

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WHATFIX INC.,
Petitioner,

v.

WALKME LTD.,
Patent Owner.

Case IPR2024 - 00065

Patent No. 11,558,317 B2

**PATENT OWNER'S RESPONSE FOR INTER PARTES REVIEW OF
CLAIMS 1-20 OF U.S. PATENT NO. 11,558,317 B2**

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EXHIBIT LIST

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
Ex2001	Declaration of George Stamatopoulos in Support of Patent Owner’s Motion for <i>Pro Hac Vice</i> Admission
Ex2002	Expert Declaration of Ivan Zatkovich in Support of Patent Owner’s Response with respect to Claims 1-20 of U.S. Patent No. 11,558,317 (“ <u>Zatkovich Decl.</u> ”)
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.

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
Ex2010	Video demonstration of the “Simple chatbot” .html Code (Ex2009)
Ex2011	U.S. Patent No. 10,819,664 [Ex1001 in IPR2023-01368]
Ex2012	U.S. Patent No. 11,258,732 [Ex1001 in IPR2023-01379]
Ex2013	[RESERVED]

I. INTRODUCTION

Patent Owner WalkMe Ltd. submits this Patent Owner Response in opposition to Petition (Paper 2) and Institution Decision (“ID”, Paper 8) in IPR2024-00065, with respect to Claims 1-20 of Patent 11,558,317 (“’317 Patent”, Ex1001).

The ’317 Patent, broadly speaking, is directed to “receiving a user instruction from a user using a natural language interface” as well as, after determining an automation process to implement, “collecting information to be used as part of the automation process” [a] & [c], “determining to implement an automation process on a web-based target system in response to the user instruction”, [b] and “implementing the automation pshrocess by interacting with a Graphical User Interface (GUI) of the web-based targeting system and simulating user input to the GUI of the web-based target system”, by, “with respect to [the] third-party web-based target system”, “automatically and without user input, filling in a text input filed in the GUI of the web-based target system” and “automatically and without user input, interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality”, all “without relying on an Application

Programming Interface (API) exposed by the web-based target system” [d], [e], [f], & [g]. (Ex2002, ¶66).

These claimed processes require “**a natural language interface**” to interact with the user, “**third-party web-based target system**”, with its own “Graphical User Interface (GUI)”, and an “**automation process**” (to be automatically invoked by the “**natural language interface**”) interacting with the **GUI of the targeted system** and “simulating user input to the GUI of the web-based target system”. (Ex2002, ¶67).

Petitioner WhatFix Inc. offers three overlapping grounds of obviousness to the ’317 Patent claims. None of the references relied upon in any of these grounds are offered as anticipating the claimed inventions. (Petition, 7-8). Mr. Zatkovich confirms the references do not anticipate or render obvious any of the challenged claims. (Ex2002, ¶¶331, 85-200 (Ground 1), 201-253 (Ground 2), 254-330 (Ground 3)).

Ground 1 relies on a hodgepodge collection of blog posts and a video demo as “Symons” (as if it were a single primary reference):

- (1) a blog posting by Sennes Symons, from RoboRana, on *Medium* from October 17, 2017 (Ex1004) (“Symons Blog”) to “showcase”/“demo” a **single purpose chatbot** used to “collect all the necessary information” to use to “automate the process of creating an email signature” (Ex1004, 2, Ex1009, 2);
- (2) a video created by Symons and posted on *Vimeo* at the same time (Ex1033; see Ex1008, ¶8) and linked to the Symons Blog, along with selected screen shots (Ex1005) and English language translations made for this litigation (Ex1006, Ex1007) (collectively, “Symons Video”); and
- (3) a separate blog posting by Walter Baetens, a collaborator of Symons from Arinti, a then recently-related entity, from a few days later (“Baetens Blog”), linking to the Symons Blog, and confirming that “**we can’t share much about**

the results of our joint efforts (yet)” other than the “small demo”.¹ (Ex1009, 2).²

As contemporaneous comments to the Symons Blog confirms (Ex2005), and as Baetens indicate, “Symons” kept secret key details required by the claims, like:

- “which rpa tool and chatbot tool are” used;
- a “description” of what was done “to do this automation”;
- “how does the chatbot trigger the RPA bot”; and
- what makes this “RPA” different than “a simply[sic] program” (Ex2005).

Nobody answered these contemporaneous questions, and Dr. Beigi, Petitioner’s expert, who failed to notice or include these comments in his analysis, was also unable to answer these questions, since in his words, “we only see the video, the actual interaction”, not “the internals of it”. (Ex2003, 213:18-214:9).

¹ Declarations from Symons (Ex1008), Baetens (Ex1010), the translator (Ex1007) were submitted to authenticate and establish as printed publications the Symons Article, the Symons Video and the Baetens Article. The details of these declarations are not prior art for purposes of these proceedings.

² All emphasis added unless otherwise stated.

The failure of Symons to provide these details was intentional (as Baetens confirmed) and fatal to Ground 1. Although Symons purports to show a “chatbot” in the “showcase”/“demo” (Ex1004, 2; Ex1009, 2), it remains a mystery as to what was actually built, how it was built and whether it actually used a “natural language interface” relying upon NLP technology as required by [a]. (Ex2002, ¶¶119-139; Ex1009, 2; Ex2005). As Dr. Beigi confirmed, Symons does not disclose “the internals of it”. (Ex2003, 213:18-214:9; Ex2002, ¶93).

Similarly, Symons does not disclose a “user instruction” that is used to “determine to implement an automation process” as required by [b]. (Ex2002, ¶¶140-155). Ground 2 offers Dr. Beigi’s analysis for [b], but he merely asserts (without any support) that, “[i]n response to the user instruction (‘I want a new signature’), Symons determines to implement the automation process”, namely, “the process of creating an email signature”. (Ex1003, ¶ 75). To the contrary, Symons is meant to perform a single purpose, i.e., “automate the process of creating an email signature”. (Ex1004, 2). Since Dr. Beigi does not know about the “internals” (Ex2003, 213:18-214:9), he is not in a position to assert that the Symons Chatbot made such a determination. (Ex2002, ¶¶144, 93).

Ground 1 offers, in the alternative, Williams (Ex1011) to argue it would be “obvious” for Symons to “determine to implement an automation process” in [b] in view of Williams teaching “RPA robots are designed to handle multiple requests, executing multiple different types of automation processes” (Ex1003, ¶81; Petition, 17-20). But, as Mr. Zatkovich confirms, “[n]either Symons nor Williams disclose or suggest using a single chatbot-RPA to handle multiple requests at once in the same conversation thread.” (Ex2002, ¶154). At most Williams teaches using chatbots “in a variety of other processes and across industries” (Ex1011, 3), “without relating to a single chatbot-RPA handling multiple requests at once”. (Ex2002, ¶154). Thus, Williams does not offer any teaching to use to fill this gap in Symons. (Ex2002, ¶¶153-155).

Next for [d]/[e]/[g]/[h], Ground 1 asserts that the Cronos email signature generator is the “third-party web-based target system”, but points to the “Allow access” button in the modal window generated by “Internet Explorer” as the GUI of the web-based target system. (Petition 20, 23-24; Ex1003, ¶¶87-89). This assertion fails for two reasons. First, the Cronos email signature generator is not a “third-party” system; the Ariniti Chatbot and the Cronos email signature generator are

made by two members of the Cronos Group. (Ex1004, 2; Ex1009, 2). Separately, “Internet Explorer” is a GUI of Internet Explorer, not the Cronos e-mail generator, and the claims do not show manipulation interaction with text field and widget in the same GUI of the same target system. (Ex1003, ¶¶98-101; Petition, 22-23).

As discussed herein and by Mr. Zatkovich, Symons and Williams also do not teach or render obvious the challenged dependent claims. (Ex2002, ¶¶165-200).

Grounds 2 fails no better. Allen (Ex1014) is the primary reference and the only reference the ID relied upon to institute. (ID, 13-24). Allen discloses a system called “PLOW”, which is used to train a computer to perform an automated task. (Ex2003, 252:3-18). Ground 2 and the ID each rely upon a single sentence starting at the bottom of Column 12 that indicates

“Once the complete task is learned, the user can employ PLOW’s task database the next time he or she wishes to order a book”,

and an example that

“The 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”? Once the information is provided, PLOW would then perform the steps it was previously taught and complete the transaction”.

Ex1014,12:62-13:1 (quoted in ID, 17).

This scanty disclosure is not sufficient to support Ground 2.

For elements [d]/[g]/[h], Ground 2 relies upon the fact that PLOW is taught using its GUI 10 to be trained to implement an automated task, that when Allen says “PLOW would then perform the steps it was previously taught and complete the transaction”, that it must have done so by interacting with a GUI of a “web-based target system”. (Petition 42-43; Ex1003, ¶177). In essence, Ground 2 is based on an informal inherency argument without sufficient evidence or support to establish that the undisclosed implementation was “necessarily” performed using the GUI. As Mr. Zatkovich explains, “a POSITA as of November 5, 2017 would understand from Allen’s disclosure that PLOW does not necessarily interact with a GUI in execution simply because, after obtaining information” (Ex2002, ¶¶228, 223-229).

Ground 2 offers an alternative obviousness rationale because Allen teaches that a “graphical user interface (‘GUI’) is preferably provided so that the user can easily monitor [the system’s] actions”. (Ex1003, ¶178, citing Ex1014, 4:66-5:1; Petition 43). This teaching is with respect to the “training” of a task, not the implementation. (Ex2002, ¶¶230-233). But, more importantly, Allen teaches only

that “task log 16” and “speech interface display 20” of GUI 10 of PLOW is used for this “monitor[ing]” (Ex1014, 5:14-20). As Mr. Zatkovich confirms, it does not teach or suggest using browser 12 of GUI 10, let alone the target website GUI be used for such “monitoring”, especially with respect to the implementation of the task after training has been completed. (Ex2002, ¶¶230-233).

Finally, as the ID demonstrates, Ground 2 is less than clear, and apparently even inconsistent, with respect to the GUI it asserts is the GUI of the “web-based target system”. ID calls out Ground 2 as identifying in [d] that “Figure 3 of Allen ... ‘illustrates the user input to the GUI of a web-based target system (www.widgico.com) for a book buying task (automation process)’” (ID, 21, quoting Petition, 43). Similarly, for element [e], the ID quotes Petition as stating “Allen discusses example web-based target systems that are third-party web-based target systems: www.widgico.com, www.amazon.com, www.mapquest.com” (ID, 22, quoting Pet. 44). However, as the ID notes, the GUI that is shown for element [g], however, is discussed at 7:43-45, which is discussing the “intent recognition module” of PLOW, not any of the identified “third-party web-based target system”.

In other words, Ground 2 has failed to clearly call out each of the elements of the claim as taught in the prior art, and provide “detailed explanation of the significance of the evidence including material facts”. 37 CFR §42.22(a)(2).

The Federal Circuit (and this Board) recognize that merely providing a “repository of all information that a judge could possibly consider” is not sufficient basis to win at trial. See, e.g., *Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365, 1373 (Fed. Cir. 2023) (“The burden of production cannot be met simply by throwing mountains of evidence at the Board without explanation or identification of the relevant portions of that evidence. One cannot reasonably expect the Board to sift through hundreds of documents, thousands of pages, to find the relevant facts.”); *Google v. EveryMD.Com, LLC*, IPR2014-00347, Paper 9, 18-19 (PTAB May 22, 2014) (denying institution for merely providing a “repository of all the information that a judge could possible consider” instead of “focus[ing] on concise, well organized, easy-to-follow arguments supported by readily identifiable evidence of record” as required by the Trial Practice Guidelines).

Allen also does not teach or render obvious the challenged dependent claims for at least the same reasons and additional reasons set forth herein and by Mr. Zatkovich. (Ex2002, ¶¶234-253).

Ground 3's combination of Krishnan (Ex1016) and Radhakrishnan (Ex1018) also fails. (Ex2002, ¶¶254-330).

Radhakrishnan is related to a different field of endeavor than the '317 Patent and addresses different and unrelated problems. (Ex2002, ¶¶275-290; Ex2003, 278:13-24; *Cf.* Petition, 60-77; Ex1003, ¶¶243-304). As such, Radhakrishnan is not analogous art under *Chemours Co. FC v. Daikin Indus.*, 4 F.4th 1370, 1376 (Fed. Cir. 2021).

In any event, the combination of Krishnan and Radhakrishnan makes no sense and Radhakrishnan does not fill the gaps of Krishnan. (Ex2002, ¶¶280, 291-309).

Krishnan merely discloses a chatbot editor that generates a conversation to be implemented utilizing “backend” systems (Ex1016, 2:33-35) (i.e., an API or the like, not a “displayed user interface”) (Ex2002, ¶263). Ground 3 fails since neither Krishnan nor Radhakrishnan teaches or suggesting: (1) determining and performing “an automation process” with “respect to [a] third-party web-based target system”

as required by elements **[b]/[e]**. (Ex2002, ¶292, 294-301); or (2) implementing the determined automation process by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system, including using text fields and a widget to execute a functionality of the target system, as required by elements **[d]**, **[g]**, and **[h]**. (Ex2002, ¶292, 302-314).

Finally, a POSITA would not have been motivated to combine Krishnan and Radhakrishnan. (Ex2002, ¶¶310-314).

Ground 3 fails for the dependent claims for at least the same reasons and additional reasons set forth herein and by Mr. Zatkovich. (Ex2002, ¶¶315-330).

Once the full record is considered, it is clear Petitioner has not met its burden. The patentability of all the challenged claims should be confirmed.

II. BACKGROUND

A. The Proceedings

Trial was instituted solely based on Allen (Ex1014) as advanced in Ground 2 against Claim 1. (ID, 13-24). The other claims and other grounds presented were not analyzed. (Id., 24). This is Patent Owner’s first substantive submission.

This proceeding is related to IPR2023-01368 (involving U.S. Patent No. 10,819,664, Ex2011)³ and IPR2023-01379 (involving U.S. Patent No. 11,258,732, Ex2012). The ‘664 and ‘732 Patent share a common specification with the ‘317 Patent (Ex1001). The ‘664 and ‘317 Patent relate to the invocation of an automated process by a natural language conversation, as illustrated in Fig. 2A, although the ‘664 Patent claims includes more and different details than the ‘317 Patent claims. By contrast, the ‘732 Patent is related to “defining an automation process” and how the “natural language conversation” which invokes that

³ In Dr. Beigi’s words, an “afterthought” petition involving the ‘664 Patent (Ex2003, 17:6-8) was also filed. It was discretionarily denied. IPR2023-01443, Paper 11 (March 20, 2024).

“automation process” is generated, as illustrated in FIG. 3. These are markedly different inventions.

B. The '317 Patent

As Mr. Zatkovich explains, the '317 Patent includes substantially more relevant disclosure than is discussed by Dr. Beigi or the Petition. (Compare Ex2002, ¶¶59-81; ID, 3-7; *with* Petition, 3-5; Ex1003, ¶¶23-24).

1. Claims

The '317 Patent includes 20 claims, of which Claims 1/9/16 are in independent. Representative Claim 1 (ID, 8; Ex2002, ¶¶49) reads as follows:

1. A chat-bot program product, wherein the chat-bot program product comprises non-transitory computer readable medium retaining program instructions, which program instructions when read by a processor, cause the processor to:

- [a] receive a user instruction from a user using a natural language interface;
- [b] determine to implement an automation process on a web-based target system in response to the user instruction;
- [c] collect information to be used as part of the automation process; and
- [d] implement the automation process by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to

the GUI of the web-based target system, [e] wherein the automation process is performed with respect to third-party web-based target system and [f] without relying on an Application Programming Interface (API) exposed by the web-based target system, [g] wherein the implementation of the automatic process comprises:

automatically and without user input, filling in a text input field in the GUI of the web-based target system; and

[h] automatically and without user input, interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality.

(ID, 8). See Ex2002, Appendix A and Ex1001 (for the remaining claims).

2. Technical Problem/Solution

Several technical problems to be addressed by the ‘317 Patent are identified, including “provid[ing] for a user-friendly manner of defining functionality of chat bots”. (Ex1001, 7:67-8:1). It seeks “to enable defining the chat bots without the need of using dedicated APIs, programming languages, or the like”, and in embodiments so that “non-programmers may be able to define the automation that are invoked by the chat bots.” (*Id.*, 8:37-41).

It also seeks to overcome difficulties in “[i]ntegration of a new system into an organization”, which present challenges associated with “migrating large

amounts of employees to new platforms” and “train[ing]” uses on such new platforms (*Id.*, 8:46-49).

“Another technical problem” recognized is challenges to “enable defining automation processes in a manner that enables them to be implemented even if changes are performed to the underlying platform.” (*Id.*, 8:57-60). This later technical challenge can arise when there are “layout modifications of the front-end of the program or website” which can result in difficulties in identifying the correct front-end elements. (*Id.*, 8:61-63).

Although it notes “[a]dditional technical problem, solution, and effects may be apparent to a person of ordinary skill in the art in view of the present disclosure” (*Id.*, 11:48-50), neither the Petition, Dr. Beigi nor the ID identified any other problem relevant for this proceeding. (Petition, 3-5; Ex1003, ¶¶23-24; Ex2003, 343:9-22; ID, 3-7).

One technical solution offered in the ‘317 Patent is “[d]efining the automation process based on performing actions in the GUI [to] enable[] the automation process to perform any functionality that the user can perform, without relying on dedicated APIs and without requiring any line of code.” (Ex1001, 9:11-

15) “[T]he chat bot may collect information to be used as part of the automation process, such as value to be inputted in input fields, selections to be made in the GUI of the target system, or the like.” (*Id.*, 9:49-52). Further, “some steps may be associated with performing an action on a GUI element” (*Id.*, 10:19-21).

Another technical solution identified is that “the chat bot may be implemented on a different system than the target system itself, such as a third-party messaging service. As a result, it may be desired to enable the third-party messaging service to invoke the automation process in a simple manner and without relying on coding or on dedicated APIs.” (*Id.*, 9:34-39).

3. The Claimed Invention

To address these and other problems, Claims 1/9/16 can be broken down into three separate processes:

- **[a]/[c]:** “receiving a user instruction from a user using a natural language interface” as well as, after determining an automation process to implement, “collecting information to be used as part of the automation process”);
- **[b]:** “determining to implement an automation process on a web-based target system in response to the user instruction”, and

- **[d]/[e]/[f]/[g]:** “implementing the automation process by interacting with a Graphical User Interface (GUI) of the web-based targeting system and simulating user input to the GUI of the web-based target system”, by, “with respect to [the] third-party web-based target system”, “automatically and without user input, filling in a text input field in the GUI of the web-based target system” and “automatically and without user input, interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality”, all “without relying on an Application Programming Interface (API) exposed by the web-based target system”(See Ex2002, ¶¶66, 69-81).

These processes specify the following separate components that are required to interact in a specific way to address the stated technical problems, including

- **“a natural language interface”** to interact with the user,
- **“third-party web-based target system”**, with its own “Graphical User Interface (GUI)”, and
- an **“automation process”** (to be automatically invoked by the **“natural language interface”**) interacting with the **GUI of the targeted system** and “simulating user input to the GUI of the web-based target system”, including other limitations set forth above. (See Ex2002, ¶¶67-69).

C. The Grounds

Trial was instituted on the following grounds:

Ground	Challenged Claims	35 U.S.C. § (Post AIA)	Basis/Reference
1	1-20	103	Symons Article (Ex1004), Symons Video (Ex1005/Ex1006/Ex1007/ Ex1033), Williams (Ex1011)
2	1-20	103	Allen (Ex1014)
3	1-4, 6-7, 9-12, 14, 16-18	103	Krishnan (Ex1016/Ex1017), Radhakrishnan (Ex1018)

(ID, 9-10). Ex1026, Ex1028-Ex10031 discussed as background by the Petition (2-3) and Dr. Beigi (Ex1003, ¶¶17-21), are not relied upon in these grounds. (Petition, 7-8; Ex1003, ¶¶48-54).

III. LEVEL OF SKILL IN THE ART

“Factors that may be considered in determining level of ordinary skill in the art include: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007) (quoting *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983)).

Petitioner proposed a POSITA “in the field of the ‘317 patent in 2017 would have [had a] bachelor’s degree in engineering or computer science and two years of experience working on [natural language processing] or automation processes” or “[a]lternatively ... would have [had] five to six years of experience working on NLP or automation processes.” (Petition, 6 (citing Ex1003, ¶¶43-45)).

The ID found “Petitioner’s proposal is consistent with the evidence of record, including the asserted prior art and the ’317 patent, therefore we adopt Petitioner’s proposed level of ordinary skill in the art for purposes of this Decision.” (ID, 12).

But as Mr. Zatkovich explains, this proposed level of skill is inconsistent with Factors (4)-(6). (Ex2002, ¶¶36-45).

The '317 Patent claims relate to a conversation used to invoke an automation process. (Ex2002, ¶41; Ex2003, 280:23-281:10). Thus, experience with chat bots using NLP and automation processes is relevant. (Ex2002, ¶41).

The proposal is inconsistent with Symons prior art, and Factors (4)-(6). (Ex2002, ¶40). Symons and Baetens demonstrated their view that “possibilities to combine RPA bots with chatbots” was something relatively new, involved “evolving rapidly” technologies and not well developed. (Factor 4; Ex2002, ¶42; Ex1004,1; Ex1009, 2 (a question first asked “a few months ago”); Ex2008, 3). Symons had experience with automated processes (albeit he was only the on the job for less than 3 weeks, Ex1008, ¶¶2-4). For the “showcase”, he had to “join forces with Arinti” a then recently-affiliated company, in order to obtain a “chatbot” to collect the information needed for the Cronos email signature generator. (Ex1004, 1-2; Ex1009, 2).

When he ratified counsel’s proposed level of skill in the art (Ex1003, ¶¶43-45), Dr. Beigi did not account for:

Factor (4): The technology “evolving rapidly” (Ex1004, 1-2; Ex1009, 2; see also Ex2007-Ex2008, discussing “chatbots”; Ex2002, ¶42);

Factor (5): The “sophistication in the technology” was relatively low in November 2017 (Id.; Ex2003, 191:18-197:5; 141:2-142:9); and

Factor (6): Active works in the field, like Symons, (Ex2003, 112:12-24; Ex2002) had less experience than he proposed.

This evidence of record demonstrates a more appropriate level of skill would **a worker who had some education, formal or informal, in computer science and 1-2 years’ work experience with chatbots using NLP and/or automation processes.** (Ex2002, ¶44; Petition, 5-6; Ex1003, ¶44).

Under Patent Owner’s more appropriate analysis, Dr. Beigi’s interpretation of what a POSITA would understand are overstated. He expects a POSITA to have “more experience” (like himself) and apply a more “technically correct” (in his view) understanding of the prior art than less skilled authors and artisans would have understood. (*Cf.* Ex2003, 191:18-197:5 (distinguishing Dr. Beigi’s “more experience[d] opinion” from authors of a 2019 Blog on “chatbots”); 141:2-142:9 (relying on his understanding of “chatbot” based on Ex1026 (Melendez) to interpret Symons’ use of “chatbot”, even though Symons, with a recent degree in informatics, was hired as a robotics engineer, and had been employed only a few weeks).

Should the Board continue to apply Petitioner’s proposed level, Mr. Zatkovich confirms his analysis would still remain accurate. (Ex2002, ¶45).

IV. CLAIM CONSTRUCTION

Claims should be construed “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. §282(b).” 37 C.F.R. §42.100(b). Thus, each claim term should be given its ordinary and customary meaning as understood by a POSITA as of the priority date of the ’317 Patent, in accordance with *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

There are two exceptions: “1) when a patentee sets out a definition and acts as his own lexicographer,” and “2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Disavowal can be effectuated by language in the specification or the prosecution history. *Poly-America, L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016). “In either case, the standard for disavowal is exacting, requiring clear and unequivocal

evidence that the claimed invention includes or does not include a particular feature.” *Id.*

The Petition and Dr. Beigi construed none of the claim terms, instead adopting (without explaining) the “ordinary and customary meaning” of the terms. (Petition, 6; Ex1003, ¶46-47). Likewise, the ID did not expressly construe any terms. (ID, 13).

The parties agree that the claim terms used in the ’317 Patent claims have their “ordinary and customer meanings of terms” as would be understood by a POSITA as of November 5, 2017. (Ex2002, ¶84).

V. ALL CHALLENGED CLAIMS ARE VALID

A. Ground 1: Symons and Williams Do Not Disclose or Render Obvious Claims 1-20

1. Symons

Ground 1 relies upon a collection of publications relating to a “showcase”/“demo” prepared by Mr. Sennes Symons, including a video he posted to Vimeo on October 17, 2017.

On October 17, 2017,⁴ Mr. Symons prepared and published a blog and video to “showcase” a joint effort by his new employer RoboRana and its then “new” fellow Cronos group member Arinti. Symons, a 2017 college graduate, began working for RoboRana earlier that month (Ex1003, ¶22), on the project first thought about by Ariniti “a few months earlier” (Ex1009, 2).

Ground 1 cobbles together the October 17 Symons Blog (Ex1004), with his video (Ex1033), selected screen shots (Ex1005) and English language translations of those screen shots (Ex1006), and the Baetens Blog to act like this hodgepodge collections of documents is a single “**Symons**” reference. (Ex1003, ¶¶55-61).

Symons and Baetens provide the same short excerpt:

The goal of the showcase is to automate the process of creating an email signature. First, the chatbot collects all necessary information in a friendly, interactive manner. This information gets passed on to the RPA robot, which will then automatically generate the signature, save

⁴ November 5, 2017 is the agreed upon earliest effective filing date for this IPR (Petition, 5; Ex1003, ¶22; Ex2002, ¶47; ID, 3 (noting priority)).

it, and email it back to the requester. The whole process is completed within a minute. Easy and smooth integration proves a great future for both technologies.

(Ex1004, 2-3; Ex1009, 2). Baetens also cautioned that “[t]hough we can’t share much about the results of our joint efforts (yet), this small demo strongly demonstrates the value in combining these technologies.” (Ex1009, 2).

The Symons Video (Ex1006-Ex1007/1033) likewise provides little, if any, detail on how the underlying chatbot and RPA bot are programmed to operate. It only shows a video that allegedly “[a]utomatically generate[s an] e-mail signature”. (Ex1006, 1; Ex1003, ¶¶59-60; Ex2002, ¶93). At his deposition, Dr. Beigi confirmed that, even now, he does not know how “the internals” of Symons works, and that he never discussed with Mr. Symons how it works. (Ex2003, 213:18-214:9). In Dr. Beigi’s words, “we only see the video, the actual interaction”, not “the internals of it.” (*Id.*).

Contemporary comments to the Symons Article made on *Medium* illustrate how the relevant audience was left asking:

- “how does the chatbot trigger the RPA bot”,
- “which rpa tool and chatbot tool are” used,

- “give description to do this automation”.

(Ex2005; Ex2002, ¶96). Mr. Zakovich confirmed that none of the Symons references “provide any information on what Dr. Beigi calls the ‘internals’, which, ... Baetens confirmed was intentional.” (Ex2002, ¶93, citing Ex1009, 2).

Mr. Zatkovich summarized the shortcomings of Symons as follows:

- the evidence does not clearly establish whether the Chatbot-RPA discussed in Symons Blog and Baetens Blog, and purportedly demonstrated in Symons Video, was actually built at the time, rather than simply prepared as what Baetens called a “small demo ... [to] demonstrate[] the value in combining these technologies” (Ex1009, 2);
- the disclosed Chatbot-RPA was a single purpose demo “to automate the process of creating an email signature” (Ex1004, 2; Ex1009, 2);
- [although Symons] purports to use a “chatbot” to “collect[] all the necessary information in a friendly, interactive manner” (Ex1004, 2; Ex1009, 2), it is not clear that the “chatbot” was in fact a “natural language interface” relying upon NLP technology to generate a “natural language conversation”;
- the “chatbot” was only programmed to implement a single RPA, a single conversation thread, and did not offer the user of selecting from a plurality of RPAs or “automation processes” as discussed in the ’317 Patent (Ex1001, 9:3-10), let alone choose between “automation processes” based on the elements of a natural language conversation in the chatbot;

- the RPA was software that was executed on a different device than the user device on which the chatbot was implemented [(Ex2002, ¶¶99-101; Ex2003, 219:24-220:5 (Dr. Beigi can't tell))]; and
 - the RPA was software that did not interact with a single target software, like WAZE™ (as discussed [at Ex1001, 9:34-48]), but instead implemented a process invoking at least 3 or 4 different pieces of software. (Ex2002, ¶¶97-98, 107; 217:16-218:2, 218:9-13).
- (Ex2002, ¶107).

2. Williams

Ground 1 relies upon an IBM article, Williams (Ex1011), for the proposition that chatbots were known and were used to “trigger an RPA robot to access the appropriate enterprise resource planning (ERP) backend system, validate the caller’s details, retrieve necessary information, and provide status back in real-time to the supplier.” (Ex1011, 3; *cf.* Ex2010, 3 (noting even in 2022 that chatbots have continued to evolve)).

As Mr. Zatkovich explains, “[l]ike Symons, Williams is devoid of significant detail aside from broad generalizations about how chatbots and RPA bots might work.” (Ex2002, ¶115). Importantly, he confirms:

- [Williams'] discussion on chatbots does not provide any information as to how conversation flows actually invoke automated process; and
- The disclosed "Intelligent automation continuum," simply provided a taxonomical definition of RPAs and IPAs, nothing more.

(*Id.*)

Williams does not fill any of the gaps intentionally left open by Symons opaque showcase. (Ex2002, ¶¶153-155, 177-179).

3. Symons and Williams Do Not Disclose or Render Obvious the Independent Claims

Claims 1/9/16 have different preambles, but, as pertinent here, include the same important concepts missing from Symons and Williams, including:

- Symons does not teach using a "natural language interface" "of a chatbot", either alone or in combination with Williams, as required by [a]. Although Symons shows an interface, Ground 1 does not establish it is a "natural language interface" or uses NLP as both sides recognize is required. (Ex1001, 1:21-29; Ex2002, ¶¶119-139; Ex2003, 63:15-64:17, 139:3-140:10).
- Symons does not teach "receiv[ing] a user instruction" and "determin[ing] to implement an automation process ... in response to the user instruction" as required in element [b]. The disclosed Chatbot-RPA in Symons was admittedly 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, ¶¶67; Ex2002, ¶143). Thus, no “determination” was necessary. While Ground 1 unconvincingly asserts Symons makes such a determination (Petition, 17-19; Ex1003, ¶¶75-77), Williams is also relied upon to try and fill this obvious gap. (Petition, 19-20; Ex1003, ¶¶78-83). But the teaching relied upon in Williams does not teach making a determination of multiple automation processes in a single conversation, and the alleged motivation makes no sense. (Ex2002, ¶¶140-155).

- Symons does not utilize a “graphical user interface” of a “third party web-based target system” as required in [d]/[e]/[g]/[h]. Ground 1 fails to specifically identify what it contends is the “third-party web-based target system” (Petition 21; Ex1003, ¶¶91-92), but points to the Cronos email signature generator GUI for “filling in” a text input field ([d]/[g]) and the “Allowed access” modal “widget” generated by “Internet Explorer” as the GUI of the web-based target system ([d]/[h]). (Petition 20-24, Ex1003, ¶¶88-89, 98, 100). Ground 1 utilizes both of these “GUIs” from different systems in an effort to comply with “the” GUI of the “web-based target system” meeting both [g]’s filling in a field and [h]’s “widget” requirements. But Robarana that operates the Cronos email signature generator is not a “third party” of Arinti as of October 17, 2017, nor November 5, 2017. They were both part of the Cronos group. (Ex1004, 2; Ex1009, 2). Separately, the “Allow access” modal is not a GUI of the web-based target system – it is a GUI of Internet Explorer. (Ex2002, ¶¶156-164).

a. [a]- Symons Does Not Disclose It Uses a Natural Language Interface Using Natural Language Processing

Although Symons purports to show a “chatbot” in the “showcase”/“demo” (Ex1004, 2; Ex1009, 2), Ground 1 does not establish what was actually built, how it was built and whether it actually used a “natural language interface” relying upon NLP technology to generate a “natural language conversation” as required by [a]. (Ex2002, ¶¶119-139; Ex1009, 2; Ex2005). As Dr. Beigi confirmed, Symons does not disclose “the internals of it”. (Ex2003, 213:18-214:9; see also Ex2002, ¶¶93, 144, 199).

Nevertheless, Dr. Beigi assumes (without any support beyond his unique understanding of the term “chatbot”, (Ex2003, 199:11-16, 21-2 calling a “rule-based chatbot” as used in Ex2008 as “a form”; “I wouldn’t call it that”; “I wouldn’t have called it a chatbot”, *id.*, 203:15-204:8), that the Arinti “chatbot” was in fact a “natural language interface” which relied on natural language processing to understand, process, and generate a response to human natural language input, as both sides recognize is required from the claim. (Ex2002, ¶¶119-124; see also Ex2002, ¶¶124-139; Ex2003, 63:15-64:17). Additionally, while Symons identifies that the showcase

used a “chatbot” of Arinti, the record is void, beyond the statement that it is a “chatbot”, to support Dr. Beigi’s assertion that the interface is a “natural language interface ... that will allow you to do natural language communication with the software”. (Ex2003, 63:15-64:17).

But Dr. Beigi's assumption regarding “chatbot[s]” did not consider what a POSITA would think a newcomer, like Symons, using the term in a blog in October 2017 meant by the term “chatbot”.⁵ While the use of the term “chatbot” today, after the advent of ChatGPT, may be more likely to imply the use of “natural language” (where the machine understands and reacts to a conversation), as Mr. Zatkovich

⁵ Dr. Beigi at his deposition indicated his definition was based on a reference he found (Melendez, Ex1026) from 2017 that uses the word “chatbot”; and the “definition” for the specification of the WalkMe Patents. While these definitions might be useful to construe what the WalkMe Patents mean by the term “chatbot”, they do not inform what Symons/Beaten meant. Separately, as Mr. Zatkovich confirms, “Melendez does not state that chatbot necessarily must be using natural language processing.” (Ex2003, ¶126 (citing Ex1026)).

explains, “chatbot” in 2017 covered interfaces which did not use “natural language.” (Ex2002, ¶¶125-138).

For example, Ex19 from Dr. Beigi’s Deposition (Ex2007) is an August 29, 2019 Blog by Khoros Staff entitled “Different types of chatbots: Rule-based vs. NLP”, Expert insights, Aug. 29, 2019, illustrated how even in 2019 active participants in the field refer to “chatbots” different than Dr. Beigi’s expert opinion. Ex2007 distinguished between Rule-Based Chatbots (which Dr. Beigi equated to a “Form” -- i.e., not natural language interface, Ex2003, 199:11-21), as opposed to NLP chatbots. That Dr. Beigi disagrees with this distinction is not important. (Ex2003, 191:19-208:20). Rather, it is that others drew the distinction that would inform what a POSITA would think Symons means by the term “chatbot”.

Even IBM, the same organization responsible for Williams, recognized in its “What is a chatbot?” page from 2022 (Ex2008), chatbots can vary in complexity and do not always use natural language processing. (Ex2008, 3; Ex2002, ¶129). Indeed, given the rapidity in which the Arinti-Robarana chatbot was developed by the “new” colleagues (Ex1008, 2), a POSITA would understand that the “chatbot” depicted in Symons is not necessarily a “natural language interface” as required by the claims

of the '317 Patent. (Ex2002, ¶¶131-138). Dr. Beigi's assumption is merely conjecture, based on the lack of disclosure on Symons "internals", "we only see the video, the actual interaction". (Ex2003, 214:7-9).

Considering that no one knows what Arinti's chatbot is or how it was generated, that the "showcase"/"demo" was created very quickly, and that there are plenty of uses of the term "chatbot" (which Dr. Beigi admittedly disagrees with), Petitioner has not met its burden of establishing that the chatbot in the "showcase"/"demo" **necessarily used** a "natural language interface". *Paul Hartmann AG v. Attends Healthcare Prod., Inc.*, No. 2022-1724, 2024 WL 911880 (Fed. Cir. Mar. 4, 2024) ("limitation at issue necessarily must be present" in the combination to be inherent for obviousness; reversing PTAB finding of inherency)

b. [b] Symons Does Not Teach "determin[ing]" Based On a User "instruction"

Ground 2 improperly asserts that "I want a new signature" is an "instruction" which is received and used to make a "determination" of an automation process for [b]. (Petition, 16-17; Ex1003, ¶¶75-77). However, Symons' 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). As Mr. Zatkovich

explains, “the ‘chatbot’ was only programmed to implement a single RPA, a single conversation thread, and did not offer the user the choice of selecting from a plurality of RPAs or ‘automation processes’ as discussed in the ’317 Patent (Ex1001, 8:65-9:3), let alone choose between ‘automation processes’ based on the elements of a natural language conversation in the chatbot.” (Ex2002, ¶107). Symons also did not reveal any details about the chatbot which would indicate a determination is made based on an “instruction” from a user. (Ex2002, ¶¶141-152).

Ground 1 argues it would be “obvious” to modify Symons to “determine to implement an automation process” in [c] in view of Williams (Ex1011, 3) teaching “RPA robots are designed to handle multiple requests, executing multiple different types of automation processes” (Ex1003, ¶98; Petition, 17-18). But, as Mr. Zatkovich confirms, “[n]either Symons nor Williams disclose or suggest using a single chatbot-RPA to handle multiple requests at once”. (Ex2002, ¶154). At most, Williams teaches using chatbots “in a variety of other processes and across industries” (Ex1011, 3), without relating to a single chatbot-RPA handling multiple requests simultaneously. (Ex2002, ¶154). Thus, Williams does not offer any teaching to use to fill this gap in Symons.

c. [d]/[e]/[g]/[h] - Ground 1 Does Not Identify a “third-party web-based target systems” in [e] and Identifies Interactions with Different GUIs of Different Programs in Elements [g]/[h] Which Are Not “third-party web-based target systems”

Ground 1 fails to specifically identify what it contends is the “third-party web-based target system” in Symons (Petition, 21; Ex1003, ¶¶91-92), but points to two different GUIs for two different system: (1) the Cronos email signature generator GUI for “filling in” a text input field ([d]/[g]); and (2) the “Allowed access” modal “widget” generated by “Internet Explorer” as the widget of GUI of the web-based target system ([d]/[h]). (Petition 20-24, Ex1003, ¶¶88-89, 98, 100). These incomplete and inconsistent assertions are insufficient to meet Petitioner’s burden to provide a “detailed explanation of the significance of the evidence including material facts”. 37 CFR §42.22(a)(2) (requiring a “detailed explanation of the significance of the evidence including material facts”).

i. *Ground 1 Fails to Identify A “third-party web-based target system” for [d]/[e]/[g]/[h]*

With respect to the “third-party web-based target system”, Ground 1 never identifies any specific system in Symons. (Petition, 21, Ex1003, ¶¶100-102, [d]/[e]/[g]/[h]). For [e], Ground 1 offers an obviousness combination with Williams, against without specifying what the proposed modification in Symons would be, and how it would be a “third-party web-based target system”. This continues to fail under 37 CFR §42.22(a). The fact Williams teaches RPA can “work through system’s graphical interfaces, including *web browsers*” (Petition, 21, quoting Ex1011, 2; Ex1003, ¶91) does not indicate that Symons does, or a POSITA would understand that it should be modified. As Mr. Zatkovich explains, Williams does not disclose use of “third-party” systems, but teaches “manipulation of internal systems (e.g., manipulation of a call center’s internal databases)”. (Ex2002, ¶160). Even so, and more importantly, this “repository of evidence” is no replacement for the “detailed explanation” required by Petitioners (and their experts). *Google v. EveryMD.Com, LLC*, IPR2014-00347, Paper 9, 18-19 (denying institution for merely providing a “repository of all the information that a judge could possible

consider” instead of “focus[ing] on concise, well organized, easy-to-follow arguments supported by readily identifiable evidence of record” as required by the Trial Practice Guidelines).

ii. *The “GUIs” Identified Are Two Different GUIs
from Two Different Systems for [d]/[h] and [g]/[h]*

As noted, elsewhere Ground 1 points to two different GUIs for two different system: (1) the Cronos email signature generator GUI for “filling in” a text input field ([d]/[g]); and (2) the “Allowed access” modal “widget” generated by “Internet Explorer” as the widget of GUI of the web-based target system ([d]/[h]). (Petition 20-24; Ex1003, ¶¶88-89, 98, 100). Petitioners apparently recognize that both “GUIs” are necessary to completely meet the “fill in” and “widget” requirements of the claims. Nonetheless, their efforts fail.

These are two different GUIs in two different systems. (Ex2002, ¶¶162-163). But that is not what the claim requires. Rather, “**the**” GUI of “**the**” third-party web-based target system utilized by the automation process executed in [g]/[h], grammatically, and under the law of antecedent basis, must be the **same** “GUI” of the **same** “web-based target system”, in [d]/[e]. (Ex2002, ¶157; see *Tech. Consumer*

Prods. v. Lighting Sci. Grp. Corp., 955 F.3d 16, 22 (Fed. Cir. 2020) (reversing PTAB for misapplying antecedent basis, explaining that “[n]o other heat sink is specified in the claim [and] [c]onsequently, ‘the heat sink’ that is used in the calculation of the height-to-diameter ratio is the same heat sink that is annularly coupled to the heat spreader”); *In re Lemay*, 660 F. App’x 919 (Fed. Cir. 2016) (finding that no substantial evidence supports the Board’s obvious determination when that obvious determination is based on a mapping that runs afoul of a claim’s antecedent basis). No matter which single GUI of which single system Petitioner tries to pivot to, Ground 1 fails. Ground 1 has identified no “widget” [h] for the Cronos email signature generator system , and no “fill in” input field [g] for Internet Explorer. Williams is not offered to fill the gap elements [g] and [h], so Ground 1 fails. (Ex2002, ¶163).

Finally, neither the Cronos email signature generator, nor the Internet explorer modal window, are “third-party web-based target systems” ([e]). Robarana, which operated the RPA bot to use the Cronos email signature generator, is not a “third party” of Arinti as of October 17, 2017, nor November 5, 2017. (Ex2002, ¶159). They were both part of the Cronos group. (Ex1004, 2; Ex1009, 2). Separately, the

“Allow access” modal is not a GUI of the web-based target system – it is a GUI of Internet Explorer. (Ex2002, ¶¶156-164). As noted above, Ground 1’s reliance on Williams to fill a gap in [e], makes no sense and otherwise fails. (Ex2002, ¶¶160).

For at least these reasons, the Symons-Williams combination fails to teach or render obvious any of the claims in the ’317 Patent.

4. *Dependent Claims*

Ground 1 fails for all the dependent claims at least for the same reasons as the independent claims. (Ex2002, ¶¶116-164). Ground 1’s arguments against following claims fail for at least these additional reasons.

a. Claims 2/10, 3/11/17 – Symons implements its automation process on a different device than the client device with the chatbot

Claims 2/10 require the automation process “is performed **by a client device used by the user**”, and their dependent claims 3/11 further require the automation process is performed “by a browser that is executed **by the client device**” of the same user. (Ex2002, ¶¶165-166). Claim 17 combines both of these elements together. (Ex2002, ¶167). These claims derive the antecedent basis for the “user” of the “client device” from “a user using the natural language interface” in element [a].

(Ex2002, ¶168). In other words, the “natural language interface” and the “automation process” must be run on the same “client device” to meet Claims 2/3/10/11/17. (*Id.*). Ground 1 does not assert Symons uses the same “client device” for the asserted “natural language interface” and the “automation process”, and thus fails. (Ex1003, ¶¶71, 102-103).

As Mr. Zatkovich explains, Symons Video (Ex1033) shows the apparent user of the chatbot (the asserted “natural language interface”, Ex1003, ¶71) as Mr. Vincent De Bie, running on what appears to be his device (Ex2002, ¶173; Ex2003, 217:6-218:15), and the RPA (the asserted “automation process”, Ex1003, ¶¶102-103) is running on a different device (apparently Symons’ computer). (Ex2002, ¶¶98-100, (demonstrating this point using screen shots from Ex1033, and Ex1005, Ex1006), 101, 169-175; Ex2003, 217-220 (confirming the video is “unclear”, and it would be “conjecture” to discuss how the system operated, offering different options at 219:24-220:9). Thus, the asserted automation process (the RPA) is not performed by the client device of the user of the asserted “natural language interface” (the chatbot) under Ground 1.

For at least this reason, Ground 1 fails for Claims 2-3/10-11/17. (Ex2002, ¶¶165-175).

b. Claims 4/12/18 – It Would Not Be Obvious to Use a “vocal interface” in Symons Given Transcription Errors

Claims 4/12/18 requires the chatbot to use of a “vocal interface”. (Ex2002, ¶176). Symons does not use one. (Ex2002, ¶177; cf. 1003, ¶¶104-105). Ground 2 instead asserts, relying on Williams, that it would be obvious to modify Symons to use a “microphone that receives vocal commands from a human user” as a “convenient way for a human user to input information” (Ex1003, ¶107). But, as Mr. Zatkovich explains, a POSITA would not have been motivated to use a “vocal interface” as the natural language interface for the conversation in Symons, since such services were “notoriously poorly suited” to the information sought in Symons and would only add “significant complexity” and lead to “significant errors” during operation. (Ex2002, ¶¶178; Ex2003, 79:17-80:2 (noting “mistakes”). Ground 1 fails against Claims 4/12/18. (Ex2002, ¶¶176-180).

c. Claims 5/13/19 – The Identified “widget” (the “Allow Access” Button) Is Not Configured to Submit a Form

Claims 5/13/19 require, inter alia, the automation process to “fill information in an online form” with “text information”, and a “widget” “to invoke submission of the online form”. (Ex2002, ¶181). Ground 1 asserts) that the “Allow Access” button in the Internet Explorer Modal shown in [h] (see Ex1003, ¶100) submits a form (Ex1003, ¶110), because otherwise an email would not be generated and sent to Vincent De Bie. (Petition 27-28, Ex1003, ¶113). This is flawed. (Ex2002, ¶¶181-185). As discussed in [h], this button is “not in the same GUI as the input fields and does not cause a ‘web-based targeting system’ to perform any predefined functionality.” (Ex2002, ¶¶163, 183). Moreover, as Mr. Zatkovich explains, the “allow access” button identified as the “widget” is not “configured to invoke submission of the online form”, but merely allows copying. (Ex2002, ¶184). The alleged “widget” does not cause an email to be sent, and thus Ground 1 fails. (Ex2002, ¶¶181-185).

d. Claims 6/14 – Symons Does Not “Personalize” an Automation Process

Claims 6/14 require the “automation process” to be “personaliz[ed]” based on “information of the user”. (Ex1001, 6, 16:1-3; 14, 26:50-52; Ex2003, ¶186; Ex1003, 59, header 8). Ground 2 asserts that because personal information is “used as part of the automation process”, Symons meets these claims. (Ex1003, ¶99). But using personal information provided to carry out the automation process, is not what the claim requires. Rather, as Mr. Zatkovich confirms “the steps of the automation process itself must vary in some form depending on the information the user provided.” (Ex2002, ¶188). “Symons merely uses the collection information ‘as part of the automation process’ (Ex1003, ¶118), not to vary the automation process. This is insufficient to meet these claims.” (Ex2002, ¶¶189, 186-190)

e. Claim 7 – Ground 1 Does Not Identify “credentials” the Chatbot is “privy to” Outside of a Conversation

Ground 1 contends that the use of “information specific to the user, such as the user’s name, role, email address, and mobile phone number” constitutes using “credentials of the user” that “the chat bot is privy to”. (Petition 29; Ex1003, ¶121). To support this assertion, Dr. Beigi misleading characterizes the ’317 Patent as

identifying these as “example[s of] user credential[]”. (Ex1003, ¶120, citing Ex1001, 20:17-27). However, the ’317 Patent differentiates information obtained via “question steps” from information, like credentials, which is “available to the user”. (Ex1001, 20:10-16). As Mr. Zatkovich explains, information (such as first and last names) obtained by asking the user, is not a “credential” that the chatbot is “privy to” as required by Claim 7. (Ex2002, ¶¶191-196).

f. Claims 8/15/20 – Symons Provides No Disclosure Concerning “automatically identifying” Either a “widget” or a “text input field”

Ground 1 does not identify any support in Symons which shows the RPA process of generating and emailing an email signature automatically identifies either the text input fields in Cronos or the “Allow access” button in Internet Explorer. (Petition 30; Ex1003, ¶¶122-123). He cannot, since Symons does not show “the internals of it”. (Ex2003, 213:18-214:9; Ex2002, ¶¶199, 93, 144). Mr. Zatkovich confirms that Symons does not teach Claims 8/15/20. (Ex2002, ¶¶197-200).

B. Ground 2: Allen Does Not Disclose or Render Obvious Claims 1-20

Ground 2 assert that Allen (Ex1014) renders obvious Claims 1-20. (Petition, 38-58; Ex1003, ¶¶162-238).

But Allen does not disclose performing “automation process” by “interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system” [d], nor by “filling in a text input field in the GUI” [g] nor by “interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality” [h].

To the extent, Ground 2 and the ID rely upon Dr. Beigi’s conclusion that “the system performing the steps it was previously taught means it simulates user input to the GUI of the web-based target system” (Ex1003, ¶177, cited in Petition, 42-43; ID, 20-21), such reliance is misplaced. (Ex2002, ¶¶224-229).

Ground 2’s alternative obviousness argument that “in order for the user to easily monitor the system’s actions, the system’s actions would have to involve interaction with a GUI” (Ex1003, ¶178; Petition, 43; ID 21-22) is also misplaced. (Ex2002, ¶¶230-232). Allen’s teaches to “monitor” a “user interaction” as part of the training process, not the implementing process. (Ex2002, ¶¶230 (citing Ex1001,

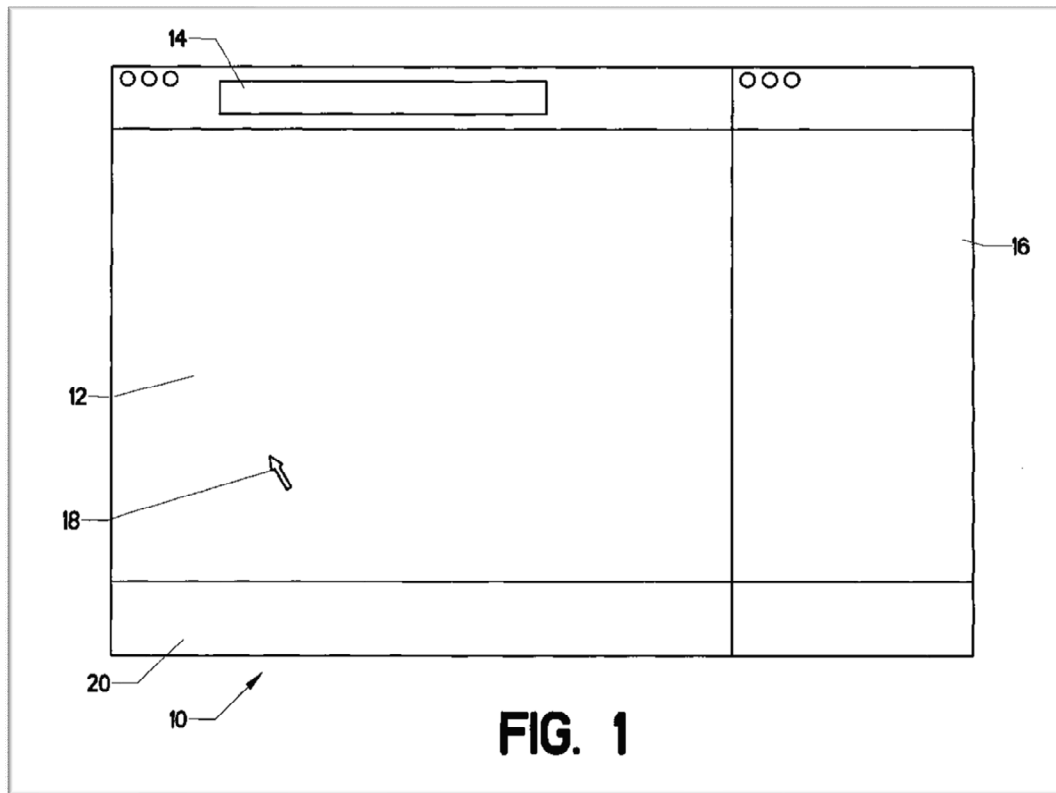
4:66-51, 5:14-20)). “Once the task is learned and tested, it is no longer necessary or useful to have the user monitor PLOW’s interactions.” (Ex2002, ¶232). Thus, Ground 2’s alternative obviousness argument also fails. (Ex2002, ¶¶230-233).

Allen neither discloses nor renders obvious any of the challenged claims.

1. Allen (Ex1014)

Allen is directed towards teaching a computer, the “**Procedural Learning** on the Web” system (“PLOW”) to learn an automated process on the internet. As Dr. Beigi recognizes (Ex1003, ¶159), PLOW is “2a system which 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) often but not limited to being a browser.” (Ex1014, Abstract). In Allen, “[t]he user ‘teaches’ task steps by inputting natural language and demonstrating actions with the GUI.” (Ex1014, Abstract; Ex2002, ¶203; Ex1003, ¶159).

FIG. 1 of Allen provides a blank GUI of the learning system, while FIGS. 2 and 3 of Allen illustrate how a user would go about teaching the system how to buy a book.

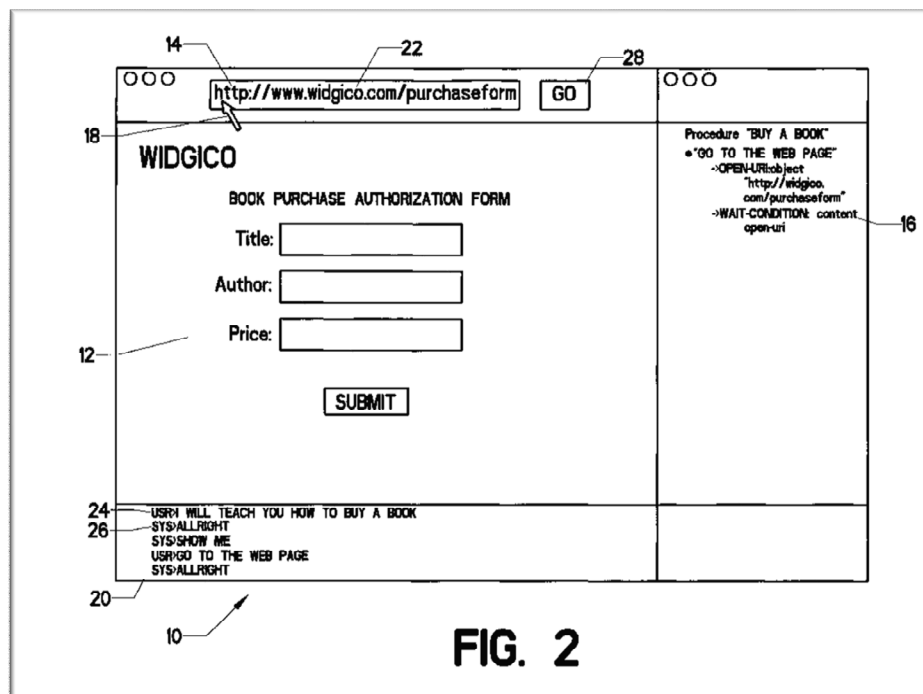


(Ex1014, FIG. 1)

“FIG. 1 shows a representative graphical user interface 10” with a “[b]rowser display 12,” a “URI entry box 14” (allowing for URLs to be input), a “movable cursor 18”, a “task log 16” on the right side which “shows the tasks that have been learned so far **in the learning** session”, and a “speech interface display 20” on the “bottom of the display area” which allows “the user to monitor his or her interaction with PLOW”. (Ex1014, 5:6-20).

Allen's disclosure is primarily directed to explaining how PLOW is trained to perform an automated process using GUI 10 of FIG. 1.

To illustrate, the text depicted in the "speech interface display 20" shown in FIG. 2 relates directly to a learning process of PLOW. As the first message, PLOW "displays the message [uttered by the user] 'USR>I WILL TEACH YOU HOW TO BUY A BOOK.'" The label 'USR>' indicates that this is the speech uttered by the user, as understood by the software." (Ex1014, 5:36-39). PLOW then prints out "Alright. Show me." with the label "SYS>". (Ex1014, 5:44-49).



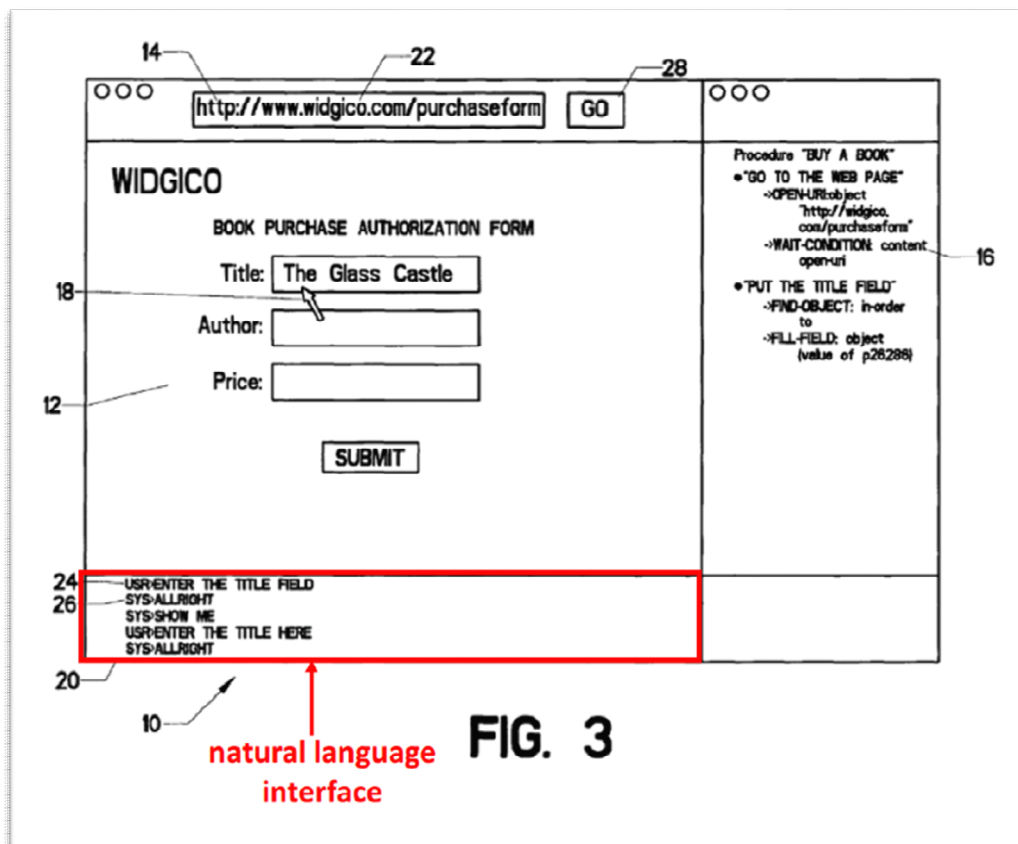
(FIG. 2 of Allen, Ex1014)

As shown in FIG. 2, PLOW “creates a title for the new process it is about to learn and displays the title in task log 16” (in FIG. 2, “Procedure ‘BUY A BOOK’”) (Ex1014, 5:56-60). Because the tasks are displayed in the learning GUI and the task log, “[t]he reader can thereby monitor whether PLOW has correctly understood the present objective.” (Ex1014, 5:60-62).

Dr. Beigi asserts that “[i]t would have been obvious that in order for the user to easily monitor the system’s actions, the system’s actions would have to be displayed” (Ex1003, ¶178). Mr. Zatkovich explains why this is wrong: “Allen is teaching the user is monitoring the training process, not the implementation of the automated process after training. Thus, the teaching of Allen would not inform a POSITA as of November 5, 2017 on how the system’s actions would be displayed (or not displayed) when invoked.” (Ex2002, ¶210).

Mr. Zatkovich further explains how “all of the text in the ‘speech interface display 20’ of FIG. 2 relates to teaching the procedural learning system.” (Ex2002, ¶¶211-212 (discussing Ex1014, 5:63-6:3)). But teaching an automated process is not the subject matter of the ’317 Patent claims.

Dr. Beigi offers a markup of FIG. 3 to assert the conversation presented in the speech interface display 20 as a “conversation implemented by a natural language interface”:

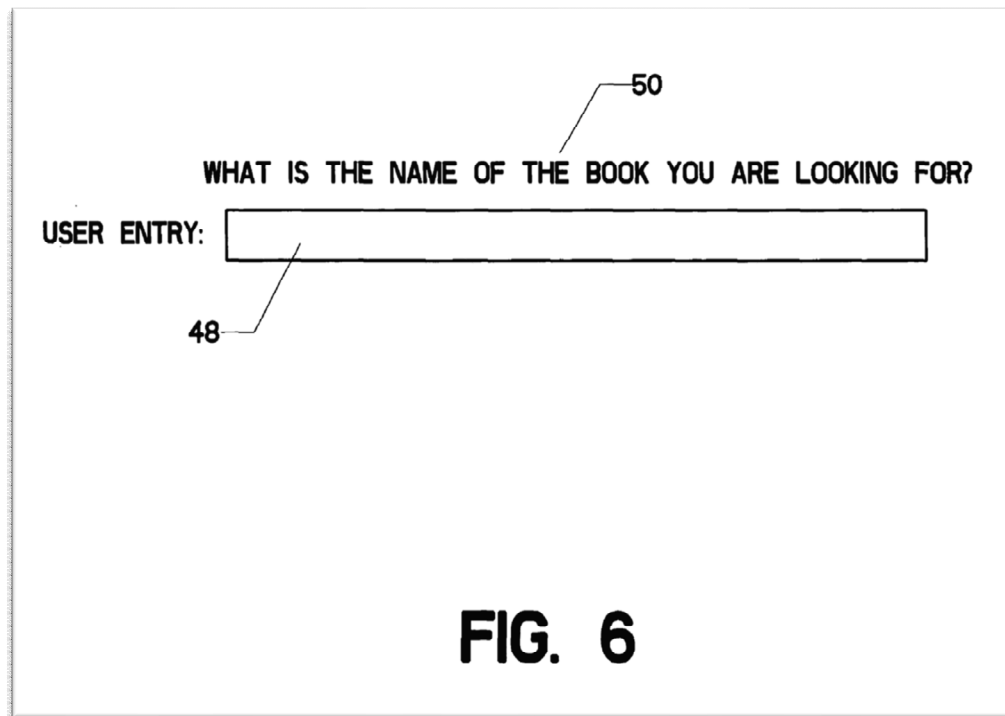


(Ex1003, ¶166, annotating FIG. 3 of Allen, Ex1014).

But this is the wrong natural language interface. This interface is used for **training** PLOW how to buy a book from WIDGICO, **not implementing** the process of buying the book. (Ex2002, discussing Ex1014, 6:24-31, 6:34-37). Significantly,

as Mr. Zatkovich explains “when referencing the conversation which PLOW has after being trained with a user, ‘ENTER THE TITLE FIELD’ and ‘ENTER THE TITLE HERE’ are not part of that conversation shown in FIG. 3.” (Ex2002, ¶214, citing Ex1014, 12:64-13:5).

Instead, as Dr. Beigi recognized during his deposition, “What is the title of the book?” is presented to the user using a form like the one shown in FIG. 6 (Ex2003, 257:20-24):



(Ex1014, FIG. 6). This question is not presented as in the “natural language interface” marked in red by Dr. Beigi in FIG. 3 above. (Ex2002, ¶218)

As Mr. Zatkovich explains, “[W]hile Allen teaches that the system can ‘perform the steps it was previously taught’, it provides little detail on how the system executes such steps. (Ex1014, 12:66-13:1). For example, Allen does not disclose that executing the automated process actually includes interacting with a GUI displayed by PLOW.” (Ex2002, ¶219).

2. Allen Does Not Disclose or Render Obvious Claims 1/9/16

a. [d]/[g]/[h] - Allen’s Learned Processes Could be Executed Using the HTML code, Not a Graphical User Interface

Claims 1/9/16 require in [d] that the claimed “automation process” be implemented “by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system.”. In [g], this process must include “automatically and without user input, filling in a text input field in the GUI” as well as in [h] “automatically and without user input, interacting with a widget in the GUI to cause the web-based target system to perform

a predefined functionality” (Ex1001, Claim 1, 25:45-50; Claim 9, 26:29-34; Claim 16, 27:8-13).

- i. *Allen does not teach interacting with a GUI when performing a task, and it is not inherent that it does so*

As set forth in Dr. Beigi’s analysis of [d], the crux of Dr. Beigi’s argument is that because Allen’s system can be taught via a GUI, it must necessarily interact with the GUI in execution. (Ex1003, ¶178, cited in Petition, 42-42; ID 20-21). Specifically, Dr. Beigi explains that “[t]he system learns by ‘observing the user’s actions.’ ([Ex1014], 6:61-65)” before asserting, without citation to any support, in Allen or otherwise, that, “[a]s a result, the system performing the steps it was previously taught means it simulates user input to the GUI of the web-based target system”, thereby interacting with the GUI. (Ex1003, ¶177).

As Mr. Zatkovich explains, this argument is flawed “since PLOW is expressly designed to take advantage of the open nature of HTML code in websites, and not merely on the visuals.” (Ex2002, ¶225; quoting Ex1014, 2:46-63). As Allen teaches “the open nature of the code used to transmit information over the Internet **allows**

for functionality far beyond simply recording and repeating a sequence of user inputs. A much more sophisticated level of automation is possible.” (Ex1014, 2:59-63). Allen confirms that it “uses all the code” including the “non-displayed” code “in learning a step in the task”. (Ex2002, ¶226, quoting Ex1014, 3:33-35). PLOW “understand the step of filling the title as **more than simply mimicking the user’s actions**” (Ex1014, 8:55-63), and thus using the HTML code, PLOW is able to “automatically execute the task”, even “in new situations” (Ex1014, Abstract). (See also Ex2002, ¶¶ 225-226).

Rather than “simulate the user’s interaction with the GUI” as Dr. Beigi asserts, Allen instead teaches “[o]nce the client computer is asked to submit the interactive response, another ASCII transmission is sent from the client computer back to the hosting server.” (Ex1014, 2:22-24).

Thus, as Mr. Zatkovich concludes, “a POSITA as of November 5, 2017 would understand from Allen’s disclosure that PLOW does not necessarily interact with a GUI in execution simply because, after obtaining information, ‘PLOW would then perform the steps it was previously taught and complete the transaction’ (Ex1014, 12:66-13:1).” (Ex2002, ¶228).

Instead, Mr. Zatkovich provided the following examples a POSITA would draw from Allen:

- Instead of “filling in the title” by simply “mimicking the users interactions” (Ex1014, 8:55-9:3), “Allen could interface directly with the HTML code, which it already accesses and uses during the learning process” (Ex2002, ¶228, citing Ex1014, 12:19-25 (PLOW “search[es] the HTML code” to “identify the text object corresponding to the book’s title” before “submitting the title”)).
- PLOW could have “modified the values using HTML code accessible to PLOW”, instead of necessarily interacting with an “input field” or “widget” in the GUI itself. For example, PLOW teaches it could return values using HTML by, e.g sending “another ASCII transmission ... from the client computer back to the host server. (Ex2002, ¶228, citing Ex1014, 2:22-24).

For at least these reasons Ground 2 does not establish that Allen expressly or inherently discloses [d]/[g]/[h] of Claims 1/9/16. (Ex2002, ¶¶223-229).

ii. *Allen’s Teaching To “Monitor” Interactions
During Training Does Not Render Obvious Allen
Interacting with a GUI of A Target System Once
The System Is Trained and Tested*

Ground 2 argues in the alternative, “[i]t would have been obvious that in order for the user to easily monitor the system’s actions, the system actions would have to be displayed and involve interaction with a GUI.” (Petition, 43, citing Ex1003, ¶¶178-179; ID, 21-22). The teaching about “monitoring” in Allen that Dr. Beigi and the Petition rely upon is 4:66-51 provides a “graphical user interface (“GUI”) is preferably provided so that the user can easily monitor PLOW’s actions.” The previous sentence explains that “PLOW” “is an acronym standing for Procedural **Learning** on the Web”. (Ex1014, 4:64-66).

Contrary to Dr. Beigi’s conclusion, as Mr. Zatkovich explains “Allen does not teach or suggest that all of GUI 10, or even browser 12, is used to ‘monitor the system’s actions’”. (Ex2002, ¶230). For example, both experts agree that the monitoring of the user interactions occurs using a “task log 16” and “speech interface display 20”. (Ex1014, 5:14-20, quoted in Ex2002, ¶230 and cited in Ex1003, ¶178).

As Mr. Zatkovich confirms, “Allen simply does not teach a user using aspects of GUI 10 to monitor a task being performed after it is trained and confirmed to be working.” (Ex2002, ¶230). Thus, Dr. Beigi’s conclusion “the system’s actions would have to involve interactions with the GUI” (Ex1003, ¶178) is contradicted directly by the teachings he relies upon.

Fundamentally, Dr. Beigi’s analysis (relied upon by the Petition and the ID) ignores how the task monitoring is used in Allen. As Mr. Zatkovich confirms, “[r]ather than monitor task execution, as Allen explains, and a POSITA would understand, the task log 16 and speech interface display 20 ‘allow the user to monitor his or her interaction with PLOW’ (Ex1014, 15:19-20) which enables the user to understand ‘whether PLOW has correctly understood the present objective’ being learned. (Ex1014, 5:60-62). This allows the user to take ‘corrective action’ while teaching PLOW. (Ex1014, 7:51-8:5). For example, the user can correct PLOW if it erroneously displays ‘BUY A BOX’ in the task log instead of ‘BUY A BOOK’. (Id.).”

Thus, Dr. Beigi’s alleged motivation makes no sense in the context of implementing a task once the task is learned and tested. At that point, “such monitoring no longer serves a purpose.” (Ex2002, ¶231).

Allen’s teachings regarding monitoring during training to not extend to simulating the GUI interactions during executing on a task once it is learned and tested. (Ex2002, ¶231). Dr. Beigi’s alleged motivation is neither supported in Allen, nor make any sense.

Ground 2 fails to demonstrate that Allen teaches, or renders obvious, an “automation process” which “interact[s] with a Graphical User Interface (GUI) of the web-based target system and simulate[s] user input to the GUI of the web-based target system” [d] by “filling in a text input field in the GUI” [g] and by “interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality” [h] as required by Claims 1/9/16. (Ex2002, ¶¶223-233).

3. Dependent Claims

Ground 2 for all the dependent claims fails at least for the same reasons as the independent claims. (Ex2002, ¶¶252-253, 223-233). Ground 2’s arguments against following claims fail for at least these additional reasons.

a. Claims 6/14 –Allen’s use of personal information gathered from a chat is not “personalizing an automation process”

Ground 2 asserts Claims 6/14 are taught by Allen because the information gathered can be personal information, and this information can then be used in an automation process. (Petition 50; Ex1003, ¶¶197-198). Dr. Beigi continues to misread the claims as being satisfied so long as the automation process uses “information of the user”. (Ex1003, ¶¶197-198). The claims require the “automation process” to be “personaliz[ed]” based on “information of the user”. (Ex1001, Claims 6, 26:1-3; 14, 26:50-52). But, as discussed above with respect to Ground 1, using personal information in an automation process is not “personalizing an automation process” (Ex2002, ¶¶237).

As Mr. Zatkovich explains, Dr. Beigi’s examples of Allen’s teachings of using an “authorization step” to obtain “price and delivery date information” and the “hotel searching task” (Ex1003, ¶¶196-198), are based on an flawed understanding of the disclosure and at most would have an automation task use personal information (not the claims), not “personalizing the automation task” (i.e., varying the task to be performed based on the user’s personal information, the claim), (Ex2002, ¶¶236).

Ground 2 has failed to identify any task that is personalized as a result of user information, in contrast to merely using personal information, and so it fails for Claims 6/14. (Ex2002, ¶¶234-238).

b. Claim 7 – Allen’s Chat-Bot is not configured to use “credentials of a user” which is outside of the information provided in the conversation

Claim 7 requires that “the chat-bot program product is configured to utilize credentials of the user” and “is privy to user-specific information.” (Ex1001, 26:4-7).

As Mr. Zatkovich confirms (Ex2002, ¶240), rather than point to any teaching in Allen which suggests PLOW “utilize[s] credentials of the user” or “is privy to user-specific information”, Dr. Beigi incorrectly asserts that “the ’317 patent provides example user credentials: Employee ID, First Name, and Last Name ([Ex1001], 20:17-27)” (Ex1003, ¶ 200)

In other words, Dr. Beigi is using the same flawed construction and analysis he used for Claim 7 in Ground 1. As discussed, the ’317 Patent differentiates information obtained via “question steps” from information, like credentials, which is “available to the user” (Ex1001, 20:10-16). Thus, Dr. Beigi’s assertion as to what

variables could be “credentials” ignores how the information is obtained and accessed, and thus fails to address the proper scope of Claim 7. (Ex1003, ¶¶241-243).

Moreover, Dr. Beigi recycles the flawed example from “[t]he user’s home or work address are credential of the user that are provided to the system (e.g., needed to obtain delivery date information to deliver the book)” as the basis of his read on Claim 7. (Ex1003, ¶201). But, as Mr. Zatkovich explains, “Dr. Beigi’s analysis, besides failing to point to any express disclosure in Allen providing that PLOW uses the “user’s home or work address”, fails to show that these are “credentials” that would be used to authenticate the user, nor that PLOW would not obtain this information from the user directly.” (Ex2002, ¶245).

Thus, Ground 2 fails for Claim 7. (Ex2002, ¶¶239-246).

c. Claims 8/15/20 –Allen’s automation process does not identify either a “widget” or a “text input field”

Claims 8/15/20 require the automation process to consist of “automatically identifying” both the “text input field” and the “widget” in the GUI. Ground 2 contends this is met because “the system observes the user identifying a widget in the GUI and identifying a text input field in the GUI” (Petition 50-51; Ex1003,

¶¶202-203). As Mr. Zatkovich affirms, as discussed with respect to [h], simply because PLOW learns by “observ[ing] the user identifying” GUI elements does not mean that the automation process automatically identifies GUI elements during execution. (Ex2002, ¶¶247-251).

C. Ground 3: Krishnan and Radhakrishnan Do Not Render Obvious Claims 1-4, 6-7, 9-12, 14, 16-18

The combination of Krishnan (Ex1016) and Radhakrishnan (Ex1018) in Ground 3 also fails.

Krishnan merely discloses a chatbot editor that generates a conversation to be implemented utilizing backend systems (i.e., using a script, an API or the like, not a “displayed user interface”). Neither the Petition nor Dr. Beigi claim that Krishnan teaches to implement, let alone “invoke”, an automated process using a GUI; instead, that is what Radhakrishnan is offered for. (Petition, 64-78; Ex1003, ¶¶253-267; *cf.* Ex2003, 280:23-281:10). This combination would not have been obvious to a POSITA, and, in any event, makes little sense.

As Mr. Zatkovich explains, Radhakrishnan is related to a different field of endeavor than the '317 Patent (Ex2002, ¶¶283-286) and addresses different and

unrelated problems. (Ex2002, ¶¶287-290; *see also* Ex2003, 273:9-276:10; 278:13-24; 280:12-281:4; *Cf.* Petition, 58-78; Ex1003, ¶¶241-304). As such, Radhakrishnan is not analogous art. *Chemours Co. FC v. Daikin Indus.*, 4 F.4th 1370, 1376 (Fed. Cir. 2021).

In any event, the combination of Krishnan and Radhakrishnan makes no sense and does not fill the gap in Krishnan of determining and performing “an automation process” to be performed with “respect to [a] third-party web-based target system” as required by [b]/[e], or implementing the determined automation process by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system, including using text fields and a widget to execute a functionality of the target system, as required by [d]/[g]/[h]. (Ex2002, ¶¶291-309).

1. Radhakrishnan is Not Analogous Art

“In deciding whether a reference is from a relevant art [for purposes of determining obviousness], it is key to first determine whether the reference is within the inventor's field of endeavor, and if not, ‘whether the reference is reasonably

pertinent to the particular problem confronting the inventor.’” *Chemours Co. FC v. Daikin Indus.*, 4 F.4th 1370, 1376 (Fed. Cir. 2021).

Radhakrishnan is also not analogous art to the ’317 Patent claimed invention under *Chemours*. Ground 3 does not offer any analysis to support the assertion that Radhakrishnan is analogous art to the ’317 Patent claims. (Cf. Petition, 56-84; Ex1003, ¶¶241-304).

a. Radhakrishnan is Not in the Same Field as the ’317 Patent Claims

The ’317 Patent claims determine and execute an automation process comprising a sequence of interactions with a displayed user interface of a target program based on natural language inputs received from a user from a natural language interface. (Ex1001, 1/9/16). In particular, the ’317 Patent utilize “a natural language interface to receive input from the user, and based thereon, select an automation process to 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, 8:66-9:10).

In stark contrast, Radhakrishnan is “directed to providing a robotic process automation enabled **file diagnosis and correction.**” (Ex1018, Abstract; *see also* Ex1018, 2:50-61 (providing an “automation error diagnosis and correction system and environment” (FIG. 1) and flows “for automation error diagnoses and correction” (FIGs. 2 and 3).

As Mr. Zatkovich confirms, this is a different field of endeavor than the ’317 Patent claims. (Ex2002, ¶¶283-286).

b. Radhakrishnan Is Not Reasonably Pertinent To The Problems Faced By The Inventors Of The ’317 Patent Claims

Radhakrishnan is also not reasonably pertinent to the problems faced by the inventors of the ’317 Patent. As Dr. Beigi replied when asked if Radhakrishnan addresses the “technical problem dealt with by the disclosed subject matter is to provide for a user-friendly manner of defining functionality of chatbots”: “**Radhakrishnan doesn’t handle chatbots**”. (Ex2003, 273:1-22). Dr. Beigi also agreed that “**Radhakrishnan does not address automation processes that would be invoked by a chatbot**”. (Ex2003, 278:15-24). As Mr. Zatkovich explains, a

POSITA would accordingly “understand that the techniques disclosed by Radhakrishnan are not pertinent to the problems sought to be tackled in the ‘317 Patent”. (Ex2002, ¶287-300).

For at least these reasons, Radhakrishnan is not analogous art to the ‘732 Patent. (Ex2002, ¶¶281-300).

2. Modifying Krishnan Based On Radhakrishnan Will Not Meet the Claims and In Any Event Makes No Sense

Neither Krishnan nor Radhakrishnan teach:

- determining and performing “an automation process” to be performed with “respect to [a] third-party web-based target system” as required by [b]/[e]
- implementing the determined automation process by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system, including using text fields and a widget to execute a functionality of the target system, as required by [d]/[g]/[h].

a. Independent Claims 1/9/16

- i. *[b]/[e] – Krishan’s “flight book task” Is Not an “automated task” “implemented on” [b] or “performed with respect to” [e] “a web-based target system”*

[b]/[e] of Claims 1/9/16 require a determination to be made, based on a “user instruction” received via a natural language interface, “to implement an automation process **on a web-based target system**” ([b]) and the determined “automation process is **performed with respect** to [the] **third-party** web-based target system” ([e]).

Ground 3 fails since its reliance on Krishnan (Ex1017) “flight booking task” (Ex1003, ¶¶248-250) to establish these elements is misplaced. Krishnan does not disclose “an automation process” as required by [b] nor using a “third party” “web-based target system” as required in [e]. (Ex2002, ¶296).

The “flight booking task” that Ground 3 is based on is not an “automation task”, since Krishnan teaches that is performed by directly accessing “one or more backend databases or other information processing systems” and updating such “backend databases and other information processing systems.” (Ex1016, 2:33-35). As Mr. Zatkovich explains, “[t]his is a mere script execution and does not perform an

‘automation process’ that interacts with GUI elements or simulates user inputs, as required by [d].” (Ex2002, ¶296). Dr. Beigi concedes “Krishnan is silent regarding whether or not its automation process interacts with a GUI and simulates user input to the GUI”. (Ex1003, ¶ 255). Krishnan simply discloses another way of gathering information from a user to carry out system functionality (flight booking). (Ex2002, ¶296).

Likewise, the “flight booking task” is not “performed with respect to” a “third-party web-based target system” as required by [e]. The chatbot in Krishnan is intended to “to provide customer service to users via the Internet or a mobile application” and available to a user when he or she “visit or log into a website and have customer service requests fulfilled by a chat bot.” (Ex1016, 2:5-14). In other words, the chatbot is implemented directly on the website or application for which it is providing customer service. (Ex2002, ¶300). This point is reinforced, as Mr. Zatkovich explains, since, unlike the ’317 Patent, “Krishnan implements its scripts by accessing and updating ‘one or more backend databases or other information processing systems’” (Ex1016, 2:33-35).

Dr. Beigi's logic as to why "[i]t would have been obvious that the Internet or a website (for customer service requests) is a third-party web-based target system" makes no sense. He contends it would be because Krishnan provides examples of "different types of customer service requests being fulfilled" that he asserts would not have been performed with the same party. (Ex1003, ¶261).

Specifically, Dr. Beigi's assertion that "booking a flight", "validating a user, making purchases, requesting status updates, processing refunds, or modifying information" could not be performed by the same party (Ex1003, ¶261 (citing Ex1016, 2:22-24) is non-sensical. Dr. Beigi's conclusion that "booking a flight" "involve[] an airline company as one party", but "making purchases" "involve[] an online merchant as another party" is pure speculation which is confusing embodiments of Krishnan. As Mr. Zatkovich explains, a user can book a flight by making a purchase of a ticket from the same website. (Ex2002, ¶300).

But more importantly, the key point of Krishnan is that the chatbot is providing customer service directly at whatever website or application is being serviced, as if it is part of the website or application, not separate from it. Dr. Beigi's examples are extrapolated by denying the point of the invention, which is clear error.

That Krishnan can be implemented on many websites, does not mean that it is being implanted on a “third party target website”.

Ground 3 offers no other basis besides Krishnan for these elements (Petition. 63-64. 67; Ex1003, ¶¶248-250, 260-261), and thus fails.

- ii. *[d]/[g]/[h]– Krishnan’s “flight booking task” is
Not Implemented using a GUI, and Radhakrishnan
Does Not Fill this Hole*

[d]/[g]/[h] of Claims 1/9/16 require the claimed “automation process” be implemented “by interacting with a Graphical User Interface (GUI) of the web-based target system and simulating user input to the GUI of the web-based target system” ([d]), “automatically and without user input, filling in a text input field in the GUI” ([g]) and “automatically and without user input, interacting with a widget in the GUI to cause the web-based target system to perform a predefined functionality” ([h]). Since Dr. Beigi concedes that Krishnan does not perform these task (in his words “is silent”, Ex1003, ¶255), Ground 3 seeks to combine Radhakrishnan with Krishnan to meet these limitations.

Since Radhakrishnan is non-analogous art, as discussed above, it is not available for the alleged combination under *Chemours*. (Ex2002, ¶¶281-290).

But, more importantly, the RPA bot disclosed in Radhakrishnan does not perform the missing aspects of [d]/[g]/[h]. Dr. Beigi makes this point when he explains, Radhakrishnan discusses “simulat[ing] operations” with an RPA module to “Act as a mirror of the actual user operations” (Ex1003, ¶ 256). Unfortunately, he only explains part of the disclosure. As Mr. Zatkovich explains, “Radhakrishnan does this simulation in order to ‘generate an operation record for automatically generating and transmitting a diagnosis’ (Ex1018, Abstract, 11:32-36), not in order to perform an automation process again or to later be invoked based upon an input from a user using a natural language input. Instead, the end use of the recorded operations is for inclusion in a ‘support ticket’. (Ex1018, 12:37-46).” (Ex2002, ¶306). Such diagnostic purposes are simply not germane.

Dr. Beigi’s reliance on this “mirror” operation to conclude that the RPA module in Radhakrishnan would “fill[] in a text input filed [sic] in the GUI” and “interact with a widget in the GUI” is ignoring the fact that Radhakrishnan make clear that this RPA module works “within a virtual environment”. (Ex1018, 11:41-

47). In other words, as Mr. Zatkovich confirms Radhakrishnan “teaches “mirroring” the user’s activity *while the user is performing the activity*, as opposed to invoking an automation process which uses the information obtained by the chatbot ([b]), uses input fields in the GUI ([g]), or causes the system to perform a predetermined functionality by interacting with a widget in the GUI ([h]).” (Ex2002, ¶307).

Finally, as Mr. Zatkovich explains, “while Dr. Beigi asserts that a user interacting with a widget would ‘cause the system to perform a predefined functionality’, he does not assert that the RPA module ‘mirroring’ the user “interacting with a widget” would also cause the RPA module to “perform a predefined functionality”. (Ex1003, ¶266). This makes sense, given Radhakrishnan’s disclosure that the RPA module operates within a ‘virtual’ environment. Nor does he explain how the combination of Krishnan and Radhakrishnan (which only ‘mirrors’ the user’s activity) would use ‘information as part of the automation process’, as required by [b]. (See Ex2002, ¶308, citing Ex1003, ¶¶251-252).

iii. *A POSITA Would Not Have Been Motivated to
Combine Krishnan and Radhakrishnan*

Ground 3 relies upon Krishnan teaching “greater convenience for users and lower costs for an organization...” (Petition 66; Ex1003, ¶257) to support the alleged motivation to combine. But, notwithstanding Dr. Beigi’s irrelevant effort to find support for Krishnan’s claims in its priority document (Ex1017) (see Ex1003, ¶¶257),⁶ the ’550 Application does not include this alleged motivation and thus it is not part of the prior art. (*Compare* Ex1016, 2:7-11 *with* Ex1017; Ex1003, ¶484).

Their reliance on Radhakrishnan teaching its RPAs “reduce” usage of “computing resources required to executing tasks when compared with” using an “API” (Ex1018, 6:21-34) also does not support the combination. As Mr. Zatkovich explains, reducing computing resources is a benefit of Radhakrishnan’s “error

⁶ The proper inquiry is whether the passages Dr. Beigi relies on find support in the provisional, not whether the Krishnan’s claims were supported, as Dr. Beigi attempts to establish.

detection” function, **not of using RPAs generally**, which are “typically more resource-intensive than API calls” (Ex2002, ¶313).

Contra the Petition and Dr. Beigi, as Mr. Zatkovich confirmed, a POSITA would not want to replace Krishnan’s direct backend processes, since Krishnan’s existing solution worked and would have been more cost-effective in Krishnan’s environment. (*Id.*, ¶¶313-314).

3. Dependent Claims

Ground 3 fails for all the dependent claims fails at least for the same reasons as the independent claims. (Ex2002, ¶¶329-330). Ground 3’s arguments against following claims fail for at least these additional reasons.

a. Claims 2/10, 3/11/17 – Krishnan’s “bot-builder interface” is Not a “client device” Used By the Identified User, “Customer 110”

Claims 2/10 require the automation process to be implemented by a “client device used by the user” of the natural language interface. Their dependent claims 3/11 further require the automation process is performed “by a browser that is executed by the client device” of the same user. Claim 17 combines both of these elements together. (Ex2002, ¶315).

Ground 2 identifies the “client device” as Krishnan’s bot-builder interface” (Petition 69, Ex1003, ¶268). This read fails. (Ex2002, ¶316). As Mr. Zatkovich explains, the “bot-builder interface” is not a “client device” that would implement an automation process; instead, it “allows a ‘developer’ to ‘construct and configure dialogs’ to be used by a chatbot.” (Ex2002, ¶¶317-318). Further, as Mr. Zatkovich explains, “the asserted client device (the bot-builder interface interface) is not ‘used by the user’ of the natural language interface (the Customer 110)” which Ground 2 identified in the independent claims. (Ex2002, ¶¶319-321).

Krishnan also does not disclose using “bot-builder interface” to run a browser on which an automation process is performed, as Claims 3/11/17 require. (Ex2002, ¶318). Accordingly, these claims are not met. (Ex2002, ¶322).

b. Claims 6/14 – Krishnan’s Use of Personal Information Gathered From a Chat Is Not “personalizing an automation process”

As previously discussed, dependent Claims 6/14 require the “automation process” to be “personaliz[ed]” based on “information from the user”. (Ex2002, ¶325).

Ground 3 asserts “performing the automation with user-specific information” is “personalizing the automation process”. (Ex1003, ¶272; Petition 70-71). This is not what “personalizing the automation process” means. It does not mean merely using personal data in performing the same automation process for each customer calling it. Rather, it means modifying the automation process based on the user who is calling it. In other words, the “flight booking task” would not be personalized because John gives his information and Mary gives her information, if the process is performed in the same way, just using John and Mary’s information respectively. Rather, in this example, to meet the Claims, the “automated process” as implemented by John would have to perform steps that are personal to John as a user that would differentiate John’s process from the “automated process” as implemented with respect to Mary, which would have some other variant of tasks based on Mary’s information. As Mr. Zatkovich explains, a POSITA would understand that “verification” in Krishnan is not “personaliz[ing] the automation process”. (Ex2002, ¶¶326-328).

VI. CONCLUSION

For the foregoing reasons, and the reasons set forth in supporting declaration of Ivan Zatkovich (Ex2002), Claims 1-20 of the '317 Patent should be found not unpatentable.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. §42.24(d), I hereby certify that the foregoing
PATENT OWNER'S RESPONSE FOR INTER PARTES REVIEW OF
CLAIMS 1-20 OF U.S. PATENT NO. 11,558,317 B2 contains 13,541 words,
excluding the parts of the reply exempted by 37 C.F.R. §42.24(c), as measured by
the word-processing system used to prepare this paper.

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CERTIFICATE OF SERVICE

The undersigned hereby confirms that the foregoing **PATENT OWNER'S
RESPONSE FOR INTER PARTES REVIEW OF CLAIMS 1-20 OF U.S.
PATENT NO. 11,558,317 B2** was caused to be served on July 8, 2024 via electronic
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