

Re: Minimum levenshtein distance for a set of words

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- *From:* "weinzier" <l.weinzierl@xxxxxxxxxx>
 - *Date:* 30 May 2005 08:50:05 -0700
-

> > Is there a unique word which minimizes the levenshtein distance to any
> > of the elements of a given set of words?
>
> Clearly not. Consider the set {'ab', 'ac'}; there is more than
> one word that gives this minimum.

That is correct. Two solutions...mhh
In my considerations I forgot about replacements, clearly my fault.

So lets make replacements more expensive than inserts and deletions and
consider the set {'aa', 'abcd', 'acfg'}.

What is the word which minimizes levenshtein distance then?

It isn't in the set {'aa', 'abcd', 'acfg'} since 'a' has a lower
distance to all members of the set than any member of the set itself.

> > Where can i find an algorithm?
> >
> > Any hints on links and literature are welcome...
>
> About five minutes ago I had no idea what the "levenshtein distance"
> was. I tried
>
> www.google.com

Yes, I also have heard about that google thingy;-)

But seriously, I was not looking for an implementation of the
levenshtein algorithm.

What I am looking for is an algorithm which takes

- set of words
 - costs for insert, delete, replace
- and gives
- minimum levenshtein distance
 - tells me how many words have this distance (one, many, infinite)
 - set of all words which have the minimum distance if finite

I am sure there is literature about this out there.

Re: Minimum levenshtein distance for a set of words

Again any hints welcome...

Ludwig Weinzierl

- **Follow-Ups:**

- ◆ **Re: Minimum levenshtein distance for a set of words**

- ◆ *From:* Keith Ramsay

- **References:**

- ◆ **Minimum levenshtein distance for a set of words**

- ◆ *From:* weinzier

- ◆ **Re: Minimum levenshtein distance for a set of words**

- ◆ *From:* David C . Ullrich

- Prev by Date: **Re: form equation takes at large value of time**

- Next by Date: **Re: analytic continuation of prime number function**

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