

(12) **United States Patent**
LaFever et al.

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(54) **SYSTEMS AND METHODS FOR ENHANCING DATA PROTECTION BY ANONOSIZING STRUCTURED AND UNSTRUCTURED DATA AND INCORPORATING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE IN CLASSICAL AND QUANTUM COMPUTING ENVIRONMENTS**

(52) **U.S. Cl.**
CPC **G06F 21/6254** (2013.01); **G06F 21/6218** (2013.01); **G06F 21/6263** (2013.01);
(Continued)

(58) **Field of Classification Search**
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,430,755 B1 9/2008 Hughes
7,454,356 B2 11/2008 Fields
(Continued)

FOREIGN PATENT DOCUMENTS

DE 19638072 A1 3/1998
EP 1154624 A2 11/2001
WO 2013097886 A1 7/2013

OTHER PUBLICATIONS

Singer, Natasha, FTC Member Starts ‘Reclaim Your Name’ Campaign for Personal Data, The New York Times Bits, Jun. 26, 2013, available at <http://bits.blogs.nytimes.com/2013/06/26/reclaim-your-name/pagewanted=print>.

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(57) **ABSTRACT**

Systems, computer-readable media, and methods for improving both data privacy/anonymity and data value, wherein real-world, synthetic, or other data related to a data subject can be used while minimizing re-identification risk by unauthorized parties and enabling data, including quasi-identifiers, related to the data subject to be disclosed to any authorized party by granting access only to the data relevant to that authorized party’s purpose, time period, purpose, place and/or other criterion via the required obfuscation of specific data values, e.g., pursuant to the GDPR or HIPAA,

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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