(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 July 2023 (13.07.2023)

WIPO | PCT

(10) International Publication Number
WO 2023/130942 A1

(51) International Patent Classification:
G06F 21/62 (2013.01)

(21) International Application Number:
PCT/CN2022/139938

(22) International Filing Date:
19 December 2022 (19.12.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/297,469 07 January 2022 (07.01.2022) US
17/694,540 14 March 2022 (14.03.2022) US

(71) Applicant: **BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD.** [CN/CN]; Room B-0035, 2/F, No. 3 Building, No. 30, Shixing Road, Shijingshan District, Beijing 100041 (CN).

(72) Inventors: **ZHANG, Jianqing**; 12655 West Jefferson Boulevard, Sixth Floor, Suite No. 137, Los Angeles, California 90066 (US). **LUO, Zhengqin**; 12655 West Jefferson Boulevard, Sixth Floor, Suite No. 137, Los Angeles, California 90066 (US). **TIAN, Zhipeng**; 5800 Bristol Pkwy, Culver City, California 90230 (US). **SANG, Lifeng**; 12655 West Jefferson Boulevard, Sixth Floor, Suite No. 137, Los Angeles, California 90066 (US). **DU, Mu**; 5800 Bristol Pkwy, Culver City, California 90230 (US). **SHEN, Ruoxin**; 12655 West Jefferson Boulevard, Sixth Floor, Suite No. 137, Los Angeles, California 90066 (US). **ZHANG, Xuan**; 5800 Bristol Pkwy, Culver City, California 90230 (US).

(74) Agent: **KING & WOOD MALLESONS**; 20th Floor, East Tower, World Financial Centre, No. 1 Dongsanhuan Zhonglu, Chaoyang District, Beijing 100020 (CN).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,

(54) Title: DATA ACCESS GATEWAY FOR SECURITY &PRIVACY

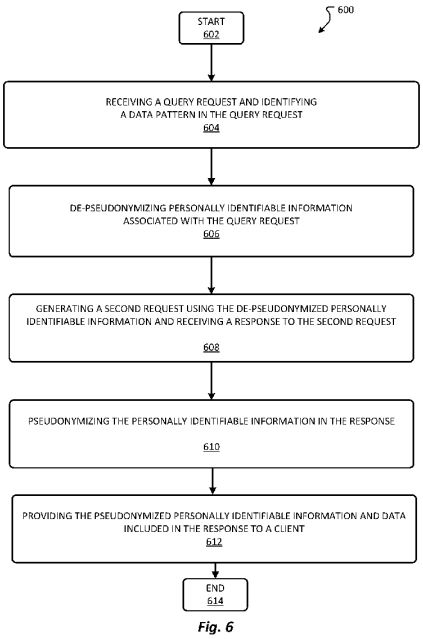

Fig. 6

(57) Abstract: Systems and methods for processing data are described. More specifically, a query request may be received and a data pattern may be identified in the query request. Personally identifiable information associated with the query request may then be de-pseudonymized. Accordingly, a second request using the de-pseudonymized personally identifiable information and receiving a response to the second request may be generated. The personally identifiable information in the response may be pseudonymized such that the pseudonymized personally identifiable information and data included in the response is provided to a client.

WO 2023/130942 A1

[Continued on next page]

TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*