Topic of the session

Googlekonomia

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Abstract

The Googlekonomia is an alternative economic research technique that focus on find the best and easy access to a large number of economic database and documents from different sources in internet.

The main objective of Googlekonomia is to evaluate the economic database and documents trustworthy from different websites and searching engines.

Subsequently, the Googlekonomia is able to monitoring, evaluating, and classifying a large number of economic database and documents to study and solve possible economic problems.

Finally, the Googlekonomia evaluates a large number of possible economic database and documents access in the internet sources and search engines based on the uses of artificial intelligence and a real-time multi-dimensional graphical modeling approach together.

Googlekonomia

"Googlekonomia" can be defined as "an economic research technique in searching, finding, and verifying different economic research sources access to obtain a large list of different economic database or documents (scientific magazines, technical reports, working papers, monographs, journals, newspapers, encyclopaedias, or books) through the uses of artificial intelligence and a real time multidimensional graphical visualization modeling that is supported by the use of different internet searching engines as well as a large number of websites, to analytically evaluate truthfulness and reliability of different economic database and documents access around the world, anywhere and anytime."

As an integral part of this definition, "economic database" is defined as "a large collection of qualitative and quantitative economic data in different historical periods to evaluate specific economic problems affecting, directly or indirectly, different social groups across different historical times and geographical spaces."

Data Collection

The searching of economic database and documents to evaluate different economic problems were hardly dressed in the past. Because, in the past the search of economic database and documents to wrote any document such as a journal paper, book (edited, individual chapter, or full author), policy reports, working paper, projects, or any academic document involved a serial of difficulties such as:

(i) the factor time to spent longer hours in libraries, thinks tanks, statistics departments, and government agencies in the process to collect economic database;

(ii) the restriction to obtain full economic database and documents from private or public institutions;

(iii) the costly price to obtain a hard or soft copy of any economic database and document for individual researchers.

Data Collection

The collection of economic database and documents always have been concentrated in a few number of developed countries (monopoly of knowledge) until the rest of the world got access to open economic database and documents in middle of 1990's.

Therefore, the fast proliferation of users (researchers) growth exponentially in the decade of 1990s worldwide (Atasoy, 2013) under the uses of a new economic research platform by the uses of the world wide web (www using HHTP that is one of many protocols of internet).

The fast expansion and uses of the internet creates a new alternative information source to generate a large supply or demand of economic database and documents sources virtually everywhere and anytime.

Internet

The internet opens a new opportunity to researchers and academics in economics improve its research qualitative and quantitatively without any restriction or limitations respectively. Moreover, the main problem became more complex nowadays in getting an easy access to a economic database and documents.

However, we also can observe that many information centres offer so many database and documents illegally without any official authorization preliminary.

Additionally, the fast spread of fake and illegal (piracy) economic database and documents in internet is generating inconsistency to elaborate trustable economic research to evaluate economic problems. Going forward, we look for possible future evolutions in the collection of economic database and documents access. Possible future face three key challenges:

(i) the booming of advanced economic database digitalization and visualization based on the uses of real time database collection and a multidimensional graphical visualization instantaneously;

(ii) the uses of artificial economic intelligence in the economic research;

(iii) the uses of the natural organic economic intelligence systems.

Internet

The future uses of the advanced economic database digitalization and visualization is going to be under the uses of advanced software and computers with a high capacity of storage and speed. At the same time, these super-computers are going to be able to simultaneously run a long series of fuzzy stochastic or non-stochastic variables onto infinite equations with a minimum margin of error.

The primary objective of the advanced economic database digitalization and visualization is to generate different calibrated possible scenarios under varying levels of risk to evaluate possible policies to solve any economic problem.

The main challenge of the advanced economic database digitalization and visualization is moving from the traditional economic database and documents collection to the real-time economic database and documents collection.

The second challenge in the real-time economic database and documents collection is the use of the artificial intelligence to solve economic problems, also known as the neural networks approach. The neural networks provide a potentially significant analytical tool to evaluate economic database and documents collection, analysis, and visualization. The primary objective of neural networks is to choose among a large economic database and documents, as well as the most suitable possible economic database and documents to solve an economic problem anytime and anywhere.

Internet

These suggestions are originated from a serial of difficulties to collect a valid and suitable economic database and documents from past experiences of successful theoretical or empirical research studies.

Therefore, the adaptation of artificial intelligence to solve economic problems is directly connected to a new mathematical modeling such as the chaos theory, logical mathematics, and neural networks.

The third profound transformation of the economic database and documents collection is the natural organic economic intelligence (Ruiz Estrada and Park, 2018). It is based on the interaction of mega-computers, sophisticated software, and practical applications based on the use of advanced computer languages and detailed mathematical algorithms, along with artificial intelligence and robotics systems.

In addition, there exists a high probability of applying new multi-dimensional graphs from Econographicology together with holograms. The holograms will be able to show to any researcher the complexity and dynamicity of any economic database or documents access behavior in real time. It also gives the researcher a new visual perception of any economic problem trend from a multidimensional perspective. The researcher is able to interact directly or indirectly into the hologram to observe a large number of variables and equations are interacting in any economic problem simultaneously.

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Model

The construction of Googlekonomia is based on the economic database and documents searching in real time can be done with the help of Econographicology (Ruiz Estrada, 2017). Econographicology will supply different multi-dimensional graphical tools. The software required for economic database and documents searching in real time follows various steps.

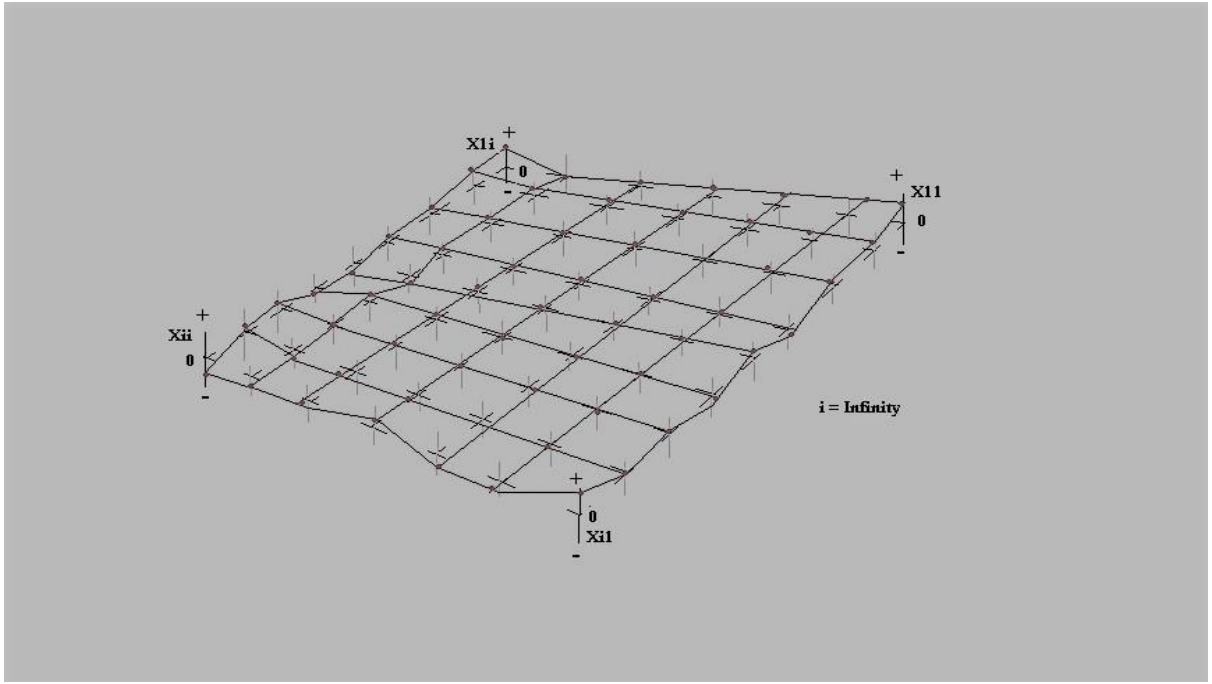
Firstly, a standard format to put in information daily on a line.

Second, all these information (qualitative or quantitative data) (I) can be transferred to different economic database (DB) which are interconnected to a unique information data center.

And third, the same software can work immediately to plot different information (I) from different economic database (DB) to the multi-dimensional physical space. Every observation from a database depends on different economic database sources such as the central bank, government agencies, private companies, national statistical departments and public and private research institutes as demonstrated in Fig. 1. Each plotted point in the multi-dimensional physical space is always changing.

We use the concept of data changing in real time (See expression 2). Data changes basically in real time are due to the comparison of information (I) between two periods of time (the past and the present period of time). Similarly, the economic database collection and visualization changes in real time are fixed into their coordinate and variable positions all the time. Additionally, we would like to remind that all changes of data in real time plotted in the multi-dimensional physical space are linked together by straight lines which form a single mega-surface in the same physical space. In our case, we are referring to the Economic Database Access Surface (EDA-Surface) (See Fig. 1).

Fig. 1. The Economic Database Access Surface (EDA-Surface)



Model

The Googlekonomia model in real time routinely starts with the input data of different internet sources as shown below:

$I_{C:R} = Q_1: Q_2:\ldots:Q_\infty$ (1)

I = Input data Q = Question(s) C = Column R = Row

The next step is the storage in the database (DB) which is described with the help of equation 2.

$DB_{C:R} = ☼SI_{C:R} \fatslash\!\!\fatslash \ldots \fatslash\!\!\fatslash ☼SI_{C:R}\ldots$ (2)

C = {1, 2, 3…n} n = ∞
R = {1, 2, 3…n} n = ∞

Note: Where DB = Database C = Column R = Row ☼ = Running information in real time SI = Save Information
$\fatslash\!\!\fatslash$ = Interlink Database

In the case of data changes in real time ($☼\Delta I_{C:R}$), we compare the information we received a day before (t-1 = past period of time) and the information today (t = actual period of time) as presented in expression 3.

$☼\Delta I_{C:R} = ☼SI(t) – ☼SI(t\text{-}1)/ ☼SI(t\text{-}1)$ (3)

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$DB_{C:R} = ☼SI_{C:R} \fatslash\!\!\fatslash \ldots \fatslash\!\!\fatslash ☼SI_{C:R} \ldots$ (2)

$C = \{1, 2, 3 \ldots n\}\ n = \infty$ & $R = \{1, 2, 3 \ldots n\}\ n = \infty$

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Finally, the plotting of real time data is illustrated by the following in expression 4.

$Y_{sf} = f\ (☼\Delta I_{11} \fatslash\!\!\fatslash \ldots \fatslash\!\!\fatslash ☼\Delta I_{\infty\infty})$ (4)

Model

The EDA-Surface starts by building the growth rate function of each independent variable as shown by the following expression:

$$☼\Delta I_{i:j} = ☼\Delta I(t) - ☼\Delta I(t\text{-}1) / ☼\Delta I(t\text{-}1) \quad (5)$$

Where the row: $i = \{1, 2, 3 \ldots n\}$ $n = \infty$; the column: $j = \{1, 2, 3 \ldots n\}$ $n = \infty$; Δ = Growth rate; ☼ = Running information in real time; t-1 = past period of time and t = actual period of time. Each independent variable in the EDA-Surface in the coordinate system can be represented as below:

$$☼\Delta I_{i:j} = (X_{i:j}, Y_{i:j}) \quad (6)$$

Where $X = \{-\infty \ldots -3, -2, -1, 0, 1, 2, 3 \ldots \infty+\}$ and $Y = \{-\infty \ldots -3, -2, -1, 0, 1, 2, 3 \ldots \infty+\}$

The next step is to build the final EDA-Surface given by (i x j).

Model

Where X = {-∞ … -3, -2, -1, 0, 1, 2, 3…∞+} and Y = {-∞ … -3, -2, -1, 0, 1, 2, 3…∞+}
The next step is to build the final EDA-Surface given by (i x j).

$$\text{EDA-Surface} = \begin{pmatrix} \Delta I_{11} \Vdash \Delta I_{12} \Vdash \cdots\cdots \Vdash \Delta I_{1\infty} \\ \Delta I_{21} \Vdash \Delta I_{22} \Vdash \cdots\cdots \Vdash \Delta I_{2\infty} \\ \Delta I_{31} \Vdash \Delta I_{32} \Vdash \cdots\cdots \Vdash \Delta I_{3\infty} \\ \vdots \quad \vdots \quad \vdots \quad \vdots \\ \Delta I_{ij} \Vdash \Delta I_{i+1j+1} \Vdash \cdots\cdots \Vdash \Delta I_{\infty\infty} \end{pmatrix} \quad (7)$$

Where i = {1, 2, 3…∞}; j = {1, 2, 3…∞} and "⫦" is equal to the interlinking variables.
Finally, the analysis of the final mega-surface is based on the location of all independent variables in the EDA-Surface. Hence, we have the following three possible results:

(1) If EDA-Surface > 0 then our EDA-Surface becomes black in colour, indicating an easy economic database access.
(2) If EDA-Surface = 0 then our EDA-Surface becomes grey, showing a hard economic database access.
(3) If EDA-Surface < 0 then our EDA-Surface becomes light grey, representing an impossible economic database access.

Put simply, the colour of the EDA-Surface can alert us just in time in case of a possible impossible economic database access. We would like to state that we cannot stop to get an easy economic database and documents access. However, we only can reduce the damage caused by the limited access to the economic database and documents respectively. Therefore, the findings of the best economic database have serious implications for both researchers and policy makers.

SIMULATION #1

https://www.youtube.com/watch?v=yxGtiX5gRpo&index=63&list=UUaubNDBG66bJ6VJNppIdwLA

SIMULATION #2

https://www.youtube.com/watch?v=-pKu84OqpSM

THANK YOU