

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SLACK TECHNOLOGIES, LLC. and
SALESFORCE, INC.,
Petitioners,

v.

WRINKL, INC.,
Patent Owner

IPR2024-01489
U.S. Patent No. 11,973,731

Reply Declaration of Andrew Cockburn
For *Inter Partes* Review of U.S. Patent No. 11,973,731

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I. Introduction

A. Engagement

1. I have been retained by Slack Technologies, LLC and Salesforce, Inc. (collectively, “Petitioners”) as an expert in connection with Petitioners’ Petition for *Inter Partes* Review of U.S. Patent Number 11,973,731 (the “’731 Patent”). I have been asked to analyze the ’731 Patent and its claims, provide a description of the state of the art of the technology described in the ’731 Patent, and compare the claims of the ’731 Patent to certain references discussed below, which I understand are prior art to the ’731 Patent. I submitted my original Declaration explaining the above analysis in this proceeding on September 26, 2024, and I understand that Declaration was designated as Exh-1003 (“Original Declaration”).
2. I provide herein my opinions to U.S. Patent App. Nos. 16/746,412 (“’412 Application”) and 16/712,952 (“’952 Application”).

B. Background and Qualifications

3. My background and qualifications were provided in my Original Declaration (¶¶6–19) and in Exh-1004.

C. Compensation and Prior Testimony

4. I am being compensated at an hourly rate of \$600/hour for my work on this declaration. My compensation is not contingent on the outcome of this case or the testimony I provide, and the opinions provided here are my own.

D. Information Considered

5. My opinions are based on my years of education, research, and experience, as well as my investigation and study of relevant materials. In forming my opinions, I have considered the materials discussed herein as well as those listed in **Appendix A** to this Declaration.
6. My analysis of the materials produced in this investigation is ongoing and I will continue to review any new material as it becomes relevant to this case.
7. I may supplement and/or amend the opinions expressed here in response to positions taken by the Patent Owner or experts retained on Patent Owner’s behalf. To amplify what is stated here, where necessary, and especially in view of information not presently known to me or new information

presented by the Patent Owner prior to, or during trial for *Inter Partes* Review in this matter, I reserve the right to supplement and/or amend this declaration should additional information be brought to my attention during the course of this proceeding.

E. Legal Standards for Patentability

8. I have been informed of the general legal principles for determining whether patent claims are patentable over the prior art and satisfy the written description requirement, as discussed in my Original Declaration (¶¶26–30).

II. Specific Rebuttals to the Almeroth Declaration

A. Claim Construction

9. As I explained in my Original Declaration, I have interpreted the claims of the '731 Patent based on their plain and ordinary meaning from the point of view of a person having ordinary skill in the art at the time of the alleged invention (“PHOSITA”).

B. Level of Skill in the Art

10. The Almeroth Declaration sets forth opinions on the level of ordinary skill that I believe misrepresent the expertise that would have been typical in the relevant art. Dr. Almeroth characterizes a PHOSITA as someone with only a bachelor’s degree in computer science and two years of experience in *general communications software*. Ex. 2018, ¶¶30–31. In my view, that description is far too narrow.
11. The '731 Patent concerns the design and implementation of multi-pane, thread-based messaging interfaces, a field rooted in human-computer interaction, user-interface engineering, and collaborative communication systems, not merely in basic networking or backend software. By 2015, professionals working in this area routinely possessed specialized experience developing and evaluating interactive graphical user interfaces for real-time messaging and collaboration platforms. Accordingly, a PHOSITA would have had both formal training and several years of hands-on experience in graphical interface design and usability—precisely the background that enables understanding of the claimed invention. Dr. Almeroth’s narrower definition artificially lowers the standard and leads him to underestimate what such an artisan would have recognized as conventional or obvious in 2015

12. The Almeroth Declaration sets forth opinions on how a PHOSITA would understand the claim terms based on their alleged plain and ordinary meaning, as well as on the prior art references cited in Petitioner’s Petition that, in Dr. Almeroth’s view, do not render the ’731 Patent unpatentable. I disagree with the Almeroth Declaration as set forth below.

C. Cohen Publication

13. I understand that neither Dr. Almeroth nor Patent Owner has challenged my analysis that U.S. Publication No. 2017/0134316 (“Cohen”) (Exh-1005) satisfies each claim element of the claims of the ’731 Patent. *See generally*, Ex-2018; Patent Owner Response, Paper 16. I further understand that, by relying on the green priority chain, Patent Owner has effectively conceded that Cohen discloses each element of the claims of the ’731 Patent. Patent Owner Response, Paper 16, 2.

III. The Break in the Green Priority Chain

A. The ’412 Application

14. I have been asked to review U.S. Patent Application No. 16/746,412 (“’412 Application”). Specifically, I have been asked to analyze whether the ’412 Application, based solely on the four corners of the application, discloses the simultaneous display (“viewable simultaneously”) of three panes, with the third pane constituting a subsidiary communication thread—a limitation required by each of the four independent claims of the ’731 Patent. *See* Ex-2014, Cls. 1, 15, 25, 30. It does not.
15. The ’412 Application, titled *Apparatus and Method for Message Image Reference Management*, primarily teaches referencing objects (e.g., images) and composing direct replies to specific messages, all within a single continuous message stream. *See id.*, Abstract; 3:45–57. This stands in contrast to the ’731 Patent, titled *System and Methods for Subsidiary Channel-Based Thread Communications*, which is directed to creating and displaying simultaneous subsidiary threads that allow users to communicate within distinct thread panes. *See* Exh-1001, Abstract.
16. Independent claims 1, 15, and 25 of the ’731 Patent each specify that a “third pane” is required to display the “first messaging communication” within a “first subsidiary communication thread” that includes an anchor message and any additional messaging communications, along with an associated sidebar text-entry field distinct from the channel text-entry field.

The claims further require that the third pane and its sidebar text-entry field be displayed simultaneously alongside the first pane, second pane, and channel text-entry field. In contrast, the '412 Application consistently characterizes its interface as a single conversation stream, showing a message and any related or "linked" message sequentially within that same stream. *See* Ex-2014, Abstract; 3:45–57. A user may select a reference object to view or generate a linked message, but the prior message is merely retrieved or overlaid—not displayed concurrently in a separate visual region or pane. *See, e.g., id.*, Figs. 13A–13D, 16A–16F.

17. Independent claim 30 of the '731 Patent further requires "rendering of the subsidiary thread communication to a thread communication pane within the communication interface, wherein a list pane, the messaging pane, and the thread communication pane are configured to be rendered within a defined display window as viewable simultaneously" (i.e., three panes). No such rendering of three concurrently viewable panes—where the third pane permits a user to invoke or engage in a subsidiary communication thread—is taught or shown in the '412 Application.
18. At most, the '412 Application discloses a multi-stage interface that allows a user to select an action object which opens a new window or overlay, as shown in Figures 17C–17D. *See id.*, Figs. 17C, 17D. However, this does not amount to a "third pane" constituting a subsidiary communication thread. There is no disclosure of a distinct pane dedicated to a subsidiary or thread-based exchange that allows multiple related messages to be created and viewed concurrently within that pane. For example, Figures 17C and 17D merely permit a user to invoke a "first action object" to write and save a review—a single, stand-alone interaction unrelated to any ongoing conversational thread. *See id.*, 25:63–26:9, Figs. 17C, 17D. This process is fundamentally different from initiating or rendering a subsidiary communication thread within a concurrently viewable pane. Even if generously construed, this could be analogized to a temporary overlay or pop-up text-entry field, but not to a concurrently viewable third pane dedicated to subsidiary thread communications.
19. Moreover, the figures consistently depict a unified messaging display occasionally accompanied by an input field for replies or comments. *See, e.g., id.*, Figs. 24–33, 45–50. Even in these embodiments, the interface remains a two-region layout (the main message area and a reply/comment overlay), not a third pane displayed side-by-side. The '412 Application

explicitly explains that a “further” or “linked” message appears “as part of the continuous stream of messages.” *Id.*, 3:45–57.

20. The described “further message” is transmitted and displayed in the same continuous sequence as prior messages. *See id.*, 7:28–53. When a user selects a reference link, the associated content merely replaces or temporarily overlays the existing display rather than appearing in a concurrently viewable pane. *See, e.g., id.*, Figs. 8A–8D, 13A–13D.
21. Neither the specification nor any figure discloses or illustrates three concurrently viewable panes—such as a third dedicated “thread” pane displayed simultaneously with a main messaging pane and a list pane. All embodiments are limited to sequential or single-pane message displays, optionally with transient overlays.
22. Therefore, a PHOSITA would **not** understand the ’412 Application to adequately disclose or provide a written description supporting the limitations recited in the independent claims of the ’731 Patent.

IV. An Alternative Break

A. The ’952 Application

23. I have also been asked to review U.S. Patent Application No. 16/712,952 (“’952 Application”) to determine whether, based solely on the four corners of the application, it discloses the simultaneous display (i.e., “viewable simultaneously”) of three panes, with the third pane functioning as a subsidiary communication thread—a limitation required by each of the four independent claims of the ’731 Patent. *See* Exh-1001, Cls. 1, 15, 25, 30. Likewise, it does not.
24. The ’952 Application, titled *Apparatus and Method for Message Reference Management*, embodies the same underlying concept as the later ’412 Application—a message-referencing framework in which users can identify portions of prior messages and generate “reference objects” that link those messages within a single continuous message stream. *See* Ex-1024, Abstract. The system then allows the referenced content to be displayed within the same message stream when a link or “display object” is selected. *See id.*, 4:49–5:4; Figs. 4–5. As with the ’412 Application, these features are implemented within a single continuous messaging window that displays a chronological “stream” of messages, rather than multiple concurrently viewable panes. *See id.*, 1:27–41.

25. The figures in the '952 Application confirm that all communications occur within one unified interface. *See, e.g.*, Figs. 8A–8D, 10A–10C, 11A–11D, and 13A–13D. Messages and any referenced or “linked” messages are shown in the same columnar message stream, occasionally accompanied by a pop-up or overlay (“Ref Pop”) when a user selects a referenced message. *See id.*, 12:38–46. A PHOSITA would understand these pop-ups to be temporary overlays, not a simultaneously viewable pane functioning as a subsidiary communication thread. *See id.*
26. Nothing in the '952 Application’s disclosure suggests a multi-pane or side-by-side configuration. *See generally*, Ex-1024. The '952 Application allows a user to view related messages, images, or other content only through selection-based navigation or temporary overlays, rather than by displaying multiple panes concurrently. *See generally, id.*
27. Accordingly, the '952 Application, like the '412 Application, fails to disclose any third pane that concurrently displays a subsidiary communication thread alongside a main messaging pane and a list pane.
28. Therefore, a PHOSITA would **not** understand the '952 Application to adequately disclose or provide a written description supporting the limitations recited in the independent claims of the '731 Patent.

V. Conclusion

29. For the foregoing reasons, I believe that the '412 and '952 Applications fail to provide the required written description support for the claimed three-pane, with the third pane containing a subsidiary communication thread.
30. I reserve the right to supplement my opinions in the future to respond to any arguments raised by Patent Owner or its experts and to take into account new information that becomes available to me.
31. I declare under penalty of perjury that all statements made herein are of my own knowledge and are true and correct and were made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: November 5, 2025



Andrew Cockburn

APPENDIX A: Information Considered

<i>Petitioners’ Exhibit No.</i>	<i>Description</i>
1001	U.S. Patent No. 11,973,731 to Cohen
1002	File History for Application No. 18/535,572
1003	Declaration of Andrew Cockburn
1004	<i>Curriculum Vitae</i> of Andrew Cockburn
1005	U.S. Pub. No. 2017/0134316 (“Cohen”)
1006	Return of Service in Related Action
1007	Complaint in Related Action
1008	Scheduling Order in Related Action
1009	Provisional Application No. 62/253,229
1010	Quentin Jones, et al. “Empirical Evidence of Information Overload Constraining Chat Channel Community Interactions.” In Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work (CSCW ‘08), Association for Computing Machinery, New York, NY, USA, 323–332 (2008)
1011	U.S. Patent Application No. 15/293,620
1012	U.S. Patent No. 9,712,466
1013	U.S. Application No. 15/858,696
1014	U.S. Patent No. 10,025,475
1015	U.S. Provisional Application No. 62/666,137
1016	U.S. Application No. 16/014,578
1017	U.S. Patent No. 11,388,120

<i>Petitioners' Exhibit No.</i>	<i>Description</i>
1018	Thomas F. Stafford and Dennis Gonier, <i>What Americans Like About Being Online</i> , 47 Communications of the ACM, 107, 107–12 (2004)
1019	Petitioners' Reasons for Parallel Petitions and Petition Ranking
1020	Declaration of Christopher Kao In Support of Petitioners' Unopposed Motion for Admission Pro Hac Vice of Christopher Kao
1021	Declaration of Brock Weber In Support of Petitioners' Unopposed Motion for Admission Pro Hac Vice of Brock Weber
1022	Rely Declaration of Andrew Cockburn
1023	Transcript of Deposition of Kevin C. Almeroth, October 28, 2025
1024	U.S. Patent App. No. 16/712,952 to Cohen

<i>Wrinkl's Exhibit No.</i>	<i>Description</i>
2001-2003	RESERVED
2004	Curriculum Vitae of Dr. Kevin C. Almeroth
2005-2010	RESERVED
2011	U.S. Patent Application Publication No. 2023/0094375
2012	U.S. Patent No. 11,522,821
2013	U.S. Patent No. 10,805,247
2014	U.S. Patent No. 10,999,226

<i>Wrinkl's Exhibit No.</i>	<i>Description</i>
2015	U.S. Patent No. 10,547,575
2016	U.S. Patent No. 10,009,300
2017	U.S. Patent Application No. 15/609,663
2018	Expert Declaration of Dr. Kevin C. Almeroth
2019	U.S. Provisional Patent Application No. 62/358,719

<i>Papers</i>	<i>Description</i>
16	Patent Owner's Response