

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

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(54) **CALCULATING RISK ASSESSMENT VALUE OF EVENT SEQUENCE**

(58) **Field of Classification Search**
None
See application file for complete search history.

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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 630 days.

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This patent is subject to a terminal disclaimer.

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(21) Appl. No.: **13/688,724**

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Related U.S. Application Data

(63) Continuation of application No. 13/681,688, filed on Nov. 20, 2012, now Pat. No. 8,983,890.

(57) **ABSTRACT**

Foreign Application Priority Data

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Provided are a method, an apparatus and a computer program for calculating a risk assessment value for an event sequence, which are capable of calculating the risk assessment value of each even sequence by calculating a totally ordered set on the basis of a partially ordered set indicating the event sequence. The risk assessment value of an event sequence that is a partially ordered set indicating some events of an event group of M kinds of events (M is a finite natural number) in a time series. The partially ordered set is converted into an approximate totally ordered set, and an M-dimensional feature vector is calculated based on the totally ordered set obtained by the conversion. A projection matrix for calculating the risk assessment value is calculated using the calculated M-dimensional feature vector.

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CPC **G06N 5/02** (2013.01); **G06Q 10/0635** (2013.01); **G06Q 50/22** (2013.01)

6 Claims, 7 Drawing Sheets

