July 6, 1959

Dr. Joshua Lederberg: Dept. of Genetics School of Medicine Stanford, California

Dear Dr. L:

You are most generous to offer your assistance in helping to realize the development of a citation index. I truly appreciate your interest.

I think you will find, if you haven't already, that I am really a very reasonable man and that I do not have a persecution complex about the NSF. It is very hard to relate the details of many human relations. For example, I heartily agree that the NSF grant system in their other divisions is very good. But they don't even have a documentation division and when I wrote my proposal they didn't even have a Science Information Service. Indeed, Dr. Gray wasn't even with the NSF for very long when I wrote it -- and he was shifted over to another program waxafter it was submitted and approved by Helen Brownson -- a "horse" of another color. I've known Dwight Gray for years and know him to be a very fair person. I would never have written the proposal this way had he been there originally. However, this was not the case. I therefore made the apparently incorrect decision to have xxxxex someone else(Mrs. Bedford) write the proposal because she had written so many before at the U. Penn. Project Big Ben. I can well see the shortcomings of the proposal, particularly in retrospect. In fact when I sent it in I had some doubts but let me assure you--and I know this for sure--Dr. Gray is too kind to state the complete facts on why the proposal was turned down.

None of this is very important now and as you say we ought to get on with the thing, especially since I have their invitation to resubmit on the basis of covering a particular scientific field. However, you will note that he says that the scientific field "should be defined either by a group of scientists or literature scientists" i.e., not by me. Thismakes the problem immediately much more difficult. It is not so easy to find such a group—and when you do—how do you get them to define the field. Then what does "compiling the index "under the cognizance of such a group"mean. Do we have quarterly meetings, reports, etc. I was a member of a project at Johns Hopkins that had an Honorary Committee of Adivors that met quarterly. I think it cost about \$2000 each at time a meeting was held.

I am heartily in favor of forming what you call a "consumers group" on the first stage of the index work. I guess this was what Gordon Allen had in mind when he contacted the Amer. Soc. of Human Genetics. However, I haven't heard from them in some time. Could you and your students(I haven't the vaguest idea how large your department is) be part of this consumer group? I will, if you think it worthwhile, contact Dr. Koprowski in Phila. and see how intersted he would be.

Now the last paragraph of your letter contains a suggestion that I consider to be invaluable—and I believe it really contains the solution to the problem. It would really throw the ball back in their laps, ie. NBF. I am therefore writing to Dr. Gray today and suggesting that NSF help in organizing a group for the scientific direction of this project. In other words, if it is assumed that citation indexes would be a good thing, then let this group decide how they wish to proceed and we(Garfield Associates) will do the leg work.

I would be willing to work up more data on what it would cost to compile a Citation Index, but I truly cannot afford to lay out the expenses at the present time. Even if I went ahead with some sort of sampling on just clerical costs, I would still not have done what this advisory group would have in mind.

You know this Citation Index business is like arranging for a Yiddish wedding, If you really have a bang up affair with a lot of people coming they will all bring big presents and give the bride and groom plenty of cash. If you run a small intimate affair -- it goes unnoticed in the paper, a few close relatives and friends show up--and they don't have to give big presents to prove their love. Personally I don't go for big catered affairs, but when I go to one I still have a good time. I am afraid that Citation Indexes will have to be a big affair even if we are going to make a few people happy. If not then it may prove to be really wasted money. I know that \$59,000 is a lot of money, but it would have turned up a lot of information (and also data for a citation index, though this was not made entirely clear). We never intended that the study would merely establish t hat Cit. Indexes would be godd things to have--it was intended to prove that they were practical to accomplish and that they would indeed achieve desireable results. I suppose that my own approach to things is involved here as I am always doing research-even with an applied project like Current Contents. Similarly in doing a"feasibility" study I intended to show or learn the many ramifiactions that are presently intuitige. By making the project simply one of compiling a citation index it makes it a lot more palatable for some people but it also makes it less fun to do. I am a doer--but I also like to have fun. I lost interest in the basic idea of Current Contents five years ago--but I didn't consider the 'project' finished until I started publishing it. Now, like a new vaccine, I find it has to be modified, expanded, etc. but the basic idea is established.

Here are some of the things that I think could have come out of the project. Some of these points I already believe—maybe they don't need proving. Others I think do need proving. For example, I think it will be possible to establish some new and interesting correlations between previously unrelated observations. I need a citation index to establish this. We could have established that in certain types of literature searches it is faster to use a citation index because there is no need to "translate" into indexing language in order to find what you what want. The entire question of what an index to scientific literature is we meant to do comes up—some of these come out of what people would do with a citation index when and if they had it. In the History ofIdeas(in its study) how important is the citation index or rather how effective is it compared to other methods. What are the "subjects" that are impossible to index in a CA index that are landled in a CI. Perhaps part of the program to come out of using a Committee will be to have them state what they think the CI can do for them—just as you mentioned in your last letter as regards review articles.

In the last part of your letter you said that you were sending a reprint of the review article you mentioned, and also other papers in which" I mark ximinis citations to ax other review articles. I hope these haven't been lost. I never got them. That is why I waited to answer your letter.

I think your observations on the differences between biological and chemical citations are, in general, right. But in the chemical literature there is a mixture of the type you mention. The references to more general concepts gets more frequent as you go from organic chem. to theoretical chem. Again, this is one of the things I would like to know for certain by studying references much more closely. You need time to evaluate what people are doing when they cite.

Your comments about Current Contents are indicative of your sales capacity—and we have frequently talked about sending Current Contents to people for so long that they couldn't get along without it—addicted as you say. We have done it in certain cases and continue on occasion. But it is very costly. We had a free six week trial offer and a lot of people tried it—and we know they used the copies but they would not pay up.

No I wouldn't want to be cagey. Dept. heads are not our best users—they are frequently the purplex was people who have the old approach to the literature. We try to reach the younger set. We use every sales approach we can with our limited resources. Direct mail is still our best method though we are now sending a student out for the summer to test personal contact sales. We have had booths at meetings, make phone calls, etc. All of this has paid off but we are never certain what is the best apprach. One guy will buy when you nab him in his office—the other will throw you out but respond to direct mail.

As far as your BB&S other people"s copies—that must cease. I will have your name put on our exchange list. You should start getting CC beginning with the next issue. We just got a second class mailing permit and that helps a lot. You have more than earned this in the suggestions you've made to me on the CI—and believe me it gives me a great charge to know that people do BB&S Current Contents. I wish that we could give it away, but the facts of life are otherwise. NSF will subsidize translations but not CC. NIH gives away translations but not CC. The USInformation Agency gives away book listings—but not CC. And in a certain sense they are right in not doing this. But I can't understand people—why would a merson spend a fortune on lab equipment and not \$50 on a service that saves him his most precious possession—time. And it is not even \$50—at Wisconsin, as you may recall, it is only \$25 per head.

Could you get the Stanford boys interested in a group sub? I'll be glad to send it out to your library or your dean or to your office in a bulk package on a free six week trial--just what you suggested. You just let us know the number of copies to send--25, 50, 100. Do you have a secretary who could handle the distribution like they do at Wisconsin? The packages will come out by special delivery mail. It is usually one prof at a school who sparks a group sub. We could also run off a mimeo letter if that would help.

Best regards.