

1 Q Okay. Now, if we have a certain number of
2 mismatches, that means we're -- allow -- say K
3 mismatches. That means we're going to assume that
4 there are three mismatches someplace in the string?

5 A Yes. We recognize there are three errors,
6 and we seek a match that differs in three positions.
7 That would be the definition of a match. So it
8 matches except in three positions.

9 Q If you set K equal to M, that means we're
10 going to accept a situation where every letter is
11 mismatched; right?

12 A Yes.

13 Q That's not really a very practical search,
14 is it?

15 A Well, these -- these problems exist.

16 Q Well, not in terms of math. But in terms
17 of actual using, if you're trying to find songs, you
18 wouldn't -- it wouldn't be acceptable to have
19 everything mismatched; right?

20 A No. So a sentence like that, when the
21 engineer gives it, it means you look -- you have to
22 know that in the case of a large number of
23 mismatches, the algorithm would be very, very fast.
24 So this is very useful.

25 Q Is it the case that if we have -- that

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21 engineer gives it, it means you look -- you have to
22 know that in the case of a large number of
23 mismatches, the algorithm would be very, very fast.
24 So this is very useful.

25 Q Is it the case that if we have -- that

1 this algorithm, as disclosed here, would be
2 sublinear with respect to the size of the dataset
3 being searched, if we want to have at least some
4 matches -- some matching between our actual query
5 and our actual string?

6 A Your question is vague. So you need to
7 specify K.

8 Q K is going to be some number less than M.

9 A I can't answer it. If, say, all they
10 disclose here is if K is equal to M, the answer is
11 obtained immediately. If K is equal to M minus 1,
12 it could be sublinear. I don't know. They don't
13 comment on it.

14 Q When you read this, did you conclude that
15 this disclosed a sublinear time search for a problem
16 where we're trying to search where the -- where K is
17 less than M?

18 A Again, sublinearity here in that paragraph
19 is with respect to the brute-force search algorithm.

20 Q When you read Column 6, lines 36 through
21 59, did you conclude it disclosed a sublinear time
22 search with respect to the size of the dataset being
23 searched if K, the number of mismatches, is less
24 than M, the size of the string?

25 A I don't conclude that, no.

1 Q Does -- withdrawn.

2 If -- would it be fair to read Columns 6,
3 lines 36 through 59, as disclosing a sublinear time
4 search with respect to the dataset for K less than
5 M?

6 A I don't know. They don't -- they only
7 comment on special values of K, which are 0, 1 and
8 M; right? They don't comment about anything else.
9 I cannot infer the answer from what they wrote.

10 Q Well, if K is 0 and K is 1, does it tell
11 us that that's a sublinear time search?

12 A If K is 0, it's the same as the
13 Boyer-Moore problem. You are trying to find an
14 exact match of a query in a string.

15 Q If K is 0, is that, then, a sublinear time
16 search?

17 A It's exactly the same as our discussion on
18 Boyer-Moore. If you compare it with a brute-force
19 search, it is.

20 Q What about "sublinear time search" as
21 you've used it in your Declaration and as the Board
22 used it with comparison to the size of the dataset?

23 A In my Declaration, we discussed that; so I
24 can, again, answer exactly. I quoted, when it came
25 to Boyer-Moore, a reference that explains the

1 complexity of this. And in this context here, when,
2 say, K is equal to 1, you cannot use Boyer-Moore
3 anymore, but it's a similar reasoning.

4 Q Well, let's focus on K is 0.

5 You say that's the same as the Boyer-Moore
6 problem; right?

7 A Right.

8 Q When K is equal to 0, then does this
9 disclose a sublinear time search as you used
10 "sublinear time search" in your Declaration?

11 A No, it does not.

12 Q If K is equal to 1, does this disclose a
13 sublinear time search?

14 A Again, if you use -- with respect to the
15 database size, it does not -- I have no way of
16 knowing. Again, it says "order of." So it means at
17 most linear.

18 Q Now, if we look at -- I want you to pull
19 out your Declaration. Turn -- turn to page 64.

20 A Okay.

21 Q This is the portion of your Declaration
22 where you're discussing the Ghias reference; right?

23 A Yes. Yes.

24 Q Now, in here, in paragraph 123, this is
25 the portion of your Declaration where you present

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