PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5198965

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICROSOFT CORPORATION	10/02/2018

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC	
Street Address:	ONE MICROSOFT WAY	
City:	REDMOND	
State/Country:	WASHINGTON	
Postal Code:	98052	

PROPERTY NUMBERS Total: 31

Property Type	Number
Patent Number:	9659002
Patent Number:	D791783
Patent Number:	D818470
Patent Number:	D813876
Patent Number:	D819041
Patent Number:	9046932
Patent Number:	9052748
Patent Number:	9384185
Patent Number:	9639266
Patent Number:	9563348
Patent Number:	10055397
Patent Number:	9189472
Patent Number:	9424246
Patent Number:	10037319
Patent Number:	10073829
Application Number:	14452887
Application Number:	14714174
Application Number:	14428972
Application Number:	14758221
Application Number:	15213168

PATENT REEL: 047259 FRAME: 0974

505152198

Property Type	Number
Application Number:	14813005
Application Number:	14812997
Application Number:	15103703
Application Number:	15179833
Application Number:	15173412
Application Number:	15389294
Application Number:	15301910
Application Number:	15465200
Application Number:	15519113
Application Number:	15742486
Application Number:	16076995

CORRESPONDENCE DATA

Fax Number: (425)936-7329

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Email: biz@microsoft.com

Correspondent Name: MICROSOFT CORPORATION

Address Line 1: ONE MICROSOFT WAY

Address Line 4: REDMOND, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	MTL-TOUCHTYPE
NAME OF SUBMITTER:	BIANCA ZHANG
SIGNATURE:	/Bianca Zhang/
DATE SIGNED:	10/22/2018

Total Attachments: 17

source=MS to MTL Executed ASN-Touch Type#page1.tif source=MS to MTL Executed ASN-Touch Type#page2.tif source=MS to MTL Executed ASN-Touch Type#page3.tif source=MS to MTL Executed ASN-Touch Type#page4.tif source=MS to MTL Executed ASN-Touch Type#page5.tif source=MS to MTL Executed ASN-Touch Type#page6.tif source=MS to MTL Executed ASN-Touch Type#page7.tif source=MS to MTL Executed ASN-Touch Type#page8.tif source=MS to MTL Executed ASN-Touch Type#page9.tif source=MS to MTL Executed ASN-Touch Type#page10.tif source=MS to MTL Executed ASN-Touch Type#page11.tif source=MS to MTL Executed ASN-Touch Type#page12.tif source=MS to MTL Executed ASN-Touch Type#page13.tif source=MS to MTL Executed ASN-Touch Type#page13.tif source=MS to MTL Executed ASN-Touch Type#page14.tif

source=MS to MTL Executed ASN-Touch Type#page15.tif source=MS to MTL Executed ASN-Touch Type#page16.tif source=MS to MTL Executed ASN-Touch Type#page17.tif

PATENT REEL: 047259 FRAME: 0975

ASSIGNMENT OF PATENTS AND APPLICATIONS

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

Microsoft Corporation, a corporation organized under the laws of Washington and having an office and place of business at One Microsoft Way, Redmond, Washington 98052 ("ASSIGNOR"),

hereby sells, assigns, transfers, and conveys to

Microsoft Technology Licensing, LLC, a limited liability company organized under the laws of Washington and having an office and place of business at One Microsoft Way, Redmond, Washington 98052 ("ASSIGNEE"),

all right, title and interest ASSIGNOR has in and to the patents and patent applications listed in Exhibit A, ("PATENTS") attached hereto, including any and all legal rights to sue for past, present and future infringement, to collect royalties, to prosecute all existing patent applications worldwide, to apply for additional patents worldwide and to have patents issue in the name of ASSIGNEE.

Assignor also assigns and transfers to the Assignee and the Assignee's legal representatives, successors and assigns, its full and exclusive rights in and to the Intellectual Property including the PATENTS in the U.S. and every foreign country, and its entire right, title, and interest in and to the related applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, reexaminations, National phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every foreign country on the Intellectual Property including the PATENTS and related applications.

Upon said consideration, Assignor conveys to the Assignee the right to make application in its own behalf on the Intellectual Property including the PATENTS and related applications in the U.S. and countries foreign to the U.S. and to claim under the Patent Cooperation Treaty, the International Convention and/or other international arrangement for any such application the date of any earlier U.S. application (or any other application on the invention) to gain priority with respect to other applications.

- (1) ASSIGNOR requests and authorizes the appropriate officials in any country, to issue any and all Letters Patent that may be granted upon any patent application or any additional, continuing or divisional applications thereof to the ASSIGNEE, its successors and assigns.
- (2) ASSIGNOR grants to ASSIGNEE and its agents the authority and power to insert on this instrument any further identification necessary or desirable for purposes of recordation in the Patent and Trademark Office of any country.

1 of 17

Touch Type

- (3) ASSIGNOR certifies that the person signing this assignment is a lawful representative of ASSIGNOR and is authorized to execute this assignment its behalf.
- (4) This assignment will become effective on the date when both ASSIGNOR and ASSIGNEE have signed it.

<u>Q1</u>	2	2018
[Date	2)	

Danielle Johnston Holmés, Assistant Secretary, Microsoft Corporation

I certify that the above-identified ASSIGNOR, personally known to me to be the same person or persons who signed the foregoing instrument, appeared before me this day in person, and acknowledged that the said instrument was signed and delivered as the free and voluntary act of the ASSIGNOR, for the uses and purposes therein set forth.

Given under my hand and seal, this October

in and for the State of Washington U.S.A. Residing at King County, Washington U.S.A. My Appointment expires: 08/29/2020

> BIANCA ZHANG Notary Public State of Washington My Commission Expires August 29, 2020

· · · · · · · · · · · · · · · · · · ·		CEM Car	v.
<u> </u>	Signature of		for ASSIGNEE.
[Date]		Sandip S. Minhas President, Microsoft	Technology Licensing, LLC

I certify that the above-identified ASSIGNEE, personally known to me to be the same person or persons who signed the foregoing instrument, appeared before me this day in person, and acknowledged that the said instrument was signed and delivered as the free and voluntary act of the ASSIGNEE, for the uses and purposes therein set forth.

Given under my hand and seal, this October 2 , 2014 [Date]

Bianca Zhang – NOTARY PUBLIC In and for the State of Washington U.S.A. Residing at King County, Washington U.S.A. My Appointment expires: 08/29/2020

> BIANCA ZHANG Notary Public State of Washington My Commission Expires August 29, 2020

EXHIBIT A

Country	Grant Number	Filing Number	Title	Status
United Kingdom		0905457.8	System And Method For Inputting Text Into Electronic Devices	Abandoned
International Procedure		PCT/GB2010/000622	System And Method For Inputting Text Into Electronic Devices	Closed
European Procedure (Patents)	2414915	10725232.2	System And Method For Inputting Text Into Electronic Devices	Closed
Germany	602010022530.5	10725232.2	System And Method For Inputting Text Into Electronic Devices	Grant
France	2414915	10725232.2	System And Method For Inputting Text Into Electronic Devices	Grant
United Kingdom	2414915	10725232.2	System And Method For Inputting Text Into Electronic Devices	Grant
Netherlands	2414915	10725232.2	System And Method For Inputting Text Into Electronic Devices	Grant
United States Of America	9659002	13/262190	System And Method For Inputting Text Into Electronic Devices	Grant
China	201080022530.6	201080022530.6	Text Input System And Method Of Electronic Device	Grant

4 of 17

Touch Type

Country	Grant Number	Filing Number	Title	Status
China		201610080975.9	System And Method For Inputting Text Into Electronic	Publication of application
European Union	002464404- 0001/0018	002464404- 0001/0018	Devices Keypads For A User Interface	Grant
European Union	002465914- 0001/0050	002465914- 0001/0050	Keypads For A User Interface (Part Of -)	Grant
European Union	002480715- 0001/0046	002480715- 0001/0046	Keypads Or Portions Thereof For User Interfaces	Grant
United States Of America	D791783	29/509274	Electronic Device Display With A Keyboard Graphical User Interface	Grant
United States Of America	D818470	29/509275	ELECTRONIC DISPLAY WITH A GRAPHICAL USER INTERFACE	Grant
United States Of America	D813876	29/509277	Electronic Device Display With A Keyboard Graphical User Interface	Grant
United States Of America	D819041	29/509279	Electronic Device Display With A Keyboard Graphical User Interface	Grant
European Procedure (Patents)		15155451.6	System And Method For Inputting Text Into Electronic Devices	Publication of application
United States Of America		14/452887	System And Method For Inputting Text Into Electronic Devices	Publication of application

United 14/714174 System And	
	Notice of
States Of Method For Inputting Text Into Electronic	Allowance
Devices	
Kingdom Method For Inputting Text Into Electronic	Abandoned
International PCT/GB2010/001898 System And	Closed
Procedure Method For Inputting Text Into Electronic	Ciosen
United 9046932 13/501087 System And	700200000000000000000000000000000000000
United 9046932 13/501087 System And Method For Inputting Text	Grant
Into Electronic	
Devices Based	
On Text And Text Category	
Predictions	
O Dragationa ()	Publication of
1 Darkenson	application
China 201080051346.4 201080051346.4 System And	Grant
Method For Inputting Text	· · · · · · · · · · · · · · · · · · ·
Into Electronic Devices	···
United 1003628.3 System And	Abandoned
Kingdom Method For Inputting Text	
Into Electronic Devices	
International PCT/GB2011/000309 System And To	Closed
Procedure Method For	
Inputting Text Into Electronic	
European 2542951 11710011.5 System And C	Closed
Procedure Method For	
(Patents) Inputting Text Into Electronic	
Devices	

Country	Grant Number	Filing Number	Title	Status
China	201180019133.8	201180019133.8	System And Method For Inputting Text Into Electronic Devices	Grant
United States Of America	9052748	13/582402	System And Method For Inputting Text Into Electronic Devices	Grant
United Kingdom		1016385.5	System And Method For Inputting Text Into Electronic Devices	Abandoned
International Procedure		PCT/GB2011/001419	System And Method For Inputting Text Into Electronic Devices	Closed
United States Of America	9384185	13/876159	System And Method For Inputting Text Into Electronic Devices	Grant
European Procedure (Patents)		11770852.9	System And Method For Inputting Text Into Electronic Devices	Publication of application
China	ZL201180053255.9	201180053255.9	System And Method For Inputting Text Into Electronic Devices	Grant
United Kingdom		1108200.5	User Input Prediction	Abandoned
International Procedure	40 40mmma	PCT/GB2012/051006	User Input Prediction	Closed
South Korea / Republic of Korea	10-1855553	10-2013-7033045	User Input Prediction	Grant
European Procedure (Patents)		12724153.7	User Input Prediction	Publication of application

Country	Grant Number	Filing Number	Title	Status
				940° 94340 9430 943
Japan		2014-510874	User Input Prediction	Publication of application
United States Of America	9639266	14/118147	User Input Prediction	Grant
China	ZL201280034978.9	201280034978.9	User Input Prediction	Grant
United Kingdom		1200643.3	System And Method For Inputting Text	Abandoned
International Procedure		PCT/GB2012/052981	A System And Method For Inputting Text	Closed
United States Of America	9563348	14/372445	System And Method For Inputting Text	Grant
China	ZL201280067256.3	201280067256.3	A System And Method For Inputting Text	Grant
European Procedure (Patents)		12808871.3	A System And Method For Inputting Text	Publication of application
South Korea / Republic of Korea		10-2014-7022433	A System And Method For Inputting Text	Publication of application
Japan	6169612	2014-551669	A System And Method For Inputting Text	Grant
United Kingdom		1201425.4	User Input Prediction	Abandoned
United Kingdom		1205598.4	User Input Predictiom	Abandoned
International Procedure		PCT/GB2013/050182	User Data Input Prediction	Closed
China	ZL201380006966.X	201380006966.X	User Data Input Prediction	Grant
European Procedure (Patents)		13702263.8	User Data Input Prediction	Publication of application
South Korea / Republic of Korea		10-2014-7023559	User Data Input Prediction	Publication of application

Country	Grant Number	Filing Number	Title	Status
Japan	6335794	2014-553807	User Data Input Prediction	Grant
United Kingdom		1208373.9	Mechanism For Synchronising Devices,System And Method	Abandoned
International Procedure		PCT/GB2013/051244	Mechanism, System And Method For Synchronising Devices	Closed
United States Of America	10055397	14/401500	Mechanism For Synchronising Devices, System And Method	Grant
South Korea / Republic of Korea		10-2014-7035005	Mechanism, System And Method For Synchronising Devices	Publication of application
European Procedure (Patents)		13726014.7	Mechanism, System And Method For Synchronising Devices	Publication of application
China	ZL201380035041.8	201380035041.8	Mechanism For Synchronising Devices, System And Method	Grant
Japan		2015-512123	Mechanism For Synchronising Devices, System And Method	Notice of Allowance
United Kingdom		1216640.1	Formatting Module, System And Method For Formatting An Electronic Character Sequence	Abandoned

Country	Grant Number	Filing Number	Title	Status
International Procedure		PCT/GB2013/052443	Formatting Module, System And Method For Formatting An Electronic Character Sequence	Closed
Japan	6273285	2015-531650	Formatting Module, System And Method For Formatting An Electronic Character Sequence	Grant
United States Of America		14/428972	Formatting Module, System And Method For Formatting An Electronic Character Seguence	Publication of application
China		201380048564.6	Formatting Module, System And Method For Formatting An Electronic Character Sequence	Publication of application
European Procedure (Patents)		13771173.5	Formatting Module, System And Method For Formatting An Electronic Character Sequence	Publication of application
United Kingdom		1223450.6	Search And Corresponding Method	Abandoned
International Procedure		PCT/GB2013/053433	Search System And Corresponding Method	Closed

Country	Grant Number	Filing Number	Title	Status
United States Of America		14/758221	Search System And Corresponding Method	Publication of application
China		201380068827.X	Search System And Corresponding Method	Publication of application
European Procedure (Patents)		13821126.3	Search System And Corresponding Method	Publication of application
United Kingdom		1321927.4	System And Method For Inputting Text Into Electronic Devices	Abandoned
United Kingdom		1419489.8	System And Method For Inputting Text Into Electronic Devices	Abandoned
International Procedure		PCT/GB2014/053665	System And Method For Inputting Text Into Electronic Devices	Ciosed
United Kingdom		1322037.1	System And Method For Inputting Images/Labels Into Electronic Devices	Abandoned
International Procedure		PCT/GB2014/053688	System And Method For Inputting Images Or Labels Into Electronic Devices	Closed
United States Of America		15/213168	System And Method For Inputting Text Into Electronic Devices	Publication of application

Country	Grant Number	Filing Number	Title	Status
Japan		2014-077801	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Publication of application
International Procedure		PCT/GB2015/051050	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Closed
United States Of America		62/048195	Systems And Methods For Multiuse Of Keys For Virtual Keyboard And Generating Animation Associated With A Key	Closed
United States Of America		14/813005	Systems And Methods For Multiuse Of Keys For Virtual Keyboard And Generating Animation Associated With A Key	Publication of application
United States Of America		62/048199	Systems And Methods For Multiuse Of Keys For Virtual Keyboard	Closed
United States Of America		14/812997	Systems And Methods For Multiuse Of Keys For Virtual Keyboard	Publication of application
United Kingdom		1418402.2	Text Prediction Integration	Abandoned

Country	Grant Number	Filing Number	Title	Status
United Kingdom		1419798.2	Text Prediction Integration	Filing
International Procedure		PCT/GB2015/053067	Text Prediction Integration	Closed
United Kingdom		1510318.7	System And Method For Generating Text Predictions	Abandoned
United Kingdom		1511887.0	Improved Artificial Neural Network For Language Modelling And Prediction	Abandoned
United Kingdom		1602308.7	System And Method For Generating Predictions	Abandoned
United States Of America	9189472	13/415574	System And Method For Inputting Text Into Small Screen Devices	Grant
United States Of America	9424246	14/307308	System And Method For Inputting Text Into Electronic Devices	Grant
United States Of America	10037319	14/341717	User Input Prediction	Grant
Hong Kong		16101647.7	Search And Corresponding Method	Publication of application
China		201480067442.6	System And Method For Inputting Text Into Electronic Devices	Publication of application
European Procedure (Patents)		14819054.9	System And Method For Inputting Text Into Electronic Devices	Publication of application

Country	Grant Number	Filing Number	Title	Status
India		201647019864	System And Method For Inputting Text Into Electronic Devices	Local filing
South Korea / Republic of Korea		10-2016-7015393	System And Method For Inputting Text Into Electronic Devices	Publication of application
United States Of America		15/103703	System And Method For Inputting Text Into Electronic Devices	Publication of application
China		201480067660.X	System And Method For Inputting Images Or Labels Into Electronic Devices	Publication of application
European Procedure (Patents)		14819056,4	System And Method For Inputting Images Or Labels Into Electronic Devices	Publication of application
India		201647019863	System And Method For Inputting Images Or Labels Into Electronic Devices	Local filing
South Korea / Republic of Korea		10-2016-7018754	System And Method For Inputting Images Or Labels Into Electronic Devices	Publication of application
United States Of America		15/179833	System And Method For Inputting Images Or Labels Into	Publication of application

Country	Grant Number	Filing Number	Title	Status
United States Of America		15/173412	System And Method For Inputting Text Into Electronic Devices	Notice of Allowance
International Procedure		PCT/GB2016/051737	System And Method For Generating Text Predictions	Abandoned
International Procedure		PCT/GB2016/052022	Improved Artificial Neural Network For Language Modelling And Prediction	Closed
United States Of America		15/389294	System And Method For Inputting Text	Publication of application
China		201580018626.8	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Publication of application
European Procedure (Patents)		15715806.4	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Publication of application
India		201647033608	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Local filing
South Korea / Republic of Korea		10-2016-7030996	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Publication of application

Country	Grant Number	Filing Number	Title	Status
United States Of America		15/301910	System And Method For Inputting One Or More Inputs Associated With A Multi-Input Target	Publication of application
International Procedure		PCT/GB2017/050200	System And Method For Generating Predictions	Closed
United States Of America		15/465200	User Input Prediction	Publication of application
China		201580056058.0	Text Prediction Integration	Publication of application
European Procedure (Patents)		15784743.5	Text Prediction Integration	Publication of application
United States Of America	10073829	15/493028	SYSTEM AND METHOD FOR INPUTTING TEXT INTO ELECTRONIC DEVICES	Grant
United States Of America		15/519113	Text Prediction Integration	Publication of application
Japan		2017-126156	A System And Method For Inputting Text	Local filing
France	2542951	11710011.5	System And Method For Inputting Text Into Electronic Devices	Grant
Germany	602011048010.3	11710011.5	System And Method For Inputting Text Into Electronic Devices	Grant
Netherlands	2542951	11710011.5	System And Method For Inputting Text Into Electronic Devices	Grant

Country	Grant Number	Filing Number	Title	Status
United Kingdom	2542951	11710011.5	System And Method For Inputting Text Into Electronic Devices	Grant
China		201680040427.1	Improved Artificial Neural Network For Language Modelling And Prediction	Publication of application
European Procedure (Patents)		16738856.0	Improved Artificial Neural Network For Language Modelling And Prediction	Publication of application
United States Of America		15/742486	IMPROVED ARTIFICIAL NEURAL NETWORK FOR LANGUAGE MODELLING AND PREDICTION	Local filing
China		201710761127.9	System And Method For Inputting Text Into Electronic Devices	Publication of application
China		201780010545.2	System And Method For Generating Predictions	Local filing
European Procedure (Patents)		17703213.3	System And Method For Generating Predictions	Local filing
India		201817028992	System And Method For Generating Predictions	Local filing
United States Of America		16/076995	System And Method For Generating Predictions	Local filing

17 of 17

Touch Type