UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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WHATFIX INC.,
Petitioner,

v.

WALKME LTD.,
Patent Owner.

_____

Case IPR2023 - 01379
Patent No. 11,258,732

_____

PATENT OWNER'S RESPONSE FOR *INTER PARTES* REVIEW OF CLAIMS 1-6, 9-16, AND 18-21 OF U.S. PATENT NO. 11,258,732 B2

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EXHIBIT LIST

EXHIBIT NO.	**DESCRIPTION**
Ex2001	Expert Declaration of Ivan Zatkovich in Support of Patent Owner's Response with respect to Claims 1-6, 9-16, and 18-21 of U.S. Patent No. 11,258,732 ("**Zatkovich Decl.**")
Ex2002	*Curriculum Vitae* 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]

EXHIBIT NO.	**DESCRIPTION**
Ex2012	[RESERVED]
Ex2013	U.S. Patent No. 11,558,317 [Ex1001 in IPR2024-00065]

I. INTRODUCTION

Patent Owner WalkMe Ltd. submits this Patent Owner Response in opposition to Petition (Paper 2) and Institution Decision ("ID", Paper 10) in IPR2023-01379, regarding Claims 1-6/9-16/18-21 of Patent 11,258,732 ("'732 Patent", Ex1001).

Petitioner WhatFix Inc. presents a shotgun approach of applying against overlapping claim sets, three sets of main references in five grounds, against 18 claims of the '732 Patent.[1] None of the references relied upon in any of these grounds are offered as anticipating the claimed inventions (Petition, 7). None of the grounds anticipate or render obvious any of the challenged claims. (Ex2001, ¶¶2).

Petitioner's flawed analysis starts with a defective understanding of the '732 Patent and the problems it solved. Fig 3 and the claimed invention are directed to how a "natural language conversation" is defined (step 320), associated with an automated process (step 330) and then published (step 340), requiring more than the existence of a conversation tied to an automation process. (Ex1001, 14:8-30). (Ex2001, ¶62-63; Ex2003, 186:9-21).

[1] Petitioner has not challenged Claims 7-8/17.

But the Petition (3-4) and Petitioner's expert Dr. Beigi (Ex1003, ¶¶23-24), misstate the proper scope of the '732 Patent's claims. (See Ex2003,182:24-183:21). Their truncated summaries focus on the wrong figure, Fig. 2A (related to a published conversation), instead of Fig. 3 (which generates the conversation).

When considered in view of the correct invention, Petitioner's Grounds crumble.

Grounds 1-2 rely 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 "automate the process of creating an email signature" (Ex1004, 2);

(2) a video created by Symons and contemporaneously posted on *Vimeo* (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 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".[2] (Ex1009, 2).[3]

As contemporaneous comments to the Symons Blog confirms (Ex2005), and as Baetens indicates, "Symons" sequestered 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 simple program" (Ex2005).

[2] Declarations from Symons (Ex1008), Baeten (Ex1009), the translator (Ex1007) were submitted to authenticate and establish as printed publications the Symons Blog, the Symons Video and the Beatens Article. The details therein are not prior art.

[3] All emphasis added unless otherwise stated.

Nobody answered. Dr. Beigi also ignored them. He too was 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).

Symons' failure to provide these details was intentional (as Baetens confirmed) and fatal to Grounds 1/2. The '732 Patent claims are about the missing "internals" and how a "non-programmer" can generate the "conversation" in the "natural language interface" to solve the stated problems by defining the conversation, associating the conversation (after being defined) with an automation process, and publishing the conversation. (Ex1001, Claims 1/11/18; Ex2001, ¶¶57,62).

Ground 1 is based on multiple informal "inherency" arguments that:

- since a conversation is shown using "natural language" in the Symons Video, it "must have been defined" (Petition 18; Ex1003, ¶¶78, 88), and
- since the values are used, it is "thus" "associated" with the automation process (Petition 18; Ex1003, ¶90), and
- since the chatbot displayed the conversation, it must have been "published" to the chatbot (Petition 20; Ex1003, ¶94-95).

But, as Mr. Zatkovich explains, these informal inherency arguments fail, since without knowing the "internals", Dr. Beigi does not and cannot know:

- if the "conversation" is in fact a "natural language conversation" using natural language processing,
- if the "conversation" was in fact "associat[ed]" with the email signature generation software automation process in order for "[t]his information [to] get[] passed on to the RPA bot", and
- even assuming it was "associate[ed]", whether it was "associated" before or after it was "defined". (Ex2001, ¶¶135-231; Ex2003, 243:11-244:3).

Dr. Beigi admittedly does not know. (Ex2003, 213:18-214:9).

As Mr. Zatkovich confirms, the "showcase"/"demo" could have been prepared in ways that would **not** meet these claims (Ex2001, ¶154). Thus, the conversation's mere existence would not inherently meet the claims. *Paul Hartmann AG v. Attends Healthcare Prod., Inc.*, No. 2022-1724, 2024 WL 911880, *3-4 (Fed. Cir. Mar. 4, 2024) ("limitation at issue necessarily must be present" in the combination to be inherent; reversing PTAB finding of inherency).

Grounds 1/2 also offer Williams (Ex1011) to argue it would be "obvious" for Symons to "define an automation process" [Preamble] in view of Williams teaching "RPA robots are designed to handle multiple requests, executing different types of automation processes". (Petition, 15; Ex1003, ¶¶80-82, 100-104, 107-110). But this passage does not teach "using a single chatbot-RPA to handle multiple requests"

(Ex2001, ¶¶205). More importantly, like Symons, neither this passage nor Williams in general provides any explanation about "defining an automation process" as required in the [**Preamble]**, nor how conversations are generated in chat bots as required in [**a**]-[**e**]. (Ex2001, ¶¶189).

As discussed herein and by Mr. Zatkovich, Symons and Williams also do not teach or render obvious the challenged dependent claims. (Ex2001, ¶¶136).

Grounds 3/4 fare no better. Allen (Ex1014) is the primary reference and the only basis for the ID. (ID, 13-23). Allen discloses a system called PLOW, which can be trained to perform a task. (Ex2003, 252:12-18). Ground 2/3 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.

Then illustrates:

> 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 enough to support Grounds 3/4.

Significantly, this "conversation" was not presented in a "natural language interface" as required by [**a**]/[**d**]. (Cf. Ex2001, ¶¶321-322; Ex1003, ¶¶150-151, 162-164; Petition, 37-38, 42-43). But, as the experts agree, "What is the title of the book?" is presented in Allen using a "form" like FIG. 6. (Ex2003, 257:6-24; Ex2001, ¶321). A form is not a "natural language interface". (Ex2003, 60:24-61:3, 59-60; Ex2001, ¶170 (accord)). Thus, Grounds 3/4 do not establish this "conversation" was implemented using a "natural language interface" as required in [**a**]/[**d**]. (Ex2001, ¶342).

Significantly, Allen offers no details about:

- how a conversation is generated; and
- if it is defined by the "user" before being associated with the automated process, or merely generated automatically on the fly while the conversation takes place utilizing ontological properties.

As Mr. Zatkovich confirms, it is not inherent based on the quoted conversation that a user in Allen first "defin[ed]" the conversation ([**a**]), then "associate[d]" the already defined conversation with the "book buying" task ([**b**]), then "publishe[d]" the conversation to a "natural language interface" ([**d**]) to invoke the book buying

task ([**e**]), rather than simply being generated on the fly, without any pre-defined scripting. (Ex2001, ¶354).

As discussed herein and by Mr. Zatkovich, Allen also does not teach or render obvious the challenged dependent claims. (Ex2001, ¶¶297.

Ground 5's combination of Krishnan (Ex1016)[4] and Radhakrishnan (Ex1018) also fails. (Ex2001, ¶¶452-455). Krishnan merely discloses a chatbot editor that generates a conversation which interacts with backend systems (Ex1016, 2:33-35) (i.e., using APIs or the like, not a "displayed user interface"). (Ex2001, ¶439). Ground 5 makes no claim that Krishnan teaches to implement an automated process with the conversation; instead, Radhakrishnan is offered. (Petition, 56-84; Ex1003, ¶¶217-274; *cf*. Ex2003, 280:23-281:4).

But Radhakrishnan cannot help. It uses RPA technology to **"diagnos[e]" and "correct[]"** (Ex1018, Abstract, 2:50-61, quoted in Ex1003, ¶219; Ex2001, ¶¶477; Ex2003, 278:15-24), not to automate the process of, e.g., buying a book or a ticket for a flight, like Krishnan. As Mr. Zatkovich explains, (1) Radhakrishnan is not

[4] Krishnan is expressly cited during prosecution. (Ex1001, Cover; Ex1005, 147).

analogous art to the '664 Patent claims under *Chemours Co. FC v. Daikin Indus.*, 4 F.4th 1370, 1376 (Fed. Cir. 2021) (Ex2001, ¶¶456-466), (2) fills none of the gaps left open by Krishnan, and (3) the combination to fill such gaps makes no sense. (Ex2001, ¶¶474-488). Also, (4) the rationale and application of the proposed motivation to combine makes no sense. (Ex2001, ¶¶489-493). So Ground 5 fails. (Ex2001, ¶¶4)7-430.

Grounds 2/4's reliance on Ben-Itzhak (Ex1034) is also misplaced. Ben-Itzhak relates to "content recommendations" (Ex1034, Abstract, [0002]; Ex2003, 294:14-18), a different field of endeavor than automated processes. (Ex2001, ¶278-281; Ex2003, 294:14-295:20). It solves problems unrelated to generating natural language conversations which invoke automated processes. (Ex2001, ¶282-286). Thus, it too is not analogous art under *Chemours*. Also, as Mr. Zatkovich confirms, the proposed combination makes no sense in the context of either Symons/Williams (Ground 2) or Allen (Ground 4). (Ex2001, ¶¶272-275, 417-418).

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

II. BACKGROUND

A. The Proceedings

Trial was instituted solely based on Allen (Ex1014) as advanced in Ground 3 against Claim 1. (ID, 13-23). The other claims and other grounds presented were not analyzed. (*Id*., 23). This is Patent Owner's first substantive submission.

This proceeding is related to IPR2023-01368 (involving U.S. Patent No. 10,819,664, Ex2011)[5] and IPR 2024-00065 (involving U.S. Patent No. 11,558,317, Ex2013). The '664 and '317 Patents have a common specification to the '732 Patent but claim different inventions. The '732 Patent is related to "defining an automation process" and how the "natural language conversation" which invokes that "automation process" is generated, e.g., "defining the conversation", "associating the conversation with the automation process", and "publishing the conversation", as illustrated in FIG. 3. By contrast, the '664 and '317 Patent

[5] 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).

claims relate to invoking an automated process by a natural language conversation, as illustrated in Fig. 2A, albeit with different scope and breadth. These are markedly different inventions.

B. The ’732 Patent

The ’732 Patent includes substantially more relevant disclosure than discussed by Dr. Beigi (Ex1003, ¶¶23-24) or the Petition (3-4). (See Ex2001, ¶¶57-97, ID, 3-7). FIG. 3, steps 320, 330, 340 are directly related to the claims. (Ex1001, 14:8-30; Ex2001, ¶¶63; Ex2003, 186:9-21). The Petition (3-4) and Dr. Beigi (Ex1003, ¶¶23-24) omit FIG. 3 entirely and focus instead of FIG. 2A, which relates to the ‘664 and ‘317 Patent claims, not the ’732 Patent claims.

1. Claims

The ’732 Patent includes 21 claims. Claims 1/11/18 are independent. Representative Claim 1 (ID, 8; Ex2001, ¶¶46-47) reads as follows:

> 1. A method for **defining an automation process**, wherein the automation process is configured to be invoked in response to a conversation of a user with a natural language interface, the method comprising:

[a] **defining a conversation** to be implemented by a **natural language interface**, wherein the conversation is configured to obtain from the user one or more values to one or more parameters associated with the automation process;

[**b**] **associating the conversation with the automation process**, [**c**] wherein the automation process is configured to utilize a displayed user interface of a computer program to simulate sequence of interactions with the displayed user interface of the computer program and execute a functionality of the computer program, wherein the automation process is a parameterized automation process depending on the one or more parameters; and

[d] publishing the conversation to be accessible to a user **via the natural language interface**, wherein the user is enabled to interact with the natural language interface in accordance with the conversation, **[e]** whereby the parameterized automation process is **invoked automatically by the natural language interface** and using one or more values provided by the user to the natural language interface for the one or more parameters.

(ID, 8). See Ex2001, Appendix A and Ex1001 (for the remaining claims, including unchallenged Claims 7-8/17).

2. Technical Problem/Solution

Several technical problems sought to be addressed by the '732 Patent are identified, including "provid[ing] for a user-friendly manner of defining functionality of chat bots" (Ex1001, 4:59-61). The Patent 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.*, 5:29-33).

It also seeks to overcome difficulties in "[i]ntegration of a new system into an organization", which presents challenges with "migrating large amounts of employees to new platforms" and "train[ing]" uses on such new platforms (*Id.*, 5:38-41).

While less pertinent here, "[a]nother 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.*, 5:49-52). This later technical challenge can arise, when there are "layout modifications of the front-end of the program or website" which can cause difficulties identifying correct front-end elements (*Id.*, 5:54-55).

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.,* 8:38-40), neither the Petition, Dr. Beigi, nor the ID identified any other relevant problem. (Petition, 3-4; Ex1003, ¶¶23-24; Ex2003, 343:9-22; ID, 3-7).

One technical solution offered in the '732 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, 6:3-7; see ID, 3). Examples of "point and click editor, or other user interface that can be used by any non-programmer users" are provided to define "[t]he parameters of the conversation, as well as the automation flow process." (*Id.*, 6:7-10). In this context, as Mr. Zatkovich explained, a POSITA would understand that the "defining" in the '734 Patent is being used as the operation of a user in an editor setting out the automation process that will be performed. (Ex2001, ¶60).

The ID explains how a user generates the conversation and the automated processes:

> The ’732 Patent discloses exemplary embodiments for a non-programmer user to define a flow of conversation for a chat bot. See, e.g., Ex1001, Figs. 1-3. For example, **a user** “may define which questions the bot would ask, which remarks it will make, [and] flow control operations that may be based on evaluated conditions.” *Id.* at 8:45-49. Further, “**the user may** define for a conversation flow which automation process is invoked,” or “that a conversation is associated with multiple automation processes, one of which may be selected based on the interaction with the user.” *Id.* at 8:49-55. The automation process may also be defined **by a user**. *Id*. at 11:27-28.

(ID, 3-4).

Another technical solution taught in the ’732 Patent is “to use 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 [graphical user interface] of the target system, in a similar manner to the manner in which the user operates.” (Ex1001, 5:62-6:1; ID, 3).

Additionally, “the chat bot may be implemented on ... **a third-party messaging service**. ... 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." (Ex1001, 6:26-31). A link may be included to "open" and "execut[e]" the automation process. (*Id.*, 6:39-40).

3. The Claimed Invention

Claims 1/11/18 provide for "defining an automation process" [Preamble] and "defining a conversation … configured to obtain … parameters associated with the automation process." ([**a**]). They further provide that, after the conversation is defined to obtain parameters that will be needed to implement an automation process ([**a**]), that conversation is "associate[ed] with the automation process" which "depend[s] on the one or more parameters" ([**b**]) and then the defined, associated conversation is "publish[ed] to be accessible to a user via [a] natural language interface" ([**d**]).

FIG. 3, as discussed at Ex1001, 14:8-30, corresponds to the claimed method (see Ex2001, ¶¶63; Ex2003, 186:9-21), and includes:

- Step 320 ("define a conversation flow"; Ex1001, 14:8-14),
- Step 330 ("ass[oci]ate an automation process with the conversion"; Ex1001, 14:15-24), and
- Step 340 ("publish the conversation", Ex1001, 14:25-30):

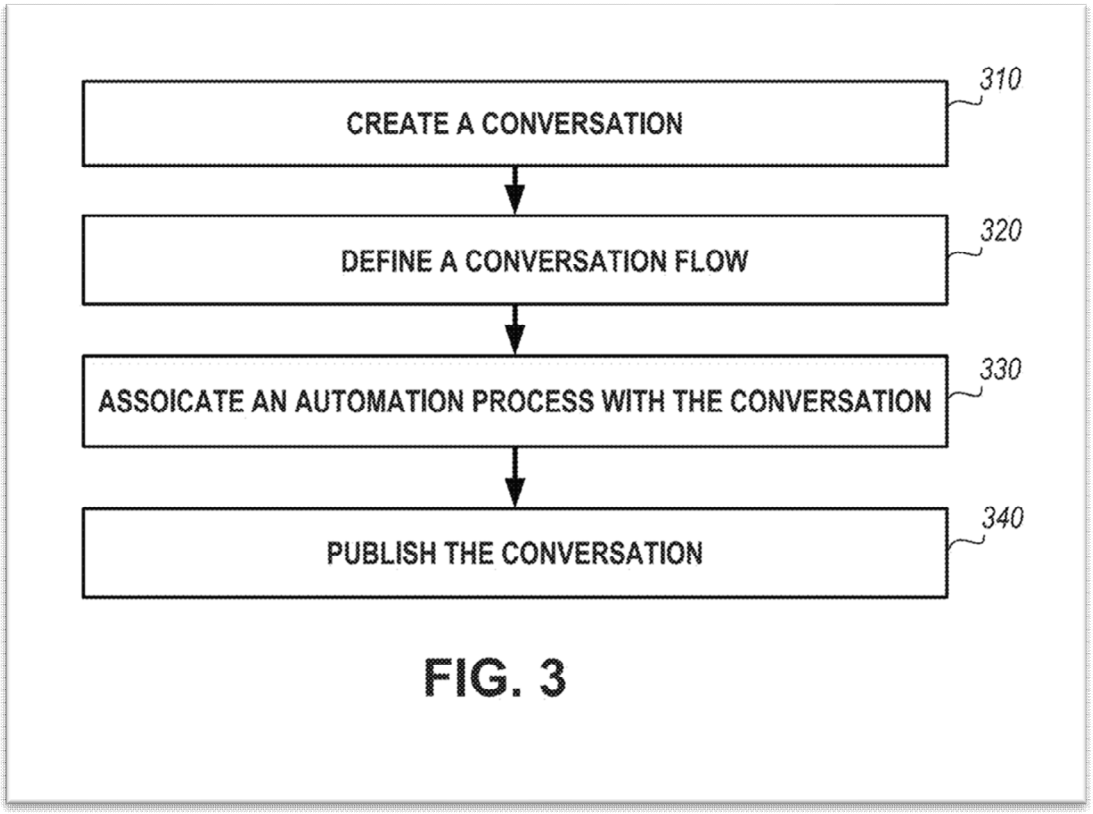


FIG. 3

(Ex1001).

Following the method described by FIG. 3, Claims 1/11/18 can be grouped into three separate processes:

- **[a]:** "**defining a conversation** to be implemented by **a natural language interface**" which "is configured to obtain from the user one or more values of one or more parameters associated with the automation process" (*see* Ex1001, Step 320; Ex2001, ¶¶47);
- **[b]/[c]:** "**associating the conversation with the automation process**", wherein the automation process "is a parameterized automation process

depending on the one or more parameters" and "utilize[s] a displayed user interface of a computer program to simulate a sequence of interactions with the displayed user interface of the computer program and execute a functionality of the computer program" (*see* Ex1001, Step 330; Ex2001, ¶¶47); and

- **[d]/[e]** "**publishing the conversation to be accessible to a user via the natural language interface**", wherein "the user is enabled to interact with the natural language interface in accordance with the conversation" and "the parameterized automation process is invoked automatically by the natural language interface and using [the] values provided by the user to the natural language interface for [the] parameters" (*see* Ex1001, Step 340; Ex2001, ¶¶47).

Further, the following separate components are required to interact in a specific way to address the technical problems:

- "**a natural language interface**" to interact with the "user" using the defined and associated "conversation" after it is "published" ([**a**]/[**d**]/[**e**]),
- "**a computer program**" corresponding to the "**target system**" discussed above (Ex1001, 5:6-13), with its own "**displayed user interface**" ([**c**]), and
- a "**parameterized automation process**" to be automatically invoked by the "natural language interface" which "simulate[s]...[user] interactions with the displayed user interface of the computer program and execute[s] a functionality of the computer program." ([**c**]/[**e**]).

Although not expressly called out in the claims, the ’732 Patent also teaches using an editor 110 to define, associate, and publish the conversation, as discussed with respect to FIG. 3. (Ex1001, 14:8-30; *see also* FIGs. 5A-5D; ID, 5).

C. The Grounds

Trial was instituted on the following grounds:

Ground	**Challenged Claims**	**35 U.S.C. § (Post AIA)**	**Basis/Reference**
1	1-4/9-14/18-19	103	Symons Blog (Ex1004), Symons Video (Ex1005/Ex1006/Ex1007/ Ex1033), Williams (Ex1011)
2	6/16/21	103	Symons Blog, Symons Video, Williams, Ben-Itzhak (Ex1034)
3	1-5/9-15/18-20	103	Allen (Ex1014)
4	6/16/21	103	Allen, Ben-Itzhak
5	1-5/9-15/18-20	103	Krishnan (Ex1016/Ex1017), Radhakrishnan (Ex1018)

(ID, 9-10; Petition, 7). 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, 6-7; Ex1003, ¶¶50-57).

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).

Petitioner proposed a POSITA "in the field of the '732 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 alternatively "would have [had] five to six years of experience working on NLP or automation processes." (Petition, 5-6 (citing Ex1003, ¶¶45-47)).

The ID found "Petitioner's proposal is consistent with evidence of record, including the asserted prior art and the '732 patent" and adopted it for purposes of

the ID. (ID, 12). But as Mr. Zatkovich explains, this proposed level of skill is inconsistent with Factors (4)-(6). (Ex2001, ¶¶38-42).

The '732 Patent claims relate to "defining a conversation used to invoke an automation process as illustrated, for example by the method shown in FIG. 3." (Ex2001, ¶39; Ex2003, 280:23-281:10). Thus, experience with chat bots using NLP and automation processes is relevant. (Ex2001, ¶42).

The proposal is inconsistent with Symons and Factors (4)-(6). (Ex2001, ¶38). Symons and Baeten demonstrated their view that "possibilities to combine RPA bots with chatbots" were relatively new, involved "evolving rapidly" technologies, and were not well developed. (Factor 4; Ex2001, ¶40; Ex1004,1; Ex1009, 2 (a question first asked "a few months ago"); Ex2010, 3). Symons had experience with automated processes (albeit he had started less than 3 weeks prior, Ex1008, ¶¶2-4). For the "showcase", he "join[ed] forces with Arinti", a recently-affiliated company, to obtain a "chatbot" to collect information needed for the Cronos signature generator. (Ex1004, 1-2; Ex1009, 2).

Dr. Beigi (Ex1003, ¶¶45-47) did not account for:

Factor (4): The technology "evolving rapidly" (Ex1004, 1-2; Ex1009, 2; Ex2007-Ex2008; Ex2001, ¶40);

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

Factor (6): Active workers in the field, like Symons, (Ex2003, 112:12-24; Ex2001, ¶41) had less experience than proposed.

The record demonstrates a more appropriate level of skill would be **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**. (Ex2001, ¶42 Petition, 5-6; Ex1003, ¶46).

Under Patent Owner's more appropriate level, Dr. Beigi's interpretation of what a POSITA would understand are materially 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. (Ex2001, ¶43).

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 USC §282(b). 37 CFR §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 '732 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 no claim terms, instead adopting (without explaining) the "ordinary and customary meaning" of the terms. (Petition, 6; Ex1003, ¶¶49). The ID agreed. (ID, 12-13).

Patent Owner agrees the '732 Patent claim terms should have their "ordinary and customary meanings" as understood by a POSITA as of November 5, 2017, with the following notable exceptions. (Ex2001, ¶98-100).

A. "computer program"/"displayed user interface of the computer program"

The '732 Patent adopted a special meaning of "**computer program**" to refer to a "**target system**", which has a functionality that is invoked through its displayed user interface:

> **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. The target system may have a user interface, such as a

Graphical User Interface (GUI), that the user may utilize in order to activate the functionalities of the target system.

(Ex1001, 5:6-13).

As Mr. Zatkovich confirms, a POSITA would understand that, based on this passage:

- a "computer program" in Claim 1/9-11/18 refers to "a target system whose functionality is invoked through by the automation process using its displayed user interface, such as a graphical user interface". (Ex2001, ¶100); and
- the "displayed user interface of [a]/[the] computer program" in Claims 1/10-11/18, means "the displayed user interface of **the target system** that the user may utilize in order to activate the functionalities of the target system." (*Id*.).

[**c**] uses the term "displayed user interface of [a]/[the] computer program" multiple times:

> wherein the automation process is configured to utilize **a displayed user interface of a computer program** to simulate sequence of interactions with **the displayed user interface of the computer program** and execute a functionality of **the computer**

> **program**, wherein the automation process is a parameterized automation process depending on the one or more parameters

As Mr. Zatkovich confirms, a POSITA would understand that each instance of "computer program" refers to the **same** "computer program" and each instance of "displayed user interface" refers to the **same** "displayed user interface". (Ex2001, ¶226). *See*, *e.g.*, *Tech. Consumer Prods. v. Lighting Sci. Grp. Corp.*, 955 F.3d 16, 22 (Fed. Cir. 2020) (reversing PTAB for misapplying antecedent basis: "'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 no substantial evidence supporting the Board's obviousness determination based on mapping that runs afoul of a claim's antecedent basis).

B. "defining" terms

A POSITA as of November 5, 2017 would understand that the '732 Patent uses the term "defining" in Claims 1/2/9/11/12/18/19 more narrowly than the term might otherwise be understood in a vacuum, like Dr. Beigi suggests. (*Cf*. Ex1003, ¶¶101-107).

As discussed, the pertinent technical problems and solutions presented in the '732 Patent revolve around making the "defining" processes for "automation processes" and "conversations" "user-friendly" and capable of being performed by "nonprogrammers", "without the need of using dedicated APIs, programming languages, or the like". (Ex1001, 4:59-61, 5:29-33 & 6:1-2; Ex2001, ¶¶57-61; Ex1003, ¶23).

As the '732 Patent explains, "[a] novice user may define in a simple manner the parameters of the conversation that the chat bot implements and the automation process that would be executed based thereon using this seemingly simple techniques, a fast and efficient manner of providing chat bot functionalities is enabled." (Ex1001, 6:20-25). For example, a "point and click editor, or other user interface that can be used by any non-programmer users" to define "[t]he parameters of the conversation, as well as the automation flow process". (Ex1001, 6:7-10).

As Mr. Zatkovich confirms, a POSITA, as of November 5, 2017, would understand the '732 Patent uses "defining" in Claims 1/2/9/11/12/18/19 as "the process of allowing non-programmers and novice users to create automation

processes and conversations without relying on programming skills." (Ex2001, ¶100). *Accord Timekeeping Sys., Inc. v. PatrolLIVE Int'l, Inc.*, No. 1:13CV01201, 2017 U.S. Dist. LEXIS 84048 (N.D. Ohio June 1, 2017) (adopting construction of "defining" to mean "creating or describing **on a computer**", based on use of term in specification requiring use "**on a computer**").

For the [**Preamble**] of Claims 1/11/18, a POSITA as of November 5, 2017, would understand the '732 Patent uses the term "defining an automation process" [**Preamble**] to mean "generating by a non-programming user via a user interface an automation process flow including a sequence of interactions in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages or the like." (Ex2001, ¶¶100). Since the [**Preamble**] provides antecedent basis for the use of the term "automation process" throughout the claim necessary to give meaning and life to the claims, a POSITA as of November 5, 2017 would understand that it is limiting. See, e.g, *Proveris Scientific Corp. v. Innovasystems, Inc*., 799 F.3d 1367, 1372-74 (Fed. Cir. 2014) (Ex2001, ¶227).

Similarly, for [**a**] and Claims 2/12/19 (and Claims 2/9/11/19), a POSITA, as of November 5, 2017, would understand that the '732 Patent uses the term "defining a conversation" to mean "generating a conversation flow and its associated parameters (to be implemented by a natural language interface) by a user via software operating on the user device in a manner practicable by novices and non-programmers without needing to use dedicated APIs, programming languages or the like." (Ex2001, ¶¶100).

C. Order of "defining a conversation" [a], "associating the conversation with the automation process" [b], and "publishing the conversation" [d]

Steps [**a**]/[**b**]/[**d**] of Claims 1/11/19 need to be performed in the claimed order:

[**a**] sets out the antecedent basis for a "conversation" used throughout the remainder of the claims: "**defining <u>a</u> conversation** to be implemented by a natural language interface";

[**b**] grammatically then uses the "conversation" already defined in [**a**] in the next step: "**associating <u>the</u> conversation with the automation process**";[6]

[**d**] grammatically utilizes both "the" conversation (already defined in step [**a**] and associated in step [**b**]) when it publishes "**<u>the</u>**" conversation in accordance with claim: "**publishing <u>the</u> conversation to be accessible to a user via the natural language interface**".[7]

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[6] As Mr. Zatkovich explains, a POSITA would understand that the terms "associating the conversation with the automation process" in [**b**] mean "connecting or matching a conversation configured to obtain from the user one or more values to one or more parameters with a parameterized automation process depending on the one or more parameters." (Ex2001, ¶118).

[7] As Mr. Zatkovich explains, a POSITA as of November 5, 2017 would understand the term "publishing the conversation" in [**d**] means "making the conversation accessible to a user via the natural language interface, wherein the user is enabled to interact with the natural language interface in accordance with the conversation." (Ex2001, ¶¶120-121).

Based on logic, grammar, uses of antecedent basis, and the '732 disclosure setting forth the order of these steps in the context of FIG. 3, a POSITA would understand that the claims require that step "defining" "**a** conversation" ([**a**]) to be performed prior to the step "associating" "the [already defined in [**a**]] conversation with the [already defined in [**Preamble**]] automation process" ([**b**]/[**c**]), both of which are required to be performed prior to the step of "publishing" the [already defined and associated] conversation, which "invoke[s]" the associated "parameterized automation process" ([**d**]/[**e**]) (Ex2001, ¶¶100. *TALtech Ltd. v. Esquel Apparel, Inc.*, 279 Fed. Appx. 974, 978 (Fed. Cir. 2008) ("claim requires an ordering of steps when the claim language, as a matter of logic or grammar, requires that the steps be performed in the order written, or the specification directly or implicitly requires such a narrow construction"; citing *Altriris, Inc. v. Symantec Corp*., 318 F.3d 1363, 1369-70 (Fed. Cir. 2003)).

Although as Dr. Beigi observed at his deposition (in his "expert" opinion), the order of "defining" and "associating" is not "inherent" for any conversation merely because it is "published" (Ex2003, 243:11-244:3), nonetheless, based on

logic, grammar and other factors discussed, a POSITA would understand that the order set forth in the claims is required. (Ex2001, ¶¶100).

V. ALL CHALLENGED CLAIMS ARE VALID

A. Ground 1: Symons and Williams Do Not Disclose or Render Obvious Claims 1-4/9-14/18-19

1. Symons

Grounds 1/2 rely 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,[8] 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 in October, on the project first thought about by Ariniti "a few months earlier" (Ex1009, 2).

[8] November 5, 2017 is the agreed upon earliest effective filing date for this IPR (Petition, 5; Ex1003, ¶22; Ex2001, ¶45; ID, 3 (noting priority)).

Grounds 1/2 cobble together the October 17 Symons Blog (Ex1004), with his video (Ex1033), selected screen shots (Ex1005) and English language translations (Ex1006), and the Baetens Blog, acting like this hodgepodge collection of documents is a single "**Symons**" reference. (Ex1003, ¶¶58-64)

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 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; Ex1009, 2). Baetens 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 no 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, ¶ 62). Dr. Beigi confirmed that he does not know how "the internals" of

Symons work and 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 Blog made on *Medium* illustrate 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; Ex2001, ¶147). Mr. Zatkovich confirmed that none of the Symons references "provide any information on what Dr. Beigi calls the 'internals', which, … Baetens confirmed was intentional." (Ex2001, ¶144 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 [], 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), there is no discussion of how the conversation of the chatbot was defined, if it was associated with the automation process before or after the conversation was generated, and if the conversation was published; rather the suggestion was that the conversation was programmed using code, in contrast to the user-friendly definition process as discussed in the '732 Patent (Ex1001, 4:59-61, 5:29-33);
- 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 '732 Patent (Ex1001, 5:62-6:1), let alone choose between "automation processes" based on the elements of a natural language conversation in the chatbot;
- the RPA was executed on a different device than the user device on which the chatbot was implemented (Ex2001, ¶153; Ex2003, 219:24-220:5 (Dr. Beigi can't tell)); and
- the RPA did not interact with a single target software, like WAZE™ (as discussed at Ex1001, 6:26-37), but instead implemented a

> process invoking at least 3 or 4 different pieces of software. (Ex2001, ¶¶153; Ex2003, 217:16-218:2, 218:9-13).

(*See* Ex2001, ¶153).

Mr. Zatkovich confirmed that a POSITA as of November 5, 2017, "would understand that there are many ways a conversation for a chatbot could be developed." Ex2001, ¶154. Dr. Beigi also confirmed an automation process could be defined, and associated with a conversation that is defined, **after** the association. (Ex2003, 243:11-244:3).

2. Williams

Ground 1 relies upon an IBM article, Williams (Ex1011), for the proposition that chatbots were known and 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, 2; *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" and:

- Williams' discussion on chatbots does not provide any information as to **how** conversation flows **are generated or associated** with an automation process;
- Williams' discussion on chatbots does not suggest that a single conversation of a chatbot can be associated to multiple RPAs, and the provided example (the supplier asking for their payment status, as a single RPA) suggests otherwise; and
- The disclosed "Intelligent automation continuum" simply provided a taxonomical definition of RPAs and IPAs.

(Ex2001, ¶163).

Williams does not fill any of the gaps left open by Symons' intentionally opaque showcase/demo. (Ex2001, ¶163).

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

a. Symons and Williams Do Not Teach How to Define an Automation Process or Conversation, Let Alone by Using the Claimed Method

Claims 1/11/19 have different preambles, but, as pertinent here, each cover:

- "defining an automation process …." in the **[Preamble]**;
- "defining a conversation to be implemented by a natural language interface" which obtains values for parameters associated with the automation process [in [**a**]];
- "associating the conversation [already defined in [**a**]] with the automation process [already defined in the **[Preamble]**]" [in [**b**]]; and
- "publishing the conversation to be accessible to a user via the natural language interface" [in [**d**]].

"Symons" does not disclose anything about **how** an automation process is defined or **how** the conversation in the Arinti chatbot was generated, including whether a user <u>first</u> **defined** a conversation, whether the user <u>then</u> **associated** that defined conversation with the Cronos email generating process, and whether the user <u>then</u> **published** the defined and associated conversation to a natural language

interface. (Ex1004-Ex1007; Ex1009; Ex1033). As Baetens confirmed, this was intentional. (Ex1009, 2). Comments on Medium confirmed that those active in the field at the time could not figure out these gaps--nor can Dr. Beigi today. (Ex2005; Ex2001, ¶147, 152; Ex2003, 220:11-222:16). This omitted disclosure is fatal to Ground 1. (Ex2001, ¶212).

Knowing the "internals" were withheld, Dr. Beigi, instead stated, **without any support**, that because the conversation existed, these elements "must" have been met, asserting:

- since a conversation is shown using "natural language" in the Symons Video, it "**must** have been defined" (Ex1003, ¶¶78, 88);
- since the values are used by the Symons RPA it is "**thus**" "associated" with the automation process (Ex1003, ¶90); and
- since a screen shot shows a conversation between a chatbot and a user, the conversation **was** "published" to the chatbot (Ex1003, ¶¶94-95).

In essence Dr. Beigi makes an informal inherency obviousness argument, without demonstrating how and why these features were necessarily present in Symons. The Petition mirrors, and references, Dr. Beigi's analysis with minimal explanation. (Petition, 18-21).

"[I]nherency may supply a missing claim limitation in an obviousness analysis," but "the use of inherency ... must be carefully circumscribed in the context of obviousness." *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186, 1194–95 (Fed. Cir. 2014). A claim limitation is inherent "only when the limitation at issue is the 'natural result' of the combination of prior art elements." *Id.* (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981). In other words, "the mere fact that a certain thing may result from a given set of circumstances is not sufficient" to find a limitation as inherent. *Oelrich*, 666 F.2d at 581 (citation omitted). Instead, the "limitation at issue necessarily must be present" in the combination. *PAR Pharm.*, 773F.3d at 1195–96.

As *Paul Hartmann* recently confirmed, the failure of the PTAB in finding obviousness to explain "the proposed combination would **necessarily** have the [claimed] characteristics" "does not satisfy the high 'necessarily so' standard required for inherency." 2024 WL 911880, *3 (citing *Persion Pharm. LLC v. Alvogen Malta Operations Ltd*, 945 F.3d 1184, 1191 (Fed. Cir. 2019) ("Inherency . . . is a high standard.")).

Ground 1's reliance on Dr. Beigi's one-line conclusory opinion is not sufficient to establish that these untaught claim features are necessarily present. *Global Tel*Link Corp. v. Securus Technologies, Inc.*, 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."; citing *Arendi S.A.R.L. v. Apple*, 832 F.3d 1355, 1362 (2016)); accord *Securus Tech, Inc. v. Global Tel Link Corp.,* 701 F.App'x 971 (Fed. Cir. 2017)("Securus' case against the patentability of the claimed invention amounts to 'mere conclusory statements,' which fall short of 'some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'"); *see also* 37 CFR §42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.").

As the Federal Circuit in *Securus* warned, "[s]uch short-cut logic would lead to the conclusion that any and all combinations of elements known in this broad field would automatically be obvious, without the need for any further analysis. The

Board, therefore, properly rejected Securus' assertion of obviousness." *Id*. at 976-977.

Dr. Beigi's informal inherency argument fails, since without knowing the "internals", Dr. Beigi does not know:

- if the "conversation" is a "natural language conversation" using natural language processing, as everyone concedes is required by the '732 Patent;
- if the "conversation" was "associat[ed]" with the email signature generation software automation process in order for "[t]his information [to] get[] passed on to the RPA bot"; and
- even assuming it was "associate[ed]", whether it was "associated" after the conversation was "defined" and published. (Ex2001, ¶¶326).

As Dr. Beigi admitted, he simply does not know. (Ex2003, 213:18-214:9).

Here, as Mr. Zatkovich confirmed in exhausting detail, all the things that Ground 1 informally argues are inherently present need not have been generated in the claimed manner, and the "showcase"/"demo" could have been prepared in many ways that would **not** meet these claims. (Ex2001, ¶¶154). *Paul Hartmann,* 2024 WL 911880, at *3 ("limitation at issue necessarily must be present" in the combination to be inherent for obviousness; reversing PTAB finding of inherency).

For example, Mr. Zatkovich explains that a POSITA would understand "the display provided in Symons **would not inherently be disclosed using the novel steps of the '732 Patent of "defining", "associating… with an automation process" or "publishing" the conversation, in that order**." It "**may have simply been the result of an editor in a video editing software**" or "**been 'hard-coded' to provide the responses it did, as was common at the time."** (Ex2001, ¶220; see also ¶¶221-225).

Dr. Beigi agreed that the "order" of the steps of defining and associating was not inherent in Symons:

> So I don't think that there's anything inherent [in the order of defining versus associating just because a conversation exists] where you would have to say specifically, this one has to happen until I go do that one

(Ex2003, 243:11-244:3).

b. Ground 1's Obviousness Arguments for the [Preamble] and [a] Also Fail

Without sufficient disclosure, Ground 1 offers two obviousness arguments:

1. For the [**Preamble**], it would be obvious in view of Williams to define an automation process (Ex1003, ¶¶ 80-82); and
2. For [**a**], it would have been obvious without reference to any other prior art to define a conversation based on nothing more than Dr. Beigi's *ipse dixit* that it "would be better able to interact" with a user if "defined" (Petition, 15, 18; Ex1003, ¶¶80-82, 89).

Neither of these obviousness arguments are well enough supported or reasoned under *Arendi*, to fill the gaps left by Symons with respect to the [**Preamble**]/[**a**]. (Ex2001, ¶¶188-210, 211-225). Dr. Beigi's failure to offer an obviousness analysis for [**b**]/[**d**] is fatal.

i. ***[PREAMBLE]***

With respect to "defining an automation process" as required by the [**Preamble**], Ground 1, incorrectly relies on Williams' the "Watson Policy Management Library", which allows for "rules and policies" to be updated "outside of the RPA product*"*. (Ex1011, 4; quoted in Ex1003, ¶80; Petition, 15). As Mr. Zatkovich explains, however, "this does not relate to defining an automation process" at all. (Ex2001, ¶206).

Ground 1 also relies on Symons-Williams combination that would have allegedly "result[ed] in a chatbot-RPA bot system capable of handling … other

requests" (Petition, 15; Ex1003, ¶¶80-82). As Mr. Zatkovich confirms, Willams does not support this alleged result (Ex2001, ¶¶207-209, but more importantly here, that result has nothing to do with "defining an automation process" as required in the [**Preamble**]. (Ex2001, ¶208).

The alleged motivation and resulting combination make no sense. (Ex2001, ¶¶183-191).

ii. ***[a]***

Ground 1's obviousness arguments with respect to [**a**] are untenable under *Arendi*. (Petition, 15-18; Ex1003, ¶89). Without even bothering to cite any reference teaching "defining a conversation" in accordance with [**a**], Ground 1 argues "it would have been obvious [to define a conversation] because a chatbot would be better able to interact with the user when the conversation (e.g., which questions to ask) is defined." (*Id.*).

Ground 1's analysis does not address [**a**]'s full scope, which requires "defining a conversation **to be implemented by a natural language interface"** in addition to requiring the conversation is configured "to obtain from the user one or more values to one or more parameters associated with the automation process".

([**a**]). As discussed in the next section, Symons does not inherently disclose that its conversation is a "natural language conversation", and this obviousness analysis does not purport to fill that gap.

Thus, as discussed below and as Mr. Zatkovich confirms, for a "showcase"/ "demo" like Symons, a POSITA as of November 5, 2017, could have generated a "hard-wired" conversation from a non-NLP "chat bot", which would not be defined to be "implemented by a natural language interface". (Ex2001, ¶¶165-187, 200, 223; see also next section).

c. [a]: Symons Does Not Disclose Its Conversation Is Implemented by a "Natural Language Interface"

As discussed above, [**a**] not only requires "defining a conversation", but it is "to be implemented by a natural language interface". Similarly, the [**Preamble**] and [**d**] also requires the "natural language interface". (See also Ex1001, Claims 4-6, 14-16, 20-21).

Both sides recognize that the claimed "natural language interface" must rely on natural language processing to understand, process, and generate a response to human natural language input. (Ex2001, ¶169; Ex2003, 63:15-64:17)).

However, Symons does not disclose what kind of "chatbot" the Arinti "chatbot" used for the "showcase"/"demo" was, and whether it was a "natural language interface" as that term would be understood by a POSITA, and as required by in the [**Preamble**]/[**a**]/ [**d**]. (Ex2001, ¶¶171, 165-187).

Dr. Beigi's analysis in his Declaration to support the proposition that Symons discloses a "natural language interface" is a screen shot showing "[t]he chatbot asks a series of questions to the user to collect the user's name, job role, email address, and mobile phone number." (Ex1003, ¶77 [**Preamble**]). Otherwise, he merely states showing the same screen shot "[t]he chatbot is a natural language interface that implements the conversation". (Ex1003, ¶83; accord *id*. ¶¶94 (merely stating "the chatbot (natural language interface)", showing same figure for [**d**]), 96 (same, without figure)).

Dr. Beigi's cursory analysis that the Arinti "chatbot" is a "natural language interface", unsupported by any facts or data is entitled to "little or no weight" under 37 CFR §42.65 and relevant Federal Circuit and PTAB authority. See, e.g., *Arendi,* 832 F.3d at 1362; *Securus,* 701 F.App'x 971; *Global Tel*Link.*, Paper 44, 35.

At his deposition, Dr. Beigi explained his conclusion that the "chatbot" in Symons was a "natural language chatbot" was based on his unique understanding of the term "chatbot" in view of a 2017 article by Melendez and a definition found in the '732 Patent . (Ex2003, 141:10-16). While these sources may be relevant to construe what a POSITA would understand the '732 Patent means by the term "chatbot", that is not the issue here.

Rather, the question is what Symons (a recent college graduate, a few weeks into his new job working on RPAs) and his "new" colleague Baetens meant by the term "chatbot" for purposes of the "showcase"/"demo" when they used that term in their Blogs and the video.

Dr. Beigi did not consider this more relevant question. (Cf. Ex2001, ¶184). Since Dr. Beigi admitted he does not know any of the "internals" (or, as commentators asked, what "chatbot tool" was used, Ex2005), he does not and cannot know what Symons meant by "chatbot". (Ex2003, 213:18-214:9).

Mr. Zatkovich, on the other hand, looked to how the term "chatbot" was typically used in Blogs and articles at the time. In his opinion, "chatbot" in 2017 (like today) covered interfaces which did not use "natural language processing."

(Ex2001, ¶¶186. Dr. Beigi admitted such interfaces existed, but unlike others active in the field, he would not call them a "chatbot". (Ex2003, 191-199; Ex2007). Industry articles confirm Mr. Zatkovich's understanding. (Ex2007- Ex2008).

For example, an August 29, 2019 Blog by Khoros Staff entitled "Different types of chatbots: Rule-based vs. NLP", Expert insights, Aug. 29, 2019 (Ex19 from Dr. Beigi's Deposition (Ex2007)), illustrates how active participants in the field referred to "chatbots" not using NLP (termed "Rule-Based Chatbots") and those which did (termed "NLP Chatbots"). Simply because Dr. Beigi disagrees with the author and considers this a "form", and not a natural language interface (Ex2003, 191:9-15; 199:11-21), does not mean that Symons used the word "chatbot" in the same way Dr. Beigi believed more experienced persons like himself would use the term. The fact that others used the term "chatbot" more loosely than Dr. Beigi's refutes Dr. Beigi's inherency argument that the Ariniti chatbot must be a "natural language interface".

Even IBM, the same organization responsible for Williams, recognized in its "What is a chatbot?" webpage from 2022 (Ex2008), that chatbots can vary in complexity and do not always use NLP. (Ex2008, 3; Ex2001, ¶176). Indeed, given

the rapidity in which the Arinti-Robarana chatbot was developed by the "new" colleagues (Ex1008, 2), as Mr. Zatkovich explains, a POSITA would understand that the "chatbot" depicted in Symons is not necessarily a "natural language interface" as required by [**a**]. (Ex2001, ¶¶171, 180). Dr. Beigi's assumption is merely conjecture, given the lack of disclosure on Symons' "internals", "we only see the video, the actual interaction". (Ex2003, 214:7-9).

Petitioner has not met its burden of establishing that the chatbot in the "showcase"/"demo" **necessarily used** a "natural language interface", in view of the following evidence of record:

- nobody knows what Arinti's chatbot is;
- nobody knows how it was generated,
- the "showcase"/"demo" was created very quickly, and
- there are many uses of the term "chatbot" not utilizing NLP (which Dr. Beigi admittedly disagrees with).

See Paul Hartmann, 2024 WL 911880.

d. Symons "automated process" Does Not Interact with the Same Single "displayed user interface" of the Same "computer program" Required in [c]

Ground 1 identifies the claimed "automation process" as the Symons "RPA bot", which "automatically generate[s] the signature, save[s] it, and email[s] it back to the requester." (Ex1003, ¶78 (quoting Ex1004, 2); Petition, 14; *see also* Petition, 18-20, Ex1003, ¶¶91-93)). Ground 1 points to the same RPA bot and screen shots 10-13 of Ex1006 to allege that "Symons' automation process is configured to utilize a displayed UI of a computer program to simulate a sequence of interactions" to meet [**c**]. (Ex1003, ¶¶91-93).

But as discussed with the respect to claim construction of [**c**] (see supra, pp. 26-27; Ex2001, ¶226), a POSITA would understand that each instance of "computer program" refers to the **same** "computer program" and each instance of "displayed user interface" refers to the **same** "displayed user interface". (Ex2001, ¶223). This construction is supported by the grammar and logic of the claim and the law on antecedent basis. *See*, *e.g.*, *Tech. Consumer*, 955 F.3d at 22 (reversing PTAB); *Lemay*, 660 F. App'x 919 (reversing PTAB).

Also, Ground 1 relies upon the Symons RPA Bot interacting with both the UI of the Cronos email signature generator (Ex1006, 10-11, quoted, shown and marked up at Ex1003, ¶91), **and** interacting with the UI of "Internet Explorer" (Ex1006, 13, quoted, shown and marked up at Ex1003, ¶92). But as Mr. Zatkovich confirms, the cited UIs are two different UIs of two different computer programs. (Ex2001, ¶ 228-229). This read does not meet [**c**].

Moreover, as Mr. Zatkovich further explains, for the RPA Bot identified in Ground 1 of the [**Preamble**] to "automatically generate the signature, save it and email it back to the requester", it must interact with two more UIs and computer programs:

- the UI of Word (to 'save it") and
- an email system (to "email it back to the requester").

(Ex1006, 15 ("The RPA bot automatically copies the signature to Word file"); 16 ("The RPA bot automatically mails the Word file to the requester"); 17-20 (showing email from Symons as received by Vincent De Bie); Ex2001, ¶¶148, 227).

For at least these reasons, the Symons-Williams combinations fail. (Ex2001, ¶¶).

4. Dependent Claims

Ground 1 fails for all the dependent claims at least for the same reasons as the independent claims. (Ex2001, ¶¶164-231). Ground 1's arguments against the following claims fail for at least these additional reasons.

a. Claims 2/12/19 and 3-4/13-14—Symons/Williams Lack a Defined "order", "question elements" and "action elements"

Claims 2/12/19 further require the "defining" process further determining a "conversation flow" which "defines an order between conversation elements", including "a question element" and "an action element" "associated with automation process." Claims 3-4/13-14 depend from Claims 2/12 respectively. (Ex2001, ¶232.

As Mr. Zatkovich confirms, "Symons does not disclose how its conversation was generated, let alone if it defined a question element or an action element, or the order in which such elements are presented." (Ex2001, ¶234; *see also* Ex2001, ¶¶229-237).

Thus, Ground 1 again relies instead upon an informal inherency argument (supported only by Dr. Beigi's analysis lacking any evidentiary or logical support)

to assert that Symons defines an order. (Petition, 22-23, Ex1003, ¶99). This fails under *Arendi*. As Mr. Zatkovich explains, simply because "Symons displays questions sequentially (first, 'What is your name?', next 'What is your role?', then 'What is your email address?' and then 'What is your cell phone number?'), does not mean that there is necessarily a user defined order." (Ex2001, ¶238 (citing example)).

Ground 1 also identifies "actions" in the automation process instead of action elements. (Petition, 22-23; Ex1003, ¶98). As Mr. Zatkovich explains, "since the Symons Blog explains that collected information is merely 'passed on to the RPA robot' (Ex1004, 2), a POSITA as of November 5, 2017 would understand that the conversation itself does not necessarily have an action element that would invoke the automation process." (Ex2001, ¶240).

Ground 1's reliance on Williams to fill the gap fails. First, the explanation is completely divorced from the claim (*see* Petition, 23-24). Mr. Zatkovich confirms: "Williams provides no disclosure on how to define a conversation. Indeed, Dr. Beigi does not even offer Williams to meet **[a**]. (Ex1003, ¶¶83-89)." (Ex2001, ¶242). Moreover, even the proposed modification of "generating letterhead" (Ex1003,

¶103), which has no basis in Symons or Williams, does not meet the claim: the proposed combination "would not require the conversation to be changed at all or defining of a separate conversation flow, since the information for letterhead is the same" (Ex2001, ¶243; see also *id*. ¶240 ("selecting a conversation based on user input" "does mean the conversation necessarily determines a conversation flow").

b. Claims 3/13 – Symons/Williams Lack "message element" and "condition element" in a Defined Conversation

Claims 3/13 require that the conversation in Claims 2/12 also includes at least one "message element" **and** at least one "condition element". Ground 1 asserts Claims 3/13 only require at least one "message element" **or** at least one "condition element" and asserts Symons includes a "message element" and relies upon Williams as including "conditional logic". (Petition, 24-25; Ex1003, ¶¶105-106).

Ground 1's construction is contrary to Federal Circuit precedent. *SuperGuide Corp. v. DirectTV Enterprises, Inc.*, 358 F.3d 870, 886 (Fed. Cir. 2004). Consistent with the plain and ordinary meaning, Claims 3/13 requires both at least one

"message" elements and at least one "condition" elements. (Ex2001, ¶¶126-134, 246, 248-249).

Ground 1 does not offer both elements in Symons, and its reliance on William's teaching "conditional logic" (Ex1003, ¶106) is misplaced and untethered to any particular proposed modification in Symons. Williams' teaching that Intelligent Automation can "**perform actions based upon** observations and **conditional logic**" (Ex1003, ¶106, quoting Ex1011, 5), is also untethered and regards a process, not a conversation, as Mr. Zatkovich explains. (Ex2001, ¶252). Ground 1 also fails to provide reasoning for modifying the conversation shown in the Symons Video to include conditional logic, which would have been unnecessary. (See Ex1033; Ex2001, ¶253). *See Google v. EveryMD.Com, LLC*, IPR2014-00347, Paper 9, 18-19 (denying institution for merely providing "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").

c. Claims 4/14 – Symons is Silent and Williams Does Not Offer a Second Action Element for a Second Automation Process in the Same Conversation

Claims 4/14 further limit Claims 2/12 respectively, by requiring the conversation elements to also include "a second action element associated with a second automation process".

Ground 1, recognizing "Symons is silent", argues Claims 4/14 would be obvious based on Williams, because "Williams' system handles multiple user requests", namely "setting up a payment for the payment transaction" and "a second automation process for automatically filling in an electronic medical record for the healthcare record transaction." (Ex1003, ¶109, 107; Petition 25-26; Ex2001, ¶257). But "[n]either Symons nor Williams suggest using a single chatbot-RPA to handle multiple requests in the same conversation. Instead, Williams is directed at most to using chatbots 'in a variety of other processes and across industries' (Ex1011, at 3), without relating to a single chatbot-RPA handling multiple requests at once." (Ex2001, ¶205). Nor, as Mr. Zatkovich explains, does Williams teach that these two actions are "in the same conversation, or even in the same conversation as the

signature generation and … 'selectively invoked' based on the user input." (Ex2001, ¶258).

Ground 1 offers no motivation to modify Symons' conversation to include additional actions (let alone payment and medical record actions). (Petition, 26; Ex1003, ¶110). Symons is solely directed to providing a chat for an email signature (and nothing more). (Ex1004-1007, Ex1033; Ex2001, ¶257).

d. Claims 9 – No Motivation to Add "new functionality" to Symons/Williams

Ground 1 provides no explanation why a POSITA would have been motivated to modify Symons to expand the functionality of the computer programs identified, (including the Chronos email signature generator) to "execute a new functionality" as Claim 9 requires, nor how, given the opaque nature of the Symons disclosure, the email signature generator would have been modified (Petition, 27-29; Ex1003, ¶¶111-116; Ex2001, ¶¶261-263). Instead, as Mr. Zatkovich explains, a POSITA would, choose alternative means over modifying the functionality of the Cronos Signature generator, or Word. (Ex2001, ¶262).

B. Ground 3: Allen Does Not Disclose or Render Obvious Claims 1-5/9-15/18-20

Ground 3 asserts that Allen (Ex1014) renders obvious Claims 1-5/ 9-15/18-20. (Petition, 35-55; Ex1003, ¶¶146-211). Dr. Beigi half-heartedly argues that each of the elements of Claims 1/11/28 are "disclosed" in Allen (Ex1003, ¶¶148, 155-56, 160, 164, 166), but argues in the alternative that [**c**] would be obvious. (Ex1003, ¶161). Trial was instituted based on a showing that "Allen teaches each of the limitations of claim 1" and "a reasonable likelihood that claim 1 is unpatentable under [§103] over Allen." (ID, 23).

Unlike the '732 Patent claims directed at the generation processes (Ex2001, ¶298), at its heart, Allen barely describes a conversation which invokes an automated process (Ex1014,12:62-13:1). It does not teach how such a conversation was generated, let alone the claimed "three-step process to define a conversation, associate that conversation with an automation process, and then publish that conversation to be accessible to a user." (Ex2001, ¶301). Allen neither discloses nor renders obvious the claims.

1. Allen (Ex1014)

Allen teaches a computer, the "**Procedural Learning** on the Web" System ("PLOW") to learn an automation process on the internet. (Ex1014, Abstract). PLOW is a system for **learning automation procedures**, not defining, associating, or publishing **a conversation.** PLOW is "[a] 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; Ex2001, ¶302; Ex1003, ¶146).

As Mr. Zatkovich explains, "[s]ignificantly, Allen does not include any disclosure about how to formulate a natural language conversation that could be used to implement the 'complex, relative tasks' taught to PLOW. It merely discusses teaching these tasks." (Ex2001, ¶302).

FIG. 1 provides a blank GUI of the learning system, while FIGS. 2 and 3 illustrate how a user would go about teaching the system how to buy a book. (Ex1014, FIGs. 1-3; Ex2001, ¶¶303-314). Related FIGs. 7 and 8 only demonstrate using "speech interface display 20" to teach PLOW how to obtain information (such as price and author). (Ex1014, FIGs. 7-8; Ex2001, ¶¶315-316).

Ground 3 rests upon a single sentence starting at the bottom of Column 12 to show Allen can invoke a learned task:

> "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 provides as an example conversation the following:

> "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).

As Mr. Zatkovich explains, "[w]hile this passage indicates that, if a user were to say 'I want to buy a book', the system would ask, 'What is the title of the book?', which, when provided, enables PLOW to 'perform the steps it was previously taught and complete the transaction' (Ex1014, 12:64-13:5), Allen does **not** disclose that PLOW asks 'What is the title of the book?' using the 'speech interface display 20'." (Ex2001, ¶320).

Rather, Allen teaches with respect to FIG. 6 that the way it would ask a question like "What is the name of the book you are looking for" is by using a form as follows:

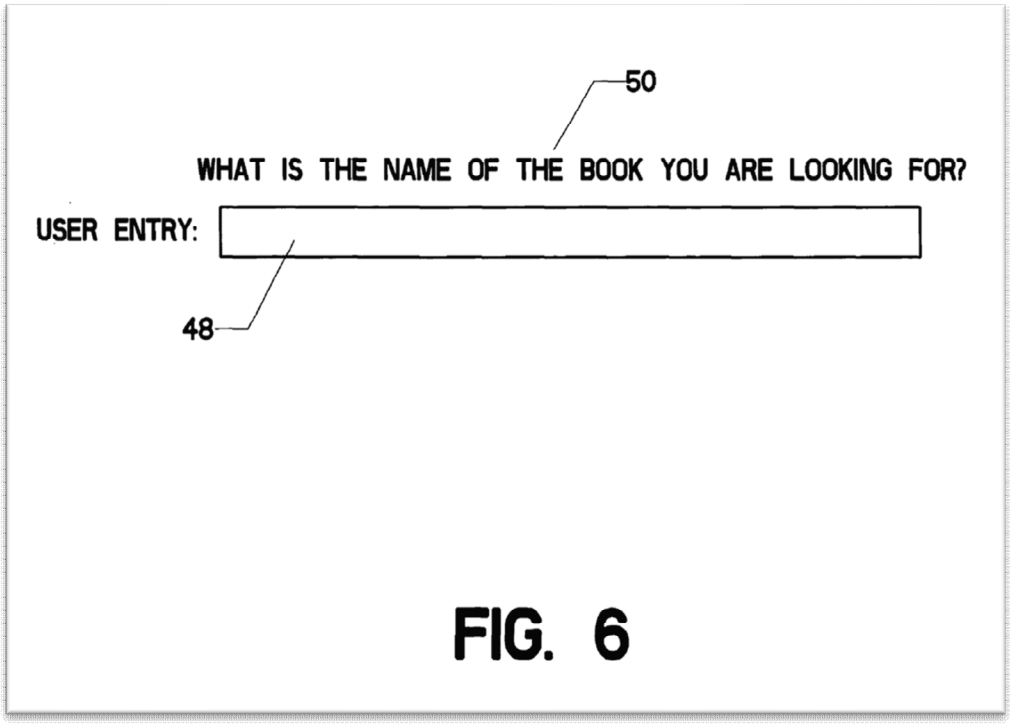


FIG. 6

(Ex1014, FIG. 6).

Mr. Zatkovich (Ex2001, ¶¶321, 324) and Dr. Beigi (Ex2003, 257:20-24) both agree, the question "what is the title of the book?" as set forth at the bottom of Col. 12 would be presented to a user using a form like FIG. 6 according to Allen.

FIG. 3 illustrates how to train PLOW to perform a task of buying a book. It offers no explanation of how to generate a conversation related to that task.

(Ex1014, 6:4-6:53, 12:9-13:5). As Mr. Zatkovich explains, "what the user taught PLOW, in FIG. 3, was where, as part of the automation process, in the GUI the title should be entered, not how to formulate a conversation to obtain, from a new user, title information that should be entered. Indeed, all that is disclosed is that 'PLOW's task database is used.' (Ex1014, 12:63)." (Ex2001, ¶323).

Mr. Zatkovich confirmed that "**No mention is made in Allen of using the training GUI in FIGs. 1-3, 7-8, to define, associate, or publish a conversation**. And PLOW, because of its operation**, does not necessarily create a direct correspondence between the user's actions and whatever questions are asked**. For example, PLOW's tasks (like 'BUY A BOOK'), are not simply the 'result[s] of speech recognition, but rather … ***independently generated phrase[s]*** reflecting the system's understanding of the user's intent.' (Ex1014, 7:51-63)." (Ex2001, ¶323).

It is not enough that Allen states the system can "perform the steps it was previously taught" (Ex1014, 12:66-13:1). (Petition, 36-43; Ex1003, ¶¶148-166; ID, 13-23). This passage "provides little detail on how the system executes such steps. (Ex1014, 12:66-13:1)." (Ex2001, ¶322).

2. Allen Does Not Disclose nor Render Obvious Claims 1, 11, 18

a. [a]/[d] – The "conversation" is Not Implemented Using a "Natural Language Interface"

Allen does not teach the quoted "conversation" is in fact a "conversation" presented in a "natural language interface" as required by [**a**]/[**d**]. (Cf. Ex2001, ¶¶338-342; Ex1003, ¶155; Petition, 36-37, 42-43). The question "What is the title of the book?" is taught to be presented using a "form" like FIG. 6 (Ex2003, 257:6-24; Ex2001, ¶¶321-324), which is not, according even to Dr. Beigi, a "natural language interface". (Ex2003, 60:24-61:3, 59-60). Thus, as Mr. Zatkovich explains, "the most that Allen discloses is that, where necessary, the system seeks user input in performing a task, for example, by using the form displayed in FIG. 6." (Ex2001, ¶342).

b. [a]/[c]/[d] – No Explanation on How Conversation Is Generated

Allen offers no details or explanations as to:

- how the conversation is generated; and

- if it is defined by the "user" before being associated with the automated process, or generated automatically on the fly based on the rules utilizing ontological properties.

As Mr. Zatkovich confirms, it is not inherent ("necessarily so") that the quoted conversation was "**defined**", then "**associated**" with the "buying the book" automated process, then "**published**", rather than simply being generated on the fly as each question is asked. (Ex2001, ¶¶336-338, 343-345, 351-356). As Mr. Zatkovich confirms: "Simply because the fact that the PLOW system is capable of being taught, and performing, different automations does not show that a conversation is defined" as required in [**a**]. (Ex2001, ¶342).

For [**a**], Dr. Beigi offers no articulated reasoning to support his informal inherency argument that, since the conversation exists, "**[h]ence**, Allen defines a conversation to be implemented by the natural language interface". (Ex1003, ¶153). Not only is Allen silent on how the conversation is generated, but as Mr. Zatkovich confirms with support, "there is no indication in Allen that the *user*, as opposed to PLOW itself, defines the information needed to be acquired." (Ex2001, ¶340)

As the ID explained, the '732 Patent teaches "'**the user** may define for a conversation flow which automation process is invoked,' or 'that a conversation is

associated with multiple automation processes, one of which may be selected based on the interaction with the user.' [Ex1001] 8:49-55. The automation process may also be **defined by a user**. *Id.* at 11:27-38." (ID, 3-4). The role of a user to perform the "defining" of the conversation is central to the '732 Patent's disclosure. (See Ex2001, ¶333).

Likewise, for [**b**], Beigi offers no articulated reason (beyond "[a]s shown in element 1[**a**]"), to support his informal inherency argument that because "the values (title, price, delivery date) obtained from the user during the conversation implemented by the chatbot (natural language interface) are used in the automation process" "**[t]hus**, Allen discloses element 1[b]." (Ex1003, ¶156). But, the "price" and "delivery date" in Allen are obtained from a list of results online as part of the automation of buying a book, **not as part of any conversation**. (Ex1014, 12:62-13:5). Thus, Dr. Beigi's analysis fails to meet [**b**]. (Ex2001, ¶¶346-347).

For [**c**], Ground 3 continues to rely upon the wrong conversation. It relies on FIG. 7 (Petition, 40-42; Ex1003, ¶¶157-159), which is part of the training operation—not performing the action. (Ex1001, 19:29-59; Ex2001, ¶353). Ground

3's reliance on the same argument as [**a**] (Ex1003, ¶160), fails for the same reasons discussed above in [**a**].

Ground 3 also proposes, in the alternative, for [**c**] that it would be obvious to execute a task over display areas of the Allen GUI. (Ex1003, ¶161). But as Mr. Zatkovich explains, Allen explicitly describes that the display areas are presented in order to allow the user to monitor "whether PLOW has correctly understood the present objective" (Ex1014, 5:60-62), a rationale irrelevant during execution; PLOW executes a task only after the user ensures PLOW correctly understood task steps. (Ex2001, ¶¶355-356). Ground 3 thus fails to provide a sufficient rationale and evidentiary support for the proposed obviousness analysis.

For [**d**]**,** Dr. Beigi asserts with reference to the conversation in which a user teaches the PLOW system how to buy a book, "Allen's system publishes the user's speech 24 in the speech interface display 20" and "publishes the system's speech 26, thereby publishing the conversation". (Ex1003, ¶¶162-163). Once again, as Mr. Zatkovich confirms, this is the wrong conversation—this is a training conversation, not a conversation used to invoke the process of buying a book. (Ex2001, ¶360)

Ground 3 argues, with reference to the system seeking and receiving user input, that the "user is enabled to interact with the natural language interface in accordance with the conversation." (Ex1003, ¶164). But if the conversation is generated on the fly by, e.g., using the ontological principles that underly Allen's disclosure, it is never "published". (Ex2001, ¶ 361-363).

Ground 3 never even attempts to show that the steps [**a**]/[**b**]/[**d**] are performed in the order set forth in the claim. (Ex2001, ¶361). As Dr. Beigi put it: "So I don't think there's anything inherent where you would have to say that specifically, this one has to happen until I go do that one", referring to the "order of defining versus associating". (Ex2003, 243:11-244:3).

In sum, as the experts agree, "What is the title of the book?" is presented in Allen using a "form" like FIG. 6, (Ex2003, 257:6-24; Ex2001, ¶321), which is not a "natural language interface", (Ex2003, 60:24-61:3, 59-60; Ex2001, ¶¶221-229). Further, Allen is silent on how that conversation is generated, and Ground 3 does not provide, under *Arendi*, sufficient reasoned analysis and supported evidence to back up an informal inherency argument. Ground 3 should also be rejected. (Ex2001, ¶¶297-416).

3. Dependent Claims

Ground 3 fails for all the dependent claims at least for the same reasons as the independent claims. (Ex2001, ¶¶297-416). Ground 3's arguments against the following claims fail for at least these additional reasons.

a. Claims 2/12/19 – Allen Does Not Define a "conversation flow"

As discussed, Claims 2/12/19 require the "defining" process further includes determining a "conversation flow" which "defines an order between conversation elements", including "a question element" and "an action element" "associated with automation process." (Ex1001, Claims 2, 12, 19; Ex2001, ¶¶364, 366). Since Allen does not teach how to define a conversation (Ex2001, ¶¶322-345), let alone a "conversation flow" (Ex2001, ¶¶369-378), these claims are not taught or rendered obvious by Allen. (Ex2001, ¶¶364-383).

b. Claims 3/13 – Ground 3 Does Not Identify a Conversation With a "message element" and a "condition element"

Claim 3/13 further modify the "conversation" in Claims 2/12 to include a "message element" and a "condition element" to the same conversation which already has a "question element" and an "action element". But Ground 3 asserts that authorization using price and delivery date is both a "question element" for Claims 2/12 and "message element" for Claims 3/13. (Petition 44-45). This can't be both a "message element" and also a "question element" in the same conversation.

Separately, the identified "condition" is a condition in the execution of the automation process, not a "condition element" in a conversation. (Ex1003, ¶ 174). Both fail. (Ex2001, ¶¶384-397).

c. Claim 4/5 – Ground 3 Presents a Flawed Inherency Argument

With respect to Claims 4/5, Ground 3 relies upon the same passage in Allen to say the "book buying task" and "hotel searching task" are inherently in the same conversation for Claim 4, and inherently in different conversations for Claim 5. (See

Ex1003, ¶179 & 180). By definition, neither claim "limitation" is "necessarily" present when are possibilities. (Ex2001, ¶¶402-414). *Paul Hartmann, supra.*

d. Claim 9 – Allen Does Not Teach Adding "new functionality" to The "computer program"

Ground 3 misleadingly relies Allen's disclosure indicating that a new step can be added to an automation process. (Petition, 50-51; Ex1003, ¶187). But this "new step" is to add another step in a new process being trained, not to modify an existing process. (Ex2001, ¶416). Training PLOW also does not create "a new functionality of the computer program" as Claim 9 requires. (Ex2001, ¶416).

C. Grounds 2/4: Ben-Itzhak Does Not Render Obvious Claims 6/16/21 Either with Symons/Williams (Ground 2) or Allen (Ground 3)

Claim 6/16/21 depends from Claim 1/11/18, respectively. Grounds 2/4 do not offer Ben-Itzhak to cure any of the deficiencies identified in Ground 1 (Petition, 33-35; Ex1003, 137-145) or Ground 3 (Petition, 55-56; Ex1003, ¶¶212-216), and should be rejected for at least that reason. (Ex2001, ¶¶266-296, 417-430).

1. Ben-Itzhak (Ex1034)

Ben-Itzhak concerns providing "personalized content recommendations that are interesting, trustworthy, and relevant to the user" (Ex1034, [0003]) as part of a

"conversation agent to the user as a message or response" to "user messages in [an] active conversation". (*Id.*, Abstract, [0018]; Ex1003, ¶137). The recommendation is presented using "a voice message, an image, a video, a VR interaction, an AR interaction, a link to a different interactive communication platform, etc." (Ex1034, [0018]).

As Mr. Zatkovich explains, Ben-Itzhak uses links to give a content recommendation, which are not "configured to cause execution of the automation process" as claims 6/16/21 requires. (Ex2001, ¶268; Ex1034, [0018]). Grounds 2/4 do not assert otherwise. (*See* Petition,33-34, 55-56; Ex1003, ¶¶137-143, 212-213).

2. Ben-Itzhak 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). Grounds 2/4 does not assert Ben-Itzhak is analogous art. (Petition, 33-35, 55-56; Ex1003, ¶¶137-145, 212-216). It is not. (Ex2001, ¶¶276-286).

a. Ben-Itzhak Is in a Different Field from the '732 Patent

The '732 Patent relates to "defining a conversation used to invoke an automation process as illustrated, for example, by the method shown in FIG. 3" (Ex2001, ¶279; Ex2003, 186:9-21, 280:23-281:10; see also Ex1001, 4:59-67 (discussing "[o]ne technical problem" is "defining automation processes to be invoked by chat bots ….")).

Conversely, Ben-Itzhak aims to provide "[a]n interactive communication-based personalized content recommendation provisioning method and system." (Ex1034, Abstract; Ex1034 [0016]); Ex2001, ¶280 (accord); Ex2003, 294:10-18 ("Ben-Itzhak is about a personalized content recommendation provision and method.").

As Mr. Zatkovich confirmed, a POSITA would not consider these two different fields to be the same. (Ex2001, ¶¶286).

b. Ben-Itzhak Is Not Reasonably Pertinent to the Particular Problem Confronting the Inventors

Ben-Itzhak does not address any of the problems discussed in the '732 Patent (see Section II.B.2, *supra*; Ex2001, ¶¶57-61, 278). Conversely, the '732 Patent

provides "no example of content recommendation." (Ex2003, 295:15-20; Ex2001, ¶280), the problem in Ben-Itzhak, i.e., "figuring out what is the content that the user should watch". (Ex2003, 295:9-11). As Mr. Zatkovich confirmed, Ben-Itzhak is not reasonably pertinent to the particular problem confronting the '732 Patent inventors. (*Id*., ¶¶282-286).

Ben-Itzhak is not analogous art under *Chemours*; Grounds 2/4 should be rejected for at least this reason.

3. Ground 2: Modifying Symons/Williams in View of Ben-Itzhak Will Not Meet the Claim and Makes No Sense

Ground 2's combination of Ben-Itzhak with Symons/Williams (Ex1003, ¶143) makes no sense. (Ex2001, ¶¶291-296). Neither Williams nor Ben-Itzhak teach executing an automation process using a link as required by Claims 6/16/21. (See Ex2001, ¶293, citing Ex1011, 2). Ground 4's proposed modification, "to have a conversation to generate personal recommendations" (Ex2003, 312:23-313:8) makes no sense to Symons' email generation chatbot/deployment. (Ex2001, ¶426). Such muddled and unsupported speculation 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. *Arendi*, 832 F.3d at 1362.

The alleged benefits of the combination (Ex1003, ¶143)—"shorter times for deployment", "lower upfront costs", or "lower operational costs"—would not result from adding a "conversation to generate personal recommendations" for content, to a conversation whose sole purpose is to gather information to generate an email signature. (Ex2001, ¶293).

4. Ground 4: Modifying Allen in View of Ben-Itzhak Will Not Meet the Claim and Makes No Sense

Ground 4, like Ground 2, does not identify a reference which teaches using a "link … to cause execution of the automation process" as required in Claims 6/11/22. (Cf. Pet. 55-56; Ex1003, ¶212-214). Contra Dr. Beigi, Col. 3:20-31 in Allen does not refer to using a link to invoke an automation process. (Cf. Ex1003, ¶214, with Ex2001, ¶428).

The proposed modification of Allen (from his deposition), "to have a conversation to generate personal recommendations" (Ex2003, 314:23-315:8) would not improve the task of "buying a book" relied upon in Ground 3. Ben-Itzhak

also does not teach using a link to execute an automation process. (*See* Ex2001, ¶¶427-430).

Grounds 2/4 fail.

D. Ground 5: Krishnan and Radhakrishnan Do Not Render Obvious Claims 1-5, 9-15, 18-20

Ground 5's combination of Krishnan (Ex1016) and Radhakrishnan (Ex1018) also fails.

Krishnan is a chatbot editor that generates a conversation which utilizes backend systems (i.e., via a script, an API or similar, not a "displayed user interface").

It does not implement, let alone "associate", an automated process with the conversation; instead, that is what Radhakrishnan is offered for.

But Radhakrishnan is (1) not analogous art, and (2) does not teach "associating" a conversation with an automated process to, e.g., buy a book or book a flight, or using a displayed user interface to implement such a process. The combination also makes no sense and would at best improve Krishnan using error detection, not change how Krishnan implements its book buying task using the backend. (Ex2001, ¶¶431-493).

1. Radhakrishnan Is Not Analogous Art

Ground 5 offers no support for the proposition that Radhakrishnan is analogous art to the '732 Patent claimed invention under *Chemours*. (Cf. Petition, 56-84; Ex1003, ¶¶219-274). It is not. (Ex2001, ¶¶456-466).

a. Radhakrishnan Is Not in the Same Field as the '732 Patent Claims

As discussed, the '732 Patent relates to "defining a conversation used to invoke an automation process as illustrated, for example, by the method shown in FIG. 3" (Ex2001, ¶458; see also Section II.B.2, supra).

Conversely, Radhakrishnan is about "providing a robotic process automation enabled **file diagnosis and correction**." (Ex1018, Abstract; *see also* Ex1018, 6:50-61 (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 '732 Patent claims. (Ex2001, ¶¶458-460).

b. Radhakrishnan Is Not Reasonably Pertinent to the Problems Faced by the Inventors of the '732 Patent Claims

Radhakrishnan is not reasonably pertinent to the problems faced by the inventors of the '732 Patent. It does not address the problems discussed in the '732 Patent. (See Section II.B.2, *supra*; see also Ex2001, ¶¶57-61). "**Radhakrishnan doesn't handle chatbots**" (Ex2003, 273:1-22), or "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 '732 Patent". (Ex2001, ¶464; *id*., ¶¶461-466).

Radhakrishnan is not analogous art to the '732 Patent. (Ex2001, ¶¶459-460).

2. Modifying Krishnan Based on Radhakrishnan Will Not Meet the Claims and Makes No Sense

Ground 5's combination of Krishnan and Radhakrishnan fails to teach the missing "automated processes" from the [**Preamble]** and [**c**]. (Ex2001, ¶¶467-488).

Ground 5 misleadingly characterizes Krishnan's flight booking task as an "automated process", without explaining how it was defined. (Petition,60-62; Ex1003, ¶221). As Mr. Zatkovich explains, Krishnan is implemented "by directly accessing 'one or more backend databases or other information processing systems' and updating such 'backend databases....' (Ex1016, 2:33-35)" and would have been closer to a "script execution" than an "automation process" that is invoked in response to a conversation. (Ex2001, ¶470).

Thus, as Ground 5 concedes by omission, Krishnan does not teach an automation process "configured to utilize a displayed user interface of a computer program to simulate [a] sequence of interactions with the displayed user interface ... and execute a functionality of the computer program". ([**c**]).

Ground 5 offers Radhakrishnan to fill this gap. (Petition, 66-67, Ex1003, ¶¶223-234). However, Radhakrishnan does not disclose using a displayed user interface in order to execute an automation process. (Cf. Ex2003, 269:4-271:4). Instead, as Mr. Zatkovich confirms, Radhakrishnan uses RPA bot technology to "simulate[] user operations so that **it may help diagnose computer software-related errors**, such as 'program crashes, file corruption, and operating errors…'"

and to reproduce errors in a "virtual environment", in "parallel" with the actual process being executed by the user. (Ex1018, 1:8-10, 11:29-47; Ex2001, ¶¶453, 483). These "back-up simulated operations" are ultimately provided as part of a "support ticket" and are not invoked in response to a user input. (Ex1018, 12:21-38; Ex2001, ¶483).

Ground 5 relies upon Krishnan teaching "greater convenience for users and lower costs for an organization ..." as the alleged motivation to combine (Petition,62; Ex1003, ¶224, both citing Ex1016, 2:7-11). But, notwithstanding Dr. Beigi's misguided effort to find support for Krishnan's claims in its priority document (Ex1017) (see Ex1003, ¶¶217)[9], the '550 Application does not include this alleged

[9] Dr. Beigi's effort (Ex1003, ¶217) to find support for Krishan's claims (as issued in Ex1016) from its provisional application (Ex1017) is not relevant. The correct inquiry (not undertaken by Dr. Beigi) is whether the portions of Ex1016 relied upon (like 2:7-11) are supported in Ex1018. In this case, it is not, and thus is not relevant to Ground 5.

motivation (and thus it is not part of the prior art). (*Compare* Ex1016, 2:7-11 *with* Ex1017; Ex1003, ¶484).

Ground 5's reliance on Radhakrishnan's teaching that RPAs "reduce" usage of "computing resources required to executing tasks when compared with" using an "API" (Ex1018, 6:21-34) is also misplaced. As Mr. Zatkovich explains, reducing computing resources is a benefit of Radhakrishnan's "error detection" function, not using RPAs generally, which are "typically **more** resource-intensive than API calls" (Ex2001, ¶491). Thus, this motivation fails. (Ex2001, ¶¶484-485).

Furthermore, the resulting combination of Radhakrishnan's RPAs in Krishnan's system would not simulate user interactions with a displayed user interface to cause execution of an automation process. (Ex2001, ¶486). At most the combined system would only improve error detection. (*Id.*). Radhakrishnan does not teach a parameterized automation process to be executed by simulating user interaction with a displayed user interface, let alone one invoked by a natural language conversation as required in [e]. (Ex2001, ¶493; Cf. Ex2003, 269:4-271:4).

3. Dependent Claims

Ground 5 fails for all the dependent claims at least for the same reasons as the independent claims. (Ex2001, ¶¶504-505). Similarly, the additional features that require the existence of an automated process, executing a new functionality of a computer program (Claim 9) and inputting data to a field in a displayed user interface (Claim 10) are also not present in Krishnan with or without Radhakrishnan. (Ex2001, ¶¶494-503).

VI. CONCLUSION

For the foregoing reasons, and the reasons set forth in supporting declaration of Ivan Zatkovich (Ex2001), Claims 1-6, 9-16, 18-21 of the ’732 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 1-6, 9-16, and 18-21 OF U.S. PATENT NO. 11,258,732 B2** contains 13,955 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 1-6, 9-16, and 18-21 OF U.S. PATENT NO. 11,258,732 B2** was caused to be served on July 8, 2024 via electronic mail on the following counsel of record for Patent Owner:

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