PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5509568

SUBMISSION TYPE:	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:	ASSIGNMENT			

CONVEYING PARTY DATA

Name	Execution Date	
DANIEL MCCAFFREY	05/16/2013	
KEVIN A LEE	08/24/2011	
KENNETH RUDIN	08/22/2011	
YAN ZHANG	08/22/2011	
ANANDA GHOSH	08/24/2011	

RECEIVING PARTY DATA

Name:	ZYNGA INC.
Street Address:	699 EIGHTH STREET
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94103

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16398084

CORRESPONDENCE DATA

Fax Number:

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: request@slwip.com

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER, P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	3291.071US6
NAME OF SUBMITTER:	KERRI WRIGHT
SIGNATURE:	/Kerri Wright/
DATE SIGNED:	05/07/2019

Total Attachments: 9

source=3291071US6RecordationCSJAL5619#page1.tif source=3291071US6RecordationCSJAL5619#page2.tif

PATENT REEL: 049096 FRAME: 0798

505462765

source=3291071US6RecordationCSJAL5619#page3.tif	
source=3291071US6RecordationCSJAL5619#page4.tif	
source=3291071US6RecordationCSJAL5619#page5.tif	
source=3291071US6RecordationCSJAL5619#page6.tif	
source=3291071US6RecordationCSJAL5619#page7.tif	
source=3291071US6RecordationCSJAL5619#page8.tif	
source=3291071US6RecordationCSJAL5619#page9.tif	

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 3291.071US6 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Zynga Inc. Daniel McCaffrey, Kevin A. Lee, Kenneth Rudin, Yan Street Address: 699 Eighth Street Zhang, Ananda Ghosh City: <u>San Francisco</u> State: <u>CA</u> Country: <u>United States of America</u> Additional name(s) of conveying party(ies) attached? Zip: <u>94103</u> []Yes [X]No Additional name(s) & address(es) attached? []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: May 16, 2013, August 24, 2011, August 22, 2011, August 22, 2011, August 24, 2011 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 16/398,084 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ 0.00 Name: Jacques A. Loock [[Enclosed [Authorized to be charged to deposit account 19-Address: 0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743 Minneapolis, Minnesota 55402 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. May 6, 2019 Jacques A. Loock/Reg. No. 70,140 Name of Person Signing Signature Date Total number of pages including cover sheet: 9

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

ASSIGNMENT

WHEREAS, We, Daniel McCaffery, Kevin Lee, Ken Rudin, Yan Zhang, and Ananda Ghosh, whose mailing address is 444 De Haro Street, Suite 132, San Francisco, CA 94107, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent entitled <u>FRIEND</u> <u>RECOMMENDATION SYSTEM</u>;

WHEREAS, We hereby authorize and request the attorneys, representing Zynga Inc. on this application, at Schwegman, Lundberg & Woessner, P.A., located at 121 South Eighth Street, Suite 1600, Minneapolis, MN 55402, to insert here in parentheses (Ser. No. 13/218,885; Filing Date: 08/26/2011) the filing date and application number of said application when known.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do hereby:

SELL, ASSIGN AND TRANSFER to Zynga Inc. (the "Assignee"), a corporation of the State of DE, having a place of business at 444 De Haro Street, Suite 132, San Francisco, CA 94107, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for U.S. Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

Additional Application Information

No Provisional claim for priority is being made at this time.

No U.S. Non-Provisional claim for priority is being made at this time.

No International or foreign claim for priority is being made at this time.

Docket No. 3291.071US1

Assignment
Cliem Ref. No. P1105US1
Assignors: Daniel McCaffery et al.
Title: FRIEND RECOMMENDATION SYSTEM
Page 2 of 6

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

Inventor: 1:	m Mandall	,ji
(Signature):		, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Name: Daniel McCaffery	
Date:	8/22/20//	

Assignment
Client Ref. No. P1105US1
Assignors: Daniel McCaffery et al.
Title: FRIEND RECOMMENDATION SYSTEM
Page 3 of 6

Docket No. 3291,071US1

Inventor: 2:

(Signature):

Name: Kevin Lee

Date: \$\lambda 2 \forall \sqrt{201}\lambda

Assignment
Client Ref. No. P1105US1
Assignors: Daniel McCaffery et al.
Title: FRIEND RECOMMENDATION SYSTEM

Docket No. 3291,071U81

Inventor: 3:

Page 4 of 6

(Signature):_

Name: Ken Rudin

Date:

Assignment
Client Ref. No. P1105US1
Assignors: Daniel McCaffery et al.
Tide: FRIEND RECOMMENDATION SYSTEM
Page 5 of 6

Docket No. 3291.071US1

Ř'n۱	٧	6	١	n	t	0	Ì	4:	

(Signature):

Name: Yan Zhang

Date:

Assignment

Client Ref. No. P1105US1

Assignors: Daniel McCaffery et al.

Title: FRIEND RECOMMENDATION SYSTEM

Page 6 of 6

Inventor: 5:

(Signature):

Name: Ananda Ghosh

Date:__ 8/24/2011

PATENT REEL: 049096 FRAME: 0806

Docket No. 3291.071US1

ASSIGNMENT

WHEREAS, Daniel McCaffrey (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on August 26, 2011, which application was assigned US patent application serial number 13/218,885, and which is titled FRIEND RECOMMENDATION SYSTEM; which are described in a patent application filed on June 30, 2011, which application was assigned US application serial number 61/503,593, and which is titled ACTIVE SOCIAL NETWORKS TRACKING METRICS.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Zynga Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 699 Eighth Street, San Francisco, CA 94103, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 107322 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

Page 2 of 2

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned,

and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute,

renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths,

declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate

with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any

of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall

reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for

securing, maintaining and enforcing proper patent protection for the invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision

with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignor:

Name: Daniel McCaffrey

City/State: San Bruno, CA

PATENT

REEL: 049096 FRAME: 0808