

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Duration Media, LLC

Petitioner,

v.

Rich Media Club LLC

Patent Owner.

US Patent No. 11,443,329

Filing Date: May 11, 2021

Issue Date: September 13, 2022

Title: System and Method for Creation, Distribution and Tracking of Advertising
Via Electronic Networks

Inter Partes Review No.: IPR2023-00953

**DECLARATION OF ROBERT SHERWOOD
IN SUPPORT OF PATENT OWNER'S RESPONSE TO THE PETITION**

Duration Media v. Rich Media Club
IPR 2023-00953 (Patent 11,443,329)

Rich Media Club Exhibit **2045**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Background and Qualifications	5
III.	Legal Principles	11
	A. Claim Construction	11
	B. Burden of Proof.....	13
	C. Anticipation.....	13
	D. Obviousness	13
IV.	Priority and Person of Ordinary Skill in the Art.....	16
V.	Overview of the Cited References.....	23
	A. I understand Krassner is a 102(e) Commonly Owned by the Entity that Owns the '329 Patent and Thus Subject to the Safe Harbor Provision of 103(c).....	23
	B. Badros (Exhibit 1003) Neither Claims Nor Teaches a “Viewable Impression”	24
	C. Harkins (Exhibit 1004) Is Non-Analogous Art Focused on Printing Ads on Credit Card Receipts.....	32
VI.	Opinions Regarding the Grounds in the Petition.....	33
	A. Ground 2 (Badros alone or optionally in view of Harkins) Does Not Render the Claims Anticipated or Obvious.....	33
VII.	Non-Obviousness Indicia.....	35
	A. Commercial success of a product due to the merits of the claimed invention.....	38
	B. Deliberate copying of the invention by others.	39
	C. Praise of the invention by others skilled in the art.	39
	D. Skepticism	43

E. Long-felt need for the invention.....	43
F. Failure of others to find the solution provided by the claimed <i>invention.</i>	47
G. Licensing	49
VIII. Conclusions.....	50

I, Robert Sherwood, hereby declare as follows:

I. Introduction

1. I am over the age of eighteen (18) years and otherwise competent to make this declaration.

2. I have been retained as an expert witness on behalf of Patent Owner for the above-captioned inter partes review (“IPR”). I understand that the petition for inter partes review involves U.S. Patent No 11,443,329 (“the ’329 Patent”).

3. I make this declaration based on my personal knowledge, educational background and training, consideration of the materials I discuss herein, and my expert opinions.

4. The consulting firm with which I work is being compensated at a rate of \$500 per hour for my time in this matter. My compensation does not depend on the outcome of this proceeding, and I have no financial interest in its outcome.

5. In preparing this Declaration, I have reviewed and considered the following materials:

ID Number	Document
1001	U.S. Patent No. 11,443,329
1002	U.S. Patent No. (Krassner)
1003	U.S. Patent No. (Badros)
1004	U.S. Patent App. No. (Harkins)

ID Number	Document
1009	Smedley Declaration
2004	U.S. Patent No. 11,195,210 Request for Continued Examination, 9/1/21 and Information Disclosure Statement 9/1/21
2005	U.S. Patent No. 11,195,210 B2 (Batkin)
2007	Smedley Deposition Exhibit - Comparison of Figure 51 '329 and Figure 3 Batkin.
2008	Copyleaks Plagiarism Report and Results for U.S. Patent No. 11,195,210
2009	Duration Media-RealVu License Cooperation Agreement (September 24, 2018)
2010	Smedley Deposition Exhibit – U.S. Application No. 20060224445 (March Badros)
2012	Smedley Deposition Exhibit – Declaration of Trevor Smedley from IPR2019-01000 (Match.com)
2013	RealVu Overlay
2014	Duration Media Overlay
2015	Assignment of Application 12/384,403 to Rich Media Club, LLC
2016	Assignment of Application 12/803,779 to Rich Media Club, LLC
2017	Smedley Deposition Exhibit - Media Ratings Council Accreditation Letter (April 13, 2010)
2018	MRC's Viewable Impression Advisory (Nov. 14, 2012)
2021	Smedley Deposition Exhibit - Proposed Claim Amendment 1
2022	Press - Duration Media
2023	Patent Information - Duration Media

ID Number	Document
2024	David Cohen - Curious Thoughts from Curious Minds: This Could Change Everything - David Cohen - MediaBizBloggers
2025	Declaration of Igor Tchibirev
2026	Declaration of Igor Tchibirev #2 (Under Seal)
2027	Declaration of Alan Edwards
2028	Smedley Deposition Exhibit - IAB Annual Report 2013
2029	Smedley Deposition Exhibit - Measurementnow.net homepage from Internet Archive ¹ 7-21-12
2030	Smedley Deposition Exhibit - Measurementnow.net FAQs from Internet Archive 7-22-12
2031	Smedley Deposition Exhibit - Measurementnow.net Who's Involved from Internet Archive 7-22-12
2032	Smedley Deposition Exhibit - Measurementnow.net Benefits from Internet Archive 7-22-12
2033	IAB - Our Story
2034	Media Rating Council homepage
2035	Smedley Deposition Exhibit - Volunteer Landing
2036	Smedley Deposition Exhibit - Think with Google – See How Viewability is Measured

¹ There are several documents I have reviewed that were obtained using the “Wayback Machine”/Internet Archive. I have used this database many times in the past and find that experts can typically rely upon the materials archived there as accurately reflecting how URLs appeared on the day they were captured by the internet archive organization. Specifically with regard to the materials in this case, I am not aware of any reason to doubt the accuracy of webpages printed out from the Internet Archive.

ID Number	Document
2037	Smedley Deposition Exhibit - Google Active View reporting metrics
2038	MRC's Update to Viewable Impression Advisory (June 12, 2013)
2039	MRC Accredited Viewability Verification Disclosure
2040	MRC Viewable Impression Advisory Update, November 2013
2041	MRC Lifts Viewable Impression Advisory for Display Advertising (March 31, 2014)
2042	RealVu Revolutionizes Internet Advertising Measurement With the Viewable Impression
2043	Inventors LinkedIn Profiles
2044	Expert Robert J. Sherwood CV
2045	Expert Declaration of Robert J. Sherwood (Under Seal)
2046	U.S. Patent No. 11,443,329 - RealVu Claim Chart
2047	U.S. Patent No. 11,443,329 - Duration Media VaaS Claim Chart
2048	U.S. Patent No. 11,443,329 - Duration Media HVAX Claim Chart
2049	U.S. Patent No. 11,443,329 - Duration Media Sequency Claim Chart
2050	Deposition Transcript of Trevor Smedley 10-25-23
2053	IAB 2004 Ad Guidelines
2054	Screenshots - Viewability Panel - IAB Ad Ops Summit
2055	Duration Interrogatory Response 1 (Under Seal)

ID Number	Document
2056	Duration Interrogatory Response 2
2057	MRC Accreditation Renewal Press Release
2058	Lume – Display Ad Tech Landscape
2059	DoubleVerify Aims to Police the Online Advertising World
2060	David Evans - The Online Advertising Industry: Economics, Evolution, and Privacy
2061	Harvard Business Review - The Dark Underbelly of Online Advertising
N/A	Prosecution History of the '329 Patent
N/A	<i>Volvo Penta of the Am's. v. Brunswick Corp.</i> , No. 2022-1765 (Fed. Cir. Aug. 24, 2023)
Paper 1	Petition
Paper 9	Institution Decision
Paper 29	Request for Discovery
Paper 31	Opposition to Request for Discovery

II. Background and Qualifications

6. My qualifications for forming the opinions given in this declaration are summarized here and are addressed more fully in my curriculum vitae, which is submitted as Exhibit 2044.

7. By way of experience, I am an expert on advertising on the Internet, advertising analytics, and the financial economics associated with advertising

spending. I was one of the early adopters of Internet advertising and have been involved in Internet advertising for more than 20 years.

8. As early as 1990, as Vice President of RasterOps, Inc., I developed and posted ads on the Internet to more than 5,000 retail computer dealers. When browsers were launched in approximately 1995, I developed and posted ads on dozens of websites. When pay-for-view and pay-per-click advertising was launched in 1998, I developed and purchased more than 10 million ad views and click throughs.

9. More specifically, in 1998, I designed, purchased, placed and analyzed more than 30 million ad impressions for a video mail company based in Saratoga, California.

10. I currently serve as president of Identimap, Inc. a. company that develops software for personality and culture analysis for talent identification and management. I am responsible for advertising this software for license or purchase on the Internet. I am the co-inventor of a provisional patent application submitted to the USPTO.

11. I have a Bachelor of Science degree in civil engineering and a Master of Science degree in Environmental Engineering, both from the University of Kansas. I also have a Master of Business Administration, with a major in operations research, from California State College, Hayward, and an honorary

doctorate from DeVry University. As a professor, I have taught technology management courses, at the University of Kansas and University of Missouri, and as a guest lecturer taught technology management at Stanford University.

12. I have been professionally involved with computer and software technology for more than 40 years. My computer science education began when I was assigned a project to develop a financial and engineering computer model that would run on a computer in Mountain View, California. As a part of this project, I hired a computer science professor from Brigham Young University to move to California for two years and assist me by teaching me everything he taught his college students on computer science.

13. I developed my first software program with FORTRAN and later used C++ and HTML. I was the first professional to design a software program that accessed a mainframe computer in Mountain View, California via telephone connection with an acoustic coupler from an office in London, England. This program was a client mainframe computer model that integrated complex engineering product designs from more than 30 different companies. I designed, directed and approved all the source code development for this computer program that integrated more than 50 products into a single program that used more than 2,700 computer aided design variables.

14. As early as 2004, Yahoo! engaged me as an internet advertising expert when Yahoo! sued Google and other firms for violation of the pay-per-click advertising patent, which was owned by Yahoo!. Yahoo! engaged me to analyze and report on the history and success of Internet advertising and testify at trial, a few years later, to my findings, including Secondary Considerations of Non-obviousness for U.S. Patent No. 6,209,361.

15. The American Management Association engaged me to develop content and conduct a two-day seminar on Internet advertising including impression fraud detection with banner ad placement. I presented this seminar to more than 2,500 professionals from more than 50 different companies. At this seminar, I explained and demonstrated how a banner ad could be rotated so fast a user could not recognize the ad, but the advertiser could charge fraudulent fees for serving non-viewable ads.

16. I designed and developed electronic commerce systems for tracking sales at multiple websites with secure servers for credit card acceptance and a confidential system for secure sales transactions. This includes developing algorithms located on websites for tracking on-line sales as a result of advertisement placement.

17. I have been active in developing systems for integrating ads with websites for my own software development and deployment, as well as acting as a

consultant to other firms. I have evaluated complex bidding algorithms for the real-time selection and placement of ads for both impressions and pay-per-click ad placement on numerous websites.

18. In one engagement, I examined more than 100 different publisher's websites where pay-for-click advertising or cost-per-impression advertising schemes were implemented. In another instance, I examined the matching of more than 300 publishers' website content with a related advertiser's products and/or services for \$20 million of on-line impression and cost-per-click advertising methods. The websites included popular website publishers such as CNN and The Wall Street Journal.

19. I have been engaged by prominent firms, such as Toyota, Lowe's, Harley Davidson, Google, Facebook, Yahoo! and Amazon to testify on online advertising matters including search technologies.

20. I was founder and President of SmartText Corporation. I directed an 18-person programmer development team in the introduction of an on-line software program to process large business document files. The company developed commercial software retail products under such names as LegalPoint, Kiplinger Small Business Attorney and Kiplinger Home Legal Advisor. The products were licensed to prominent firms such as H&R Block and Intuit Corporation. The products sold more than 2 million copies.

21. I have been a board member and consulted with dozens of companies on Internet advertising. For my work, I was awarded the Entrepreneur of The Year Award, which is sponsored by the Kauffman Foundation, NASDAQ, Ernst and Young and INC magazine.

22. I was president and co-founder of EDC, Inc., a company backed by Kleiner Perkins, a leading San Francisco Bay Area venture capital firm. The company was highlighted in Business Week and Fortune Magazine and was selected as one of the ten most innovative companies in California.

23. I have consulted for both plaintiffs and defendants in litigation matters regarding software development, advertising, patents and related technology issues. I have written more than 50 expert reports and have testified at trial or depositions on approximately 30 occasions. I provide consulting services to private and public corporations, law firms, venture capital firms, and government institutions.

24. My work is based on my professional experience and materials that I have examined. I have specialized knowledge of the matters set forth herein, and if called as a witness I could and would testify competently thereto. My research and analysis of the materials, documents, allegations, and other facts in this case may be extended at the request of counsel, and if additional information becomes available in this action, I reserve the right to provide additional opinions.

III. Legal Principles

A. Claim Construction

25. I understand that the first step in performing a validity analysis of the patent claims is to interpret the meaning and scope of the claims by constructing the terms and phrases found in those claims. I understand that the appropriate construction of a claim term is its ordinary and accustomed meaning as understood by a person of ordinary skill in the art (“POSA”) at the time of the invention in the context of the entire patent and the prosecution history.

26. I understand that standard for claim construction in an *inter partes* review is the same standard as is applied in district court proceedings.

27. I understand that a determination of the meaning and scope of the claims is a matter of law. I have been informed that to determine the meaning of the claims, one should consider the intrinsic evidence, which includes the patent’s claims, written description, and prosecution history.

28. I understand the Petitioner proposed claim constructions for two terms “render” and “replacement advertisement.” Paper 1 at 10-11. The Petitioner’s proposed claim construction for the word “render” was not adopted by the Board in its Institution Decision. The Board instead adopted the following interpretation: “loading content so that it may be viewed, heard or otherwise

perceived by a viewer communicating electronically using a browser.” Paper 9 at

7. I agree with the Board’s interpretation of that term.

29. I understand the Petitioner proposed the following meaning for “replacement advertisement,” which was adopted by the Board: “a new ad/content rendered in place of a previous ad/content.” Paper 1 at 10-11; Paper 9 at 8. I also agree with this interpretation.

30. Petitioner also argued that the “in response to” limitation of claim 1 be interpreted as non-limiting. Paper 1 at 34-35. The Board rejected this position. Paper 9 at 8. The Board concluded the full element (b) of claim 1, as recited below, is limiting:

(b) in response to a determination that the predefined area that is used to display the advertisement has been in view within the visible area of the browser window for a predefined period of time, causing a communication to be sent to one or more dispatcher servers.

I agree with the Board that the language is properly construed as a claim limitation.

31. For the remaining terms, I apply the plain and ordinary meaning of those terms in view of the ’329 Patent’s specification and claims, as of the earliest priority date of the ’329 Patent.

B. Burden of Proof

32. I understand that in an *inter partes* review, the petitioner has the burden of proving unpatentability by a preponderance of the evidence.

C. Anticipation

33. I have been instructed by counsel and understand that a reference is anticipated if a single prior art reference discloses every claim element, either explicitly or inherently, as arranged in the same way as in the claim. I understand that where even one claim element is not disclosed in a reference, a contention of anticipation fails. I understand that the Petitioner has asserted that Badros includes all claim elements for claims 1 and 6, but otherwise anticipation is not an issue in this IPR. I reserve the right to add additional understanding about the legal requirements for anticipation and how they relate to a single asserted reference should the Petitioner argue anticipation later in this case.

D. Obviousness

34. I understand that in an obviousness analysis, an invention that would have been obvious to a person of ordinary skill at the relevant time is not patentable. 35 U.S.C. § 103 or pre-AIA 35 U.S.C. § 103(a) As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383

U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries.

35. I agree that paragraph 25 of Dr. Smedley’s declaration regarding obviousness provides a high-level review of considerations when making an obviousness determination, specifically: the scope and content of the prior art; the differences between the prior art and the claims at issue; the knowledge of a person of ordinary skill in the pertinent art; and whatever objective factors indicating obviousness or non-obviousness may be present in any particular case—referred to as “objective indicia” or “secondary considerations.”

36. I have been provided with a recent opinion of the Federal Circuit, *Volvo Penta of the Am's. v. Brunswick Corp.*, No. 2022-1765, at *15 (Fed. Cir. Aug. 24, 2023), which summarizes some of the objective indicia as follows: “Objective evidence of non-obviousness includes: (1) commercial success, (2) copying, (3) industry praise, (4) skepticism, (5) long-felt but unsolved need, and (6) failure of others.” I also understand that licensing can be an objective indicia of non-obviousness.

37. I understand that the proper way to determine if a patent is obvious where evidence of the objective indicia is present is to consider the totality of the evidence of obviousness, including the teaching of the combined references in

relation to secondary considerations. I will refer to this obviousness determination as one made based on the “totality of the evidence.”

38. I further understand the non-obviousness analysis is to be performed on a claim-by-claim basis. I understand that a person of ordinary skill in the art is a person of ordinary creativity, not an automaton.

39. I understand that obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. I understand obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have been motivated to combine those references in a manner that would include all limitations of the challenged claim, and the showing that in making that combination, a person of ordinary skill in the art would have had a reasonable expectation of success.

40. I also understand that an obviousness analysis must be conducted with awareness of the distortion caused by hindsight bias and with caution of arguments reliant upon *ex post* reasoning. For instance, I understand that when considering obviousness, I should put myself in the position of a person of ordinary skill in the field at the time of the invention, rather than considering new information that is known today, but was not known before the priority date of the challenged patent.

IV. Priority and Person of Ordinary Skill in the Art

41. In my analysis, I assume a priority date for the claims of the '329 Patent of April 4, 2009, the filing date of the continuation-in-part patent application to which the '329 Patent claims priority. Ex. 1001.

42. The Petition alleges that a POSA, as of the priority date of the '329 Patent, “would have had a bachelor’s degree in computer science, computer engineering or electrical (or similar) engineering with about three years of experience in computer science, computer engineering and electrical engineering.” Paper 1 at 9. I understand that, at his deposition, Dr. Smedley acknowledged that one of ordinary skill could have less formal education and more experience or vice versa.

43. Early in my examination process, I was concerned regarding the POSA definition proposed by Petitioner. It omitted experience with internet advertising, which is the heart of the matter at hand. It is my opinion that a POSA with no internet advertising experience would not be able to assess the issues, and an expert who had no advertising experience would not be able to place themselves in a position to express an opinion on the POSA’s understanding of the advertising issues at the time of the invention. As a result of these concerns, a more complete analysis of the POSA definition and my POSA recommendation is provided below.

44. The Petitioner's POSA definition is overly broad and in fact notably completely dismisses an artisan's knowledge of the subject matter of the instant litigation, which is internet advertising. It describes someone with no experience in internet advertising or even computer programming. It describes, for example, someone whose entire career may have been spent designing integrated circuits, with no knowledge of internet advertising.

45. Using the 2009 filing date of the CIP as the invention date, I understand that the field of internet advertising had matured to be a multi-billion-dollar industry. I ran two searches on Google patents: (1) online advertising and (2) Internet Advertising with a priority date April 4, 2009 and both searches returned in excess of 100,000 results with those terms. To define a skilled artisan without reference to any experience in internet advertising invites the kind of errors evident in the Petition because the artisan would not bring any knowledge of terms of art or other understandings when reviewing the prior art.

46. Although Petitioner does not consider internet advertising experience sufficiently important to include it in Petitioner's definition of a person of ordinary skill in the art, Petitioner's expert concedes the importance of advertising experience in his declaration. For example, in Smedley's declaration, advertising is referenced repeatedly, at least in paragraph's 12, 32, 33, 36, 41, 48, 50, 51, 57,

58, and 68. Additionally, the importance of understanding how browser's work in advertising is underscored by references in paragraphs 63, 64 and 65,

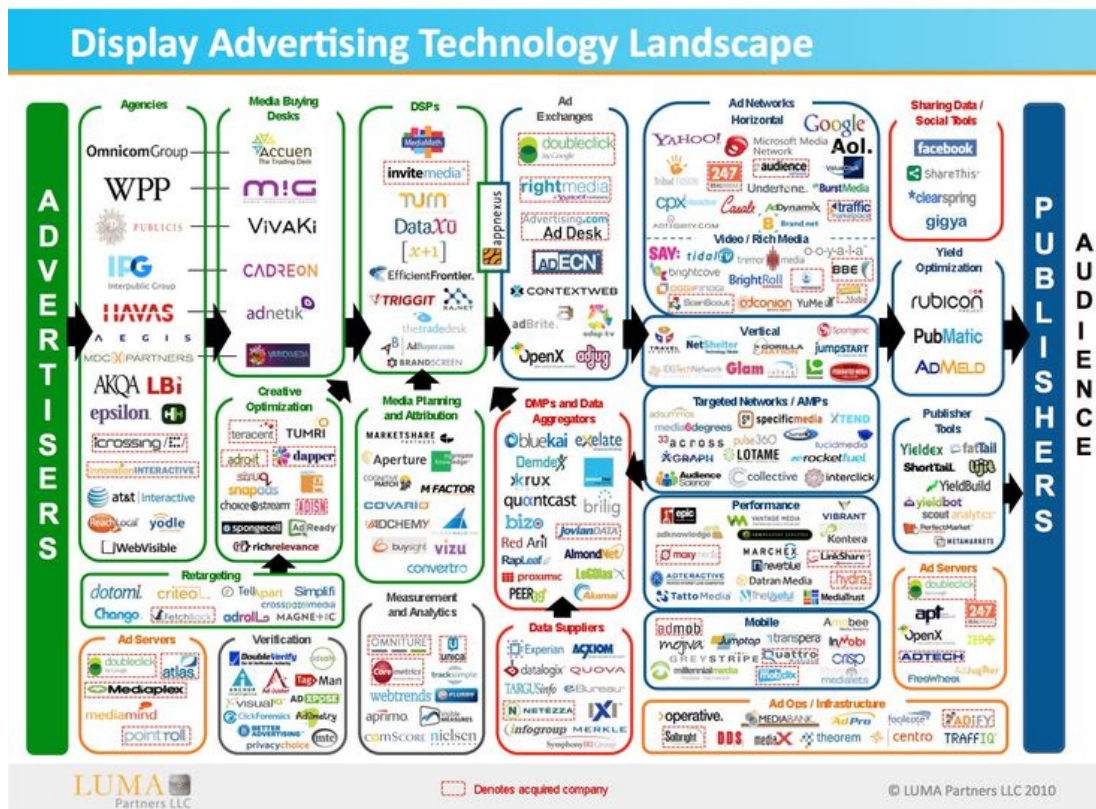
47. Dr. Smedley stated – and I agree – that the following four factors should be considered when determining the level of ordinary skill in the art: (a) the types of problems encountered by those working in the field and prior art solutions thereto; (b) the sophistication of the technology in question, and the rapidity with which innovations occur in the field, (c) the educational level of active workers in the field; and (d) the educational level of the inventor. Ex. 1009 ¶ 11.

48. Dr. Smedley, however, did not expressly analyze any of these factors in his declaration, and based on his deposition testimony, it's not clear that he actually considered each of the factors before proposing his definition. Ex. 2050, 173-78. Before proposing my POSA definition, I turn to an analysis of each of the factors Smedley listed in his declaration.

49. The first factor is “the types of problems encountered by those working *in the field* and prior art solutions thereto.” The field at issue, however, is internet advertising. Unlike Dr. Smedley, I have spent decades directly dealing with the problems with internet advertising, ranging from bandwidth issues to viewability issues to many type of advertising fraud and other issues. Given the

patent's focus on internet advertising, the first factor by itself requires a level of working familiarity with issues associated with internet advertising.

50. The second factor, “the sophistication of the *technology in question*, and the rapidity with which innovations occur in the field,” also requires working knowledge of internet advertising. By 2009, the internet advertising ecosystem had become very sophisticated, as demonstrated by the following infographic, which graphically represented advertising processes well-known to those in the internet advertising field:



Ex. 2058, which bears a copyright of 2010 and is a true and correct copy of the image available at <https://coolinfographics.com/blog/2010/9/28/the-display-ad->

tech-landscape.html). As shown on the graphic, the delivery of a single ad from a marketer to a person's electronic display typically touches at *least* seven different companies, from advertisers, to ad agencies, to media buying desks, to DSPs (Demand-Side Providers), to ad exchanges, to ad networks, to yield optimization, to publishers, and finally to the audience. There are at least 23 different sub-markets identified. The graphic also lists, on a single page, scores of companies (maybe more than a hundred), many of which have dashed lines around them, meaning they were acquired. The technology in the field changes rapidly, as companies try to exploit different niches that appear as the technology evolves. This factor suggests a POSA must have knowledge of the internet advertising field and an expert must have at least this knowledge to provide an opinion based on the perspective of a POSA.

51. The third factor is “the educational level of active workers *in the field.*” Here again, my personal experience is enlightening. I have spent more than two decades in the field of internet advertising and can confirm that the definition I have proposed is consistent with the educational level of active workers in the field of internet advertising in 2009. Active workers typically are not generalists with backgrounds in, say, electrical engineering as Dr. Smedley proposes.

52. The fourth and final factor is the educational level of the inventor. I reviewed the inventors' biographies on LinkedIn, and exhibit 2043 is a true and correct copy of their backgrounds from LinkedIn. For example, Inventor Krassner (<https://www.linkedin.com/in/brad-krassner-71a675b/>) does not have a technical degree, but he had been working in the field of internet advertising for at least 9 years by 2009. Inventor Edwards (<https://www.linkedin.com/in/alan-james-edwards-67909a27/>) had at least 9 years of experience in internet advertising, has co-founded at least two companies in the space. Inventor Nikolai Mentchoukov (<https://www.linkedin.com/in/nikolai-mentchoukov-88565046/>) does not have a technical degree, but had gained enough technical experience that was named Chief Technology Officer at Rich Media Worldwide (RealVu) in 2002. He also had extensive experience in internet advertising by 2009. Inventor Fred Bernstein (<https://www.linkedin.com/in/fredbernstein/details/experience/>) does not have a technical degree, but he too had years of experience in the field of internet advertising by the time of the invention. Inventor Tchibirev (<https://www.linkedin.com/in/igor-tchibirev-22393035/>) has technical degrees and, by the time of the invention, experience in the field of internet advertising.

53. The collective backgrounds of the inventors thoroughly describe the artificial construct of the POSA. They collectively had enough knowledge of the “problems encountered by those working in the field” of internet advertising – and

the existing solutions to that problem – to invent a novel solution to the problem of viewability. They collectively were well aware of how sophisticated the industry was and how quickly technologies were developing. And they understood the contributions that could be made by programmers who actually worked in the field and therefore also had the requisite knowledge of internet advertising. In fact, the one thing all the inventors have in common is knowledge of internet advertising.

54. In my examination, I consider these factors and my own experience, in determining a POSA must be defined in such a way as to reflect a working knowledge of computer programming and sufficient exposure to the programming on the way internet advertising works to be able to understand basic terms of art and techniques used in the advertising field. I would therefore propose a definition as follows: The person of ordinary skill in the art would have a bachelor's degree in computer science or a similar major involving computer programming (or at least four years of practical computer programming experience) and at least two years of experience (in or out of college) in the field of internet advertising.

55. Although my experience and qualifications exceed that of my proposed POSA definition, my analysis and opinions are based on the perspective of my POSA definition.

V. Overview of the Cited References

A. I understand Krassner is a 102(e) Commonly Owned by the Entity that Owns the '329 Patent and Thus Subject to the Safe Harbor Provision of 103(c)

56. I understand that contrary to the argument of the Petitioner, *none* of the references relied upon by the Petitioner can be considered prior art under section 102(b) of the Patent Law. Paper 9 at 11 (“Thus, none of these references qualifies as prior art under § 102(b).”).

57. I also understand that the Board considered that the references qualified under § 102(e), but that the Krassner reference might not qualify as eligible for consideration as part of an obviousness combination if it was commonly owned with the '329 patent.

58. I have reviewed the two patents, the Second Declaration of Igor Tchibirev and the exhibits mentioned in the Second Tchibirev Declaration. I understand that common ownership is a legal determination based on underlying facts, and it appears to me that the record supports a finding of common ownership. With that being the case, I understand that the Krassner reference cannot be used as prior art pursuant to the safe harbor provision of § 103(c). I have, nonetheless, made certain observations about the teaching of the Krassner reference and I reserve the right to add to these opinions should the Board

determine, despite all evidence to the contrary, § 103(c) does not apply and the Krassner reference can be considered.

B. Badros (Exhibit 1003) Neither Claims Nor Teaches a “Viewable Impression”

59. Ground 2 of the Petition relies on Badros for teaching that this element of claims 1 and 6 of the ’329 patent: an advertisement “is in view within a visible area of a browser window configured to be operated by a remote computing device.” Paper 1 at 33 (“*is in view within a visible area of a browser window of a browser configured to be operated by a remote computing device*’ (e.g. ‘For instance, impression module [...] may determine whether an ad on a web page of a user’s browser is actually visible to the user.’ Ex. 1003, 12:38-41.”). At least in this portion of the Petition, the single sentence in column 12 of Badros is the only cited support for the purported teaching. I will refer to this claimed feature as a “viewability test” or “viewability determination.” It is a necessary predicate for the other actions recited in the claims.

60. As an initial matter, I note that Dr. Smedley testified repeatedly that he has no opinion that Badros teaches this element and he was not in a position to offer one during his deposition. Ex. 2050, 50:22-52:19. This is consistent with Smedley’s declaration, which does not include an express statement that he believes Badros teaches the viewability test element.

61. In my opinion, understanding that the reference includes the sentence relied upon in the Petition (and other, similar sentences), Badros does not teach the viewability test element.

62. I reach this opinion in part because there is no disclosure in Badros about how to actually run a viewability test. As is apparent from the industry reception when RealVu demonstrated a viewability test that worked (described below), Badros should have explained how its viewability could be programmed if the inventors at Google had actually invented technology that would change the very way internet ads were accounted for.

63. Smedley agrees that the explanation for how to do the viewability test is missing from Badros and Krassner. Ex. 2050, 148:9-16.

64. In my opinion, the Petition is misreading the disclosure in Badros. In 2005, an ad “impression” that had been counted as having been served by an ad server was the recognized standard for establishing that an ad had run and could be charged to advertisers paying on a cost-per-thousand (“CPM”) impression basis. I know this both from my own extensive experience at the time and from reviewing many of the documents in this case, including the 2004 standard entitled “Interactive Audience Measurement and Advertising Campaign Reporting and Audit Guidelines” (September 2004, Version 6.0b, United States Version), a

true and correct version of which has been submitted as Exhibit 2053. I will refer to these as the 2004 Ad Guidelines.

65. The 2004 Ad Guidelines include an explanation for how they came about:

The definitions included in this document and the applicable project efforts resulted from requests from the American Association of Advertising Agencies (AAAA) and other members of the buying community, who asked for establishment of consistent counting methods and definitions and for improvement in overall counting accuracy. The definitions and guidelines contained in this document originated from a two-phase project led by the Interactive Advertising Bureau (IAB) and facilitated by the Media Rating Council (MRC), with the participation of the Advertising Research Foundation (ARF), as a result of these requests.

Ex. 2053 at 2. Pages 3 and 4 list the many other leading companies involved in setting up the standard.

66. The 2004 Ad Guidelines “are intended to cover on-line browser or browser-equivalent based Internet activity.” Ex. 2053 at 4. They detail two approaches to counting ads and require the use of only one of them:

Two methods are used to deliver ad content to the user – server-initiated and client-initiated. Server initiated ad counting uses the site's web content server for making requests, formatting and re-directing content. Client-initiated ad counting relies on the user's browser to

perform these activities (in this case the term “client” refers to an Internet user’s browser).

This Guideline requires ad counting to use a client-initiated approach; server-initiated ad counting methods (the configuration in which ad impressions are counted at the same time the underlying page content is served) are not acceptable for counting ad impressions because they are the furthest away *from the user actually seeing the ad*.

Ex. 2053 at 5. I emphasized the last part of this standard because it is a good example of how those skilled in the art spoke about ads being “visible” (the “user actually seeing the ad”) even though there was no known test for viewability, even by the Petitioner’s references, in 2004.² In the absence of

² When the MRC gave RealVu’s proven solution accreditation in 2010, Greg Stuart, the former CEO of IAB, was quoted as follows: “In 2004, we made some tough decisions in setting the Global Ad Impression guidelines for the Internet that honestly revolutionized overall Media Measurement and not only made Online the best measured media ever but also gave it a strategic advantage versus the other media. However, it appears *we missed a major factor by not accounting for whether an ad has the potential to be viewed on the screen because the technology to do so did not exist*. I would strongly urge the Online media industry

such a test, its not surprising that the 2004 guidelines were based on served impressions. A POSA understood that impressions counted as being “seen” once they were sent from an ad server in response to a request from a client’s browser. An ad was counted as “delivered” once it left the server and was typically counted at the server, as permitted by the 2004 Ad Guidelines (“For client-side ad serving, the ad content itself could be treated as the tracking asset and the ad server itself could do the ad counting”).

67. The 2004 Ad Guidelines also include discussion of what can count as a “page impression” or what many in the industry reported as a “page view.” In that discussion, the 2004 Ad Guidelines include the following commentary about how to count pages that “auto-refresh”:

Auto-Refreshed Pages: Site-set auto-refresh – page impressions subject to the following criteria — The measuring organization and user should consider: (1) whether the page is likely to be in background or minimized therefore diminishing the opportunity to view. If the content-type is likely to be in background or minimized while in use or the organization cannot determine whether minimization has occurred,

to continue to push to be the best measured media, especially in light of the new age of marketing accountability, and to investigate the adoption of the Viewable impression as the new and improved standard.” Ex. 2042.

these auto-refreshed pages may be assessed and or valued differently, and (2) that the refresh rate is reasonable based on content type. User-set auto refresh – Generally counted as page impressions.

Ex. 2053 at 18. The commentary recognizes that certain types of pages are “likely to be in background or minimized” but that even this was something that the measuring organization might not be able to determine.

68. Badros includes discussion of what it calls an “impression module” on the server used to deliver content to end users. Ex. 1003, Fig 2. And Badros states “impression module 38 may determine whether an ad on a web page of a user’s browser is actually visible to the user.” I disagree. Badros does not teach the critical distinction between serving an ad to a user’s browser and actual viewability or seeing the ad by the user. Ad serving is not ad seeing. According to my experience, at the time Badros was filed, however, the standard for determining whether an ad had been made “visible to the user” was whether the ad had been served from the server. Hence, Badros does not teach or claim a viewable impression and further Badros does not teach how to do a viewability test and, in deference to Smedley’s opinion, it is my opinion that a POSA would not know how to program the test in 2005.

69. Put differently, in my opinion, Badros does not enable one skilled in the art to program a viewable impression test. Among other shortcomings, Badros suggests that the viewability test can be determined on the server. As I understand

it, both RealVu's and Duration's solution require code on the client's computer. Tchibirev, for example, is not aware of any viewable impression system that operates without client-side code.³

70. More specifically, Badros language reads "plurality of documents are caused to be displayed." As I explain in my examination, the display of an ad is not the same as ad viewability and Badros teaches display not viewability. Badros' focus on display is understandable in the '329 pre-invention period because as any advertising person would have known the conventional wisdom was ad serving not ad viewability. A POSA would have understood this distinction.

71. I was personally involved in designing and placing ads online in the period from 1990 to the '329 invention date April 4, 2009. For purposes of this

³ I am aware that another portion of Badros not relied upon in the Petition or Smedley's declaration, suggests that a different module (the "user module") may also "determine whether a particular document is currently viewable on a user's screen." Ex. 1003, 14:20-21. In my opinion, the Petition did not rely on this language or other language in column 14 because there is also no explanation of how the user module would actually perform this function. It suffers from the same lack of disclosure as the impression module.

IPR, I refer to these dates as the pre-invention period. Thus, it is not surprising to me that Badros does not disclose *how* to determine if the ad was literally viewable, because there's no evidence that anyone had demonstrated viewable ad technology in 2005. Additionally, I did not find this feature included in the issued claims of the Badros patent. Like Badros itself, Smedley does not discuss, in his declaration or in his deposition, how to do a viewability test considering Badros. As highlighted above, during his deposition, Smedley attempted to explain this lack of disclosure by Badros by opining that constructing a viewability test was trivial. But Smedley declined to explain any detail on how it would be done, and he did not even know whether the code necessary is server-side or client-side. Ex. 2050, at, e.g., 141-143. As an expert who was involved in Internet advertising, Smedley's seeming disregard for a viewability test flies in the face of anyone working in the advertising field in this time frame because the *need* for a viewability test was evident and would have been evident to a POSA.

72. I note that Smedley also opines that Krassner teaches one of ordinary skill how to do a test for viewability "because it talks about inventory of views and bartering for views." Ex. 2050, 147:25-148:8. But he agreed that, like Badros, Krassner "does not teach how to do the viewability test." Ex. 2050, 148:9-16. This is another example of where Smedley's lack of experience with internet advertising

renders him not just wrong, but unqualified to render opinions about what the prior art would mean to a POSA.

73. According to my examination, Edwards credibly testified their understanding that those of skill would have interpreted Krassner’s “viewed inventory” as referring to *served* impressions (like a page view) because there was no such thing as a confirmed viewed impression when Krassner was filed. Ex. 2027, ¶ 11.

74. As I explain below, the discussion of viewability in Badros would be interpreted by a POSA as either referring to a served impression in general or an “above the fold” “good” “high probability” impression with a higher likelihood of falling within the viewable portion of a webpage.

75. During my examination, I found that the evidence confirms that it was Rich Media Club, not Badros/Google, that created the first real system capable of confirming that an internet ad was viewable on a user’s browser.

C. Harkins (Exhibit 1004) Is Non-Analogous Art Focused on Printing Ads on Credit Card Receipts

76. As a part of my examination, I reviewed U.S. Patent Application 2008/0221982 (Harkins). This is a patent application relating to printing ads on a paper receipt when a user pays with a credit card. It has nothing to do with internet

advertising, so it obviously does not address whether an advertisement is viewable on the internet.

77. Ground 2 of the Petition relies on Harkins for an element in dependent claims 3 and 8: the running of a real-time auction to replace an ad. Paper 1 at 42. But Harkins does not do this. It does not contain the word or concept of a “real time” auction and the use of Harkins for the supposed disclosure necessarily fails.

VI. Opinions Regarding the Grounds in the Petition

78. As a part of this examination, I now turn to my examination and claims by the Petitioner’s expert. According to the Smedley declaration, he was engaged to provide an analysis and opinion on the state of the art of the technology described in the ’329 patent and on the patentability of the claims 1-10 of the ’329 patent. Ex. 1009, ¶ 1. Smedley claims the ’329 patent is entitled to a filing date of April 3, 2009. Ex. 1009, ¶ 43.

A. Ground 2 (Badros alone or optionally in view of Harkins) Does Not Render the Claims Anticipated or Obvious

79. I agree with Smedley’s understanding that in order for prior art to read on the ’329 patent each and every element of the claims must be in the prior art. Ex. 1009, ¶ 30. Smedley failed to consider the viewability requirement of the ’329 patent claims in his analysis and hence his opinions fail for at least this reason.

80. As stated in the legal standards section, it's my understanding that obviousness based on a combination of references requires a showing that a POSA would have been motivated to combine those references *in a manner that would include all limitations of the challenged claim*, and the showing that in making *that combination*, a person of ordinary skill in the art would have had a reasonable expectation of success.

81. The Petition's theory fails because as I explained earlier an ad may be displayed, but not viewed. The economic value of an ad to an advertiser is clearly related to the ad viewability rather than the actual display of an ad. I have reviewed this footnote and can confirm that based on my experience in the advertising space that the representations made are consistent with my experience and other references cited in this report.

82. A POSA would have also understood that impressions are distinct from viewability and that ad viewability is more valuable than a mere impression. For example, when I conducted the seminars for the American Management Association, as mentioned above, I showed the attendees how banner ads could be manipulated so that the ads were rotated so fast that they were not viewable by the website visitor. The audience clearly understood the economic value of ad viewability. An expert in Internet advertising would also understand the distinction between displaying and viewing.

VII. Non-Obviousness Indicia

83. It is my understanding that a determination of non-obviousness requires an analysis of secondary considerations, which I refer to as objective indicia. Each of the indicia itemized below were included in paragraph 26 of Smedley's declaration, but he gave no consideration to them or could explain them in his deposition.

84. Notably, Smedley did not perform a factual analysis into the non-obviousness indicia. For example, I testified on behalf of Yahoo! more than 15 years ago on just such indicia of non-obviousness. I am familiar with the importance of these indicia and the importance that each indicia should be expressly considered in a thorough expert declaration. In my examination, unlike Smedley, I have considered the factual evidence for each non-obviousness indicia.

85. According to my reading of the Smedley declaration, Smedley made no analysis or provided any written consideration or explanation provided for any of the required indicia. Smedley's failure to investigate for the presence of these indicia was even more pronounced because he expressly referenced the important nature of the indicia in his report, yet in the Smedley deposition when he was asked about his consideration of each indicia, he failed to explain how he examined each indicia. Ex. 2050, 19-23.

86. According to my reading of the Smedley declaration, Smedley solely relied on a combination of prior art references to form his opinions. I have addressed each of the prior art references relied upon by Smedley. However, as an initial matter, the prior art references deal almost exclusively with the concept of displaying and serving impressions rather than the viewability of impressions. Clearly a served **ad impression** is indisputably distinct from the **ad viewability** of an impression and Smedley conflates the two concepts as equivalent, which they are not. Further, according to my experience, ad viewability increases the value of a legitimate impression.

87. According to my experience, the fact that these two concepts are not equivalent was well known to any expert, or POSA, in the advertising field, as early as 2004. It was because of these differences that caused turmoil in the advertising field because advertisers wished to be confident that their purchase of impressions, typically based on CPM (cost per thousands of impressions) were viewed by, rather than just served to, website visitors.

88. Professor Edelman highlighted the need for a measure of viewability for ad impressions. For example, his report reads, under the heading - **Invisible Banner Ads and CPM Attacks**- “Whenever a CPM ad was placed into the Hula site, the advertiser paid full price for the corresponding impression—even if only a corner of its ad was actually visible.”

89. As an advertising expert, I worked in the advertising field during the period at issue. I purchased impressions on a CPM basis and directly experienced the turmoil and lack of confidence as an advertiser in the viewability of an impression. The need for a viewability measure was known to any person or a POSA engaged in advertising in this period.

90. As a part of my examination. I reviewed the declaration dated November 6, 2023, of Igor Tchibirev, an inventor of the '329 patent. I determined that based on his background as a scientist, a computer science professor and software developer that I could rely on his analysis, his understanding of the '329 patent history and his knowledge of the related technologies. I also examined the examples he provided, as well as the cited links, in forming my own independent opinions regarding non-obviousness indicia for the '329 patent.

91. I found the Tchibirev declaration to be technically accurate, thoughtful and comprehensive. As an initial matter, his declaration goes directly to at least, the non-obviousness indicia of copying, long felt need and failure by others. The Tchibirev declaration recites in almost every paragraph evidence for non-obviousness indicia. For example, in each of the following cited paragraphs, Tchibirev recites evidence of copying or commercial success by Petitioner. (See Tchibirev declaration ¶6 commercial success, ¶7 copying, ¶8 copying, ¶9 copying, ¶13 copying, ¶18 copying, ¶19 copying, ¶20 copying, ¶21 copying).

92. I now turn to expressly considering each of the non-obviousness indicia. As directed by Counsel, I have adopted the recent opinion of the Federal Circuit, *Volvo Penta of the Am's. v. Brunswick Corp.*, No. 2022-1765, at *15 (Fed. Cir. Aug. 24, 2023), which summarizes some of the objective indicia as follows: “Objective evidence of non-obviousness includes: (1) commercial success, (2) copying, (3) industry praise, (4) skepticism, (5) long-felt but unsolved need, and (6) failure of others. I also understand that licensing can be an objective indicia of non-obviousness.

A. Commercial success of a product due to the merits of the claimed invention.

93. I reviewed the Second Declaration of Igor Tchibirev dated Dec 5, 2023, Duration Media’s response to interrogatory number 1, and the claim charts comparing both companies’ “second print” products to the claims of the ’329 patent. According to Tchibirev, RealVu generated [REDACTED] in revenue from second print ads covered by the patent between 2015 and the present. Ex. 2026. According to its interrogatory response, Duration Media also generated [REDACTED] in sales worldwide from second print ads covered by the patents, approximately [REDACTED] of which was in the United States (and potentially all of the [REDACTED] may have been generated from servers in the United States).

94. As demonstrated by the claim charts confirming that this revenue was generated using the “second print” system that is co-extensive with what is claimed in the ’329 claims, all of this commercial success is attributable to use of a system and method as claimed. See Exhibits 2047-49. Sales of [REDACTED] for second print ads, at least [REDACTED] is purely US-based, is clear evidence of commercial success of the claimed invention.

B. Deliberate copying of the invention by others.

95. Tchibirev provides clear evidence of copying. For example, the declaration reads: “Duration Media copied virtually every aspect of the technology it had been purchasing from RealVu, including: (1) determining whether an ad space was in or near the viewable area of user’s browser; (2) in the event viewable ads pace was confirmed, invoking a real-time bidding auction to sell the viewable ad space; and (3) replacing the original ad with the ad that was sold using the auction.” Ex. 2025, Tchibirev declaration at ¶7 copying, ¶8 copying, ¶9 copying, ¶13 copying, ¶18 copying, ¶19 copying, ¶20 copying, ¶21 copying). These extensive examples are factual evidence of the deliberate copying of the invention by others, which is an indicia of non-obviousness.

C. Praise of the invention by others skilled in the art.

96. During my examination, I reviewed a blog post by David Cohen. According to my findings, Mr. Cohen is a source that an expert could rely on. For

example, Mr. Cohen was the Chair of the AAAA Interactive Marketing Committee and the co-chair of “Project Reinvention.” The AAAA – or 4As – is another ad industry trade group, the American Association of Advertising Agencies.

97. I found that David Cohen Praised the invention. When RealVu demonstrated its system to David Cohen, a respected ad industry executive who is now the President of the IAB, he reacted with surprise and predicted the invention “could change everything” as preserved in his contemporaneously written blog post. Edwards’ declaration confirmed my finding with personal discussions he had with Mr. Cohen. Ex. 2027, ¶18.

98. When the MRC accredited RealVu’s solution, four different industry executives praised the invention or the viewable impression metric it would usher in. Their comments are collected in a preserved RealVu press release dated June 7, 2010 (Ex. 2042), as summarized in the table in the Patent Owner’s Response:

Executive	Title	Quote
David Cohen	EVP, US Director of Digital Communications at Universal McCann	“We find ourselves at a very interesting inflection point in our digital evolution. Increasing complexity coupled with a heightened focus on accountability makes the idea of purchasing a Viewable Impression a very seductive concept. We remain convinced that the Viewable Impression adds a greater

Executive	Title	Quote
		degree of precision and accountability in digital viewership measurement. It also changes many of the fundamental tenets of our industry. It really could change everything.”
Kyoo Kim	VP of sales of the MSNBC Digital Network	“Before today, advertisers and publishers have had a hard time determining the true value of an impression since it has been hard to determine whether the user actually sees the ads or not. Hence, clicks became the default for accountability, even for brand advertising. With an actual Viewable Impression metric, the impression becomes 100 percent accountable. With this methodology, an ad view simply cannot be recorded unless that ad appears in a viewable window to the consumer. MSNBC believes that premium publishers can now use this technology to bring accountability and value to advertisers by running their brand messages in trusted environments where they know they will be actually seen.”
Greg Stuart	Former CEO of Interactive Advertising Bureau	“In 2004, we made some tough decisions in setting the Global Ad Impression guidelines

Executive	Title	Quote
	(IAB)(the organization responsible for developing the global impression measurement for Internet Advertising)	for the Internet that honestly revolutionized overall Media Measurement and not only made Online the best measured media ever but also gave it a strategic advantage versus the other media. However, it appears we missed a major factor by not accounting for whether an ad has the potential to be viewed on the screen because the technology to do so did not exist. I would strongly urge the Online media industry to continue to push to be the best measured media, especially in light of the new age of marketing accountability, and to investigate the adoption of the Viewable impression as the new and improved standard.”
George Ivie	MRC Executive Director/CEO	“At the MRC, our mission is to accredit audience measurement services that are valid, reliable and effective. After an extensive audit by an independent CPA firm to assess compliance with the MRC Standards for Media Rating Research and the IAB's Ad Impression Measurement Guidelines, the Viewable Impression metric was granted accreditation, becoming the first metric of its kind to earn accreditation by the MRC.”

D. Skepticism

99. My reading of the Cohen blog post and his surprise at the invention, informs me that he was initially skeptical of the invention until he saw a demonstration. In the invention time frame, I would have been surprised too. Cohen's skepticism turned to surprise. Unlike Badros/Google – and consistent with its disclosure of an actual viewability test – RealVu developed and demonstrated an operational system showing how its viewability test worked in 2009. Ex. 2027, ¶ 18)

100. The Edelman research article mentioned earlier highlighted the fact that there was no solution to solve the then existing turmoil, which created the skepticism in the industry that begged for a viewability solution.

E. Long-felt need for the invention.

101. I have reviewed the section of the Patent Owner's response relating to the historic development of the viewable impression (section VII of the response) and the materials that are cited in that section. The section is consistent with my own experience and memory.

102. Around the period of 2009, according to my recollection, the common belief was that there was no acceptable way of measuring ad viewability.

Impression sellers were under fire to adopt a solution, but no solution was in sight to solve this problem.

103. For example, a November 17, 2009 article by Assistant Professor Ben Edelman, in the Harvard Business Review (HBR) eloquently described this turmoil. (<https://hbr.org/2009/11/dark-underbelly-of-online-ads>) It is my experience that articles in the HBR are typically peer reviewed and are a media source that experts can rely on. The article reads, “The internet is sold to advertisers as a highly measurable medium that is the most efficient way to target exactly the right customers. But online advertising is also easily subverted — letting fraudsters claim advertising fees for work they did not actually do. The trickiest frauds deceive advertisers so effectively that measurements of ad effectiveness report the fraudsters as exceptionally productive and high quality, rather than revealing that their traffic was worthless. This is a quiet scandal. In a time of tightening ad budgets, losses to advertising fraud come straight from the bottom line—but savings can be equally dramatic.”

104. I was purchasing advertising impressions during the period at issue. I can attest through personal experience, as would any experienced person in the advertising field in this period, that there was a struggle to validate genuine impressions. Advertisers, such as me, were deeply concerned that the purchased

impressions were never viewed by a website visitor. Publications such as the article cited above in that period confirmed my own experience.

105. Once RealVu's invention was accredited, there is perhaps no better demonstration that it answered a pressing need in the industry that the industry came together to form a special purpose initiative, the "Making Measurement Make Sense" or 3MS initiative to promote a change from the served impression to the viewable impression. I have reviewed the Declaration of Alan Edwards and the exhibits it cites and conclude that very existence of the 3MS initiative, the organizations that backed it, and its first goal of moving the industry to a different measurement metric confirms the long felt need of problems with the served impression metric.

106. As a purchaser of ad impressions in this time frame, I was aware of the problem. Contrary to the conventional wisdom of the time, the '329 addressed and solved this problem. Unlike Badros, the '329 patent -disclosed the code that explained how to do a test for viewability. It was invented in 2008, and the patent owner was the first company accredited by the MRC to have a test method for viewability in 2010. Ex. 2027, ¶ 24.

107. The revenue growth of the on-line advertising space had increased fraud opportunity which increased the need for viewability tests to give advertisers confidence in purchasing ad impressions. 'Online advertising revenue has

increased steadily over time, both in absolute terms and as a fraction of all advertising revenue. Consistent figures are available since 2000. They show that U.S. online advertising has increased from \$8.1 billion in 2000 to \$21.2 billion in 2007 and from 3.2 percent of all advertising to 8.8 percent over that time period.”⁴

108. My examination of research and publications in the relevant period provided additional clear evidence of a long-felt need for the invention. In 2010, companies were struggling to solve the problem of impression fraud. For example, one article reads, “Few marketers would argue that there is a problem related to online advertising wasted impressions.”⁵

⁴ The Online Advertising Industry: Economics, Evolution, and Privacy David S. Evans, Journal of Economic Perspectives—Volume 23, Number 3—Summer 2009 —Pages 37– 60. A true and correct copy of the article from the URL <https://pubs.acaweb.org/doi/pdfplus/10.1257/jep.23.3.37> has been submitted as Exhibit 2060.

⁵ “DoubleVerify Aims to Police the Online Advertising World.” July 24, 2010, Susan Gunelius This week, DoubleVerify announced the launch of its Advertising Fraud Detection Lab with the goal of identifying malicious sites, malware, spyware, and other forms of non-compliance that lead to inflated ad impression

F. Failure of others to find the solution provided by the claimed *invention*.

109. Around the period of 2009, according to my recollection, the accepted belief was that there was no way of measuring ad viewability. Impression sellers were under fire to adopt a solution, but no solution was in sight to solve this

reporting. Unfortunately, these activities are not new and they show no signs of going away. DoubleVerify aims to reduce the amount of money advertisers pay for wasted ad impressions and the legal implications these fraudulent activities can lead to. Few marketers would argue that there is a problem related to online advertising wasted impressions. The question is whether or not DoubleVerify's research and resulting report will help the online advertising industry as a whole or simply create more clients for DoubleVerify's services. Certainly, this type of research has the potential to help an industry that has struggled against fraudulent activities in the past without the ability to offer proof of such activities. Let's hope that DoubleVerify's Advertising Fraud Detection Lab offers some sort of help, or better yet — a solution." A true and correct copy of this article from the url <https://www.corporate-eye.com/main/doubleverify-aims-to-police-the-online-advertising-world/> has been submitted as Exhibit 2059.

problem. Although there were many large companies in the advertising field, no company had introduced a solution.

110. As a purchaser of ad impressions in this time frame, I was well aware of the problem. According to my findings, the '329 addressed and solved this problem. It is my understanding that the '329 patent included the code that explained how to do a test for viewability. It was invented in 2008. And the patent owner was the first company accredited by the MRC to have a test method for viewability in 2010. Ex. 2027, ¶ 24.

111. I have also reviewed the remarkable evidence of failure by others literally documented by the MRC in its test of supposed solutions to viewability even after RealVu's solution was accredited. In its 2012 advisory, the MRC documents its test of viewable impression systems submitted by five different vendors. Ex. 2018. The test involved 3 billion impressions and the results were literally all over the map, with some systems registering 0% in view while others registered 77%. The advisory states: "Based on large-scale tests of real advertiser campaigns as detailed within, while capabilities vary, the ability to consistently measure whether impressions are viewable is a challenge that must be overcome by most of the vendors before finalizing a new online advertising currency definition." In short, in addition to no one else solving the problem before RealVu

did, even after RealVu demonstrated the viewable impression, others were still failing to do the same.

112. The Edelman research article mentioned earlier highlighted the fact that there was no solution to solve the current turmoil, which created the skepticism in the industry that begged for a viewability solution. For example, the article reads, “Ad partners’ misleading traffic statistics require similar skepticism. At their peril do advertisers assume that a count of “views,” “clicks,” or even “purchases” means what it claims.” A true and correct copy of the article from the url <https://hbr.org/2009/11/dark-underbelly-of-online-ads> has been submitted as Exhibit 2061. This highlight is an example of a failure of others to find the solution prided by the ’329 patent, which is an indicia of non-obviousness.

113. Badros does discuss viewability but does not disclose how to develop a viewability model. As mentioned earlier, Smedley testified that a POSA could easily have developed a viewability model without any instruction. I disagree. There simply is no evidence to support his statement and extensive evidence that others found it challenging.

G. Licensing

114. I understand that in 2018, RealVu entered a Cooperation Agreement with Duration Media, Inc., under which RealVu supplied the underlying technology Duration Media needed to offer its product to its customers. Ex. 2009

(See Tchibirev declaration ¶5) This Cooperation Agreement is a clear example of the taking of licenses under the patent by others, which is an indicia of non-obviousness.

115. Common sense and my business experience informs me that Duration Media entered into this agreement because there was evidence that the patent worked and created higher value ads under the Rich Media concept, and so there was a clear Nexxus between the patent and creating additional value for Duration Media and the advertisers' impressions.

VIII. Conclusions

116. Based on the totality of the evidence – the teaching of the combined references in relation to the objective indicia – in my opinion none of the issued claims of the '329 can be found to be obvious. On their own, the combined references do not teach the claimed invention because none of them disclose how to test for ad viewability. This is made all the more apparent when considered in relation to the objective considerations. The record demonstrates that RealVu's invention – including the first demonstrated test for viewability – sparked the entire internet advertising industry to change the way it did business. Several advertising industry executives singled out RealVu for its contribution that ultimately allowed the industry to move from the problem-ridden “served impression” to the more reliable viewable impression as the basic metric used to

count impressions. And even after RealVu's inventions, reliable third-party evidence from the MRC's own testing shows that other companies were not able to replicate RealVu's successful solution.

117. RealVu was commercially successful, generating over [REDACTED] in revenue, and its' success attracted Duration Media to become a client, licensing the patented technology. Rather than continue to pay, however, Duration copied the technology, one of the most compelling indicia of non-obviousness.

118. The totality of evidence supports only one conclusion: the claims are not obvious in light of Badros alone, Badros in combination with Harkins, and Badros in combination with Krassner and optionally Harkins.

119. Specifically, in my opinion the totality of the evidence of the teachings of the combined references of Badros alone, Badros and Harkins, as well as Badros and Krassner (and optionally Harkins) in relation to the secondary considerations do not render any of the challenged claims obvious.

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

December 6, 2023

Robert Sherwood

Robert Sherwood

In compliance with 28 U.S.C. §1746 and 37 C.F.R. §42.2, I declare under penalty of perjury that the foregoing is true and correct.

-and-

In compliance with 35 U.S.C. §25, I have been warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. §1001).

-and-

In compliance with 37 C.F.R. §1.68, I have been warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. §1001) and may jeopardize the validity of the application or any patent issuing thereon. All statements made of my own knowledge are true and that all statements made on information and belief are believed to be true.

Executed On December 21, 2023

/Robert Sherwood/