

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,

Petitioner,

v.

JAWBONE INNOVATIONS, LLC,

Patent Owner.

Case No. IPR2023-01131
U.S. Patent No. 8,326,611

DECLARATION OF DAVID V. ANDERSON

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I. INTRODUCTION

1. I have been retained Google LLC (“Google” or “Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office.

2. I am over 21 years of age and, if I am called upon to do so, I would be competent to testify as to the matters set forth herein.

3. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of any proceeding.

4. I understand that this proceeding involves U.S. Patent No. 8,326,611 (“the ’611 patent,” EX. 1001). The application for the ’611 patent was filed on October 26, 2009, as U.S. Patent Application No. 12/606,140 (“the ’140 application”). The ’140 application issued as the ’611 patent on December 4, 2012.

5. The ’611 patent was a continuation-in-part of applications filed on May 25, 2007, and June 13, 2008, and claims priority to a provisional application, U.S. Provisional Patent Application No. 61/108,426, filed on October 24, 2008.

6. I have been asked by Petitioner to provide my opinion whether the claims of the ’611 patent would have been obvious to a person of ordinary skill in the art at the time of the earliest claimed priority date of the ’611 patent. In

performing my analysis, I have been asked to assume that the priority date is October 24, 2008. My opinions are set forth below.

7. I understand that Amazon.com, Inc. (“Amazon”) filed an *inter partes* review petition (“Amazon’s petition”) against claims 1-28 of the ’611 patent, and that the Patent Trial and Appeal Board instituted Amazon’s petition on June 7, 2023. *See* EX. 1019, *Amazon.com, Inc. v. Jawbone Innovations, LLC*, IPR2023-00286, Paper 10 (“Amazon IPR”). I understand that Google petitions for *inter partes* review of the same claims of the ’611 patent as the Amazon IPR and joinder to Amazon’s IPR. I submit this declaration in support of Google’s petition for *inter partes* review.

8. Throughout this declaration, I refer to specific pages, figures, and/or line numbers of various exhibits. These citations are illustrative and are not intended to suggest that they are the only support for the propositions for which they are cited.

II. QUALIFICATIONS

9. I am a professor in the School of Electrical and Computer Engineering at the Georgia Institute of Technology (“Georgia Tech”) in Atlanta, Georgia. I received my Ph.D. in Electrical and Computer Engineering from Georgia Tech, and I received my B.S. and M.S. in Electrical Engineering from Brigham Young University. Prior to my time at Georgia Tech, I worked in the field of speech and

audio signal processing designing and implementing signal processing methods for hearing aids at Sonic Innovations 1993-1994. From 1994-1999, I performed research in audio signal processing, specializing in speech enhancement. During that time, I also worked as a consultant to multiple companies developing algorithms for general speech enhancement in wireless telephone systems, speech quality assessment, and speech detection. This work led to the filing and issuance of several patents including one on speech detection in noise and one on speech enhancement (noise removal from speech).

10. In my employment prior to Georgia Tech, as well as in my subsequent studies and research, I have worked extensively in areas related to research, design, and implementation of audio and speech processing algorithms and in speech enhancement. I have designed and taught a graduate course on adaptive signal processing, which includes the topics of estimating transfer functions, correlation, using cross-correlation to estimate signal similarity and to compute transfer functions, and extracting signals of interest from noisy signals. I have also taught graduate and undergraduate level courses at Georgia Tech on the implementation of signal processing theory, algorithms, implementation, and software. For example, I have taught courses on multimedia processing and systems, machine learning for speech, pattern recognition, software design, and signal processing applications (covering topics in audio processing, speech detection, speech

processing, and speech recognition). These courses and my research have covered many topics relevant to the subject matter of the '611 patent and the cited prior art.

11. I also have extensive experience with the practical implementation of signal processing algorithms, information theory, signal detection, and related topics through my research and consulting.

12. A copy of my CV, including a list of recent litigations I have testified in, is attached as Exhibit 1018. My compensation is not contingent upon the outcome of this *inter partes* review or any other proceeding.

III. MATERIALS CONSIDERED

13. In forming my opinions, I have reviewed the following documents, and any other document cited in this declaration:

Exhibit	Description
EX. 1001	U.S. Patent No. 8,326,611 to Petit <i>et al.</i> (“the '611 patent”)
EX. 1002	Excerpts from the Prosecution History of the '611 patent (“the Prosecution History”)
EX. 1003	Declaration of Dr. Thomas Kenny
EX. 1004	<i>Curriculum Vitae</i> of Dr. Thomas Kenny
EX. 1005	U.S. Patent No. 8,194,880 B2 (“Avendano '880”)
EX. 1006	U.S. Patent No. 7,464,029 B2 (“Visser”)
EX. 1007	RESERVED
EX. 1008	U.S. Patent No. 7,155,019 B2 (“Hou”)

Exhibit	Description
EX. 1009	Byrne, D, et al, “An international comparison of long-term average speech spectra,” 1994 Oct; J. Acoust. Soc. Am.; 96(4): 2108-2120 (“Byrne”).
EX. 1010	U.S. Publication No. US 2011/0103626 A1 (“Bisgaard”)
EX. 1011	U.S. Provisional App. No. 60/816,244 (“the Bisgaard Provisional”)
EX. 1012	U.S. Publication No. US 2002/0198705 A1 (“Burnett”)
EX. 1013	Berglund, B, et al, “Sources and effects of low-frequency noise,” 1996 May; J. Acoust. Soc. Am; 99(5): 2985-3002 (“Berglund”).
EX. 1014	Declaration of June Ann Munford
EX. 1015	Declaration of June Ann Munford – Appendix
EX. 1016	<i>Curriculum Vitae</i> of June Ann Munford
EX. 1019	<i>Amazon.com, Inc. v. Jawbone Innovations, LLC</i> , IPR2023-00286, Decision on Institution, Paper 10 (Jun. 7, 2023)

14. I have also relied on my education, experience, research, training, and knowledge in the relevant art, and my understanding of any applicable legal principles described in this declaration.

15. I also reviewed the Institution Decision issued by the Board in the Amazon IPR that instituted *inter partes* review of claims 1-28 of the '611 patent with respect to all grounds in Amazon's petition. *See* EX. 1019. I agree with the Board's reasoning in its Institution Decision, which concerns the same claims of the same '611 patent.

16. Moreover, I also reviewed and considered the declaration of Dr. Thomas W. Kenny (IPR2023-00286, Exhibit 1003) submitted in connection with Amazon's petition for *inter partes* review of the '611 patent in the Amazon IPR, including the materials and exhibits cited therein. I agree with, and hereby adopt and incorporate by reference, the opinions set forth in Dr. Kenny's declaration.

IV. CONCLUSION

17. This declaration is based on my present assessment of material and information currently available to me.

18. I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true. Further, these statements were made with the knowledge that willful false statements and the lie so made are punishable by fine, imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Respectfully submitted,

Date: June 28, 2023

By: _____

David V. Anderson