IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff and Counterclaim Defendant,** **v.** **NETFLIX, INC.,** **Defendant and Counterclaim Plaintiff.**	**Civil Action No. 1:22-cv-00305-JLH-CJB** **JURY TRIAL DEMANDED** [redacted] [PUBLIC VERSION]

LETTER MOTION TO STRIKE CERTAIN PORTIONS OF THE EXPERT REPORTS OF DR. AVIEL RUBIN AND MR. CHRISTOPHER MARTINEZ

Dear Judge Burke:

Netflix misled both the Court and Robocast regarding two issues: certain alleged prior art materials it was pursuing from third parties it subpoenaed, and its legal theories concerning alleged non-infringing alternatives. Netflix's experts purport to rely on these surprise materials and theories. Thus, pursuant to Fed. R. Civ. P. 37, Robocast requests that the Court strike those portions of Netflix's expert reports identified below that rely on: 1) a declaration produced on the last day of fact discovery from an alleged prior artist whom Netflix subpoenaed, but represented to the Court it would ***not*** be pursuing discovery from; and 2) new theories of non-infringing alternatives not disclosed until the last day of discovery, ***after*** Netflix represented that non-infringing alternatives were irrelevant to its case.

Robocast respectfully requests limited portions of the following expert reports be struck for these two discrete reasons, as detailed below and in the attached Proposed Order: 1) Paragraphs 327-28 of the Expert Report of Dr. Aviel D. Rubin on Invalidity of U.S. Patent Nos. 7,155,451; 8,606,819; 8,965,932, served by Netflix on June 14, 2024 (Ex. 1, "Rubin Invalidity Report"); 2) Paragraphs 614-753 of the Expert Report of Aviel D. Rubin, Ph.D. Non-Infringement of U.S. Patent Nos. 7,155,451, 8,606,819, 8,965,932 served by Netflix on July 11, 2024 (Ex. 2, "Rubin Non-infringement Report"); 3) Paragraphs 197-201 and Schedules 16.0-16.3 of the Rebuttal Expert Report of Christopher A. Martinez with Respect to Damages, served by Netflix on July 11, 2024 (Ex. 3, "Martinez Rebuttal Report"); and 4) Paragraphs 322, 323, and 338 of the Reply Expert Report of Dr. Aviel D. Rubin on Invalidity of U.S. Patent Nos. 7,155,451; 8,606,819; 8,965,932, served by Netflix on August 6, 2024 (Ex. 4, "Rubin Invalidity Reply").

I. Legal Standard

Under F.R.C.P. 37(c)(1), "[i]f a party fails to provide information ... as required by Rule 26(a) or (e), the party is not allowed to use that information ... to supply evidence on a motion, at a hearing, or at trial, unless the failure was substantially justified or is harmless." Whether a failure to disclose was harmless is guided by the *Pennypack* factors: (1) the prejudice or surprise to the party against whom the evidence is offered; (2) the possibility of curing the prejudice; (3) the potential disruption of an orderly and efficient trial; (4) the presence of bad faith or willfulness in failing to disclose the evidence; and (5) the importance of the information withheld. *See Konstantopoulos v. Westvaco Corp.*, 112 F.3d 710, 719 (3d Cir. 1997) (citations omitted). "When a case involves complex litigation between sophisticated parties, courts are more willing, given a strong showing of prejudice, to exclude evidence even absent a showing under each *Pennypack* factor." *Acceleration Bay LLC v. Activision Blizzard Inc.*, No. 1:16-CV-00453-RGA, 2019 WL 4194060, at *7 (D. Del. Sept. 4, 2019).

II. Netflix Misled Robocast and the Court About Discovery Sought From Third Parties Through Its Subpoenas

At the April 5, 2024, hearing concerning Robocast's request to extend the fact discovery deadline, Judge Hall asked the parties what fact depositions needed to be scheduled. Robocast alerted the Court that Netflix had subpoenaed multiple third parties for documents and testimony concerning alleged prior art, but had provided no documents produced by such parties to Robocast, or any indication as to whether or when depositions would be proceeding. In response, Netflix represented to Robocast—***and the Court***—that it did not intend to proceed with the subpoenas, only to ambush Robocast with declarations from two subpoenaed witnesses on the last day of discovery. Robocast thus respectfully requests that the following paragraphs of Dr. Rubin's reports relying on one of these surprise declarations be struck: Rubin Invalidity Report ¶¶ 327-28; Rubin

Invalidity Reply ¶¶ 322–23, 338.

Netflix represented to the Court on April 5th that it had received no documents from and was not pursuing certain subpoenas issued on the inventors of alleged prior art, including Dr. Marc H. Brown. (*See* D.I. 178-181 (1/23/24 Notices of Subpoenas).) When asked by the Court about the status of these four outstanding subpoenas to prior artists, including the subpoena issued to Dr. Brown, Netflix's counsel stated simply "My understanding is we did not receive any documents from those four individuals and we do not intend to pursue the depositions." Ex. 5 (April 5 Tr.) at 54:5-7. The Court accepted and relied on that representation as an indication that Netflix would be dropping its subpoenas, noting simply: "Okay. So I'm hearing from them that they're not going to pursue the first four, they don't have anything to give you from those, so that takes care of those." (*Id*. at 54:22-25.) Netflix made no attempt to correct the Court's understanding.

Despite this representation, on the last day of fact discovery, Netflix produced declarations from two of the third parties it subpoenaed, Dr. Brown and Mr. Robert Tarabella purporting to provide substantive information related to supposed prior art.[1] (Ex. 6 (Email correspondence) at 2; Ex. 7 (4/16/24 Tarabella Decl.); Ex. 8 (5/12/23 Brown Decl.); D.I. 279.) Robocast immediately objected to this late produced, inadmissible "evidence." Ex. 9.[2] Further enhancing prejudice to Robocast, the version of the Brown Declaration served on Robocast on May 13, 2023 which bore his signature and a date of May 12, 2024, omitted Exhibits A-D, which were on May 20, 2024. Ex. 6, Ex. 10 (Brown Decl. with Exs. A-D).) Robocast reiterated its objections. (Ex. 6.)

While Mr. Brown's declaration claims he had no documents to produce responsive to the subpoena, he "direct[ed]" Netflix to documents in the public domain which he attached to his declaration and on which Dr. Rubin relied in his Reports. (Exs. 8, 10 ¶ 5.) This language was likely orchestrated to allow Netflix to argue that their representation to Court that it did not "receive" documents in response to its subpoena was not technically false, but clever pedantry cannot hide Netflix's willful conduct. It is highly likely that Netflix was in contact with these third parties at the time of the April 5th hearing, given that Netflix identified the documents it had been "directed to" as constituting the DeckScape reference for the first time in its March 12, 2024 final invalidity contentions less than a month before the hearing. (*Compare* Ex. 11 (7/6/23 Invalidity Contentions at i, 13-18 (not discussing Deckscape in summary of prior art, listing several documents now considered "Deckscape" as separate prior art) *to* Ex. 12 (3/12/24 Final Invalidity Contentions) at i, 35-36 *and* Exs. 8, 10 ¶¶ 6-9.) Further, Mr. Tarabella's declaration was executed less than two weeks after Netflix represented to the Court that it was not pursuing these subpoenas. (Ex. 7.)[3]

***Pennypack* Factor 1 – Prejudice And Surprise To Robocast.** Netflix's maneuver was prejudicial to Robocast. By representing to Robocast and the Court that it had neither received nor

[1] Mr. Tarabella's declaration is dated April 16, 2024, nearly a month before the close of fact discovery and Netflix's production of the declarations. While Dr. Brown's declaration is dated May 12, 2024, it is unclear when Netflix first made contact with Dr. Brown and when he "directed" Netflix to the documents attached thereto.

[2] In making the instant motion to strike, Robocast does not waive any evidentiary objections to use of these declarations at trial.

[3] While Mr. Tarabella's declaration was not cited in Dr. Rubin's expert report, he is relying on the "Tarabella" reference as prior art. As such, Netflix should have been candid about its efforts to obtain the declaration and timely in producing it once obtained. Robocast reserves all rights to object to any attempted use of the Tarabella Declaration in dispositive motions or at trial.

was pursuing evidence from the third parties it subpoenaed, Netflix misled Robocast and deprived it of the opportunity to seek its own discovery relating to the declarant and his work or to cross-examine him on the statements in his declaration. This has undermined Robocast's ability to challenge Dr. Rubin's invalidity opinions insofar as it is based on the supposed prior art system propped up by the Brown Declaration.

***Pennypack* Factor 2 – The Prejudice Cannot Feasibly Cured.** It is too late to cure the prejudice of these surprise prior artist declarations with additional discovery. Fact discovery is closed, expert depositions have already taken place, and summary judgment motions are due in two days. Indeed, Judge Hall has been reticent to grant any schedule extensions which further highlights the prejudice suffered by Robocast due to Netflix's tactics.

***Pennypack* Factor 3 – Allowing Reliance On Surprise Declarations Will Disrupt An Orderly And Efficient Trial.** Because Netflix actively led Robocast away from discovery of these prior artists, Robocast had no opportunity to test the representations made in the declarations with deposition testimony nor determine their accuracy or authenticity. Reopening fact and expert discovery at this stage of litigation would be extremely disruptive, and allowing reliance on the declarations at this stage risks a sideshow at trial concerning the propriety of such reliance and the circumstances by which Netflix procured the declarations as relevant to declarant bias. Nor is it clear that the witnesses are within the Court's trial subpoena power.

***Pennypack* Factor 4 – Netflix Willfully Misled Robocast And The Court.** There is no question that Netflix's conduct indicates willfulness or bad faith. In order to avoid an extension of discovery, it represented to the Court that it received no documents and would not be pursuing discovery from certain third parties, including Dr. Brown. And then, only when it was too late for Robocast to seek further discovery, it produced Dr. Brown's and Mr. Tarabella's declarations. Netflix did not explain why these declarations were not produced earlier, or how they could be squared with Netflix's prior representations. Nor did it ever attempt to correct its prior (mis)representation to the Court.

***Pennypack* Factor 5 – Striking Reliance On The Surprise Declarations Would Not Exclude Crucial Evidence.** Nor would striking the relevant portions of Dr. Rubin's reports fatally undermine Netflix's case. Netflix itself made clear to the Court that it was willing to forego receiving testimony from the subpoenaed prior artists. And while Robocast will of course contest Dr. Rubin's contentions that the Deckscape system is prior art and that it renders any claim of any asserted patent obvious on the merits at trial, striking opinions relying on the late-disclosed declaration does not prevent Netflix from putting on its invalidity case in general.[4]

At this stage, the appropriate remedy for Netflix's willfully misleading conduct is to strike the portions of Dr. Rubin's reports that rely on the late disclosed declarations, namely: ¶¶ 327-28 of the Rubin Invalidity Report and ¶¶ 322–23, 338 of the Rubin Invalidity Reply.

III. Because Netflix Misled Robocast About Its Non-Infringing Alternatives Theories, Its Experts' Opinions On These Theories Should be Struck

Netflix affirmatively misled Robocast about its position concerning the relevance of non-infringing alternatives ("NIAs") in order to block Robocast from probing its brand-new theories

[4] Robocast also raised objections to the late disclosure of the Deckscape system as grounds for invalidity and a number of late-disclosed obviousness combinations, but in the interest of narrowing issues to the most flagrant and prejudicial has elected to defer moving to strike Dr. Rubin's obviousness opinions on these late-disclosed references and combinations in general.

sprung on Robocast on the last day of fact discovery. The portions of Netflix's experts' reports opining on these undisclosed purported NIAs should be struck.

On August 11, 2023, Robocast served its Interrogatory No. 8 as follows: "If you contend that you have an available and acceptable alternative to infringing the Patent-in-Suit, Identify and describe the technical and financial details and commercial features and benefits of any such available, acceptable non-infringing alternative(s)." (Ex. 13 (8/11/23, Robocast's 1st Set Interrogatories to Netflix) at 11.) On September 11, 2023, Netflix refused to respond on the grounds that the information sought was "no longer relevant to any claim or defense in this litigation." (Ex. 14 (Netflix's 5/13/24 4th Supp. Objs. & Resps. to Interrogatories 1-11) at 62-64.) For the better part of a year after, as the parties proceeded through fact discovery, Netflix did not amend or supplement that response. Then, on the final day of fact discovery—and after all documents were produced and fact witness deposed—Netflix changed course, and served a 15-page supplemental interrogatory response with no fewer than seven categories of alleged non-infringing alternatives on Robocast. (Ex. 14 at 64-79.) Now, Netflix has served expert reports that rely heavily on these previously undisclosed non-infringing alternatives. (*See* Martinez Rebuttal Report ¶¶ 197-201, Schedules 16.0-16.3; Rubin Non-Infringement Report ¶¶ 614-753.)

Netflix may argue that its September 11, 2023, interrogatory response reserved its rights to later identify non-infringing alternatives "in response to any reasonable royalty damages contentions provided by Robocast, which Robocast has yet to provide." (Ex. 14 at 63.) This excuse fails for multiple reasons. *First*, Netflix did not merely refuse to identify NIAs – it insisted they were *irrelevant* until the eleventh hour. *Second*, Netflix failed to provide any justification as to how its own contentions on NIAs somehow depended on Robocast's damages contentions. *Third*, Robocast had provided sufficient damages contentions months earlier,[5] as evidenced by the fact that Netflix never moved to compel further damages contentions before the close of fact discovery. *Fourth*, Netflix's NIA contentions in no way rely on Robocast's damages contentions, and were in fact served on the same day and without the benefit of Robocast's more detailed response to Netflix's Interrogatory on damages.

***Pennypack* Factor 1 – Prejudice And Surprise To Robocast**: The prejudice to Robocast of Netflix's maneuver is plain. Robocast proceeded through discovery understanding, in reliance on Netflix's sworn discovery responses, that Netflix would not be relying on NIAs as part of its non-infringement or damages case. Then, when Netflix supplemented its response *at the close of fact discovery* to identify NIAs, it no longer had the opportunity to seek documents relating to these supposed NIAs or question Netflix's fact witnesses about them. This, in turn, has

[5] Robocast served its initial Rule 26 damages disclosures on February 27, 2023. (Ex. 15.) Robocast supplemented its Rule 26 damages disclosures on June 16, 2023, (Ex. 16) and again supplemented its Rule 26 damages disclosures on August 23, 2023 to indicate it no longer sought to pursue damages under a lost profit theory in favor of seeking a reasonable royalty under the *Georgia-Pacific* framework, with a detailed computation to be provided in forthcoming expert report(s). (Ex. 17.) The Court held that Robocast's Rule 26 disclosures were sufficient at that time. (Ex. 18.) Robocast thereafter responded to Netflix's Interrogatory No. 12 seeking premature expert testimony on damages consistently with and incorporating by reference its Rule 26 disclosures on September 5, 2023. (Ex. 19.) Netflix did not move to compel a further response to its Interrogatory No. 12 nor to compel further Rule 26 disclosures. On May 13, 2024, Robocast again supplemented its response to Interrogatory 12 to provide additional details on how it expected its expert to analyze damages, incorporating largely information and documents from Netflix. (Ex. 20.)

substantially hampered the ability of Robocast's experts to address the opinions offered by Netflix's experts based on these previously undisclosed NIAs.

For example, Robocast's infringement expert Dr. Almeroth indicated that Netflix's interrogatory response failed to cite evidence of the acceptability of these purported non-infringing alternatives and likely seriously underestimated the time, effort, and costs involved in engineering, testing, and implementing the alleged alternatives. (Ex. 21 (6/14/24 Expert Report of Kevin Almeroth) ¶¶ 496-524.) Because Netflix's actual NIA position came after Robocast had deposed Netflix's engineers who would have had knowledge on these topics, and after Robocast could serve document requests for, e.g. documents relevant to design changes with similar scope, Robocast and its expert had no opportunity to further investigate the viability of Netflix's NIAs.

***Pennypack* Factor 2 – The Prejudice Cannot Feasibly Be Cured**: The prejudice suffered by Robocast cannot feasibly be cured through additional discovery at this stage of the case. Fact discovery has closed. The relevant witnesses who could testify regarding the supposed non-infringing alternatives identified by Netflix—including as to their cost, work required, feasibility, likely user response—were already deposed. Expert reports have been served and the experts deposed. Dispositive motions are due in two days. Any attempt to reopen these proceedings in an attempt to cure the prejudice suffered by Plaintiff would require a complete rewrite of the case schedule—including the trial date—and impose substantial cost on the Plaintiff.

***Pennypack* Factor 3 – Allowing The NIA Opinions Will Disrupt An Orderly And Efficient Trial:** Netflix's late-breaking change of heart on the relevance and existence of numerous NIAs is contrary to the orderly and efficient progress of this litigation. As noted above, at this late stage, allowing Netflix's surprise NIAs evidence without prejudicing Robocast would require at a minimum reopening fact and expert discovery. Given the stage of the litigation — imminent dispositive motions and a trial set for early March 2025 — this would derail the case schedule and impede an efficient resolution of the action.

***Pennypack* Factor 4 – Netflix's Bait And Switch Was Willful**: It is not a coincidence that Netflix waited until the *very last day of discovery* to make a complete U-turn on its consistently held position that NIAs were irrelevant, when Robocast could no longer seek documents or question witnesses about the supposed NIAs. It cannot be that Netflix only discovered the relevance of the supposed non-infringing alternatives exactly when Robocast lost the ability to seek further discovery, and when its prior position might prove inconvenient for its experts. And this maneuver is simply one particular instance of Netflix's pattern of gamesmanship and strategic non-disclosure throughout this litigation.

***Pennypack* Factor 5 – Striking NIAs Opinions Will Not Exclude Crucial Evidence:** Striking the relevant portions of the Martinez and Rubin reports will not prevent Netflix from putting on its defense. Netflix consistently took the position that non-infringing alternatives were irrelevant. Instead, it will simply prevent Netflix from introducing a brand new issue on which Robocast was deprived of the opportunity to seek discovery, preserving the vast majority of both experts' opinions as to damages and Netflix's non-infringement and invalidity defenses.

Accordingly, Robocast respectfully asks that the Court strike ¶¶ 183-201 and Schedule 16 of the Martinez Rebuttal Report and ¶¶ 614-753 of the Rubin Non-Infringement Report.

IV. Conclusion

Netflix has engaged in a repeated pattern of non-disclosure, misleading conduct, and gamesmanship, resulting in prejudice to Robocast. Accordingly, for the reasons stated herein, Robocast respectfully asked that the Court strike the portions of the expert reports of Mr. Martinez and Dr. Rubin described above and in the attached Proposed Order.

Respectfully Submitted,

/s/ Stephen B. Brauerman

Stephen B. Brauerman (#4952)

cc: Counsel of Record

EXHIBIT 1

PRIATE IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff and Counterclaim Defendant,	)	C.A. No. 1:22-cv-00305-JLH-CJB
	)	
v.	)	**HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY**
	)	
NETFLIX, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	

EXPERT REPORT OF AVIEL D. RUBIN, Ph.D. ON INVALIDITY OF U.S. PATENT NOS. 7,155,451; 8,606,819; 8,965,932

> for generating a set of indicia used to select and create sets of image collections for subsequent display on a video terminal at a user-selected time and sequence; means for collecting sets of image collections based on the set of indicia; and means for displaying of representative portions of each of the sets of image collections on the video terminal. Means are provided for displaying the sets of image collections.

See Tarabella at Abstract.

326. The term "images" as used in Tarabella "refers to the graphic images such as drawings or photographic-type representations, to text, to sounds associated with the graphics or text, and to combinations of graphic images, text and sound." Tarabella at 3:29-33. Tarabella provides the means for a user to identify at least one resource from a plurality of resources via a communications network. Resources called "images" in Tarabella are stored in one or more libraries located on remote computers. The user creates a user profile that specifies the subject matter they are interested in. Software in the user's computer communicates regularly and automatically over a network with the libraries to collect the resources that match the user's profile. These resources are downloaded to the user's computer and are automatically displayed in a sequence when the computer becomes idle. The user can determine the duration during which the resource is displayed on their terminal.

C. DeckScape

1. Prior Art Status of DeckScape

327. DeckScape is a web browsing program developed in 1994 by Dr. Marc H. Brown and Robert Schiller. I understand that DeckScape was publicly described in printed publications as early as April 1995, and specifically in following documents:

- Marc H. Brown and Robert A. Shillner, *DeckScape: An Experimental Web Browser*, 27 Computer Networks and ISDN Systems at 1097–1104 (April, 1995) (NFLX_0000882–889);
- Marc H. Brown and Robert A. Shillner, *A New Paradigm for Browsing the Web*, ACM CHI Companion (May 7-11, 1995) (NFLX_019195–906);

- Marc H. Brown and Robert A. Shillner, *The DeckScape Web Browser*, CHI 96 (April 13-18, 1996) (Abstract and accompanying Technical Video) (NFLX_0192088–089, NFLX_0191880); and
- Marc H. Brown and Marc A. Najork, *Distributed Active Objects*, SRC Research Report (April 15, 1996) (NFLX_0000750–775).

See Brown Declaration ¶¶ 3-9. According to Dr. Brown, "only one version of the DeckScape product was developed, and its functionality remained the same from the summer of 1994 through the end of 1996. Dr. Brown further stated that the publications listed above "each describe the DeckScape product as it existed after its development in the summer of 1994." *Id.*

328. Thus, I understand that the DeckScape system is prior art to the Asserted Patents at least under 35 U.S.C. §§ 102(a) and 102(b) because the DeckScape system was first described in a printed publication and in public use by April 1995, over a year before Robocast's asserted priority date of the Asserted Patents, which is September 3, 1996, the filing date of U.S. Provisional Application No. 60/025,360.

329. Furthermore, I understand that each of the above publications is individually prior art to the Asserted Patents at least under 35 U.S.C. § 102(a), as they each predate the September 3, 1996 alleged priority date, which is September 3, 1996, the filing date of U.S. Provisional Application No. 60/025,360. Moreover, those publications dating over one year prior to September 3, 1996 (i.e., before September 3, 1995) are additionally prior art under 35 U.S.C. § 102(b) because they were published at least a year before Robocast's asserted priority date of the Asserted Patents.

330. I further understand that for prior art systems, like DeckScape, I may rely on multiple publications and media describing that prior art system, and that I am not limited to referring to any single publication to understand the functionality of that system.

2. Overview of DeckScape

331. DeckScape was an experimental Web browser developed by Robert A. Shillner and Marc H. Brown in 1994 at the Systems Research Center (SRS) of the Digital Equipment Corporation (DEC) in Palo Alto California. Like most of the work coming out of SRS, DeckScape was a prototype product intended at investigating the usefulness of certain novel ideas in computer systems through daily usage. More precisely, DeckScape was aimed at "exploring new methods of navigating and organizing pages on the Web." *See* DeckScape: An Experimental Web Browser (NFLX_0000882-889) at Overview.

332. These "new methods of navigating and organizing pages" were inspired by the arrangement of cards in a deck of playing cards. DeckScape introduced the concept of "deck abstraction" – "a way for the users to organize material" and used it in creative ways to improve the user experience in browsing the Web. *See*DeckScape: An Experimental Web Browser (NFLX_0000882-889) at Overview and Decks For Organizing Web Pages. DeckScape allowed users to record and revisit their browsing content and sequence, search for and organize Web pages in categories and take advantage of several convenience features.

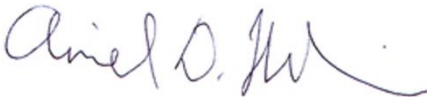
333. DeckScape automatically recorded the user's browsing history by placing the most recently visited page on the same deck window, on top of and obscuring the parent page. Navigation controls were provided for each deck. More specifically, "When the user clicks a link on a page, a new Web page appears on top of the deck, obscuring the page that was previously visible. The user can leaf through a deck's pages one at a time, jump to the top or bottom of a deck, or move to any particular page by choosing its name from a list of the deck's current contents." *See* DeckScape: An Experimental Web Browser (NFLX_0000882-889) at Overview.

334. DeckScape allowed users to collect, organize, and view Web content on their computer:

XV. DECLARATION

I declare under penalty of perjury that the foregoing is true and correct.

Dated: June 14, 2024

By: 

Aviel D. Rubin, Ph.D.

EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff and Counterclaim Defendant,	)	C.A. No. 1:22-cv-00305-JLH-CJB
	)	
v.	)	**HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY**
	)	
NETFLIX, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	**HIGHLY CONFIDENTIAL – SOURCE CODE**

EXPERT REPORT OF AVIEL D. RUBIN, Ph.D. ON NON-INFRINGEMENT OF U.S. PATENT NOS. 7,155,451; 8,606,819; 8,965,932

that influenced the development of the original Web browsers (e.g., Mosaic) in the beginning to mid-1990s, during the introduction of the WWW. As such, Dr. Almeroth has not identified an alleged benefit that reflects a point of novelty over the prior art.

612. Moreover, I also note that the concept of "how a user interacts with the platform, including the ability to show the user certain content and direct the user to that content" is not actually claimed by the Asserted Patents, let alone recited in the Asserted Claims. Dr. Almeroth has not shown that the alleged benefit even flows from the Asserted Claims. The claim language in each of the Asserted Claims recites "without requiring user input" as one step among the method steps that must be performed. This indicates that the Asserted Claims, and therefore the claimed invention, is intended to remove or eliminate user interaction. Therefore, the alleged benefit of "how a user interacts with the platform" is contradictory to recited steps of the Asserted Claims.

613. Furthermore, as I have noted above, the presence of the Accused Functionality does not indicate that subscribers have actually used the autoplay functionality; this is because Netflix has preserved, since even the initial introduction of the Accused Functionality, the ability for the subscriber to click to advance to a next title. Relatedly, the presence of the Accused Functionality does not indicate that it has indeed influenced how a subscriber interacts with the platform. And, as I have discussed throughout this Report, Netflix provides a limit on how many instances of autoplayed titles can occur before the subscriber must affirmatively provide input to confirm that he/she is still watching. Additionally, the points I have made with respect to Dr. Almeroth's allegations regarding user engagement in Section X.D apply here as well.

XI. NON-INFRINGING ALTERNATIVES

614. As discussed above, it is my opinion that Netflix has not infringed the Asserted Patents during the alleged damages window, which I understand is from March 7, 2016, through

August 9, 2020. However, I provide my opinion below regarding whether there were acceptable non-infringing alternatives to the Asserted Claims that would have been available at or around the time of the hypothetical negotiation, for the purposes of calculating damages. My discussions below of the non-infringing alternatives does not indicate that I believe the Netflix Service, including the Accused Functionality, has infringed the Asserted Patents.

615. It is my understanding that, here, Robocast is only seeking damages in the form of a reasonable royalty. I further understand that Mr. Holzen, Robocast's damages expert, has identified three separate dates for the hypothetical negotiation, depending on whether each of the Asserted Patents is found to be valid, enforceable, and infringed:

- August 2012 (all Asserted Patents);
- December 2013 (only the '819 and '932 patents); and
- February 2015 (only the '932 patent).

See Holzen Opening Report on Damages ¶¶ 77-79. I understand that Robocast has not previously identified any dates for the hypothetical negotiation until the last day of fact discovery. *See* May 13, 2024, Robocast, Inc.'s Supplemental Objections and Responses to Netflix, Inc.'s Interrogatories (Nos. 1-25) at 190-91. I address each of these dates for the hypothetical negotiation in turn. That I provide my opinions with respect to each of these alternative dates is not to be taken as any indication that Robocast has timely disclosed those dates for the hypothetical negotiation, or as any waiver of Netflix's objections to Robocast's belated and untimely disclosure.

616. Relevant to my discussions of the non-infringing alternatives, I provide an estimation of the amount of effort (e.g., engineering time, including any associated time costs to make the design changes, quality control, testing, and code review) it would have taken for Netflix to have implemented each of these non-infringing alternatives. These estimations were based on my discussions with Netflix employees Mr. Mooney and Mr. Nel.

617. Relatedly, in order to address the estimation of the amount of effort for the three separate dates of hypothetical negotiation, I have also considered the available clients on which the Netflix Service was available. Based on my understanding, the autoplay functionality during Post-Play was introduced to web and TVUI (PS3) in August 2012 (NFLX_0191689-691), to iPad in May 2013 (NFLX_0191692-694), and to Android in June 2014 (NFLX_0191719-721), to TVOS (Apple TV) in July 2014 (NFLX_0191702-6), to Win10 in December 2015 (NFLX_0192372-378). Thus, in discussing the level of effort, for the non-infringing alternatives that require changes across the client devices, those will scale accordingly based on the available client devices.

A. Non-Infringing Alternatives as of August 2012

618. There were a number of acceptable non-infringing alternatives available as of August 2012, which I understand is when the Accused Functionality was first made available on web and TVUI (e.g., PS3) devices. *See, e.g.*, NFLX_0104562-567 (YouTube page identifying video published August 13, 2012, by Netflix announcing the Next Episode experience of Post-Play); NFLX_0192371 (YouTube video showing the Next Episode experience of Post-Play); NFLX_0191689-691 (Netflix's blogpost dated August 15, 2012, describing the Next Episode).

619. Dr. Almeroth's argument that the identified non-infringing alternatives do not "recapture the benefits lost from making those changes" fails to acknowledge that the Accused Functionality, as part of the Netflix Service, never offered the alleged benefits of the Asserted Patents. *See* Almeroth Opening Report on Infringement ¶ 498. This is because Netflix imposed a limit to the number of titles that could automatically be played without requiring the member to provide some kind of input. The Accused Functionality works in tandem with the "Continue Watching?" (also referred to as "Interrupter") functionality, which forces the member to actively

respond to a dialogue asking the member if he/she wishes to continue watching after a certain number (typically, three) of episodes have automatically played in succession, or if a new title begins automatically playing. *See, e.g.*, NFLX_0182819-840 (Cross-Merch via Post-Play [redacted]) at NFLX_0182821-22 (describing the logic flow for Interrupter); *see also* Section VIII.C.5, Section IX.A.2, and Section IX.A.7 on discussions of client-side source code implementation of Netflix's video player and relevant UI display components on the Netflix client. While [redacted], the functionality consistently has been present in connection with the Accused Functionality.

620. [redacted]

[redacted]

See, e.g., NFLX_0191766-785 ([redacted]) at NFLX_0191771 (testing for web client); NFLX_0192293-308 ([redacted]) at NFLX_0192293 ("[redacted]"), NFLX_0192296 (similar, testing [redacted]); *see also* NFLX_0048373-383 ([redacted]) (identifying interactions with Interrupter screens).

621. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]. For instance, [redacted].

622. Furthermore, as indicated by feedback from the public, the inclusion of this "Continue Watching?" check vitiates the alleged benefit of the Accused Functionality. *See, e.g.*, NFLX_0104562-567 (YouTube page identifying video published August 13, 2012, by Netflix announcing the Next Episode experience of Post-Play) at NFLX_0104567 ("Yes but a few minutes into the next program you have to select 'continue watching'. It's pointless if you're sitting away from your computer.").

1. Using Prior Subscriber Experience Before Introduction of the Autoplay Functionality During Post-Play

623. One category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to continue to use the prior subscriber experience that existed before August 2012.

624. This would have been a non-infringing alternative, as the prior subscriber experience does not infringe any of the Asserted Claims because it did not involve automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at claim 1; '819 patent at claim 1; '932 patent at claim 1. The prior subscriber experience required subscribers to actively select what to watch (i.e., requiring user input) next after a currently playing title concluded, and so the prior subscriber experience does not involve performing the claimed steps that must be performed "automatically" and "without user input."

625. At or around the time of the hypothetical negotiation (August 2012), using the prior subscriber experience would have been an acceptable non-infringing alternative. This is because, just prior to August 2012, Netflix subscribers did not need the Accused Functionality in order to use the Netflix Service. That is, the introduction of the Accused Functionality did not change the subscriber's ability to view content available through the Netflix Service or to use any of the client devices in viewing content available through the Netflix Service. Furthermore, Netflix subscribers would have been well familiar with the prior experience during this time period.

626. Furthermore, in 2012, video streaming using an online service was still relatively new. Traditional TV was still prevalent during this time, and so subscribers still had an expectation that they would need to interact with any entertainment service (e.g., pressing buttons on a remote) during the viewing experience. As such, subscribers would not have had expectations that there would be the option for one video to automatically play after another. Indeed, there were multiple negative reactions—and, at the very least, mixed or neutral reactions, to the introduction of the Accused Functionality, as documented by public commentary on the YouTube video discussing the Accused Functionality. *See, e.g.*, NFLX_0104562-567 (YouTube page identifying video published August 13, 2012, by Netflix announcing the Next Episode experience of Post-Play) at

NFLX_0104564 ("it doesn't really affect me either way"); NFLX_0104565 ("I'll be cancelling if it starts to do this on my Sharp TV with no way to defeat it!"; "As it is, I regret it."); NFLX_0104566 ("Thanks Netflix for ruining the iconic 'LOST' drum/title … Hulu just took away the option to turn off auto-play last month and there were so many complaints that they added it back. You probably should have been paying attention."). This indicates that subscribers would have found the prior subscriber experience to be acceptable.

627. At or around the time of the hypothetical negotiation (August 2012), using the prior subscriber experience would have been an available non-infringing alternative because the prior subscriber experience is what Netflix had been using before August 2012. This non-infringing alternative was not only theoretically possible, but it had actually existed prior to August 2012.

628. This category of non-infringing alternatives could have been implemented in a number of ways, including the exemplary ways I describe below.

629. First, Netflix could have chosen simply not to introduce the Accused Functionality, which is the autoplay functionality during Post-Play. Netflix could have just used the prior subscriber experience, which already existed prior to the introduction of the Accused Functionality. The prior subscriber experience also would have been an alternative that subscribers would have expected to have encountered while using the Netflix Service if considering subscribers' expectations during the eve of infringement when the hypothetical negotiation would have taken place.

630. This approach to implementing this category of non-infringing alternatives by choosing simply not to introduce the Accused Functionality would not have cost Netflix anything to implement. This is because the prior subscriber experience already existed and was being used on the Netflix Service before the Accused Functionality was introduced. There would not have

been any further technical development, testing, or changes to the source code that Netflix would have needed to undertake to make that decision.

631. Dr. Almeroth alleges that this non-infringing alternative of simply choosing not to launch the Accused Functionality and using the prior subscriber experience would not have cost Netflix "nothing to implement" because of the development costs that went into the Accused Functionality. *See* Almeroth Opening Report on Infringement ¶ 501. However, the development costs of the Accused Functionality are separate from the inquiry regarding the cost of implementing ***the non-infringing alternative***.

632. Second, if Netflix had just made the Accused Functionality available in August 2012, Netflix could have chosen to revert to the prior subscriber experience by [redacted] Based on my discussions with Mr. Mooney and Mr. Nel, I understand that, at or around August 2012, [redacted]. At or around the time of the hypothetical negotiation (August 2012), the Accused Functionality was only released on the web-based player and TVUI (PS3). Therefore, [redacted]

633. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

[redacted] I understand that [redacted] As a conservative estimate, I understand that [redacted] . Thus, I understand that [redacted] .

634. Dr. Almeroth alleges that [redacted] due to "additional new functionalities" potentially "implemented in the gap between two versions of code." *See* Almeroth Opening Report on Infringement ¶ 502. However, Dr. Almeroth has identified no such functionalities to prove this point. Furthermore, I understand that the relevant date for the hypothetical negotiation here is at or around August 2012 in light of the fact that Netflix launched the Accused Functionality in August 2012. I am fully aware of the fact that, in practice, [redacted] has the potential to cause implementation obstacles where there are new functionalities at issue. However, [redacted] .

635. Additionally, based on my discussions with Netflix's Director of Engineering Mr. Nel, [redacted]

[redacted]

[redacted]. Mr. Nel also confirmed that rolling back to source code would have been straightforward in August 2012 for this very reason I mentioned regarding timing.

636. Furthermore, in my discussions with Netflix employees Mr. Mooney and Mr. Nel, I was also informed that [redacted] was built into the way that Netflix had implemented the Accused Functionality just prior to when the Accused Functionality was first made available on web and TVUI (PS3) in August 2012. This, in addition to Dr. Almeroth's failure to identify any specific functionality that would be [redacted] would not be possible.

637. Third, if Netflix had just made the Accused Functionality available in August 2012, Netflix could have chosen to revert to the prior subscriber experience [redacted] that existed prior to the introduction of the Accused Functionality. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted] For example, [redacted], which is consistent with this practice such as:

- [redacted]

[redacted]

I understand that this is fairly standard practice in product development since the goal of the A/B testing is to ascertain behaviors and responses from the public based on test cell allocation, including which test cells are preferred by subscribers. Thus, [redacted] that did not involve the Accused Functionality.

638. I also discussed [redacted] with Netflix's Director of Engineering, Mr. Nel. According to Mr. Nel, [redacted]

639. For example, as shown in Netflix's documents, Netflix [redacted]. *See* NFLX_0191766-785 ([redacted]). [redacted]

[redacted]

See id. at NFLX_0191769 (identifying [redacted]).

640. [redacted] prior to August 2012:

[redacted]

See, e.g., NFLX_0192293-308 ([redacted]) at NFLX_0192293 (identifying the [redacted]); *see also* NFLX_0192287-292 ([redacted]).

641. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted] At or around the time of the hypothetical negotiation (August 2012), the Accused Functionality was only released on the web-based player and TVUI (PS3). Therefore, [redacted] would have only applied to these UIs.

642. Additionally, based on my discussions with Mr. Mooney and Mr. Nel, I understand that [redacted] Therefore, as an estimate, I understand that [redacted]. Thus, I understand that [redacted].

643. Dr. Almeroth alleges that this does not account for "other costs and testing," but fails to allege with specificity what those would be. *See* Almeroth Opening Report on Infringement ¶ 503. Dr. Almeroth also alleges that the non-infringing alternative leaves "implemented code

dormant or unused." *Id.* Dr. Almeroth only speculates this to be true ("as it appears Netflix is suggesting…"). *Id.* However, the described non-infringing alternative does not suggest that this is the case; [redacted]

644. Even so, as another alternative to implementation, I understand from my discussions with Netflix employees Mr. Mooney and Mr. Nel that [redacted] given the proximity in time of the A/B testing of the Accused Functionality and the hypothetical negotiation date of August 2012.

645. I have also discussed with Netflix's Director of Engineering Mr. Nel the implementation of the non-infringing alternative [redacted] Therefore, with the understanding that I acquired from my conversation with Netflix employees Mr. Mooney and Mr. Nel, [redacted] This is because Mr. Nel indicated [redacted]

[redacted]

646. Separately, Dr. Almeroth alleges that "after introducing the feature on August 15, 2012, has not significantly modified or removed it from any versions of the Netflix Service after introduction." Almeroth Opening Report on Infringement ¶ 500. I understand that this is inapposite because the analysis regarding non-infringement alternatives is set in the context of the hypothetical negotiation, at or around August 2012, and not at a later point in time.

2. Doing Nothing at the Conclusion of the Currently Playing Title

647. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to do nothing at the conclusion of the currently playing title.

648. This would have been a non-infringing alternative, as doing nothing at the conclusion of the currently playing title does not infringe any of the Asserted Claims because it would not have involved automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at claim 1; '819 patent at claim 1; '932 patent at claim 1. When nothing happens after the subscriber finishes watching a title, the subscriber would then be required to actively select what to watch (i.e., requiring user input) next, or to return to the home page, or take other action. As such, this non-infringing alternative does not involve performing the claimed steps that must be performed "automatically" and "without user input."

649. At or around the time of the hypothetical negotiation (August 2012), doing nothing at the conclusion of the currently playing title would have been an acceptable non-infringing alternative. This is because subscribers could always navigate away from the currently playing

title at any point, including navigating back to the prior landing page or the Netflix home page. *See, e.g.*, Deposition of Joubert Nel (taken on May 9, 2024) at 85:18-20 (describing that "[o]ne example when there wouldn't be auto-play happening in Post-Play is if the member backs out of Post-Play prematurely"). It would not be beyond the expectation of subscribers to have to need to navigate to another page in order to view a next title as a next best alternative to a next title that would be autoplayed. Furthermore, [redacted] *See, e.g.*, NFLX_0191766-785 ([redacted]) at NFLX_0191770.

650. At or around the time of the hypothetical negotiation (August 2012), using the prior subscriber experience would have been an available non-infringing alternative because it would not require significant changes to the source code to implement this non-infringing alternative. Rather, [redacted]

651. Netflix could have implemented this non-infringing alternative for example, by making [redacted]

[redacted]

See NFLX_0191766-785 ([redacted]) at NFLX_0191770 (annotated).

652. Additional modifications include [redacted]. Furthermore, based on those discussions, I understand that [redacted]

[redacted]

653. Furthermore, based on my discussions with Netflix's Director of Engineering Mr. Nel, I understand that [redacted] This is especially true given that any such modification at this time in August 2012 would only impact two of the client platforms (web and TVUI (PS3)), and the only potentially infringing Post-Play experience would have been the Next Episode experience.

654. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

655. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

656. Dr. Almeroth's alleges that this non-infringing alternative does not account of "further testing, design, and quality assurance steps," without detailing in any specificity what those allegedly missing steps are. Almeroth Opening Report on Infringement ¶ 506. As I noted above, the estimate of effort accounts for designing, testing, and implementation.

657. As a separate point, Dr. Almeroth states that the non-infringing alternative [redacted]

658. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with this approach—and, even if it did exist, that cost would be a de minimis cost.

3. Requiring the Subscriber to Provide Input to Advance to the Next Title

659. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to require that the subscriber provide input in order to advance to the next title.

660. This would have been a non-infringing alternative, as requiring the subscriber to provide input to advance to the next title does not infringe any of the Asserted Claims because it would not have involved automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at claim 1; '819 patent at claim 1; '932 patent at claim 1. Requiring the subscriber to provide input, e.g., clicking a button to advance to the next episode or another movie, would not result in automatically accessing or automatically displaying resources since doing so would be contingent on the subscriber's actions (i.e., not "without

requiring user input"). As such, this non-infringing alternative does not involve performing the claimed steps that must be performed "automatically" and "without user input."

661. At or around the time of the hypothetical negotiation (August 2012), requiring the subscribers to provide input to advance to the next title would have been an acceptable non-infringing alternative. This is because this alternative always existed alongside the autoplay functionality during Post-Play. Even with the autoplay functionality enabled, subscribers were able to skip the autoplay countdown in order to advance to the next title before the countdown ran out by clicking on the displayed thumbnail that is overlaid with the "play" button, which is highlighted in yellow below:

See NFLX_0191766-785 ([redacted]) at NFLX_0191770 (annotated); *see also* NFLX_0104562-567 (YouTube page identifying video published August 13, 2012, by Netflix announcing the Next Episode experience of Post-Play); NFLX_0192371 (YouTube video showing the Next Episode experience of Post-Play).

662. Similarly, subscribers were familiar with actively providing input to continue watching the next title when presented with the dialogue box asking the subscriber to confirm continued viewing through the "Interrupter" functionality. *See, e.g.*, NFLX_0191766-785 ([redacted]) at NFLX_0191770-771; NFLX_0192293-308 ([redacted]) at NFLX_0192293.

663. [redacted] *See, e.g.*, NFLX_0048373-383 ([redacted]) at NFLX_0048373, NFLX_00483832–NFLX_0048383; NFLX_0183340-346 ([redacted]) at NFLX_0183340, NFLX_0183342. [redacted] NFLX_0105701-718_0001 ([redacted]) at NFLX_0105711.

664. At or around the time of the hypothetical negotiation (August 2012), requiring the subscriber to provide input to advance to the next title would have been an available non-infringing alternative because this option existed since the introduction of the Accused Functionality and [redacted] even before August 2012. This non-

infringing alternative was not only theoretically possible, but it had actually existed prior to August 2012.

665. This category of non-infringing alternatives could have been implemented in a number of ways, including the exemplary ways I describe below.

666. First, [redacted]

See NFLX_0191766-785 ([redacted]) at NFLX_0191770 (annotated).

667. This would have left just the display of the existing thumbnail that is overlaid with the "play" button, such that subscribers would click on the thumbnail to advance to the next title.

[redacted]

668. [redacted]

[redacted]

See, e.g., NFLX_0191766-785 ([redacted]) at NFLX_0191770.

669. [redacted]

670. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

671. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

672. Alternatively, [redacted]

[redacted] This would have been a middle ground in the effort required to implement this non-infringing alternative, which would have been less than the scenario I discuss below.

673. Second, Netflix could have designed a separate button for subscribers to click in order to advance to the next title. Similar to the functionality built into the thumbnail, which a subscriber could click on to advance to the next title, a button would exhibit the same functionality as well. [redacted]

674. [redacted]

675. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

[redacted]

676. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

677. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

678. Dr. Almeroth alleges that these approaches "fail to account for the actual complexity" and that "Netflix has not shown any instances of where any similar scope proposed change took the same amount of time as here." Almeroth Opening Report on Infringement ¶ 510. As I noted above, these estimates were derived from conversations with Netflix's engineers who have worked at the company and have had experience with the relevant aspects of the code base. Based on their testimony, and in view of the fact that these witnesses were deposed by Robocast, I do not see any reason to doubt that the estimated effort and time required are not accurate.

679. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with this approach—and, even if it did exist, that cost would be a de minimis cost.

4. Turning Off the Autoplay Functionality During Post-Play by Default

680. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to take a similar approach as what was eventually released to the public as the "Disable Autoplay Next Episode" toggle. *See, e.g.*, NFLX_0027975–NFLX_0027986; NFLX_0027987–NFLX_0027998. However, instead of allowing the subscriber to control whether to turn autoplay on or off, the non-infringing alternative would have dictated that autoplay be uniformly set on the backend to turn off the autoplay functionality.

681. This would have been a non-infringing alternative, as turning off the autoplay functionality during Post-Play by default (and more specifically, setting this through a flag that is checked in the code) does not infringe any of the Asserted Claims because it would not have involved automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at claim 1; '819 patent at claim 1; '932 patent at claim 1. When nothing happens after the subscriber finishes watching a title, the subscriber would then be required to actively select what to watch (i.e., requiring user input) next, or to return to the home page, or take other action. As such, this non-infringing alternative does not involve performing the claimed steps that must be performed "automatically" and "without user input."

682. At or around the time of the hypothetical negotiation (August 2012), this would have been an acceptable non-infringing alternative. This is because subscribers could always navigate away from the currently playing title at any point, including navigating back to the prior

landing page or the Netflix home page. It would not be beyond the expectation of subscribers to have to need to navigate to another page in order to view a next title as a next best alternative to a next title that would be autoplayed. Furthermore, [redacted] *See, e.g.*, NFLX_0191766-785 ([redacted]) at NFLX_0191770. Furthermore, the ex-post information that indicates Netflix took this route to disable the "Autoplay Next Episode" experience just a little more than over a year later also suggests that this would have been acceptable to subscribers.

683. At or around the time of the hypothetical negotiation (August 2012), using the prior subscriber experience would have been an available non-infringing alternative in the manner I described because the changes are not technologically complex. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

684. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with this approach—and, even if it did exist, that cost would be a de minimis cost.

5. Removing or Avoiding Use of Post-Play Experiences that Allegedly Autoplay "Promotions"

685. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to remove or avoid the use of Post-Play experiences that are allegedly "promotions" and that allegedly autoplay as identified in Dr. Almeroth's report. *See, e.g.*, Almeroth Opening Report on Infringement ¶ 221 ("Promotional content such as trailers are advertisements.").[6]

686. This would have been a non-infringing alternative, as removing or avoiding the use of such experiences would eliminate any Post-Play experiences that autoplay the allegedly infringing "advertisement content" or "advertising message." This non-infringing alternative would apply to the asserted claims reciting inserting dynamic content or advertisement content or advertising messages. *See, e.g.*,'451 patent at claim 28 ("wherein said dynamic content is an advertising message"); '819 patent at claim 1 ("causing advertisement content to be presented to said user").

687. At or around the time of the hypothetical negotiation (August 2012), removing these Post-Play experiences that allegedly autoplay "promotions" (e.g., allegedly advertisements) would have been an acceptable non-infringing alternative. This is because, as of August 2012, subscribers did not experience any "promotions" that automatically played after another title.

[6] Dr. Almeroth apparently does not allege that teasers or previews are promotional in nature or are advertisements. However, this non-infringing alternative would apply to any such alleged Post-Play experiences as well.

Thus, subscribers would not have been exposed to or have expected to have seen any trailers, for example, that would autoplay after another title.

688. Furthermore, the specific Accused Functionality, which is the autoplay functionality during Post-Play, was not essential to Netflix's way of allowing subscribers to discover new content. There were many other means of promotion, including through other aspects of the Netflix Service, including via email marketing, the "Continue Watching" row on the home page, and Billboards. *See, e.g.*, NFLX_0184502-517 at NFLX_0184502 ("[redacted]"); NFLX_0182535-545 (discussing many promotional tactics, [redacted]). Moreover, it is the personalization algorithms that Netflix employs that drove the discovery of content. *Id.* ("[redacted]."). The Asserted Claims, in contrast, do not recite or claim any personalization algorithms.

689. At or around the time of the hypothetical negotiation (August 2012), removing these Post-Play experiences that allegedly autoplay "promotions" (e.g., allegedly advertisements) would have been an available non-infringing alternative. At the time, Netflix had the ability to choose whether to introduce alleged "promotions" that would autoplay. This non-infringing alternative was not only theoretically possible, but it had actually existed prior to August 2012, as Netflix had not yet introduced any such alleged "promotions" among the available Post-Play experiences.

690. At the time of the launch of the autoplay functionality during Post-Play on the web-based player and TVUI (PS3), Post-Play included two experiences: (1) presenting the autoplay

functionality to play the next episode when the subscriber was in between episodes of a TV series, or (2) presenting three static recommendations requiring the subscriber or at the end of a movie. *See, e.g.*, NFLX_0191689-691; NFLX_0191766-785 at NFLX_0191770, NFLX_0191772; NFLX_0104562-567; *see also* NFLX_0192287-292; NFLX_0192293-308. Neither of these experiences included the Post-Play experiences that allegedly autoplayed "promotions" for content, which is limited to trailers based on what Dr. Almeroth has identified in his report.

691. Thus, at the time of the hypothetical negotiation, Netflix could have implemented this non-infringing alternative, for example, by choosing simply not to introduce these particular Post-Play experiences. This would not have cost Netflix anything to implement. There would not have been any further technical development or testing or changes to the source code that Netflix would have needed to undertake to make that decision. As I noted previously, any development costs of the Accused Functionality are separate from the inquiry regarding the cost of implementing the non-infringing alternative.

6. Removing Recommendations Based Subscriber's Profile from Post-Play Experience that Allegedly Autoplay

692. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to remove any recommendations, used in Post-Play experiences that allegedly autoplay, which are based on a subscriber's profile and that allegedly autoplay.

693. This would have been a non-infringing alternative, as removing recommendations that are based on a subscriber's profile would eliminate any Post-Play experiences that autoplay and involve the "user's profile." *See, e.g.*, '451 patent at claim 29.

694. At or around the time of the hypothetical negotiation (August 2012), removing any recommendations, used in Post-Play experiences that allegedly autoplay, which are based on a

subscriber's profile, and that allegedly autoplay would have been an acceptable non-infringing alternative. This is because, as of August 2012, any value derived from alleged recommendations based on the subscriber's profile was due to Netflix's specific algorithms instead of the Accused Functionality, which is the autoplay functionality during Post-Play. As I discussed in Section XI.A.5 (discussing removing or avoiding the use of Post-Play experience that allegedly autoplay "promotions"), it was the personalization algorithms that Netflix employs that drove the discovery of content, and the Asserted Claims do not recite or claim any of these personalization algorithms.

695. Furthermore, the overall impact of making such a change would not prevent Netflix from otherwise leveraging recommendations based on the subscriber's profile. There were other avenues that existed where Netflix could have still employed the subscriber's profile to create targeted recommendations, such as through the Netflix homepage, searches, etc. *See, e.g.*, NFLX_0184502-517 at NFLX_0184502 ("[redacted]").")

696. At or around the time of the hypothetical negotiation (August 2012), removing any recommendations, used in Post-Play experiences that allegedly autoplay, which are based on a subscriber's profile and that allegedly autoplay would have been an available non-infringing alternative. At the time, Netflix had the ability to choose what algorithms would have driven recommendations that would have been presented during Post-Play.

697. At the time of the first launch of the autoplay functionality during Post-Play on web and PS3 (an instance of TVUI) on August 15, 2012, Post-Play presented three static recommendations to the subscriber based on, for example, what subscribers who watched the

concluded title tended to watch as a next title. These were not recommendations based on the subscriber's profile.

698. Thus, at the time of the hypothetical negotiation, Netflix could have implemented this non-infringing alternative, for example, by choosing simply not to generate recommendations based on the subscriber's profile. This would not have cost Netflix anything to implement. There would not have been any further technical development or testing or changes to the source code that Netflix would have needed to undertake to make that decision. As I noted previously, any development costs of the Accused Functionality are separate from the inquiry regarding the cost of implementing the non-infringing alternative.

7. Displaying Only One Alleged Resource at a Time

699. Another category of non-infringing alternatives that would have been available and acceptable at or around the time of the hypothetical negotiation (August 2012) would have been to display only one alleged resource at a time.

700. This would have been a non-infringing alternative, as displaying only one alleged resource at a time would have eliminated any alleged "multidimensional show structure[s]," which under the parties' agreed-upon construction requires that the alleged nodes "are presented concurrently for at least some portion of the show." *See* '451 patent at claim 37. By presenting only one alleged resource at a time, no alleged nodes would be displayed at the same time as another.

701. For example, the highlighted elements that reflect the currently playing title would not be minimized, but displayed full-screen:

See, e.g., NFLX_00000052-066 at NFLX_0000055 (annotated and excerpted).

See, e.g., NFLX_00000052-066 at NFLX_0000057 (annotated and excerpted).

702. [redacted]

703. However, I note that as an even simpler alternative for episodic Post-Play, there could be a text-based icon (e.g., "Episode #") that would not be related to any "resource" or "content," to be displayed instead of switching to another screen following the currently playing title.

704. [redacted]

705. At or around the time of the hypothetical negotiation (August 2012), displaying only one alleged resource at a time would have been an acceptable non-infringing alternative. [redacted]

706. At or around the time of the hypothetical negotiation (August 2012), displaying only one alleged resource at a time would have been an available non-infringing alternative. [redacted]

[redacted]

707. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

708. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with this approach—and, even if it did exist, that cost would be a de minimis cost.

B. Non-Infringing Alternatives as of December 2013

709. There were a number of acceptable non-infringing alternatives available as of December 2013, which I understand is when the '819 patent was issued. *See* '819 at Cover (issue date of December 10, 2013).

710. I have discussed with Netflix engineers Mr. Nel and Mr. Mooney the non-infringing alternatives identified in Section XI.A if implemented in December 2013. I discuss the implementation details below, and any changes to the amount of effort required to implement those non-infringing alternatives. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with the approaches discussed below—and, even if it did exist, that cost would be a de minimis cost.

711. Regarding the acceptability of these non-infringing alternatives, the reasons I discussed with respect to August 2012 apply equally to December 2013. Furthermore, by December 2013, Netflix had been actively working on the option to disable the Accused Functionality, which is the autoplay functionality during Post-Play. *See, e.g.*, NFLX_0027987-998 ("Netflix to stop forcing you to watch more TV") at NFLX_0027987 (article dated October 3, 2013 stating that Netflix's Director of Corporate Communications indicated that Netflix will "push out a feature that will enable subscribers to stop autoplay after each episode"); NFLX_0027975-986 ("Netflix finally lets users disable Post-Play feature") at NFLX_0027975 ("In October 2013, Netflix pledged to allow streaming users the ability to turn off Post-Play—the feature that auto-advances you to the next TV show episode after you finish one—by the end of the year."). Therefore, Netflix had understood that subscribers desired the ability to remove the Accused Functionality from their experience when using the Netflix Service. For additional context, Netflix began offering subscribers the ability to disable the Accused Functionality by January 24, 2014. *See, e.g.*, NFLX_0027975-986 ("Netflix finally lets users disable Post-Play feature").

712. To the extent that Dr. Almeroth argues that for the later hypothetical negotiation dates, subscribers would have developed an expectation that autoplaying one video after another would be offered by Netflix, this is contrary to the actual expectations of those who used video streaming services and contrary to what video streaming services offered as alternatives. Several streaming services offered similar non-infringing alternatives (e.g., the option to turn off autoplaying the next episode) and similar next-best alternatives to autoplaying one video after another, well beyond the alternative dates for the hypothetical negotiation. Oftentimes, this was provided as an alternative in view of the public's voiced displeasure with forced autoplaying one video after another. *See, e.g.*, IndieWire, "Netflix, Hulu, Amazon, and Other Streaming Platforms

Need to Rethink Auto-Play for TV Shows — Opinion" (Jan. 10, 2019), *available at* https://www.indiewire.com/features/general/netflix-hulu-amazon-and-other-streaming-platforms-need-to-rethink-auto-play-for-tv-shows-opinion-1202034303/; TechAeris, "How to: Turn off autoplay on Netflix, Hulu, and Prime Video" (Aug. 26, 2021), *available at* https://techaeris.com/2021/08/26/how-to-turn-off-autoplay-on-netflix-hulu-and-prime-video/; OneLaunch, "How To Turn Off (That Annoying) Autoplay on Netflix and Other Streaming Services" (Jan. 9, 2024), https://blog.onelaunch.com/turn-off-autoplay/.

713. Regarding the availability of these non-infringing alternatives, the reasons I discussed with respect to August 2012 apply equally to December 2013, except for the non-infringing alternative of using the prior subscriber experience. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that the modifications required for implementing the non-infringing alternatives are simple in nature and would have been within the skill level of Netflix engineers at the time.

1. Using Prior Subscriber Experience Before Introduction of the Autoplay Functionality During Post-Play

714. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that simply reverting to the prior subscriber experience ([redacted]) would not have been an acceptable or available non-infringing alternative in view of the passage of time.

2. Doing Nothing at the Conclusion of the Currently Playing Title

715. This non-infringing alternative is described in Section XI.A.2.

716. In view of the additional clients that were available as of December 2013 (iOS and Android), the amount of effort required to implement certain non-infringing alternatives (doing

nothing at the conclusion of the currently playing title and requiring the subscriber to provide input to advance to the next title) would have scaled accordingly since those implementations would have required modifications to the client UIs. Additionally, in view of the fact that additional Post-Play experiences that allegedly included autoplay were introduced as of December 2013, I understand from my discussions with Netflix employees Mr. Mooney and Mr. Nel [redacted]

717. For the non-infringing alternative of doing nothing at the conclusion of the currently playing title, implementing the non-infringing alternative [redacted] *See* Section XI.A.2.

3. Requiring the Subscriber to Provide Input to Advance to the Next Title

718. This non-infringing alternative is described in Section XI.A.3.

719. As discussed above in Section XI.B.2, there would have been increases to the amount of effort required to implement certain non-infringing alternatives in view of additional clients and additional Post-Play experiences available.

720. For the non-infringing alternative of requiring the subscriber to provide input to advance to the next title, implementing the non-infringing alternative [redacted] *See* Section XI.A.3.

4. Turning Off the Autoplay Functionality During Post-Play by Default

721. This non-infringing alternative is described in Section XI.A.4. And, as noted above, around this time, Netflix had already been working on the ability for a subscriber to disable the autoplay functionality during Post-Play.

722. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand [redacted]

723. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

[redacted]

5. Removing or Avoiding Use of Post-Play Experiences that Allegedly Autoplay "Promotions"

724. This non-infringing alternative is described in Section XI.A.5.

725. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

6. Removing Recommendations Based Subscriber's Profile from Post-Play Experience that Allegedly Autoplay

726. This non-infringing alternative is described in Section XI.A.6.

727. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

[redacted] Furthermore, any change in the way the next title is generated would be a change that would be implemented silently without subscribers even being aware it occurred; this further suggests the acceptability of this non-infringing alternative.

728. Mr. Mooney and Mr. Nel informed me that [redacted]

7. Displaying Only One Alleged Resource at a Time

729. This non-infringing alternative is described in Section XI.A.7.

730. As discussed above in Section XI.B.2, there would have been increases to the amount of effort required to implement certain non-infringing alternatives in view of additional clients and additional Post-Play experiences available.

731. For the non-infringing alternative of requiring the subscriber to provide input to advance to the next title, implementing the non-infringing alternative [redacted] *See* Section XI.A.7.

C. Non-Infringing Alternatives as of February 2015

732. There were a number of acceptable non-infringing alternatives available as of February 2015, which I understand is when the '932 patent was issued. *See* '932 patent at Cover (issue date of February 24, 2015).

733. I have discussed with Netflix engineers Mr. Nel and Mr. Mooney the non-infringing alternatives identified in Section XI.A if implemented in February 2015. I discuss the implementation details below and any changes to the amount of effort required to implement those non-infringing alternatives. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, it is my understanding that there is not a separate cost other than that already identified with the approaches discussed below—and, even if it did exist, that cost would be a de minimis cost.

734. Regarding the acceptability of these non-infringing alternatives, the reasons I discussed with respect to August 2012 and December 2013 apply equally to February 2015.

735. Regarding the availability of these non-infringing alternatives, the reasons I discussed with respect to August 2012 and December 2013 apply equally to February 2015, except for the non-infringing alternative of using the prior subscriber experience. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I further understand that [redacted]

1. Using Prior Subscriber Experience Before Introduction of the Autoplay Functionality During Post-Play

736. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that simply reverting to the prior subscriber experience [redacted]

[redacted]

would not have been an acceptable or available non-infringing alternative in view of the passage of time.

2. Doing Nothing at the Conclusion of the Currently Playing Title

737. This non-infringing alternative is described in Section XI.A.2.

738. In view of the additional clients that were available as of February 2015 (iOS, Android, and TVOS), the amount of effort required to implement certain non-infringing alternatives (doing nothing at the conclusion of the currently playing title and requiring the subscriber to provide input to advance to the next title) would have scaled accordingly since those implementations would have required modifications to the client UIs. Additionally, in view of the fact that additional Post-Play experiences that allegedly included autoplay were introduced as of February 2015, I understand from my discussions with Netflix employees Mr. Mooney and Mr. Nel that [redacted]

739. For the non-infringing alternative of doing nothing at the conclusion of the currently playing title, implementing the non-infringing alternative [redacted] *See* Section XI.A.2.

3. Requiring the Subscriber to Provide Input to Advance to the Next Title

740. This non-infringing alternative is described in Section XI.A.3.

741. As discussed above in Section XI.C.2, there would have been increases to the amount of effort required to implement certain non-infringing alternatives in view of additional clients and additional Post-Play experiences available.

742. For the non-infringing alternative of requiring the subscriber to provide input to advance to the next title, implementing the non-infringing alternative [redacted] *See* Section XI.A.3.

4. Turning Off the Autoplay Functionality During Post-Play by Default

743. This non-infringing alternative is described in Section XI.A.4. And, as noted above, around this time, Netflix had already provided the ability for a subscriber to disable the autoplay functionality during Post-Play.

744. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

745. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

[redacted]

5. Removing or Avoiding Use of Post-Play Experiences that Allegedly Autoplay "Promotions"

746. This non-infringing alternative is described in Section XI.A.5.

747. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted]

6. Removing Recommendations Based Subscriber's Profile from Post-Play Experience that Allegedly Autoplay

748. This non-infringing alternative is described in Section XI.A.6.

749. Based on my discussions with Netflix employees Mr. Mooney and Mr. Nel, I understand that [redacted] Furthermore, any change in the way the next title is generated would be a change that would be implemented silently without subscribers even being aware it occurred; this further suggests the acceptability of this non-infringing alternative.

750. Mr. Mooney and Mr. Nel informed me that developing and deploying this alternative [redacted]

7. Displaying Only One Alleged Resource at a Time

751. This non-infringing alternative is described in Section XI.A.7.

752. As discussed above in Section XI.C.2, there would have been increases to the amount of effort required to implement certain non-infringing alternatives in view of additional clients and additional Post-Play experiences available.

753. For the non-infringing alternative of requiring the subscriber to provide input to advance to the next title, implementing the non-infringing alternative [redacted] *See* Section XI.A.7.

XII. COMPARABLE LICENSES

754. I understand that past licenses or transactions relating to patented inventions that are comparable to a license Robocast and Netflix hypothetically might have reached for the Asserted Patents may be relevant to a damages analysis. I have been asked to review the patents and applications that are the subject of certain licenses or assignments that Robocast has previously entered into and provide my opinions on whether the patents and applications that were the subject of those transactions are technically comparable to the Asserted Patents.

755. All of the patents and licenses across all three license agreements I evaluated are similar in their claimed subject matter. In summary, all patents and applications that are involved in the license agreements are continuations of the '451 patent and as a result, are similar in terms of the claimed subject matter. For the purposes of discussion, the patents and applications covered by these agreements are listed below:

[redacted]

EXHIBIT 3

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., Plaintiff and Counterclaim Defendant, v. NETFLIX, INC, Defendant and Counterclaim Plaintiff.	Civil Action No. 1:22-cv-00305-JLH

REBUTTAL EXPERT REPORT OF CHRISTOPHER A. MARTINEZ WITH RESPECT TO DAMAGES

Respectfully submitted this 11th day of July 2024

HIGHLY CONFIDENTIAL –ATTORNEYS' EYES ONLY

PURSUANT TO PROTECTIVE ORDER

first movie.[326] Therefore, the benefits related to content discovery in Completion Post-Play with respect to movies is likely limited.

195. Furthermore, the accused Autoplay functionality during Post-Play is just one aspect of a member's experience with Netflix as a streaming service. Based on Netflix's internal survey research conducted in 2019, [redacted]"[327] According to these results, members identified content and a number of other technical functionalities available through Netflix as more important over the accused Autoplay functionality.

196. As noted above, when Netflix did a survey [redacted] signaling that Netflix did not think it was of import.[328]

ii. *Non-Infringing Alternatives*

197. Based on discussions with Dr. Rubin, I understand that Netflix had seven non-infringing alternatives to the Patents-in-Suit that were available as of August 2012 and that would be acceptable to Netflix and its members.

198. Netflix disclosed in its interrogatory response that there existed at least seven non-infringing alternatives as of August 2012 that would be deemed acceptable to Netflix and its members:[329]

1. Use the prior member experience before introduction of the Autoplay functionality during Post-Play.

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[326] Wang Deposition Exhibit 2 (NFLX_0192327-346 at 337).
[327] NFLX_0062658-771_0039 at 663.
[328] NFLX_0121581-651_0018 at 585.
[329] Netflix, Inc.'s Fourth Supplemental Responses and Objections to Robocast, Inc.'s First Set of Interrogatories (Nos. 1-2, 4-11), May 13, 2024, No. 8 at 64-79.

a. Do not introduce Autoplay functionality during Post-Play.

b. Revert to prior member experience for playback [redacted].

c. Revert to prior member experience for playback [redacted].

2. Do nothing at the end of the currently playing title.

3. Require the member to provide input to advance to the next title.

   a. Remove the Autoplay countdown during Post-Play and leave simply the displayed thumbnail (shown with a "play" button) for the member to click on to advance to the next title.

   b. Design a separate button for members to click in order to advance to the next episode.

4. Turn off the Autoplay functionality during Post-Play as a default, similar to the implemented option for users to disable "Autoplay Next Episode."

5. Remove Post-Play experiences allegedly autoplaying "promotions" for content (e.g., trailers, teasers, or previews).

6. Remove recommendations based on the member's profile from allegedly autoplaying Post-Play experiences.

7. Display only one alleged resource at a time.

199. Based on my discussions with Nick Mooney and Joubert Nel, as well as Dr. Rubin, I understand that the above identified non-infringing alternatives were available as of August 2012 and would have been commercially acceptable to Netflix and its members.

200. I understand from Mr. Nick Mooney and Mr. Joubert Nel, that these non-infringing alternatives would be commercially acceptable and would take minimal resources to implement, of between approximately $0 and $43,155.[330]

201. This factor would have a downward influence with respect to a negotiated royalty amount at the hypothetical negotiation.

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[330] **Schedule 16.0**. I have considered Netflix's costs to implement the non-infringing alternatives assuming a December 2013 and February 2015 hypothetical negotiation date. See **Schedule 16.2** and **Schedule 16.3**.

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.0: Summary of Non-Infringing Alternative Design-Around Costs

	[A] August 2012	[B] December 2013	[C] February 2015
Alternative 1: Use prior member experience			
Option 1	$ -	n/a	n/a
Option 2	4,932	n/a	n/a
Option 3	2,466	n/a	n/a
Alternative 2: Do nothing at conclusion	4,932	29,592	36,990
Alternative 3: Require member to provide input			
Option 1	2,466	34,524	43,155
Option 2	8,631	n/a	n/a
Alternative 4: Turn off Autoplay functionality	38,840	16,029	18,495
Alternative 5: Remove Post-Play "promotions"	-	4,932	4,932
Alternative 6: Remove reliance on user profile	-	4,932	4,932
Alternative 7: Display only one alleged resource	12,330	24,660	30,825

Notes & Sources:

[A] **Schedule 16.1**.

[B] **Schedule 16.2**.

[C] **Schedule 16.3**.

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.1: Non-Infringing Alternative Design-Around Costs, August 2012 [A]

Alternative 1: Use prior member experience		**Option 1**	**Option 2**	**Option 3**
Netflix Engineer Annual Salary		$ 300,000	$ 300,000	$ 300,000
Overhead Burden	[B]	50%	50%	50%
Annual Engineer Cost to Netflix		$ 450,000	$ 450,000	$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233	$ 1,233	$ 1,233
[redacted] Engineers		$ -	2	2
Time per Engineer (Days)		$ -	2.0	1.0
Total Cost		**$ -**	**$ 4,932**	**$ 2,466**

Alternative 2: Do nothing at conclusion		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		2
Time per Engineer (Days)		2.0
Total Cost		**$ 4,932**

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.1: Non-Infringing Alternative Design-Around Costs, August 2012 [A]

Alternative 3: Require member to provide input		**Option 1**	**Option 2**
Netflix Engineer Annual Salary		$ 300,000	$ 300,000
Overhead Burden	[B]	50%	50%
Annual Engineer Cost to Netflix		$ 450,000	$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233	$ 1,233
[redacted] Engineers		2	2
Time per Engineer (Days)		1.0	3.5
Total Cost		**$ 2,466**	**$ 8,631**

Alternative 4: Turn off Autoplay functionality		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		2
Time per Engineer (Days)		10.5
[redacted] **Engineer Cost**		**$ 25,893**
[redacted] Engineers		1
Time per Engineer (Days)		10.5
[redacted] **Engineer Cost**		**$ 12,947**
Total Cost		**$ 38,840**

SCHEDULE 16.1: Non-Infringing Alternative Design-Around Costs, August 2012 [A]

Alternative 5: Remove Post-Play "promotions"		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		$ -
Time per Engineer (Days)		$ -
Total Cost		**$** -

Alternative 6: Remove reliance on user profile		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		$ -
Time per Engineer (Days)		$ -
Total Cost		**$** -

SCHEDULE 16.1: Non-Infringing Alternative Design-Around Costs, August 2012 [A]

Alternative 7: Display only one alleged resource		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		2
Time per Engineer (Days)		5.0
Total Cost		**$ 12,330**

Notes & Sources:

[A] Netflix, Inc.'s Fourth Supplemental Responses and Objections to Robocast, Inc.'s First Set of Interrogatories (Nos. 1-2, 4-11), dated May 13, 2024 at 64-78; Discussion with Nick Mooney (Senior Software Engineer at Netflix), Joubert Nel (Director of Engineering, User Experience at Netflix) and Dr. Aviel Rubin (Technical Expert on behalf of Netflix).

[B] Absent specific labor burden information, I have conservatively assumed a 50% rate.

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.2: Non-Infringing Alternative Design-Around Costs, December 2013

Alternative 1: Use prior member experience		**Option 1**
Netflix Engineer Annual Salary		n/a
Overhead Burden	[B]	n/a
Annual Engineer Cost to Netflix		n/a
Daily Engineer Cost to Netflix (Annual / 365)		n/a
[redacted] Engineers		n/a
Time per Engineer (Days)		n/a
Total Cost		n/a

Alternative 2: Do nothing at conclusion		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		4
Time per Engineer (Days)		6.0
Total Cost		**$ 29,592**

SCHEDULE 16.2: Non-Infringing Alternative Design-Around Costs, December 2013

Alternative 3: Require member to provide input		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		4
Time per Engineer (Days)		7.0
Total Cost		**$ 34,524**

Alternative 4: Turn off Autoplay functionality		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		4
Time per Engineer (Days)		2.0
[redacted] Engineer Cost		**$ 9,864**
[redacted] Engineers		1
Time per Engineer (Days)		5.0
[redacted] Engineer Cost		**$ 6,165**
Total Cost		**$ 16,029**

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.2: Non-Infringing Alternative Design-Around Costs, December 2013

Alternative 5: Remove Post-Play "promotions"		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineer		1
Time per Engineer (Days)		4.0
Total Cost		**$ 4,932**

Alternative 6: Remove reliance on user profile		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineer		1
Time per Engineer (Days)		4.0
Total Cost		**$ 4,932**

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.2: Non-Infringing Alternative Design-Around Costs, December 2013

Alternative 7: Display only one alleged resource		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineer		4
Time per Engineer (Days)		5.0
Total Cost		**$ 24,660**

Notes & Sources:

[A] Netflix, Inc.'s Fourth Supplemental Responses and Objections to Robocast, Inc.'s First Set of Interrogatories (Nos. 1-2, 4-11), dated May

[B] Absent specific labor burden information, I have conservatively assumed a 50% rate.

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.3: Non-Infringing Alternative Design-Around Costs, February 2015

Alternative 1: Use prior member experience		**Option 1**
Netflix Engineer Annual Salary		n/a
Overhead Burden	[B]	n/a
Annual Engineer Cost to Netflix		n/a
Daily Engineer Cost to Netflix (Annual / 365)		n/a
[redacted] Engineers		n/a
Time per Engineer (Days)		n/a
Total Cost		n/a

Alternative 2: Do nothing at conclusion		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		5
Time per Engineer (Days)		6.0
Total Cost		**$ 36,990**

SCHEDULE 16.3: Non-Infringing Alternative Design-Around Costs, February 2015

Alternative 3: Require member to provide input		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		5
Time per Engineer (Days)		7.0
Total Cost		**$ 43,155**

Alternative 4: Turn off Autoplay functionality		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineers		5
Time per Engineer (Days)		2.0
[redacted] **Engineer Cost**		**$ 12,330**
[redacted] Engineers		1
Time per Engineer (Days)		5.0
[redacted] **Engineer Cost**		**$ 6,165**
Total Cost		**$ 18,495**

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.3: Non-Infringing Alternative Design-Around Costs, February 2015

Alternative 5: Remove Post-Play "promotions"		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineer		1
Time per Engineer (Days)		4.0
Total Cost		**$ 4,932**

Alternative 6: Remove reliance on user profile		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted] Engineer		1
Time per Engineer (Days)		4.0
Total Cost		**$ 4,932**

Robocast, Inc. vs. Netflix, Inc. (Case No. 1:22-CV-00305-JLH)

SCHEDULE 16.3: Non-Infringing Alternative Design-Around Costs, February 2015

Alternative 7: Display only one alleged resource		**Option 1**
Netflix Engineer Annual Salary		$ 300,000
Overhead Burden	[B]	50%
Annual Engineer Cost to Netflix		$ 450,000
Daily Engineer Cost to Netflix (Annual / 365)		$ 1,233
[redacted]		5
Time per Engineer (Days)		5.0
Total Cost		**$ 30,825**

Notes & Sources:

[A] Netflix, Inc.'s Fourth Supplemental Responses and Objections to Robocast, Inc.'s First Set of Interrogatories (Nos. 1-2, 4-11), dated May

[B] Absent specific labor burden information, I have conservatively assumed a 50% rate.

EXHIBIT 4

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff and Counterclaim Defendant,	)	C.A. No. 1:22-cv-00305-JLH-CJB
	)	
v.	)	**HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY**
	)	
NETFLIX, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	

EXPERT REPLY REPORT OF AVIEL D. RUBIN, PH.D. ON INVALIDITY OF U.S. PATENT NOS. 7,155,451; 8,606,819; 8,965,932

3. DeckScape

a. Prior Art Status of DeckScape

322. Dr. Almeroth contends that DeckScape is not prior art to the asserted patents because it was first described in a printed publication on March 1, 1995, which is after January 4, 1995, the purported date of conception and diligent reduction. Almeroth Rebuttal Rep. ¶ 179. I understand from counsel, however, that prior art printed publications under 35 U.S.C. § 102(b) cannot be antedated by way of the inventor swearing behind the prior art date. Rather, I understand that 35 U.S.C. § 102(b) provides by statute that printed publications dated one year prior to the filing date of the asserted claims are prior art. Accordingly, regardless of whether Mr. Torres conceived and diligently reduced to practice his invention on January 4, 1995 (which I disagree with), that would not affect the prior art status of the DeckScape reference. Moreover, that the work done for the DeckScape project was completed in Summer 1994, which Dr. Almeroth does not dispute, which antedates the January 4, 1995 purported conception and diligent reduction to practice date. *See* Declaration of Marc H. Brown ("Brown Decl.) ¶ 10 ("I note that only one version of the DeckScape product was developed and its functionalities remained the same from the summer of 1994 through the end of 1996. Exhibits to my Declaration therefore each describe the DeckScape product as it existed after its development in the summer of 1994.").

323. Dr. Almeroth further states that he is not "adopting Dr. Rubin's opinion that [the DeckScape references] are properly combinable as a prior art reference of that they necessarily describe the same system," referring to Section IX.C of his report. Almeroth Rebuttal Rep. ¶ 407. In that section, however, Dr. Almeroth does not argue that the DeckScape references are not properly combinable, and therefore I have nothing to reply to. *See* Almeroth Rebuttal Rep. ¶ 179. I understand from counsel, however, that multiple references describing the same system can

constitute a single prior art reference for the purposes of understanding the features and functionalities of a prior art system. In addition, as confirmed by the Declaration of Marc H. Brown, Ph.D., in which he attests that the five documents that I rely on to understand the features of the DeckScape prior art all refer to the same DeckScape product. *See* Brown Decl. ¶ 10 ("I note that only one version of the DeckScape product was developed and its functionalities remained the same from the summer of 1994 through the end of 1996. Exhibits to my Declaration therefore each describe the DeckScape product as it existed after its development in the summer of 1994."). Dr. Almeroth has not provided any reasons to question Dr. Brown's testimony set forth in his declaration. *See* Almeroth Rebuttal Rep. ¶ 179.

324. I further note that Dr. Almeroth has not challenged the prior art status of Desai (a printed published in May 1995, and is therefore prior art under § 102(b) (NFLX_0000866–881)), Allen (printed published in May 1995, and is therefore prior art under § 102(b) (NFLX_0000730–741)), or Brown (a U.S. Patent filed on July 17, 1995, and is therefore prior art under §§ 102(a) and 102(e)) or QuickTime (a system that was publicly known and on sale in 1991, but in any event before February 1996, and is therefore prior art under § 102(b) (NFLX_0003411–784, NFLX_0192106–128)).

b. Dr. Almeroth's Opinions Regarding the DeckScape Combinations Are Meritless

(1) Alleged Combinations and Motivations to Combine

325. As I discussed in Section IX.B.3.a of my Invalidity Report, a POSITA would have been motivated to combine DeckScape with Desai, Allen, and QuickTime. Rubin Invalidity Rep. ¶¶ 861-867, 868-873, 874-880.

326. Dr. Almeroth states in his rebuttal that he disagrees with my opinions regarding motivation to combine on the grounds he alleges it is "improper hindsight bias." Almeroth Rebuttal

335. In his Rebuttal Report, Dr. Almeroth does not identify new information or evidence that would alter my conclusion that the Asserted Claims of the '451 patent are invalid as obvious over DeckScape alone and/or in combination with Desai, and/or Allen, and/or QuickTime as set forth in my Invalidity Report. Rubin Invalidity Rep. ¶¶ 861-997. I reply to Dr. Almeroth's opinions made in Rebuttal below.

(a) DeckScape Discloses Limitation 1[pre]: "A method for displaying on a user's computer, content derived from a plurality of resources in an organized arrangement comprising the steps of:"

336. As I have discussed in Section IX.B.3.b. of my Invalidity Report, DeckScape, alone or in combination, discloses claims 1[pre] under either party's proposed constructions. Rubin Invalidity Rep. ¶¶ 882-891. Dr. Almeroth did not provide a rebuttal for claims 1[pre].

(b) DeckScape Discloses Limitation 1[a]: "creating a show structure of nodes, each node identifying a resource from a plurality of accessible resources;"

337. With respect to claim 1[a] of the '451 patent, Dr. Almeroth opines that DeckScape does not sufficiently show a "node" and/or a "show structure of nodes" under either Netflix or Robocast's proposed constructions. Almeroth Rebuttal Rep. ¶ 451. I note that Dr. Almeroth does not provide any separate arguments or reasoning as to why DeckScape does not disclose a "show structure of nodes," apart from his opinion that DeckScape in combination with Desai and Allen does not disclose a "node." For the reasons I discuss below, I disagree.

338. First, Dr. Almeroth opines that the "web pages" in DeckScape do not qualify as a "node" under either party's proposed construction because a "web page" is "not an identifier of a resource," because it "is the resources," and because a web page "does not include the duration for which the resource's content is to be presented by default." Almeroth Rebuttal Rpt. ¶ 418. But it

is not my opinion that a "web page" alone is a "node." Rather, I opine that the "links" that are associated with Web pages represent "a set of nodes." Rubin Invalidity Rep. ¶ 893 ("The 'links' or 'Web pages' represent the 'a set of nodes.' The user may choose to click links in any order, thus establishing 'one or more paths spanned through a set of nodes.'"). In any event, Dr. Almeroth appears to concede that a "resource identifier" that includes an address can be a URL with respect to Robocast's allegedly practicing products. Almeroth Rebuttal Rpt. ¶ 932 ("[T]he presence of a duration and an address, in the form of a URL, makes it readily apparent that the Page class is a node as claimed."). Indeed, each page in the Deck includes the URLs (i.e., the resource identifier with an address) organized as an ASCII file and the URL is presented at the top of each page in the Deck. *See* The DeckScape Web Browser at 418; *See* also Brown Decl. ¶ 4 ("The DeckScape product allowed a user to create a 'chain of links' of web pages based on their universal resource locator addresses ("URLs") to organize material such as hotlists, search query results, and breadth first expansions."). It is therefore contradictory for Dr. Almeroth to claim a URL is an identifier of a resource with an address for the purposes of Robocast's practicing products but not for the purposes of evaluating the prior art.

339. As to the "duration" aspect of a "node," Dr. Almeroth ignores that this duration information "duration" is discussed in with respect to claim 1 as a whole, as the various limitations are interrelated (i.e., the combination of DeckScape, Desai, and Allen), and the "duration information" of the node is provided for in limitation 1[d]. Specifically, I opine that "[u]sing Allen, a POSITA would understand how to display certain Web pages from a Deck for a specified period of time added during the "creating step," in particular as it relates to "temporal media." Rubin Invalidity Rep. ¶ 923. By failing to consider my proposed combination a whole, Dr. Almeroth misunderstands how "duration" information is included into DeckScape.

available to me (e.g., documents, deposition transcripts or tapes, oral information, and any other similar information). I reserve the right to continue my analysis and to supplement my opinions, including the basis for those opinions, as my investigation continues. I also reserve the right to supplement my opinions in response to any additional material or information made available to me, including opinions provided by Robocast or their experts, or any other opinions or reports provided to me. In addition, I also reserve the right to provide my testimony in an alternative format, including through the preparation of demonstratives, graphics, charts, etc. to further illustrate my testimony. I expect to present my opinions using such alternative formats at trial.

1043. The citations provided in my report are exemplary, and I reserve the right to rely on any other portions of the identified prior art, or any other available document or information, that help better explain my opinions or rebut any opinions offered by Robocast or its experts. I also reserve the right to rely on documents and information discussed in my other reports and testimony in this action.

1044. I also reserve the right to testify on issues that help better explain my opinion for benefit of the Court or jury. In addition, to the extent my opinions are challenged or rebutted during deposition or trial, and there is additional evidence to clarify or rebut the opinions of Robocast's expert or lawyers, I intend to offer that testimony.

VI. DECLARATION

1045. I declare under penalty of perjury that the foregoing is true and correct.

Dated: August 6, 2024.

By: 

Aviel Rubin, Ph.D.

CERTIFICATE OF SERVICE

I certify that I caused copies of the foregoing document to be served on August 6, 2024, upon the following in the manner indicated.

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/s/ Sara M. Metzler
Sara M. Metzler (#6509)

EXHIBIT 5

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,)
)
Plaintiff,) C.A. No. 22-304-JLH
) C.A. No. 22-305-JLH
v.)
)
YOUTUBE, LLC, et al.,)
)
Defendants.)

Friday, April 5, 2024
10:00 a.m.

844 King Street
Wilmington, Delaware

BEFORE: THE HONORABLE JENNIFER L. HALL
United States District Court Judge

APPEARANCES:

BAYARD, P.A.
BY: RONALD P. GOLDEN, III, ESQ.

-and-

McKOOL SMITH
BY: STEVEN J. RIZZI, ESQ.

Counsel for the Plaintiff

APPEARANCES CONTINUED:

RICHARDS, LAYTON & FINGER, P.A.
BY: KELLY E. FARNAN, ESQ.
BY: SARA M. METZLER, ESQ.

-and-

LATHAM & WATKINS, LLP
BY: TARA D. ELLIOTT, ESQ.
BY: RACHEL WEINER COHEN, ESQ.
BY: ASHLEY M. FRY, ESQ.
BY: ALESSANDRA MY-LINH SCHASZBERGER, ESQ.

Counsel for Netflix

RICHARDS, LAYTON & FINGER, P.A.
BY: FREDERICK L. COTTRELL, III, ESQ.

-and-

WILSON, SONSINI, GOODRICH & ROSATI, PC
BY: JORDAN R. JAFFE, ESQ.

Counsel for Youtube and Google

10:05:00 COURT CLERK: All rise. Court is now in
10:05:04 session. The Honorable Jennifer L. Hall presiding.
10:05:11 THE COURT: Hi, everyone. Please be seated. We
10:05:15 are here for some discovery dispute matters in Robocast vs.
10:05:22 Netflix. It's civil action number 22-305.
10:05:26 Let's go ahead and put our appearances on the
10:05:28 record.

10:05:30 MR. GOLDEN: Good morning, Your Honor. Ronald
10:05:33 Golden from Bayard, P.A. on behalf of Robocast. And I have
10:05:36 with me Steven Rizzi from McKool Smith, lead counsel for
10:05:41 Robocast.
10:05:42 MR. RIZZI: Good morning, Your Honor.
10:05:43 MR. GOLDEN: I also have our client
10:05:43 representative, Gregory Smith from Robocast as well.
10:05:46 MR. SMITH: Greg Smith.
10:05:47 MR. GOLDEN: Greg Smith. Apologies.
10:05:49 THE COURT: Good morning.
10:05:56 MS. FARNAN: Good morning, Your Honor. Kelly
10:05:58 Farnan from Richards, Layton & Finger on behalf of defendant
10:06:01 Netflix. And also Sara Metzler from my office is here. And
10:06:04 we're joined by our co-counsel from Latham & Watkins, Tara
Elliott --
10:06:08 MS. ELLIOTT: Good morning, Your Honor.
MS. FARNAN: -- Rachel Cohen --
10:06:10 MS. COHEN: Good morning, Your Honor.
MS. FARNAN: -- Ashley Fry --
10:06:12 MS. FRY: Good morning, Your Honor.
10:06:13 MS. FARNAN: -- and Alessandra Schaszberger.
10:06:15 MS. SCHASZBERGER: Good morning, Your Honor.
10:06:16 MR. FARNAN: And unfortunately, Your Honor, our
10:06:19 client representative wanted to be here, but couldn't travel
10:06:20 out here today, so he's not in attendance this morning.

10:06:26 THE COURT: Good morning, everyone. Good to see
10:06:27 you.
10:06:28 MR. COTTRELL: Good morning, Your Honor. Fred
10:06:31 Cottrell for Richards Layton for the Youtube and Google
10:06:34 defendants in 22-304. With me is, from Wilson Sonsini,
10:06:40 Jordan Jaffe, my co-counsel. And Ms. Haynes from my office
10:06:44 may stop by later depending on how late we go. You
10:06:47 mentioned discovery disputes in the Netflix case. We're
10:06:52 here for the scheduling order issues. We don't have any
10:06:55 discovery disputes this morning.
10:06:57 THE COURT: And that's the, the stipulation to
10:07:00 extend the schedule?
10:07:02 MR. COTTRELL: That's one of the issues in the
10:07:05 scheduling order.
10:07:06 THE COURT: All right.
10:07:09 MR. COTTRELL: Thank you.
10:07:10 THE COURT: Okay. I'll just say at the outset,
10:07:13 we've read the letters very carefully. I think we have an
10:07:16 understanding of what the disputes are that we're going to
10:07:19 hear today. I have a vague recollection of what the prior
10:07:22 disputes are. I can tell you, as you know, that this case
10:07:28 is one of the many hundred that have been recently
10:07:31 reassigned to me. The recollection that I have is that the
10:07:36 prior disputes are taking an outsized portion of the Court's
10:07:43 time in relation to the all the other cases that we've got.

Delaware today and early next week it would be available. But as the letter does indicate, you know, this was sent to us in a February 15th letter. Their final infringement contentions were due on February 26th. They had our code available since April 11th of last year and we don't believe -- we don't believe it's necessary and in fact their own contentions undermine the fact that they say that they need it now given that Robocast -- their own contentions say that Netflix's service works in substantially the same manner regardless of the platform, so therefore platform information wouldn't be necessary. But in any event, we did say, as you said, in the interest of compromise we said you can have it and you will have it next week.

THE COURT: Okay.

MS. ELLIOTT: Thank you. Let me just underscore. Their contentions were due and were served like 10 days after they raised this source code issue and there's nothing in those contentions that would require what it is they're asking for now.

THE COURT: Yeah. Okay. Thank you. All right. Let's go back to the --

MR. RIZZI: Your Honor, may I just respond on the point that Ms. Elliott made? So she tried to make a point that, well, the requested extension was all simply piggy-backing on Google/Youtube. Well, that's not true. As

we demonstrated here, there are real issues with their production that do impact depositions.

But I also want to point out that after we had that meet and confer, when Netflix served its final invalidity contentions, just go back to the way Judge Andrews set up the exchange here, it started out with, for us, 40 claims identified. We had to narrow down to, I recall -- I don't recall the exact numbers, but in connection with our final infringement contentions, which were served in February, we had to go down to, I believe, 25 claims. Same reciprocal process on the invalidity side. They start out with some number of references and combinations. They had to then narrow those in response to our infringement contentions. But what did they do? They actually added new theories of invalidity that were not disclosed before.

THE COURT: What new theories?

MR. RIZZI: New prior art.

THE COURT: Why do you need that to depose their witnesses?

MR. RIZZI: Well, that's another reason why it's also appropriate to extend the schedule with Netflix, because they've added new invalidity theories, that triggers potentially more discovery, more probing of the basis of those theories.

THE COURT: Well, what are they? Explain to me why the new theories requires more discovery. We're right here. This is your chance.

MR. RIZZI: Well, I don't have the -- their invalidity contentions in front of me, but we actually laid that out in a letter to them. I don't have a response yet. So, I can -- the letter actually maybe one of the exhibits.

THE COURT: What are the new theories?

MS. ELLIOTT: There are no new theories. That's why I'm wanting to hear what he has to say as well, Your Honor. There are no theories. We did exactly what the scheduling order contemplated, what were required. We remember talking to Judge Andrews about this narrowing process, because I think he was appropriately concerned about scope and narrowing scope as we approach trial and we did exactly what was ordered. So there has been some letter writing, but very very recent, I would say after the February 9th request for a six-month extension to the schedule. So we're now hearing yet another new belated reason why the scheduling order should be pushed out that have nothing do with why they want to push out the schedule.

THE COURT: All right.

MR. RIZZI: Yeah. So we did point that out in our motion, that they served the new -- final invalidity contentions. We disagree it was clearly a narrowing, not a

broadening, which is what they did.

THE COURT: Where is that? Do I have those?

MR. RIZZI: You don't have the contentions, because we didn't --

THE COURT: How many I to assess whether it's a new theory that needs more discovery?

MR. RIZZI: We don't have the letter in the record because the letter wasn't served until after we provided our opening brief, so I apologize. I'm happy to submit that to the Court today, which lays out the new theories.

THE COURT: Okay. Let's move on. You say you've noticed 11 third-party depositions, four party depositions and a rule 30(b)(6) deposition. When did you notice those?

MR. RIZZI: Robocast?

THE COURT: Yes.

MR. RIZZI: We noticed those in March, I believe.

THE COURT: Okay. Who were the third-party depositions?

MR. RIZZI: I think just one third-party deposition of a former --

THE COURT: You said that there's -- they noticed 11.

11:13:01 MR. RIZZI: Yeah. So, so to be clear on that,
11:13:03 they noticed and we have that chart. It's an exhibit.
11:13:08 MS. ELLIOTT: Your Honor, may I approach?
11:13:09 THE COURT: Yes. Can you get a copy to Robocast
11:13:12 too?
11:13:13 MS. ELLIOTT: I will give him a copy, yes.
11:13:17 MR. RIZZI: It's actually Exhibit B to our
11:13:20 letter, that has all that. Well, I don't know what this is.
11:13:27 So, as you can see, Netflix noticed five
11:13:31 third-party depositions in January, Mark Brown, Stuart Card,
11:13:37 Greg Hassett, Robert Tarabella, and Polle Zellweger.
11:13:41 THE COURT: And who are those people?
11:13:43 MR. RIZZI: I'm sorry?
11:13:44 THE COURT: Who are those people?
11:13:45 MR. RIZZI: These are all prior art people. So
11:13:48 entirely up to them to pursue that as part of their
11:13:51 invalidity case.
11:13:52 THE COURT: So -- but they're not saying they
11:13:54 need more time to get it done, though.
11:13:57 MR. RIZZI: Well, as far as we know -- first of
11:13:59 all, we asked them for any correspondence with those
11:14:02 parties. They refused to give it to us. We don't know if
11:14:06 any documents have been produced for those. One of them we
11:14:09 do represent, because she's a former expert for Robocast in
11:14:12 prior cases. But Brown, Card, Hassett and Tarabella, we

11:14:14 have nothing.
11:14:15 THE COURT: Okay. Well, let's hear -- what do
11:14:17 you have from these four people, are you going to depose
11:14:20 them? Did you get any documents from them?
11:14:22 MS. COHEN: My understanding is we did not
11:14:24 receive any documents from those four individuals and we do
11:14:27 not intend to pursue the depositions. The third-party depos
11:14:31 we are trying to pursue are all represented by McKool Smith.
11:14:35 THE COURT: Which ones are those?
11:14:36 MS. COHEN: Dr. Zellweger, Mr. Antrum, Mr.
11:14:43 Soper, Soper & Baroon, Mr. Rizzi and Warecorp.
11:14:51 THE COURT: Okay. And you noticed one in
11:14:54 January, a bunch in February?
11:15:02 MS. ELLIOTT: Yes.
11:15:02 MS. COHEN: That's correct.
11:15:03 THE COURT: And one in March?
11:15:04 MS. COHEN: Well, two in March.
11:15:06 MR. RIZZI: Two in March.
11:15:08 MS. COHEN: Ms. Ianuzzi, I understand, is
11:15:10 working to comply with the subpoenas and we hope to take her
11:15:13 deposition, but we will review her documents first.
11:15:16 THE COURT: Okay. So I'm hearing from them that
11:15:18 they're not going to pursue the first four, they don't have
11:15:21 anything to give you from those, so that takes care of
11:15:24 those. Then they've got a bunch of other ones. You noticed

11:15:27 these depositions. What happened next?
11:15:29 MS. ELLIOTT: So they basically have used the
11:15:32 same condition that Your Honor saw in the briefing, that the
11:15:37 scheduling order in their view requires coordination with
11:15:40 Google. And so they've basically refused to participate in
11:15:44 any deposition, including their own, 30(b)(6), 30(b)(1) and
11:15:48 third party, they refused all depositions until and unless
11:15:53 in their judgment we've coordinated with Google on
11:15:57 everything from deposition hours to, you know, 30(b)(6). In
11:16:02 all respects they've blocked discovery based on this
11:16:06 language in the scheduling order, Your Honor, that we think
11:16:10 doesn't support their position. It's untenable, unworkable
11:16:15 and treats these two very independent big companies as if
11:16:19 they're one defendant and there's no support for that in the
11:16:22 scheduling order.
11:16:23 THE COURT: All right. Where in the scheduling
11:16:25 order do you think it requires coordination with Google?
11:16:28 This isn't my scheduling order, so there's a lot of
11:16:30 different provisions than what I would have.
11:16:30 MR. RIZZI: Understood. So this is D.I. 47.
11:16:33 THE COURT: Got it.
11:16:33 MR. RIZZI: Bottom of page 2, this is
11:16:35 depositions E.I., and if you look 3 lines up from the
11:16:40 bottom, "defendants shall coordinate with each other to
11:16:44 ensure depositions of plaintiffs and third parties are

11:16:47 conducted in an efficient matter such that, for example,
11:16:50 depositions of the same witness are scheduled on the same
11:16:53 day or consecutive days or mutually agreeable days to the
11:16:57 parties and the witness."
11:16:58 THE COURT: Okay.
11:16:59 MR. RIZZI: So to be clear, Mr. Soper, Mr.
11:17:01 Antrum, those are prosecution counsel. For those witnesses,
11:17:04 Google has also issued subpoenas, nearly identical subpoenas
11:17:09 and we are representing them and we are working with them as
11:17:13 we speak to get those scheduled. So with respect to the
11:17:17 notices, so there's no blocking of discovery, that's simply
11:17:21 not true.
11:17:22 With respect to also the requirement to
11:17:24 coordinate as to depositions of Robocast and its employees,
11:17:28 Google/Youtube is yet to serve any notices, so we cannot
11:17:33 proceed with the coordination that's required without having
11:17:35 their notices, without seeing their 30(b)(6) topics. This
11:17:38 is all, you know, mandated by the scheduling order to be
11:17:41 efficient to coordinate, to minimize the burden on everybody
11:17:44 here by ensuring that these are done in a way that makes
11:17:47 sense. So that's the reason why we haven't scheduled any
11:17:50 depositions of Robocast, because Youtube hasn't served its
11:17:54 notices.
11:17:55 THE COURT: So one thing I'll just point out for
11:17:58 the record here is that Judge Andrews, when he set this

order, contemplated that each side or each case would get a certain number of hours. So I don't think that precluded each side -- I don't think that precluded the defendants in the individual cases from taking their own depositions of your witnesses. Your point --

MR. RIZZI: That's true.

THE COURT: -- was just that they should be --

MR. RIZZI: Yes.

THE COURT: -- conducted in an efficient matter.

MR. RIZZI: And there's substantial overlap. Especially obviously with Robocast and the third parties, the prosecution of the patents, 90 percent of it overlaps, so there's no good reason not to be coordinated there.

THE COURT: Right. I guess what I think I'm going to hear from Ms. Elliott is that we're on the same schedule, it needs to get done. Netflix has noticed their depositions, but Google hasn't, so do they have an obligation to do anything when Google hasn't even noticed these depositions yet.

MR. RIZZI: Well, look, I mean, as soon as Google notices the depositions, we're happy to start that process to coordinate.

THE COURT: For what it's worth, Google is taking the risk that I might deny this stipulation and say that all discovery is cut off. Maybe I won't.

But let me ask Ms. Elliott or somebody from your side, did you talk to Google and find out if they want to get these done?

MS. ELLIOTT: Yes, Your Honor. We have. I want to be absolutely clear on this point, because they've made this allegation a lot, both in e-mail correspondence and in their letter brief, that we're required to coordinate. Netflix and Google have coordinated. They have coordinated, the coordination does not mean agreement and we're two separate parties, two separate firms, two separate leadership. We cannot wait on an independent party to pursue our defenses, which are going to be different than theirs, are different than theirs, including our invalidity defendants, which is a common issue among defendants at time, but there's even air between our invalidity and unenforceability claims here. So we've never heard or seen or nor has any precedent been pointed out to us that a case where plaintiffs are pursuing multiple parties around the same time, that one defendant has to be in lock step with another defendant to pursue its claims and defends. It's unprecedented, Your Honor. There's no citation to that. Not even the scheduling order supports a reading in that way. And Netflix has been diligent. We've noticed every one of these depositions with time to complete it by April 12th -- 11th, excuse me, which is the date the Court has

ordered. So I don't understand this position.

It's been articulated over and over, but the short answer to your question is we have most definitely coordinated with Google and we respect their views to the extent that they differ from Netflix. We have no adversity with Google, but we respectfully have parted ways on ways in which we are going to defend and pursue our cases.

MR. RIZZI: Your Honor, I mean, there is -- the only way to read the joint scheduling order is to obviously -- we're not saying they need to -- they don't get their own time. That's not the issue. But the only way to coordinate is to ensure that both sides of actually issued their deposition notices. Any other reading of that essentially just vitiates that requirement, right. And saying, well, you know, we can't -- we're not asking them to be in lock step. All we're asking is to comply with what Judge Andrews ordered. And he did keep these cases coordinated all the way through, as I said --

THE COURT: Right, with the deadline next week.

MR. RIZZI: Agreed. And like I said, as soon as we get notices from Google/Youtube, we're happy to proceed and schedule those in a most efficient matter.

MS. ELLIOTT: Your Honor, if I may make one counter point. To be clear, Netflix has no interest in being inefficient in getting this discovery done. We are

trying to get it done. So the notion that's in the order and that language no one's really disputing that to the extent we have common 30(b)(6) topics and we're proceeding along the same way in the case, we will do those things efficiently. I don't think you're hearing any dispute from anybody on that. We're talking the cases have diverged already, materially diverged and we should not be waiting on an independent party that we cannot control for them to do their job in discovery and follow their obligations, which they haven't done.

THE COURT: So the reason that I could potentially be concerned about this is if it looked to me like we had two defendants that were gaming the system by one purposely not serving its notices so these depos can be coordinated. I really have no basis on this record to find that, especially since plaintiff and Google seem to both agree that theirs should be extended.

Does Google want to be heard?

MR. JAFFE: Yes, Your Honor. Thank you. This is laid out in your letters, but there was discovery disputes between us and as a compromise to avoid burdening the Court on this issue, they wanted a six-month extension. We thought zero was appropriate, but in the sort of give and take that typically happens, we said we'll agree to an extension to resolve those disputes, which we did. And so

would resolve this entire case on a quick timeline.

THE COURT: At the summary judgment stage.

MR. JAFFE: Thank you, Your Honor.

MR. RIZZI: Since Your Honor brought it up, do you have any guidance on scheduling Markman hearing?

THE COURT: We just haven't had a time to take a look at it. Is it true that there were 14 terms raised in the Markman briefing?

MR. RIZZI: There were a lot. We don't believe that it's necessary for the Court to address all those terms certainly, but defendants would not narrow them down beyond that.

THE COURT: Well, how many of them have to do with Netflix versus how many with Google or are they all raised from both defendants?

MR. JAFFE: Your Honor, so we have common briefing on claim construction and we have joint positions on the defense side to make that more efficient for the Court. So they're all on behalf of defendants.

THE COURT: Well, I can tell you that the request for a Markman hearing, to the extent it implicates 14 terms, that will be denied. So I will hear up to 10 terms. If the parties want to work together and tell me which 10 terms those are, we'll take a look at that and then we'll take a look at the briefing and we'll think about when

we might be able to get it done. I'll tell you this, it will get done before the case is submitted to the jury. So for now, we need to proceed with your expert reports, with the experts opining on each sides' alternative construction, which you have.

MS. ELLIOTT: Is there a time Your Honor would like the parties narrowing on claim construction terms for narrowing?

THE COURT: If you want to get it done sooner rather than later, why don't you try and work on it at least a week after we had set for the close of fact discovery and then we'll await your letter and if we are in a position to let you know when we're going to schedule the hearing, we'll try and do it in the next weeks after that.

MS. ELLIOTT: Okay. So --

THE COURT: So May 20th.

MS. ELLIOTT: For our input to you?

THE COURT: Yes.

MS. ELLIOTT: Okay. Thank you.

THE COURT: Okay. All right. Thanks, everybody.

COURT CLERK: All rise.

(Court adjourned at 11:52 a.m.)

I hereby certify the foregoing is a true and accurate transcript from my stenographic notes in the proceedings.

/s/ Stacy M. Ingram, RPR
Official Court Reporter
U.S. District Court

EXHIBIT 6

From: Steven Udick
To: Metzler, Sara M.
Cc: William Ellerman; Steven Rizzi; Ramy Hanna; Grant Johnson; marc.henschke@henschkelaw.com; sbrauerman; Ronald P. Golden III; Mariel Talmage; netflixrobocast.lwteam@lw.com; Farnan, Kelly E.; RobocastNetflixIPR
Subject: Re: Robocast, Inc. v. Netflix, Inc., C.A. No. 22-305-JLH
Date: Friday, May 24, 2024 7:14:34 PM
Attachments: image4e8eb0.PNG
image730dbe.PNG

Counsel,

This was a belated, and inappropriate declaration (as well as the others). We intend to move to exclude any use of this declaration, along with any reliance on it because it was improper, including contrary to statements made to the court and denying Robocast the ability to take discovery on these issues.

We reserve the right to seek fees and costs for any efforts needed to preclude Netflix's improper declarations.

Regards,
Steve

McKool Smith | Steven Udick
Senior Counsel | Dallas | (214) 978-4065

On May 20, 2024, at 3:49 PM, Metzler, Sara M. <Metzler@rlf.com> wrote:

Counsel,

Attached please find the Declaration of Marc H. Brown, Ph.D. with Exhibits A-D which were previously inadvertently omitted.

Best,
Sara

<image4e8eb0.PNG>

Sara M. Metzler
Richards, Layton & Finger, P.A.
Metzler@rlf.com

920 N. King Street | Wilmington, DE 19801
O: 302-651-7869 | **M:** 269-491-2647 | **F:** 302-651-7701
vCard, bio, www.rlf.com,
<image730dbe.PNG>

From: Metzler, Sara M.
Sent: Monday, May 13, 2024 5:18 PM
To: William Ellerman <wellerman@McKoolSmith.com>; Steven Rizzi <srizzi@McKoolSmith.com>; Ramy Hanna <rhanna@McKoolSmith.com>; Steven Udick <sudick@McKoolSmith.com>; Grant Johnson <gjohnson@McKoolSmith.com>; marc.henschke@henschkelaw.com; sbrauerman <sbrauerman@bayardlaw.com>; Ronald P. Golden III <rgolden@bayardlaw.com>; mtalmage@McKoolSmith.com
Cc: netflixrobocast.lwteam@lw.com; Farnan, Kelly E. <Farnan@RLF.com>; RobocastNetflixIPR <RobocastNetflixIPR@mckoolsmith.com>; Metzler, Sara M. <Metzler@rlf.com>
Subject: Robocast, Inc. v. Netflix, Inc., C.A. No. 22-305-JLH

Counsel,

Attached please find service copies of: (1) Netflix's Responses and Objections to Robocast's Second Set of Request for Admission (Nos. 15-50); (2) Netflix's Fourth Supplemental Responses and Objections to Robocast's First Set of Interrogatories (Nos. 1-2, 4-11) (**HIGHLY CONFIDENTIAL – AEO**); (3) Declaration of Marc H. Brown, Ph.D.; and (4) Declaration of Robert Tarabella.

Best,
Sara

<Declaration of Marc Brown.pdf>

EXHIBIT 7

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., Plaintiff and Counterclaim-Defendant, v. NETFLIX, INC., Defendant and Counterclaim-Plaintiff.	C.A. No. 1:22-cv-00305-JLH

DECLARATION OF ROBERT TARABELLA

I, Robert Tarabella, hereby declare:

1. On January 26, 2024, I was served with a document and deposition subpoenas from Netflix, Inc., who I understand is a party in the above-captioned matter.

2. The document and deposition subpoenas correctly identified me as the named inventor on U.S. Patent No. 5,796,945.

3. In 2012 and 2013, I was previously served with document and deposition subpoenas in two other matters involving Robocast, Inc., *Robocast, Inc. v. Microsoft Corp.*, C.A. No. 1:10-cv-1055-RGA and *Robocast, Inc. v. Apple, Inc.*, C.A. No. 1:10-cv-00235-RGA. In response to those subpoena requests, I provided those parties with documents and deposition testimony regarding U.S. Patent No. 5,796,945 and the Station Break product. The depositions occurred on December 12, 2012, and April 12, 2013. To the best of my recollection, the

testimony I provided during these depositions is truthful and accurate.

4. I conducted a reasonable search for documents in response to the document and deposition subpoenas from Netflix, Inc. and was unable to locate any documents in response to the subpoena apart from a copy of U.S. Patent No. 5,796,945. I was not able to locate the documents that I previously produced in 2012 and 2013 in response to the document subpoenas in *Robocast, Inc. v. Microsoft Corp.*, C.A. No. 1:10-cv-1055-RGA and *Robocast, Inc. v. Apple, Inc.*, C.A. No. 1:10-cv-00235-RGA.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: April 16, 2024

Robert Tarabella

EXHIBIT 8

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., Plaintiff and Counterclaim-Defendant, v. NETFLIX, INC., Defendant and Counterclaim-Plaintiff.	C.A. No. 1:22-cv-00305-JLH-CJB

DECLARATION OF MARC H. BROWN, PH.D.

I, Marc H. Brown, Ph.D., hereby declare:

1. I am currently retired and prior to my retirement I served as the Chief Technology Officer and co-founder of Anchor Intelligence. I earned a Ph.D., Master of Science, and Bachelor of Science from Brown University in 1987, 1982, and 1980, respectively.

2. On January 25, 2024, I was served with document and deposition subpoenas from Netflix, Inc., who I understand is a party in the above-captioned matter.

3. The document and deposition subpoenas correctly identified me as a developer of the DeckScape product. I developed the DeckScape product in the summer of 1994 with Robert A. Shillner as part of my work as a Researcher at the Digital Equipment Corporation System Research Center, which focused on Web browser interaction techniques, visualization and auralization of programs, and tools for building graphical user interfaces.

4. The DeckScape product allowed a user to create a "chain of links" of web pages based on their universal resource locator addresses ("URLs") to organize material such as hotlists, search query results, and breadth-first expansions.

5. Although I had no documents to produce in response to Netflix's document and depositions subpoenas, I was able to direct Netflix to documents in the public domain that reflected the operation and functionality of the DeckScape product.

6. Exhibit A to this Declaration is a true and accurate copy of my Research Report, co-authored with Robert A. Shillner of Princeton University, entitled *DeckScape: An Experimental Web Browser*. We published this Research Report on March 1, 1995. This Research Report appeared in the proceedings of the Third International World-Wide Web Conference, held in Darmstadt, Germany in April 1995. It was also published to the public in April 1995 by Elsevier as a special issue of Computer Networks and ISDN Systems. *See* Brown, M. H. & Shillner, R. A., *DeckScape: An Experimental Web Browser*, 27 Computer Networks and ISDN Systems 1097-1104 (1995). A digital record of this publication can be found at https://www.sciencedirect.com/science/article/abs/pii/0169755295000367.

7. Exhibit B to this Declaration is a true and accurate copy of my short paper, co-authored with Robert A. Shillner of Princeton University, entitled *A New Paradigm for Browsing the Web*. This paper was published by the Association for Computer Machinery ("ACM") as part of the Conference Companion for the Human Factors in Computer Systems Mosaic of Creativity Conference that took place from May 7-11, 1995 in Denver, Colorado ("CHI '95 Conference"). I presented on the DeckScape product at the CHI '95 Conference, which was open to the public. In presenting at this conference, I placed no confidentiality restrictions on the discussion and dissemination of my short paper on the DeckScape product presented at the

conference. A digital record of the presentation of this paper at the CHI ’95 Conference can be found in the ACM Digital Library at https://dl.acm.org/doi/10.1145/223355.223694. This Conference Companion was made available to individuals who registered for the Conference, including members of the public. I placed no restrictions on the sharing of my short paper *A New Paradigm for Browsing the Web*, or discussion of the DeckScape product, with members of the public.

8. Exhibit C to this Declaration is a true and accurate copy of my video paper, *The DeckScape Web Browser*, presented at the ACM Common Ground Conference on Human Factors in Computing Systems which took place from April 13-18, 1996 in Vancouver, British Columbia (“CHI ’96 Conference”). This paper was published as part of the Conference Companion for the CHI ’96 Conference. I presented on the DeckScape product at the CHI ’96 Conference. Like the CHI ’95 Conference, the CHI ’96 Conference was open to the public. And in presenting on the DeckScape product at this conference, I placed no confidentiality restrictions on the discussion and dissemination of the DeckScape product. A digital record of the presentation of this paper at the CHI ’96 Conference can be found in the ACM Digital Library at https://dl.acm.org/doi/10.1145/257089.257408. In addition, I prepared a video presentation demonstrating the functionality of the DeckScape Web Browser, which was available to participants of the CHI ’96 Conference. It can likewise be found in the ACM Digital Library at https://dl.acm.org/doi/10.1145/257089.257408. The video was shown as part of the Technical Program of the CHI ’96 Conference, and the copy found at the above-cited URL is a true and accurate copy of the video I prepared and showed at the CHI ’96 Conference in April 1996.

9. Exhibit D to this Declaration is a true and accurate copy of my Research Report, co-authored with Marc A. Najork, entitled *Distributed Active Objects*. This Report was

published by Digital Equipment Corporation in April 1996, and appeared at the proceedings of the Fifth International World Wide Web Conference from May 6-10, 1996, in Paris, France. A digital record showing the presentation of this paper, along with accompanying slides that are no longer in my possession, can be found at https://www.w3.org/Conferences/WWW5/fich_html/paper-sessions.html. I placed no restrictions on the sharing of my Research Report, *Distributed Active Objects*, or discussion of the DeckScape product, with members of the public.

10. In addition, I note that only one version of the DeckScape product was developed, and its functionality remained the same from the summer of 1994 through the end of 1996. Exhibits to my Declaration therefore each describe the DeckScape product as it existed after its development in the summer of 1994.

11. Each of Exhibits A-D is a true and correct copy of a document that I generated. I am familiar with the manner and process in which these documents were generated. These documents were generated at around or the time of the events set forth therein. If called upon to testify in the above-captioned matter, I would restate the facts and information provided herein.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

DocuSigned by:
Marc Brown
042CAC198927480...

Dated: May 12.00, 2024

Marc H. Brown, Ph.D.

EXHIBIT 9

From: Steve Udick
To: Metzler, Sara M.; William Ellerman; Steven Rizzi; Ramy Hanna; Grant Johnson; marc.henschke@henschkelaw.com; sbrauerman; Ronald P. Golden III; Mariel Talmage
Cc: netflixrobocast.lwteam@lw.com; Farnan, Kelly E.; RobocastNetflixIPR
Subject: RE: Robocast, Inc. v. Netflix, Inc., C.A. No. 22-305-JLH
Date: Friday, May 17, 2024 7:29:58 AM
Attachments: image002.png
image003.png

Counsel,

We write regarding Netflix's discovery responses served May 13, 2024 and regarding Netflix's improper declarations served on the same day.

Regarding Netflix's supplemental interrogatory responses, Netflix requested to meet and confer regarding Interrogatories 18 and 19 – by Monday, May 20, please identify a time to meet and confer for that week.

Regarding Netflix's responses to Robocast's Requests for Admissions, please be prepared to meet and confer regarding each of Netflix's denials.

Finally, regarding Netflix's improper and untimely declarations, one of which Netflix had nearly one month prior to the close of fact discovery, Robocast will move to strike any use of these declarations as well as any material that relies upon them.

Finally, as a reminder, we still need a response by today regarding Mr. Nel's continuing deposition as ordered by the Court, in light of Netflix not preparing Mr. Mooney on the designated and disclosed source code.

Thanks,
Steve

McKool Smith | Steven Udick
Senior Counsel | Dallas | (214) 978-4065

From: Metzler, Sara M. <Metzler@rlf.com>
Sent: Monday, May 13, 2024 4:09 PM
To: William Ellerman <wellerman@McKoolSmith.com>; Steven Rizzi <srizzi@McKoolSmith.com>; Ramy Hanna <rhanna@McKoolSmith.com>; Steven Udick <sudick@McKoolSmith.com>; Grant Johnson <gjohnson@McKoolSmith.com>; marc.henschke@henschkelaw.com; sbrauerman <sbrauerman@bayardlaw.com>; Ronald P. Golden III <rgolden@bayardlaw.com>; Mariel Talmage <mtalmage@McKoolSmith.com>
Cc: netflixrobocast.lwteam@lw.com; Farnan, Kelly E. <Farnan@RLF.com>; RobocastNetflixIPR <RobocastNetflixIPR@mckoolsmith.com>; Metzler, Sara M. <Metzler@rlf.com>
Subject: Robocast, Inc. v. Netflix, Inc., C.A. No. 22-305-JLH

Counsel,

Attached please find service copies of Netflix's: (1) Responses and Objections to Robocast, Inc.'s Fourth Set of Interrogatories (Nos. 22-25) (**HIGHLY CONFIDENTIAL - AEO**); (2) Responses and Objections to Plaintiff's Fifth Set of Requests for Production (No. 165); and (3) Second Supplemental Responses and Objections to Plaintiff's Third Set of Interrogatories (Nos. 13, 15-21) (**HIGHLY CONFIDENTIAL – AEO**).

Best,
Sara

RLF

Sara M. Metzler
Richards, Layton & Finger, P.A.
Metzler@rlf.com

920 N. King Street | Wilmington, DE 19801
O: 302-651-7869 | **M:** 269-491-2647 | **F:** 302-651-7701
vCard, bio, www.rlf.com,

EXHIBIT 10

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., Plaintiff and Counterclaim-Defendant, v. NETFLIX, INC., Defendant and Counterclaim-Plaintiff.	C.A. No. 1:22-cv-00305-JLH-CJB

DECLARATION OF MARC H. BROWN, PH.D.

I, Marc H. Brown, Ph.D., hereby declare:

1. I am currently retired and prior to my retirement I served as the Chief Technology Officer and co-founder of Anchor Intelligence. I earned a Ph.D., Master of Science, and Bachelor of Science from Brown University in 1987, 1982, and 1980, respectively.

2. On January 25, 2024, I was served with document and deposition subpoenas from Netflix, Inc., who I understand is a party in the above-captioned matter.

3. The document and deposition subpoenas correctly identified me as a developer of the DeckScape product. I developed the DeckScape product in the summer of 1994 with Robert A. Shillner as part of my work as a Researcher at the Digital Equipment Corporation System Research Center, which focused on Web browser interaction techniques, visualization and auralization of programs, and tools for building graphical user interfaces.

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5. Although I had no documents to produce in response to Netflix's document and depositions subpoenas, I was able to direct Netflix to documents in the public domain that reflected the operation and functionality of the DeckScape product.

6. Exhibit A to this Declaration is a true and accurate copy of my Research Report, co-authored with Robert A. Shillner of Princeton University, entitled *DeckScape: An Experimental Web Browser*. We published this Research Report on March 1, 1995. This Research Report appeared in the proceedings of the Third International World-Wide Web Conference, held in Darmstadt, Germany in April 1995. It was also published to the public in April 1995 by Elsevier as a special issue of Computer Networks and ISDN Systems. *See* Brown, M. H. & Shillner, R. A., *DeckScape: An Experimental Web Browser*, 27 Computer Networks and ISDN Systems 1097-1104 (1995). A digital record of this publication can be found at https://www.sciencedirect.com/science/article/abs/pii/0169755295000367.

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conference. A digital record of the presentation of this paper at the CHI ’95 Conference can be found in the ACM Digital Library at https://dl.acm.org/doi/10.1145/223355.223694. This Conference Companion was made available to individuals who registered for the Conference, including members of the public. I placed no restrictions on the sharing of my short paper *A New Paradigm for Browsing the Web*, or discussion of the DeckScape product, with members of the public.

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9. Exhibit D to this Declaration is a true and accurate copy of my Research Report, co-authored with Marc A. Najork, entitled *Distributed Active Objects*. This Report was

published by Digital Equipment Corporation in April 1996, and appeared at the proceedings of the Fifth International World Wide Web Conference from May 6-10, 1996, in Paris, France. A digital record showing the presentation of this paper, along with accompanying slides that are no longer in my possession, can be found at https://www.w3.org/Conferences/WWW5/fich_html/paper-sessions.html. I placed no restrictions on the sharing of my Research Report, *Distributed Active Objects*, or discussion of the DeckScape product, with members of the public.

10. In addition, I note that only one version of the DeckScape product was developed, and its functionality remained the same from the summer of 1994 through the end of 1996. Exhibits to my Declaration therefore each describe the DeckScape product as it existed after its development in the summer of 1994.

11. Each of Exhibits A-D is a true and correct copy of a document that I generated. I am familiar with the manner and process in which these documents were generated. These documents were generated at around or the time of the events set forth therein. If called upon to testify in the above-captioned matter, I would restate the facts and information provided herein.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: May 12.00, 2024

Marc H. Brown, Ph.D.

EXHIBIT

A

March 1, 1995

SRC Research Report

135a

DeckScape: An Experimental Web Browser

Marc H. Brown and Robert A. Shillner

digital

Systems Research Center
130 Lytton Avenue
Palo Alto, California 94301

Systems Research Center

The charter of SRC is to advance both the state of knowledge and the state of the art in computer systems. From our establishment in 1984, we have performed basic and applied research to support Digital's business objectives. Our current work includes exploring distributed personal computing on multiple platforms, networking, programming technology, system modelling and management techniques, and selected applications.

Our strategy is to test the technical and practical value of our ideas by building hardware and software prototypes and using them as daily tools. Interesting systems are too complex to be evaluated solely in the abstract; extended use allows us to investigate their properties in depth. This experience is useful in the short term in refining our designs, and invaluable in the long term in advancing our knowledge. Most of the major advances in information systems have come through this strategy, including personal computing, distributed systems, and the Internet.

We also perform complementary work of a more mathematical flavor. Some of it is in established fields of theoretical computer science, such as the analysis of algorithms, computational geometry, and logics of programming. Other work explores new ground motivated by problems that arise in our systems research.

We have a strong commitment to communicating our results; exposing and testing our ideas in the research and development communities leads to improved understanding. Our research report series supplements publication in professional journals and conferences. We seek users for our prototype systems among those with whom we have common interests, and we encourage collaboration with university researchers.

Robert W. Taylor, Director

DeckScape: An Experimental Web Browser

Marc H. Brown and Robert A. Shillner

March 1, 1995

Publication History

This report appears in the proceedings of the *Third International World-Wide Web Conference*, held in Darmstadt, Germany, April 1995, published by Elsevier as a special issue of **COMPUTER NETWORKS AND ISDN SYSTEMS**.

A two-page summary of the work described in this report appears in the Conference Companion proceedings of the ACM *1995 Conference on Human Factors in Computing Systems (CHI'95)*, held in Denver, May 1995.

Author Affiliation

Rob Shillner is currently a Ph.D. candidate at Princeton University. The work described here was performed while he was a research intern at SRC, during the summer of 1994. Rob's email is `ras@cs.princeton.edu`, and the URL of his home page is `http://www.cs.princeton.edu/~ras/`.

Abstract

This report describes DeckScape, an experimental World-Wide Web browser based on a *deck* metaphor. A deck consists of a collection of Web pages, and multiple decks can exist on the screen at once. As the user traverses links, new pages appear on top of the current deck. Retrievals are done using a background thread, so all visible pages in any deck are active at all times. Users can move and copy pages between decks, and decks can be used as a general-purpose way to organize material, such as hotlists, query results, and breadth-first expansions.

Overview

Mosaic [1] and the various Web browsers it has inspired [5][6], use a depth-first navigational model. At any point in time, the user is "at" a particular node on the Web, having arrived there by following a path of nodes from some root. The user can choose to leave the current node either by following an outgoing link or by going back to the previous node in the path from the root. After going back, the user can also choose to go forward to the next node on the most recent path from the root.

Most Mosaic-inspired browsers support other navigation methods in addition to these primitives; for instance, the user can jump to different URLs using the "Hotlist" and "Open URL" dialogs. Most browsers also offer multiple open windows, each with its own depth-first visitation stack. However, with the exception of Netscape [4] and InternetWorks [3], the browsers are single-threaded, so while one window is downloading a page, all of the windows owned by the browser become inactive.

We have developed DeckScape, an experimental browser for exploring new methods of navigating and organizing pages on the Web. DeckScape centers on the metaphor of a *deck*: a collection of Web pages, of which only one is visible at a time. When the user clicks a link on a page, a new Web page appears on top of the deck, obscuring the page that was previously visible. The user can leaf through a deck's pages one at a time, jump to the top or bottom of a deck, or move to any particular page by choosing its name from a list of the deck's current contents. The browser itself consists of multiple decks, all in a single top-level window. Users can move, resize or iconify decks, move or copy pages between decks, start new decks, delete decks or pages, and so on. The contents of decks persist between invocations of DeckScape.

The key benefit of the deck abstraction is that it provides a way to organize material. For example, a user can keep the home pages of all of his or her colleagues together in a deck named "Colleagues," or keep several Mosaic-style hotlists, each in its own deck. DeckScape further uses decks to return the results of certain operations, such as "expand all the links on this page."

DeckScape is also multi-threaded. In particular, fetching a new page occurs in the background, in a separate thread. Thus, unlike single-threaded browsers, traversing a slow link or downloading a large file does not freeze the entire application. All decks remain active and ready for browsing, and multiple links can be traversed concurrently.

(Of course, one could start up multiple instances of a single-threaded browser. This would have the advantage that, when traversing a slow link or download-

ing a large file, the other instances would remain active. However, multiple instances have the drawback of increasing the amount of computer resources consumed. Also, multiple instances are completely independent of each other, so it is not possibile to share the information among instances.)

A Tour of DeckScape

Deck Basics

When DeckScape is first run, the user sees a window containing a menu bar and a large open area. This window forms the *workspace* in which the user positions decks and pages.

Choosing "New Deck" from the File menu produces a new deck with a default name, containing a single document: the user's home page. Clicking links adds more pages to the deck. Buttons let the user shuffle through the deck's contents or go to the top or bottom of the deck. The user can create more decks and use them to follow different links. This behavior is similar to that of a traditional browser: creating windows, clicking links and moving forward and back.

Fig. 1 shows DeckScape with a single deck. The deck, named "WWW'95", has six pages in it. The user is looking at the second page in the deck, whose URL is `http://www.igd.fhg.de/www/www95/program.html`.

DeckScape retains all pages until the user explicitly discards them, while a traditional browser retains only those pages on the path from the root to the current page. For example, if a user starts at page A, then traverses some pages (including B) and ends at C, both DeckScape and a conventional browser keep copies of all the pages from A to C. However, if the user then backs up to B and chooses a new link, a traditional browser discards all of the pages after B up to and including C. On the other hand, DeckScape keeps all of those pages and inserts the new page into the deck just after B.

This design allows users to quickly switch back and forth between two or more pages which do not lie on one convenient path from the root, but rather lie on different branches of a tree. Traditional browsers would have to download and parse each page on each traversal, while DeckScape allows the user to flip quickly through the deck's contents without refetching any pages. (DeckScape has a "Reload" command to refetch a page, rather than use the page from its internal cache.)

Once a deck has been built up, a user can modify the contents of a deck in several ways. Clicking a document's "D" button deletes the document from its deck. Dragging a document from one deck to another moves the document between decks. Holding down an appropriate modifier key while dragging copies the document.

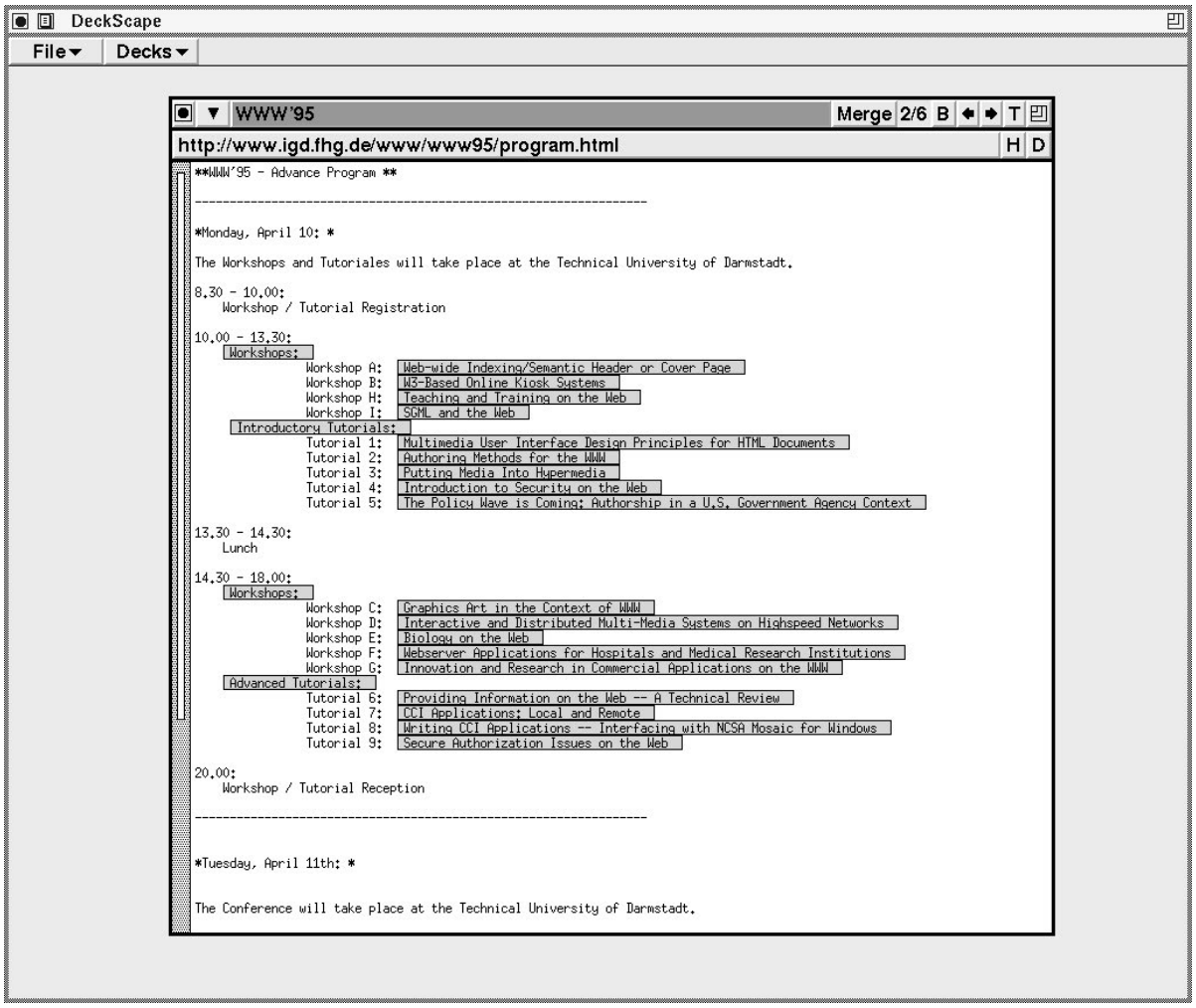

Figure 1: DeckScape with a single deck.

Clicking a deck's "Merge" button and dragging to another deck merges two decks by adding all of the pages from the first deck into the second one, immediately after the second deck's current page.

"Away" Pages

DeckScape also offers the ability to temporarily remove a page from its home deck. To pull a page away from a deck, the user drags the page into the workspace background; the page then appears in a window separate from its home deck. The page is still a member of the deck, but it is *away* from the deck rather than *in* it. Later, the user can issue the deck's "Gather Up" command to bring the "away" pages back to the deck, or he or she can drag the pages back to the home deck (or a different deck) manually.

The ability to pull a page away from its deck allows the user to simultaneously view two or more pages from the same deck. It is often useful to have certain pages, such as glossaries or reference pages, visible for an extended period, even while following another chain of links. DeckScape allows users to drag such pages off to the side and continue following links on the main body of the deck, leaving the "special" pages easily accessible.

Fig. 2 shows DeckScape with three decks, "Ongoing SRC Research Projects," "Nifty home pages," and "Palo Alto stuff." The narrow window in the lower-left is showing an "away" page from the "Palo Alto stuff" deck:

When the user follows a link on an "away" page, the resulting new page appears on the main body of the deck. This behavior is useful when one page, such as a table of contents, has many links in which the user is interested. Ordinarily, clicking a link on such a page would cause a new page to cover up the table of contents, so that the user must dig through the deck each time he or she wishes to follow a new link from the table of contents. However, if the user were to pull the table of contents away from the deck, then the page would always be handy for following new links: the resulting pages appear on the deck and do not cover up the table of contents.

Similarly, the user could click many links on an "away" page in rapid succession, causing many new documents to appear on the deck. Since DeckScape is multi-threaded, the user need not wait for one download to complete before clicking another link. The user can browse through the resulting new documents immediately, even before all of the downloads have completed. No traditional browser can support this type of Web exploration because in a traditional browser clicking a link always makes a new document cover up the page containing the link.

Browsing in this manner is particularly effective when combined with a deck's "Make Link Index" command. This command finds all of the links on each page in

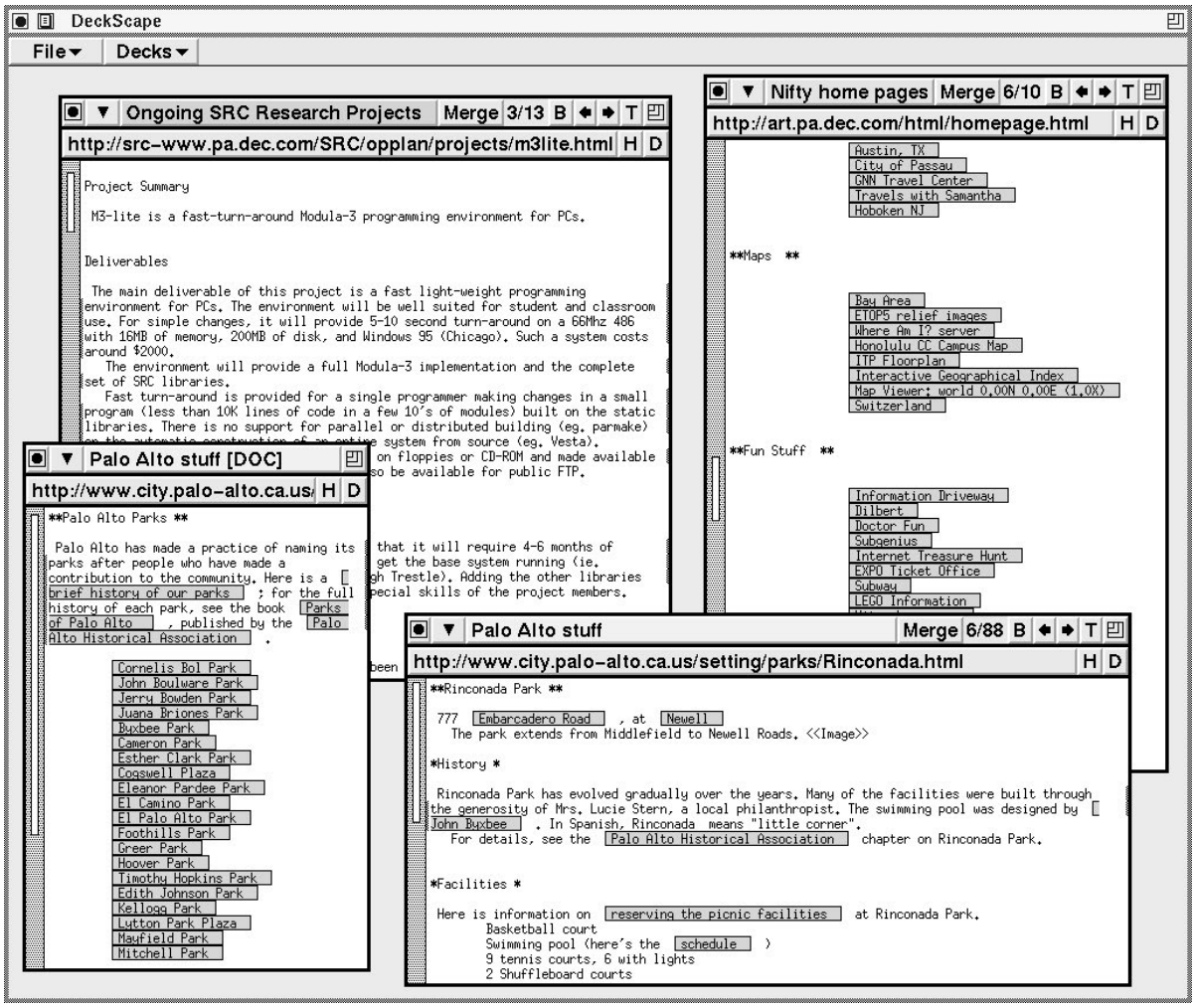

Figure 2: DeckScape with three decks, one of which has an "away" page.

a deck, then adds to the deck a new page containing all of the links in alphabetical order. The new page provides an index of all the links accessible from any page in the deck. The user can then drag the index page away from the deck and click a series of links, browsing through the resulting documents as they appear on the main body of the deck.

Another use for "away" pages is for creating new decks. If a user wants to start a new deck from a particular page, he or she can drag the page away from its home deck, then issue the page's "Make New Deck" command. A new deck appears, containing the page.

Organizing Information with Decks

Decks can be used to organize information found in the Web. Since decks' contents are automatically saved and restored when the DeckScape application exits and restarts, users can use decks to help find pages that they have visited before. For instance, if a user frequently visits a particular Web server, he or she can set up a deck to contain pages from that site, and use the deck to access the site, rather than follow a series of links from a home page.

Another use of decks is to organize hotlists. DeckScape has a special hotlist deck, and each document has a "copy to hotlist" button. When a user comes across an interesting page, he or she can click the "H" button to copy the page into the hotlist deck. Users can also use ordinary decks as hotlists by manually copying interesting documents into them; thus, each user can have many hotlists, organized by whatever criteria are appropriate.

In Fig. 3, the hotlist deck is in the lower center. The hotlist is like any other deck, except that it cannot be renamed or deleted by the user. The "Goto Page..." dialog allows the user to select and jump to any document in a deck, either by its title or by its index.

Acquiring Information with Decks

DeckScape also uses decks to return the results of certain operations. For example, issuing a page's "Expand One Level" command causes DeckScape to traverse each link on the page and place the resulting documents in a new deck. The link traversals all occur in the background, so the user retains control of the application and can even begin browsing pages and traversing links in the new deck before all of the pages have been fetched.

In Fig. 4, the deck entitled "Expanding 82 links" is the created by issuing the "Expand One Level" command on the home page for the Systems Research Center

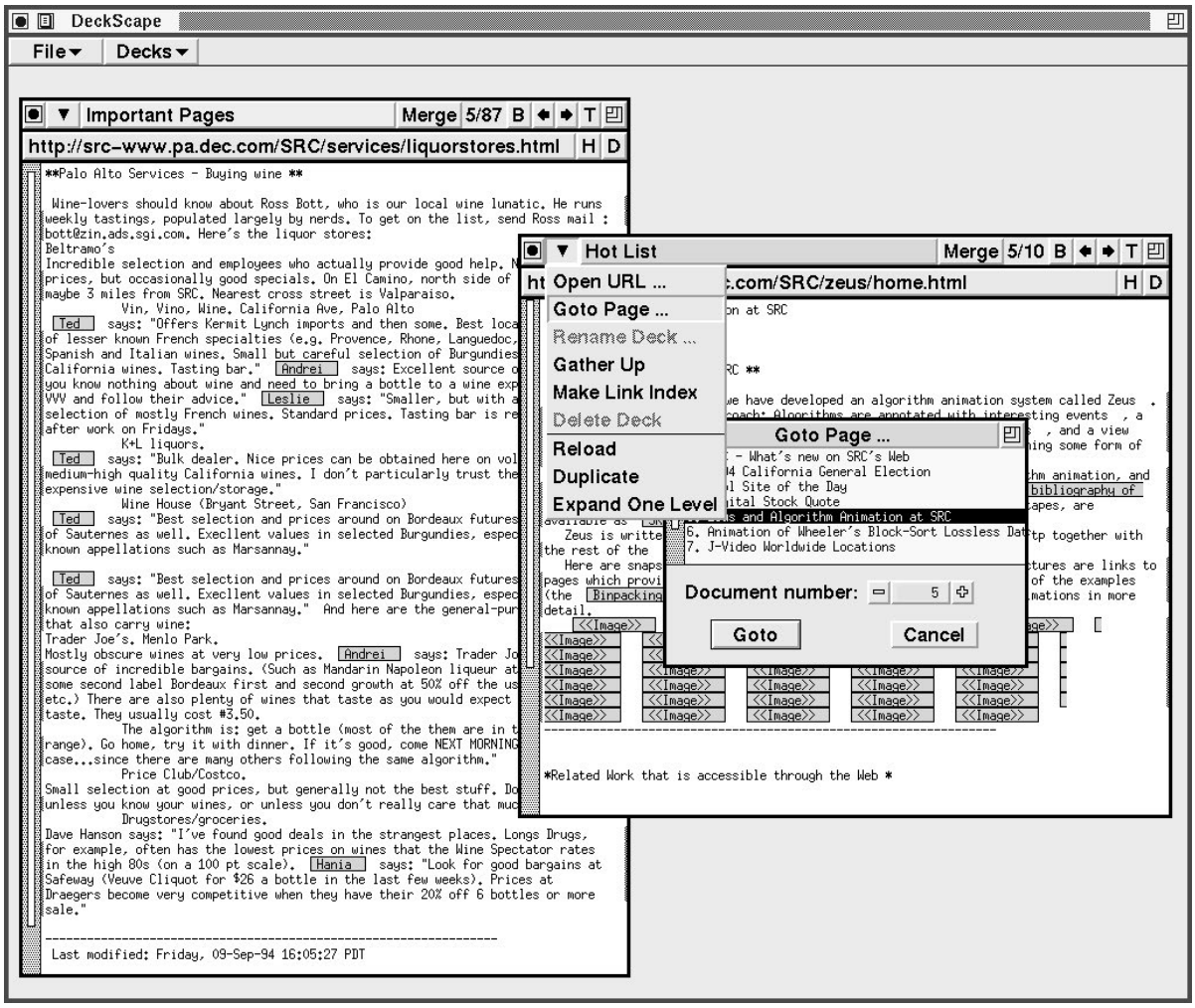

Figure 3: Hotlists in DeckScape.

(the page displayed in the "Deck 12" deck). It is common to issue the "Expand One Level" command on the home page of Web sites in order to create a new deck that contains the pages most relevant to the home page. These pages can then be rapidly traversed with a single button. When the screen dump was taken, 79 of the 82 links had been retrieved, and the user was looking at the 24th page in the deck.

Global search is another operation which returns its results in a deck. After the user enters the text to be found, DeckScape searches through all the pages in each deck. It copies the pages that contain hits and makes a new deck containing the copied pages.

In Fig. 5, the deck labeled "Search Results" contains a copy of each page from any deck matching the string "animation."

Implementation

DeckScape is implemented in Modula-3 [2] and consists of about 3500 lines of code. The system makes extensive use of Modula-3's standard libraries, including the threads package, user interface toolkit, and persistent data structures facility.

DeckScape's primary components are object classes that correspond to portions of the visual interface; these visual classes have names ending in "VBT". The VBT classes, along with other non-visual classes, constitute a hierarchy of abstractions which make it possible to easily integrate the browser's functionality into other Modula-3 applications.

The remainder of this section describes the modules comprising the implementation.

- A `WorkspaceVBT` is the main application window; only one is ever created and it is installed in a top-level window. A `WorkspaceVBT` provides the global menu bar and the space where the user positions decks and documents. The `WorkspaceVBT` maintains lists of all of the decks and "away" documents.

- A `WSObjectVBT` is an abstract class whose subtypes are objects that can appear in the workspace, namely decks and "away" documents. No objects of type `WSObjectVBT` are ever created; `WSObjectVBT` exists so that operations that are common to both decks and "away" documents (such as iconify, raise and lower) can be defined.

- A `DeckVBT` (a subclass of `WSObject`) is a deck: it contains the deck's title bar, browsing controls, sizing, iconifying and dragging widgets, and a menu of miscellaneous commands, as well as space for displaying a document.

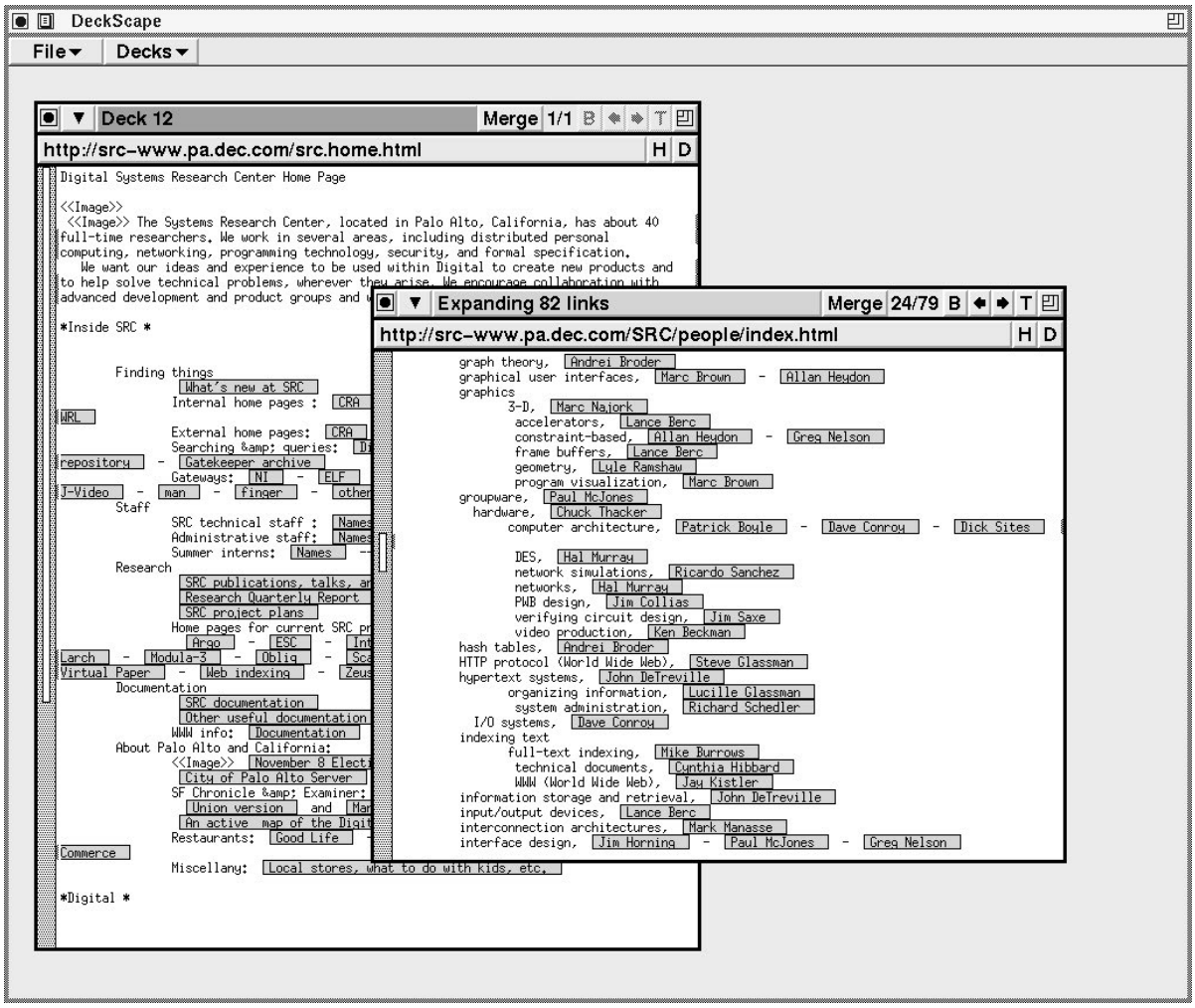

Figure 4: DeckScape's "Expand One Level" command.

- An `AwayVBT` (a subclass of `WSObject`) represents a document away from its deck: it contains a title bar for repositioning the "away" document, sizing, iconifying and dragging widgets, and a menu of miscellaneous commands, as well as a space for displaying a document.
- A `DocVBT` displays a Web page. It contains the buttons to delete itself or copy itself to the hotlist, as well as the draggable banner used to move the document between decks or "away" from its home deck. The `DocVBT` also contains space for the document's contents, displayed by a `URLVBT`.
- A `URLVBT` is an abstract class for displaying data fetched from a URL. At present, only two subtypes are defined: one to display plain text (called a `PlainVBT`) and one to display HTML (called an `HTMLVBT`).
- A `PlainVBT` displays a plain text document.
- An `HTMLVBT` displays the contents of an HTML page. It allows the user to scroll through the page and traverse links by clicking. `HTMLVBT` is still in the very early prototype stage; it does not support multiple fonts, sizes and styles, nor does it support inline images and forms.
- An `HTML` object is an abstract syntax tree for an HTML document. `HTML` objects are produced by the `Parser` module and used by `HTMLVBT` objects.
- The `Web` module fetches a document from a given URL.
- The `Parser` and `Lexer` modules produce `HTML` syntax trees from HTML source text retrieved by `Web`.

Conclusions

This report has described DeckScape, an experimental Web browser. Decks provide a flexible way to organize Web pages, in many of the same ways that modern folder-based mail readers (e.g., `xmh` for Unix) improve on previous generation tty-oriented mail programs (e.g., `/usr/ucb/mail` for Unix). However, DeckScape is lacking essential Web-browsing features such as inlined images, forms, multiple fonts, and external viewers. Some of these deficiencies will be easy to address, but others will take quite a bit of effort. Because of these deficiencies, DeckScape is not in daily use, even for the authors.

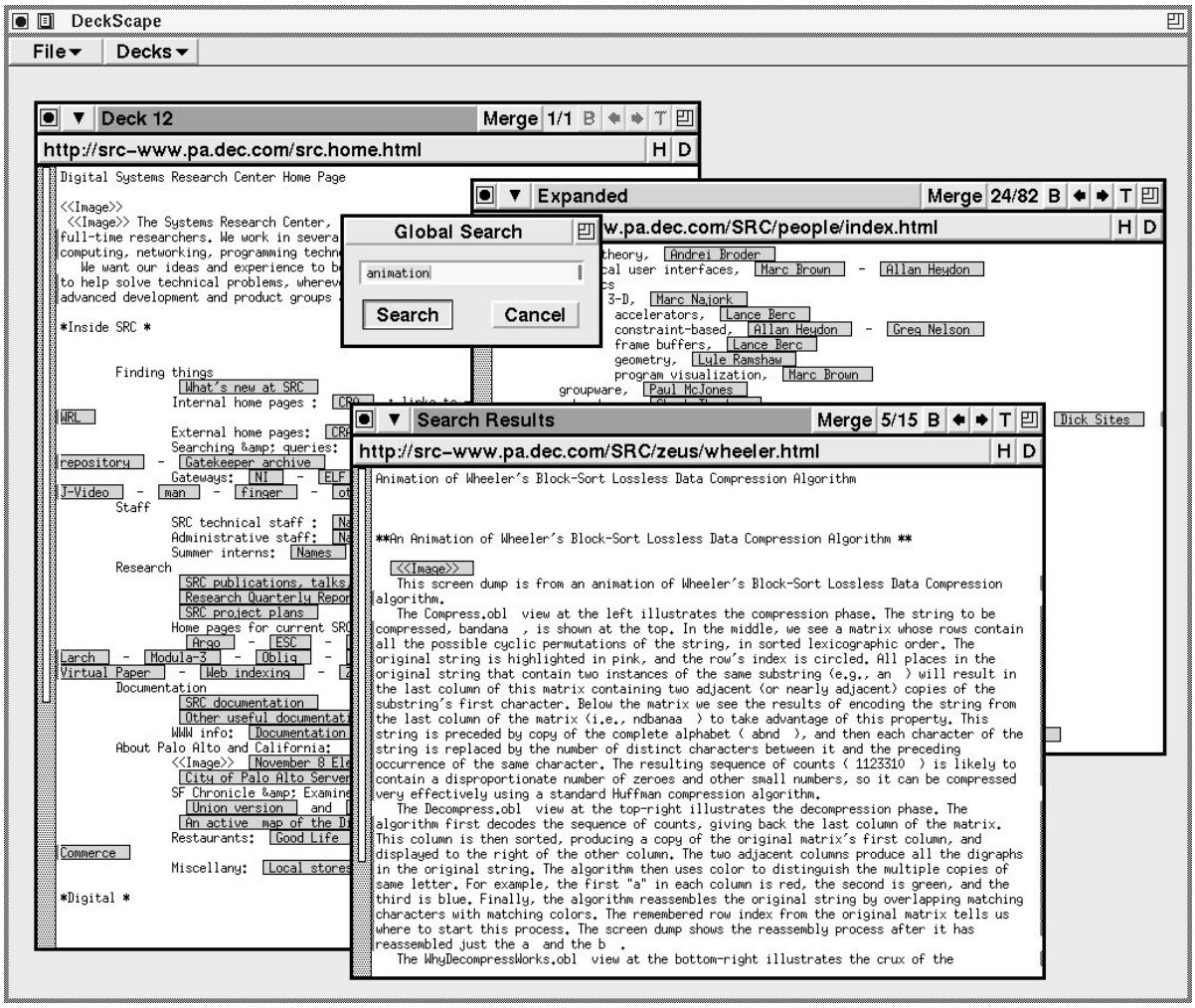

Figure 5: The results of a search command are returned as a deck.

We do not claim that DeckScape is *the* correct way to browse the Web and organize pages in the Web. Discovering and quantifying the strengths and weaknesses of decks are challenges for the future. We hope that the ideas introduced in this report will help to advance the standard for navigational and organizational capabilities of Web browsers.

Acknowledgments

Bill Weihl and Paul McJones helped improve the clarity of this report. Lucille Glassman implemented the `Web` module. Steve Feiner provided a wealth of ideas for improving the system, most of which are still on our "todo" list unfortunately.

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[2] Modula-3 home page.
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[3] Welcome to BookLink.
`http://www.booklink.com/`

[4] Welcome to Netscape!
`http://home.mcom.com/home/welcome.html`

[5] World Wide Web Frequently Asked Questions.
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[6] WWW Client Software products.
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EXHIBIT

B

A New Paradigm for Browsing the Web

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ABSTRACT

This paper introduces DeckScape, a World-Wide Web browser based on a "deck" metaphor. A deck is a collection of Web pages; as the user traverses links, new pages appear on top of the current deck. All retrievals are done using a background thread, so the visible pages in all decks remain active at all times. Users can circulate through the pages in a deck, move and copy pages between decks, and so on. Our primary innovation is the use of decks as a general-purpose way to organize material such as hotlists, query results, and breadth-first expansions.

KEYWORDS: Interactive user interfaces, information navigation, interaction techniques, World-Wide Web, Mosaic.

INTRODUCTION

Traditional World-Wide Web browsers, such as Mosaic [1] and the various browsers it has inspired [5], use a depth-first navigational model. At any point in time, the user is "at" a particular node on the Web, having arrived there by following a path of nodes from some root. The user can choose to leave the current node either by following an outgoing link or by going back to the previous node in the path from the root. After going back, the user can also choose to go forward to the next node on the most recent path from the root.

Traditional browsers support other navigation methods in addition to these primitives; for instance, the user can jump to different URLs using the "Hotlist" and "Open URL" dialogs. Many browsers also offer multiple open windows, each with its own depth-first visitation stack. However, with the exception of Netscape [3] and InternetWorks [4], the Mosaic-like browsers are all single-threaded, so while one window is downloading a page, all of the windows become inactive.

*This research was performed as part of a summer research internship at Digital Equipment Corporation's Systems Research Center.

DECKSCAPE

DeckScape is a prototype browser that we have developed for exploring new methods of navigating the Web. DeckScape centers on the metaphor of a *deck*: a collection of Web pages, only one of which is visible at a time. DeckScape consists of multiple decks, all in a single top-level window. Users can move, resize or iconify decks, move or copy pages between decks, start new decks, delete decks or pages, and so on. The contents of decks persist between invocations of DeckScape.

When the user clicks a link on a Web page, a new page appears on top of the deck, obscuring the page that was previously visible. DeckScape fetches all new pages in the background, in a separate thread, so that traversing a slow link or downloading a large file does not freeze the entire application. DeckScape can thus traverse multiple links concurrently while keeping every deck active and ready for browsing.

The user can leaf through a deck's pages one at a time, jump to the top or bottom of the deck, or move to any particular page by choosing its name from a list of the deck's current contents. DeckScape retains all pages until the user explicitly discards them. For example, consider a user who starts at page A, then traverses some pages (including B) and ends at C. If the user then backs up to B and chooses a new link, DeckScape will insert the new page into the deck just after B, whereas traditional browsers discard all of the pages after B up to and including C.

DeckScape allows users to drag pages from their home decks and temporarily display them in separate windows (see Figure 1). When the user clicks on a link in such an "away" page, the new page appears back on the home deck rather than obscuring the away page. Thus, the user can have a page, such as a table of contents or index, visible for an extended period, even while following another chain of links on the main body of the deck.

The deck abstraction provides a way for users to organize material. For example, a user can keep the home pages of all of his or her colleagues together in a deck named "Colleagues," or keep several Mosaic-style hotlists, each in its own deck. DeckScape provides a deck named "HotList," and any page can be copied into that deck with a mouse click.

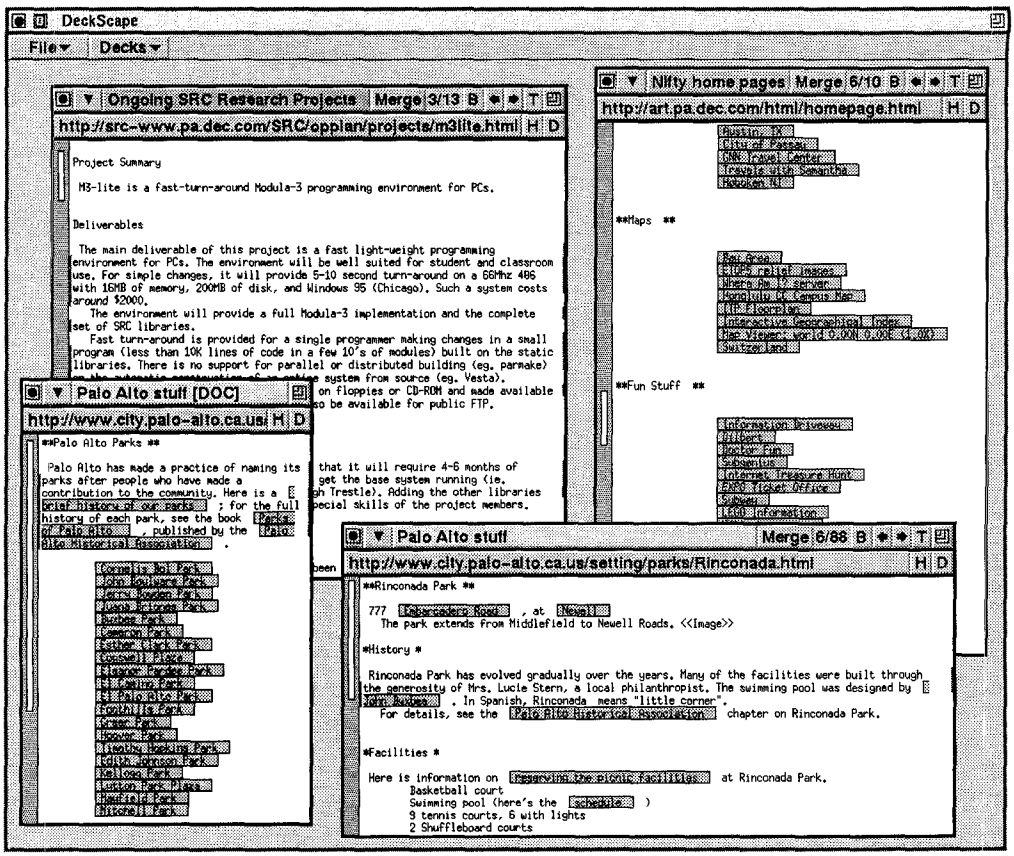

Figure 1: This screen dump shows DeckScape with three decks: "Ongoing SRC Research Projects," "Nifty home pages," and "Palo Alto stuff." The narrow window in the lower-left is showing a page from the "Palo Alto stuff" deck that the user dragged away from the deck and dropped into the background. The "away" page now appears in a window separate from its home deck.

DeckScape also uses decks to return the results of certain operations. For example, there is a global search command that searches all decks and copies pages with hits into a new deck. More interestingly, DeckScape has an "Expand One Level" command, which traverses every link on a particular page, and returns all resulting pages in a new deck.

DeckScape is implemented in Modula–3 [2], and makes extensive use of Modula–3's standard libraries, including the threads package, user interface toolkit, and persistent data structures facility.

The browser's primary components are object classes that correspond to portions of the visual interface. In particular, because the components are well-defined objects, it is easy to reuse the objects in other applications. For example, the "widget" that displays a Web page, complete with clickable links, is called an `HTMLVBT`. It took us less than a morning to modify Postcard, our mail reader implemented in Modula–3, to display messages containing HTML using this widget, rather than displaying the message with a standard text display widget. Clicking on a link causes Postcard to fetch the new Web page and insert the page in the current mail folder.

CONCLUSION

DeckScape has introduced a new metaphor for browsing the World-Wide Web. Decks provide a flexible way to organize, view, and store large numbers of documents. On the other hand, DeckScape lacks essential Web-browsing features, such as inlined images, forms, multiple fonts, and external viewers. Some of these deficiencies will be easy to address, but others will take quite a bit of effort. Because of these deficiencies, DeckScape has not replaced the standard Web browsers, even for the authors.

We do not claim that DesckScape is *the* correct way to browse the Web. We do believe that organization and navigation is a weakness in current browsers, and we hope that the ideas introduced in this paper will help to advance the organizational and navigational capabilities of Web browsers. Discovering and quantifying the strengths and weaknesses of the deck metaphor are challenges for the future.

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`http://www.research.digital.com/...`
`SRC/modula-3/html/home.html`

3. Welcome to Netscape!
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4. Welcome to BookLink.
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5. WWW Client Software products.
`http://info.cern.ch/hypertext/WWW/Clients.html`

EXHIBIT

C

The DeckScape Web Browser

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ABSTRACT

This video shows DeckScape, an experimental World-Wide Web browser. DeckScape uses the metaphor of a deck of playing cards, where each card is a Web page, and each deck is displayed in its own window. As the user traverses links, new pages appear on top of the deck. Users can circulate through the pages in a deck, move and copy pages between decks, and so on. The primary contributions of DeckScape are "away" pages and a general-purpose way to organize Web pages such as hotlists, page expansions, and query results.

KEYWORDS: Interactive user interfaces, information navigation, interaction techniques, World-Wide Web, Mosaic.

DECKSCAPE

DeckScape [1, 2] is an experimental Web browser that centers on the metaphor of a deck of playing cards, where each card is a Web page. Each deck is displayed in its own window, with its top page visible. DeckScape consists of multiple decks, all in a single top-level window. Users can move, resize, iconify or rename decks, move or copy pages between decks, start new decks, delete decks or pages, and so on. The contents of decks persist between invocations of DeckScape, as an ASCII file containing the URLs of the pages in each deck.

When the user clicks on a link on a Web page, a new page appears on top of the deck, obscuring the page that was previously visible. The user can leaf through a deck's pages one at a time, jump to the top or bottom of the deck, or move to any particular page by choosing its name from a list of the deck's current contents. DeckScape retains all pages until the user explicitly discards them. For example, consider a user who starts at page A, then traverses some pages (including B) and ends at C. If the user then backs up to B and chooses a new link, DeckScape will insert the new page into the deck just after B, whereas traditional browsers discard all of the pages after B up to and including C.

Decks For Organizing Web Pages. The deck abstraction provides a way for users to organize material. For example, a user can keep the home pages of all of his or her colleagues together in a deck named "Colleagues," or keep several hotlists, each in its own deck. DeckScape provides a deck named "HotList," and any page can be copied into that deck with a mouse click.

Decks For Away Pages. DeckScape allows users to drag pages from their home decks and temporarily display them in separate windows (see the top figure). When the user clicks on a link in such an "away" page, the new page appears back on the home deck rather than obscuring the away page. Thus, the user can have a page, such as a table of contents or index, visible for an extended period, even while following another chain of links on the main body of the deck. Because the system is multi-threaded, users can "click-ahead" on links visible in any away page.

Decks For Advanced Commands. DeckScape also uses decks to return the results of certain operations. For example, there is a global search command that searches all decks and copies pages with hits into a new deck. The "Expand One Level" command traverses every link on a particular page, and returns all resulting pages in a new deck (see the bottom figure). This "auto-surf" feature is particularly useful when applied to a page a links returned by a search engine. Because DeckScape is multi-threaded, the user can start browsing the contents of the resulting deck before all of the resulting pages are retrieved.

STATUS

DeckScape was initially implemented during the summer of 1994 while Rob Shillner was an intern at the Systems Research Center. It handles HTML 2.0, except forms; currently, DeckScape does not support external views. The system is available as part of the standard Modula–3 release [3].

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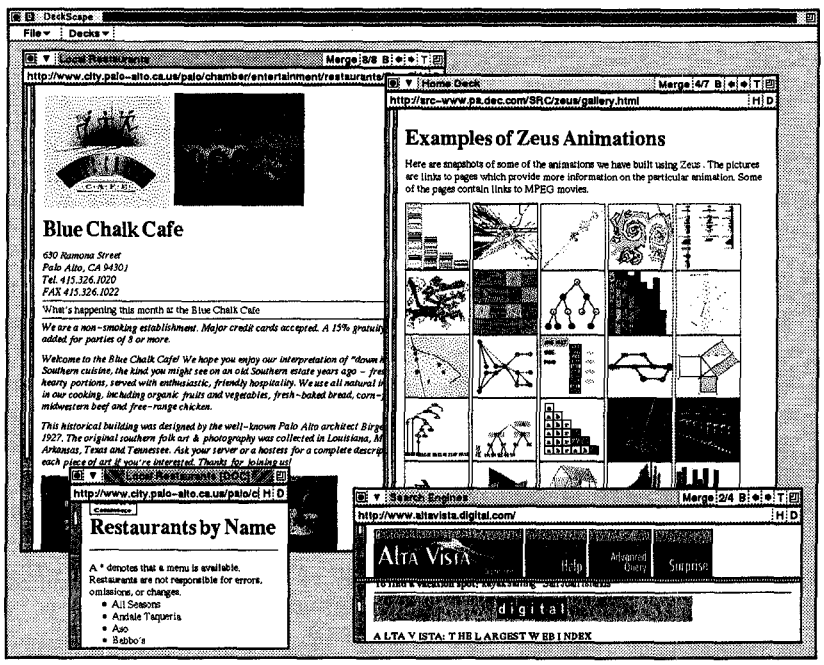
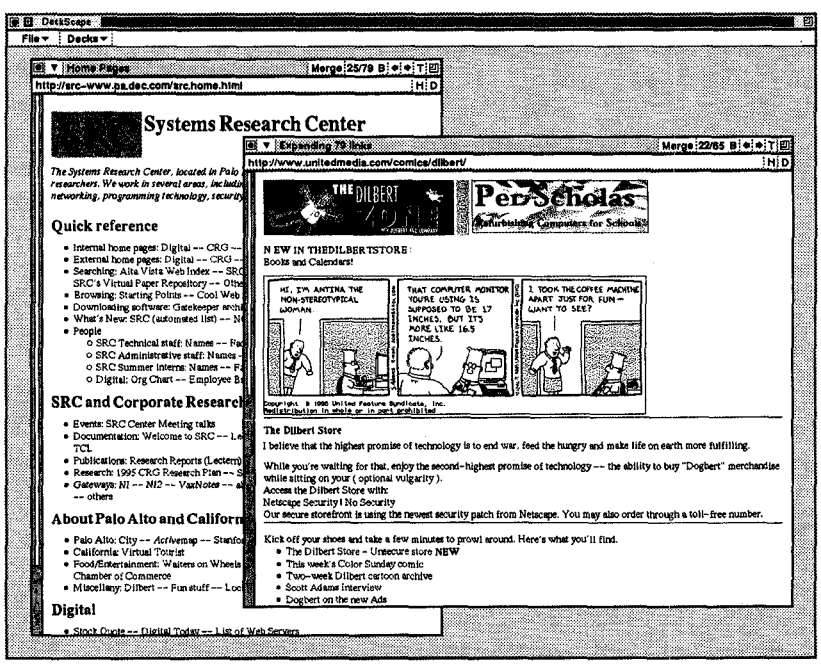
DeckScape: An Experimental Web Browser.
Computer Networks and ISDN Systems **27** (1995) 1097–1104.

3. Modula-3 home page.
`http://www.research.digital.com/SRC/modula-3/html`

This screen dump shows DeckScape with three decks: "Home Deck," "Search Engines," and "Local Restaurants." The "Home Deck" deck contains 7 pages, and the 4th page is currently being displayed. In the "Search Engines" deck, the user split the window horizontally; each pane can be scrolled independently. The small window in the lower-left is showing a page from the "Local Restaurants" deck that the user dragged away from the deck and dropped into the background. The "away" page now appears in a window separate from its home deck, and when the user clicks on a link in this page, the new page appears back on the home deck rather than obscuring the away page. A deck can have more than one "away" page, and because the system is multi-threaded, users can "click ahead" on links in any away page.



When this screen dump was taken, the user had issued the "Expand One Level" command in the deck "Home Pages" while it was displaying the SRC home page. This command caused DeckScape to traverse each link on the page and place the resulting documents in a new deck. When this screen dump was taken, 65 of the 79 links on the home page had already been followed, and the user had browsed pages in the deck, stopping at the 22nd page.



EXHIBIT

D

April 15, 1996

SRC Research Report

141a

Distributed Active Objects

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digital

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Systems Research Center

The charter of SRC is to advance both the state of knowledge and the state of the art in computer systems. From our establishment in 1984, we have performed basic and applied research to support Digital's business objectives. Our current work includes exploring distributed personal computing on multiple platforms, networking, programming technology, system modelling and management techniques, and selected applications.

Our strategy is to test the technical and practical value of our ideas by building hardware and software prototypes and using them as daily tools. Interesting systems are too complex to be evaluated solely in the abstract; extended use allows us to investigate their properties in depth. This experience is useful in the short term in refining our designs, and invaluable in the long term in advancing our knowledge. Most of the major advances in information systems have come through this strategy, including personal computing, distributed systems, and the Internet.

We also perform complementary work of a more mathematical flavor. Some of it is in established fields of theoretical computer science, such as the analysis of algorithms, computational geometry, and logics of programming. Other work explores new ground motivated by problems that arise in our systems research.

We have a strong commitment to communicating our results; exposing and testing our ideas in the research and development communities leads to improved understanding. Our research report series supplements publication in professional journals and conferences. We seek users for our prototype systems among those with whom we have common interests, and we encourage collaboration with university researchers.

Robert W. Taylor, Director

Distributed Active Objects

Marc H. Brown and Marc A. Najork

April 15, 1996

Publication History

This report will appear in the proceedings of the Fifth International World Wide Web Conference, May 6–10, 1996, `http://www5conf.inria.fr/`.

Abstract

Many Web browsers now offer some form of *active objects*, written in a variety of languages, and the number and types of active objects are growing daily in interesting and innovative ways. This report describes our work on Oblets, active objects that are distributed over multiple machines. Oblets are written in Obliq, an object-oriented scripting language for distributed computation. The high-level support provided by Oblets makes it easy to write collaborative and distributed applications.

1 Overview

One of the most exciting recent developments in Web-browser technology is *active objects*, where the browser downloads a program, executes it, and displays the program's user interface in a Web page. Sun's HotJava browser with Java applets pioneered active objects, showing Web pages with a wide range of content, from bouncing balls to spreadsheets to simulated science experiments. Many browsers now offer some form of active objects, written in a variety of languages.

This report describes *distributed active objects*, that is, active objects that can communicate with other active objects located on different machines across the Internet. High-level support for distributed computation makes it easy to write groupware, computer-supported cooperative work (CSCW) applications, and multi-player games as active objects.

Our environment for writing distributed active objects is based on Obliq [Cardelli95], an objected-oriented scripting language that was specifically designed for constructing distributed applications in a heterogeneous environment. We call active objects written in Obliq *Oblets* (**Ob**liq app**lets**). We have also built a family of Web browsers (DeckScape [Brown94], WebCard [Brown95], and WebScape) capable of running Oblets.

Obliq supports distributed computation by implementing all objects as *network objects* [Birrell93]. The methods of a network object can be invoked by other processes, in addition to the process that created the object. The initial connection between two processes occurs when one process registers an object with a name server under a unique name, and another process subsequently imports the object from that name server. Once the connection is established, network objects can be passed to other processes just as simply as passing any other type of data.

For network objects, method calls and field accesses have the same syntax regardless of where the object resides. It might reside in the same address space as the caller, or in a different address space either on the caller's machine or on some other (possibly different type of) machine. Thus, from a programmer's perspective, there is no difference between local and remote objects. As a result, network objects provide a uniform way for communication among Oblets, regardless of whether the Oblets are on the same Web page or on different Web pages displayed by different browsers on different machines. Moreover, network objects communicate directly, without server intervention. Thus, Oblets do not impose any load on an HTTP server, nor does a heavily loaded server affect their performance.

The rest of this report consists of four sections with increasingly complex examples, followed by a review of related work. The next section introduces fundamental concepts by showing a simple, non-distributed Oblet for adding two numbers. Section 3 shows the basics of distribution by developing a two-person game of tic-tac-toe. Section 4 shows a prototypical CSCW application—a chat room. The chat room allows an arbitrary number participants. The final example, Section 5, shows how to coordinate several different Oblets by developing a multi-view animation of an algorithm.

2 A Simple Oblet

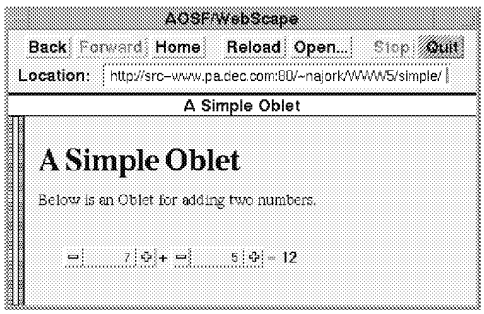
An Oblet is an Obliq program that defines a variable named `oblet`. This variable must contain an Obliq object with at least two fields: `vbt` and `run`. The `vbt` field is bound to a widget that will be installed on the screen when the Web page containing the Oblet is loaded. The `run` field is bound to a method that is invoked just after the `vbt` field is evaluated.

Oblets are placed into HTML documents via `insert`, an HTML tag proposed by the World Wide Web Consortium (W3C) for inserting multimedia objects into HTML3 pages [HTML3]. The markup for putting the Oblet at URL `foo.obl` into a document is:

```
<insert code="foo.obl" type="application/x-oblet"> </insert>
```

The `insert` tag also supports a variety of standard attributes, such as suggested dimensions, border size, and alignment. If suggested dimensions are not specified, the preferred dimensions of the widget contained in the Oblet's `vbt` field are used.

The following screen dump shows a simple Oblet for adding two numbers:



The user interface for that Oblet, defined by a FormsVBT s-expression [Avrahami89], is stored in the file `adder.fv`:

```
(HBox
  (Numeric %num1)
  (Text "+")
  (Numeric %num2)
  (Text "=")
  (Text %sum "0"))
```

A user interface in FormsVBT is a hierarchical arrangement of *components*. These include passive visual elements (e.g., `Text`), basic interactors (e.g., `Numeric`), modifiers that add interactive behavior to other components (e.g., `Button`), and layout operators that organize other components geometrically (e.g., `HBox`). Components can be further categorized as a split, filter, or leaf, based on the number of child components they support. A split can have any number of children (e.g., `HBox`), a filter has exactly one child (e.g., `Border`), and a leaf has no children (e.g., `Text`).

A component in FormsVBT can be given a name so that its attributes can be queried and modified at runtime. Names are also used for attaching callback procedures to interactors. In this Oblet, the two `Numeric` interactors are named `num1` and `num2`, and the `Text` component where the sum will be displayed is named `sum`.

The source for this Oblet is as follows:

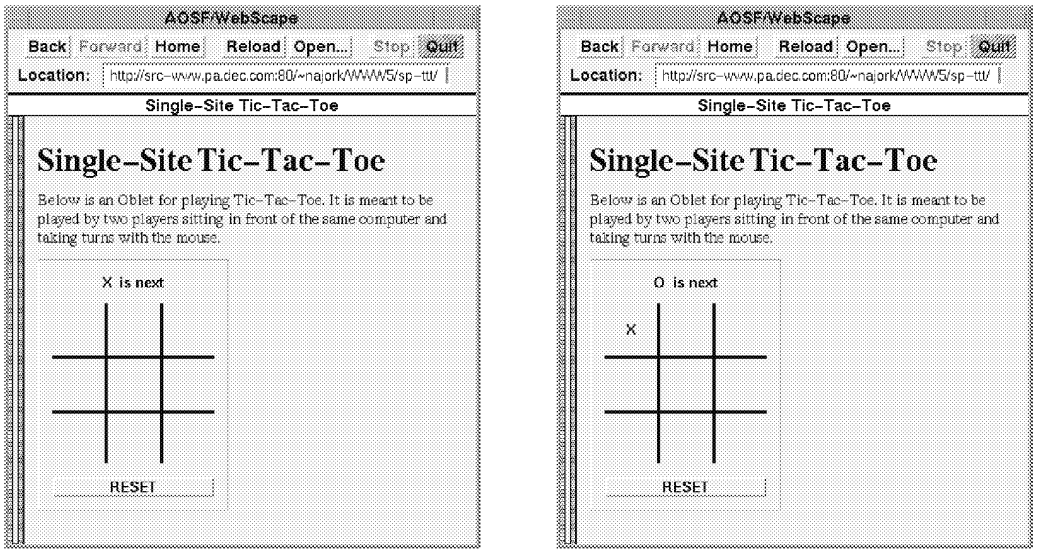
```
let doAdd =
  proc (fv)
    let n1 = form_getInt (fv, "num1");
    let n2 = form_getInt (fv, "num2");
    form_putText (fv, "sum", fmt_int (n1+n2))
  end;

let oblet = {
  vbt => form_fromURL (BaseURL & "adder.fv"),
  run =>
    meth (self)
      form_attach (self.vbt, "num1", doAdd);
      form_attach (self.vbt, "num2", doAdd);
    end
};
```

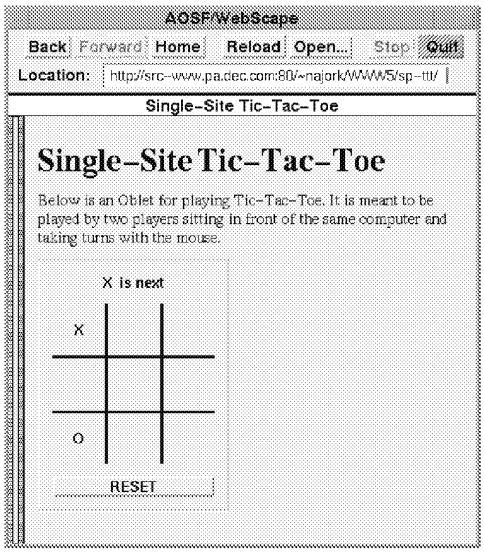
This Obliq program defines two variables: `doAdd` and `oblet`. Variable `doAdd` is a procedure that retrieves the values of both numeric interactors, and stores their sum in the component named `sum`.

Variable `oblet` is an object with two fields, `vbt` and `run`. The `vbt` field is bound to a *form*, a widget that displays a FormsVBT s-expression. The procedure `form_fromURL` takes a URL as an argument and returns a form whose description is stored at this URL. The global variable `BaseURL` is the Oblet's absolute URL up through the last slash. The `run` method in this Oblet just attaches the callback procedure `doAdd` to the two numeric interactors. This procedure will be invoked whenever the user clicks on the plus or minus buttons of either interactor, or types a number into the editing field between the buttons. The form in which the event occurred is passed as an argument to the callback procedure. Recall that when the Web page containing this Oblet is loaded, the `vbt` field will be evaluated and the result displayed on the page, the `run` method will be invoked, and finally the page will become visible.

3 A Distributed Game Oblet

This section describes an Oblet for playing tic-tac-toe. We'll first develop a single-site game; then, we'll show how to extend this game to two sites. The following screen dumps show the first three moves in the single-site game:





The FormsVBT description for this Oblet contains a message line that indicates whose turn it is, a game grid consisting of nine squares, and a "RESET" button at the bottom that is used to clear the squares. The message line is a `Text` component named `status`. Each square of the game grid consists of a `Button` and a `Text` component. The `Button` components are named `btn1`, ..., `btn9`, and the `Text` components are named `lab1`, ..., `lab9`. The "RESET" button is named `reset`. Finally, the form's top-level component has the name `board`.

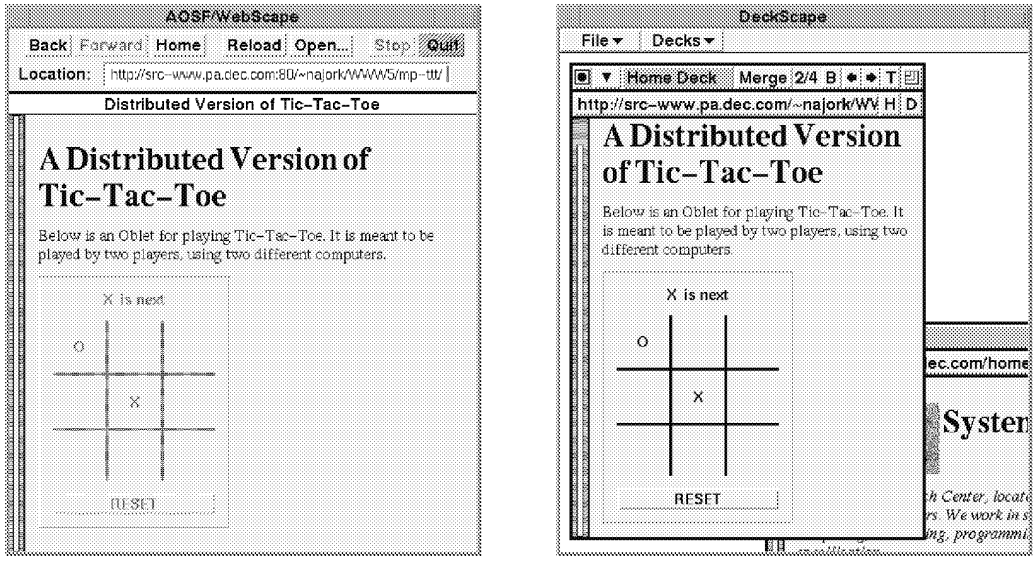
The code for the Oblet is as follows:

```
let otherPlayer =
  proc (p)
    if p is "X" then "O" else "X" end
  end;

let oblet = {
  vbt => form_fromURL (BaseURL & "tic-tac-toe.fv"),
  c   => ok,

  reset =>
    meth (self)
      for i = 1 to 9 do
        form_putText (self.vbt, "lab" & fmt_int(i), "");
      end;
    end,

  move =>
    meth (self, label, player)
      form_putText (self.vbt, label, player);
      form_putText (self.vbt, "status", otherPlayer(player) & " is next");
    end,

  nextTurn =>
    meth (self)
      self.c := otherPlayer(self.c);
    end,

  run =>
    meth (self)
      self.c := "X";

      let doReset =
        proc(fv)
          self.reset ();
        end;

      let doPress =
        proc (m)
          let label = "lab" & fmt_int(m);
          if form_getText (self.vbt, label) is "" then
            self.move (label, self.c);
            self.nextTurn ();
          end;
        end;

      form_attach (self.vbt, "reset", doReset);
      for i = 1 to 9 do
        let p = proc(fv) doPress(i) end;
        form_attach (self.vbt, "btn" & fmt_int(i), p)
      end;
    end
};
```

This Oblet, in addition to the required `vbt` field and `run` method, also has a field `c` and methods `reset`, `move`, and `nextTurn`. The field `c` will be a string indicating the player about to move, either "X" or "O". The `reset` method clears the label displayed in each square of the game grid. The `move` method stores the string `player` into the `Text` component whose name is `label`, and also updates the message line to indicate whose turn is next. The `nextTurn` method changes whose turn it is, that is, it changes the value of the field `c`. The last two methods use the procedure `otherPlayer`, which takes one player's symbol and returns his opponent's symbol.

The body of the `run` method initializes field `c`, and then attaches callback procedures to the various interactors on the board. Procedure `doReset` is attached to the "RESET" button; it will invoke the `reset` method of the object `oblet`. A procedure `p` is attached to each of the nine buttons, `btn1`, ..., `btn9`. This procedure effectively captures the value of `i`, the index of each square on the game grid. When `p` is invoked (in response to a user clicking in a square), it calls procedure `doPress(i)`, which checks that the square is empty, and if so, invokes the Oblet's `move` and `nextTurn` methods.

We now convert the single-site version of tic-tac-toe into a two-site, distributed version. The following figure shows a snapshot of a two-site game in progress. The left image shows the browser (WebScape) used by player "O", the right image shows the browser (DeckScape) used by player "X". The message line indicates that player "X" is next, and the Oblet of player "O" is grayed out, indicating that it is non-responsive for the time being.



The changes to the Oblet code are remarkably simple. First, we extend the `oblet` to include an extra field, `opp`, which is the `oblet` of the opponent. Second, we use the field `c` in a slightly different way: In the single-site version, `c` was a string that indicated whose turn it was; it changed after each turn. In the two-site version, it is also a string, but it never changes. Rather, it is initialized to the player in whose browser the Oblet is run. Finally, there are changes to the `nextTurn` and `run` methods. Here is the entire Oblet, with unchanged parts elided:

```
let otherPlayer = ...;

let oblet = {
  vbt      => ...,
  c        => ok,
  opp      => ok,
  reset    => ...,
  move     => ...,

  nextTurn =>
    meth (self)
      if form_getReactivity(self.vbt, "board") is "active" then
        form_putReactivity(self.vbt, "board", "dormant");
      else
        form_putReactivity(self.vbt, "board", "active");
      end;
    end,

  run =>
    meth (self)
      try
        self.opp := net_import ("TicTacToe", "ash.pa.dec.com");
        self.opp.opp := self;
        self.c := "X";
      except net_failure =>
        net_export ("TicTacToe", "ash.pa.dec.com", self);
        form_putReactivity (self.vbt, "board", "dormant");
        self.c := "O";
      end;

      let doReset =
        proc(fv)
          self.reset ();
          self.opp.reset ();
        end;

      let doPress =
        proc (m)
          let label = "lab" & fmt_int(m);
          if form_getText (self.vbt, label) is "" then
            self.move (label, self.c);
            self.opp.move (label, self.c);
            self.nextTurn ();
            self.opp.nextTurn ();
          end;
        end;

      form_attach (self.vbt, "reset", doReset);
      for i = 1 to 9 do
        let p = proc(fv) doPress(i) end;
        form_attach (self.vbt, "btn" & fmt_int(i), p)
      end;
    end
};
```

We start a game by visiting the tic-tac-toe Web page, which causes the tic-tac-toe Oblet to be loaded and its `run` method to be invoked. The first part of the `run` method attempts to import an object called `TicTacToe` from the name server at machine `ash.pa.dec.com`. This call succeeds if there already is a player waiting for a game to begin. In this case, the opponent's `oblet` is stored in our `opp` field, our `oblet` is stored in our opponent's `opp` field, and we choose "X" to be our symbol. If the attempt to import `TicTacToe` fails, then we export our `oblet` to the name server at `ash.pa.dec.com`, make our game board dormant (i.e., grayed out and unresponsive to mouse activity), and choose "O" as our symbol. For the sake of simplicity, we ignore the race condition of more than one player executing this code simultaneously.

The change to the `doReset` callback is simple: we invoke the `reset` method not only on our `oblet`, but also on our opponent's `oblet`. The change to the `doPress` callback is similar: rather than invoking `move` and `nextTurn` only on our `oblet`, we also invoke these methods on our opponent's `oblet`. The rest of the `run` method is unchanged: callbacks are attached to the interactors.

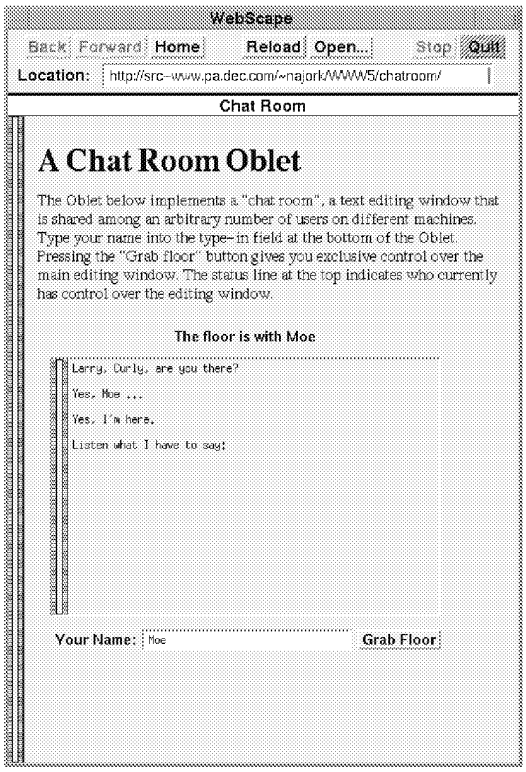
The final change in the Oblet is to the `nextTurn` method. In the single-site version, we changed the value of field `c` from "X" to "O" and vice versa. Here, we change the reactivity of the game board from active to dormant and vice versa. Therefore, each player can press a button only when it is his turn to move.

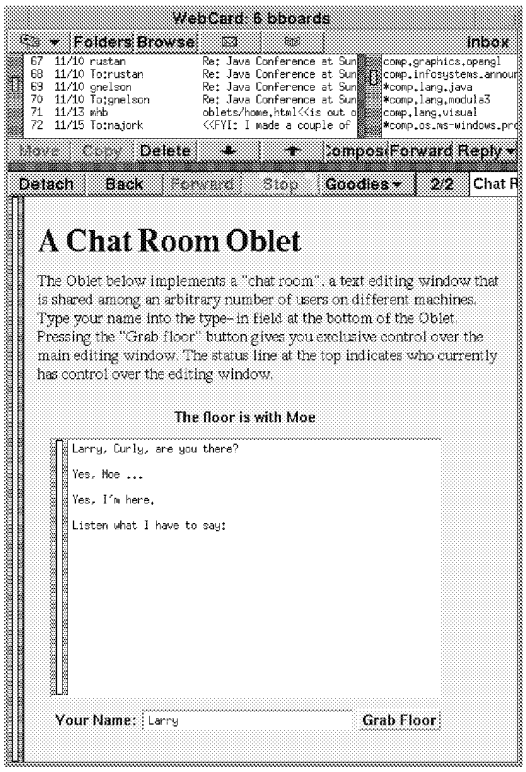
It is worth emphasizing that `self.opp` denotes an object that resides on the opponent's machine. This implies that the assignment to `self.opp.opp` and the execution of the `self.opp.reset`, `self.opp.move`, and `self.opp.nextTurn` method calls take place on this other machine.

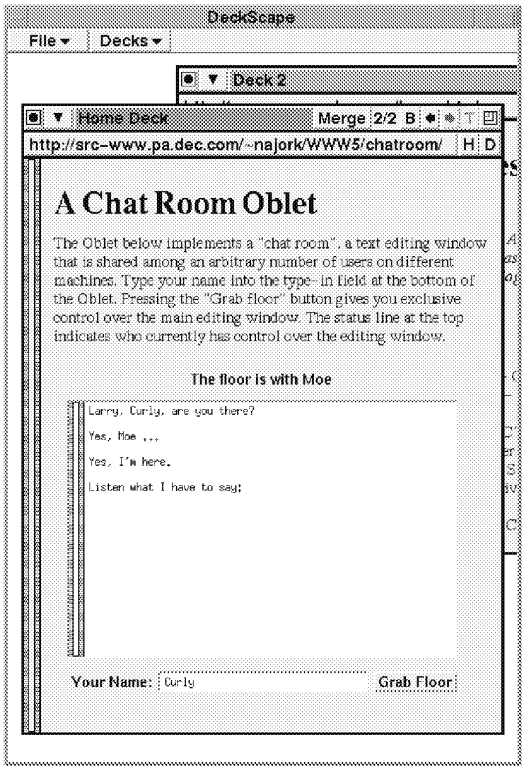
4 A Distributed Chat Room Oblet

Oblets are flexible enough to allow distributed computations to have arbitrary topologies. In the tic-tac-toe example, we had two `oblet` objects performing peer-to-peer communication. In this example, we use a star topology to implement a multi-person chat room. At the center of the star, we have a *conference control* object; at the periphery are the Oblets belonging to the participants. When a user types into his chat room Oblet, it informs the conference controller of the new text, which then relays the update to all the participating Oblets; in other words, Oblets do not communicate with other Oblets directly. Our chat room also provides a mechanism for floor control.

The following three images show the chat room Oblet running in different browsers (WebScape, WebCard, and DeckScape). Each browser is running on a different machine. The participants in the chat room are Moe, Larry, and Curly. Currently the floor is with Moe, as indicated by the status line over the editing region and by the color of the editing region in Moe's browser.


WebScape
Back Forward Home Reload Open... Stop Quit
Location: http://src-www.pa.dec.com/~najork/WWW5/chatroom/
Chat Room
A Chat Room Oblet
The Oblet below implements a "chat room", a text editing window that is shared among an arbitrary number of users on different machines. Type your name into the type-in field at the bottom of the Oblet. Pressing the "Grab floor" button gives you exclusive control over the main editing window. The status line at the top indicates who currently has control over the editing window.
The floor is with Moe
Larry, Curly, are you there?
Yes, Moe ...
Yes, I'm here.
Listen what I have to say:
Your Name: Moe
Grab Floor


WebCard: 6 bboards
Folders Browse
Inbox
Move Copy Delete
Compos Forward Reply
Detach Back Forward Stop Goodies 2/2
A Chat Room Oblet
The Oblet below implements a "chat room", a text editing window that is shared among an arbitrary number of users on different machines. Type your name into the type-in field at the bottom of the Oblet. Pressing the "Grab floor" button gives you exclusive control over the main editing window. The status line at the top indicates who currently has control over the editing window.
The floor is with Moe
Larry, Curly, are you there?
Yes, Moe ...
Yes, I'm here.
Listen what I have to say:
Your Name: Larry
Grab Floor


DeckScape
File Decks
Deck 2
Home Deck
Merge 2/2
http://src-www.pa.dec.com/~najork/WWW5/chatroom/
A Chat Room Oblet
The Oblet below implements a "chat room", a text editing window that is shared among an arbitrary number of users on different machines. Type your name into the type-in field at the bottom of the Oblet. Pressing the "Grab floor" button gives you exclusive control over the main editing window. The status line at the top indicates who currently has control over the editing window.
The floor is with Moe
Larry, Curly, are you there?
Yes, Moe ...
Yes, I'm here.
Listen what I have to say:
Your Name: Curly
Grab Floor

Here is the FormsVBT s-expression for the chat room Oblet:

```
(Rim (Pen 10)
  (VBox
    (Text %floorWith "The floor is free right now")
    (Glue 10)
    (Shape (Width 300) (Height 200)
      (Frame Lowered
         (Filter Passive
           (TextEdit (BgColor "White") %mainEditor))))
    (Glue 10)
    (HBox
      (Text "Your Name:")
      (Frame Lowered (TypeIn (BgColor "White") %myName))
      Fill
      (Button %grabFloor "Grab Floor"))))
```

The `floorWith` component is the message line above the large editing region; it will contain a message indicating who owns the floor. The `mainEditor` is the large (300x200) editing region. The `Filter` component surrounding the region is used to set the reactivity of the region; in the passive state, the region is unresponsive to mouse and keyboard activity, but it is not grayed out, as it would be in the dormant state. The type-in field where each participant identifies himself is named `myName`. Finally, the "Grab Floor" button has been given the name `grabFloor`.

As we shall see, callback procedures will be attached to the "Grab Floor" button and to the large editing region. When the user clicks on the "Grab Floor" button, the message line on all participating Oblets will indicate who owns the floor (using the contents of the type-in field of the Oblet now owning the floor), the editing region on all Oblets (other than the one owning the floor) will become passive, and the editing region in the Oblet owning the floor will become active and its color will change to pink. When the user who owns the floor types a keystroke into the editing region, all of the participating Oblets will be notified of the updated text.

Recall that Oblets do not communicate with other Oblets directly. Rather, they use a conference control object to report the changes, and this object then relays the changes to the other Oblets. Here is the definition of the conference control object:

```
let ProtoConfControl = {
  oblets => [],
  onFloor => ok,
  contents => "",

  register =>
    meth (self, oblet)
      self.oblets := self.oblets @ [oblet];
      oblet.updateText (self.contents);
      if self.onFloor isnot ok then
        oblet.transferFloor (self.onFloor);
      end;
    end,

  transferFloor =>
    meth (self, name)
      self.onFloor := name;
      foreach o in self.oblets do
        o.transferFloor (name);
      end;
    end,

  updateText =>
    meth (self, contents)
      self.contents := contents;
      foreach o in self.oblets do
        o.updateText (contents);
      end;
    end
};
```

The `oblets` data field is an array of the Oblets that have registered themselves with the conference control object. Each element of this array is an `oblet` that typically resides on a different machine. The `onFloor` data field is the name of the user who currently has the floor, and the `contents` data field contains the current contents of the editing region. These two fields are needed in order to initialize the display of a new participant entering this chat room.

The `register` method will be called by a new Oblet `oblet` when it is initialized, as part of its `run` method. The new Oblet is appended to the `oblets` array, and then it is notified both of the current contents of the editing region and of the owner of the floor, if there is one.

The `transferFloor` method will be called by an Oblet when the user clicks on the "Grab Floor" button. This method stores in `onFloor` the name of the user who now owns the floor, and then iterates through all of the Oblets in the conference, invoking the `transferFloor` method on each Oblet to inform it of the new floor owner.

Finally, the `updateText` method will be called on each keystroke by the Oblet that owns the floor, passing in the current contents of the editing region. (Passing just the keystroke is not sufficient, since a single character could result in various editing actions, depending on the key bindings used by the Oblet.) The `updateText` method stores in `contents` the new contents of the editing region and then updates all of the Oblets in the chat room by invoking the `updateText` method on each one.

We are now ready to examine the code for the Oblet:

```
let oblet = {
  vbt => form_fromURL (BaseURL & "chatroom.fv"),

  transferFloor =>
    meth (self, name)
      form_putReactivity (self.vbt, "mainEditor", "passive");
      form_putBgColor (self.vbt, "mainEditor", color_named("white"));
      form_putText (self.vbt, "floorWith", "The floor is with " & name);
    end,

  updateText =>
    meth (self, contents)
      form_putText (self.vbt, "mainEditor", contents);
    end,

  run =>
    meth (self)
      var confControl = ok;
      try
        confControl := net_import("ConfControl", "ash.pa.dec.com");
      except net_failure =>
        confControl := ProtoConfControl;
        net_export("ConfControl", "ash.pa.dec.com", confControl);
      end;

      let doGrabFloor =
        proc (fv)
          confControl.transferFloor (form_getText (fv, "myName"));
          form_putReactivity (fv, "mainEditor", "active");
          form_putBgColor (fv, "mainEditor", color_named("pink"));
        end;

      let doKeyEvent =
        proc (fv)
          confControl.updateText (form_getText (fv, "mainEditor"));
        end;

      confControl.register (self);
      form_attach (self.vbt, "grabFloor", doGrabFloor);
      form_attach (self.vbt, "mainEditor", doKeyEvent);
    end
};
```

The Oblet defines two methods, `transferFloor` and `updateText`; as we just saw, these methods will be invoked by the conference control object in response to a user in an arbitrary Oblet in the chat room grabbing the floor or typing into the editing region, respectively. These methods are straightforward: the `transferFloor` method makes the editing region passive and sets its background to be white, and then updates the message line. The `updateText` message changes the contents of the editing region.

The Oblet's `run` method first contacts the name server on the machine `ash.pa.dec.com` to obtain a conference control object registered under the name `ConfControl`. If there is such an object, it is stored in the variable `confControl`. Otherwise, a new conference control object is registered with the name server and also stored in `confControl`. As in the tic-tac-toe example, we do not show the code necessary for preventing the race condition of several users executing the `try-except` statement simultaneously. After defining callback procedures `doGrabFloor` and `doKeyEvent`, this Oblet registers itself with the conference controller, and finally attaches the callback procedures to the "Grab Floor" button and to the editing region.

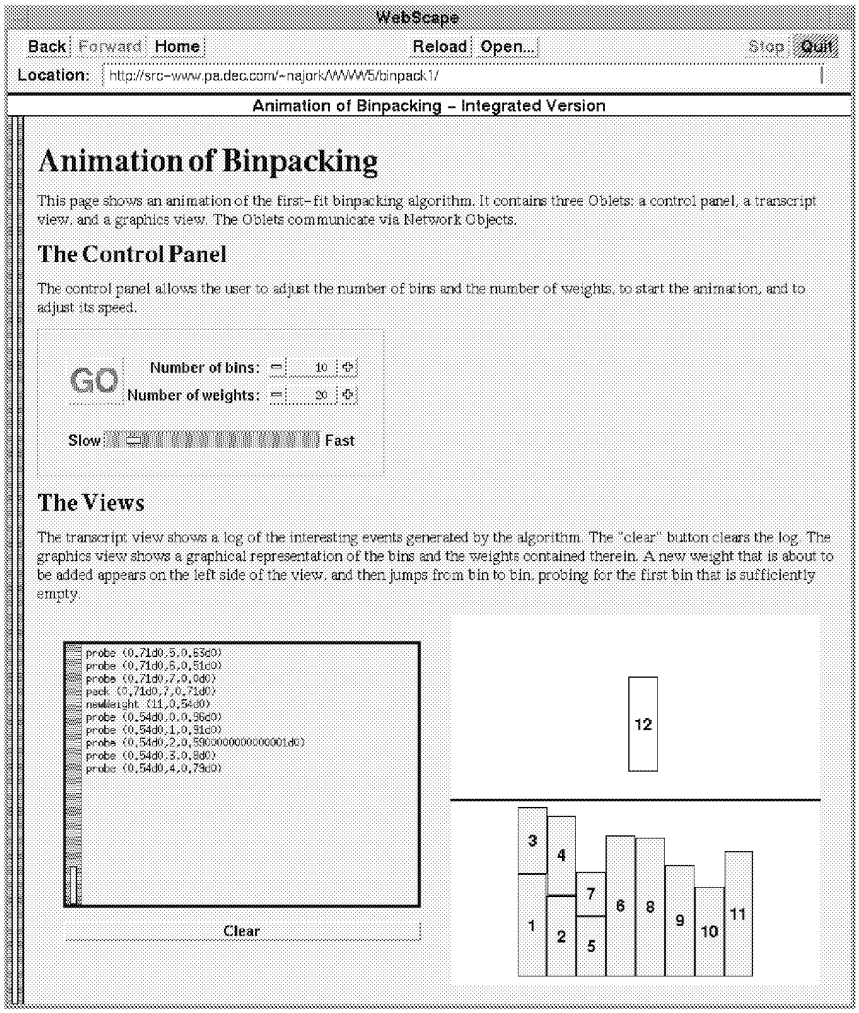
The `doGrabFloor` callback procedure invokes the `transferFloor` method on the `confControl` object (which then calls the `transferFloor` method on all Oblets in the chat room, including this one), and then makes its own editing region active and colored pink. The `doKeyEvent` callback procedure simply invokes the `updateText` method on the `confControl` object, passing to it the text in the editing region.

Again, it is important to point out that invoking a method `m` on the `confControl` object is done just by calling `confControl.m()`, regardless of where the `confControl` object resides. In this example, the conference control object will be local to the Oblet that creates it, and remote to all other Oblets.

There are many features that could be added to the chat room in a fairly straightforward way. For example, it would be nice to be able to prevent another user from taking away the floor, to allow users to leave the chat room, to create new chat rooms, to see existing chat rooms, to handle exceptions that might result from network partitions, and so on. In addition, one can easily imagine more efficient implementations, such as reporting only changes to the editing region rather than reporting the region's entire contents after each keystroke.

5 Oblets for Algorithm Animation

Obliq's network objects provide a uniform and elegant way for objects to communicate, regardless of the address space they exist in and the machine they reside on. The two previous examples showed the obvious use for network objects: to communicate among objects on different machines. The example in this section uses network objects to allow Oblets running in the same browser (on the same Web page or on different Web pages) to communicate. This could be achieved through simpler mechanisms; after all, all Oblets on the same browser are in the same address space. However, network objects minimize the number of concepts needed by a programmer, since they handle this case in the exact same way as the distributed case. Moreover, network objects make it easy to reuse Oblets in distributed settings without any code changes.



This example uses network objects to coordinate multiple Oblets in the domain of algorithm animation [Brown84]. A typical algorithm animation system has a control panel and a collection of views, each in its own window. The control panel is used for specifying data, starting the algorithm, controlling the animation speed, and so on. In order to animate an algorithm, strategically important points of its code are annotated with procedure calls that generate *interesting events*. These events are reported to the algorithm animation system, which in turn forwards them to all interested views. Each view responds to interesting events by updating its display appropriately.

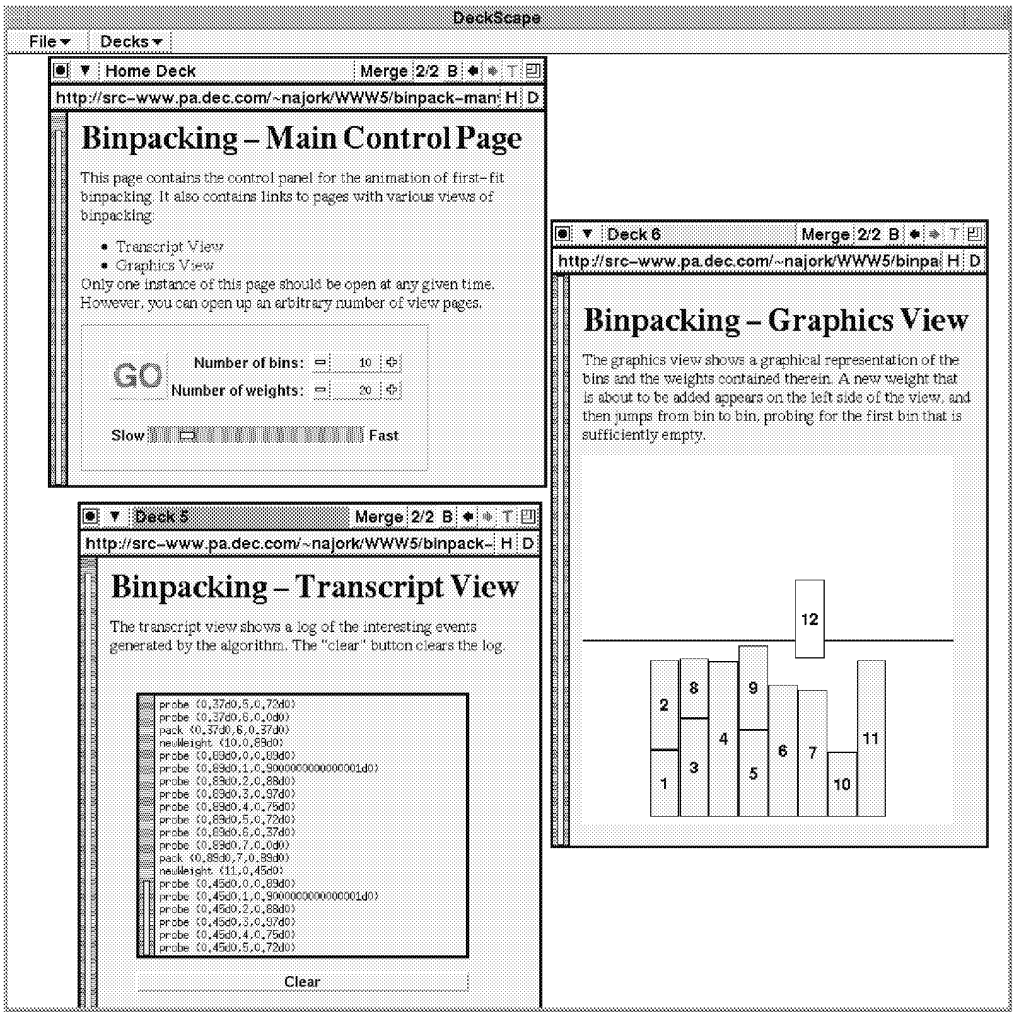
The screen dump on the previous page shows an animation of first-fit binpacking. The control panel and the views are implemented by separate Oblets.

We use an *event manager* object, similar to the conference control object in the chat room example, to relay interesting events from the algorithm to the views. For each interesting event there is a corresponding method both in the event manager object and in each view Oblet. When an interesting event occurs, the algorithm Oblet invokes the corresponding method of the event manager object, which in turn relays the event to each view. Typically, views react by showing some animation reflecting the changes in the program. In order for the animation in the views to happen simultaneously, the event manager forks a thread for each registered view, the thread calls the view's method corresponding to the interesting event, and the event manager waits until all of the threads have completed before returning to the algorithm.

For example, when a binpacking algorithm is trying to insert a particular weight `w` into a bin `b` that already contains a number of weights totaling up to `amt`, it calls `z.probe(w,b,amt)`. The `probe` method of the event manager object `z` is implemented as follows:

```
let z = {
  views => [],
  ...
  probe =>
    meth (self,w,b,amt)
      let threads =
        foreach v in self.views map
          let closure = proc() v.probe(w,b,amt) end;
          thread_fork(closure)
        end;
      foreach t in threads do
        thread_join(t)
      end;
    end;
    ...
};
```

The screen dump on the previous page showed the Oblets for the control panel and each view all on the same Web page. However, there is no need for the Oblets to be located on the same page. In fact, if we put each Oblet on a separate page, the user can dynamically select the set of views visible (or even have more than one copy of any view). In the screen dump on the following page, the Web page containing the control panel has links for pages containing the various views. Clicking on such a link brings up a page for the view, which the DeckScape browser can optionally display in a separate window.



At first blush, it would appear that this example uses network objects merely for the coding elegance they offer, rather than for any of their distributed aspects. That is, in the two screen dumps in this section, all of the Oblets exist in the same address space, namely that of the browser. However, because Oblets are network objects, we have far more flexibility. For instance, we can use the Oblets — *without any changes* — in an Electronic Classroom setting. In such a setting, the instructor and all students run Deckscape on their individual machines (using the same name server). The instructor uses the control page Oblet to drive the animation, and each student sees a set of views portraying the workings of the algorithm. This scenario is explored in depth elsewhere [Brown96].

6 Related Work

Oblets bring together active objects and distributed computation. The best known language for active objects is Java [Java]. HotJava was the first browser to support Java applets; in the meantime support for Java applets has been integrated into Netscape Navigator. Most major commercial browser vendors have subsequently announced intended support for Java applets.

The most serious potential competitor to Java-based browsers is probably Microsoft's Internet Explorer, which plans to integrate support for active objects written in Visual Basic (as well as for those written in Java) [Microsoft]. However, the current version of Internet Explorer does not support active objects.

In the research community, a number of browsers have been developed that support other languages for writing active objects. Most of these browsers are written in interpreted languages and support active objects written in the same language. Examples include Hush [vanDoorn95] and SurfIt! [SurfIt!], implemented in Tcl/Tk; MMM [MMM], implemented in CAML/Tk; and Grail [Grail], implemented in Python.

None of the browsers and languages mentioned above has any high-level support for distributed programming. However, the HORB system [HORB] adds the equivalent of network objects to Java. It consists of a name server and a compiler that creates network object classes based on Java interface specifications. Unlike Obliq, HORB is a first-order language, meaning that only data, but not computations, can be migrated over the network. Also, HORB does not provide distributed garbage collection.

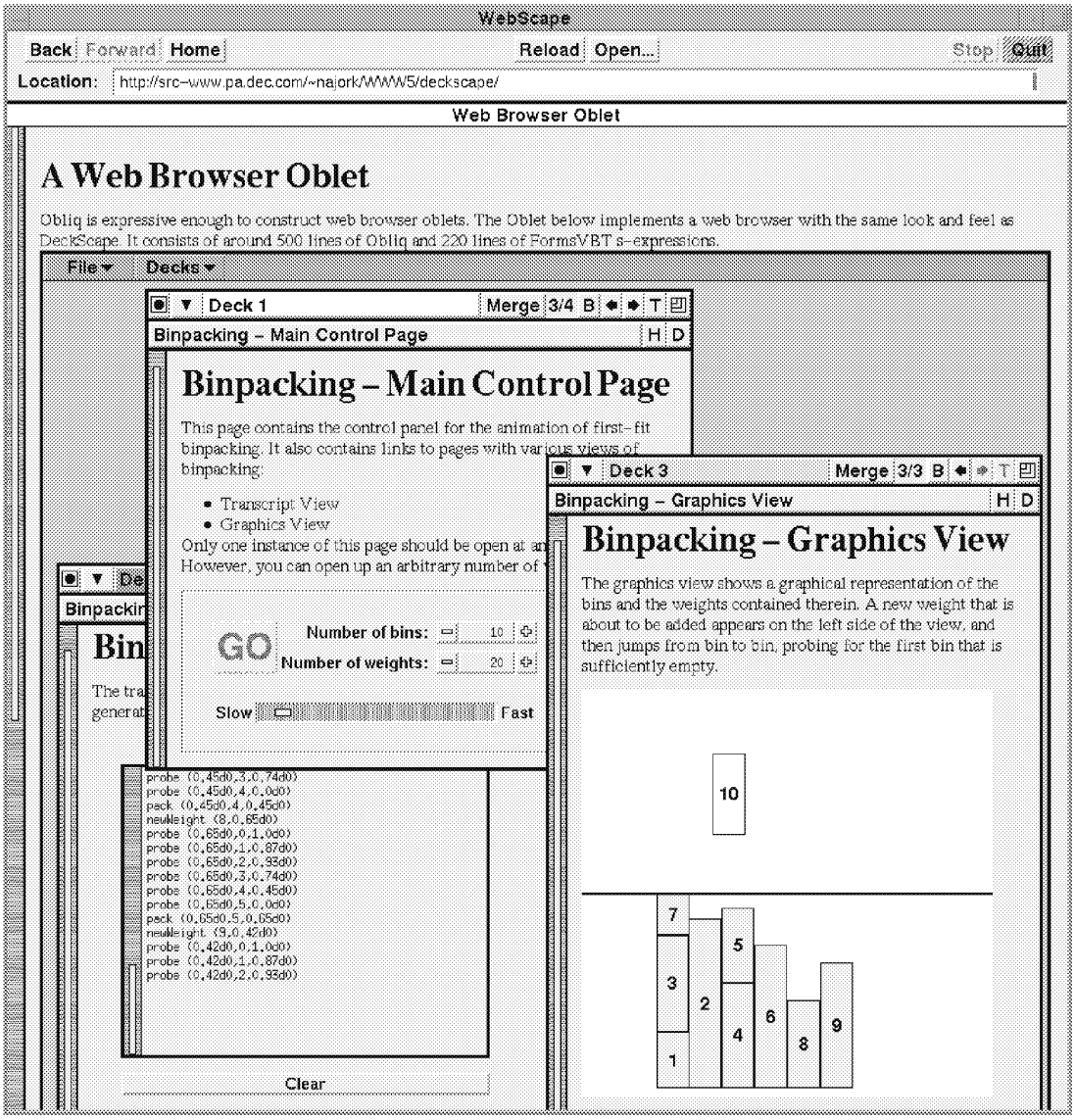
Obliq [Cardelli95] is a lexically-scoped language that supports distributed object-oriented computation. It has been integrated into commercial Web browsers by defining an Obliq MIME type and configuring the browser to use the Obliq interpreter as an external viewer [Bharat95]. Many other distributed languages exist, commercially (e.g., General Magic's Telescript [Telescript]) and in academia (e.g., Orca [Bal92]). However, we are not aware of any such language having been integrated with a Web browser.

7 Conclusion

The example Oblets shown in this report have been small, for didactic reasons. However, Obliq is a full-strength programming language with access to a rich set of libraries, including multimedia objects and even Web pages.

The DeckScape browser below shows a "Virtual TV" Oblet; the main screen and each of the buttons show live video streams. New video streams can be added by typing the IP address of a video server into the type-in field.

The WebScape browser on the next page shows an Oblet that implements the look-and-feel of DeckScape, but uses a different color for the main canvas. Within this Oblet, we are visiting Web pages containing the various binpacking animation Oblets we saw before. This Oblet consists of about 500 lines of Obliq code and 200 lines of FormsVBT user-interface specification.



We have not explored the issues of security and fault tolerance, both very important and very real problems. In the area of security, Web browsers should be able to authenticate the origin of an Oblet and to protect the user against malicious Oblets. In the area of fault tolerance, Oblets should be able to gracefully handle disruption of network services and nonavailability of network resources.

Many analysts feel that two of the most important technology themes for the remainder of the decade are the Web and using computers for collaboration. Oblets provide an elegant programming framework for bringing collaborative and distributed applications to the Web.

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[HTML3] HTML3 Linking and Embedding Model.
`http://www.w3.org/hypertext/WWW/TR/WD-insert-951221.html`

[HORB] HORB Home Page.
`http://ring.etl.go.jp/openlab/horb/`

[Java] Java: Programming for the Internet.
`http://java.sun.com/`

[Microsoft] Internet Development Toolbox.
`http://www.microsoft.com/INTDEV/`

[MMM] MMM Browser Home page.
`http://pauillac.inria.fr/~rouaix/mmm/`

[SurfIt!] SurfIt!
`http://pastime.anu.edu.au/SurfIt/`

[Telescript] Telescript.
`http://www.genmagic.com/Telescript/index.html`

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Computer Networks and ISDN Systems, **27**(1995) 1105–1110.

EXHIBIT 11

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff,	)	C.A. No. 1:22-cv-00305-RGA
	)	
v.	)	**JURY TRIAL DEMANDED**
	)	
NETFLIX, INC.,	)	
	)	
Defendant.	)	
	)	

NETFLIX, INC.'S INITIAL INVALIDITY CONTENTIONS

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Dated: July 6, 2023

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B. Disclosures of Prior Art

The patents, publications, and systems identified below disclose the limitations of the Asserted Claims of the Asserted Patents explicitly, inherently, or as part of an obvious combination, and may also be relied upon to show the state of the art at the relevant times. Netflix may also rely upon persons identified as inventors of the prior art patents, authors of the prior art publications, individuals with personal knowledge of prior art systems, and/or others as they become identified through further discovery. In addition, Netflix may rely upon the facts as developed in discovery of prior invention or derivation of the alleged inventions claimed in the Asserted Patents.

Further, Robocast has not yet provided discovery on products embodying the Asserted Patents that may have been previously used, publicly disclosed, published, offered for sale or sold prior to the alleged invention of the Asserted Patents. Netflix reserves the right to supplement or amend these contentions based on future discovery related to products embodying the prior art.

	Prior Art	Issuing Country/ Origin	Date	Inventor(s)/ Authors(s)
1	U.S. Pat. No. 5,796,945 ("Tarabella")	U.S.	8/18/98 (filed 6/7/95)	Tarabella, R.
2	U.S. Pat. No. 6,064,379 ("DeMoney")	U.S.	5/16/00 (filed 6/24/96)	DeMoney, M.
3	U.S. Pat. No. 5,740,549 ("Reilly")	U.S.	4/14/98 (filed 6/12/1995)	Reilly, J., Hassett, G.
4	U.S. Pat. No. 5,754,172 ("Kubota")	U.S.	5/19/98 (filed 1/5/96)	Kubota, I., Miijima, M.
5	U.S. Pat. No. 5,659,793 ("Escobar")	U.S.	8/19/97 (filed 12/22/94)	Escobar, G., Kirsch, L.
6	U.S. Pat. No. 6,486,895 ("Robertson")	U.S.	11/26/02 (filed 9/8/95)	Robertson, G., Card, S.

conception or diligence with respect to any specific claim limitation. NFLX_0000116-362, at NFLX_0000236-237. Following the Examiner's rejection over additional prior art references, Robocast subsequently abandoned the application. *See* NFLX_0000116-362, at NFLX_0000302.

7	U.S. Pat. No. 5,959,623 ("van Hoff")	U.S.	9/28/99 (filed 12/8/95)	van Hoff, A., Gosling, J.
8	U.S. Pat. No. 5,544,354 ("May")	U.S.	8/6/96 (filed 6	May, R., Granger, J., Peck, N., and Miller, R.
9	U.S. Pat. No. 5,726,909 ("Kirkorian")	U.S.	3/10/98 (filed 12/8/95)	Kirkorian, T.
10	U.S. Pat. No. 5,751,672 ("Yankowski")	U.S.	5/12/98 (filed 6/26/95)	Yankowski, C.
11	U.S. Pat. No. 5,752,160 ("Dunn 160")	U.S.	5/12/98 (filed 5/5/95)	Dunn, M.
12	U.S. Pat. No. 5,659,790 ("Kim")	U.S.	8/19/97 (filed 2/23/95)	Kim, M., Song, J.
13	U.S. Pat. No. 5,855,015 ("Shoham")	U.S.	12/29/98 (filed 5/12/95)	Y. Shoham
14	U.S. Pat. No. 5,761,417 ("Henley")	U.S.	6/2/98 (filed 9/8/94)	Henley, M., Wylie, J., Saxena, A.
15	U.S. Pat. No. 5,612,897 ("Rege")	U.S.	3/18/97 (filed 3/21/96)	Rege, S.
16	U.S. Pat. No. 5,892,507 ("Moorby")	U.S.	4/6/99 (filed 8/12/96)	Moorby, P., Robotham, J., Mason, P.
17	U.S. Pat. No. 5,694,546 ("Reisman")	U.S.	12/2/97 (filed 5/31/94)	Reisman, R.
18	U.S. Pat. No. 5,715,445 ("Wolfe")	U.S.	2/3/98 (filed 6/7/95)	Wolfe, M.
19	U.S. Pat. No. 5,724,595 ("Gentner")	U.S.	3/3/98 (filed 6/19/96)	Genter, D.
20	U.S. Pat. No. 5,774,664 ("Hidary")	U.S.	6/30/98 (filed 3/25/96)	Hidary, J., Ullman, C., Spivack, N.
21	U.S. Pat. No. 5,634,062 ("Shimizu")	U.S.	5/27/97 (filed 10/20/94)	Shimizu, T., Saito, T., Nakamura, O.
22	U.S. Pat. No. 5,802,292 ("Mogul")	U.S.	9/1/98 (filed 4/28/95)	Mogul, J.
23	U.S. Pat. No. 6,026,368 ("Brown")	U.S.	2/15/00 (filed 6/17/95)	Brown, Y., Walker, M.
24	U.S. Pat. No. 5,826,031 ("Nielsen")	U.S.	10/20/98 (filed 6/10/96)	Nielsen, J.
25	U.S. Pat. No. 5,890,172 ("Borman")	U.S.	3/30/99 (filed 10/8/96)	Borman, G., Bhatnagar, R., Sebastian, A., Mathur, A., Wadhwa, V., Kumar, M., Singh, V.
26	U.S. Pat. No. 5,913,040 ("Rakavy")	U.S.	6/15/99 (filed 8/22/95)	Rakavy, Y., Barkat, E.

27	U.S. Pat. No. 5,109,482 ("Bohrman")	U.S.	4/28/92 (filed 2/19/91)	Bohrman, D.
28	U.S. Pat. No. 5,950,165 ("Shaffer")	U.S.	9/7/99 (filed 11/25/97)	Shaffer, S., Beyda, W., Gold, C., Thomas, J.
29	U.S. Pat. No. 6,034,652 ("Freiberger")	U.S.	3/7/00 (filed 3/22/96)	Freiberger, P., Levin, G., Davis, M., Reed, D., Bhadkamakar, N., Piernot, P., Agulnick, T., Rosenthal, S., Goodhead, G.
30	U.S. Pat. No. 6,108,001 ("Tuttle")	U.S.	8/22/00 (filed 5/21/93)	Tuttle, M.
31	U.S. Pat. No. 6,182,072 ("Leak")	U.S.	1/30/01 (filed 3/26/97)	Leak, B., Killianey, M.
32	U.S. Pat. No. 6,651,108 ("Popp")	U.S.	11/18/03 (filed 8/14/95)	Popp, N., Ong, B.
33	U.S. Pat. No. 7,225,142 ("Apte")	U.S.	5/29/07 (filed 8/1/96)	Apte, J., Roesler, M.
34	U.S. Pat. No. 5,217,119 ("Hollingsworth")	U.S.	6/8/93 (filed 6/4/92)	Hollingsworth, D.
35	U.S. Pat. No. 5,347,632 ("Filepp")	U.S.	9/13/94 (filed 6/28/89)	Filepp, R., Gordon, M., Bidwell, A., Young, F., Wolf, A., Meo, S., Tiemann, D., Cohen, R., Bellar, M., Appleman, K., Abrahams, L., Silfen, M.
36	U.S. Pat. No. 6,119,135 ("Helfman")	U.S.	9/12/00 (filed 1/15/97)	Helfman, J.
37	Brown et al., *Distributed Active Objects* ("Najork")	U.S.	April 15, 1996	Brown, M., Najork, M.
38	Garzotto, F., *Adding Multimedia Collections to the Dexter Model* ("Garzotto")	U.S.	September, 1994	Garzotto, F., Mainetti, L, Paolini, P.
39	Riecken, D., *Agents that Reduce Work and Information Overload* ("Riecken")	U.S.	July 1994	Riecken, D.
40	Desai, B., *WebJournal: Visualization of a Web Journey* ("Desai")	U.S.	May 1995	Desai, B., Swiercz, S.
41	Zellweger, P., *Scripted Documents: A*	U.S.	November 1989	Zellweger, P.

	Hypermedia Path Mechanism ("Zellweger")			
42	Buchanan, C. & Zellweger, P., *Automatic Temporal Layout Mechanisms*, ("Buchanan")	U.S.	September 1993	Buchanan, C., Zellweger, P.
43	Buchanan C. & Zellweger, P., *Specifying Temporal Behavior in Hypermedia Documents* ("Buchanan 2")		November-December, 1992	Buchanan C., Zellweger, P.
44	Chroust, L., *Understanding the Video Server* (Proceedings 137th SMPTE Technical Conference and World Media Expo) ("Chroust")		September 1995	Chroust, L.
45	Miller, et al., *News On-Demand for Multimedia Networks* ("Miller")		1993	Miller, G, Barber, G., Gilliand, M.
46	Guinan, et al., *Information Retrieval from Hypertext Using Dynamically Planned Guided Tours* ("Guinan")		1992	Guinan, C., Smeaton, A.
47	Nielsen, et al., *Comparative Design Review: An Exercise in Parallel Design* ("Nielsen 2")		April, 1993	Nielsen, J., Desurvire, H.
48	Lieberman, *Letizia: An Agent That Assists Web Browsing* ("Lieberman")		August, 1995	Lieberman, H.
49	Card, *The WebBook and the Web Forager: An Information Workspace for the World-Wide Web* ("Card")		April, 1996	Card, S., Robertson, G., York, W.
50	Fox, et al., *Web Publisher's Construction Kit* ("Fox")		September, 1995	Fox, D., Downing, T.
51	Sagman, *Microsoft PowerPoint 4 For Windows* ("Sagman")		1994	Sagman, S.

52	Miller, *Using Compuserve* ("Miller")		1994	Miller, M.
53	Ackerman, et al., *Using UNIX, Special Addition* ("Ackerman")		1994	Ackerman, E., Glines, S., Roberts, R., Kuo, P., Kee, E., Monbrun, F., Mayleben, G., Tanner, M., Husain, K., Hunsberger, B.
54	*Microsoft Office for Windows 95 Resource Kit* ("Office Kit")		1995	
55	Lee, *Universal Resource Identifiers in WWW: A Unifying Syntax for the Expression of Names and Addresses of Objects on the Network as used in the World-Wide Web* ("Lee")		June, 1994	Berners-Lee, T.
56	Lee, *Hypertext Markup Language – 2.0* ("Lee 2")		November, 1995	Berners-Lee, T., Connolly, D.
57	*DeskScape: An Experimental Web Browser* ("DeskScape")		March, 1995	
58	Shafer, *JavaScript & Netscape Wizardry: Master the Art of Customizing Netscape and Creating Sizzling Web Pages* ("Shafer")		1996	Shafer, D.
59	Linblad, *ViewStation Applications: Implications for Network Traffic* ("Linblad")		June, 1995	Lindblad, C., Wetherall, D., Stasior, W., Adam, J. Houh, H., Ismert, M., Bacher, D., Phillips, B., Tennenohouse, D.
60	Poole, *QuickTime in Motion*, MACWORLD ("Poole")		September, 1991	Poole, L.
61	Allen, *Interface Issues for Multimedia Documents* ("Allen")		May 1995	Allen, R.
62	Kent, *Using Netscape 2 for Windows 95* ("Kent")		January 1996	Kent, P

63	Benedict, *Using Harvard Graphics Version 2 for Windows* ("Benedict")		1993	Benedict, R
64	PointCast software ("Pointcast")		By February 1996	
65	ViewMovie plug-in for QuickTime ("ViewMovie" or "QuickTime")		By February 1996	
66	AirMedia Live ("AirMedia)		By February 1996	
67	Firefly Software Tools (Automatic Collaborative Filtering and Catalog Navigator) ("Firefly")		By October 1995	
68	WebBook Software ("WebBook")		By April 1996	
69	DeskScape Software ("DeskScape")		By March 1995	
70	Authorware 2.0 Software ("Authorware")		By April 1996	
71	Microsoft PowerPoint 1995 Software ("PowerPoint")		By August, 1995	
72	WebTV ("WebTV")		By September 1996	
73	CCI Slide Show ("Braverman")		By September, 1994	
74	Active Desktop ("Active Desktop")		By October 1997	
75	Station Break software ("Station Break")		By May 1997	

To the extent not explicitly listed above, Netflix further incorporates by reference all prior art cited during prosecution of the '451, '932, and '819 patents and any related patent(s), to establish the general state of the art at the time of the effective filing date of the Asserted Patents. In addition, Netflix incorporates the *inter partes* review records in IPR Nos. 2022-1125, 2023-00081, 2023-00182, 2023-00590, 2023-00591, 2023-00592, 2023-00593, and 2023-00594, as if set forth in full as they relate to establishing the general state of the art at the time of the effective filing date of the Asserted Patents. Netflix further identifies and hereby incorporates by reference

as if set forth fully herein the prior art references and invalidity contentions as described in any other lawsuits regarding the Asserted Patents, including, but not limited to, *Robocast, Inc. v. YouTube, LLC*, C.A. No. 22-304-RGA-JLH (D. Del.), *Robocast, Inc. v. Microsoft Corp.*, C.A. No. 10-1055-RGA (D. Del.), and *Robocast, Inc. v. Apple Inc.*, C.A. No. 11-235-RGA (D. Del.), wherein invalidity contentions and expert reports on invalidity have been, or will be, provided regarding the Asserted Patents, any foreign counterparts, or any related patents or applications. Any charting of any prior art reference listed above is incorporated here in full by reference. *See* ROBOCAST005050-6077; ROBOCAST006078-8604; ROBOCAST008605-8644; ROBOCAST008645-8662; ROBOCAST008663-8697; ROBOCAST008939-9505; ROBOCAST009506-9703; ROBO-A2710552-766; ROBO-A2714071-105; ROBO-A2714768-790; ROBO-A2714845-859; ROBO-A2731558-585; ROBO-A2733567-ROBO-A2733613; ROBO-A2742427-656. Netflix may use any and all portions of the publication, related publications, commercial embodiments of the publication, and any other evidence that is discovered in these lawsuits to demonstrate and/or evidence the general state of the art, components, functionality, and capabilities of the devices disclosed in the references charted.

As noted in the chart above, several third party products and services constitute relevant prior art to the Asserted Patents. Based on the docket records from Robocast's prior litigations asserting the '451 patent against Microsoft, Inc. ("Microsoft") and Apple, Inc. ("Apple"), Netflix understands that substantial third-party discovery was obtained and produced to Robocast. Accordingly, Robocast is obligated to produce that third-party discovery in this litigation in response to at least Netflix's Request for Production Nos. 25, 32, and 33. Netflix may issue subpoenas to some of these third parties as needed. Netflix reserves the right to reasonably amend

because "litigation is [a] big piece" of what "the company is up to." Transcript at 33:6-17, *Robocast, Inc. v. YouTube, LLC*, C.A. No. 22-304-RGA (D. Del. Jan. 19, 2023) (D.I. 43).

VI. DOCUMENT PRODUCTION RELATED TO PRIOR ART

Pursuant to Section 3(g)(d) of the Joint Scheduling Order (D.I. 47), subject to the foregoing reservations, and based on its investigation to date, Netflix hereby produces documents bearing the production numbers NFLX_0000116-NFLX_0027766 comprising prior art references identified above and/or in the attached charts in connection with Netflix's Initial Invalidity Contentions that do not appear in the file history of the Asserted Patents or its Related Patents, and that are currently within Netflix's possession, custody, or control.

These prior art references and corroborating evidence are cited and support the accompanying invalidity charts. Netflix's search for prior art references, additional documentation, and/or corroborating evidence concerning prior art references is ongoing.

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CERTIFICATE OF SERVICE

I hereby certify that on July 6, 2023, I caused copies of the foregoing document to be served on July 6, 2023, upon the following in the matter indicated.

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EXHIBIT 12

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 1:22-cv-00305-JHL
	)	
NETFLIX, INC.,	)	**HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY**
	)	
Defendant.	)	
	)	

NETFLIX, INC.'S FINAL INVALIDITY CONTENTIONS

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combine Tarabella with any reference identified in Section II.B that discloses that well-known element.

Netflix reserves the right to supplement or amend these final invalidity contentions with additional positions on obviousness in response to any allegation by Robocast that Tarabella does not disclose one or more limitations of the Asserted Claims.

3. DeckScape

Deckscape is a web browsing program developed in 1994 by Marc Brown and Robert Schiller that was publicly described in printed publications as early as April 1995, and thus qualifies as prior art to the Asserted Claims under §§ 102(a) and (b). Deckscape is described in the following documents, each of which individually qualify as prior art under §§ 102(a) and 102(b):

- Marc H. Brown and Robert A. Shillner, *DeckScape: An Experimental Web Browser*, 27 Computer Networks and ISDN Systems at 1097–1104 (April, 1995);
- Marc H. Brown and Robert A. Shillner, *A New Paradigm for Browsing the Web*, ACM CHI Companion (May 7-11, 1995);
- Marc H. Brown and Robert A. Shillner, *The DeckScape Web Browser*, CHI 96 (April 13-18, 1996) (Abstract and accompanying Technical Video); and
- Marc H. Brown and Marc A. Najork, *Distributed Active Objects*, SRC Research Report (April 15, 1996)

The charts attached hereto as Exhibits A-03, B-03, and C-03 provide examples where Deckscape discloses, either expressly or inherently, each limitation of the Asserted Claims of the Asserted Patents, thereby rendering obvious those claims in combination with other prior art described herein. Further, to the extent Robocast asserts that Deckscape does not disclose a claim limitation which constitutes a well-known element in the field, it would have also been obvious to

modify Deckscape to include that well-known element or combine Deckscape with any reference identified in Section II.B that discloses that well-known element.

Netflix reserves the right to supplement or amend these final invalidity contentions with additional positions on obviousness in response to any allegation by Robocast that Deckscape does not disclose one or more limitations of the Asserted Claims.

4. U.S. Patent No. 6,486,895 ("Robertson") and The WebBook and the Web Forager: An Information Workspace for the World-Wide Web ("Card"), collectively ("WebBook")

U.S. Patent No. 6,486,895 to George G. Robertson, entitled "Display System For Displaying Lists of Linked Documents," was published on November 26, 2002, and was filed on September 8, 1995. Robertson thus qualifies as prior art to the Asserted Claims under §§ 102(a) and 102(e). *The WebBook and the Web Forager: An Information Workspace for the World-Wide Web* authored by Stuart K. Card, et al. ("Card") published by April 18, 1996, and thus qualifies as prior art to the Asserted Claims under § 102(a). Both of these references describe the "WebBook" product by Xerox, and are thus addressed collectively. The charts attached hereto as Exhibits A-04, B-04, and C-04 provide examples where WebBook discloses, either expressly or inherently, each limitation of the Asserted Claims thereby rendering obvious those claims in combination with other prior art described herein. Further, to the extent Robocast asserts that WebBook does not disclose a claim limitation which constitutes a well-known element in the field, it would have also been obvious to modify WebBook to include that well-known element or combine WebBook with any reference identified in Section II.B that discloses that well-known element.

Netflix reserves the right to supplement or amend these final invalidity contentions with additional positions on obviousness in response to any allegation by Robocast that WebBook does not disclose one or more limitations of the Asserted Claims.

5. U.S. Patent No. 6,182,072 ("Leak")

EXHIBIT 13

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff** **v.** **NETFLIX, INC.,** **Defendant**	**Civil Action No. 1:22-cv-00305-RGA-JLH** **JURY TRIAL DEMANDED**

PLAINTIFFS' FIRST SET OF INTERROGATORIES (NOS. 1-11)

Pursuant to Rules 26 and 33 of the Federal Rule of Civil Procedure and the Local Rules of this Court, Plaintiff Robocast, Inc. ("Plaintiff" or "Robocast") hereby propounds its First Set of Interrogatories (Nos. 1-11) to Defendant Netflix, Inc. ("Defendant" or "Netflix"). Unless otherwise agreed by the parties, these interrogatories must be answered in writing and under oath by Defendants within thirty (30) days after service hereof.

DEFINITIONS

For the purposes of these interrogatories, the following definitions shall apply:

1. "Action" refers to the above-captioned action, *Robocast Inc. v. Netflix, Inc.*, No. 1:22-cv-00305 (D. Del.).

2. "Accused Functionalities" refers to Defendant's functionalities accused of infringement in Robocast's Complaint and/or in Robocast's Infringement Contentions. For example, the Accused Functionalities include Netflix's automated video playlists included in the Netflix Internet platform. Moreover, any additional products or functionalities identified by

rely on to support such contention or that relate to your contention. Your answer should also include an identification of the person(s) most knowledgeable about your answer.

INTERROGATORY NO. 7:

Identify and explain all facts and documents related to any differences between each Accused Functionality (including each version thereof) that you contend is material to Robocast's infringement allegations or that you may rely upon to support any assertion or finding of non-infringement in this matter. Your answer should also include an identification of the person(s) most knowledgeable about your answer.

INTERROGATORY NO. 8:

If you contend that you have an available and acceptable alternative to infringing the Patent-in-Suit, Identify and describe the technical and financial details and commercial features and benefits of any such available, acceptable non-infringing alternative(s).

INTERROGATORY NO. 9:

Explain any effort to value, assess demand for, or determine the importance to consumers of any Accused Functionality, including an identification of any results thereof, the persons involved therein, and any documents reflecting the same.

INTERROGATORY NO. 10:

Separately for each Patent-in-Suit, identify and describe any and all documents and/or other information that You intend to or may use to support Your calculation of damages in this case and/or that You intend to or may use to refute any calculation damages by Plaintiffs in this case. Your answer should additionally include an identification of the three (3) person(s) most

knowledgeable of Your answer and an identification of any documents that relate to, support, or refute Your answer.

INTERROGATORY NO. 11:

Identify and describe Netflix's knowledge or ability to track use of the Accused Functionalities in the United States, how the use data is tracked, and provide all use data related to the Accused Functionalities.

Dated August 11, 2023

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EXHIBIT 14

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,	)	
	)	
Plaintiff and Counterclaim Defendant,	)	C.A. No. 22-305-JLH
	)	
v.	)	**HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY**
	)	
NETFLIX, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	

NETFLIX, INC.'S FOURTH SUPPLEMENTAL RESPONSES AND OBJECTIONS TO ROBOCAST, INC.'S FIRST SET OF INTERROGATORIES (NOS. 1-2, 4-11)

Defendant and Counterclaim Plaintiff Netflix, Inc. ("Netflix"), by and through its attorneys, and pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure and the Local Rules of this Court, hereby provides these supplemental responses and objections to Plaintiff and Counterclaim Defendant Robocast, Inc.'s ("Robocast") First Set of Interrogatories (Nos. 1-2, 4-11) as follows:

PRELIMINARY STATEMENT

1. Netflix's investigation and development of all facts and circumstances relating to this action is ongoing. These responses and objections are made without prejudice to, and are not a waiver of, Netflix's right to rely on other facts or documents at trial.

2. By making the accompanying responses and objections to Robocast's Interrogatories, Netflix does not waive, and hereby expressly reserves, its right to assert any and all objections as to the admissibility of such responses into evidence in this action, or in any other proceedings, on any and all grounds including, but not limited to, competency, relevancy, materiality, and privilege. Further, Netflix makes the responses and objections herein without in

Inc. v. Youtube, LLC, C.A. No. 22-305 (D. Del.) action. Netflix also reserves the right to rely on any deposition testimony that Robocast has produced from the prior litigations, the deposition testimony from individuals that Robocast has yet to produce, but is compelled to produce, from the prior litigations pursuant to the Court's April 5, 2024 order (and earlier court orders), the parties' expert reports and testimony, and any forthcoming testimony from third party witnesses. *See, e.g.*, Apr. 5, 2024 Hr'g Tr. 14:19-28:17.

INTERROGATORY NO. 8:

If you contend that you have an available and acceptable alternative to infringing the Patent-in-Suit, Identify and describe the technical and financial details and commercial features and benefits of any such available, acceptable non-infringing alternative(s).

RESPONSE TO INTERROGATORY NO. 8 (Sept. 11, 2023):

Netflix incorporates its General Objections as though fully set forth herein. Netflix objects to this Interrogatory as overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, and not proportional to the needs of this case. Netflix also objects to this Interrogatory to the extent it is not limited in time or geography. Netflix's response below thus interprets "Accused Functionality" as used in this Interrogatory as the autoplay functionality during Post-Play as employed on the Netflix Internet Platform as it existed in the United States from March 7, 2016 until the alleged expiration of the patents-in-suit (no later than August 2020). *See* Plaintiff Robocast Inc.'s Disclosure Pursuant To Paragraph 4(a) of the Delaware Default Standard For Discovery at 1-2 (Mar. 3, 2023); Robocast Inc.'s Paragraph 4(c) Disclosure of Initial Claim Charts (May 25, 2023); *see also* Aug. 29, 2023 Hr'g Tr. 55:7-25; *id.* at 56:25-57:12. Netflix objects to this Interrogatory because, as the party with the burden of proof to show entitlement to damages, Robocast must first provide its damages contentions before

Netflix is required to provide responsive contentions. Netflix objects to this Interrogatory to the extent that it seeks expert opinions prior to the deadline for service of expert reports (*see* D.I. 47). Netflix objects to this Interrogatory as seeking information that is not related to any claim or defense in this case, as Robocast is not seeking lost profits. *See* D.I. 105 at 3 ("Robocast is not seeking lost profits in this case."). Netflix further objects to this Interrogatory to the extent that it is impermissibly compound conjunctive, and/or contains subparts.

Subject to and without waiving these objections, Netflix submits the following response:

Netflix has no obligation to provide a response to this Interrogatory, which is no longer relevant to any claim or defense in this litigation. Robocast has dropped its claim for lost profits. *See* D.I. 105 at 3 ("Robocast is not seeking lost profits in this case."). Nor has Robocast, as the party bearing the burden of proof, provided any contentions showing an "absence of noninfringing substitutes." *See Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978) ("[A] patent owner must prove … absence of acceptable noninfringing substitutes."). Nonetheless, Netflix maintains that it does not infringe any valid, enforceable claim of the Asserted Patents. Thus, there was no need for "an available and acceptable [non-infringing] alternative" during the period of alleged infringement because Netflix did not have an infringing product during the damages window and period of alleged infringement. Netflix reserves all rights to identify any potential non-infringing alternatives (regardless of whether those alternatives were acceptable or available during the damages window), or design-arounds to the Asserted Patents, in response to any reasonable royalty damages contentions provided by Robocast, which Robocast has yet to provide. Robocast, as the party bearing the burden of proof as to damages, must provide such contentions before Netflix has an obligation to provide a response.

Netflix expressly reserves all rights to supplement, revise, and/or amend this response. Netflix is continuing to investigate the subject matter of this Interrogatory and reserves all rights to supplement this response if it discovers any responsive, relevant, non-privileged documents or information.

FIRST SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 8 (May 13, 2024):

Subject to the foregoing specific objections and General Objections, Netflix supplements its response as follows:

Although the close of fact discovery is less than a week away, Robocast has still yet to provide its Rule 26 disclosures on damages or reasonable royalty damages contentions, including but not limited to the alleged date(s) of the hypothetical negotiation, prejudicing Netflix's ability to address those contentions in this first supplemental response. Nonetheless, Netflix identifies the following potential, exemplary non-infringing alternatives to the Asserted Patents, which Netflix may also rely on to show any design-arounds to the Asserted Patents, in response to any reasonable royalty damages contentions provided by Robocast. Each of these options would have been acceptable non-infringing alternatives on or around the time of the hypothetical negotiation. Describing these potential non-infringing alternatives does not in any way indicate that the Accused Functionalities do infringe or contain any of the described functionality, as Robocast alleges. Netflix does not infringe, and has not ever infringed, any of the asserted claims of the Asserted Patents.

- **Use the prior member experience before introduction of the autoplay functionality during Post-Play**. This category of non-infringing alternatives applies to all asserted claims, which involve automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451

patent at cl. 1; '819 patent at cl. 1; '932 patent at cl. 1. These non-infringing alternatives would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix. Additionally, members were able to stream video content on Netflix even prior to the introduction of the autoplay functionality during Post-Play. These non-infringing alternatives would not infringe, as they do not perform the claimed steps that must be performed automatically and without user input.

- On the eve of alleged infringement, which is when the Netflix could have implemented this non-infringing alternative, a non-infringing alternative would have been for Netflix to simply choose not to introduce the autoplay functionality during Post-Play. *See Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1571–72 (Fed. Cir. 1996) (finding that a preexisting non-infringing alternative that the alleged infringer could switch to is a relevant factor, as the alleged infringer, "would have been in a stronger position to negotiate for a lower royalty rate knowing it had a competitive non-infringing device 'in the wings'"). This alternative would have cost Netflix nothing to implement.
- Another non-infringing alternative would have been to revert to the prior member experience for playback [redacted]

[redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted] having familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- Another non-infringing alternative would have been to revert to the prior member experience for playback [redacted]. *See, e.g.*, NFLX_0191766–NFLX_0191785 at NFLX_0191769; *see also* NFLX_0192287–NFLX_0192292; NFLX_0192293–NFLX_0192308. [redacted]

[redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted] having familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- **Do nothing at the end of the currently playing title.** This non-infringing alternative applies to all asserted claims, which involve automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at cl. 1; '819 patent at cl. 1; '932 patent at cl. 1. This non-infringing alternative would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix. Additionally, members always have had the ability to navigate away from the currently playing title at any point, including navigating back to the prior landing page or the Netflix home page. Implementing this non-infringing alternative would have cost very little, as it would have required simple modifications [redacted]

[redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted] This non-infringing alternative would not infringe, as it does not perform the claimed steps that must be performed automatically and without user input. Making this change, such as in the manner described, [redacted] with familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- **Require the member to provide input to advance to the next title.** This category of non-infringing alternatives applies to all asserted claims, which involve automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at cl. 1; '819 patent at cl. 1; '932 patent at cl. 1.

These non-infringing alternatives would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix. Additionally, members always have been able to provide input to advance to the next title—whether in the context of skipping the autoplay countdown when waiting for the autoplay functionality during Post-Play to advance to the next title by clicking on the displayed thumbnail (shown with a "play" button), or in the context of confirming continued viewing through the "interrupter" dialog box. *See, e.g.*, NFLX_0104562–NFLX_0104567; NFLX_0192371; NFLX_0191766–NFLX_0191785 at NFLX_0191770–NFLX_0191771; NFLX_0192287–NFLX_0192292; NFLX_0192293–NFLX_0192308. [redacted] *See, e.g.*, NFLX_0048373–NFLX_0048383 at NFLX_0048373, NFLX_00483832–NFLX_0048383; NFLX_0183340–NFLX_0183346 at NFLX_0183340, NFLX_0183342; *see also* NFLX_0105701–NFLX_0105718_0001 at NFLX_0105711 ([redacted]). These non-infringing alternatives do not infringe, as it does not perform the claimed steps that must be performed "automatically" and "without requiring user input."

- A non-infringing alternative would have been to remove the autoplay countdown during Post-Play and leave simply the displayed thumbnail (shown with a "play" button) for the member to click on to advance to the

next title. Implementing this non-infringing alternative would have cost very little, [redacted] *See, e.g.*, NFLX_0191766–NFLX_0191785 at NFLX_0191769; *see also* NFLX_0192287–NFLX_0192292; NFLX_0192293–NFLX_0192308. [redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted]. Making this change, such as in the manner described, [redacted]

[redacted] having familiarity with work in this area with the necessary experience to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- Another non-infringing alternative would be for Netflix to design a separate button for members to click in order to advance to the next episode. [redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted] Making this change, such as in the manner described, [redacted]

[redacted] with familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012. As a conservative estimate, [redacted] would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- **Turn off the autoplay functionality during Post-Play as a default, similar to the implemented option for users to disable "Autoplay Next Episode."** This non-infringing alternative applies to all asserted claims, which involve automatically accessing and automatically displaying resources, "without requiring user input." *See, e.g.*, '451 patent at cl. 1; '819 patent at cl. 1; '932 patent at cl. 1. This non-infringing alternative would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix, as confirmed by Netflix's decision to allow members to set their preference on whether TV episodes would or would not autoplay. As of January 2014, prior to the date of any alleged damages in this case, members were able to indicate their preference to disable the autoplay functionality during Post-Play for TV episodes ("Autoplay Next Episode"). *See, e.g.*, NFLX_0027975–NFLX_0027986; NFLX_0027987–NFLX_0027998. In this scenario where the member controlled the decision to turn off autoplaying of the next episode,

[redacted] At the time of the hypothetical negotiation, implementing this non-infringing alternative would have required taking a similar approach, [redacted] This non-infringing alternative would not infringe, as it does not perform the claimed steps that must be performed automatically and without user input. This non-infringing alternative would also have been available for Netflix to implement as of the time of the hypothetical negotiation, as it is an added functionality that would not have been technically complex to implement. Making this change, such as in the manner described, [redacted] This reflects a conservative estimate based on what was done for the January 2014 implementation that allowed members to indicate their preference to disable the autoplay functionality during Post-Play for TV episodes; [redacted] with the necessary experience to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

- **Remove Post-Play experiences allegedly autoplaying "promotions" for content (*e.g.*, trailers, teasers, or previews).** This category of non-infringing alternatives applies to asserted claims that involve inserting a dynamic content or advertising messages or advertisement content. *See, e.g.*, '451 patent at cl. 28 ("wherein said dynamic content is an advertising message"); '819 patent at cl. 1 ("causing advertisement content to be presented to said user"). These non-infringing alternatives would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix, nor was Post-Play a key or sole contributor to "promoting" content. *See, e.g.*, NFLX_0184502–NFLX_0184517 at NFLX_0184502 ("[redacted]"). Moreover, the accused autoplay functionality is not identified as the driver for why "promotions" were successful; rather, this is due to Netflix's specific personalization algorithms, which is not claimed by the Asserted Patents. *See, e.g., id.* ("[redacted]."). These non-infringing alternatives do not infringe, as they lack the claimed "advertisement content" or "advertising message."
    - At the time of the first launch of the autoplay functionality during Post-Play on web and PS3 (an instance of TVUI) on August 15, 2012, Post-Play included two experiences: (1) presenting the autoplay functionality to play the next episode for when the member was in between episodes of a TV series, or (2) presenting three static recommendations requiring the member

to take action to advance for when the member was at the end of a TV series or at the end of a movie. *See, e.g.*, NFLX_0191689–NFLX_0191691; NFLX_0191766–NFLX_0191785 at NFLX_0191770, NFLX_0191772; NFLX_0104562–NFLX_0104567; *see also* NFLX_0192287–NFLX_0192292; NFLX_0192293–NFLX_0192308. Neither of these experiences included the Post-Play experiences that allegedly autoplayed "promotions" for content (*e.g.*, trailers, teasers, or previews), which Robocast identified in its infringement contentions. *See, e.g.*, Robocast Final Infringement Contentions at 66-70; NFLX_0000001–NFLX_0000040 at NFLX_0000004. Thus, at this time, a non-infringing alternative would have been for Netflix to simply choose not to introduce these kinds of Post-Play experiences. This alternative would have cost Netflix nothing to implement.

- **Remove recommendations based on the member's profile from allegedly autoplaying Post-Play experiences.** This category of non-infringing alternatives applies to asserted claims involving the "user's profile." *See, e.g.*, '451 patent at cl. 29. In Robocast's final infringement contentions, Robocast cites to documents discussing "[r]ecommendation algorithms" for the alleged "user's profile" limitation. *See, e.g.*, Robocast's Final Infringement Contentions at 98-100. These non-infringing alternatives would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix. Rather, any value derived from alleged recommendations based on the member's profile is due to Netflix's specific algorithms, which is not claimed

by the Asserted Patents. Additionally, other aspects of the member experience on Netflix's platforms could nevertheless leverage recommendations based on the member's profile. *See, e.g., id.* NFLX_0184502–NFLX_0184517 at NFLX_0184502 ("[redacted]."). These non-infringing alternatives would not infringe, as the recommendations lack the claimed association with the member's profile.

- At the time of the first launch of the autoplay functionality during Post-Play on web and PS3 (an instance of TVUI) on August 15, 2012, Post-Play presented three static recommendations to the member based on, for example, what members who watched the concluded title tended to watch as a next title. These were not recommendations based on the member's profile. Thus, at this time, a non-infringing alternative would have been for Netflix to simply continue to do the same, instead of generating recommendations based on the member's profile. This alternative would have cost Netflix nothing to implement.

- **Display only one alleged resource at a time.** This non-infringing alternative applies to asserted claims involving "multidimensional show structure[s]." *See* '451 patent at cl. 37. In Robocast's final infringement contentions, Robocast relies on the display of a suggestion at the bottom of the display of credits, and various other screenshots showing multiple alleged resources to show a "multidimensional show structure." *See, e.g.*, Robocast's Final Infringement Contentions at 101-103.

For the non-infringing alternative, instead of showing multiple alleged resources or an alleged "picture-in-picture," Netflix could show a full-screen autoplay countdowns to the next alleged resource while displaying an indication of the next alleged resource to be played (*e.g.*, box art), such that only one alleged resource is displayed at a time. This non-infringing alternative would have either no or only a de minimis effect on its commercial operations, as the autoplay functionality during Post-Play is not a value driver of Netflix. Implementing this non-infringing alternative would have cost little, [redacted] At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted] This non-infringing alternative would not infringe, as it lacks the "multidimensional show structure of nodes," i.e., the concurrent presentation of the alleged nodes. Making this change, such as in the manner described, [redacted] with the necessary experience to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012.

These non-infringing alternatives would have been acceptable alternatives at the time of the hypothetical negotiation. Acceptability, in the context of the determination of reasonably royalty damages, need not rise to the level of acceptability required under a *Panduit* analysis. *See, e.g.*, *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1351 (Fed. Cir. 1999) ("[O]nly by comparing the patented invention to its next-best available alternative(s) … can the

court discern the market value of the patent owner's exclusive right, and therefore his expected profit or reward ….''); *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (considering "[t]he utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results"). Additionally, these non-infringing alternatives would have been available (*i.e.*, theoretically possible, not that they in fact existed) alternatives at the time of the hypothetical negotiation, as Netflix had the capability to implement these non-infringing alternatives. *See, e.g.*, *LaserDynamics, Inc. v. Quanta Comput., Inc.*, No. 2:06-cv-348, 2011 WL 197869, at *2-3 (E.D. Tex. Jan. 20, 2011) (considering whether the accused infringer "had the necessary equipment, know-how, and experience to implement those non-infringing alternatives"); *Colibri Heart Valve v. Medtronic CoreValve LLC*, No. 8:20-cv-00847-DOC-JDE (C.D. Cal. Jan. 10, 2023) at 3 (finding that the defendant persuasively argued that availability of non-infringement alternatives is one of many factors in a reasonably royalty analysis, contrary to a binary "yes" or "no" under a lost profits analysis).

For example, Netflix could have chosen to revert to the manner in which the member would have experienced video playback prior to the introduction of the autoplay functionality during Post-Play. This alternative would have been acceptable to Netflix and its members because those members were able to use Netflix's video streaming services even prior to the introduction of the autoplay functionality during Post-Play. This alternative also would have been available to Netflix, [redacted].

Netflix or its experts may also rely on former or forthcoming testimony of its own witnesses, including accompanying exhibits and any errata sheets. *See* Netflix's Second Supplemental Initial Disclosures Pursuant to Fed. R. Civ. P. 26(a) at 2-3. Netflix expressly reserves

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Dated: May 13, 2024

HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY

CERTIFICATE OF SERVICE

I certify that I caused copies of the foregoing document to be served on May 13, 2024, upon the following in the manner indicated.

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EXHIBIT 15

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff and Counterclaim Defendant,** **v.** **NETFLIX, INC.,** **Defendant and Counterclaim Plaintiff.**	**Civil Action No. 1:22-cv-00305-RGA** **JURY TRIAL DEMANDED**

PLAINTIFF ROBOCAST INC.'S RULE 26 INITIAL DISCLOSURES

Pursuant to Federal Rule of Civil Procedure 26(a)(1), Plaintiff Robocast, Inc. ("Plaintiff" or "Robocast") hereby serves its Initial Disclosures in the above-captioned action. These Initial Disclosures are based upon the information reasonably available to Robocast at this time. By making these disclosures, Robocast does not represent that it is identifying every possible witness, document, or tangible thing relevant to this litigation. Continuing investigation and discovery may alter this disclosure; therefore, Robocast provides these Initial Disclosures with the understanding that it does not in any way limit its discovery or its right, pursuant to Federal Rule of Civil Procedure 26(e)(1), to supplement or correct this disclosure in the future, and without waiving its right to object to the use of any information provided herein, or to any further discovery request relating to such information, on any ground, in this action or any other.

Robocast provides its Initial Disclosures as follows:

A. Custodians Likely to Have Knowledge of Relevant Facts

Robocast identifies the persons listed in the chart below as individuals who may have discoverable information that Robocast may use to support its claims, and to defeat Defendant's counterclaims. Robocast has provided last known addresses and telephone numbers, or addresses and telephone numbers believed to be correct, solely to comply with Federal Rule of Civil Procedure 26(a)(1)(A)(i) and does not consent to or authorize any communications that are otherwise prohibited by the applicable rules of professional conduct. Robocast reserves the right to remove any individual from the list if Robocast learns that the information known by such individual is not discoverable, and to object to discovery of information from these individuals, on any ground. Individuals identified with an asterisk should be contacted care of Steven J. Rizzi, McKool Smith, P.C., One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001, 212-402-9400, regardless of whether their contact information is also set forth in the chart below.

Name/Contact	Last Known Address & Telephone Number	Subject Matter
Damon Torres*	Contact through counsel	The invention and patenting of Robocast' technology; Robocast's technology; Robocast's operations
Brett Smith*	Contact through counsel	Robocast's technology; Robocast's operations
Sofer & Haroun, LLP	110 West 40th Street Suite 2001 New York, New York, 10016	The prosecution and assignment of the patents-in-suit
Joesph Sofer	110 West 40th Street Suite 2001 New York, New York, 10016	The prosecution and assignment of the patents-in-suit

In addition to the individuals listed above, Robocast notes that there are likely other individuals who may have knowledge of relevant facts, including current and former employees of Robocast, independent contractors, and persons whose names appear in documents produced by the parties. Robocast incorporates by reference herein its discovery responses and future supplementations thereof, in which other persons with relevant knowledge may be set forth.

Robocast reserves the right to rely on persons disclosed by Netflix in this action. Robocast also reserves the right to rely on persons disclosed in discovery or deposed in this action. Robocast also reserves the right to rely on the testimony of one or more experts, who may offer testimony on matters, including without limitation Netflix's infringement of the patents-in-suit, validity of the patents-in-suit, and damages arising out of the alleged infringement.

In addition to the above-listed individuals, Robocast states that there likely are other individuals outside of Robocast who have knowledge of relevant facts. Such individuals may include:

- Individuals and entities that will be identified by, disclosed by, or are related to Netflix's disclosures pursuant to Paragraphs 4(b) and 4(d) of the Default Standard for Discovery.
- Individuals who have been identified or in the future are identified by Netflix as Rule 30(b)(6) deponents;
- Various unidentified officers, directors, employees, and/or agents of Robocast;
- Various unidentified officers, directors, employees, and/or agents of Netflix;
- Individuals and entities disclosed in Netflix's Initial Disclosures and any amendments or supplements thereto;
- Testifying experts designated by any party;

- Individuals who have been identified or in the future are identified by third parties as Rule 30(b)(6) deponents pursuant to subpoenas issued by the parties; and
- Individuals and entities who have been identified or in the future are identified by the parties in subpoenas issued in this case.

Robocast further reserves the right to supplement these disclosures and to add additional individuals as discovery proceeds, consistent with Rule 26 of the Federal Rules of Civil Procedure, and any other applicable rule.

B. Non-Custodial Data Sources

Robocast will, subject to the terms of a protective order in this case, produce copies or make available for inspection, relevant, non-privileged documents and tangible things in its possession, custody, or control, pursuant to the Federal Rules of Civil Procedure, the District of Delaware's Default Standard for Discovery, Including the Discovery of Electronically Stored Information (ESI), and any Order Regarding E-Discovery. Such documents are or will be located at the offices of Robocast's litigation counsel at One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001 or at other locations to be identified as needed.

C. Documents Robocast May Use To Support Its Claims Or Defenses

Robocast identifies the following categories of documents in their possession, custody, or control, upon which Robocast may rely to support their defenses:

- Documents relating to the validity of the patents-in-suit;
- Documents relating to the prosecution and/or ownership of the patents-in-suit, including the inventions described and claimed therein;
- Documents relating to the history, formation, organization, and operation of Robocast;
- Documents relating to the value of the patents-in-suit.
- Licenses to the patents-in-suit.

Robocast reserve the right to rely on any documents produced by Netflix or any third-party during the course of this action.

D. Notice

Pursuant to paragraph 3(c)(i) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast is not presently aware of any electronically stored information that is not reasonably accessible under Fed. R. Civ. P. 26(b)(2)(C)(i).

Pursuant to paragraph 3(c)(ii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that certain material produced by third-parties, in response to discovery requests, will support Robocast's claims and defeat Defendant's defenses.

Pursuant to paragraph 3(c)(iii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that Robocast has discoverable information that is highly confidential and therefore will require a suitable protective order prior to the disclosure of such information. In the absence of a protective order, Robocast anticipates that the parties will produce such information on an "Outside Attorneys' Eyes Only" basis pursuant to Local Rule 26.2 of this District.

E. Computation of Damages

Robocast intends to seek all relief and recover all remedies available under the applicable laws. Defendant is obligated to produce the documents necessary to allow Robocast to compute the amount of its damages in this action, including but not limited to documents evidencing Defendant's revenue derived from its infringements. Robocast will need to examine and analyze these and other documents in order to compute its damages. Moreover, both the approach used to compute damages and the calculation of damages will be the subject of expert analysis and

discovery, and the experts will require time to review the documentary and testimonial information produced in this action in order to engage in that analysis.

Robocast claims the full amount of damages permitted by the patent laws, including at least a reasonable royalty for Defendant's use of the patented technology, interest thereon, and an award of fees and costs.

F. Indemnity and Insurance Agreements

At this time, Robocast is not aware of any applicable indemnity or insurance agreements.

Dated: February 27, 2023

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EXHIBIT 16

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff and Counterclaim Defendant,** **v.** **NETFLIX, INC.,** **Defendant and Counterclaim Plaintiff.**	**Civil Action No. 1:22-cv-00305-RGA** **JURY TRIAL DEMANDED**

PLAINTIFF ROBOCAST INC.'S SUPPLEMENTAL RULE 26 INITIAL DISCLOSURES

Pursuant to Federal Rule of Civil Procedure 26(a)(1), Plaintiff Robocast, Inc. ("Plaintiff" or "Robocast") hereby serves its Supplemental Initial Disclosures in the above-captioned action. These Supplemental Initial Disclosures are based upon the information reasonably available to Robocast at this time. By making these disclosures, Robocast does not represent that it is identifying every possible witness, document, or tangible thing relevant to this litigation. Continuing investigation and discovery may alter this disclosure; therefore, Robocast provides these Supplemental Initial Disclosures with the understanding that it does not in any way limit its discovery or its right, pursuant to Federal Rule of Civil Procedure 26(e)(1), to supplement or correct this disclosure in the future, and without waiving its right to object to the use of any information provided herein, or to any further discovery request relating to such information, on any ground, in this action or any other.

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Robocast identifies the persons listed in the chart below as individuals who may have discoverable information that Robocast may use to support its claims, and to defeat Defendant's counterclaims. Robocast has provided last known addresses and telephone numbers, or addresses and telephone numbers believed to be correct, solely to comply with Federal Rule of Civil Procedure 26(a)(1)(A)(i) and does not consent to or authorize any communications that are otherwise prohibited by the applicable rules of professional conduct. Robocast reserves the right to remove any individual from the list if Robocast learns that the information known by such individual is not discoverable, and to object to discovery of information from these individuals, on any ground. Individuals identified with an asterisk should be contacted care of Steven J. Rizzi, McKool Smith, P.C., One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001, 212-402-9400, regardless of whether their contact information is also set forth in the chart below.

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In addition to the above-listed individuals, Robocast states that there likely are other individuals outside of Robocast who have knowledge of relevant facts. Such individuals may include:

- Individuals and entities that will be identified by, disclosed by, or are related to Netflix's disclosures pursuant to Paragraphs 4(b) and 4(d) of the Default Standard for Discovery.
- Individuals who have been identified or in the future are identified by Netflix as Rule 30(b)(6) deponents;
- Various unidentified officers, directors, employees, and/or agents of Robocast;
- Various unidentified officers, directors, employees, and/or agents of Netflix;
- Individuals and entities disclosed in Netflix's Initial Disclosures and any amendments or supplements thereto;
- Testifying experts designated by any party;

- Individuals who have been identified or in the future are identified by third parties as Rule 30(b)(6) deponents pursuant to subpoenas issued by the parties; and
- Individuals and entities who have been identified or in the future are identified by the parties in subpoenas issued in this case.

Robocast further reserve the right to supplement these disclosures and to add additional individuals as discovery proceeds, consistent with Rule 26 of the Federal Rules of Civil Procedure, and any other applicable rule.

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Robocast will, subject to the terms of a protective order in this case, produce copies or make available for inspection, relevant, non-privileged documents and tangible things in its possession, custody, or control, pursuant to the Federal Rules of Civil Procedure, the District of Delaware's Default Standard for Discovery, Including the Discovery of Electronically Stored Information (ESI), and any Order Regarding E-Discovery. Such documents are or will be located at the offices of Robocast's litigation counsel at One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001 or at other locations to be identified as needed.

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Robocast identifies the following categories of documents in their possession, custody, or control, upon which Robocast may rely to support their defenses:

- Documents relating to the validity of the patents-in-suit;
- Documents relating to the prosecution and/or ownership of the patents-in-suit, including the inventions described and claimed therein;
- Documents relating to the history, formation, organization, and operation of Robocast;
- Documents relating to the value of the patents-in-suit.
- Licenses to the patents-in-suit.

Robocast reserve the right to rely on any documents produced by Netflix or any third-party during the course of this action.

D. Notice

Pursuant to paragraph 3(c)(i) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast is not presently aware of any electronically stored information that is not reasonably accessible under Fed. R. Civ. P. 26(b)(2)(C)(i).

Pursuant to paragraph 3(c)(ii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that certain material produced by third-parties, in response to discovery requests, will support Robocast's claims and defeat Defendant's defenses.

Pursuant to paragraph 3(c)(iii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that Robocast has discoverable information that is highly confidential and therefore will require a suitable protective order prior to the disclosure of such information. In the absence of a protective order, Robocast anticipates that the parties will produce such information on an "Outside Attorneys' Eyes Only" basis pursuant to Local Rule 26.2 of this District.

E. Computation of Damages

Robocast intends to seek all relief and recover all remedies available under the applicable laws. Defendant is obligated to produce the documents necessary to allow Robocast to compute the amount of its damages in this action, including but not limited to documents evidencing Defendant's revenue derived from its infringements. Robocast will need to examine and analyze these and other documents in order to compute its damages. Moreover, both the approach used to compute damages and the calculation of damages will be the subject of expert analysis and

discovery, and the experts will require time to review the documentary and testimonial information produced in this action in order to engage in that analysis.

Robocast claims the full amount of damages permitted by the patent laws, including at least a reasonable royalty for Defendant's use of the patented technology, interest thereon, and an award of fees and costs.

Robocast will present detailed damages contentions in expert reports produced in accordance with deadlines set by the Court. Robocast presently expects those reports to include calculations of damages and supporting analysis that incorporate both reasonable royalty and lost profits components. Robocast anticipates that damages in this action will be significant because the Asserted Patents cover valuable features of the Accused Products.

To the extent Robocast seeks lost profits, Robocast expects to establish each of the four factors set forth in *Panduit Corp. v. Stahlin Bros. Fibre Works*, 575 F.2d 1152 (Fed. Cir. 1978). Specifically, Robocast expects to show that there is demand for the patented products; there were no commercially acceptable non-infringing alternatives during the relevant time period; and Robocast had the marketing and manufacturing capabilities to exploit the demand for the patented products. Robocast will also demonstrate the amount of profit it would have made but for the infringing sales. Robocast is not yet able to quantify this amount pending further fact discovery—including Netflix's forthcoming production of financial documents.

To the extent Robocast seeks reasonable royalties, Robocast expects to follow the methodology described in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Sup. 1116 (S.D.N.Y. 1970). As part of this analysis, Robocast expects that its experts will apply the "hypothetical negotiation" construct to determine the amount that a patent owner (here, Robocast) and a licensee (here, Netflix) would have agreed upon if both had been reasonably and voluntarily

trying to reach a license agreement at the time of the first alleged infringement. Among other things, Robocast's expert(s) will review licenses produced by Netflix, as well as Robocast's licensing agreements with Microsoft and Apple, in order to analyze the rates paid by licensees for the use of other patents comparable to the Asserted Patents. Robocast will establish that the Accused Products are commercially successful, as evidenced by sales data, subscription data and industry awards and praise. Robocast's calculations of reasonable royalties will be determined through further fact and expert discovery.

F. Indemnity and Insurance Agreements

At this time, Robocast is not aware of any applicable indemnity or insurance agreements.

Dated: June 16, 2023

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ATTORNEYS FOR PLAINTIFF ROBOCAST, INC.,

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document has been served on all counsel of record via email on this 16th day of June 2023.

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EXHIBIT 17

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff and Counterclaim Defendant,** **v.** **NETFLIX, INC.,** **Defendant and Counterclaim Plaintiff.**	**Civil Action No. 1:22-cv-00305-RGA-JLH** **JURY TRIAL DEMANDED**

PLAINTIFF ROBOCAST INC.'S SECOND SUPPLEMENTAL RULE 26 INITIAL DISCLOSURES

Pursuant to Federal Rule of Civil Procedure 26(a)(1), Plaintiff Robocast, Inc. ("Plaintiff" or "Robocast") hereby serves its Second Supplemental Initial Disclosures in the above-captioned action. These Second Supplemental Initial Disclosures are based upon the information reasonably available to Robocast at this time. By making these disclosures, Robocast does not represent that it is identifying every possible witness, document, or tangible thing relevant to this litigation. Continuing investigation and discovery may alter this disclosure; therefore, Robocast provides these Second Supplemental Initial Disclosures with the understanding that it does not in any way limit its discovery or its right, pursuant to Federal Rule of Civil Procedure 26(e)(1), to supplement or correct this disclosure in the future, and without waiving its right to object to the use of any information provided herein, or to any further discovery request relating to such information, on any ground, in this action or any other.

Robocast provides its Second Supplemental Initial Disclosures as follows:

A. Custodians Likely to Have Knowledge of Relevant Facts

Robocast identifies the persons listed in the chart below as individuals who may have discoverable information that Robocast may use to support its claims, and to defeat Defendant's counterclaims. Robocast has provided last known addresses and telephone numbers, or addresses and telephone numbers believed to be correct, solely to comply with Federal Rule of Civil Procedure 26(a)(1)(A)(i) and does not consent to or authorize any communications that are otherwise prohibited by the applicable rules of professional conduct. Robocast reserves the right to remove any individual from the list if Robocast learns that the information known by such individual is not discoverable, and to object to discovery of information from these individuals, on any ground. Individuals identified with an asterisk should be contacted care of Steven J. Rizzi, McKool Smith, P.C., One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001, 212-402-9400, regardless of whether their contact information is also set forth in the chart below.

Name/Contact	Last Known Address & Telephone Number	Subject Matter
Damon Torres*	Contact through counsel	The invention and patenting of Robocast' technology; Robocast's technology; Robocast's operations
Brett Smith*	Contact through counsel	Robocast's technology; Robocast's operations
Sofer & Haroun, LLP	110 West 40th Street Suite 2001 New York, New York, 10016	The prosecution and assignment of the patents-in-suit
Joesph Sofer	110 West 40th Street Suite 2001 New York, New York, 10016	The prosecution and assignment of the patents-in-suit

In addition to the individuals listed above, Robocast notes that there are likely other individuals who may have knowledge of relevant facts, including current and former employees of Robocast, independent contractors, and persons whose names appear in documents produced by the parties. Robocast incorporates by reference herein its discovery responses and future supplementations thereof, in which other persons with relevant knowledge may be set forth.

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- Individuals who have been identified or in the future are identified by Netflix as Rule 30(b)(6) deponents;
- Various unidentified officers, directors, employees, and/or agents of Robocast;
- Various unidentified officers, directors, employees, and/or agents of Netflix;
- Individuals and entities disclosed in Netflix's Initial Disclosures and any amendments or supplements thereto;
- Testifying experts designated by any party;

- Individuals who have been identified or in the future are identified by third parties as Rule 30(b)(6) deponents pursuant to subpoenas issued by the parties; and
- Individuals and entities who have been identified or in the future are identified by the parties in subpoenas issued in this case.

Robocast further reserves the right to supplement these disclosures and to add additional individuals as discovery proceeds, consistent with Rule 26 of the Federal Rules of Civil Procedure, and any other applicable rule.

B. Non-Custodial Data Sources

Robocast will, subject to the terms of a protective order in this case, produce copies or make available for inspection, relevant, non-privileged documents and tangible things in its possession, custody, or control, pursuant to the Federal Rules of Civil Procedure, the District of Delaware's Default Standard for Discovery, Including the Discovery of Electronically Stored Information (ESI), and any Order Regarding E-Discovery. Such documents are or will be located at the offices of Robocast's litigation counsel at One Manhattan West, 395 9th Avenue, 50th Floor, New York, NY 10001 or at other locations to be identified as needed.

C. Documents Robocast May Use To Support Its Claims Or Defenses

Robocast identifies the following categories of documents in their possession, custody, or control, upon which Robocast may rely to support their defenses:

- Documents relating to the validity of the patents-in-suit;
- Documents relating to the prosecution and/or ownership of the patents-in-suit, including the inventions described and claimed therein;
- Documents relating to the history, formation, organization, and operation of Robocast;
- Documents relating to the value of the patents-in-suit.
- Licenses to the patents-in-suit.

Robocast reserve the right to rely on any documents produced by Netflix or any third-party during the course of this action.

D. Notice

Pursuant to paragraph 3(c)(i) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast is not presently aware of any electronically stored information that is not reasonably accessible under Fed. R. Civ. P. 26(b)(2)(C)(i).

Pursuant to paragraph 3(c)(ii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that certain material produced by third-parties, in response to discovery requests, will support Robocast's claims and defeat Defendant's defenses.

Pursuant to paragraph 3(c)(iii) of the Default Standard for Discovery in this District, and the Scheduling Order in this case, based on Robocast's current investigation, Robocast anticipates that Robocast has discoverable information that is highly confidential and therefore will require a suitable protective order prior to the disclosure of such information. In the absence of a protective order, Robocast anticipates that the parties will produce such information on an "Outside Attorneys' Eyes Only" basis pursuant to Local Rule 26.2 of this District.

E. Computation of Damages

Robocast intends to seek all relief and recover all remedies available under the applicable laws. Defendant is obligated to produce the documents necessary to allow Robocast to compute the amount of its damages in this action, including but not limited to documents evidencing Defendant's revenue derived from its infringements. Robocast will need to examine and analyze these and other documents in order to compute its damages. Moreover, both the approach used to compute damages and the calculation of damages will be the subject of expert analysis and

discovery, and the experts will require time to review the documentary and testimonial information produced in this action in order to engage in that analysis.

Robocast claims the full amount of damages permitted by the patent laws, including at least a reasonable royalty for Defendant's use of the patented technology, interest thereon, and an award of fees and costs.

Robocast will present detailed damages contentions in expert reports produced in accordance with deadlines set by the Court. Robocast anticipates that damages in this action will be significant because the Asserted Patents cover valuable features of the Accused Products.

Robocast intends to seek reasonable royalties, and expects to follow the methodology described in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Sup. 1116 (S.D.N.Y. 1970). As part of this analysis, Robocast expects that its experts will apply the "hypothetical negotiation" construct to determine the amount that a patent owner (here, Robocast) and a licensee (here, Netflix) would have agreed upon if both had been reasonably and voluntarily trying to reach a license agreement at the time of the first alleged infringement. Among other things, Robocast's expert(s) will review licenses produced by Netflix, as well as Robocast's licensing agreements with Microsoft and Apple, which have already been produced, in order to analyze the rates paid by licensees for the use of other patents comparable to the Asserted Patents. Robocast will establish that the Accused Products are commercially successful, as evidenced by sales data, subscription data and industry awards and praise. Robocast's calculations of reasonable royalties will be determined through further fact and expert discovery.

F. Indemnity and Insurance Agreements

At this time, Robocast is not aware of any applicable indemnity or insurance agreements.

Dated August 23, 2023

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EXHIBIT 18

IN THE UNITED STATES DISTRICT COURT

IN AND FOR THE DISTRICT OF DELAWARE

ROBOCAST, Plaintiff, vs. NETFLIX, Defendant. Case No. 22-CV-305-RGA-JLH

ROBOCAST, Plaintiff, vs. GOOGLE, Defendant. Case No. 22-CV-354-RGA-JLH

TRANSCRIPT OF DISCOVERY CONFERENCE

DISCOVERY CONFERENCE had before the Honorable Jennifer L. Hall, U.S.M.J., via teleconference on the 29th of August, 2023.

APPEARANCES

BAYARD P.A.
BY: RONALD GOLDEN, ESQ.

-and-

MCKOOL SMITH
BY: CASEY SHOMAKER, ESQ.
WILLIAM ELLERMAN, ESQ.
SAMUEL MOORE, ESQ.

Counsel for Plaintiff

RICHARDS, LAYTON & FINGER, P.A.
BY: KELLY E. FARNAN, ESQ.
TYLER CRAGG, ESQ.

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LATHAM & WATKINS LLP
BY: TARA ELLIOTT, ESQ.
RACHEL COHEN, ESQ.
KIMBERLY LI, ESQ.

Counsel for Netflix

RICHARDS, LAYTON & FINGER P.A.
BY: FRED COTTRELL, ESQ.
GRIFFING SCHOENBAUM, ESQ.

-and-

WILSON SONSINI GOODRICH & ROSATI
BY: JORDAN JAFFE, ESQ.

Counsel for Google

THE COURT: Good afternoon, everyone. This is Jen Hall. We're on the line today to hear a number of discovery disputes. We have *Robocast versus Netflix*. It's 22-305. We also have *Robocast versus Google*. It's 22-354. Let's put appearances on the record starting with Robocast

MR. GOLDEN: Thank you, Your Honor. Good afternoon. This is Ronald Golden from Bayard PA on behalf of Robocast. I have with me on the line from McKool Smith Casey Shomaker, William Ellerman, and Samuel Moore.

THE COURT: Great. Good afternoon to all of you.

00:19 And how about Netflix?

MS. FARNAN: Yes, good afternoon, Your Honor. This is Kelly Farnan from Richards, Layton, and Finger on behalf of Netflix. Tyler Cragg from my office is also on

00:20 the line. I'm joined by my co-counsel at Latham and Watkins Tara Elliott, Rachel Cohen, and Kimberly Li. We also have Laura Carrington from Netflix on the line, and Ms. Cohen will address the disputes before the Court today.

00:20 THE COURT: All right. Very good.

And how about in 22-304, Google?

DFT TWO: Good afternoon, Your Honor. Fred Cottrell from Richards Layton for YouTube and Google in 22-304. Also from my office,

00:20 Griffin Schoenbaum. And my co-counsel from Wilson Sonsini, Jordan Jaffe, and Mr. Jaffe will be speaking on behalf of the defendants.

THE COURT: Great. That's fine. We have a court reporter on the line today.

00:20 I can tell you we've taken a look at the letters, and as we did so, we were reminded that we've already talked about some of these issues once this summer. Doesn't seem like we've made much progress since then, so let's

00:21 see what we can get done today.

Let's start with the defendants' disputes. I've read the letters. Anything that Netflix wants to add to its argument about the interrogatories?

00:21 MS. COHEN: Hi, Your Honor. This is Rachel Cohen on behalf of Latham and Watkins for the defendant Netflix.

Just in terms of the first issue in dispute for Defendant Netflix and Google, it

00:21 applies to them as well, in terms of the

get through today, so I'll keep my ruling brief.

I disagree with how Robocast has handled this, both in terms of how it responded to the parties and particularly with respect to its position against Google, who even Robocast agrees did not serve more than 25 interrogatories.

How long have these interrogatories been pending?

MS. SHOMAKER: Six months for Netflix. Nearly six months. September 1st will be six months, Your Honor.

THE COURT: Okay. And then just, again, a third thing of the reasons I disagree with how Robocast handled this was in its briefing to this Court, there's no attempt made to even provide the Court with how it counted or why it's appropriate, basically putting the burden on the Court to expend time and resources.

So Robocast needs to respond to all of the interrogatories within one week to both parties. These have been pending a long time. You should know what the answers are. I don't

think I have anything more to say on that.

Netflix has a couple other issues.

MS. COHEN: This is Rachel Cohen again for Netflix. The second issue is Robocast's deficient Rule 26(a) disclosures as it relates to damages.

So as the plaintiff in this case, Robocast has an obligation under Rule 26, consistent with Judge Andrews' decisions in the *NexStep* case as well as the *Conflow* case, to identify -- it respectfully requires initial computation and disclosure of the evidence that Robocast will rely upon, to the full extent that it can or should know of it.

We were happy to see that for the first time after months of going round and round on their good-faith basis for asserting lost profits that they finally acknowledged to the Court that it can't or won't pursue lost profits in this case, and that's a start, but it really doesn't solve the disclosure of what they actually do intend to seek in terms of a reasonable royalty.

The -- under the Court's the prior law that I just cited to, they do have an

obligation to explain what they can and do know, and those include, Your Honor, among other things, an explanation of how the licenses directed to the patents-in-suit -- at least one has been previously licensed -- how do those three licenses play into their damages theories in this case, their terms of the license, the duration, the licensing package of the patentee. That's *Georgia Pacific* factor number four.

Georgia Pacific factor number five talks about the relationship between the patentee and accused infringer. Notwithstanding our efforts for the last six months to get discovery from Robocast, they refused to identify any of that information, which was squarely in their possession. They know if they have a competing product or patent infringing product. They know if the parties are competitors. That's information that they possess and that, under Rule 26, they have an obligation to disclose and they've been withholding.

They also have attempted to shift the burden to seek discovery from Netflix before it can disclose information that's solely in its

possession, and that's wrong based on the law we obviously cite to in our papers.

THE COURT: All right. Let me hear from Robocast.

So you agree, don't you, that you need to update your Rule 26 disclosures immediately, given the fact that you have now said that you are not seeking lost profits, do you not?

MR. ELLERMAN: Your Honor, this is Will Ellerman for Robocast. We have already done that. We have already updated our Rule 26 disclosures to clarify we are not seeking lost profits.

THE COURT: I don't have the current version of the disclosures in front of me?

MR. ELLERMAN: No, Your Honor.

THE COURT: When were those updated?

MR. ELLERMAN: Sometime last week before the briefing on this.

THE COURT: So how am I supposed to determine whether or not your current disclosures are good enough if I don't have them?

MR. ELLERMAN: Well, Your Honor, I believe Netflix included the -- at least one

version of the disclosures in their letter since this was their issue, and what we did was delete the reference to lost profits. And so our disclosures, as they stand today, seek
00:31 reasonable royalty damages. We have complied with Rule 26 to the best of our ability in that regard.

The *NexStep* case that Netflix cites, you know, that case is, number one, distinguishable
00:32 because that struck a new damages theory that was disclosed for the first time on the eve of trial, and the case says that all a claimant has to do, its only obligation, is to disclose information about its damages to the best of
00:32 its ability. And Netflix has not given any reason or any authority that would require Robocast to give a damages calculation at a time when Netflix has given us virtually no financial discovery whatsoever.

00:32 And as we cited in our papers, Your Honor, the advisory committee notes to this rule cite a patent case as the example of when a plaintiff is simply not able to provide a complete damages disclosure at the outset of a
00:32 case because all relevant information is in the

defendant's possession. And we may be getting a little bit ahead of ourselves into some of the other issues here, but Netflix's production to date is woefully inadequate.

00:33 THE COURT: I'm going to stop you right there. I'm looking right now at Exhibit G to Netflix's letter. And so what you're saying is you deleted out the paragraph on page six that talks about lost profits, but you
00:33 still have in there the reasonable royalty paragraph that says that the analysis you're going to use is the hypothetical negotiation and that you've got licenses with Microsoft and Apple and that you're also going to look at
00:33 licenses produced by Netflix, and you're going to come up with a royalty rate. Is that essentially what it says?

MR. ELLERMAN: That's correct, Your Honor, and we've --

00:33 THE COURT: Okay. So under the circumstances here, I'm going to hold that that's good enough for now, given that you dropped your lost profits. But again, the issue as it was presented to me was that you
00:33 were seeking lost profits. You didn't drop

that until after they raised it, and I would have agreed with them that this wasn't enough, that you were seeking it to sue lost profits, and it shouldn't have taken a discovery motion
00:34 to get this resolved.

Let's move on to the next issue that Netflix has.

MS. COHEN: Thank you, Your Honor.

The third issue that we raised is
00:34 Robocast's limitations on its document production. Throughout its submissions, and it sounds like this is where it's going again in this hearing, Robocast has represented it produced more than a million documents in this
00:34 litigation. But it also acknowledges that those documents were merely a reproduction reproducing and reusing all of its submissions and exchanges from the Microsoft and Apple litigation, which both resolved in 2014. It
00:34 admitted that it does not intend to produce any documents after 2014, and, obviously, the relevant damages window that it has alleged in this case is 2016 to 2020, and it has indicated to us that it has no intention of producing any
00:35 documents in that window.

Although it argues that the materials are not relevant or somehow they believe there's no relevance to those documents, we pointed out repeatedly setting aside the lost profits, which we just discussed they dropped, those documents are also relevant to the hypothetical negotiation and the *Georgia Pacific* factors. Of course, the Federal Circuit has explained that the *Book of Wisdom* allows the parties in
00:35 the hypothetical negotiation to take a look beyond the date of the hypothetical negotiation itself to inform those discussions.

And whether they have a practicing product, which they refuse to tell us, whether
00:35 they have a product that is within the scope of the claims, whether the parties competed, all of that information is highly relevant, both at the time of the hypothetical negotiation and in the window of the alleged damages of 2016 to
00:35 2020. And those are highly relevant both in terms of damages as well as claim scope, liability, and infringement, as well as invalidity in this case. We do believe we have shown they're relevant.

00:36 In terms of the burden, they said they're

that. I just said it wasn't, and that's how we're going to move forward. So talk with them about what things you want from prior to 2016, and we'll talk about what the burden is, and
01:24 we'll decide if you have good cause to get it. Right now, I can't rule on this.

So your request to compel, to the extent it's a request to compel, is going to be denied at this point. But they understand from
01:24 listening to what I said today that they need to work with you a little bit on this.

All right. What do we have left? Anything else that you want from Netflix?

MR. ELLERMAN: I believe that is all
01:25 of Robocast's issues, Your Honor.

THE COURT: Okay. And anything that you want from Google?

MR. JAFFE: Your Honor, this is Jordan Jaffe. I think we covered all the
01:25 issues for Google, and the last one on our list was the time period issue.

If I may add just one item on that, we didn't see any argument from them that information after the expiration date was
01:25 relevant. They didn't make any arguments about

that in their brief, and so we understand that issue to be undisputed. But we take Your Honor's ruling that they can articulate the request, and we'll deal with it at that time.
01:25 THE COURT: Okay. Great. I think that makes a ton of sense, and it's very reasonable.

All right. Anything else anybody else wants to say before we call it a day?
01:25 All right. Great. Everyone take care. Bye-bye.

C E R T I F I C A T E

STATE OF DELAWARE)
) ss:
COUNTY OF NEW CASTLE)

I, Deanna L. Warner, a Certified Shorthand Reporter, do hereby certify that as such Certified Shorthand Reporter, I was present at and reported in Stenotype shorthand the above and foregoing proceedings in Case Number 22-CV-305-RGA-JLH, *ROBOCAST vs. NETFLIX*, heard on August 29, 2023.

I further certify that a transcript of my shorthand notes was typed and that the foregoing transcript, consisting of 59 typewritten pages, is a true copy of said DISCOVERY CONFERENCE.

SIGNED, OFFICIALLY SEALED, and FILED with the Clerk of the District Court, NEW CASTLE County, Delaware, this 3rd day of September, 2023.

_____
Deanna L. Warner, CSR, #1687
Speedbudget Enterprises, LLC

EXHIBIT 19

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,		
	Plaintiff and Counterclaim Defendant,	**Civil Action No. 1:22-cv-00305-RGA-JLH** **JURY TRIAL DEMANDED**
v.		
NETFLIX, INC.,		
	Defendant and Counterclaim Plaintiff.	

ROBOCAST'S RESPONSES AND OBJECTIONS TO NETFLIX'S FIRST SET OF INTERROGATORIES (NOS. 1-16)

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, the Local Rules of the United States District for the District of Delaware, and any Standing Orders of the Honorable Judge Richard G. Andrews, Plaintiff and Counterclaim Defendant Robocast, Inc. ("Robocast") herby serves its Responses and Objections to Defendant and Counterclaim Plaintiff Netflix, Inc.'s ("Netflix") First Set of Interrogatories (Nos. 1-16) as follows:

GENERAL OBJECTIONS

1. The following general objections apply to the Instructions, Definitions, and Interrogatories, and all have the same force and effect as if fully set forth in the response to each Interrogatory.

Ltd. v. Scorpcast, LLC d/b/a HaulStars, 1-20-cv-01012-MFK, D.I. 305 (D. Del. Mar. 13, 2023) (refusing to compel response to interrogatory seeking validity contentions and permitting the defendant to "rely entirely on experts to address validity")

Discovery is ongoing and Robocast's investigation is continuing, as such, it reserves the right to amend and/or supplement its response as additional information is made available.

INTERROGATORY NO. 12:

For each Accused Product and Asserted Claim, describe in detail the factual and legal basis and supporting evidence for the damages to which Robocast contends it is entitled as a result of Netflix's alleged infringement, including without limitation, whether Robocast's damages claims are based on lost profits, a reasonable royalty, or other damages theory, any royalty rate, royalty base, lost profits, disgorgements, enhanced damages, attorney's fees, or costs that Robocast contends are appropriate, any products that Robocast contends compete with the Accused Product(s), whether non-infringing alternatives exist, including the acceptability and availability of any such alternatives, the date(s) on which Robocast contends the hypothetical negotiation would have occurred with respect to each Asserted Patent, the time period for which Robocast contends it is entitled to collect damages from Netflix due to an alleged infringement of each Asserted Patent, whether the royalty base is based on the value of the entire product or a portion thereof (if so, identify the portion), any factual contentions related to the hypothetical negotiation, including the *Georgia-Pacific* factors or any other factors that are relevant to the determination of royalties, the appropriate measure and amount of a reasonable royalty, all facts, Documents, testimony and evidence that support, contradict, or relate to Robocast's contentions, the factual and legal basis for any responses to Netflix's affirmative defenses that Robocast is not entitled to its full scope of its alleged damages, and all Persons having knowledge of, contradicting, or otherwise relating to Robocast's contentions and all Persons on which Robocast intends to rely to support its contentions.

RESPONSE TO INTERROGATORY NO. 12:

Robocast incorporates the General Objections set forth above as if fully set forth herein. Robocast further objects to this Interrogatory to the extent it calls for or requires legal conclusions by counsel and encompasses information protected by the attorney-client privilege or the work-product immunity doctrine. Robocast further objects to this Interrogatory as overbroad and unduly burdensome to the extent it seeks "each and every basis" and/or "all Documents." Robocast further objects to this Interrogatory to the extent it seeks premature expert opinions. Robocast further objects to this Interrogatory on the ground that it includes multiple subparts concerning discrete, separate questions. Specifically, this Interrogatory includes at least seventeen discrete subparts in that it requests descriptions of (1) "whether Robocast's damages claims are based on lost profits, a reasonable royalty, or other damages theory, any royalty rate, royalty base, lost profits, disgorgements" and "the time period for which Robocast contends it is entitled to collect damages from Netflix due to an alleged infringement of each Asserted Patent, whether the royalty base is based on the value of the entire product or a portion thereof (if so, identify the portion)" and "the Georgia-Pacific factors or any other factors that are relevant to the determination of royalties, the appropriate measure and amount of a reasonable royalty," (2) "any products that Robocast contends compete with the Accused Product(s)," (3) "whether non-infringing alternatives exist, including the acceptability and availability of any such alternatives," (4) "the date(s) on which Robocast contends the hypothetical negotiation would have occurred with respect to each Asserted Patent" and "any factual contentions related to the hypothetical negotiation," (5-16) "the factual and legal basis for any responses to Netflix's affirmative defenses that Robocast is not entitled to its full scope of its alleged damages," and (17) "whether Robocast's damages claims are based on…enhanced damages, attorney's fees, or costs that Robocast contends are appropriate." For purposes of counting interrogatories, Plaintiff regards this Interrogatory as seventeen separate interrogatories.

Subject to the foregoing Specific and General Objections, Robocast responds as follows:

Robocast intends to seek all relief and recover all remedies available under the applicable

laws. Defendant is obligated to produce the documents necessary to allow Robocast to compute the amount of its damages in this action, including but not limited to documents evidencing Defendant's revenue derived from its infringements. Robocast will need to examine and analyze these and other documents in order to compute its damages. Moreover, both the approach used to compute damages and the calculation of damages will be the subject of expert analysis and discovery, and the experts will require time to review the documentary and testimonial information produced in this action in order to engage in that analysis.

Robocast claims the full amount of damages permitted by the patent laws, including at least a reasonable royalty for Defendant's use of the patented technology, interest thereon, and an award of fees and costs.

Robocast will present detailed damages contentions in expert reports produced in accordance with deadlines set by the Court. Robocast presently expects those reports to include calculations of damages and supporting analysis that incorporate reasonable royalty components. Robocast anticipates that damages in this action will be significant because the Asserted Patents cover valuable features of the Accused Products.

To the extent Robocast seeks reasonable royalties, Robocast expects to follow the methodology described in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Sup. 1116 (S.D.N.Y. 1970). As part of this analysis, Robocast expects that its experts will apply the "hypothetical negotiation" construct to determine the amount that a patent owner (here, Robocast) and a licensee (here, Defendant) would have agreed upon if both had been reasonably and voluntarily trying to reach a license agreement at the time of the first alleged infringement. In connection with their damages analysis, Robocast's expert(s) will review licenses including those produced by Defendant and [redacted], in order to analyze the rates paid by

licensees for the use of other patents comparable to the Asserted Patents. Robocast will establish that the Accused Products are commercially successful, as evidenced by sales data, subscription data and industry awards and praise. Robocast's calculations of reasonable royalties will be determined through further fact and expert discovery.

Robocast incorporates by reference its Second Supplemental Rule 26 Initial Disclosures. Further response is not necessary at this time in light of the parties' Discovery Teleconference held on August 29. Robocast reserves the right to supplement or amend its answer to this Interrogatory as necessary after receipt of further discovery from Defendant.

INTERROGATORY NO. 13:

Identify all agreements that Robocast contends are relevant to a damages determination and all reasons why Robocast contends each agreement is relevant.

RESPONSE TO INTERROGATORY NO. 13:

Robocast incorporates the General Objections set forth above as if fully set forth herein. Robocast further objects to this Interrogatory to the extent it calls for or requires legal conclusions by counsel and encompasses information protected by the attorney-client privilege or the work-product immunity doctrine. Robocast further objects to this Interrogatory to the extent that it seeks information or documents that Robocast is not allowed to disclose pursuant to either a court order or pursuant to confidentiality obligations or agreements with third parties. Robocast further objects to this Interrogatory to the extent it seeks premature expert opinions.

Subject to the foregoing Specific and General Objections, Robocast responds as follows:

Robocast identifies the licensing agreement with Vevo as a comparable license relevant to a damages determination. (ROBOCAST000019). Robocast incorporates by reference its Second Supplemental Rule 26 Initial Disclosures. Additional relevant licenses are in Defendant's possession,

Dated: September 5, 2023.

/s/ Ronald P. Golden III

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ATTORNEYS FOR Plaintiff ROBOCAST, INC.,

EXHIBIT 20

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC.,		
	Plaintiff and Counterclaim Defendant,	Civil Action No. 1:22-cv-00305-JLH JURY TRIAL DEMANDED HIGHLY CONFIDENTIAL – ATTORNEY'S EYES ONLY
v.		
NETFLIX, INC.,		
	Defendant and Counterclaim Plaintiff.	

ROBOCAST, INC.'S SUPPLEMENTAL OBJECTIONS AND RESPONSES TO NETFLIX, INC.'S INTERROGATORIES (NOS. 1-25)

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, the Local Rules of the United States District for the District of Delaware, Plaintiff and Counterclaim Defendant Robocast, Inc. ("Robocast") herby serves its Supplemental Objections and Responses to Defendant and Counterclaim Plaintiff Netflix, Inc.'s ("Netflix") Interrogatories (Nos. 1-25) as follows:

GENERAL OBJECTIONS

1. The following general objections apply to the Instructions, Definitions, and Interrogatories, and all have the same force and effect as if fully set forth in the response to each Interrogatory.

2. Discovery is ongoing, and Robocast has not completed its investigation, research, or trial preparation in this case. The following responses are based solely on the information that is presently available and specifically known to Robocast, and are given without prejudice to Robocast's right to present evidence of any subsequently discovered facts. Robocast anticipates that future discovery, investigation, and/or analysis will supply additional facts and add

that claims 1-3, 22-29, 37-39, 41, and 42 of the '451 Patent, claims 1, 4, 11, 13, 16, 22, 23, 26, and 27 of the '819 Patent, and claims 1, 4, 7, 11-13, 22, 25, 27, 29-31, 33, 46, and 48 of the '932 Patent are enforceable and have a presumption of enforceability. Robocast further submits that under Delaware law, Robocast is not required to provide enforceabiltiy contentions in interrogatory responses. *See MG FreeSites Ltd. v. Scorpcast, LLC d/b/a HaulStars*, 1-20-cv-01012-MFK, D.I. 305 (D. Del. Mar. 13, 2023) (refusing to compel response to interrogatory seeking validity contentions and permitting the defendant to "rely entirely on experts to address validity")

Discovery is ongoing and Robocast's investigation is continuing, as such, it reserves the right to amend and/or supplement its response as additional information is made available.

SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 11 (5/13/24):

Subject to the foregoing Specific and General Objections, Robocast supplements its response as follows:

While Robocast maintains that it is not required to provide enforceability contentions in interrogatory responses, Robocast incorporates by reference its Responses and Objections and Supplemental Responses and Objections to Interrogatories Nos. 17 and 19 as if stated completely herein.

INTERROGATORY NO. 12:

For each Accused Product and Asserted Claim, describe in detail the factual and legal basis and supporting evidence for the damages to which Robocast contends it is entitled as a result of Netflix's alleged infringement, including without limitation, whether Robocast's damages claims are based on lost profits, a reasonable royalty, or other damages theory, any royalty rate, royalty base, lost profits, disgorgements, enhanced damages, attorney's fees, or costs that Robocast

contends are appropriate, any products that Robocast contends compete with the Accused Product(s), whether non-infringing alternatives exist, including the acceptability and availability of any such alternatives, the date(s) on which Robocast contends the hypothetical negotiation would have occurred with respect to each Asserted Patent, the time period for which Robocast contends it is entitled to collect damages from Netflix due to an alleged infringement of each Asserted Patent, whether the royalty base is based on the value of the entire product or a portion thereof (if so, identify the portion), any factual contentions related to the hypothetical negotiation, including the *Georgia-Pacific* factors or any other factors that are relevant to the determination of royalties, the appropriate measure and amount of a reasonable royalty, all facts, Documents, testimony and evidence that support, contradict, or relate to Robocast's contentions, the factual and legal basis for any responses to Netflix's affirmative defenses that Robocast is not entitled to its full scope of its alleged damages, and all Persons having knowledge of, contradicting, or otherwise relating to Robocast's contentions and all Persons on which Robocast intends to rely to support its contentions.

RESPONSE TO INTERROGATORY NO. 12:

Robocast incorporates the General Objections set forth above as if fully set forth herein. Robocast further objects to this Interrogatory to the extent it calls for or requires legal conclusions by counsel and encompasses information protected by the attorney-client privilege or the work-product immunity doctrine. Robocast further objects to this Interrogatory as overbroad and unduly burdensome to the extent it seeks "each and every basis" and/or "all Documents." Robocast further objects to this Interrogatory to the extent it seeks premature expert opinions. Robocast further objects to this Interrogatory on the ground that it includes multiple subparts concerning discrete, separate questions. Specifically, this Interrogatory includes at least seventeen discrete subparts in

that it requests descriptions of (1) "whether Robocast's damages claims are based on lost profits, a reasonable royalty, or other damages theory, any royalty rate, royalty base, lost profits, disgorgements" and "the time period for which Robocast contends it is entitled to collect damages from Netflix due to an alleged infringement of each Asserted Patent, whether the royalty base is based on the value of the entire product or a portion thereof (if so, identify the portion)" and "the Georgia-Pacific factors or any other factors that are relevant to the determination of royalties, the appropriate measure and amount of a reasonable royalty," (2) "any products that Robocast contends compete with the Accused Product(s)," (3) "whether non- infringing alternatives exist, including the acceptability and availability of any such alternatives," (4) "the date(s) on which Robocast contends the hypothetical negotiation would have occurred with respect to each Asserted Patent" and "any factual contentions related to the hypothetical negotiation," (5-16) "the factual and legal basis for any responses to Netflix's affirmative defenses that Robocast is not entitled to its full scope of its alleged damages," and (17) "whether Robocast's damages claims are based on…enhanced damages, attorney's fees, or costs that Robocast contends are appropriate." For purposes of counting interrogatories, Plaintiff regards this Interrogatory as seventeen separate interrogatories.

Subject to the foregoing Specific and General Objections, Robocast responds as follows:

Robocast intends to seek all relief and recover all remedies available under the applicable laws. Defendant is obligated to produce the documents necessary to allow Robocast to compute the amount of its damages in this action, including but not limited to documents evidencing Defendant's revenue derived from its infringements. Robocast will need to examine and analyze these and other documents in order to compute its damages. Moreover, both the approach used to compute damages and the calculation of damages will be the subject of expert analysis and

discovery, and the experts will require time to review the documentary and testimonial information produced in this action in order to engage in that analysis.

Robocast claims the full amount of damages permitted by the patent laws, including at least a reasonable royalty for Defendant's use of the patented technology, interest thereon, and an award of fees and costs.

Robocast will present detailed damages contentions in expert reports produced in accordance with deadlines set by the Court. Robocast presently expects those reports to include calculations of damages and supporting analysis that incorporate reasonable royalty components. Robocast anticipates that damages in this action will be significant because the Asserted Patents cover valuable features of the Accused Products.

To the extent Robocast seeks reasonable royalties, Robocast expects to follow the methodology described in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Sup. 1116 (S.D.N.Y. 1970). As part of this analysis, Robocast expects that its experts will apply the "hypothetical negotiation" construct to determine the amount that a patent owner (here, Robocast) and a licensee (here, Defendant) would have agreed upon if both had been reasonably and voluntarily trying to reach a license agreement at the time of the first alleged infringement. In connection with their damages analysis, Robocast's expert(s) will review licenses including those produced by Defendant and [redacted], in order to analyze the rates paid by licensees for the use of other patents comparable to the Asserted Patents. Robocast will establish that the Accused Products are commercially successful, as evidenced by sales data, subscription data and industry awards and praise. Robocast's calculations of reasonable royalties will be determined through further fact and expert discovery.

Robocast incorporates by reference its Second Supplemental Rule 26 Initial Disclosures.

Further response is not necessary at this time in light of the parties' Discovery Teleconference held on August 29. Robocast reserves the right to supplement or amend its answer to this Interrogatory as necessary after receipt of further discovery from Defendant.

SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 12 (5/13/24):

Subject to the foregoing Specific and General Objections, Robocast further responds as follows:

Discovery is ongoing and the below contentions are based on information presently and reasonably available and known to Robocast at this time. Robocast reserves the right to modify, amend, and/or supplement these contentions, its computation of damages, and any analyses that support these contentions as additional evidence and information become available. Robocast submits these disclosures without waiving any applicable privilege or immunity or right to object to the admissibility at trial of any information contained in or derived from these disclosures. Robocast also expressly reserves the right to object to the relevance or admissibility of any document or information disclosed and reserves any other applicable objections it may have.

CLAIMS FOR MONETARY DAMAGES AND COMPENSATION PERIOD

35 U.S.C. § 284 governs an award of damages in patent infringement cases. Section 284 provides that "upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." The guiding principle in the determination of damages resulting from patent infringement is the calculation of damages that would be adequate to compensate for the patent infringement.

The start date for the compensation period is a factual issue that is currently the subject of ongoing discovery. The United States Patent and Trademark Office issued the '451 Patent on December

26, 2006, the '819 Patent on December 10, 2013, and the '932 Patent on February 24, 2015. Robocast expects the evidence to show Netflix first offered the Accused Products in January 2007, and first offered the Accused Products with the Accused Functionality in August 2012. Furthermore, Robocast filed its initial patent infringement complaint against Netflix on March 7, 2022. Therefore, Robocast contends the compensation period commences on March 7, 2016, six years prior to the filing of the initial complaint because at that time, Netflix was already offering the Accused Products with the Accused Functionality. Robocast contends that Netflix's infringement of the Asserted Patents continued through the expiration of the last-to-expire of the Asserted Patents (the '451 Patent), which expired August 9, 2020. Therefore, the compensation period extends through August 9, 2020. Should the Court rule that each asserted claim from the '451 Patent is not valid, not infringed, or not enforceable, then the compensation period would end on September 2, 2017 (the expiration date of the '819 Patent). Should the Court rule that each asserted claim from the '819 Patent is not valid, not infringed, or not enforceable, then the compensation period would end on September 2, 2017 (the expiration date of the '932 Patent). Therefore, Robocast contends there are, at present, two potential compensation periods:

- Compensation Period 1: March 7, 2016 through August 9, 2020
- Compensation Period 2: March 7, 2016 through September 2, 2017

Reasonable Royalties

Robocast contends that it is entitled to no less than a reasonable royalty due to Netflix's infringement of the Asserted Patents (see 35 U.S.C. § 284). There is no one acceptable methodology when determining reasonable royalty damages. One method is to use an established royalty rate. It is premature for Robocast to take a position on the existence or applicability of established royalty rate because that is an issue for expert discovery and requires expert analysis.

A second method of arriving at a reasonable royalty is called the "analytical approach." This approach involves calculating damages based on the infringer's own profits for the infringing products at the time infringement began and then apportioning the profits between the patent owner and the infringer. The profits are then applied to the actual infringing sales to determine the total reasonable royalty damages. It is premature for Robocast to take a position on whether the analytical approach will be used to assess damages in this case because that is an issue for expert discovery and requires expert analysis.

A third method for determining reasonable royalty damages is the "willing licensor—willing licensee" approach. In the case of *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970), mod. and aff'd, 446 F.2d 295 (2d Cir. 1971), cert. denied, 404 U.S. 870 (1971), the Court utilized what it characterized as an approach to calculating reasonable royalties. In general, the Court reasoned that a "hypothetical negotiation," between a "willing licensor" (the patent owner) and a "willing licensee" (the infringer), at the time the infringement began, may be used to determine reasonable royalty damages. The Court contemplated fifteen factors, which, according to the Court, were also some of the factors considered in other leading cases.

Robocast reserves the right to rely upon an established rate approach, an analytical approach, and/or a willing licensor/licensee hypothetical negotiation approach.

Date of the Hypothetical Negotiation

To the extent that Robocast uses a willing licensor/licensee approach, then the determination of reasonable royalty damages will be based on the construct of a hypothetical negotiation. The parties at the hypothetical negotiation will assume the Asserted Patents are valid and will be infringed by Netflix unless Netflix obtains a license from Robocast.

The hypothetical negotiation is assumed to take place at the time the infringement first began. Netflix launched the Accused Functionality in August 2012,[7] which is after the USPTO granted the '451 Patent (December 2006). Further, the Asserted Patents are in the same patent family. Therefore, Robocast expects the evidence to show that there would be one hypothetical negotiation for all the Asserted Patents in August 2012. Should the Court rule that each asserted claim from the '451 Patent is not infringed, not valid, or not enforceable, then the date of the hypothetical negotiation would be held on December 10, 2013 (the grant date of the '819 Patent). Should the Court rule that each asserted claim from the '451 Patent and the '819 Patent are not valid, not infringed, or not enforceable, then the hypothetical negotiation would occur on February 24, 2015 (the grant date of the '932 Patent).[8]

Parties to the Hypothetical Negotiation

Robocast contends the hypothetical negotiation would have occurred between Robocast, who was the owner of the Asserted Patents as of the date of the hypothetical negotiation, and Netflix, the infringer. I assume that Damon Torres ("Mr. Torres"), as the inventor of the Asserted Patents and as the founder and owner of Robocast, would be at the negotiation table negotiating with Robocast's interests in mind. This is supported by the fact that Mr. Torres assigned his rights to the Asserted Patents to Robocast in December 2010 (the '451 and '932 Patents) and December 2012, (the '819 Patent).

[7] https://techcrunch.com/2012/08/15/netflix-post-play/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAANHCMO5oi-ZKj-1MmrbpW0QQ75vWIbcqhLpqXxJI4zHeva8s0uK-rDGzAxoyKApLfZyflONPVp1xV5SYvrzFtsv_ZV43P08hBntP73yO6aEcsuEJNsRZJX-9ewylLAzVHKg_sfkv_zsuor5qQtlc_jieQx2mBNERmLxK0OV0O1CN

[8] Robocast contends that the strength of the parties' relative bargaining positions in August 2012 would not be different than the strength of their relative bargaining positions in December 2013 or in February 2015. Therefore, if the Court determines that the hypothetical negotiation would have been held at any point in time from August 2012 through February 2015, then Robocast presently contends that the results of the hypothetical negotiation would remain the same.

Structure of the Hypothetical License and Royalty Base

In general, license agreements can involve a lump sum payment, running fixed payments, running variable payments, or a combination of these. Running payments often take the form of either a percentage of revenue applied to the sale of the licensed products, a fixed amount paid for each unit/account sold, or on a per-user basis. A lump sum payment structure involves a fully paid-up, one-time payment for a license to the asserted patents at the time of the hypothetical negotiation through the expiration of the patents.

The structure of the hypothetical license agreement is the subject of expert discovery and Robocast expects that its damages expert's opinion will be based on one or more of the aforementioned payment structures. Therefore, it is premature for Robocast to select an appropriate royalty structure because such a decision requires expert analysis. As such, Robocast can presently only contend that it expects the evidence to support a royalty structured on a per-unit basis, on a per-user basis, as a percentage of revenue, or as a lump sum, as noted below:

- **Accused Revenue:** To the extent that Robocast's damages expert structures the hypothetical license as a percentage of revenue, then Robocast expects to define the royalty base as the total revenue earned from the sale of the Accused Products.
- **Accused Unit (Membership) Counts:** To the extent that Robocast's damages expert structures the hypothetical license on a per-unit basis (*i.e.*, with each "unit" defined as a Netflix membership), then Robocast expects to consider the total unit volume/total number of Netflix memberships for the Accused Products to be the royalty base.
- **Accused User Count:** To the extent that Robocast's damages expert structures the hypothetical license on a per-user basis, then Robocast expects to consider the total number of Netflix users as the royalty base.
- **Lump Sum:** To the extent that Robocast's damages expert structures the reasonable royalty on a lump-sum basis, then Robocast expects to present a one-time lump sum structure using a discounted cash flow calculation that considers the historic and future value of Asserted Patents using a present value date as of the date of trial and/or the hypothetical negotiation. In doing so, Robocast expects its damages expert to employ discount rates consistent with Netflix's business practice and as supported by the factual evidence. Alternatively, Robocast's damages expert

may calculate a lump-sum royalty by multiplying Netflix's past and future (as of the hypothetical negotiation date) revenues by a discounted royalty rate.

The Royalty Rate

Robocast expects its royalty rate will be based in part on the three standard quantitative valuation methods, referred to as the Market, Income, and Cost Approaches. Robocast also expects its royalty rate will be based in part on the consideration of the fifteen *Georgia-Pacific* factors, which may overlap with these standard quantitative valuation methods. Each of the fifteen *Georgia-Pacific* factors relates to certain categories of information that would be considered by the parties to the hypothetical negotiation. These factors are guidelines for evaluating the likely actions of the parties in a hypothetical negotiation. Based on the facts and circumstances of this matter, Robocast's damages expert may not give equal weight to each factor. The presently known information associated with each *Georgia-Pacific* factor is described below.

1. Factor 1: Royalties received by the patentee for licensing of the Asserted Patents

Based on its investigation to date, Robocast is aware of three patent license agreements through which Robocast agreed to grant patent rights to certain of the Asserted Patents in exchange for royalties. Since these licenses are subject to ongoing fact discovery (*i.e.*, deposition testimony) and expert discovery, it is premature for Robocast to conclude whether these license agreements offer terms that are technically or economically comparable to the terms that would be negotiated by the parties to the hypothetical negotiation. These agreements are described below.

- **The Apple Settlement Agreement** (ROBOCAST001969-81): [redacted]

[redacted]

- **The Microsoft Settlement Agreement** (ROBOCAST000001-18): [redacted]

- **The Vevo License Agreement** (ROBOCAST000019-35): [redacted]

2. Factor 2: Rates paid by the licensee for the use of other patents comparable to the Asserted Patents

Based on the investigation of the documents Netflix has produced to date, Robocast is aware of 38 patent license agreements through which Netflix agreed to pay royalties to certain third parties in consideration for certain patent rights. These licenses are subject to ongoing fact discovery (*i.e.*, deposition testimony) and expert discovery. Therefore, it is premature for Robocast

to conclude whether these license agreements offer terms that are technically or economically comparable to the terms that would be negotiated by the parties to the hypothetical negotiation.

- [redacted] (NFLX_0059029):
- [redacted] (NFLX_0029183):
- [redacted] (NFLX_0029298):
- [redacted] (NFLX_0029606):
- [redacted] (NFLX_0029619):
- [redacted] (NFLX_0029634):
- [redacted] (NFLX_0059055):

- [redacted] (NFLX_0029254 and NFLX_0029252): [redacted]
- [redacted] (NFLX_0029403 and NFLX_0029399): [redacted]
- [redacted] (NFLX_0029680): [redacted]
- [redacted] (NFLX_0029371): [redacted]
- [redacted] (NFLX_0029203): [redacted]
- [redacted] (NFLX_0029694): [redacted]
- [redacted] (NFLX_0029709): [redacted]
- [redacted] (NFLX_0029719): [redacted]
- [redacted] (NFLX_0059061): [redacted]

- [redacted]
- [redacted] (NFLX_0029351): [redacted]
- [redacted] (NFLX_0029418 and NFLX_0029422): [redacted]
- [redacted] (NFLX_0029479, NFLX_0029536, and NFLX_0029592): [redacted]
- [redacted] (NFLX_0029730): [redacted]
- [redacted] (NFLX_0029268): [redacted]
- [redacted] (NFLX_0029748): [redacted]
- [redacted] (NFLX_0059092): [redacted]

- [redacted] (NFLX_0029756): [redacted]
- [redacted] (NFLX_0059115): [redacted]
- [redacted] (NFLX_0059132): [redacted]
- [redacted] (NFLX_0029284 and NFLX_0029282): [redacted]
- [redacted] (NFLX_0029765): [redacted]
- [redacted] (NFLX_0059378): [redacted]
- [redacted] (NFLX_0029774): [redacted]

- [redacted] (NFLX_0029214): [redacted]
- [redacted] (NFLX_0029385): [redacted]
- [redacted] (NFLX_0029239): [redacted]
- [redacted] (NFLX_0029788): [redacted]
- [redacted] (NFLX_0029226): [redacted]
- [redacted] (NFLX_0029323): [redacted]
- [redacted] (NFLX_0029337): [redacted]
- [redacted] (NFLX_0029309): [redacted]

In the case of the above-noted settlement agreements, Robocast expects the evidence to show that the noted payment terms reflect a discount on the incremental value of the licensed patents to avoid the risk and cost of litigation. In addition, Robocast expects the evidence to show

the settlement amounts involved concessions beyond just the value of the assets licensed. In addition, Robocast expects the evidence to show the settlements do not tell offer insights into the strength of Robocast's liability and damages claims.

Robocast expects the evidence to show that the terms included in the above-noted patent license agreements are not economically comparable to the terms that would be contemplated at the hypothetical negotiation.

3. Factor 3: Nature and scope of the license

Robocast expects to present evidence establishing that the hypothetical license would be non-exclusive so that Robocast could continue practicing its own patents and to potentially license those patents to third parties. The hypothetical license would relate to Netflix's use of Robocast's patented technology in whole or in part in the United States. However, to the extent that foreign sales of the Accused Products are based on infringing activity that takes place in the United States (such as if the Netflix servers that operate the Accused Products are located in the United States), Robocast reserves the right to consider sales to customers outside of the United States as either impacting the royalty base or the royalty rate.

4. Factor 4: Robocast's licensing policy

Factor 4 remains the subject of ongoing investigation and expert discovery. In the period leading up to the hypothetical negotiation and thereafter, Robocast offered its own website (http://beta.robocast.com) which incorporated the patented technology. At this time, the company's goal was to fulfill an unresolved need to improve user experience on the Internet by making websites more user-friendly, efficient, and intuitive. Robocast sought to automate the presentation of personal computer content and provide the user with a hands-free "television-like" experience. At the time, online content was difficult to access and view (i.e., as a series of static pages that needed to be called up one by one) rather than videos that could be played and paused.

Robocast sought to enter the market with a product that merged the concepts of personal computer content and user-manipulated playback in order to make watching content more accessible. Robocast therefore expects the evidence to show that it preferred to earn profits from its own patented technology instead of only earning a royalty from a third-party competitor's use of its patented technology.

5. Factor 5: The commercial relationship between the licensor and the licensee

Robocast expects to present evidence establishing that Robocast and Netflix were both offering customers products that embody the patented technology. [redacted]. Nevertheless, Robocast expects the evidence to show that the parties to the hypothetical negotiation would be related as inventor/promoter.

6. Factor 6: The effect of selling the patented specialty in promoting sales of other products of the licensee

Robocast asserts that Netflix has sold a portfolio of subscription plans (i.e., Basic, Standard, Premium) which vary by factors such as price and device count. Netflix has indicated that it aims to upsell higher-priced subscription tiers like Standard and Premium by enhancing the user experience and by encouraging personalization on multiple profiles and devices. Robocast expects the evidence to show that the Asserted Patents enable Netflix to provide a one-stop-shop for quality entertainment, offering convenience, control, and a constantly growing library of content that keeps users engaged and subscribed.

7. Factor 7: Duration of patent and term of license

The term of the license agreement is presumed to start as of the date of the hypothetical negotiation and last through the expiration of the last-to-expire of the Asserted Patents. Robocast

contends that the Asserted Patents reached their collective legal term as of August 9, 2020, which means that the term of the hypothetical license would be approximately 8 years. Robocast contends that Netflix used Robocast's patented technology to build a loyal customer base and brand name that continues to exist after the Asserted Patents expired.

The fact that Netflix was able to build a brand name and valuable goodwill using the Asserted Patents for a long period of time suggests that Robocast has a stronger bargaining position because Netflix's customer base and goodwill will continue to exist after the expiration of the Asserted Patents. This conclusion is consistent with Netflix's recent public statements to its investors. According to Netflix in 2022—a period in which the Asserted Patents have expired—"engagement is such an important metric because the time spent on Netflix made you come in and [become] exposed to everything else we're doing as well. [We] did such a phenomenal job of audience matching to put the most relevant thing in front of you and when you come to Netflix, [ ] you're bound to be exposed to something you're going to love. You also see it in the…post-play mechanism. So once you get through that last episode and you're getting that one second of anxiety of what am I going to watch next, you've got a couple of great choices in front of you. And folks use that tool all the time to find the next great thing to watch on Netflix."[9]

This quote demonstrates that Netflix continues to benefit from its use of the patented technology even after the Asserted Patents have reached their collective term.

If the Court rules that the '451 Patent is not valid, not infringed, or not enforceable, then the term of the hypothetical license would extend from the date of first infringement until the date of the last-to-expire of the '819 or '932 Patents, which expire in September 2017. In this case, the term of the hypothetical license would be approximately 1.5 years.

[9] FQ2 2022 Earnings Call Transcript, Netflix, Inc., July 19, 2022, p. 14.

8. Factor 8: Established profitability, commercial success and current popularity

Robocast expects the evidence to show that the heart of Netflix's success is the "binge-watching" experience, which Netflix characterizes as the "post-play experience, which guides [users] into another show, [and] another show."[10] By making it effortless to transition from one program to the next, Post-Play keeps users engaged for longer periods. This translates to more content being watched which leads to higher subscription value and more data for recommendation algorithms. Increased viewing time justifies the subscription cost for many users, making them less likely to cancel their subscription (i.e., decreased churn).[11] Further, the longer users watch, the more data Netflix gathers on viewing habits and preferences. In turn, these data fuel recommendation algorithms that suggest even more engaging content, further increasing viewing time. This range of benefits is demonstrative of the popularity and commercial success enjoyed by Netflix. For example, Netflix has emphasized the value of binge-watching behavior in the following ways:

- "[W]hen people come in and why they put the credit card down is that they're attracted to that programming and they're excited about a show. And they watch something and they get in and watch – binge through 13 hours of a show in… 10 days. And that's a very unique proposition, and we have to keep delivering on that. […] We measure it internally by hours of viewing per user…"[12]
- "[B]y not having our shows like one a week…over the course of the year, you end up with actually more volume [watched]. […] [T]he cumulative benefit is much higher all at once than the week over week over week."[13]
- "[R]eleasing all the episodes together turned out to be kind of a big inflection point in entertainment in terms of the way people talk about a change that happened, this binge-watching. […] And in general, what we had seen was people had kind of cut their teeth and developed binge-watching. So I think these habits that are most sustainable are ones that consumers create on their own and that you harness."[14]

[10] FQ4 2016 Earnings Call Transcript, Netflix, Inc., January 18, 2017, p. 9.
[11] https://www.businessinsider.com/netflix-average-viewing-since-2011-chart-2016-11
[12] Netflix, Inc. Company Conference Presentation, December 7, 2015, p. 6.
[13] Netflix, Inc. Company Conference Presentation, May 14, 2018, p. 6.
[14] Netflix, Inc. Company Conference Presentation, December 10, 2019, p. 6.

- "[redacted]

- "Unlike TV, many online services haven't implemented a continuous play feature, which could keep viewers watching longer. Netflix finally just implemented a new feature, called Post-Play, which helps to solve this problem. Now, when watching episodes of your TV show, when the credits start to roll, Netflix will minimize them and preview the next episode in the series. Viewers can then immediately jump to the next episode. The same thing goes for movies. Rather than making users go back to the main menu and search for what they want to watch next, the post-play experience will bring up recommendations to keep viewers engaged."[16]

- "As part of the autoplay test, we tested how long the countdown should be between episodes. 5 seconds, 10 seconds or 15 seconds. 10 seconds caused the biggest increase in hours watched. We thought that it gave people time to digest what they had just watched, but wasn't too fast (5 seconds) where it became jarring. […] Netflix user[s] have become conditioned to expect autoplay. So yes, Netflix wants you to spend more hours watching Netflix and the product team is scientifically engineering the product to make it more addictive."[17]

- "Participants that expressed an intention to watch a specific number of episodes actually watched 71% more episodes than they had intended to before switching the Netflix auto-play feature off and 49% more episodes than they had intended to after switching the Netflix auto-play feature off."[18]

- "Netflix measures its success in terms of valuable hours, the amount of time spent by its users consuming content that is important to them [ ] and employs technical artefacts to maximize the amount of time participants spend consuming content."[19]

In the aggregate, Robocast expects the evidence to show that Post-Play was a significant product update and is associated with significant commercial success and that has been met with a high degree of popularity. Further, Robocast expects the evidence to demonstrate a material

[15] NFLX_0055387.
[16] https://techcrunch.com/2012/08/15/netflix-post-play/
[17] https://news.ycombinator.com/item?id=20566514
[18] https://research.thea.ie/bitstream/handle/20.500.12065/3795/Hanly%20P-2019-%27Switching%20off%27-A%20diary%20study%20investigating%20the%20effect%20of%20the%20Netflix%20auto-play.pdf?sequence=1&isAllowed=y
[19] https://research.thea.ie/bitstream/handle/20.500.12065/3795/Hanly%20P-2019-%27Switching%20off%27-A%20diary%20study%20investigating%20the%20effect%20of%20the%20Netflix%20auto-play.pdf?sequence=1&isAllowed=y

increase in time spent with Netflix video content in the United States before and after the launch of the Accused Functionality.[20]

9. Factor 9: Utility and advantages of patent property over old modes and devices

10. Factor 10: The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefit of those who have used the invention

Factors 9 and 10 are frequently analyzed together due to their similarity and inherent overlap. Robocast expects the evidence to show that the Asserted Patents offer several technical benefits, including automated playlist creation, content filtering and personalization, and streamlined content discovery.

- **Automated Playlist Creation:** Automatically generating playlists of video content based on user preferences or other criteria saves users time and effort compared to manually searching for content throughout Netflix's voluminous library of content.
- **Content Filtering and Personalization:** Filtering content based on user interests or demographics leads to a more personalized browsing experience.
- **Streamlined Content Discovery:** By automating the process of finding relevant content, the patented technology improves the efficiency of information-gathering and entertainment discovery.

Robocast further expects the evidence to show that there were several key reasons why Netflix introduced Post-Play in 2012 instead of maintaining its pre-existing content discovery pathways including:

- **Increased User Engagement:** By making content discovery easier and more personalized, the patented technology leads to users spending more time on Netflix watching content. Before Post-Play, viewers had to manually select the next episode or next movie. This small break could be a cue to stop watching. Post-Play eliminates this break, making it easier to passively move from episode to episode. Robocast expects the evidence to show that this translates into increased subscription sales for Netflix.
- **Improved User Experience**: A streamlined and efficient browsing and content discovery experience leads to higher user satisfaction and reduction in churn for

[20] https://www.statista.com/statistics/325058/time-spent-netflix-usa/

Netflix. Post-Play keeps content flowing reducing the mental hurdle of starting a new episode or new movie.

- **Competitive Advantage:** At the time of the hypothetical negotiation, he patented technology offered Netflix unique competitive edge relative to other industry players.

At the time that Post-Play debuted, traditional movie and TV platforms did not cater to "binge-watching" behavior. By positioning itself as the platform that understood how viewers wanted to watch content, Netflix differentiated itself in the market for TV/film delivery, consequently solidifying its brand image. [redacted][21] As it "[redacted]"[22] This served to [redacted]"[23]

Overall, Robocast expects the evidence to prove that Post-Play was not just a minor update to the Netflix platform, but a major strategic move by Netflix to address evolving user needs, stay competitive, and drive its vision for a more intuitive and accessible user experience. According to Netflix, Post-Play is "[redacted]."[24]

Presently, Robocast is not aware of any evidence to suggest that Netflix can or would develop a non-infringing alternative to the Accused Functionality. For example, Netflix has not produced any business plans, software code, surveys, economic analyses, competitive studies, or other data showing the company is willing to turn off the Accused Functionality. In addition,

[21] NFLX_0049175.
[22] NFLX_0047828.
[23] NFLX_0049095.
[24] NFLX_0047828.

Netflix has thus far failed to produce any evidence to indicate that its customers would be willing to continue to use Netflix at the same rate (and at the same price) if Netflix somehow disabled the Accused Functionality. As such, Robocast expects the evidence to show that the Accused Functionality drives customer demand.

To the extent that Netflix identifies a commercially acceptable non-infringing alternative that is available to Netflix as of the hypothetical negotiation date which offers equivalent technical and economic benefits provided by the Asserted Patents, then Robocast expects that its damages expert could reference the generally accepted valuation method known as the "Cost Approach" to assess a potential royalty rate indicator. The Cost Approach considers all out-of-pocket expenditures, as well as opportunity costs, risks, lost sales, and other adverse economic impacts connected with the adoption of a comparable, substitute technology.

It is premature for Robocast to offer details as to the cost associated with any potential non-infringing alternative that Netflix may advance as part of its expert analysis. Even assuming that Netflix is able to offer evidence as to the commercial acceptance of a yet-to-be-disclosed non-infringing alternative, then Robocast expects the evidence to reveal that it would be difficult, time-consuming, and expensive for Netflix to introduce such a non-infringing alternative. Netflix's documents indicate that [redacted].[25]

[25] See, *e.g.*, NFLX_0047950, NFLX_0052719, NFLX_0049095, NFLX_0048800, NFLX_0048561, and NFLX_048476.

11. Factor 11: The extent to which the infringer has made use of the invention and the value of such use

Robocast intends to demonstrate Netflix's substantial utilization of the Asserted Patents. As noted by Netflix's documents, [redacted] and [redacted] [redacted][26] Further, [redacted] [redacted][27] To resolve these difficulties, Post-Play was introduced to [redacted] [redacted][28] According to Netflix, it sought to [redacted] [redacted][29]

Netflix measures its success via certain [redacted] like [redacted] [redacted].[30] Through these metrics, Netflix seeks to measure [redacted] [redacted][31] According to Netflix, [redacted] [redacted] [redacted]"[32]

Robocast also expects that its damages expert will analyze Netflix's financial performance. From 2013 to 2019, Netflix earned $38.5 billion in total U.S. streaming revenues.[33] Further,

[26] NFLX_0052454; NFLX_0048986.
[27] NFLX_0048986.
[28] NFLX_0052454.
[29] NFLX_0052454.
[30] NFLX_0049175.
[31] NFLX_0049175.
[32] NFLX_0047828.
[33] NFLX_0032777; NFLX_0029824; NFLX_0032778.

Robocast expects the evidence to show that from 2013 to 2016, Netflix's average paid memberships increased 57% to over 46.5 million and again increased 30% to 60.5 million from 2016 to 2019.[34] Netflix earned gross margins of 32%, 44%, and 36% in 2013, 2016, and 2019, respectively. As such, Robocast expects the evidence to show that Netflix leverages its substantial user base to generate significant revenues that directly relate to the sale of the Accused Products. Robocast maintains that the profits generated by the Accused Products and associated offerings may serve as an initial indicator of the potential value derived from the Asserted Patents.

12. Factor 12: The portion of profit or selling price customarily allowed for the use of the invention

Robocast is not currently aware of a "customary" profit split used in the video streaming industry. To the extent that Robocast becomes aware of further evidence relating to royalty rates that have been paid for comparable technologies in this or comparable market segments, then Robocast contends it will incorporate considerations consistent with the commonly accepted method for assessing the value of intellectual property known as the "Market Approach."

13. Factor 13: The portion of realizable profit attributable to the invention as distinguished from non-patented elements

In patent infringement cases, determining a reasonable royalty often involves assessing the contribution of various factors to the infringing product's commercial success. *Georgia-Pacific* factor 13 specifically focuses on apportioning profits attributable to the patented features and isolating the incremental value gained from the patented technology, excluding benefits derived from non-patented features, the licensee's own development efforts, inherent business risks, or additional functionalities introduced by the licensee.

[34] NFLX_0032777; NFLX_0029824; NFLX_0032778.

In determining a reasonable royalty rate, Robocast anticipates that its damages expert will utilize a methodology that estimates the incremental value attributable to Netflix's alleged use of the Asserted Patents. This approach assumes that a portion of Netflix's profits may be derived from its infringing activities.

The above-noted principles are consistent with a valuation approach known as the "Income Approach". This approach focuses on estimating the economic income expected to be generated from the use or ownership of the Asserted Patents. In the context of this case, Robocast's damages expert may consider utilizing the income approach to analyze the potential financial impact of Netflix's alleged infringement on the asserted patents. While the specific analyses may vary, the following represent categories of income-based approaches that might be explored in expert discovery.

- **Benchmark Product Analysis**: This analysis will assess the value gained from the use of the Asserted Patents by identifying and comparing the value of a third-party product to the Accused Products.
- **Defendant's At-Risk Profits Analysis**: This analysis would assess the profits that Netflix expects to lose in the absence of taking a license to the Asserted Patents.
- **Excess Profits Analysis**: This analysis would determine the amount of profits that Netflix earned as a result of its infringement above what is considered to be a normal or reasonable level of profit within this industry.
- **Income Lif t Analysis**: This analysis would measure the increase in revenue gained by Netflix that is directly attributable to its use of the Asserted Patents.
- **Plaintiff's Expected Profits Analysis**: This analysis would measure the value of the Asserted Patents based on the incremental profits that Robocast would expect to earn from the sale of its own embodying products.
- **Survey Analysis**: This analysis would apportion Netflix's actual or expected profits between accused and non-accused features or functionality based on responses to consumer surveys.
- **With-and-Without Analysis**: This analysis would measure the value of the Asserted Patents by comparing the income earned with and without the Accused Functionality.

- **Technical Apportionment**: This analysis would measure the value of the Asserted Patents by considering technical apportionment figures provided by a technical expert analysis or technical documentation.

At the hypothetical negotiation, both parties might acknowledge that Netflix manages its own customer relationships, operational facilities, staff, and advertising campaigns, thereby absorbing considerable business, operational, and financial risks associated with commercialization. Additionally, both parties would acknowledge that Netflix's established distribution networks, marketing and sales expertise, customer service capabilities, existing customer base, ongoing research and development efforts, independent intellectual property portfolio, and brand and reputation all contribute to the Accused Products' commercial success.

14. Factor 14: Opinion testimony of qualified experts.

Robocast intends to offer opinion testimony from qualified experts. Although the full scope of this testimony has not yet been formulated, Robocast expects its experts to testify (among other things) to the following subject matters: (a) the nature of the Asserted Patents; (b) the success of Robocast's patented technology, as realized by Robocast, Netflix, and/or other third parties; (c) the significance (in both actual and relative terms) of the patented technology to Netflix's business; (d) the comparability of technologies licensed by and to others; (e) the facts and information discussed in these damages contentions; (f) an analysis of additional facts produced by Netflix and/or third parties; and (g) an economic analysis of Robocast's damages suffered as a result of Netflix's infringement.

15. Factor 15: Outcome from a hypothetical arm's length negotiation at the time of infringement.

The royalty rate will be established by applying the *Georgia-Pacific* factors discussed above and by determining the incremental value of the patented invention. Because fact discovery (*i.e.*, deposition testimony) is still ongoing, Robocast is not presently able to determine a royalty

rate at this time. Through discovery from Netflix, Robocast, and/or third parties, as well as through expert discovery, Robocast expects to further analyze evidence that may indicate a royalty rate, including technical, financial, and usage-based evidence relating to the value of the patented technology to Netflix's Accused Products.

REASONABLE ROYALTY DAMAGES

Based on an examination of available evidence, Robocast expects that its damages expert will calculate a reasonable royalty by multiplying a royalty base by a royalty rate.

PRE- AND POST-JUDGMENT INTEREST

Robocast is also entitled to pre-judgment and post-judgment interest, costs, and disbursements under 35 U.S.C. § 284. Robocast expects to calculate pre- and post-judgment interest using a selected interest rate (*e.g.*, the prime rate) and selected compounding period (*e.g.*, daily, quarterly, or annually) in accordance with this Court's prior rulings. The determination of a specific interest rate and compounding period is the subject of further analysis.

Robocast incorporates by reference its forthcoming expert report on damages as if stated herein. Further, Robocast reserves the right to supplement its response to this Interrogatory to address new information revealed in depositions taken near the end of fact discovery or any further fact discovery occurring after May 13, 2024.

INTERROGATORY NO. 13:

Identify all agreements that Robocast contends are relevant to a damages determination and all reasons why Robocast contends each agreement is relevant

RESPONSE TO INTERROGATORY NO. 13:

Robocast incorporates the General Objections set forth above as if fully set forth herein. Robocast further objects to this Interrogatory to the extent it calls for or requires legal conclusions

Dated: May 13, 2024

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EXHIBIT 21

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., a Delaware corporation *Plaintiff and Counterclaim Defendant,* v. **NETFLIX, INC., a Delaware limited liability company** *Defendant and Counterclaim Plaintiff.*	C.A. No. 1:22-cv-00305-JLH

EXPERT REPORT OF DR. KEVIN C. ALMEROTH REGARDING INFRINGEMENT OF U.S. PATENT NOS. 7,155,451, 8,606,819, & 8,965,932

Date: June 14, 2024

Kevin C. Almeroth

Kevin C. Almeroth

489. The patented inventions embodied in Robocast's Asserted Patents provide a novel way to be presented with, and consume, such content. And these are the type of technical benefits provided to Netflix by practicing the Robocast patented inventions.

490. First, the patented inventions enabled Netflix to develop automated playlist creation whereby Netflix is able to automatically generate playlists of video content that is based on user preferences or other criteria. This eases user effort and minimizes their time in contrast with manually searching Netflix's library for content.

491. Further, Robocast's patented inventions lead to Netflix's ability to filter content based on user interests or demographics, which lead to a more intelligent and personal browsing experience for the user.

492. And, by automating the tasks of finding relevant or related content to what a user is consuming, Robocast's Patented Technology improves the efficiency of discovering and gathering information about potential entertainment.

493. Each of these benefits has a technological, tangible benefit to Netflix in my opinion.

494. First, by minimizing the number of clicks and decision making of a user to watch a following title, Netflix is able to increase user engagement in its content. This provides a frictionless way for users to play additional content and do so without feeling burdened or lost by the volume of Netflix's content.

495. Further, Netflix is able to influence the how a user interacts with the platform, including the ability to show the user certain content and direct the user to that content. As a result, Netflix is able to capture user interest for longer, and increase engagement on its service. [Lorum Ipsum]

XV. ABSENCE OF ACCEPTABLE NON-INFRINGING ALTERNATIVES

496. I have been asked to provide my opinion with respect to whether there are acceptable non-infringing alternatives to the inventions claimed in Robocast's asserted patents. For the reasons I

explain below, it is my opinion that there are no such acceptable alternatives. In forming this opinion, I have considered the statements in Netflix's interrogatory responses that relate to Netflix's claim that there are acceptable non-infringing alternatives to certain patents. *See* Netflix's Response to Robocast's Interrogatory No. 8. I have also relied upon other evidence that I cite below as well as my own experience in reaching my conclusion that there are no acceptable non-infringing substitutes to the claimed inventions.

497. As I noted above, I have reviewed Netflix's interrogatory response with respect to what non-infringing substitutes Netflix believes would be acceptable. Implicitly, Netflix alleges that the Accused Netflix Functionalities do not infringe and are therefore non-infringing alternatives. As I explained in § XI of my report, it is my opinion that the Accused Netflix Functionalities do infringe the Asserted Claims of the Robocast Patents.

498. It is also my opinion, however, that Netflix has failed to describe whether its alleged NIAs would be adopted in part or in whole and does not provide support for any of its claimed estimation of time or cost to implement such changes, or to recapture the benefits lost from making those changes. Further, for these changes, Netflix has offered no opinions why such one or more NIAs would be *acceptable*. In particular, Netflix has not cited any evidence—or even alleged—that these non-infringing alternatives could have been deployed at the scale Netflix was operating at during the hypothetical negotiation or would have performed at the massive scales needed by Netflix.

499. More specifically, Netflix iterates several proposed, alleged non-infringing alternatives. I discuss each below.

A. Netflix Alleged Non-Infringing Alternative: Use the prior member experience before introduction of the autoplay functionality during Post-Play.

500. Netflix alleges that one potential alleged non-infringing alternative is to "**use the prior member experience before introduction of the autoplay functionality during Post-Play**."

Netflix alleges this would apply to all asserted claims. In essence, Netflix would remove the autoplay functionality, thereby requiring user interaction for a follow-on video to play if displayed during Post-Play. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play. The purpose of autoplay during Post-Play was to automate the playing of the next media thereby increasing viewer usage and exposure to differing titles in Netflix's catalog. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, I note that Netflix, after introducing the feature on August 15, 2012, has not significantly modified or removed it from any versions of the Netflix Service after introduction. To the contrary, many Netflix documents underscore the value of autoplay during the Post-Play experience. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015.

501. Netflix cites asserts multiple purported options for enabling this alleged non-infringing alternative. First, Netflix alleges that, on the eve of infringement, Netflix could have chosen not to implement the autoplay functionality of Post-Play. I disagree that this could be a method of implementing a non-infringing alternative because it is clear Netflix was motivated to implement autoplay on Post-Play, and it would not have cost Netflix "nothing to implement" because it does not account for the costs Netflix would have accrued in developing the autoplay functionality that it would have supposedly decided not to implement after all of the design, testing, and quality assurance that it undertook right before enabling the autoplay functionality.

502. Netflix also claims that it could have implemented this purported alternative [redacted]

[redacted] having familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012." It is my opinion that this drastically underestimates the time required and Netflix has not provided sufficient specificity to determine the actual cost. For example, reverting the code back to a version prior to enabling the autoplay feature means that it is possible the rest of the code base could have been reverted back. If additional new functionalities were implemented in the gap between the two versions of code, Netflix would be required to test and/or modify the reverted-to code base to ensure the change would not break any other added implementations.

503. Likewise, Netflix asserts another way to implement this alleged non-infringing alternative would have been to [redacted] and identifies the same cost factors as its other implementation approach, above. I disagree for the reasons I just pointed out, that Netflix has failed to account for other costs and testing that would be required in order to enable the change. Further, it is my opinion that this would create potential issues later, as it appears Netflix is suggesting to just leave the implemented code dormant or unused. As the code base would continue to grow, this could add processing time to the code and is inconsistent with a proper coding methodology.

B. Netflix Alleged Non-Infringing Alternative: Do nothing at the end of the currently playing title

504. Netflix alleges that one potential alleged non-infringing alternative is to "[d]o nothing at the end of the currently playing title." Netflix alleges this would apply to all asserted claims. In essence, Netflix would remove the autoplay functionality, thereby requiring user interaction for a

follow-on video to play if displayed during Post-Play. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play. The purpose of autoplay during Post-Play was to automate the playing of the next media thereby increasing viewer usage and exposure to differing titles in Netflix's catalog *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, I note that Netflix, after introducing the feature on August 15, 2012, has not significantly modified or removed it from any versions of the Netflix Service after introduction. To the contrary, many Netflix documents underscore the value of autoplay during the Post-Play experience. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015.

505. Netflix claims this could have been implemented "with either no or only a de minimus effect on its commercial operation" but cites no evidence to explain that assertion or explains how the benefits it receives from autoplay during the Post-Play experience would be re-captured.

506. Netflix contends that "Implementing this non-infringing alternative would have cost very little, as it would have required [redacted]." To make

this modification, Netflix contends that "[m]aking this change, such as in the manner described, [redacted] with familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012." But Netflix ignores that further testing, design, and quality assurance steps likely are required, and does not go into detail [redacted]. Further, [redacted] which is poor code design and not something that a major corporation like Netflix would have done.

C. Netflix Alleged Non-Infringing Alternative: Require the member to provide input to advance to the next title

507. Netflix alleges that one potential alleged non-infringing alternative is to "[r]equire the member to provide input to advance to the next title." Netflix alleges this would apply to all asserted claims. In essence, Netflix would remove the autoplay functionality, thereby requiring user interaction for a follow-on video to play if displayed during Post-Play. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play. The purpose of autoplay during Post-Play was to automate the playing of the next media thereby increasing viewer usage and exposure to differing titles in Netflix's catalog. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, I note that Netflix, after introducing the feature on August 15, 2012, has not significantly modified or removed it from any versions of the Netflix Service after introduction. To the contrary, many Netflix documents underscore the value of autoplay during the Post-Play experience. *See*

NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015.

508. Netflix identifies two approaches it would potentially take in implementing this alleged alternative. First, one approach Netflix proposes "would have been to remove the autoplay countdown during Post-Play and leave simply the displayed thumbnail (shown with a 'play' button) for the member to click on to advance to the next title." Netflix indicates that this change "would have cost very little, [redacted]." Regarding the alleged costs, Netflix states that "[m]aking this change, such as in the manner described, [redacted] with the necessary experience to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012."

509. The second approach Netflix considers is "for Netflix to design a separate button for members to click in order to advance to the next episode. [redacted]

[redacted] Regarding the alleged costs, Netflix states that "[m]aking this change, such as in the manner described, [redacted] with familiarity with work in this area to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012. As a conservative estimate, [redacted] would have received an annual average cash compensation at Netflix of approximately $120K in 2012."

510. In my opinion, both of these approaches, and their alleged costs, fail to account for the actual complexity of undertaking a design change of this even purportedly small magnitude. Notably, Netflix has not shown any instances of where any similarly scoped proposed change took the same amount of time as here. Additionally, as I state above, these design changes require further testing than Netflix states, in my opinion, and I have seen no evidence that Netflix tests very little in implementing final changes to source code.

D. Netflix Alleged Non-Infringing Alternative: Turn off the autoplay functionality during Post-Play as a default, similar to the implemented option for users to disable "Autoplay Next Episode."

511. Netflix alleges that one potential alleged non-infringing alternative is to "[t]urn off the autoplay functionality during Post-Play as a default, similar to the implemented option for users to disable "Autoplay Next Episode." Netflix alleges this would apply to all asserted claims. In essence, Netflix would remove the autoplay functionality being on as default, thereby requiring user interaction for a follow-on video to play if displayed during Post-Play or for a user to simply turn the feature on. First, I disagree that this would not infringe. I understand that infringement can

occur where an infringing instrumentality is reasonably capable of infringing. Given that Netflix would provide every aspect of the functionality to its users, and permit infringement simply by the changing of a setting, it is possible that this alternative could still infringe. Netflix has not described with sufficient detail how its implementation would work, and therefore I am unable to analyze whether infringement exists in this proposed, hypothetical alternative. Further, I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play. The purpose of autoplay during Post-Play was to automate the playing of the next media thereby increasing viewer usage and exposure to differing titles in Netflix's catalog. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, I note that Netflix, after introducing the feature on August 15, 2012, has not significantly modified or removed it from any versions of the Netflix Service after introduction. To the contrary, many Netflix documents underscore the value of autoplay during the Post-Play experience. *See* NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015.

512. Netflix claims this could have been implemented "with either no or only a de minimus effect on its commercial operation" but cites no evidence to explain that assertion or explains how the benefits it receives from autoplay during the Post-Play experience would be re-captured.

513. Netflix indicates that this purported alternative "would also have been available for Netflix to implement as of the time of the hypothetical negotiation, as it is an added functionality that would not have been technically complex to implement. Making this change, such as in the manner described, [redacted]

[redacted]

514. I disagree with Netflix's estimate for the same reasons I disagree with their other estimates, above. Further, it is unclear how Netflix contends that [redacted] while still being an alleged non-infringing alternative, given that autoplay was first introduced on August 15, 2012.

E. Netflix Alleged Non-Infringing Alternative: Remove Post-Play experiences allegedly autoplaying "promotions" for content (e.g., trailers, teasers, or previews).

515. Netflix alleges that one potential alleged non-infringing alternative is to "[r]emove Post-Play experiences allegedly autoplaying "promotions" for content (e.g., trailers, teasers, or previews)." Netflix alleges this would apply to all asserted claims that involve inserting a dynamic content, advertising messages, or advertising content. In essence, Netflix would remove the the ability to make recommendations or promotions of content during its Post-Play experience, thereby undercutting its ability to cross merchandise titles in its library. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play with promotions for content, given the Netflix documentation that identifies the benefits of providing these promotions to its members. NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, doing so would nullify part of the technical benefits (as described above) for the asserted patents.

516. Netflix claims this could have been implemented "with either no or only a de minimus effect on its commercial operation" but cites no evidence to explain that assertion or explains how the benefits it receives from these promotions during the Post-Play experience would be re-captured.

517. Netflix alleges that "[a]t the time of the first launch of the autoplay functionality during Post-Play on web and PS3 (an instance of TVUI) on August 15, 2012, Post-Play included two experiences: (1) presenting the autoplay functionality to play the next episode for when the member was in between episodes of a TV series, or (2) presenting three static recommendations requiring the member or at the end of a movie. [] Neither of these experiences included the Post-Play experiences that [] autoplayed "promotions" for content (e.g., trailers, teasers, or previews)[.] … Thus, at this time, a non-infringing alternative would have been for Netflix to simply choose not to introduce these kinds of Post-Play experiences. This alternative would have cost Netflix nothing to implement." But it designed its post-play experiences following that to include promotions, and found benefit to doing so. And that code exists in the product today and as of the date of release of the code. Thus, it could not simply revert to the old code base without cost. To the contrary, a full reversion as suggested would likely be very time intensive and costly.

F. Netflix Alleged Non-Infringing Alternative: Remove recommendations based on the member's profile from allegedly autoplaying Post-Play experiences

518. Netflix alleges that one potential alleged non-infringing alternative is to "[r]emove recommendations based on the member's profile from allegedly autoplaying Post-Play experiences." Netflix alleges this would apply to all asserted claims that involve the user's profile. In essence, Netflix would remove the ability to make recommendations based on the user's profile, thereby undercutting its ability to make informed recommendations to the user. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative

to the use of Auto-Play with Post Play with user-informed recommendations, given the Netflix documentation that identifies the benefits of providing these recommendations to its members. NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Additionally, this is inconsistent with the state of the market for reocmmendations and promoting content generally, where there is a heavy focus on making recommendations ***more*** user-focused, not less. Further, doing so would nullify part of the technical benefits (as described above) for the asserted patents.

519. Netflix claims this could have been implemented "with either no or only a de minimus effect on its commercial operation" but cites no evidence to explain that assertion or explains how the benefits it receives from these recommendations during the Post-Play experience would be re-captured.

520. Netflix alleges that "[a]t the time of the first launch of the autoplay functionality during Post-Play on web and PS3 (an instance of TVUI) on August 15, 2012, Post-Play presented three static recommendations to the member based on, for example, what members who watched the concluded title tended to watch as a next title. These were not recommendations based on the member's profile. Thus, at this time, a non-infringing alternative would have been for Netflix to simply continue to do the same, instead of generating recommendations based on the member's profile. This alternative would have cost Netflix nothing to implement." But it designed its post-play experiences following that to include recommendations based on the user's profile, and found benefit to doing so. And that code exists in the product today and as of the date of release of the code. Thus, it could not simply revert to the old code base without cost. To the contrary, a full reversion as suggested would likely be very time intensive and costly.

G. Netflix Alleged Non-Infringing Alternative: Display only one alleged resource at a time

521. Netflix alleges that one potential alleged non-infringing alternative is to "[d]isplay only one alleged resource at a time." Netflix alleges this would apply to all asserted claims that involving the "multidimensional show structure" claim language. In essence, Netflix would remove the ability to show more than one multiple titles or content, and limit it to just one. I disagree that this is a non-infringing ***alternative***, and certainly not a commercially acceptable or adequate alternative to the use of Auto-Play with Post Play where multiple resources are shown to the member, given the Netflix documentation that identifies the benefits of providing these recommendations to its members, including for example its multi-title experience. NFLX_0000001 – 040, NFLX_0047828-006, NFLX_0032323-339, NFLX_0055387-407, NFLX_0097085-002, NFLX_0047884-914, NFLX_0085830-015. Further, doing so would nullify part of the technical benefits (as described above) for the asserted patents.

522. Netflix claims this could have been implemented "with either no or only a de minimus effect on its commercial operation" but cites no evidence to explain that assertion or explains how the benefits it receives from these recommendations during the Post-Play experience would be re-captured.

523. Netflix alleges that it could make a change such that "instead of showing multiple alleged resources or an alleged "picture-in-picture," Netflix could show a full-screen autoplay countdowns to the next alleged resource while displaying an indication of the next alleged resource to be played (e.g., box art), such that only one alleged resource is displayed at a time." As to cost, it further alleges that "[i]mplementing this non-infringing alternative would have cost little, [redacted]. At the time of the first launch of the autoplay functionality during Post-Play on August 15, 2012, the autoplay functionality was only available on web and PS3; [redacted]

[redacted] with the necessary experience to implement this non-infringing alternative would have received an annual average cash compensation at Netflix of approximately $120K in 2012."

524. In my opinion, this alleged approach and the alleged costs to implement, fail to account for the actual complexity of undertaking a design change of this even purportedly small magnitude. Notably, Netflix has not shown any instances of where any similarly scoped proposed change took the same amount of time as here. Additionally, as I state above, these design changes require further testing than Netflix states, in my opinion, and I have seen no evidence that Netflix tests very little in implementing final changes to source code.

XVI. TECHNICAL COMPARABILITY OF LICENSES

525. I have been asked to undertake certain analyses that I understand may be relevant to the damages assessment in this case. This includes analyses of several licenses relating to their alleged comparability or relevance. I present these below.

A. Robocast/Microsoft and Robocast/Apple Licenses.

526. I was asked to consider the patents and applications licensed in the Robocast/Microsoft Agreement, ROBOCAST000001-018, [redacted] I was likewise asked to consider the patents and applications licensed in the Robocast/Apple Agreement, ROBOCAST001969-981, [redacted] In doing so, I was

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBOCAST, INC., **Plaintiff and Counterclaim Defendant,** **v.** **NETFLIX, INC.,** **Defendant and Counterclaim Plaintiff.**	**Civil Action No. 1:22-cv-00305- JLH-CJB** **JURY TRIAL DEMANDED**

[PROPOSED] ORDER GRANTING LETTER MOTION TO STRIKE CERTAIN PORTIONS OF THE EXPERT REPORTS OF DR. AVIEL RUBIN AND MR. CHRISTOPHER MARTINEZ

Before the Court is Plaintiff Robocast, Inc.'s Letter Motion to Strike Certain Portions of the Expert Reports of Dr. Aviel Rubin and Mr. Christopher Martinez. Upon consideration the Court finds that the Motion is hereby GRANTED and orders the following relief:

- Concerning reliance on a late-disclosed declaration from a third party, the following portions of expert reports are struck and the experts are precluded from testifying on the matters therein:
    - Paragraphs 327-28 of the Expert Report of Dr. Aviel D. Rubin on Invalidity of U.S. Patent Nos. 7,155,451; 8,606,819; 8,965,932, served by Netflix on June 14, 2024;
    - Paragraphs 322, 323, and 338 of the Reply Expert Report of Dr. Aviel D. Rubin on Invalidity of U.S. Patent Nos. 7,155,451; 8,606,819; 8,965,932, served by Netflix on August 6, 2024.

- Concerning Netflix's experts' opinions on late-disclosed non-infringing alternatives theories, the following portions of expert reports are struck and the experts are precluded from testifying on the matters therein:
    - Paragraphs 614-753 of the Expert Report of Aviel D. Rubin, Ph.D. Non-Infringement of U.S. Patent Nos. 7,155,451, 8,606,819, 8,965,932 served by Netflix on July 11, 2024;
    - Paragraphs 197-201 and Schedules 16.0-16.3 of the Rebuttal Expert Report of Christopher A. Martinez with Respect to Damages, served by Netflix on July 11, 2024.

SO ORDERED, _____ day of _____ 2024.

_____
HONORABLE CHRISTOPHER J. BURKE

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on September 24, 2024, copies of the attached document were served via electronic mail on all counsel of record.

/s/ Stephen B. Brauerman
Stephen B. Brauerman

Other Documents

1:22-cv-00305-JLH Robocast, Inc. v. Netflix, Inc.

Motion-CJB,PATENT

U.S. District Court

District of Delaware

Notice of Electronic Filing

The following transaction was entered by Brauerman, Stephen on 9/24/2024 at 5:03 PM EDT and filed on 9/24/2024

Case Name: Robocast, Inc. v. Netflix, Inc.
Case Number: 1:22-cv-00305-JLH
Filer:
Document Number: 349

Docket Text:
[SEALED] Letter to The Honorable Christopher J. Burke from Stephen B. Brauerman regarding Motion to Strike Certain Portions of the Expert Reports of Dr. Aviel Rubin and Mr. Christopher Martinez - re [344] Oral Order,,,,,,,,,,. (Attachments: # (1) Exhibit 1, # (2) Exhibit 2, # (3) Exhibit 3, # (4) Exhibit 4, # (5) Exhibit 5, # (6) Exhibit 6, # (7) Exhibit 7, # (8) Exhibit 8, # (9) Exhibit 9, # (10) Exhibit 10, # (11) Exhibit 11, # (12) Exhibit 12, # (13) Exhibit 13, # (14) Exhibit 14, # (15) Exhibit 15, # (16) Exhibit 16, # (17) Exhibit 17, # (18) Exhibit 18, # (19) Exhibit 19, # (20) Exhibit 20, # (21) Exhibit 21, # (22) [Proposed] Order, # (23) Certificate of Service)(Brauerman, Stephen)

1:22-cv-00305-JLH Notice has been electronically mailed to:

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1:22-cv-00305-JLH Filer will deliver document by other means to:

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