like.

39. Mr. Zatkovich also ignores Williams’ disclosure of the RPA bot being “taught to drive applications like a human does through the graphical user interface (GUI)” and being programmed to “conduct[] complex calculations, perform[]

actions, and trigger[] downstream activities and/or interact[] with humans using...natural language processing.” (EX1011, Fig. 1.) Williams also discloses “robots can be configured” (EX1011, 2.) Drafting, creating, being taught, being programmed, and being configured are ways for “defining an automation process.”

40. And Mr. Zatkovich’s argument that there is no reason that defining the conversation needs to include defining an automation process is irrelevant since nothing in the claims requires that defining the conversation includes defining an automation process. (EX2001, ¶208.) Further, I did not misquote Williams, as Mr. Zatkovich alleges. (EX2001, ¶209.) As shown in paragraph 82 of my opening declaration, I describe expanding Williams “chatbot-RPA bot system”—not just the chatbot. (EX1003, ¶82.)

3. There was a reasonable expectation of success in combining Symons and Williams

41. Mr. Zatkovich then tries to argue that since no one knows how Symons operates, it would be impossible to know whether there would have been a reasonable expectation of success in combining Symons with Williams. (EX2001, ¶202.) I disagree. Symons’ welcome message (“*at this moment*, you can only use me to create a new Cronos signature”) suggests the modification to handle multiple automation processes. Since there was prior art at the time, such as Williams, that successfully taught how to handle multiple requests, along with a reason to

combine the two references, there is sufficient basis for a reasonable expectation of success given that Symons and Williams each suggest the combination.

Additionally, the references that I discuss in paragraphs 17-21 of my opening declaration show the combination of chatbots and automation processes and further show a reasonable expectation of success with the combination. (EX1003, ¶¶17-21.)

4. The claims do not require a single automation process

42. Mr. Zatkovich then pivots to mischaracterizing the claims. He argues that neither Symons nor Williams suggests using a single chatbot-RPA that handles multiple requests at once in the same conversation thread. (EX2001, ¶¶153, 163, 205.) However, the claims do not require multiple automation processes, and the specification supports the claims as encompassing a single automation process. For example, 6:63-64 of the '732 specification describes “*one* or more automation processes,” and 16:37-38 describes “a specific (*single*) automation process.” (EX1001, 6:63-64, 16:37-38 (emphases added); *see also* 11:8-10.)

43. And Mr. Zatkovich is incorrect that Symons' chatbot was only programmed to implement a single conversation thread. (EX2001, ¶153.) As I discuss in paragraphs 57-60, Symons' chatbot performs natural language processing, which means that Symons did not merely hardcode a single conversation, as Mr. Zatkovich alleges. (EX2001, ¶223.)

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

44. 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. 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 '732 specification describes the claims as encompassing multiple bots: "HR Bot may be assigned several conversations that are different from those of a CRM Bot." (EX1001, 14:28-30.) The passage at 14:28-30 also shows that the claims further encompass multiple conversation threads. Similarly, 8:56-57 describes "[e]ditor 110 may define several different conversation[s] for a single chat bot (e.g., HR Bot)," and 6:61-67 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." (EX1011, 6:61-67, 8:56-57.)

45. 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, 14:21-24.) Additionally, "in some cases, a

conversation may execute a plurality of automation processes in sequence.”

(EX1001, 16:38-41.)

B. Symons-Williams Teaches “defining a conversation to be implemented by a natural language interface, wherein the conversation is configured to obtain from the user one or more values to one or more parameters associated with the automation process” Of Elements 1[a], 11[a], And 18[a]

1. Symons teaches a “natural language interface”

46. 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’ chatbot is a “natural language interface,” and the ’732 patent and Symons had the same meaning for a “chat bot.” Baetens also confirmed: “the team . . . implemented the *chatbot* as an *interface for a natural language conversation* with the user.” (EX1010, ¶8 (emphases added).)

47. 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 ’732 patent). (EX2001, ¶171.) I disagree. The ’732 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, 1:25-27 (emphasis added).) The ’732 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.” (EX1001, 1:27-33.) For example, the chatbot’s communications “may be fixed and predetermined.” (EX1001, 10:50-51.) Thus, a “chatbot” in the ’732 patent encompasses a natural language interface, including ones that use natural language processing. Mr. Zatkovich is thus incorrect that the ’732 patent and Symons have different meanings for a “chat bot.” (EX2001, ¶171.)

48. To further support his argument that the ’732 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 ’732 invention. (EX2001, ¶175.)

49. Mr. Zatkovich also relies on EX2008, but he misreads this article. This article is in fact consistent with the ’732 specification and its expansive definition of chatbot. (EX2001, ¶176.) 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 ’732 specification explained (as I discuss in paragraph 48).

50. Mr. Zatkovich argues that a POSITA would not look to patents, including the ’732 patent, to understand Symons’ and Baetens’ definition of a “chat bot.” (EX2001, ¶¶172, 184.) 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 ’732 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 ’732 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, ¶177.) Thus, Symons teaches a “natural language interface.”

2. The claims do not require natural language processing

51. Mr. Zatkovich argues that Symons does not teach elements 1[a], 11[a], and 18[a] based on his incorrect interpretation of the claims. To start, Mr. Zatkovich incorrectly alleges that I agree that the ’732 claims require natural language processing. (EX2001, ¶166.) Mr. Zatkovich cites paragraph 40 of my opening declaration in the ’664 IPR for support, but paragraph 40 does not discuss natural language processing.

52. 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, ¶168 (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, 64:9-17 (emphasis added).)

53. 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 *allows you to do natural language communication* with the software.” (EX2003, 64:9-17 (emphases added).)

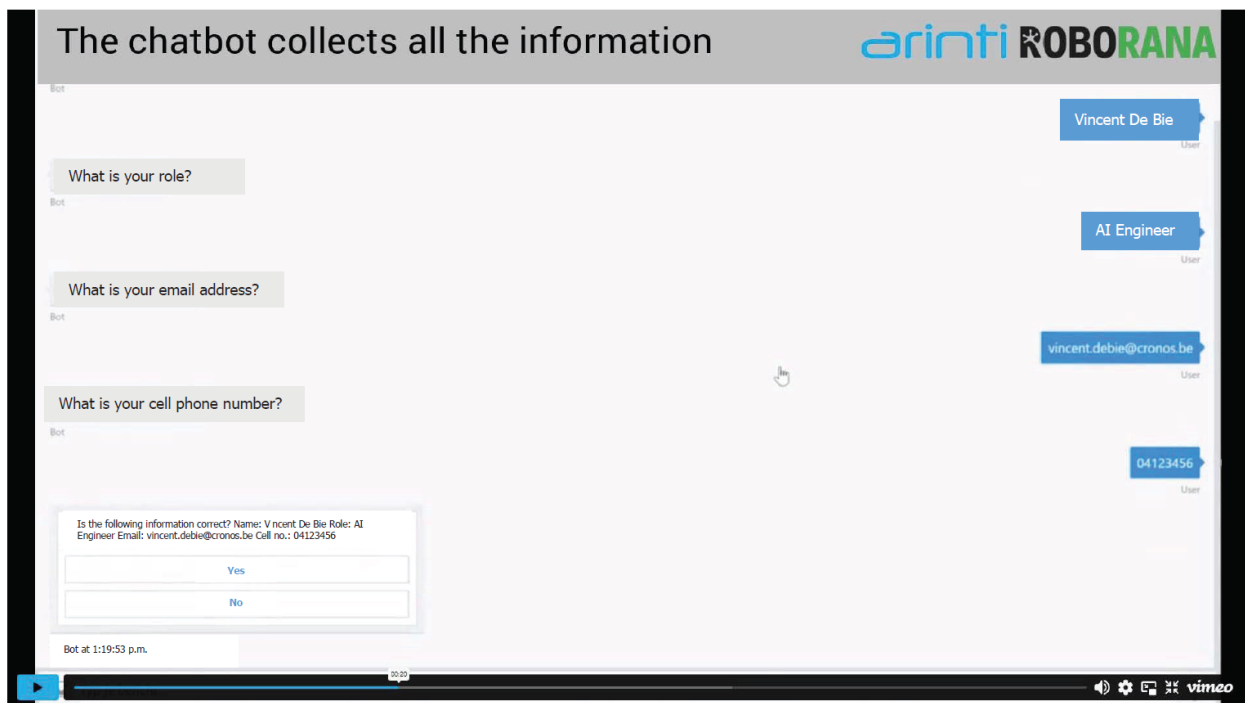
54. The ’732 specification also treats “natural language processing” and “natural language interface” as having different meanings. The specification at 10:37-42 states that “[b]ased on *processing* of the user’s interaction with the chat bot, such as using *Natural Language Processing (NLP)* techniques, it may be determined which conversation is the most likely conversation and such a conversation may be suggested to the user for confirmation.” (EX1001, 10:37-42 (emphases added).)

55. 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, 5:3-5 (emphases added).) The specification describes a “natural language interface [as] receiv[ing] input from the user.”

(EX1001, 5:62-65.) 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, 16:9-13.)

3. Symons teaches natural language processing

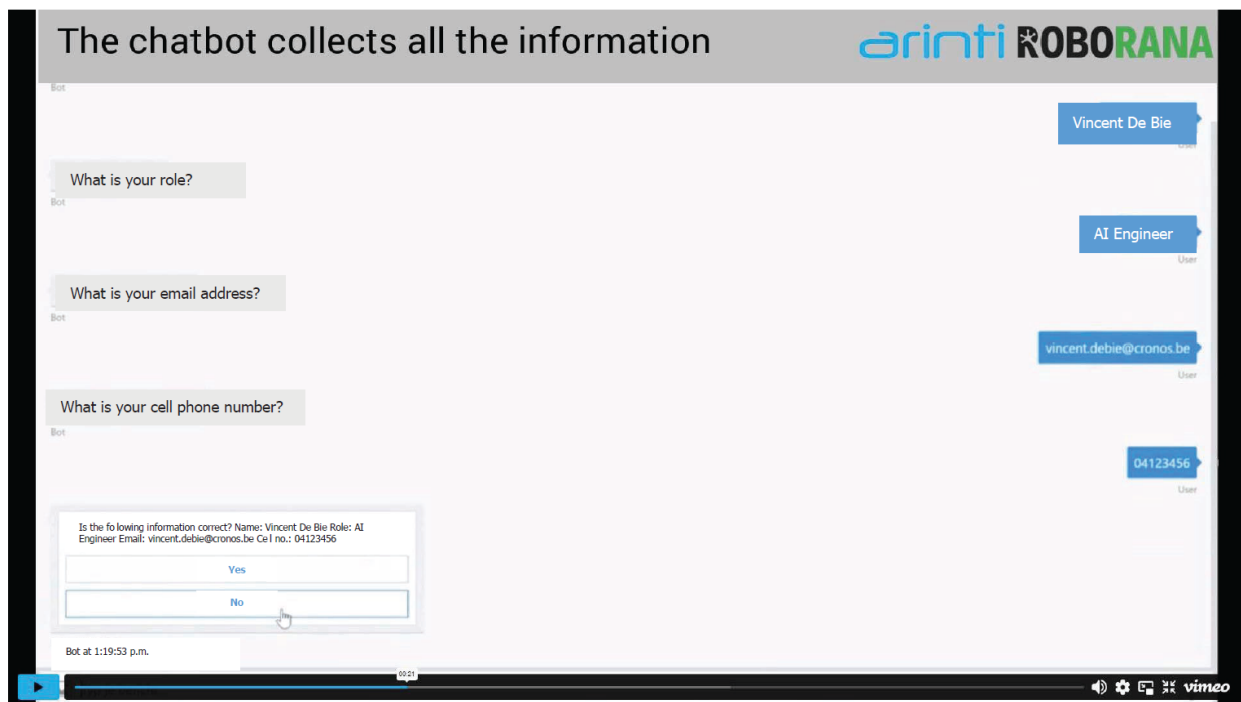
56. As I explained above, the claims do not require natural language processing. But even if the claims did require natural language processing, Symons’ chatbot still performs natural language processing. After the chatbot collects the user’s information, as shown in the screenshot below, the chatbot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



57. 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

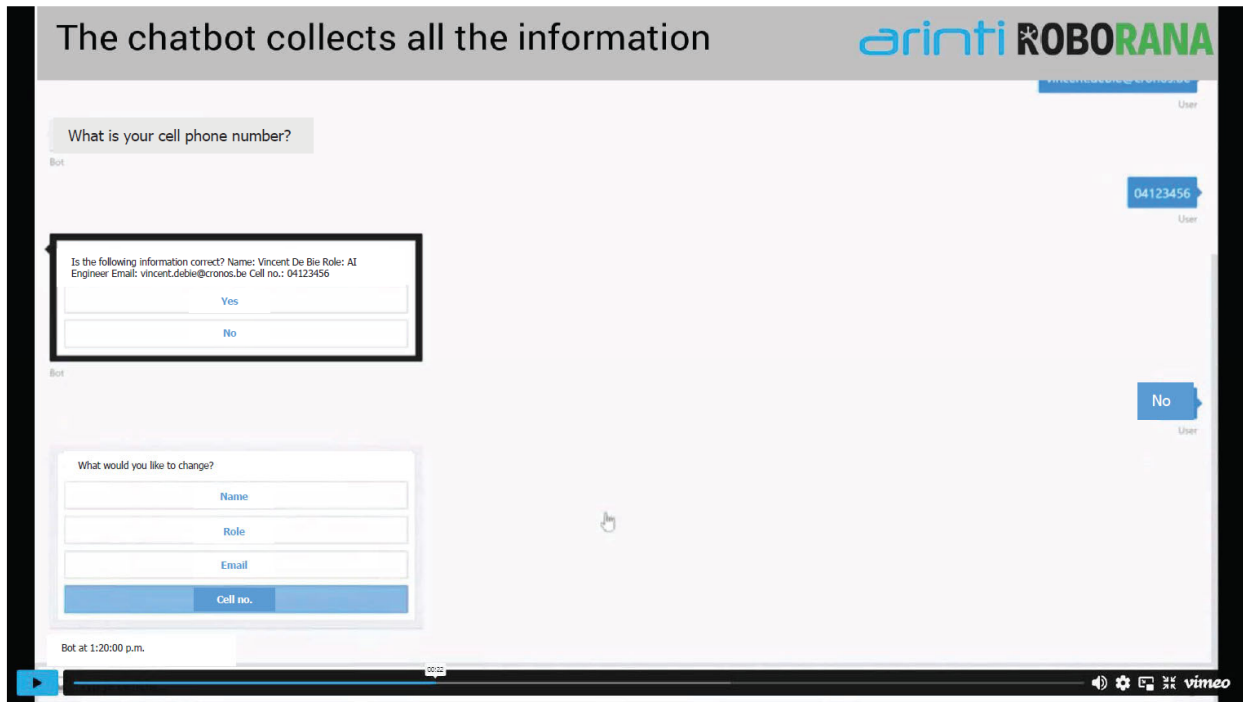
actions that follow differ for the two different scenarios, showing that Symons' chatbot "process[es]" the user's input.

58. 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?")). 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.



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(EX1006, 7.)

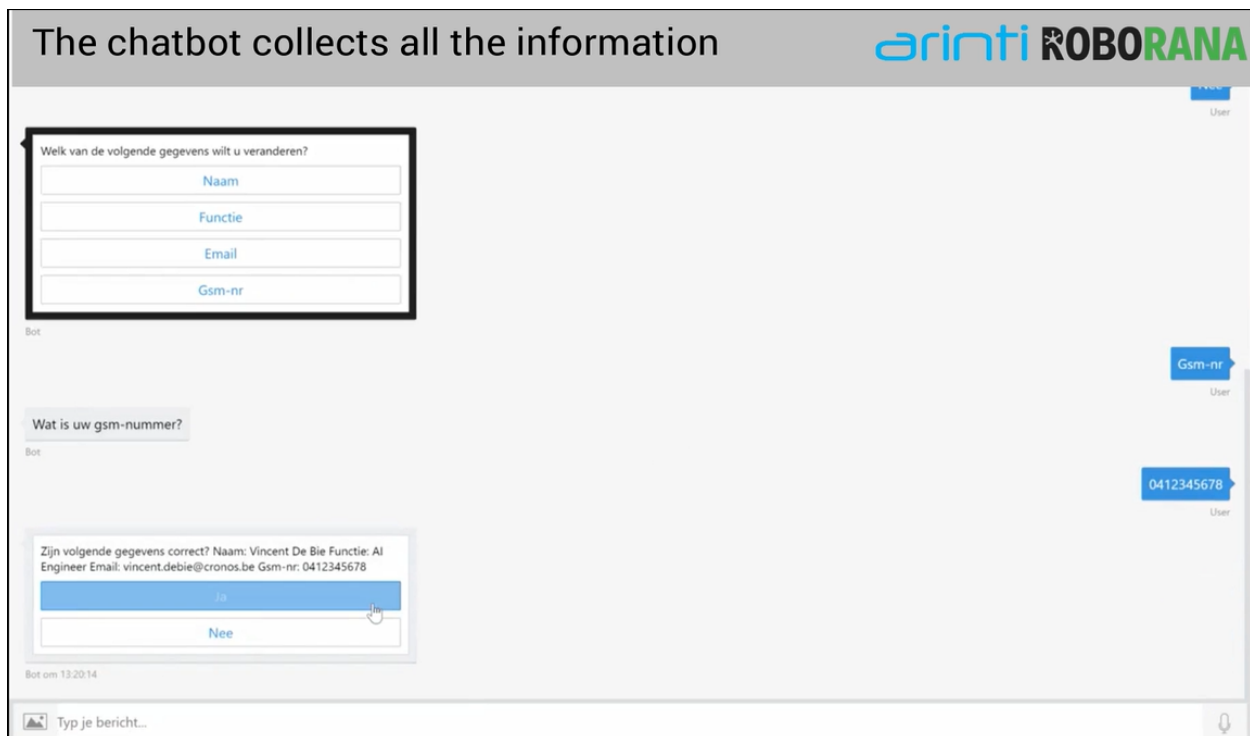


(EX1006, 8.)

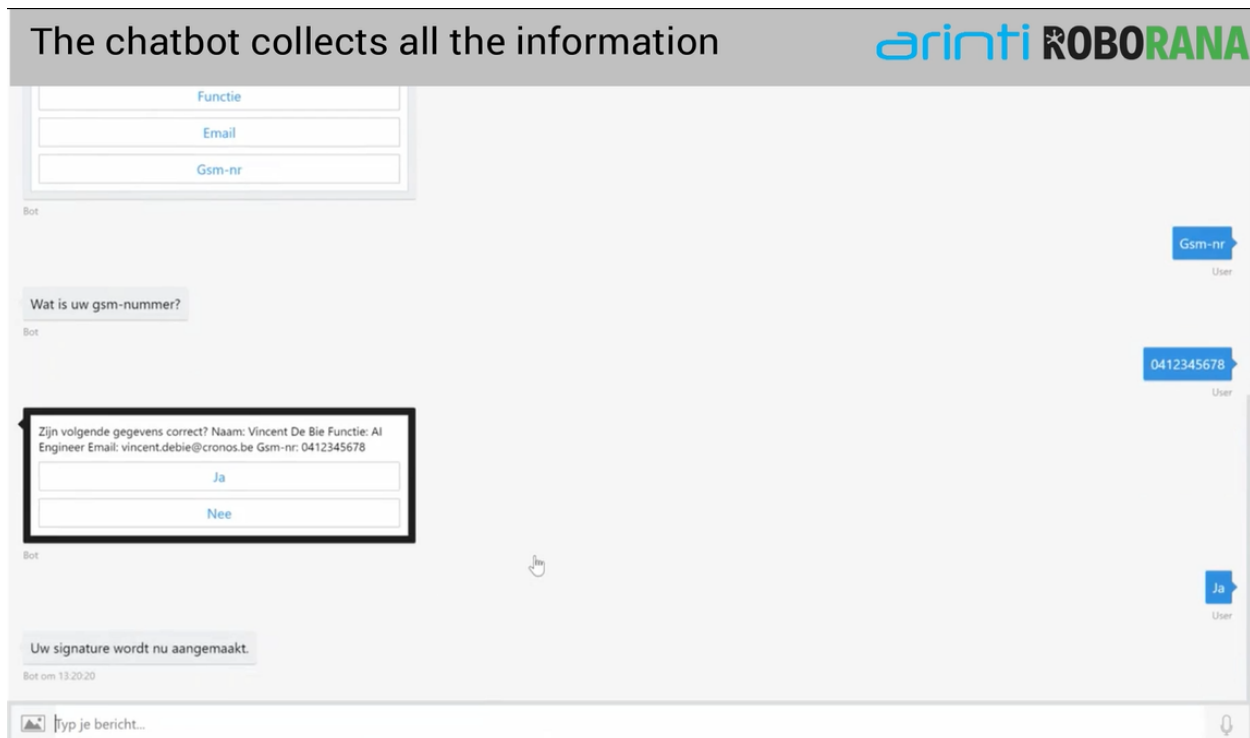


(EX1033, 0:27.)

59. 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 also shows that Symons' chatbot is not a single conversation or a hardcoded conversation, as Mr. Zatkovich alleges. (EX2001, ¶223.)



(EX1033, 00:28.)



(EX1033, 00:31.)

C. Symons-Williams Teaches “associating the conversation with the automation process” Of Elements 1[b], 11[b], And 18[b]

60. As I explained in paragraph 90 of my opening declaration, without “associating the conversation with the automation process,” Symons’ chatbot would not be able to pass the information to the RPA bot or trigger it. (EX1003, ¶90.) Because Symons’ “chatbot collects . . . information. This information gets passed on to the RPA robot,” where “[t]he chatbot triggers the RPA bot,” Symons teaches elements 1[b], 11[b], and 18[b].

D. Symons-Williams Teaches “wherein the automation process is configured to utilize the displayed user interface of a computer program” Of Elements 1[c], 11[c], And 18[c]

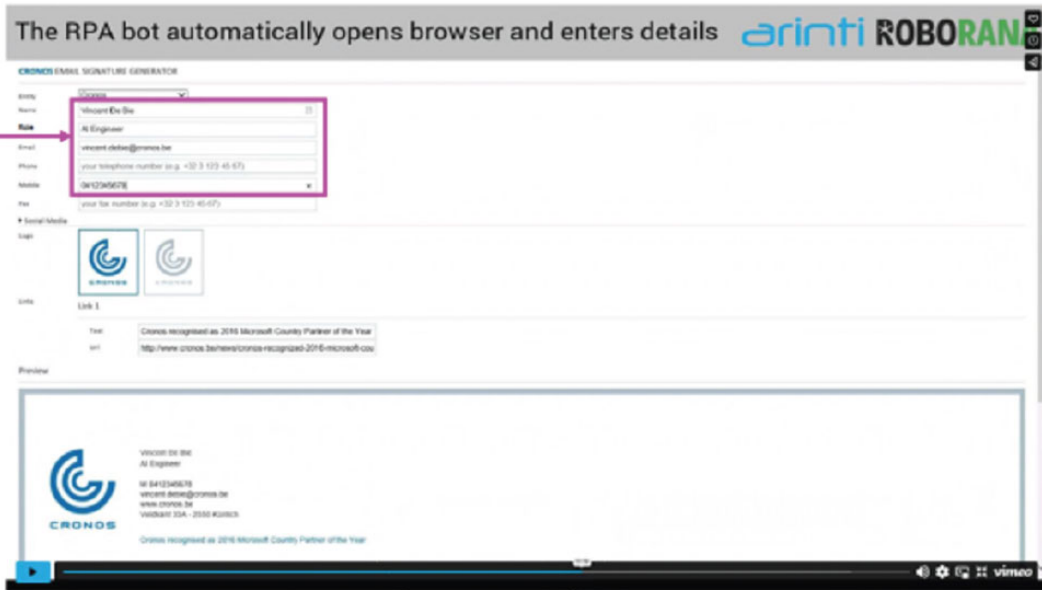
61. Mr. Zatkovich argues that Symons does not teach elements 1[c], 11[c], and 18[c] because its RPA does not use a single “computer program” with a single user interface. (EX2001, ¶226.) As I discuss in paragraphs 12-18 of the claim construction section, Mr. Zatkovich’s construction of “computer program” is wrong. Additionally, claim 1 recites a “method comprising:” and three steps: a “defining” step, an “associating” step, and a “publishing step.” Since 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 is configured to utilize the displayed user interface of *only* a single “computer program” (under Mr. Zatkovich’s construction).

62. But if, for some reason, Mr. Zatkovich’s construction were correct, Symons’ teachings satisfy Mr. Zatkovich’s construction. Mr. Zatkovich’s construction relies on 5:6-13 of the ’732 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) that is a separate computer program

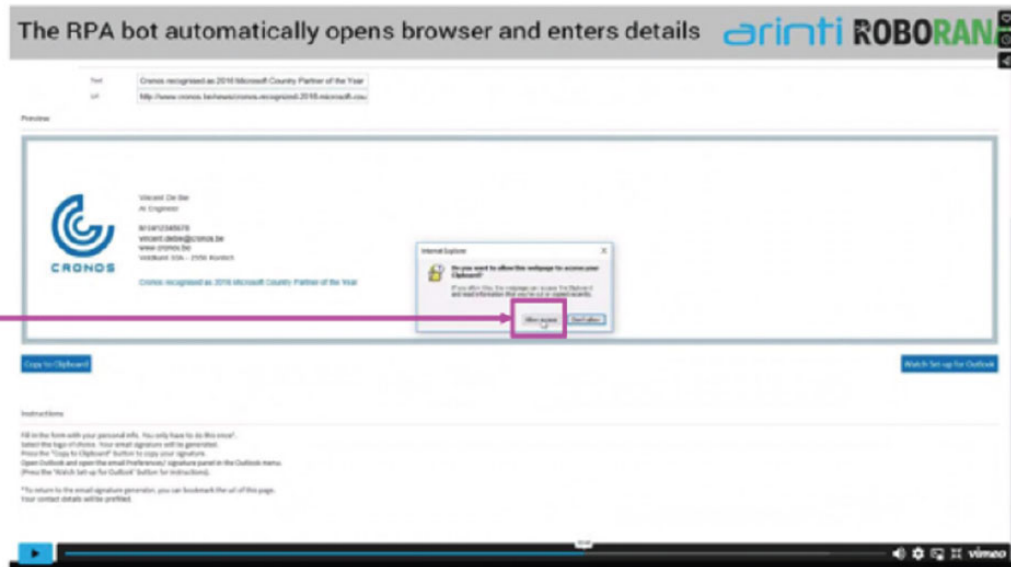
with its own user interface (*see* EX1006 showing the GUI of Symons' RPA) operated on a single device (Symons' computer).

63. As shown below, the GUI of Symons' desktop application displays the interfaces that Mr. Zatkovich discuss. (EX2001, ¶¶228-229.) Symons' desktop application is similar to what the '732 patent describes as providing a "unified, and simple, conversational-based user interface" that works with multiple platforms (software tools). (EX1001, 7:62-67.)

utilizing the displayed UI to perform the sequence of interactions



utilizing the displayed UI to perform the sequence of interactions



E. Symons-Williams Teaches “publishing the conversation to be accessible to a user via a natural language interface” (Elements 1[d]/11[d]/18[d])

64. Elements 1[c], 11[c], and 18[c] require the conversation “to be accessible to a user.” The claim elements do not require the conversation “to be accessible to the chatbot.” As I explained in paragraphs 94-95 of my opening declaration, the chatbot asks the user questions, and the user provides

corresponding inputs. (EX1003, ¶¶94-95.) Because the chatbot and user are engaged in a natural language conversation where the chatbot and user are responding to each other, the conversation is accessible to both the user and the chatbot. (EX1006, 5.)

F. Symons-Williams Teaches The Claimed Order Of The “defining” Step, The “associating” Step, And The “publishing” Step

65. Mr. Zatkovich argues that the claims require a specific order with respect to the “defining a conversation” step (element 1[a]), “associating the conversation with the automation process” step (element 1[b]), and “publishing the conversation” step (element 1[d]). (EX2001, ¶¶155, 211, 215, 216, 222.) But as I discuss in paragraphs 29-32, Mr. Zatkovich is wrong. I note that Mr. Zatkovich mischaracterizes my testimony. I did not state that the order of the steps was not inherent in Symons. (EX2001, ¶222 (citing EX2003, 243:11-244:3).) Instead, I testified that the claims do not require a certain order: “So I don’t think that there’s anything inherent [in the claims] where you would have to say specifically, this one [step] has to happen until I go do that one [other step].” (EX2003, 243:11-244:3.)

66. Mr. Zatkovich also argues that I did not show that Symons teaches performing the “defining” “associating,” and “publishing” steps. (EX2001, ¶212.) But as I explained in paragraphs 83-88 of my opening declaration, without Symons

“defining a conversation,” Symons’ chatbot and its conversation would not exist (and it would have been obvious for it to be defined). (EX1003, ¶¶83-89.) And as I explained in paragraph 90 of my opening declaration, the values from the conversation are used in (associated with (or “connect[ed]” to, according to Mr. Zatkovich (EX1003, ¶100)) the automation process. (EX1003, ¶90.) Further, the screenshots from the Symons Video show, as I discuss in paragraphs 94-95 of my opening declaration, that the conversation is published. (EX1003, ¶¶94-95.) Mr. Zatkovich’s arguments regarding the alleged “intentionally opaque” and supposed hardcoded teachings are incorrect. Symons teaches the “defining,” “associating,” and “publishing” steps that are required by the claims. (EX2001, ¶212.)

67. Additionally, the claims do not require the level of details that Mr. Zatkovich demands. (EX2001, ¶214.) The ’732 claims require that the conversation be defined; the claims do not require that the conversation be defining in a certain way. And during prosecution, the Examiner’s restriction requirement was among a “method comprising using a natural language interface” and a “method for defining an automation process”—neither sets of claims were directed to “how” the conversation is generated, as Mr. Zatkovich alleges. (EX2001, ¶219; EX1002, 38-49, 196.)

68. Mr. Zatkovich makes additional arguments. He argues again that Symons’ chatbot may have been “hard-coded.” (EX2001, ¶¶220, 223.) I

addressed this argument in paragraph 43-44 and 57-60. And Mr. Zatkovich's argument that it makes no sense to associate the conversation with the automation process when there is only one automation process is incorrect. (EX2001, ¶¶221, 224.) Without the association ("connecting," according to Mr. Zatkovich (EX2001, ¶100)), the automation process could not use the values from the conversation, and would not result in the collected "information get[ting] passed on to the RPA robot," as Symons states. (EX1004, 2.) Thus, the conversation is associated with the automation process as the conversation information gets passed to the RPA robot (automation process).

G. Mr. Zatkovich Mischaracterizes The '732 Claims And Symons/Baetens

69. 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, 21 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 '732 patent claims before the date of the alleged invention.

70. Mr. Zatkovich also makes other unsupported 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,

¶180.) Mr. Zatkovich also alleges that “the Arinti chatbot that was identified as being used, was not publicly available at the time.” (EX2001, ¶180.) 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.)

71. The “internals”: Mr. Zatkovich also suggests that Symons was not developed, and Baetens was intentionally hiding details for that reason. (EX2001, ¶¶144, 153.) 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.)

72. 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, ¶144.) 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, ¶¶147, 148, 152.) The '732 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.

73. Mr. Zatkovich's computer program: Mr. Zatkovich also created a computer program that allegedly "match[es]" Symons' computer program. (EX2006, EX2009, EX2010; EX2001, ¶181) 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 even admits that he himself does not know the "internals" of Symons. (EX2001, ¶144.)

74. 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, ¶¶154, 182.) 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, ¶182.) 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 and 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.)

75. 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.) 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.)

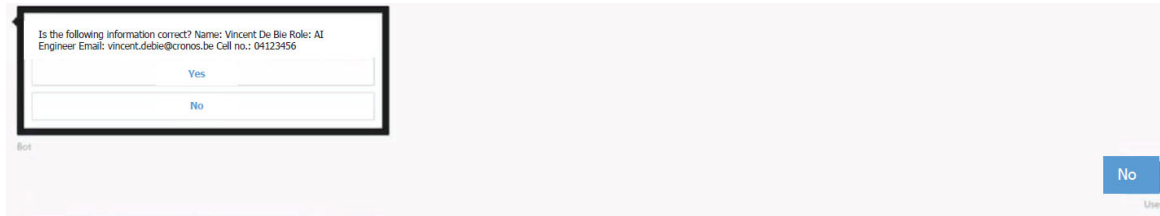
76. Additionally, Mr. Zatkovich fails to explain why the collected email address in his computer program is not part of the information transmitted, even though the Symons Article states that "the chatbot *collects all* the necessary *information*" and "[t]his *information gets passed* on to the RPA robot." (EX1004, 2 (emphases added).) As Mr. Zatkovich argues in the '664 IPR, one (including himself) is left "to conjecture to the actual method of implementation and underlying code in Symons." (EX2001 of IPR2023-01368, ¶159.)

77. And Mr. Zatkovich provides no evidence that his computer program is an accurate match to the Symons Video. 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.) But Symons could have also easily been programmed not to proceed.

78. As shown in the side-by-side comparison 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



Mr. Zatkovich's Program



79. 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

80. 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.)

81. 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.)

H. Symons-Williams Teaches “wherein the conversation flow defines an order between conversation elements, wherein the conversation elements comprise at least a question element and an action element” Of Claims 2, 12, And 19

82. For claims 2 and 12, Mr. Zatkovich argues that Symons does not disclose how question elements are defined. (EX2001, ¶236.) However, the claims do not require defining question elements or that the question elements be defined in a certain way. (EX2001, ¶234.) The claims just require that the conversation flow define an order. I note that the claims also do not require that the order be “user defined,” as Mr. Zatkovich argues. (EX2001, ¶238.)

83. As I described in paragraphs 98-104 of my opening declaration, the conversation flow begins with the chatbot first asking “What is your name?”, next “What is your role?”, then “What is your email address”, and then “What is your cell phone number?” (EX1003, ¶¶98-104.) This order between conversation elements is the same order as the input fields for the associated email signature

generation automation process. Therefore, there must have been an order between conversation elements since the order of conversation elements correspond to the order of the sequence of interactions of the associated automation process.

84. And Mr. Zatkovich's argument that I only identified actions of the RPA bot is based on a misunderstanding of the '732 patent. The '732 specification describes the conversation flow in 13:52-14:65. The conversation flow may be defined by adding message, question, condition, and/or action steps for message, question, condition, and/or action elements. For a "message step, . . . the bot acknowledges that the conversation commences and tells the user that the bot would assist her in adding a new employee to the system." (EX1001, 16:14-19.) The '732 specification also describes "a question step, in which the bot attempt[s] to obtain an employee identifier of the new employee." (EX1001, 16:20-22.) A "condition step may define a condition to be evaluated." (EX1001, 16:25-27.) "[A]ction steps [are] in which an automation process is executed." (EX1001, 16:33-36.)

85. Like the '732 patent, Symons' conversation flow comprises an "action element" in which an automation process is executed. For example, Symons' conversation flow comprises an action element that corresponds to the automation process's action of inputting the user's name.

86. Mr. Zatkovich’s suggestion that the ’732’s “action element” requires multiple automation processes is flawed. (EX2001, ¶240.) An RPA bot performs an action independent of how many automation processes there are. And Mr. Zatkovich’s suggestion that an action element itself must invoke the automation process is also incorrect. (EX2001, ¶240.) It is the “conversation of a user with a natural language interface”—not an action element—that invokes the automation process. (EX1001, Claim 1.)

87. Mr. Zatkovich’s arguments about Williams also fail. (EX2001, ¶¶241-243.) Williams discloses determining a conversation flow: “chatbots can engage in natural language dialog with the caller and discern, through a series of interactions, the nature of the call and then capture information required to further handle the request.” (EX1011, 3.) Discerning, through a series of interactions, the nature of the call involves a conversation flow between the chatbot and the user; similarly, capturing information involves a conversation flow between the chatbot and the user. Thus, the combination teaches defining a conversation comprising determining a conversation flow.

88. Mr. Zatkovich’s argument that the combination of Symons and Williams would not require a change in the conversation is incorrect and irrelevant. (EX2001, ¶242.) Claim 2 does not require *separate* conversation flows. Additionally, the conversation for a letterhead would not the same as for an email

signature. For example, the conversation for a letterhead may involve the chatbot requesting the user provide a background image.

89. And Mr. Zatkovich's attempt to distinguish claims 2 and 5 is irrelevant. (EX2001, ¶243.) Claim 5 does not depend from claim 2, thus whether or not Symons-Williams teaches claim 5 does not impact that Symons-Williams teaches claim 2.

I. Symons Teaches “wherein the conversation elements comprise at least one of a message element and a condition element” Of Claims 3 And 13

90. Mr. Zatkovich argues that claims 3 and 13 require both a “message element” and a “condition element.” (EX2001, ¶248.) As I discuss in paragraph 33, Mr. Zatkovich's proposed construction is wrong.

91. Further, Mr. Zatkovich does not dispute that Williams teaches a condition element, but instead argues that it would have been unnecessary for Symons to include conditional logic. (EX2001, ¶¶251-255.) This is not true. Symons teaches a situation involving conditional logic where the chatbot asks “[i]s the following information correct?” and then presents different options conditioned on the user's input. (EX1006, 7-8 (user input is “No”); EX1033, 0:30 (user input is “Ja” (“Yes”)).)

J. Symons-Williams Teaches “wherein the conversation element comprise a second action element associated with a second automation process” Of Claims 4 And 14

92. Mr. Zatkovich does not dispute that Williams teaches a “second action element associated with a second automation process.” (Ex2001, ¶¶256-257.) Instead, Mr. Zatkovich argues that a POSITA would not have been motivated by the combination because Symons’ conversation does not pertain to Williams’ automation processes. (EX2001, ¶257.) However, a POSITA would not have understood Symons’ teachings to be rigid or strictly limited to teaching a chatbot for an email signature. And a POSITA would not have understood Williams’ teachings to be rigid or strictly limited to teaching setting up payment for a transaction or automatically filling in an electronic medical record. Instead, a POSITA would have understood that Symons teaches a chatbot and RPA bot, and Williams teaches multiple automation processes.

93. Moreover, Mr. Zatkovich’s suggestion that Williams’ action elements are not in the same conversation is wrong. (EX2001, ¶258.) As I discuss in paragraphs 36-37, Williams discloses a single chatbot-RPA for a single conversation thread that handles multiple requests.

K. Symons-Williams Teaches “wherein the automation process is configured to execute a new functionality of the computer program” Of Claim 9

94. Mr. Zatkovich’s argues that Symons *alone* is designed for only one functionality. (EX2001, ¶262.) But this does not respond to the *combination* of

Symons and Williams, and a POSITA would not have understood Symons' teachings to be rigid or strictly limited to teaching a single automation process.

95. As I explained in my opening declaration, as a POSITA would have known, RPA bots are designed to execute *multiple automation processes*. Both Symons and Williams teach chatbot-RPA bot systems, so the combination is a natural extension of exploiting the full capabilities of RPA. And Symons provides motivation, inviting the addition of multiple automation processes (new functionality) with its welcome message (“*at this moment*, you can only use me to create a new Cronos signature”).

96. Mr. Zatkovich makes additional arguments including repeating his reasonable expectation of success argument, which I addressed in paragraph 42. (EX2001, ¶263.) And Mr. Zatkovich's attempt to distinguish between adding a new functionality and making a modification is flawed. (EX2001, ¶264.) Modifying the chatbot to allow for another functionality would meet claim 9, which requires “execut[ing] a new functionality of the computer program.” Mr. Zatkovich erroneously suggests that Symons cannot be modified.

IV. SYMONS-WILLIAMS AND BEN-ITZHAK

A. Ben-Itzhak Is Analogous Art

97. Mr. Zatkovich argues that Ben-Itzhak is not analogous art because it is not in the same field of endeavor as the '732 patent. Mr. Zatkovich reasons that

Ben-Itzhak does not deal with defining a conversation for an automation process. (EX2001, ¶¶278-281.) But Ben-Itzhak is relied upon for its teachings of claim 6, and the correct inquiry for the first part of the analogous art test is whether Ben-Itzhak is analogous art to claims 6, 16, or 21, which requires “the natural language interface [be] configured to generate and provide the user with a link wherein interaction with the link is configured to cause execution of the automation process.” Part of Ben-Itzhak’s personalized content recommendation involves “generating and providing the user with a link.” (EX1034, [0016], [0018], [0019].) Thus, Ben-Itzhak is directed to “essentially the same function and structure,” and as a result is in the same field of endeavor.

98. Mr. Zatkovich also argues that Ben-Itzhak is not reasonably pertinent to the problems faced by the ’732 inventors because the ’732 claims are meant to address difficulties related to improving the process of creating chatbots and automation processes. (EX2001, ¶¶282-286.) But this is just one of the many problems faced by the ’732 inventors (as Mr. Zatkovich acknowledges (EX2001, ¶¶39, 57-61). Another problem faced by the ’732 inventors is that “it may be desired to enable [a] third-party messaging service to invoke the automation process in a simple manner and without relying on coding or on dedicated APIs.” (EX1001, 6:26-31.)

99. Ben-Itzhak similarly recognized that a problem faced with chatbots is that it may be desired to use “a link to a different interactive communication platform [(third-party)]” where the “link [is] associated with the personalized content recommendation to access and consume the recommended content.” (EX1034, [0018].) Thus, Ben-Itzhak is reasonably pertinent to the problems faced by the ’732 inventors.

B. A POSITA Would Have Been Motivated To Combine Symons-Williams And Ben-Itzhak

100. Mr. Zatkovich argues that the combination does not teach claim 6 because neither Williams nor Ben-Itzhak *alone* teaches executing an automation process using a link. (EX2001, ¶¶291-293.) Mr. Zatkovich also argues that Symons already provides a chatbot and using a third-party messaging service would likely inhibit Symons’ ability to provide information to the RPA bot. (EX2001, ¶294.) But a POSITA would not have been discouraged to configure Symons’ chatbot as a third-party messaging service because there are benefits using a third-party messaging service. And 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.) And a POSITA would have understood that a third-party messaging service would be able to provide information to Symons’ email signature generator since Symons does not rely on utilizing APIs to interface with applications (as Williams explained (EX1011, 2 (describing platforms being able to interface without utilizing APIs)). (EX1003, ¶¶113-114, 116.)

C. Symons-Williams And Ben-Itzhak Teach “interaction with the link is configured to cause execution of the automation process” Of Claims 6, 16, And 21

101. Mr. Zatkovich argues that the combination of Symons-Williams and Ben-Itzhak does not teach claims 6, 16, and 21 because Symons and Williams do not disclose an interaction configured to cause execution of an automation process. (EX2001, ¶¶ 271-275.) But Mr. Zatkovich is incorrect. As I explained in paragraph 274 of my opening declaration, Williams and Symons teach the chatbot and RPA bot interfacing with each other without using an API. (EX1003, ¶¶142-143.) And the chatbot causes execution of the automation process (triggers the RPA bot). Ben-Itzhak teaches generating and interacting with a link provided by a chatbot, and Williams teaches that one way to interface without using an API is via

a link. Thus, a POSITA would have understood the combination of Symons-Williams and Ben-Itzhak as teaching interacting with a link (taught by Williams and Ben-Itzhak) to cause execution of an automation process (taught by Symons and Williams).

102. Mr. Zatkovich further argues that “[e]ven if Symons and Williams were modified to invoke a content recommendation engine,” the combination would not teach claim 6. (EX2001, ¶288.) But the proposed combination does not modify Symons and Williams to invoke a content recommendation engine. As described in my opening declaration, the proposed modification involves the chatbots of Symons and Williams being modified to generate and provide a link as taught by Ben-Itzhak. (EX1003, ¶¶138-143.)

103. Symons and Williams further teach an interaction that causes execution of the automation process. As I explained in paragraph 143 of my opening declaration, interacting with the link is one way to interface with a different platform (cause execution of the RPA bot) without utilizing an API. (EX1003, ¶143.) Thus, the modification involves a chatbot generating and providing a link (as taught by Ben-Itzhak), and then interaction with that link (as taught by Ben-Itzhak and Williams) causes execution of the automation process (as taught by Symons and Williams).

104. Mr. Zatkovich argues that the modification to interact with a link would be counter-intuitive to Williams' teachings because it would increase the number of steps a user needs to perform. (EX2001, ¶¶289-290.) Mr. Zatkovich points to Williams' teachings regarding "shorter times for deployment, lower upfront costs, and lower operational costs." But this passage in Williams is describing shorter times, lower costs, and lower operational costs due to interfacing with a different platform without utilizing an API (using a link), not due to the user performing fewer steps (as Mr. Zatkovich suggests). While interacting with a link may add a few steps, it leads to shorter deployment times and lower costs, along with allowing the user to consume the content (as Ben-Itzhak teaches). The benefits (shorter deployment times, lower costs, allowing the user to consume the content) would outweigh the costs (only a few extra steps).

105. Further, the modification does not involve "switching to a separate chatbot," as Mr. Zatkovich alleges. (EX2001, ¶290.) And Mr. Zatkovich's deployment time issue argument is irrelevant. (EX2001, ¶290.) There is no evidence that shows that Symons was deployed within 17 days (as I discuss in paragraph 71), and Williams' shorter deployment time refers to the relative comparison between an RPA system (Symons) and a system involving "more heavy, traditional IT programming efforts." (EX1011, 2.)

V. ALLEN

A. Allen Teaches “defining a conversation to be implemented by a natural language interface, wherein the conversation is configured to obtain from the user one or more values to one or more parameters” Of Elements 1[a], 11[a], And 18[a]

1. Allen teaches “defining a conversation”

106. Mr. Zatkovich argues that Allen does not disclose elements 1[a], 11[a], and 18[a] based on his construction of “defining a conversation.” (EX2001, ¶¶333.) As I discuss in paragraphs 22-28, Mr. Zatkovich’s construction is incorrect.

107. Mr. Zatkovich also argues that Allen does not disclose *how* the conversation is defined or whether the conversation flow is user generated. (EX2001, ¶¶325, 326, 337.) However, claim 1 merely requires that the conversation be defined (“defining a conversation”), not the details of how the conversation is defined. And the claims do not require that the conversation be defined by the user, as Mr. Zatkovich argues. (EX2001, ¶¶337, 340.)

108. As I explained in my opening declaration, Allen discloses asking questions (the defined conversation) to receive user input so that it can perform the tasks that it has been taught. (EX1003, ¶¶154-155.) The “user ‘teaches’ task steps by inputting natural language and demonstrating actions with the GUI. . . . [T]he task is represented in terms of the *ontology and user’s intentions*.” (EX1014, Abstract (emphasis added).) “The system identifies *ontological properties* of the objective. If, as an example, the objective is buying a book, the system identifies

the objective as a book and identifies the ontological properties of a book, such as the fact that it will have a title and that it will be created by an author.” (EX1014, 3:48-53 (emphasis added); *see also* 6:66-7:6.)

109. Based on the user’s requested task and associated ontological properties, PLOW’s conversation is defined. For example, “[t]he user would only need to say something like ‘I want to buy a book.’ The system would then ask, ‘What is the title of the book?’ . . . Of course, the user can build in ‘authorization’ steps. As an example, the user could teach the system to obtain price and delivery date information, and then provide this information back to the user and ask whether the user wishes to complete the transaction.” (EX1014, 12:64-13:5.) A POSITA would have understood these passages to mean that the conversation and the conversation flow have been defined.

110. Moreover, Mr. Zatkovich’s arguments that the user in Allen never provided the questions to the system in training is incorrect. (EX2001, ¶340.) Allen explains that the user trains the system how to “identif[y] ontological properties of the objective.” (EX1014, 3:48-49.) The system is also taught to “identif[y] input parameters by recognizing user statements which require one.” (EX1014, 3:54-56.) Since the user trains the system how to identify the ontological properties (*e.g.*, title of the book) and the input parameters (*e.g.*, asking the user for the title of the book), the user has provided the system with the

question during training. I note that the “independently generated phrase[]” refers to the “description of the new task”—not the question, as Mr. Zatkovich suggests. (EX2001, ¶340 (citing EX1014, 7:58-63).)

2. Allen teaches “a conversation implemented by a natural language interface”

111. Mr. Zatkovich argues that Allen does not disclose “a conversation to be implemented by a natural language interface” because Allen displays the automation process during the training of the automation process, not during the execution of the automation process. (EX2001, ¶¶306, 308-310, 313, 314, 336.) 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. As 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.)

112. 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.)

113. 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 limited to just training. (EX1014, 18:38-49 (emphases added).)

114. 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.

115. Thus, the speech interface display 20 is a natural language interface used to implement a conversation associated with executing an automation process. (EX2001, ¶¶330, 336.) Mr. Zatkovich points to Figures 2, 3, 7, and 8 to support his argument. And while 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.

116. Mr. Zatkovich then points to Figure 6 of Allen to allege that Allen’s conversation is not implemented by a “natural language interface.” (EX2001, ¶¶321, 324, 339.) 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 in the ’664 IPR. (EX2001 of IPR2023-01368, ¶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.

117. 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 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 system asked it using the word 'name' instead of title." (EX2003, 257:20-24.) Patent Owner did not ask me whether Figure 6 is a "natural language interface."

118. Further, the "form displayed in FIG. 6" is not the "most that Allen discloses." (EX2001, ¶342.) As I discuss in paragraphs 116-118, I disagree that Figure 6 is a form. Nevertheless, Allen's example of the system asking the user a question ("What is the title of the book?") and the user providing the information to the system in response is a conversation. (EX1014, 12:65-66.) Allen's conversation having been implemented by its system shows that the conversation has been defined.

3. Allen teaches "obtaining from the user one or more values to one or more parameters"

119. Mr. Zatkovich is incorrect that Allen does not obtain parameter values from the user as part of the conversation. (EX2001, ¶324.) As Allen explains, the "system would then ask, 'What is the title of the book?'," and then "that

information is provided.” (EX1014, 12:65-66.) Thus, an example parameter value from the user that is part of the conversation is the title of the book.

B. Allen Teaches “associating the conversation with the automation process” Of Elements 1[b], 19[b], And 29[c]

120. Mr. Zatkovich argues that Allen does not teach elements 1[b], 19[b], and 29[c] because some of the information (price and delivery date of the book) obtained in Allen’s book buying task are not part of (associated with) a conversation. (POR, 66.) Mr. Zatkovich is wrong. As I explained in my opening declaration, the conversation comprises the chatbot asking questions and then obtaining values from the user. The conversation includes asking for the title of the book, and asking whether the user wishes to complete the transaction (after providing the price and delivery date information to the user). (EX1003, ¶152.) Based on this information from the conversation, the system then “perform[s] the steps it was previously taught and complete[s] the transaction.” (EX1014, 12:66-13:1.) Since the information from the conversation is used as part of the automation process, the conversation is associated with (or “connect[ed],” according to Mr. Zatkovich (EX2001, ¶100)) the automation process.

121. And Mr. Zatkovich’s suggestion that the ’732 claims require knowing *how* an automation process is associated with the conversation is incorrect. (EX2001, ¶349.) Element 1[b] merely recites “associating the conversation with the automation process.” Element 1[b] does not require that the conversation be

associated with the automation process in a certain way. Further, Allen obtaining a command from a user to carry out a desired automation task means Allen has defined a conversation (obtaining a command from a user) that is associated (to carry out) with an automation process.

C. Allen Teaches “wherein the automation process is configured to utilize a displayed user interface of a computer program” Of Elements 1[c], 11[c], And 18[c]

122. Mr. Zatkovich alleges that Allen’s Figure 7 shows the conversation and automation process for training, not for executing the automation process. (EX2001, ¶¶323, 353.) But as I explained in paragraphs 111-114, Allen provides descriptions that show that its GUI is used for both training and executing an automation process.

123. Allen also explains that “a user . . . teach[es] a computational device how to perform complex, repetitive tasks.” (EX1014, 3:6-8.) The user teaches by “demonstrat[ing] certain actions. The demonstrated actions include things like moving a pointing device to demonstrate a location, actuating a button on a pointing device to make a selection, and typing characters on a keyboard.” (EX1014, 14-18.) “The system will then execute the steps it previously learned.” (EX1014, 3:46.) This means that the system executes actions (automation process) that are displayed.

124. Mr. Zatkovich's other argument, that PLOW can perform a task without being taught by the user, is also incorrect. (EX2001, ¶327.) For its movie searching task, Allen explains that it "expand[s] upon what it has learned" to find the movies tab. (EX1014, 10:65-11:13.) And PLOW's intervening step refers to identifying GUI elements (title field) to handle changes in the GUI elements. This does not mean that the automation process is not defined, as Mr. Zatkovich argues, because if the automation process were not defined, PLOW would not be creating intervening steps or handling changes in the GUI elements. (EX2001, ¶328.)

D. Allen Teaches "publishing the conversation to be accessible to a user via the natural language interface" Of Elements 1[d], 11[d], And 18[d]

125. Mr. Zatkovich first incorrectly argues that the claim requires publishing the conversation to be "available to a chat-bot." (EX2001, ¶359.) But as the language of the claim shows, it requires publishing the conversation "to be accessible to a user." Mr. Zatkovich then argues again that the speech interface display 20 is displayed only during training. (EX2001, ¶360.) I addressed this argument in paragraphs 111-115.

126. Then, Mr. Zatkovich repeats another argument: that the claims require a certain order for the steps. (EX2001, ¶360.) As I discuss in paragraphs 26-29, Mr. Zatkovich is wrong. But even if the claims required that "defining a conversation" be performed first, then it would have been obvious that Allen

discloses first defining a conversation. In Allen, the “user ‘teaches’ task steps by inputting natural language and demonstrating actions with the GUI. . . . [T]he task is represented in terms of the ontology and user’s intentions.” (EX1014, Abstract.) “The system identifies ontological properties of the objective. If, as an example, the objective is buying a book, the system identifies the objective as buying and identifies the ontological properties of a book, such as the fact that it will have a title and that it will be created by an author.” (EX1014, 3:48-53; *see also* 6:66-7:6.) That is, Allen teaches defining questions to ask in the conversation based on the objective and ontological properties. For example, “What is the title of the book?” is a defined question based on the objective of buying a book and the ontological properties of a book.

E. Allen Teaches “wherein the conversation flow defines an order between conversation elements, wherein the conversation elements comprise at least a question element and an action element” Of Claims 2, 12, And 19

127. Mr. Zatkovich argues that Allen does not disclose a question element, again arguing that the question in Figure 6 is a form. (EX2001, ¶367.) Mr. Zatkovich’s argument is incorrect for the reasons I provided in paragraphs 116-118.

128. Mr. Zatkovich also argues that Allen’s inputting the book title into the input field is not an action element because it is a step in the automation process. But just like the ’732 patent, Allen’s conversation flow comprises an “action

element” that has an associated action of the automation process. (EX1001, 16:14-46 (describing the message, question, condition, and action steps of a conversation flow).) Inputting the book title in the title input field is an action of the automation process (as Mr. Zatkovich acknowledges) associated with the action element (the title of the book, as provided by the user) of the conversation flow.

129. Mr. Zatkovich argues that Allen does not teach “defin[ing] an order between conversation elements” because the system asking the user questions and determining the user’s intent merely relates to training the system, not executing the automation process. (EX2001, ¶¶370-373.) Mr. Zatkovich is incorrect. Allen explains that “[o]nce a task has been successfully taught to the system, a user can ask the system to perform that task. The system will then execute the steps it previously learned.” (EX1014, 3:44-46.) Thus, the system executes the steps including obtaining the title of the book from the user, which involves a conversation that has been defined. Defining the conversation is part of the user teaching Allen’s system how to perform a task, which involves the system asking questions and receiving responses in a certain order.

130. And the order of conversation elements is defined based on the user’s intent. For example, as I explained in paragraph 167 of my opening declaration, in the book buying task, the chatbot first asks for the book title and then asks for authorization to complete the transaction based on obtained price and delivery date

information. (EX1003, ¶167.) Asking for authorization requires that the chatbot ask for the book title first because otherwise the price and delivery date may not be accurate (it may be information for the wrong book). Thus, Allen defines an order between conversation elements. (EX2001, ¶¶374-375.)

131. Allen also defines an order between conversation elements for its hotel searching task. (EX2001, ¶¶376-377.) The order of conversation elements follows the order of steps for the automation process: first, search for hotels near an address, then provide search results, and then narrow the search within a certain proximity from the address based on the search results. (EX1014, 16:33-54.) Narrowing the search requires that the system ask for the address first because, otherwise without search results, the user or system may not know whether or not to narrow the search.

132. And Mr. Zatkovich's mischaracterizes Allen, suggesting that the conversation and its action elements are only for training the system. (EX2001, ¶¶377-379.) Allen's system executes an automation process, but also uses a chatbot to determine the user's intent for executing the automation process. That is, Allen's chatbot has to determine the address and proximity via its defined conversation flow in order to perform the hotel searching task.

133. Lastly, Mr. Zatkovich's argument that Allen does not teach claim 2 because its conversation is not user defined is flawed. (EX2001, ¶380.) The

claims do not require that the conversation be user defined, or that the conversation to be defined in a certain way. And even if so, Allen's system is taught by the user, and part of the training involves the user defining the conversation, as I discuss in paragraphs 106-110.

F. Allen Teaches “wherein the conversation elements comprise at least one of a message element and a condition element” Of Claims 3 And 13

134. Mr. Zatkovich argues that claim 3 requires four different types of conversation elements. (EX2001, ¶¶387-388.) I disagree for the reasons discussed in paragraph 30.

135. But even if four different types of conversation elements are required, Allen discloses all four types of conversation elements in the same conversation. (EX2001, ¶¶389-392.) Allen's conversation includes the “system [] then ask[ing], ‘What is the title of the book?’,” which is a question element. (EX1014, 12:65-66.) “Once that information is provided, PLOW would then perform the steps it was previously taught,” an action element. (EX1014, 12:66-13:1.) As part of the authorization step, the system “provides [price and delivery] information back to the user,” a message element. (EX1014, 13:2-5.) Then, “ask[ing] whether the user wishes to complete the transaction,” a condition element that selects different flows based on whether the user responds with yes or no. (EX1014, 13:2-5.) Thus, contrary to Mr. Zatkovich's arguments, the passage at 13:2-5

discloses multiple elements in a single conversation, providing the price and delivery information is a message element, and asking whether the user wishes to complete the transaction is a question element. (EX2001, ¶389.) Moreover, just like the '732 patent, Allen's conversation flow comprises a "condition element" that has an associated condition of the automation process. (EX1001, 16:14-46 (describing the message, question, condition, and action steps of a conversation flow).)

136. Mr. Zatkovich's arguments in paragraph 393-397 of his declaration are repeat arguments (regarding the conversation being for training the automation process, not executing the automation process) that should be rejected for the reasons I stated in paragraphs 111-118. (EX2001, ¶¶393-397.)

137. Regarding Patent Owner's argument that Petitioner relied on the same conversation element in Allen for both a "message element" and a "condition element." (POR, 70.) Allen's message element "provide[s] [the price and delivery date] information back to the user." (EX1014, 13:2-5.) Allen's condition element is associated with the authorization question (asking "for authorization to complete the transaction based on the obtained price and delivery date information") and the answer. Thus, Allen's message element is not the same conversation element as its condition element.

G. Allen Teaches The "conversation elements comprise a second action element associated with a second automation

process, whereby the natural language interface is configured to selectively invoke either the automation process or the second automation process based on interaction with the user” Of Claims 4 And 14

138. Mr. Zatkovich argues that claim 4 requires a single conversation with two action elements. (EX2001, ¶¶402-404.) I disagree. Claims 2 and 4 require that the conversation *elements*—not the conversation—comprise an “action element” and a “second action element.”

139. As I explained in paragraphs 176-179 of my opening declaration, Allen discloses its chatbot comprising an action element associated with the book buying task and a second action element associated with the hotel searching task. (EX1003, ¶¶176-179.) The user stating “I want to buy a book” would cause the chatbot to invoke the book buying task vs. the user stating “I want to search for a hotel” causing the chatbot to invoke the hotel searching task. Thus, the automation process that is selectively invoked is based on interaction with the user.

H. Allen Teaches A “plurality of conversations” Of Claims 5 And 15

140. For claims 5 and 15, Mr. Zatkovich argues that the claims require different conversations. (EX2001, ¶¶402, 405-407.) But nothing in claims 5 or 15 requires that each conversation be distinct. And even if it did, the conversation for the book buying task would be different from the conversation for the hotel

searching task, as I explained in paragraphs 180-186 of my opening declaration.

Mr. Zatkovich does not dispute this. (EX1003, ¶¶180-186.)

141. And whether an automation process and conversation meets claim 4 does not mean it cannot meet claim 5, or vice versa. Claim 4 requires a second action element and a second automation process. Claim 5 requires a plurality of conversations. The two claims do not have mutually exclusive requirements, as Mr. Zatkovich argues. (EX2001, ¶¶408-414.)

I. Allen Teaches “wherein the automation process is configured to execute a new functionality of the computer program” Of Claim 9

142. Mr. Zatkovich’s only argument for claim 9 and Allen is that adding a new step is not a new functionality of the computer program. (EX2001, ¶¶415-416.) Mr. Zatkovich emphasizes “of the computer program” to suggest that the new functionality must be of the target system. As discussed in paragraphs 12-18, Mr. Zatkovich’s construction of “computer program” is wrong.

143. I note that claim 10 of the ’732 patent states that the “functionality of the computer program comprises inputting data to a field in the displayed user interface.” The ’732 specification explains that inputting data to a field is a simulated user input: “[t]he automation process interacts with the element-of-interest and simulates an element focus event for the element-of-interest. For example, the element-of-interest may be a text input field which may be

manipulated to receive focus, enabling the inputting of texts thereto.” (EX1001, 12:2-7.) Allen similarly discloses “add[ing] a new step to the process of buying a book, such as going to a particular web page” or “opening a URI.” (EX1014, 8:17-33.) Going to a particular web page is a simulated user input, and thus a new functionality of the computer program.

VI. ALLEN AND BEN-ITZHAK

A. Allen-Ben-Itzhak Teaches “interaction with the link is configured to cause execution of the automation process” Of Claims 6, 16, And 21

144. For claims 6, 16, and 21 and the combination of Allen and Ben-Itzhak, Mr. Zatkovich again argues that Allen’s teachings are for training, not executing, an automation process. (EX2001, ¶421.) I addressed these arguments in paragraphs 111-118.

145. Mr. Zatkovich also argues that neither Allen nor Ben-Itzhak discloses interacting with a link that is configured to cause execution of an automation process. (EX2001, ¶¶421-423.) I disagree. As I explained in paragraph 214 of my opening declaration, Allen teaches that its system transfers information using HTML, XHTML, CSS and/or scripts. (EX1003, ¶214.) Allen transfers information from its chat bot to the automation process, and describes “actuat[ing] *the link* in carrying out the task it learns.” (EX1014, 9:4-33 (emphasis added).)

B. A POSITA Would Have Been Motivated To Combine Allen And Ben-Itzhak

146. Mr. Zatkovich's argument that there is no motivation to combine Allen and Ben-Itzhak is based on a flawed understanding of the combination. (EX2001, ¶¶429-430.) As I discuss in paragraph 145, Allen teaches "actuat[ing] the link in carrying out the task it learns." (EX1014, 9:4-33.) Allen also teaches monitoring the system's actions in executing the automation process so that "the user can readily observe [a] mistake and take action to correct it." (EX1014, 15:39-40.) Without interaction with the link, the user may not be able to readily observe a mistake that the system may make.

147. Ben-Itzhak teaches generating and providing a link to the user to allow the user to consume the content associated with the link. A POSITA would have understood that a user consuming the content includes the user readily observing the content. Thus, the combination would allow the user to be able to readily observe a mistake that the system may make.

148. And Mr. Zatkovich is incorrect that the combination is counter to Allen's teachings of "speech recognition." (EX2001, ¶429.) Allen's "speech recognition" is used for voice-based communication, not for observing a mistake that the system may make. (EX1014, 5:30-31.)

149. Further, Mr. Zatkovich's argument that Ben-Itzhak's teachings do not improve Allen's task of buying a book is incorrect. (EX2001, ¶429.) As I

explained in paragraphs 137-143 of my opening declaration, providing personal recommendations “result[s] in [] positive engagement by the user,” and interacting with a link that provides personal recommendations helps the user consume the content associated with the webpages, such as the webpages that present book information. (EX1003, ¶¶137-143.)

VII. KRISHNAN-RADHAKRISHNAN

A. Radhakrishnan Is Analogous Art

150. Mr. Zatkovich argues that Radhakrishnan is not in the same field of endeavor as the '732 patent. Mr. Zatkovich admits that the '732's field of endeavor relates to executing an automation process. (EX2001, ¶458.) The '732 also relates to an “automation process . . . [that] simulate[s] [a] sequence of interactions with the displayed user interface of the computer program.” (EX1001, Claim 1.) 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.)

151. Mr. Zatkovich improperly tries to narrow Radhakrishnan's field of endeavor specifically to file diagnosis and correction, in order to differentiate over the '732 patent. (EX2001, ¶459.) However, I have been informed that art for purposes of determining whether it is analogous may 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.

152. Mr. Zatkovich also tries to focus on chatbots/conversations and gathering information to implement an automated processes as the reasonably pertinent problems faced by the '732 inventors. (EX2001, ¶¶459, 462-464.) But both the '732 inventors and Radhakrishnan describe problems that pertain to automation processes and using them to perform user tasks to improve the user experience. The '732 patent describes it as “simplif[ying] the end-user experience by collecting data from him and executing a predefined automation flow.” (EX1001, 5:1-3.) The '732 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, 5:65-6:1.) 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.) I note that Mr. Zatkovich acknowledges the problem discussed at 5:1-3 of the '732 patent. (EX2001, ¶75.)

B. Krishnan-Radhakrishnan Teaches “defining an automation process” Of Elements 1[pre], 11[pre], And 18[pre]

153. Mr. Zatkovich argues that Krishnan does not teach the claimed “automation process.” (EX2001, ¶470.) However, Mr. Zatkovich ignores that I rely on Krishnan *in combination with Radhakrishnan* for teaching the claimed “automation process.” (EX1003, ¶¶220-228.)

154. Mr. Zatkovich acknowledges that Radhakrishnan mirrors the user’s operations on a displayed UI, but tries to distract from these teachings by placing emphasis on Radhakrishnan’s disclosure of an “operation record.” (EX2001, ¶¶470-471.) 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, ¶471.)

C. Krishnan-Radhakrishnan Teaches “defining a conversation to be implemented by a natural language interface, wherein the conversation is configured to obtain from the user one or more values to one or more parameters associated with the automation process” Of Elements 1[a], 19[a], And 29[b]

155. Mr. Zatkovich argues that Krishnan-Radhakrishnan does not teach elements 1[a], 19[a], and 29[b] because it does not teach the “automation process”

defined in the preambles of the independent claims. (EX2001, ¶¶474-477.) I disagree for the same reasons discussed in paragraphs 153-154.

156. Mr. Zatkovich also alleges that the Krishnan provisional does not support the example at EX1016, 2:67-3:3 that describes information needed to book a flight, such as locations, dates of travel, seat preferences, and credit card information. (EX2001, p. 228 n. 3, ¶437.) However, I have been informed that motivation to combine need not appear explicitly in the prior art reference, nor do specific examples which would be part of POSITA knowledge. The types of information needed to book a flight is part of POSITA knowledge.

157. Mr. Zatkovich also argues that the conversation is not implemented by a “natural language interface” because it uses buttons, not free text. (EX2001, ¶436.) This is false. The user typing “Book Flight” is one example of the user providing free text information and the conversation using free text. (EX1016, Fig. 1.) Further, Krishnan’s disclosures support that its chatbot receives user input via typed words, including for destination 130, 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.)

158. Mr. Zatkovich further argues that neither Krishnan nor Radhakrishnan teaches a conversation which is “configured to obtain from the user one or more

values to one or more parameters associated with the automation process.” (EX2001, ¶474.) However, I explained in paragraph 230 of my opening declaration, Krishnan teaches its chatbot “requesting additional information 120B” and information “necessary to book the flight, such as locations, dates of travel, seat preferences, and credit card information.” (EX1016, 2:65-3:3, Fig. 1.) As this information is used to book the flight (execute the automation process), the information requested by the chatbot are values to the parameters associated with the automation process. (EX1003, ¶230.)

D. Krishnan-Radhakrishnan Teaches “associating the conversation with the automation process” Of Elements 1[b], 19[b], And 29[c]

159. Mr. Zatkovich argues that Krishnan-Radhakrishnan does not teach elements 1[b], 19[b], and 29[c] because it does not teach the “automation process” defined in the preambles of the independent claims. (EX2001, ¶¶478-479.) I addressed these arguments in paragraphs 153-154.

160. And since the automation process uses the values collected from the chatbot, Mr. Zatkovich is wrong that the associating step serves no purpose for Krishnan and Radhakrishnan. (EX2001, ¶479.) Without associating the conversation with the automation process, the automaton process would not be able to use the values collected from the chatbot.

E. Krishnan-Radhakrishnan Teaches An “automation process [that] is configured to utilize a displayed user interface” Of Elements 1[c], 11[c], And 18[c]

161. Mr. Zatkovich’s arguments that Krishnan-Radhakrishnan does not teach “utilizing a displayed user interface” focus on Krishnan’s teachings of a backend database. (EX2001, ¶¶437-440.) I disagree that Krishnan only teaches backend systems. (EX2001, ¶438.) 2:33-35 (EX1016) of Krishnan states “one or more backend databases *or other information processing systems*,” which means its invention works with non-backend systems.

162. Further, Mr. Zatkovich assumes a backend database and displayed UI cannot be used together. But this is wrong. A database is for storing, and a displayed UI is for displaying. The two can co-exist. 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.

163. Regarding Radhakrishnan, Mr. Zatkovich acknowledges that Radhakrishnan discloses an automation process that simulates user operations using a displayed user interface of a computer program. (EX2001, ¶483.) But Mr.

Zatkovich also argues that Radhakrishnan’s user operations are not displayed because its RPA works “within a virtual environment.” (EX2001, ¶¶438, 447.) 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 interface is a displayed user interface.

164. 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 UI and the RPA mimics the user operations, the RPA utilizes the displayed UI, as I explained in my opening declaration. (EX1003, ¶¶253-256, 266.)

165. Mr. Zatkovich also argues that Radhakrishnan’s automation processes are not actually executed, but instead are “back-up simulated operations.” (EX2001, ¶483.) But the “back-up simulated operations” refer to previous

automation processes that have been stored. This means the automation processes had to be actually executed in order to be stored for future use. And a POSITA would have understood that drafting and sending an email message is one example that involves a “program crash,” as Radhakrishnan discusses. (EX2001, ¶483.)

166. Further, just because Radhakrishnan’s RPA operates in the background of another application and operates in real-time does not mean it does not interact with a GUI, as Mr. Zatkovich argues. (EX2001, ¶445.) Operating in the background “of another application” and operating in real-time merely mean the RPA and the other application operate in parallel. (*See, e.g.*, EX1018, 11:29-32.)

F. Krishnan-Radhakrishnan Teaches “whereby the parameterized automation process is invoked automatically by the natural language interface” Of Elements 1[e], 11[e], And 18[e]

167. For elements 1[e], 11[e], and 18[e], Mr. Zatkovich again argues that Krishnan only uses a backend system. (EX2001, ¶¶438, 487.) I addressed this in paragraphs 161-162.

168. Mr. Zatkovich also argues that Radhakrishnan does not disclose a functionality invoked by a conversation. (EX2001, ¶487.) But Mr. Zatkovich is ignoring the proposed obviousness combination, which as described in my opening declaration, relies on Krishnan’s teachings of a chatbot in combination with the teachings of automation processes from both Krishnan and Radhakrishnan. The

combination includes teachings from Krishnan of an automation process that utilizes values from a natural language conversation, and thus, the conversation is associated with the automation process.

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

169. 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.

170. Mr. Zatkovich alleges that I did not show that Krishnan is supported by its provisional application. (EX2001, ¶¶490-491.) Mr. Zatkovich is wrong. I provided over 6 pages of discussion in ¶243 of my opening declaration. Mr. Zatkovich's argument 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, ¶¶433, 490-491.)

171. 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, ¶439.)

172. 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, ¶439.) 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 system 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, ¶¶491-492.)

173. 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, ¶491.) 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 task 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.

174. Mr. Zatkovich argues that there would be no motivation to combine because Krishnan’s chat is tied to backend systems, the system already worked, and its use of backend databases is more cost effective. (EX2001, ¶¶439, 492.) Mr. Zatkovich also argues that a POSITA would request information directly from databases without the need of an automation process that utilizes a displayed UI. (EX2001, ¶470.) As I discuss in paragraphs 161-162, where a backend database is used, Krishnan teaches using it together with an automation process. Mr. Zatkovich’s argument that it would be less efficient to access the backend database through a UI is misplaced. The claims require executing an automation process

that utilizes a displayed UI. The claims do not require accessing a database by utilizing a displayed UI, and the combination does not replace a database or access it utilizing a displayed UI, as Mr. Zatkovich suggests.

175. I disagree with Mr. Zatkovich's argument that the combination of Krishnan and Radhakrishnan would only improve error collection. (EX2001, ¶493.) 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.

H. Krishnan-Radhakrishnan Teaches "wherein the automation process is configured to execute a new functionality of the computer program" Of Claim 9

176. For claim 9, Mr. Zatkovich repeats some of the same arguments that he made regarding the motivation to combine Krishnan and Radhakrishnan. (EX2001, ¶496.) Mr. Zatkovich's arguments should be rejected for the same reasons discussed in paragraphs 169-175. Mr. Zatkovich also argues that the RPA bot technology used by Radhakrishnan does not perform any tasks at all," but

Radhakrishnan’s disclosures state the opposite, its RPA bots “complet[e] tasks.”

(EX2001, ¶496; EX1018, 6:6-8.)

I. Krishnan-Radhakrishnan Teaches “wherein the functionality of the computer program comprises inputting data to a field in the displayed user interface” Of Claim 10

177. For claim 10, Mr. Zatkovich repeats some of the same arguments that he made for element 1[c] regarding Radhakrishnan’s automation process utilizing a displayed UI. (EX2001, ¶¶499-503.) Mr. Zatkovich also repeats the arguments he made for element 1[pre] regarding Radhakrishnan’s “operation record.” (EX2001, ¶¶447, 502.) I provided rebuttal arguments in paragraph 154.

VIII. LEVEL OF ORDINARY SKILL IN THE ART

178. 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 ’732 patent would have a bachelor’s degree in engineering or computer science and two years of experience working on NLP or automation processes. Alternatively, a POSITA would have five to six years of experience working on NLP or automation processes.” (Petition, 5-6.) I agree with Petitioner’s proposed level. (EX1003, ¶¶46-47.)

179. I understand that Patent Owner and Mr. Zatkovich disagree with Petitioner’s proposed level. (POR, 20-21; EX2001, ¶38.) 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, ¶38.) I disagree with Patent Owner and Mr. Zatkovich for the reasons set forth below.

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.

180. 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, ¶24.) 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, ¶24.) 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 179 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.

181. Additionally, Symons’ “evolving rapidly” statement refers generally to the “technology landscape.” (EX2001, ¶40 (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 71, there are other reasons for a company not to disclose low-level details that are unrelated to the level of sophistication in the technology.

182. 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, ¶41.) That is, Mr. Zatkovich improperly ignores Symons’ time before his employment at RoboRana, and 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.)

183. Mr. Zatkovich proposed level of ordinary skill is: “a POSITA as of November 5, 2017 would have had some education (either formal or informal) with computer science and some work experience (e.g., 1-2 years) with chatbots using NLP or automation process.” (EX2001, ¶42.) 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.

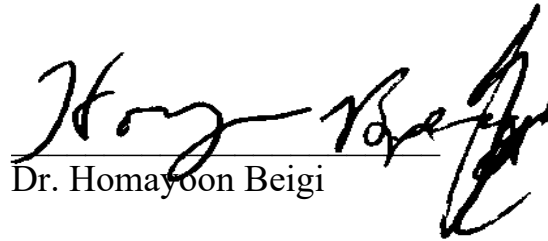
184. If Mr. Zatkovich’s proposed level is adopted, my analysis would be the same. Mr. Zatkovich agrees. (EX2001, ¶43.) And Mr. Zatkovich misunderstands my testimony regarding my analysis and opinion from the perspective of a POSITA. (EX2001, ¶177 (citing EX2003, 194:4-13).) As I

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