

Lattice Energy LLC

Commercializing a Next-Generation Source of Safe Nuclear Energy

Low Energy Nuclear Reactions (LENRs)

Use of the Google 'Insights for Search Beta' as a possible tool for helping to assess changes in public interest about selected topics involving the subject of energy

Brief Preliminary Report



"Energy, broadly defined, has become the most important geostrategic and geoeconomic challenge of our time."

*Thomas Friedman
New York Times, April 28, 2006*

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- In August 2008, Google introduced a potentially important new analytical tool called 'Insights for Search Beta'
- Lattice has been utilizing this tool since September 2008 to help assess potential trends and changes in public interest about certain selected topics (as reflected in the frequency of use/choice of specific search terms) involving the subject of energy
- This brief preliminary report presents some interesting data about search term volumes concerning energy that we have uncovered using this tool. We are sharing this with the Google user community to elicit comments and stimulate broader use of the tool

To use this new analytical tool yourself and explore this or other topics of interest, please go to:

<http://www.google.com/insights/search/#>

The instructions on the webpage are self-explanatory; the tool itself is very intuitive, albeit relatively new

Please recognize that Google's underlying databases for Insights only go back to 2004, so we are not dealing with a very long time-series of data --- that is a significant caveat

Another caveat is that Lattice's choice of search terms to input was highly selective; their bias reflects our subjective worldview of energy

That having been said, we are excited about new possibilities that might be enabled by this unique analytical tool

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- **Comments and conclusions expressed in this Lattice report are preliminary, admittedly speculative, and potentially subject to substantial revision as more and better data is accumulated over time**
- **Since the underlying data time-series is less than 5 years old and Google's tool is very new, there may be underlying statistical bias and evanescent artifacts present that affect the tool's output in ways that are likely to be poorly understood and impossible to anticipate**
- **Nonetheless, some of the results we have uncovered are very interesting and may be worth monitoring going forward**

To understand details of Lattice's worldview on energy, please go to:

<http://www.i-sis.org.uk/scienergy.php>

In our worldview, LENRs represent a potentially game-changing clean, 'green' nuclear energy technology. Unlike more familiar fission and fusion power generation technologies that are based on what we physicists call the 'strong interaction,' LENRs are instead dominated by the 'weak interaction.' This fundamental difference in the underlying physics of energy generation could enable LENR technology to have major competitive advantages over fission and fusion because LENRs do not produce any significant fluxes of dangerous energetic neutrons, 'hard' gamma radiation, and/or any appreciable amounts of environmentally dangerous, long-lived radioactive isotopes.

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Remarks about Google Insights results to be presented:

- ✓ What follows are actual Windows 'PrtScrn' images of the results of selected search terms that were input to Google Insights; nothing whatsoever has been altered --- the slide images presented represent 'raw' results
- ✓ Each result is dated, so viewers can see exactly when each Insights graph was created; please be aware that such results can be volatile and may change significantly over time. Indeed, the sudden, unexpected appearance of 'low energy nuclear reactions' as a significant string of search terms for the very first time (since September 2008) on April 02, 2009, then *changed* on April 04, 2009, when a second earlier 'spike' from August 2007 appeared. At this point, it is unclear whether the 'new' 2007 event is some sort of artifact
- ✓ In our opinion, trying to correlate changes in search term frequencies with specific news items is very problematic. In some cases, cause-and-effect appears superficially 'obvious,' such as with the controversial, widely reported March 23, 2009, American Chemical Society (ACS) press release on LENRs. In many other cases, causality is very murky at best. Trends in such data or significant *changes* in longstanding trends may be better indicators of what might actually be happening to public interest in a given topic

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Subject to previously noted caveats, preliminary conclusions from our investigations with “Insights” to date are as follows:

- ✓ At least in the United States, during the past year there may have been some sort of potentially important ‘epiphany’ or sea-change in public interest on the topic of energy, insofar as such a shift would be reflected in the form of increased volumes of Google searches involving the keyword ‘energy’
- ✓ Interestingly, although search volumes involving ‘oil price’ spiked sharply upward in 2008, they have since (as of April 2009) reentered the upper-third of the old multiyear trading range. Perhaps significantly, search volumes in ‘energy’ and ‘green energy’ have gone on to make new highs in 2009, even though the price of oil has dropped substantially from its highs back in 2008
- ✓ Search volumes in the topic of ‘nuclear energy’ have been declining since 2004. Although the chart appears to be ‘bottoming out,’ the data is unclear whether interest in the topic is poised to enter a new uptrend

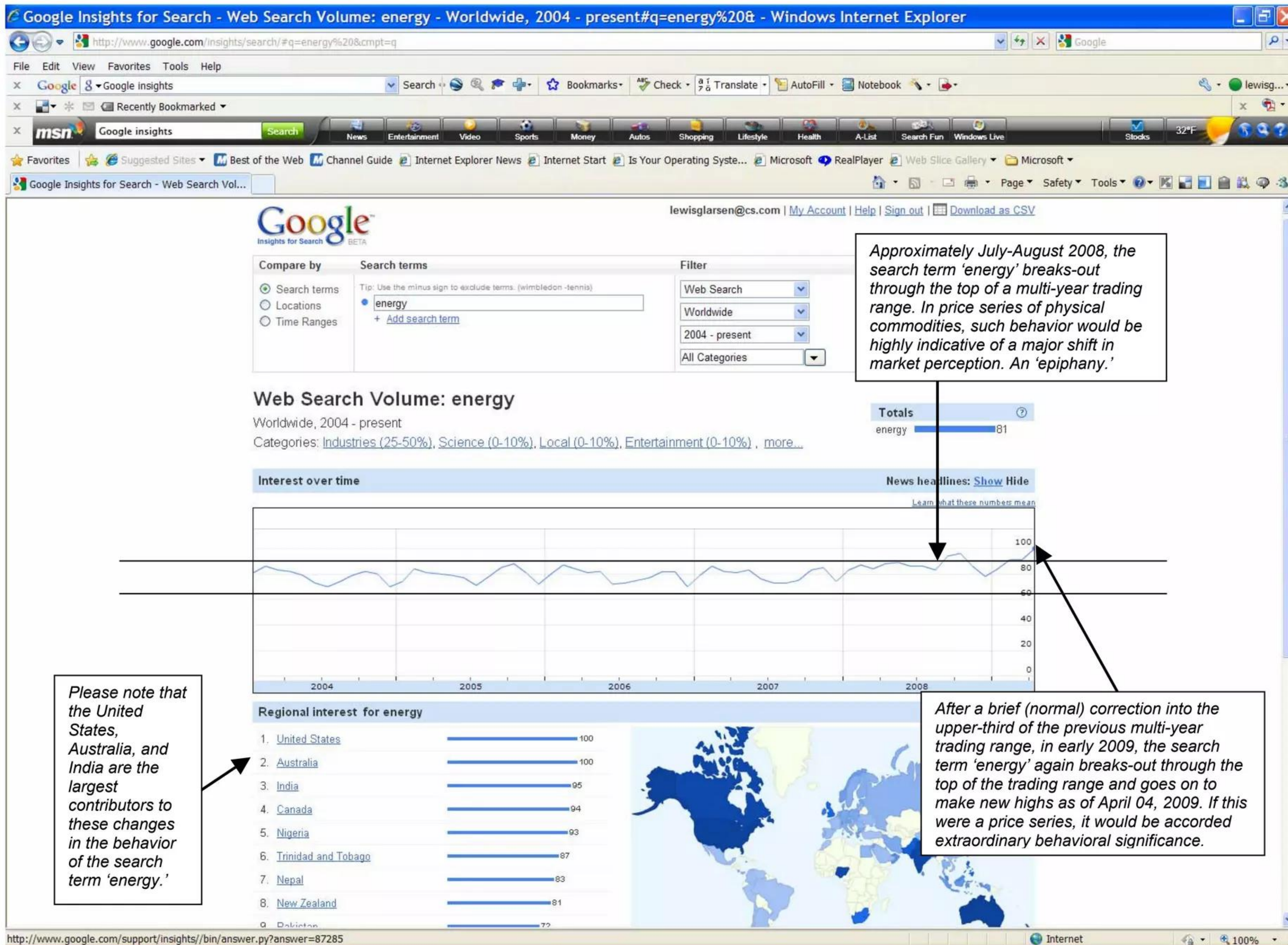
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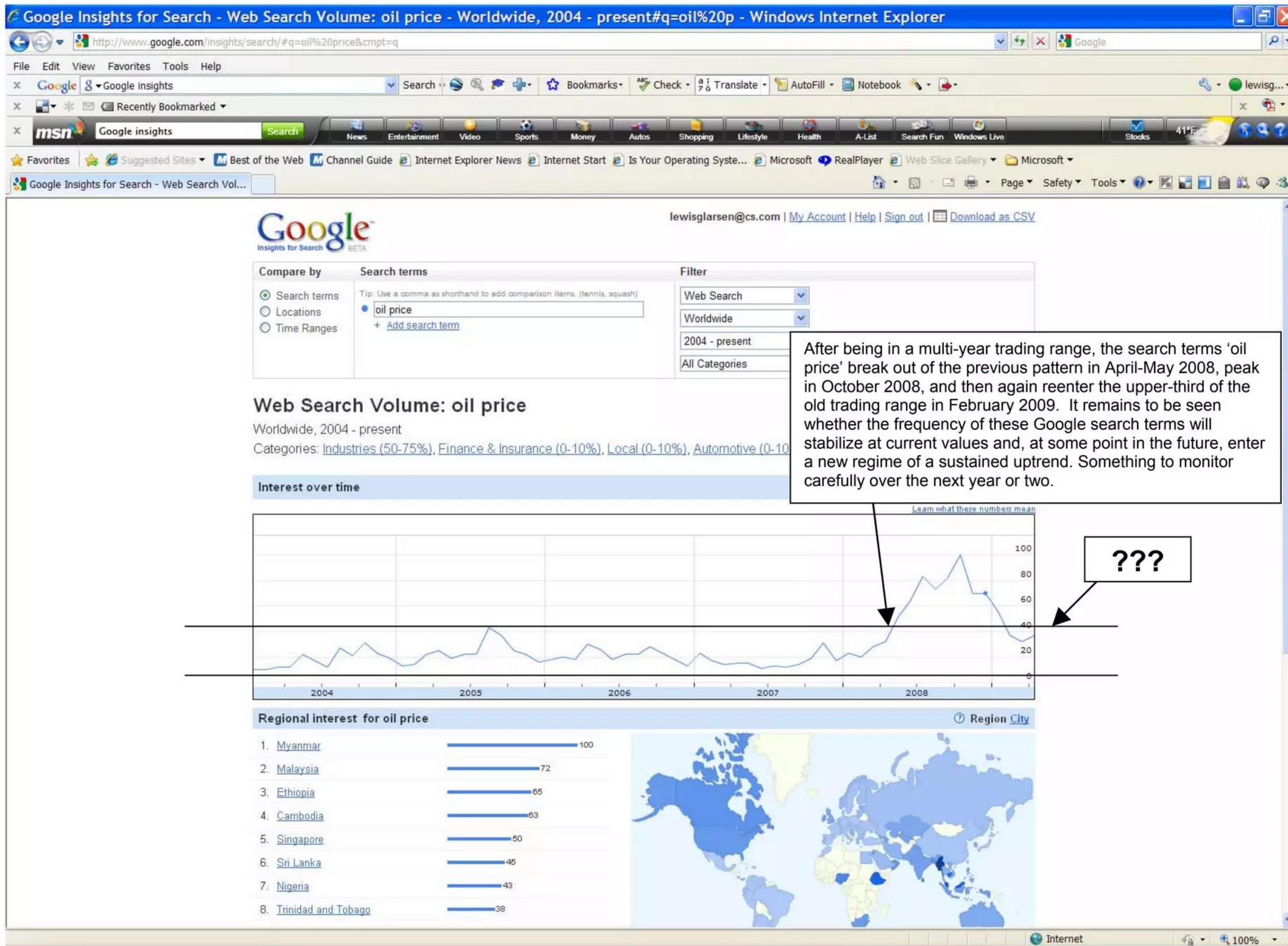
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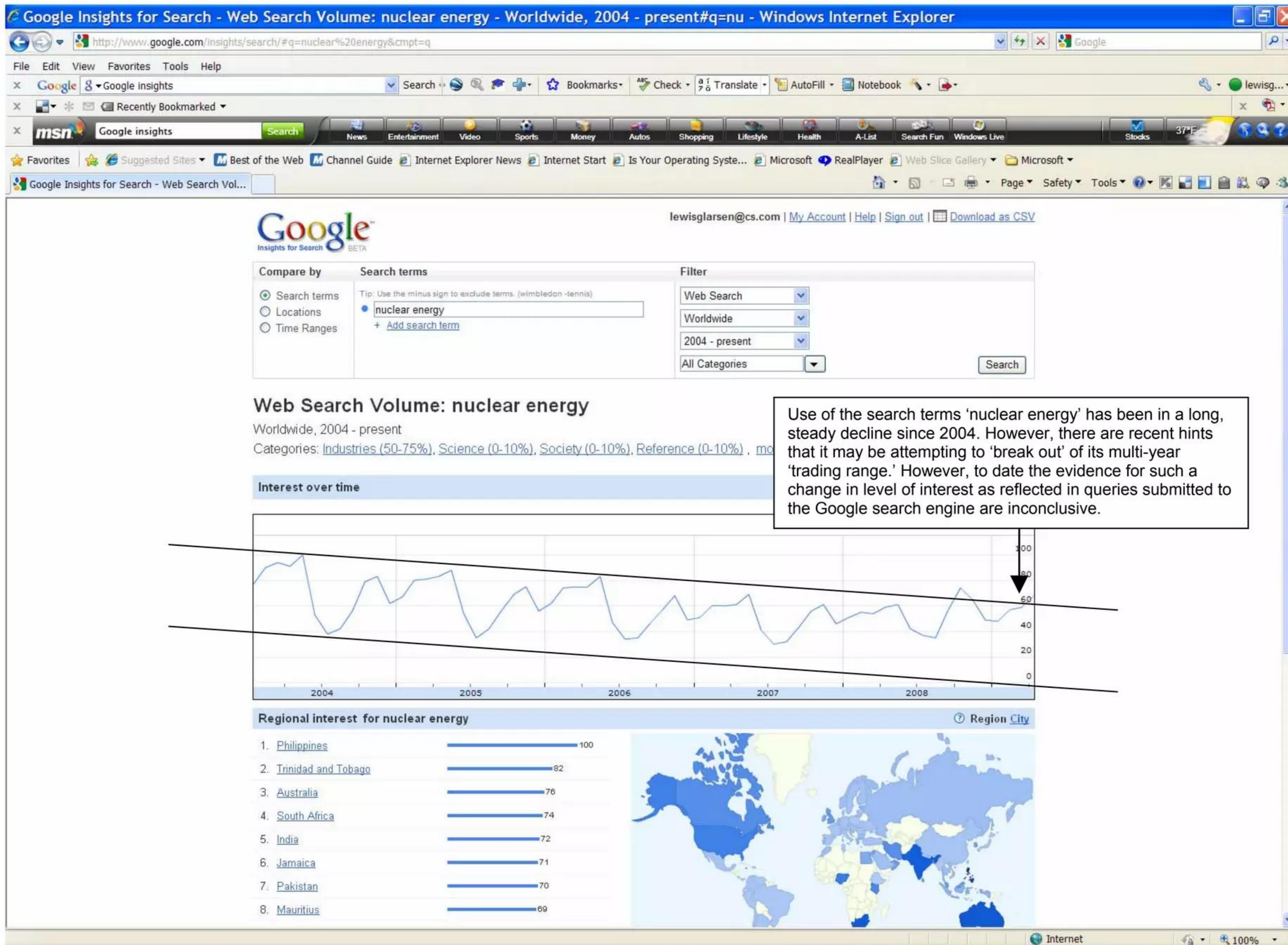
Preliminary speculative conclusions continued:

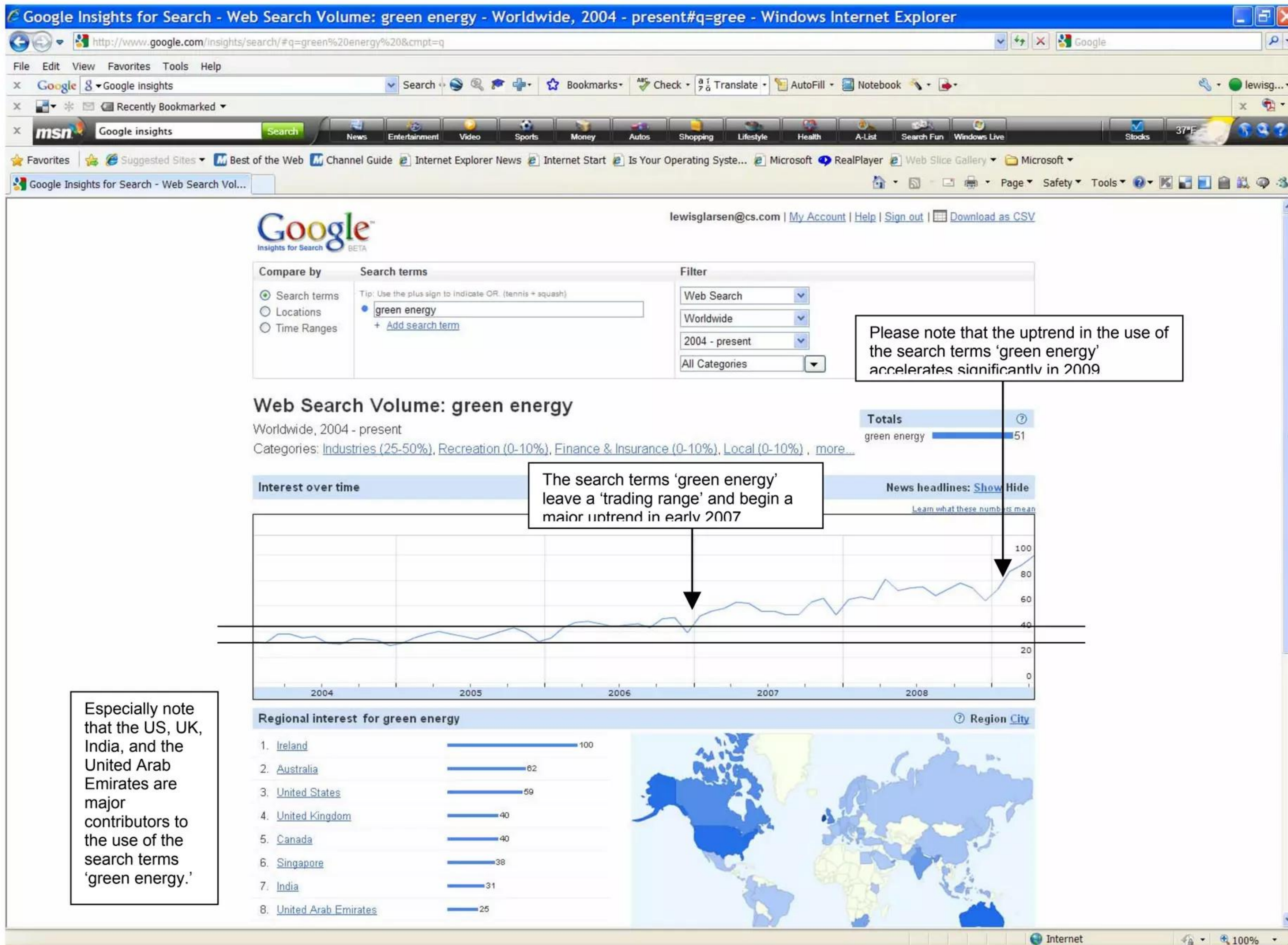
- ✓ Search volumes involving the terms '**green energy**' entered a prolonged uptrend in 2007. The data appears to indicate that search volumes and public interest in the topic may be further accelerating in 2009
- ✓ Search volumes involving '**cold fusion energy**' have been declining since 2004. Although the chart appears to be 'bottoming out,' the chart data is unclear whether search volumes on that topic may be poised to enter a new uptrend or remain where they are
- ✓ For the first time, on April 02, 2009, search volumes for the terms '**low energy nuclear reactions**' were large enough to be visible on Google Insights. As noted earlier, there may be a 2007 'artifact' that appears in the April 04 data. It is presently unclear whether such data signals the beginning of a significant new trend of public interest in low energy nuclear reactions (LENRs), or whether it is a one-time event that was triggered by a sensational ACS news story propagating widely across the Internet. Time will tell on this one.

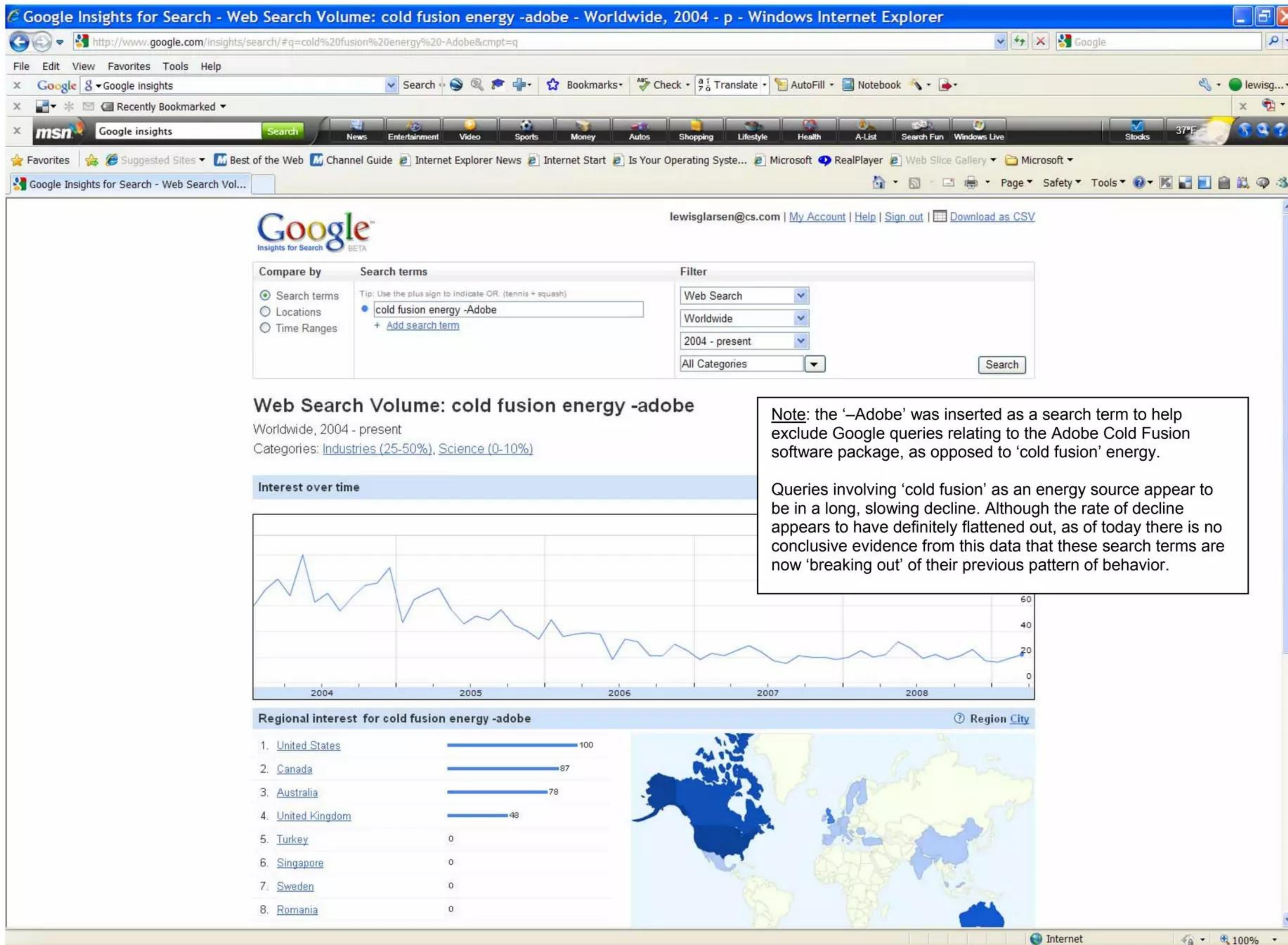
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Google Insights for Search - Web Search Volume: low energy nuclear reactions - United States, 2 - Windows Internet Explorer

http://www.google.com/insights/search/#content=1&cat=0&geo=US&q=low+energy+nuclear+reactions&cmpt=q

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 2004 - present
 All Categories
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Web Search Volume: low energy nuclear reactions

United States, 2004 - present
 Categories: [Industries \(10-25%\)](#)

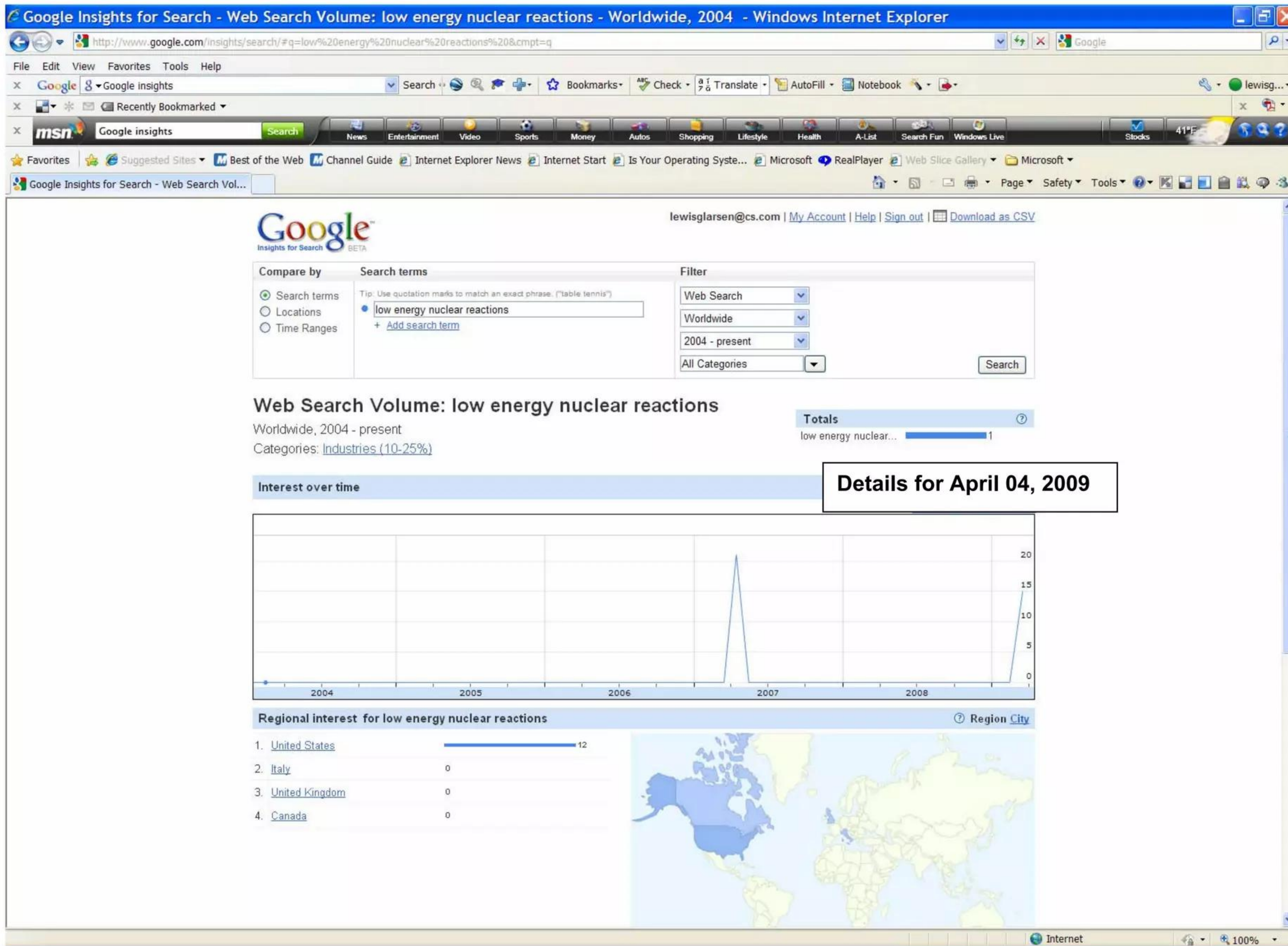
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Regional interest

April 2, 2009: for the first time ever, the search terms **low energy nuclear reactions** are popular enough to actually generate a graph on Google Insights.

Not enough search volume to show results. Not enough search volume to show results.

Internet 100%



Google Insights for Search - Web Search Volume: low energy nuclear reactions - Worldwide, 2004 - Windows Internet Explorer

[http://www.google.com/insights/search/#q=low%20energy%20nuclear%20reactions&cmpt=q](#)

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Tip: Use quotation marks to match an exact phrase. ("table tennis")

low energy nuclear reactions

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All Categories

Search

Web Search Volume: low energy nuclear reactions

Worldwide, 2004 - present

Categories: [Industries \(10-25%\)](#)

Totals

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Interest over time

Learn what these numbers mean

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New evidence for existence of controversial low-energy nuclear reactions

Details for April 04, 2009

Regional interest for low energy nuclear reactions

1. United States 12

2. Italy 0

3. United Kingdom 0

4. Canada 0

Region City

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