UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
GOOGLE LLC Petitioner
V.
IPA TECHNOLOGIES INC. Patent Owner
Patent No. 6,757,718

DECLARATION OF DR. DAN R. OLSEN JR.



### **TABLE OF CONTENTS**

TABI	LE OF	F CONTENTS	i			
I.	INTRODUCTION					
II.	BACKGROUND AND QUALIFICATIONS					
III.	SUMMARY OF OPINIONS					
IV.	PERSON OF ORDINARY SKILL IN THE ART					
V.	TEC	TECHNICAL BACKGROUND				
	A.	Natural language processing	8			
	B.	Multimodal input	11			
	C.	Databases	13			
	D.	Distributed computing	16			
	E.	Mobile computing	21			
VI.	OVE	OVERVIEW OF THE '718 PATENT2				
VII.	CLAIM CONSTRUCTION					
	A.	"navigation query"	28			
	B.	"code segment [that] "	28			
	C.	"logic[,] operable to"	30			
VIII.	OVERVIEW OF THE PRIOR ART					
	A.	Cheyer	31			
	B.	Shwartz	34			
	C.	Johnson	37			
	D.	Thrift	39			
	E.	Dureau	41			
	F.	Simmers	43			



IX.	THE PRIOR ART DISCLOSES OR SUGGESTS ALL OF THE				
	FEA'	TURE	S OF CLAIMS 1-27 OF THE '718 PATENT	43	
	A.	Cheyer, Shwartz, and Thrift Disclose or Suggest the Features of			
		Clair	ms 1-4, 6, 8-10, 12, 13, 15, 17-19, 21, 22, 24, 26, 27	43	
		1.	Claim 1	44	
		2.	Claims 2 and 3	74	
		3.	Claim 4	77	
		4.	Claim 6	82	
		5.	Claims 8, 9	83	
		6.	Claim 10	85	
		7.	Claim 12	92	
		8.	Claim 13	92	
		9.	Claim 15	94	
		10.	Claims 17, 18	95	
		11.	Claim 19	95	
		12.	Claim 21	102	
		13.	Claim 22	102	
		14.	Claim 24	104	
		15.	Claims 26, 27	105	
	B.	Chey	ver, Shwartz, Thrift, and Dureau Disclose or Suggest t	the	
		Feat	ures of Claims 2, 11, and 20	105	
		1.	Claim 2	105	
		2.	Claim 11	110	
		3.	Claim 20	111	
	Б.	Featron 1.	ures of Claims 2, 11, and 20	105 105	



# Declaration of Dr. Dan R. Olsen Jr. U.S. Patent No. 6,757,718

	C.	Cheyer, Shwartz, Thrift, and Johnson Disclose or Suggest the		
		Feat	tures of Claims 4, 13, and 22	111
		4.	Claim 4	111
		5.	Claim 13	119
		6.	Claim 22	119
	D.	Che	yer, Shwartz, Thrift, and Simmers Disclose or Suggest th	e
		Feat	tures of Claims 5, 7, 14, 16, 23, and 25	120
		1.	Claims 5, 7	120
		2.	Claims 14, 16, 23, 25	126
X	CON	JCLU	SION	127



I, Dr. Dan R. Olsen Jr., declare as follows:

#### I. INTRODUCTION

- 1. I have been retained by Google LLC ("Petitioner") as an independent expert consultant in this proceeding before the United States Patent and Trademark Office ("PTO") regarding U.S. Patent No. 6,757,718 ("the '718 patent") (Ex. 1001). I have been asked to consider whether certain references disclose or suggest the features recited in claims 1-27 ("the challenged claims") of the '718 patent. My opinions are set forth below.
- 2. I am being compensated at my rate of \$500 per hour for the time I spend on this matter. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding.

### II. BACKGROUND AND QUALIFICATIONS

3. I have more than 35 years of experience in computer science and human-computer interaction (HCI). I hold a doctorate in Computing and Information from the University of Pennsylvania. For 3 ½ years I was an Assistant Professor of Computer Science at Arizona State University. I then served for 30 years on the faculty of Brigham Young University, retiring as a full professor in 2015. During that time at BYU, I also served as the chair of the Department of



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

#### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

