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LaFever et al.

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(54) **DYNAMIC DE-IDENTIFICATION AND ANONYMITY**

(56) **References Cited**

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

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OTHER PUBLICATIONS

Dunning, L., et al, 'Privacy Preserving Data Sharing With Anonymous ID Assignment', IEEE Transactions on Information Forensics and Security, vol. 8, No. 2, Feb. 2013, entire document, <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6389771>.*

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(57) **ABSTRACT**

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Various systems, computer-readable media, and computer-implemented methods of providing improved data privacy, anonymity and security by enabling subjects to which data pertains to remain "dynamically anonymous," i.e., anonymous for as long as is desired—and to the extent that is desired—are disclosed herein. Embodiments include systems that create, access, use, store and/or erase data with increased privacy, anonymity and security, thereby facilitating the availability of more qualified and accurate information. When data is authorized by subjects to be shared with third parties, embodiments may facilitate sharing information in a dynamically controlled manner that enables delivery of temporally-, geographically-, and/or purpose-limited information to the receiving party. In one example, anonymity measurement scores may be calculated for the shared data elements so that a level of consent/involvement required by the Data Subject before sharing the relevant data elements to third parties may be specified.

Related U.S. Application Data

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See application file for complete search history.

30 Claims, 43 Drawing Sheets

