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To the Honorable Director of the attached original document or copy the	d States Pate	ent and Trademark Office: Please record the
1. Name of conveying party(ies): (1) Hagai Attias (2) John Carlton Platt (3) Li Deng (4) Alejandro Acero  Additional name(s) of conveying party attached? [ ] Yes [X] No	5/0/	2. Name and address of receiving party(ies):  Name: Microsoft Corporation  Internal Address:  Street Address: One Microsoft Way  City Redmond State WA ZIP 98052
		Additional name(s) & address(es) attached? [ ] Yes [X] No
3. Nature of Conveyance:  [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other  Execution Date: 11/12/01; 11/12/01; 11/13/01	11/13/01; &	6973 U.S. PTO 09/999576
4A. Application No.(s)		4B. Patent No.(s)
If this document is being filed to new application, the execution date(s application is: 11/12/01; 11/12/01; 1 11/13/01  Additional numbers attached? [ ] Yes	s) of the 1/13/01/ <u>&amp;</u>	Additional numbers attached? [ ] Yes [ ] No
5. Name and address of party to whom pondence concerning document shoul  Name: Theodore M. Magee Street Address: Westman, Champlin Suite 1600  International Cent 900 Second Avenue City: Minneapolis State: MN	& Kelly, P.A	6. Total number of applications and patents involved: [1]
		7. Total fee (37 CFR 3.41):\$ 40.00
07/2001 GTOW11 00000106 09999576 FC:581 40.00 OP		8. Method of Payment [X] Enclosed [X] The Director is authorized to charge payment of any additional recording fees or credit any overpayment to deposit account No. 23-1123.
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9. Statement and signature.  To the best of my knowledge and belie attached copy is a true copy of the contract of Person Signing  Signature		

**PATENT REEL: 012345 FRAME: 0413** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Filing Date	HEREWITH
Inventorship	Hagai Attias et al.
Applicant	Microsoft Corporation
Attorney's Docket No	M61.12-0387
Title: METHOD AND APPARATUS FOR DENOISING AN	
VAREATIONAL INFERENCE AND STRONG SPEEC	CH MODELS

## PATENT ASSIGNMENT

## PARTIES TO THE ASSIGNMENT

# Assignor(s):

Hagai Attias 2515 4<sup>th</sup> Ave. #1709 Seattle, Washington 98121

John Carlton Platt 2109 130th Place SE Bellevue, Washington 98005

Li Deng 22310 NE 30<sup>th</sup> Street Sammamish, Washington 980**74** 

Alejandro Acero 6525 163<sup>rd</sup> Place SE Bellevue, Washington 98006

### Assignee:

Microsoft Corporation Corporation in the State of Washington One Microsoft Way Redmond, W.A. 98052

### **AGREEMENT**

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled "METHOD AND APPARATUS FOR DENOISING AND DEVERBERATION USING VARIATIONAL INFERENCE AND STRONG SPEECH MODELS," as described and claimed in

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PATENT REEL: 012345 FRAME: 0414 the specification forming part of an application for United States letters patent referenced above;

WHEREAS, Microsoft Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Washington having a place of business at One Microsoft Way, Redmond, WA 98052, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

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$\frac{U/n _{\sigma_1}}{Date}$	Hagai Attias
1 / (L-/c) Date	John Carlton Plat t
11 / 13/0/, Date	Li Deng
	Alejandro Acero

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**RECORDED: 11/15/2001** 

PATENT REEL: 012345 FRAME: 0416