

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WHATFIX INC.,
Petitioner,

v.

WALKME LTD.,
Patent Owner.

Case IPR2023-01368
Patent 11,819,664 B2

**PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY FOR
INTER PARTES REVIEW OF CLAIMS 1-9, 12-16, 18-23, 25, 26, 28-31,
AND 33 OF U.S. PATENT NO. 11,819,664 B2**

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<i>Thorner v. Sony Computer Entm’t Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012) (POR; Reply)	2
<i>Virtek Vision Int’l ULC v. Assembly Guidance Sys., Inc.</i> , 97 F.4th 882 (Fed. Cir. 2024)	9, 13, 25

EXHIBIT LIST

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
Ex2001	Expert Declaration of Ivan Zatkovich in Support of Patent Owner’s Response with respect to Claims 1-9, 12-16, 18-23, 25-26, 28-31, 33 of U.S. Patent No. 10,819,664 B2 (“ <u>Zatkovich Decl.</u> ”)
Ex2002	<i>Curriculum Vitae</i> of Ivan Zatkovich
Ex2003	Deposition Transcript of Homayoon Beigi, taken on June 26, 2024
Ex2004	Deposition Transcript of Homayoon Beigi, taken on June 27, 2024
Ex2005	Public Comments to S. Symons, "When Chatbots meet RPA bots," https://medium.com/roborana/when-chatbots-meet-rpa-bots-c8b22579f49a , Medium (Oct. 19, 2017) (omitted by Petitioner in Ex1004)
Ex2006	Zatkovich’s Overview of Ex2009, “Simple chatbot” .html Code, and Ex2010, Video of “Simple chatbot” .html Code
Ex2007	Khoros Staff, “Different types of chatbots: Rule-based vs. NLP”, Expert insights, Aug. 29, 2019 (marked as Beigi Ex. 19)
Ex2008	IBM, “What is a chatbot?”, https://web.archive.org/web/20221227051852/https://www.ibm.com/topics/chatbots (archived copy of Dec. 27, 2022).
Ex2009	“Simple chatbot” .html Code, Prepared by Mr. Zatkovich for use in IPRs 2023-01368, 2023-01379, 2024-00065.
Ex2010	Video demonstration of the “Simple chatbot” .html Code (Ex2009)
Ex2011	U.S. Patent No. 10.819,664 [Ex1001 in IPR2023-01368]

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
Ex2012	U.S. Patent No. 11,258,732 [Ex1001 in IPR2023-01379]
Ex2013	[RESERVED]
Ex2014 ¹	Supplemental Declaration of Ivan Zatkovich Pursuant to 37 CFR § 42.64 (b)(2) In Response To Petitioner's Objection to Evidence and Providing Supplemental Evidence for Inter Partes Review of Claims 1-6, 9-16, and 18-21 of U.S. Patent No. 11,258,732
Ex2015 ¹	Comment of Neha Negi to S. Symons, “When Chatbots Meet RPA Bots”, Medium (Posted Sep. 10, 2018) (available at: https://medium.com/@nehanegi0230/hi-saw-the-video-but-wanted-to-know-how-does-the-chatbot-trigger-the-rpa-bot-2804de1ace4c)
Ex2016 ¹	Comment of Sachin Prakash to S. Symons, “When Chatbots Meet RPA Bots”, Medium (Posted June 9, 2018) (available at: https://medium.com/@sachinprakash.37/which-rpa-tool-and-chatbot-tool-are-you-used-and-give-description-to-do-this-automation-a4d4cc0e2193)

¹ Ex2014, Ex2015, Ex2016, Ex2017 and Ex2018 were prepared and served in response to Objections by Petitioner to Ex2005 and Ex2007. Dr. Beigi relies upon Ex2014-Ex2017 in his Reply Declaration. (Ex1042, ¶43). Ex2015-2017 (as submitted in IPR2024-00065) were marked as Beigi Ex. 31, 32, and 33, respectively, at his deposition. (See Ex2020, at 113:12-116:25; 148:8-152:19).

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
Ex2017 ¹	Comment of Esteban to S. Symons, “When Chatbots Meet RPA Bots”, Medium (Posted April 24, 2018) (available at: https://medium.com/@egaliaxia_coconutt/interesting-but-i-seems-that-rpa-is-a-simply-program-d3bbb7c333df)
Ex2018 ¹	June 19, 2021 archive of Khoros Staff, “Different types of chatbots: Rule-based vs. NLP”, Expert insights (Aug. 29, 2019) (accessible at: https://web.archive.org/web/20210619072226/ https://khoros.com/blog/different-kinds-of-chatbots)
Ex2019	Errata Sheet of Homayoon Beigi for Depositions taken on June 26 and 27, 2024 (Beigi Dep. Ex. 40)²
Ex2020	Deposition Transcript of Homayoon Beigi, taken on November 11, 2024
Ex2021	Deposition Transcript of Homayoon Beigi, taken on November 12, 2024

² Included for completeness of record. Counsel for Petitioner took the position that it was not obligated to provide an errata sheet, but Dr. Beigi provided a newly executed version at his November 12, 2024 deposition. (See Ex2021, 294:12-295:20).

I. INTRODUCTION

Patent Owner (“PO”) submits this Sur-Reply regarding claims 1-9/12-13/16/19-23/26/29/31 of Patent 10,819,664 (“the ‘664 Patent”, Ex1001).

Grounds 1-4 rely upon improper claim constructions, informal inherency arguments, and/or incomplete obviousness analysis which fail to follow the dictates of *Graham* and *KSR*. Applying proper claim construction and legal principles, the Petition fails to meet its burden of proof to render obvious any of the claims. All challenged claims should be confirmed.

II. CLAIM CONSTRUCTION

The Petition (and the ID, provisionally) offer no claim construction, instead relying upon the “ordinary and customary meaning” of all terms. (Petition, 6; Reply, 1-3; ID, 12). But the proper approach is that “[c]laims are construed in light of the specification”. *Tf3 Ltd. v. Tre Milano, LLC*, 894 F.3d 1366, 1372 (Fed. Cir. 2018). While Dr. Beigi acknowledged that “the claims come in light of the specifications” (Ex2020, 83:23-25; 36:2-13), he failed to apply this principle properly in his declarations (Ex1003, Ex1042). Even where his Reply Declaration cites the specification, it is with incomplete and mischaracterized quotes. (*Compare* Ex1042, 2-8 and Ex2021, 398:5-438:19 with Reply, 1-3).

As Mr. Zatkovich demonstrated (Ex2001, ¶¶91-95), PO’s constructions best align with the specification and other intrinsic evidence.

A. “computer program”

The intrinsic evidence is clear: the specification expressly equates the term “computer program” to “target systems”: “target system[s], generally referred to as the computer program”. (Ex1001,8:9-16).¹ A Patentee acts as his own lexicographer where, as here, they “clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citations omitted) (POR, 26; Reply, 2).

Moreover, “[t]he 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.” (Ex1001, 8:13-16.). Dr. Beigi admitted that “the graphical user interface of the target system is referring to the user interface in a computer program in the claim.” (Ex2020, 261:19-23). Dr. Beigi tries to flip the specification’s express language that “[t]he target system [is] generally referred to as the computer program” (Ex1001, 8:9-10), by claiming a “target system” is

¹ “**The 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.” (Ex1001, 8:9-13.)

merely an example of a “computer program”. (Ex2021, 310:19-311:4). This is wrong.

To support this contorted read, he asserts “there are other examples”. (Ex2021, 311:2). But, as Dr. Beigi reluctantly admitted, the term “computer program” is absent from the examples list in the Reply, 2 (citing Ex1001, 13:11-17, 8:37-51, 24:24-32 and Ex1042, ¶¶7-11):

Ex1001	Actual Passage (omitted language in bold)	Dr. Beigi Admission (Ex2021)
13:11-17	“[t]he agent may access other applications, including their UI elements.”	399: 5-8
8:37-51	“[e]nterprises may use many different software tools for different purposes”.	400:18-403:7
24:24-32	“[t]he computer readable program instructions may also be loaded onto a computer...”	437:24-438:21

Petitioner also mischaracterizes the specification discussing “computer program product” (as if it did not use the term “product”, to modify the term “computer program”) (Reply, 1) and Mr. Zatkovich’s actual testimony at Ex1001, 22:60-65 regarding the use of the term “computer program product”, which reads:

Q: Is there a specific term that you’re referring to when you say a different term that the claims use?

A. The claim is using, either uses the term “computer program” or “target system.” This is using a more generic term of “computer program product” ... it’s describing how you might package this particular invention ... [n]ot as a computer program, as used in the terms.

(Ex1036, 110:1-110:24). Dr. Beigi agreed that “computer program product” “seems to be a packaging term” (Ex2021, 432:8-17).

Claim 19 demonstrates how different terms like “computer readable medium retaining program instructions” in its preamble, or “computer readable program instructions” (Ex1001, 24:24-32), are used to “carry out aspects of the present invention” (Ex1001, 22:63-65; Ex2021, 409:16-410:12). The invention is the automation process interacting with the GUI of the “target system”/“computer program”,² not the “target system”/“computer system”, itself. (*See also* ID, 3 (an automation process that “may be executed in a manner that manipulates the [graphical user interface (GUI)] of [a] **target system**, in a similar manner to the manner in which the user operates”) (*citing* Ex1001, 8:64-9:4).³).

² Dr. Beigi recognizes that “the graphical user interface of the target system is referring to the user interface of the computer program”. (Ex2020, 261:11-23).

³ All emphasis added unless otherwise indicated.

PO's construction, "a target system which has functionality that is invoked through its displayed user interface" is clearly set forth in the specification and should be adopted.

B. "a displayed user interface of a computer program"/"the displayed user interface of the computer program"

Undaunted by the law of antecedent basis or grammar,⁴ Petitioner mischaracterizes PO's arguments by alleging that "nothing supports a 'separate'/'single' computer program (POR, 1, 6-7) with 'its own' UI (POR, 2) on a single computer device (POR, 5-6)" (Reply, 3).

PO's objection is that Petitioner seeks to read "the displayed user interface of the computer program" referred to in [e/f] upon a **different** computer interface of a **different** computer program than "a displayed user interface of a computer program" in [c] that provides antecedent basis. (POR, 39; Ex2001, ¶167).

Petitioner's read violates the law of antecedent basis, which is clear.

[c-f] read as follows:

[c] determining, based on the first and second natural language inputs from the user, an automation process configured to perform an automation of a sequence of interactions with a displayed user

⁴ Although Dr. Beigi asserts he is an expert in NLP, he readily admits he lacks expertise in patent law or grammar. (Ex2021, 388:23-390:13).

interface of a computer program and to simulate user interactions with the displayed user interface of the computer program,

[d] wherein the user interface of the computer program is configured to be displayed on a screen,

[e] wherein each interaction of the sequence of interactions comprises an action selected from a group consisting of inputting data to the displayed user interface and executing a functionality of the displayed user interface; and

[f] executing the automation process, wherein said executing comprises utilizing the displayed user interface of the computer program to perform the sequence of interactions.

(Markup added).

Here, “the displayed user interface of the computer program” which the automation process “simulate sequence of interactions with” and “the computer program” which the automation process “execute a functionality” must be the same displayed user interface and the same computer program as “a displayed user interface of a computer program” which the automation process utilizes earlier in the claim. (*See, e.g.*, caselaw in POR, 39).

Petitioner’s assertion that the claim can have more than one user interface and more than one computer program (Reply, 11-12, *citing* Ex1042, ¶38) is not relevant. The question is whether “the displayed user interface of the computer program” and “the computer program” necessarily refers to the same displayed

user interface of the same computer program identified earlier in the claims as “a displayed user interface of a computer program”. It does.

In virtually every other instance where the claim provides antecedent basis for “the” something, based on an earlier reference of “a” something, Dr. Beigi admitted were the same. (See Ex2021, 379:20-25/381:10-12/383:13-18 (automation process); 380:16-17 (conversation)). But for “displayed user interface” and “computer program”, Dr. Beigi attempts to distinguish “a” displayed user interface of “a” computer program from “the” displayed user interface of “the” computer program. (Ex2021, 388:10-12 (“it makes a distinction between “a” and “the.” Otherwise, it would have said “the” from the beginning”)). This contradiction with fundamental rules of grammar and antecedent basis, and his own interpretation of other claim terms, strains Dr. Beigi’s credibility. It is also incorrect.

III. THE PETITION FAILS TO MEET ITS BURDEN

A. Ground 1: Symons/Williams Do Not Disclose or Render Obvious Claims 1-8/12-13/16/19-23/29/31

Symons does not disclose any “internals” of its purported “chatbot”. (POR, 4; Ex2003, 213:18-214:9). Ground 1 relies on a hodgepodge of documents relating to the Symons “chatbot” demo, in an attempt to provide the necessary missing detail. But nothing in Symons or documents discussing Symons describe what was

actually built, how it was built, or whether it actually used a “natural language interface” relying on NLP technology to generate a “natural language conversation” as required by 1[a/b]/19[a/b]/29[b/c] (POR, 5; Ex2001, ¶¶104, 156; Ex1009, 2; Ex2005).

The “Chatbot-RPA” was a single purpose demo “to automate the process of creating an email signature” (Ex1004, 2-3; Ex1009, 2; Ex1008, ¶9; Ex1010, ¶8; Ex1006, 1; Ex1003, ¶68; Ex2001, ¶¶118, 155). The RPA software appears to have been executed on a different device from the user device on which the chatbot was implemented. Ground 1 relies upon the RPA executing two different GUIs of two different software. (POR, 5-6).

The Symons/Williams obviousness combination is ill-defined. It does not identify the differences between Symons/Williams and the claims (as required *Graham* and *KSR*), nor provide an explanation of how or why a POSITA would modify Symons to meet the claim.⁵

Dr. Beigi could not explain whether he was asserting that each element was met by Symons, or whether he was proposing to modify Symons in some way. Instead, the Petition and Dr. Beigi merely identify disparate passages from the

⁵ Although Dr. Beigi says he “understands” obviousness principles at his deposition (Ex2020, 200:7-25), it was clear he did not. (*E.g.*, Ex2020, 176-186)

cited art to lead to the unsupported conclusion of obviousness. For example, for [c] Ground 1's obviousness argument relies on Williams' teaching that "the RPA can handle multiple requests", and "RPA robots are designed to execute multiple different types of automation processes" (Petition, 19), but neither Symons nor Williams suggest using a single chatbot-RPA to handle multiple requests. (Ex2001, ¶165).

The law is clear that "the mere fact that these possible arrangements existed in the prior art does not provide a reason that a skilled artisan would have" made a substitution. *Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 887 (Fed. Cir. 2024).

1. "Natural language interface" requires NLP

Symons does not explain how the "chat bot" was generated, or if it uses NLP, as Dr. Beigi during his first deposition recognized would be required for a "natural language interface". (POR, 34-37; Ex2003, 63:15-64:17). That a "natural language interface" required use of NLP was well established by the Petition, ID, and Dr. Beigi through his first Deposition. This was consistent with Dr. Beigi (Ex1003, ¶51), the Petitioner (Petition, 5-6), and the ID (12) defining a POSITA having "experience working on NLP and automation processes". The Petition/Dr. Beigi devoted as much word count discussing NLP as they did the Patent. (Petition, 2-3; Ex1003, ¶17). It is also consistent with the specification and the ID's

description of the ‘664 Patent. (See Ex1001,13:33-43; ID, 4 (“the user may interact with chat bot using natural language processing techniques”)).

In the Reply, Petitioner/Dr. Beigi reformulates the construction of “natural language interface” to no longer require “natural language processing”.

This is wrong. Notwithstanding his Reply Declaration (Ex1042, ¶¶48-55), in his latest deposition, Dr. Beigi confirmed his opinion that Mr. Zatkovich’s demo (Ex2006) did not meet claim 1 because it does not use NLP (Ex2020, 83:25-84:12) (“the specifications multiple times speak about a chatbot and in a chatbot and they do talk about natural language processing [...] we are talking about a chatbot, and we are requiring natural language processing”). *See also, id.*, 275:19-277:10 (“So here, it establishes that natural language processing is used”); *Cf. id.*, 73:23-74:2 (regarding “natural language feedback”: “So there is the input and then there is the feedback. So the natural language processing is utilized to make some such feedback for – to understand the input.”)

2. Symons does not teach NLP

Dr. Beigi previously testified that when “bots use buttons, then I would say it’s a form” (Ex2003, 199:17-21; 200:11-24). He also confirmed “no” “a form where you fill in name, address, telephone number would [not] be human natural language” (*Id.*, 60:24-61:3). Now, the Reply and Dr. Beigi rely upon Symon’s use

of “yes” and “no” buttons as “natural language processing”. (Reply, 5-8; Ex1042, ¶¶24-27).

Besides being inconsistent, since Dr. Beigi does not know the “internals” of the Arinti “chatbot” in Symons, he does not know **how** the user’s affirmative or negative response is processed. As demonstrated by Mr. Zatkovich, the processing of Symons’ Arinti “chatbot” could have been “hard-wired” (Ex 2001, ¶¶106, 157, 162), which, as Dr. Beigi himself asserts would make the “chatbot” no longer a chatbot because it does not use natural language processing. (Ex2020, 83:13-84:4). Petitioner’s attempts to explain away the lack of disclosure on the “internals” and Mr. Zatkovich’s demonstration (Reply, 12-13) are unavailing.

3. Symons Does Not Disclose “Determin[ing] ... an Automation Process” (1[c]/19[c]/29[d])

Petitioner mischaracterizes PO’s argument. The issue is not whether the claims require multiple automation processes, or a single chatbot-RPA handling multiple requests at once in a single conversation thread as Petitioner contends. (Reply, 9) Rather, as Petitioner admits, Symons’ Chatbot-RPA is a single-purpose demo to “automate the process of creating an email signature” (Petition, 10; Ex1004, 2; Ex1003, ¶67). Consequently, the Symons chatbot does not offer the user the choice of selecting an automation process (Ex1001, 8:65-9:4), let alone a

choice between automation processes “based on the first and second natural language inputs from the user” as recited in 1[c]/19[c]/29[d]. (Ex2001, ¶¶151-166).

a. The use of “selecting” in claim 8 does not render PO’s construction of “determining” superfluous

Petitioner argues that claim 8’s “selecting” confirms that “determ[ing] is broader and includes determining whether to use/invoke a single automation process” (Reply, 9). But “determining” in claim 1 must only be broader than the specific form of “determining” recited in claim 8, which requires a specific database that is updatable via a GUI capable of defining new automation processes and updating existing automation processes. *See Liebel-Flarsheim v. Medrad*, 358 F.3d 898, 910 (Fed. Cir. 2004). More importantly, claim 8 demonstrates that determining ***includes*** selecting, consistent with PO’s construction.

Like the internals of Symons, the Reply has no explanation of how the cited embodiments (Reply 9-10) relate to [c]. In any event, not every claim needs to encompass every disclosed embodiment in the specification.

b. Symons/Williams does not render obvious “determine to implement an automation process” [c]

Petitioner alleges that “Symons-Williams” teaches “multiple automation processes, a single chatbot-RPA that handles multiple requests, and a single conversation thread” (Reply, 10). While Dr. Beigi proffers other processes that he asserts may be desirable, his assertions lack the details of how or why such a

combination would result as required in *Virtek*. For example, Petitioner fails to explain how Symons use of a first natural language input of “I want a new signature” and the second first natural language input “Vincent DeBie” are used with second natural language input “AI engineer” to “discern ... the nature of the call” (as taught by Williams), or that it would result in a “determination” of a process other than “to create a new Cronos signature” which is all that Symons can do “at this moment”. None of the alleged teachings of Williams relate to using a single chatbot-RPA to handle multiple requests at once in the same conversation thread. (Ex2001, ¶165).

**4. Symons/Williams does not disclose “a computer program” or “executing a functionality” “utilizing the displayed user interface of the computer program”
(1[d/e/f]/19[d/e/f]/29[e/f/g])**

a. Patent Owner’s Arguments are Wrong

Irrespective of whether a “computer program” is a “target system”, Ground 1 still fails.

Ground 1 relies upon two different user interfaces of two different pieces of software (the UI of the Cronos email generator running in a browser, and a Windows modal window of the operating system):

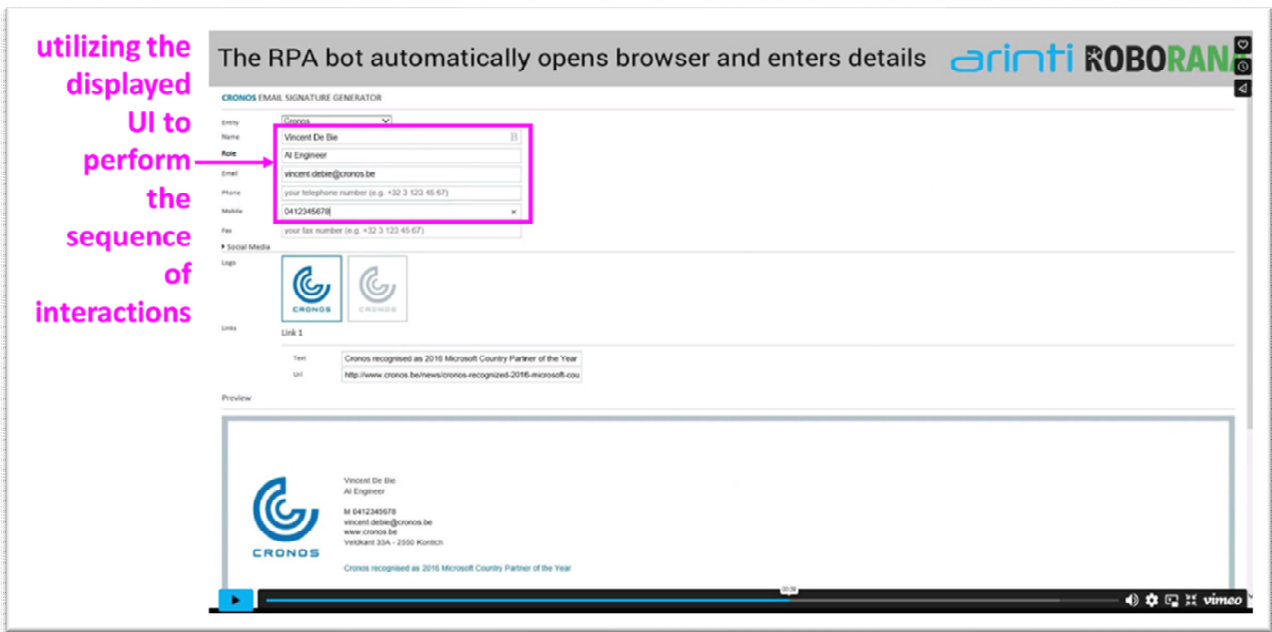


FIG. A (Petition, 22; Ex1003, ¶103)

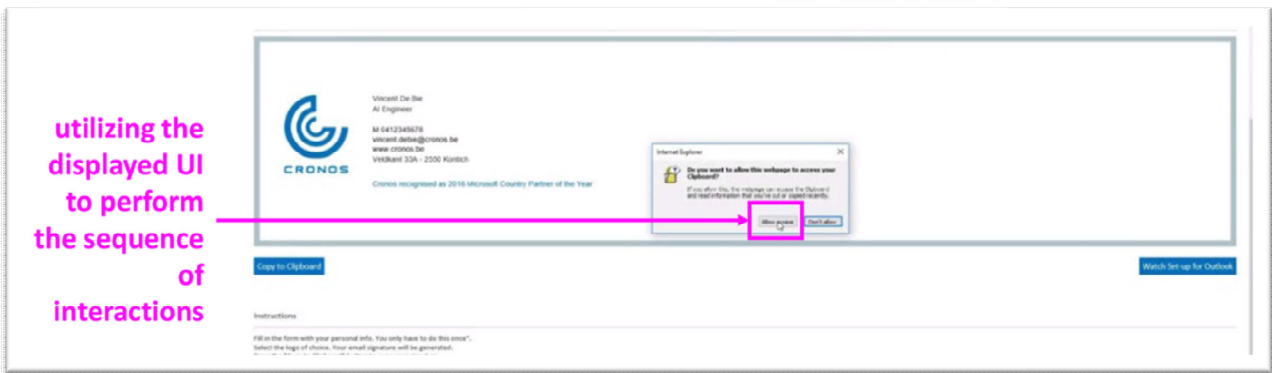


FIG. B (Petition, 23; Ex1003, ¶103)

(See also POR, 40; Ex2001, ¶¶169). Ground 1 thus fails.

PO's read does not require that the automation process use "the displayed UI of **only** a single computer program" as Petitioner contends. (Reply, 11). Although other unclaimed steps in the automation process can be performed by any number of computer programs, the claimed steps, including the claimed "utilizing the

displayed user interface of the computer program to perform the sequence of interactions”, must be performed using the same UI of the same computer program under the law of antecedent basis. (See POR, 38-39).

Dr. Beigi and the Reply seek to reformulate the flawed read by asserting the RPA software itself has its own GUI on which the automation process is run. (Reply, 11-12; Ex1042, ¶¶39-40). Besides not being in the Petition, this explanation has no support and makes little sense. Whether or not the RPA bot is a “desktop application”, nothing suggests that Symons’ “RPA bot” (which according to the Petition utilizes “the displayed UI of the computer program to perform the sequence of interactions”, Petition 22-23) has a GUI of its own, or that this GUI would somehow incorporate the asserted UI elements.

b. Dr. Beigi agrees Symons does not necessarily disclose “utilizing the displayed user interface to perform the sequence of interactions”

The Petition reads the ‘Allow Access’ button (shown in FIG. B, above) as the automation process “utilizing the displayed user interface to perform the sequence of interactions”. (Petition 22; Ex1003, ¶103). But Dr. Beigi in his deposition confirmed that that is not necessarily performed by the “automation process”, instead **“it could be formed by the user and I believe that I think most likely by the user...”** (Ex2020, 225:20-226:4). Thus, Ground 1 does not meet this portion of [c].

5. Dependent Claim 12 -- Symons' RPA Process Does Not Run on the User's Device

Claim 12 requires the automation process to run on a client device of the user [of the natural language interface]. In Symons, Vincent De Bie is the user of the chat bot, but the automation process runs on a different device (apparently Symons' computer) who is not the user (Vincent De Bie). (Ex2001, ¶¶110-111; see Ex2021, 391-395). The Reply does not dispute this failure.

B. Ground 2: Allen Does Not Disclose or Render Obvious Claims 1-8, 12-16, 18-23, 25, 26, 28-31, 33

1. Allen Does Not Teach “natural language interface” (1[a]/19[a]/29[b]) or “natural language conversation” (1[b]/19[b]/29[c])

a. Allen uses a form to collect information, not a “natural language interface”

The Petition asserts that “what is the title of the book your are looking for” as the “first natural language input”. (Petition, 38). But, as Dr. Beigi acknowledged during his first deposition:

Q. ... So in the conversation that you relied on, you relied upon the fact that the system would ask what is the title of the book?

A. Yes. Okay. Yes.

Q. And if you look at Figure 6. That's an example of how the system asked it using the word “name” instead of title, correct?

A. Yes.

(Ex2003, 257:15-24).

FIG. 6 is merely a “form”:

WHAT IS THE NAME OF THE BOOK YOU ARE LOOKING FOR?

50

USER ENTRY:

48

FIG. 6

(Ex1014, FIG. 6; *see also* POR, 50-51, 55-56; Ex2001, ¶¶221-222, 232-235, 263-265).

But as Dr. Beigi confirmed a “form” is not “human natural language” required to meet a “natural language interface”:

“Q. So would a form where you fill in a name, address, telephone number, would that be human natural language?

A. No”.

(Ex2003, 60:24-61:3).

Thus, Petition relies upon an “input” that would not be a “natural language input”. (POR 50-51, 55-56; Ex2001, ¶¶232-235, *see also* ¶¶263-265).

The Reply attempts to contradict this point, and Dr. Beigi’s sworn testimony, by drawing meaningless distinctions. Each fail.

First, Petitioner argues that the “question in Figure 6 ... is different from the question” of the asserted conversation at 12:62-13:1, since it says “name of the book”, not “title of the book”. (Reply, 16-17). But Dr. Beigi expressly agreed that “Figure 6 [is] an example of how the system asked [about information for the book buying task] using the word ‘name’ instead of title”. (Ex2003, 257:20-24).

Next, Petitioner argues the POR mischaracterized Dr. Beigi’s testimony on forms and Figure 6 and attempts to distinguish Figure 6 from a form. These fall flat, since the Reply provides no reasoning or explanation why Figure 6 is any different from “a form where you fill in name, address, telephone”. (Reply, 17; Ex1042, ¶¶77).

Finally, Petitioner argues that “the Petition did not rely on Figure 6” because it relates to training”. (Reply, 17). But the same can be said of the “speech interface display 20” the Petition identifies as the “natural language interface”. As Mr. Zatkovich explained, the “speech interface display 20” is “relate[d] directly to a learning process of PLOW”, and not to implementing a conversation configured

to invoke an automation process. (Ex2001, ¶¶211-213, 217-218, 228-229). Even Dr. Beigi acknowledges these are “specific to training”. (Ex1042, ¶74).

Petitioner also provides a grab-bag of new citations to allege Allen’s natural language interface is used outside training. Not only are these citations divergent from the Petition’s read (*compare* Petition, 37-40 with Reply, 15-16), but the cited portions of Allen do not prove Petitioner’s point:

Ex1014, 18:38-49 (Claim 1): Dr. Beigi’s assertion that Allen “shows that its GUI and natural dialog-based interface are not limited to just training” (Ex1042, ¶72, citing Ex1014, Claim 1a-d) is not supported by any evidence. The “natural dialog-based interface” identified in “d.” is used by “said user”. The same user using the “natural dialog-based interface” (see step “i.”) is the user performing “demonstrations” for “learning” step “h.” There is no discussion of executing involving a “natural dialog-based interface”. Moreover, the process covered in Claim 1 is not related to the book buying conversation at 12:62-13:1, which is relied upon in the Petition for the “first natural language input” and the “natural language feedback” and the “second natural language input”. (Petition, 38; Ex1003, ¶ 155).

Abstract: Allen’s abstract does not mention a “natural language interface”. Moreover, Petitioner mis-cites and modifies Allen’s abstract to try to make it seem like the system performs tasks using the GUI, rather than tasks normally performed

by a user using the UI: “A system **which allows a user to** perform[s] **complex, repetitive** tasks that the user usually would perform using the device’s graphical user interface (GUI).” (Ex1014, Abstract; omitted and added language in bold).

1:50-52: This is irrelevant to a “natural language interface”. It merely explains that “[t]he present invention can be configured to apply to virtually any computational device employing a [GUI]...”

15:24-40: This is irrelevant to a “natural language interface”. It relates to FIG. 10, the output of the system showing search results, not the performance of a parameterized automation process.

2. Allen does not teach “a computer program” or “executing a functionality” “utilizing the displayed user interface of the computer program” (1[d/e/f]/19[d/e/f]/29[e/f/g])

a. PLOW is not a target system

Notwithstanding the Petition’s ambiguity, Dr. Beigi has now confirmed that he is asserting Allen’s “PLOW” is the claimed “computer program” and “Widgico” against the target system for purposes of his claim reads. (Ex2020, 237:2-8; Ex1042, ¶82). Under PO’s construction PLOW is not a target system, as Dr. Beigi confirmed, and Ground 2 fails.

b. Allen Does Not Teach Using a “Displayed User Interface” During Execution

Even if PLOW could be a “computer program”, the automation process of buying a book, does not necessarily use a “displayed” user interface of PLOW nor

necessarily cause PLOW to simulate a sequence of interaction *on its GUI* to execute functionality of PLOW. The functionality of buying the book is executed on the target system (Widgico), not PLOW. (POR 58-59; Ex2001, ¶240). Moreover, Allen does not teach that when it executes the book buying instructions, it displays the GUI ordering a book. Even if it did, there is no evidence showing that execution of any functionality occurs *utilizing the displayed user interface* as recited in the claims. (Ex2001, ¶240-241).

The Reply’s assertion that “Allen discloses a ‘method for learning and executing executable tasks’” (Reply, 15) does not demonstrate otherwise. Dr. Beigi’s conclusory argument is insufficient. *Global Tel*Link. v. Securus Technologies*, IPR2015-01220, Paper 44, 35 (Nov. 30, 2016) (“Dr. Beigi’s single-sentence conclusion that it would have been obvious to terminate an ongoing call if an unauthorized resident participates on the call does not rise to the required level of ‘reasoned analysis and evidentiary support’ and is insufficient to supply the limitation missing from the prior art”).

3. Dependent claims

a. Claims 18/28/33 – GUI 10 And Browser 12 Are Displayed Prior To, And Not Activated By, The Automation Process

These claims require “activating the web browser *to cause* the displayed user interface to be displayed” (Ex1001, 27:1-3). In other words, the displayed UI

is the **result** of “activating the web browser”. Petitioner’s assertion that the claims do not recite the web browser is activated “prior to” the displayed UI being displayed (Reply, 21) is absurd, and should be rejected. *See, e.g., Global*Tec, supra.*

Petitioner’s other new allegation, that the automation process’s navigation to Amazon/Widgico equates to “activating” the web browser to cause the displayed user interface to be displayed (Reply, 21), is in conflict with their position that PLOW is the recited computer program “with its own UI” (Reply, 17-18) and that GUI 10 (which includes browser 12) is displayed prior to any user input (and thus any automation process) (Petition 51-52; Ex1003, ¶196-197; Ex2001, ¶¶266-270).

C. Ground 3: Allen / Dayanandan Do Not Render Obvious Claim 9

In addition to being non-analogous art (*see* POR, 63-64; Ex2001, ¶276-287), Dayandan does not teach using a similarity score to identify “elements” in a displayed user interface, as required by Claim 9. (*See* POR, 64-65; Ex2001, ¶288-296). The vector matching (Ex1015, 22:23-26) relied upon by Dr. Beigi/Petitioner relates to comparing “a data object with a potential **screen**” to “**fetch data** to be displayed by the GUI **from the data object**”. (*See* Ex2001, ¶294-295). This is confirmed at 22:60-23:17 where mapping “GUI screen **components**” to “data object **components**” notably does not describe using a similarity score to identify elements in the displayed user interface as recited in claim 9.

D. Ground 4: Krishnan/Radhakrishnan Do Not Render Obvious Claims 1-8, 12-14, 16, 18-23, 26, 28, 29, 31 and 33

1. Krishnan does not teach “the natural language conversation comprises . . . a second natural language input” (Elements 1[b]/19[b]/29[c])

Petitioner’s reply alleges that Krishnan’s *button* inputs for destination 130 are a “second natural language input” based on an unsupported assertion that “an “input” that is part of a “natural language conversation” is a “second natural language input.” (Reply, 23). This naked assertion is contradicted by their own expert’s testimony (Ex2003, 199:11-200:25) (Dr. Beigi explaining his opinion that if “bots use buttons, then I would say it’s a form” and if “you click yes or no or you select something and then you say next ... that is just a form” as opposed to natural language.)

Petitioner’s Reply belatedly asserts as a new ground that 3:1-3 and 11:4-6 of Krishnan “teaches receiving the input for destination 130, ‘dates of travel,’ and ‘credit card information’ via typed words” (Reply, 23). However, the passage relied upon is not present in the Provisional (Ex1017), and thus is not prior art. (*Cf.* Ex1003, ¶243).

2. Radhakrishnan does not teach an “automation process” “executing a functionality” “utilizing the displayed user interface of the computer program” (1[d/e/f]/19[d/e/f]/29[e/f/g])

1[d/e/f]/19[d/e/f]/29[e/f/g] require the automation process “executing a functionality” “utilizing the displayed user interface of the computer program”. Krishnan has no “automation process”; it’s execution of tasks uses “back-end” systems (Ex1016, 2:33-35). The Petition relies on Radhakrishnan, not Krishnan, for these elements. (Petition, 72-73). The Reply’s assertion, that Krishnan recites “one or more backend databases *or other information processing systems*” (Reply, 24, emphasis in Reply), suggests using a GUI is unsupported by Krishnan.

Radhakrishnan does not fill this gap. The Reply’s assertion at 26 that “the RPA module interacts directly with a presentation layer of the application **within a** virtual environment” (Ex1018, 11:41-47), is not the same as executing a functionality on a displayed user interface of a computer program (like the target system relied upon in Krishnan). Petitioner’s reply, that “‘virtual environment’ refers to whether the interactions are computer simulated, not whether they are displayed” (Reply, 24), is without basis and is contradicted by Radakrishnan itself (Ex1018, 5:58-59) (“...virtual environment wherein the bot interprets the display of a screen electronically”).

Moreover, Radhakrishnan only describes “simulat[ing] user operations with the user device to generate an operation record for automatically generating and transmitting a diagnosis” (Ex1018, Abstract), not to execute an automation process. (POR, 73-74; Ex2001, ¶347, citing Ex1018, 12:37-46). Petitioner’s Reply that “the RPA uses the displayed UI to generate the operation record” (Reply, 25) does not rebut this fact. The combination, besides making no sense, does not result in the claim.

Finally, the Reply does not fill the gaps of explaining how Krishan’s system would be modified using the virtual environment of Radakrishnan to perform the elements of the claims required by *Virtek*.

3. Lack of Motivation to Combine Backend System of Krishnan and Radhakrishnan

The Reply’s assertion that the Petition’s theory that “the automation process ... is tied to the displayed UI” (Reply, 25) has no support from the Petition. If the “combination does not replace Krishnan’s database or access it with a displayed UI” (*id.*), this would only increase processing activities (by using both the GUI and backend database). It also does not use a GUI to, e.g., book the flight, as required. Either way, the incomplete analysis continues to fail in light of *Virtek*.

4. Non-analogous art

Rather than endorse Dr. Beigi's explanation of the pertinent field of Radhakrishnan (Ex2003, 273:20-276:25, 278:13-24), the Reply offers a new and different field (Reply, 23), raising questions about Dr. Beigi's reliability, and the appropriateness of the reference.

5. Dependent Claims 3/19 – No “Parameterized automation process”

Petitioner uses Radhakrishnan alone for an “automation process performing an automation of a sequence of interactions with a displayed UI”. (Petition, 69; Ex1003, ¶255). But Claim 3 requires “**the automation process [Radhakrishnan] is a parameterized automation process** having a parameter”. Radhakrishnan does not teach this, which Petitioner does not contest. (*Compare* POR, 76 with Reply, 26). The combination thus fails: even if Krishnan collects values to parameters, the asserted automation process would have no ability to use them. (Ex2001, ¶356).

a. Claim 12 –No Motivation to Perform Krishnan's Flight Booking Task on a Client Device of the User of the Chatbot

As Mr. Zatkovich confirms, a POSITA would not be motivated to perform Krishnan's flight booking task on a client device, given Krishnan's explicit teaching to use backend databases. (Ex2001, ¶¶369-372; Ex1016, 2:27-35; Ex1017, [0002]). The Reply assertion that this argument is contrary to the '664 Patent's teaching that “[t]he definitions of the automation process may be stored in

a database and retrieved on the client-side for execution” (Reply, 27, citing Ex1001, 14:29-32) completely misses the mark. A disclosure of storing definitions of an automation process on the client-side is irrelevant to where execution of the automation process takes place. Krishnan explicitly teaches using back-end databases for execution of processes, so execution of an automation process on a client device makes no sense based on Krishnan’s teachings.

IV. THE BOARD SHOULD GIVE LITTLE/NO WEIGHT TO DR. BEIGI, NOT MR. ZATKOVICH

The Reply asserts the Board should give little to no weight to Mr. Zatkovich’s opinions (Reply, 29-31), but in fact, it is Dr. Beigi’s opinions that deserve little or no weight.

First, Petitioner’s objection that Mr. Zatkovich adopted a “narrowing” construction without reference to “any dictionary definition” (*Id.*, citing Ex1036, 15:9-13), misses the point of his construction. Mr. Zatkovich relied upon the disclosure’s narrowing definition of “computer program” as referring to the “target system”. (Ex2001, ¶94). A dictionary definition would not be pertinent to such construction. *See supra*. By contrast, Dr. Beigi’s construction of that term was based on strained and unsupported citations to the specification and a failure to appreciate distinctions in usage of the terms “computer program”, from other

different terms in the specification. *See* section II.A, *supra*. It is Dr. Beigi's analysis that should not be credited.

Next, Petitioner alleges that Mr. Zatkovich contradicts his own testimony, but it is Dr. Beigi who offered testimony in this Reply Declaration contradictory to his unvarnished testimony in his first deposition.

The unreliability of Dr. Beigi's testimony is also evidenced by the following:

1. At his second deposition, he continually refused to answer straightforward questions directly, and instead would ramble with convoluted and irrelevant analysis. (*See, e.g.*, Ex2020, 176:10-179:20). He would not identify what he was paid (Ex2020, 15:4-17:9) or how much time he spent preparing roughly 250 pages of testimony for the 3 IPRs. (Ex2020, 93:4-10, 95:2-19)
2. His Reply Declaration omits any identification of the documents he relied upon in preparing the declaration. When asked he identified the list of Petitioner's exhibits, but not PO's exhibits, although he eventually admitted he relied upon PO's exhibits. (Ex2020, 106:10-22)
3. He admittedly had errors that if he had checked the declaration before signing he should have caught. (Ex2020, 142:21-145:9)

4. Dr. Beigi's analysis of Claim 1 of the '317 Patent illustrates that he did not "understand" the proper legal framework for obviousness. (Ex2020, 179:21-180:9, 197:3-202:19).

V. CONCLUSION

For the foregoing reasons, the challenged claims of the '664 Patent should be confirmed.

Respectfully submitted,

Dated: November 19, 2024

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION

Pursuant to 37 C.F.R. § 42.24(d), I hereby certify that this Sur-Reply complies with the type-volume limitation of 37 C.F.R. § 42.24(c)(4) because, based upon the word count of the word-processing system used to prepare this petition, the number of words in this Sur-Reply is 5,539. Pursuant to 37 C.F.R. §42.24(c), this word count does not include “table of contents; a table of authorities; a listing of facts that are admitted, denied, or cannot be admitted or denied; a certificate of service or word count; or an appendix of exhibits.”

Dated: November 19, 2024

By: /Charles R. Macedo/
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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that on this 19th day of November 2024, a copy of the foregoing **PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY FOR INTER PARTES REVIEW OF CLAIMS 1–9, 12–16, 18–23, 25, 26, 28–31, AND 33 OF U.S. PATENT NO. 11,819,664 B2** was served via electronic mail on the following counsel of record for Petitioner in this proceeding:

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