

An Interview with  
FRANK P. SCIOLI

OH 473

Conducted by Jeffrey R. Yost

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### Abstract

With support from the National Science Foundation (Grant No. 0811988, “Designing and Using FastLane: Distilling Lessons for Cyberinfrastructures”) CBI researchers Jeffrey Yost and Thomas Misa conducted oral history interviews with 70 NSF staff members as well as numerous additional interviews during 29 university site visits. An overview of the project is available at <[www.cbi.umn.edu/oh/fastlane/](http://www.cbi.umn.edu/oh/fastlane/)> and a complete set of 643 publicly available interviews is at <[dx.doi.org/10.13020/D6RG6B](https://dx.doi.org/10.13020/D6RG6B)>. Here on the CBI oral history database is a selection of notable NSF staff including Joseph F. Burt, Jean Feldman, C. Suzanne Iacono, Constance McLindon, Carolyn L. Miller, Paul Morris, Andrea T. Norris, Erika Rissi, Craig Robinson, Mary F. Santonastasso, Rich Schneider, Frank P. Scioli, Beverly Sherman, George Strawn, and Frederic J. Wendling. Topics common to many of the interviews include the design and development of the NSF’s FastLane computer system, interactions with users, e-government initiatives, grants management practices, peer review, and NSF policies and practices. These interviews span a wide range of NSF staff, from program officers to senior managers.

Frank Scioli came to NSF in 1975 and worked as a program officer and senior manager for the Social, Behavioral and Economic Science Directorate, and provides a detailed view on the transition from paper to electronic proposals with FastLane.

Yost: My name is Jeffrey Yost, from the University of Minnesota; it's March 10, 2010. I'm here at the National Science Foundation. This is for a project on the history of NSF FastLane. We have gotten authorization from the National Science Foundation for this sponsored project, which is funded by Human-Centered Computing, to interview staff and administrators at the NSF and it has been authorized by the IRB officer of NSF as well as the IRB of the University of Minnesota. Frank, can you begin by telling me when you came to NSF, in what directorate, and briefly describe your principal positions at NSF over the years?

Scioli: Okay, this is Frank Scioli. I'm currently Division Director for Social and Economic Sciences in Social, Behavioral and Economic Science Directorate. I came to NSF December 15, 1975 as a Program Officer in the RANN program; Research Applied to National Needs. I became a section head in RANN in approximately 1980 and was no longer a Program Officer. RANN, as a Directorate at NSF, was distributed throughout the Foundation and, as opposed to retaining a management position, I went to a Program Officer position, which I maintained until three and a half years ago. So I was a Program Officer, then a manager, then a Program Officer, then became a Senior Advisor in SBE and a Deputy Division Director in SBE, and now a Division Director. So I've been at NSF since December 15, 1975.

Yost: Great. Did you have experience managing the merit review process in the pre-FastLane, the paper-based days?

Scioli: Yes I did.

Yost: Can you describe that process?

Scioli: Peer review was, of course, a paper-based system where reviewers were selected; labels were typed up; what we call a Form 7 was prepared with an individual's name on it; and the packet with the proposal was mailed to reviewers for a particular proposal. In addition, paper copies were sent to our advisor panelists with paper reviews, paper review papers, the proposals, and then advisory panel members came to the Foundation typically with large stacks of paper on which they had typed their reviews. If they had not typed them, then we had to type them. So it was essential that panelists prepare typed reviews.

Yost: Can you tell me your initial response to the news that FastLane was being developed and that there would be this new system that would become mandatory at NSF?

Scioli: My initial response was quite enthusiastic because the paper review system was very cumbersome, it was very time-intensive, and so I personally looked forward to it and I think others did as well, although there was some skepticism that it would work well from the outset.

Yost: Did you have any interaction with the FastLane design team in the early years?

Scioli: Yes. The FastLane design team always involved Program Officers and management to guide them in what we thought such a system would need; what would be the best way to construct it; what were the musts to have on a system; and since most of the FastLane designers and those that would implement the system were not Program Officers, we would have insisted on being involved. But we didn't have to insist because we were called upon numerous times to help guide the system.

Yost: And did you feel they were responsive to suggestions and comments?

Scioli: Yes. I think the FastLane folks, designers and implementers, were quite anxious to learn what we thought was necessary.

Yost: Did the National Science Foundation offer training and support to use FastLane and E-jacket and did you participate in training?

Scioli: The Foundation, from the outset, has offered training in all aspects of FastLane. In fact, up until this current week, when we have switched to an awards processing via FastLane, that was kind of the last vestige of paper management that we had. So, at every step along the way, there were sessions, courses, for both Program Officers, manager, and for support staff; crucially, for support staff who would be responsible for keeping the administrative records.

Yost: Did you get comments about FastLane from the research community, from PIs or possibly from Sponsored Research Offices and if so, what was the general nature of those comments?

Scioli: From the outset I'd say it was 80 percent positive. The biggest negative was asking reviewers to download the proposals. But the Foundation had a mechanism whereby if a review wanted a paper copy they could request it and the Program Officer had to send a paper copy, but then a system was developed whereby the people in proposal processing would send it. So it started out with about 80 percent satisfaction and I think today, some investigators have trouble getting their reviews but the Foundation is very willing to help them along the way in figuring out how to get them their reviews. I think the information on the letter that we send is quite clear but when people have trouble with it we bend over backwards to assist them. So I would say today, that it's 99 percent satisfaction.

Yost: Were you a user of the PARS system? And could you describe your use of that system?

Scioli: Yes. PARS was, for me as a Program Officer, was principally a way to insert reviewers, to call up reviewers, and then to track the processing of an award, both within the division and then within Grants and Contracts, as it was known then. The reviewer addition mechanism was a little bit tedious at the outset — pretty labor intensive, of

going in and spending a lot of time inserting the information. But now that has become easier to work with and PARS is now obsolete. Gone.

Yost: Everything PARS handled is now handled through E-jacket?

Scioli: Yes, is my understanding.

Yost: What was the general impact of FastLane on NSF work processes?

Scioli: I think it was a monumental change in reducing paperwork and being a recordkeeping mechanism that was almost flawless. I will say that, in my view, FastLane transformed many of the responsibilities that were formally of support staff to Program Officers. That is, Program Officers assumed what I would characterize as clerical responsibilities that were formally the province of the support staff. The support staff had much less paper to deal with, much less recordkeeping to deal with, etc. Those functions were turned over to the Program Officers but not that it meant a significant burden, but it was an additional burden for the professionals, as we call them.

Yost: Did FastLane impact your interactions with Program Officer peers? Or E-jacket?

Scioli: I don't think it impacted it in any negative way and I think that the interactions between Program Officers have always been quite good. One thing that FastLane did that eliminated a lot of missteps: investigators could identify one, two, or three programs that

they'd like to have their proposal reviewed by. It was now automatically noted, through FastLane signals to the Program Officers, what those other programs were. So it was easier for a Program Officer to say oh, this person wants me to talk to, in the case of this directorate, sociology or social psychology. In the past, Program Officers would look at the proposal and say, well, maybe I should show this to sociology or maybe I should show this to political science. But it often was quite a task to go through all of the proposals and pull out the ones that should be jointly reviewed, so sometimes that wasn't done in a timely manner and it made it difficult to coordinate what we call joint review. Now, it's been eliminated. You can see from the outset where the joint review requests are, you can coordinate with other Program Officers, and it makes it much easier to do that.

Yost: Have you been involved with management with regard to using the interactive panel review systems?

Scioli: Yes.

Yost: Can you compare and contrast the processes for the panel reviews in paper-based days with the FastLane interactive system?

Scioli: The current system is 100 percent better in terms of facilitating mailouts to panelists, keeping records straight so that if three panelists are reviewing a proposal, when they indicate what their evaluation was there's a very clear record, which the

Program Officer can look at. It requires far less paperwork in terms of bookkeeping, literally old-style accounting. Now, that is all done electronically and in a clear presentation for Program Officers, to keep those records straight and make them available not only to others in the division but to other panelists, once they have all completed their reviews.

Yost: Can you tell me what the impact of FastLane and E-jacket has been on reporting internally within NSF; oversight and management of Program Officers?

Scioli: I think it has made it extremely transparent. Recordkeeping is now 99 percent accurate with Program Officers not having to be accountants, literally, to where they now have all the data with regard to reviews, with regard to budgets, with regard to recommendations, with regard to abstracts, in a single place that is available to them and is available to everyone in management. In the old system, through no one's malicious intent, that system was much more likely to cause errors, the paper system, simply because it became an accounting recording function.

Yost: You've touched on this a bit but can you talk a bit more about how FastLane and E-jacket impacted how Program Officers worked with support staff?

Scioli: It's always been my view, and I have never been reluctant to say it, that while the Foundation's concern for support staff, in terms of giving more responsibility and more opportunities for advancement, etcetera, the Foundation is genuinely interested and

concerned with that. But FastLane has taken away a lot of the things that support staff used to do and, as I say, has transformed those functions, those responsibilities, to Program Officers. That's not to say that support staff doesn't have a lot of work to keep straight, but it's a different kind of work now. In my view, it's a much lower level of recordkeeping that really doesn't accord with the kind of increases in responsibilities that support staff are alleged to have. I may be in the minority in this. I've said it verbally; our Program Officers have commented about it; but I want to tell it like it is.

Yost: I understand that the number of support staff has decreased with implementation of the FastLane system. Is that correct?

Scioli: Yes, quite significantly. Where at one time each program had a support staff person. Just prior to your coming in, a support staff person came in and was talking about three; a single person having responsibility for three programs. That's quite a change; represents quite a significant reduction in the Program Officer having sole access. But, in reality, the Program Officer, if everything is running smoothly, doesn't need to have exclusive access to one person.

Yost: Did FastLane have an impact on NSF collaborative, interdisciplinary, or cross-directorate proposals?

Scioli: In the case of Social, Behavioral and Economic Sciences I think it most definitely did. With FastLane one could easily e-mail a proposal to a person in another part of the

Foundation and say I think this is something you should take a look at and give me advice on reviewers. Would you like to jointly review it? Do you want to talk about it? Let's set a time in a week or so. Because so much of what we do in the human sciences, in SBE, is also fundamentally a part of other directorates — biology, the geo directorate, the engineering directorate — I think it facilitated interaction with Program Officers in those other directorates. I think it facilitated it greatly.

Yost: Can you identify any impacts of FastLane on proposal quality or the number of resubmits that you received?

Scioli: I think word processing has made it easier for the external community to revise and resubmit proposals. But I do not see any significant increase in the number of resubmissions. I think it's always been high; I think it's been easier for members of the external community to, if you will, align the proposal — the initial proposal, the revised proposal — on two screens, if they access to two screens, and make changes. Especially since the reviews are electronic, they can have the proposal up on one screen, they can call up a review of their proposal and see exactly what part of the proposal panelists and individual reviewers thought was weak. And if they're serious about it, and if they understand the reviews, and if they understand the panel summary, they can revise and resubmit with pretty strong possibilities for support.

Yost: Did FastLane change PIs interactions with NSF?

Scioli: I think e-mail, more than anything else, transformed the way Principal Investigators interact with NSF. At the outset, we had what we used to call hooks on the doors, and you'd have 25 messages, please call A,B,C,D,E,F,G,H, and they'd want to talk about their proposal. Now, e-mail makes it possible for someone to submit a question or a couple of questions and Foundation policy is to attend to them in a pretty swift way. And so that has, more than anything else, in my view, transformed the way Program Officers interact. It's more a function of e-mail than it is a function of FastLane.

Yost: So have phone calls from the research community, Principal Investigators, decreased?

Scioli: Significantly. I think that most calls now come from graduate students. They're the new people entering the whole world of proposal submission and they seem to have many more questions, more angst about following the rules and making sure that they get the FastLane requirements down correctly.

Yost: Did FastLane have any influence, in your opinion, on either centralizing or decentralizing research and activities or administration at universities?

Scioli: Of course I don't see it from that end. In some of the multi-disciplinary programs that we have at NSF, cross-directorate, it's been a way for universities to see how many folks want to submit to NSF within a particular program. IGERT, for example, the Integrative Graduate Education Research and Training Program, some universities may

get 10 units in their institution interested in submitting and then they may look at their proposals electronically, see who they're from, and make decisions how many the university sponsored research office is going to submit. So I suspect that's been a real good help for universities.

Yost: Are there ways NSF could use FastLane more effectively to advance the research enterprise — thinking of both FastLane and E-jacket — and if so, what are they?

Scioli: I think that the most recent step is the review of proposals, review of recommendations for awards, by managers. That's just, I guess, almost two weeks old now. So that's what we thought was the next step. I think eventually, FastLane will become, rather than a keyboard clicking system, will become a touch system. We have Program Officers who have significant problems with carpal tunnel. In this division we have four and we've purchased different kinds of keyboards; instead of typing keyboards, the rolling ball keyboards; so it has resulted — and again, it's consistent with many of the functions going from support staff to Program Officers — it has resulted in some people really developing wrist problems and finger problems because of all clicks. The number of clicks that Program Officers do is quite significant. I remember a few years ago, a Program Officer called the then-Division Director in and said I want you to see what I have to do to review this proposal and then to make a recommendation. And it was about a 20-minute demonstration for a single proposal. The Division Director was astounded. As FastLane progresses, as E-jacket progresses, it will probably be — if the Foundation

wants to put the resources in — much easier with touch screen function. More like a kiosk.

Yost: A Program Officer yesterday showed me just that, the clicking process to authorize a decision, going through a proposal on E-jacket. Are there also mechanisms to redesign how E-jacket displays on the screen that might reduce clicks?

Scioli: I think that the technology is as far along as we need except for those aspects that are detrimental to health, if you will. What I wonder is, since it is burdensome now with awards, to look at them on the screen, rather than having a folder in the front of you, whether or not it will result in managers focusing on reviews and the abstract, and then not really going in and looking at budgets, at looking at parts of the proposal, at looking at individual reviews. It was always easier, if I had a stack of proposals, to have them one at a time in the front of me, and to go from the reviews to the abstract, to look at the proposal, to see who was in the *curriculum vitae*, as to joint reviewers. Now that is more time-consuming and more cumbersome on the awards. 'Course it's not critical on the declinations. The recommendation and looking at the reviews and making sure that the panel summary is clear is all you need. You don't have to pay attention to abstracts or to the content of the proposal unless there's something really out of whack. Four excellents and a poor, and [if] the Program Officer wants to decline it; then you might read it yourself. But now, with awards — and I've only been doing it since two days ago, as I was away last week — I can see that rather than reading significant parts of the proposal you rely quite heavily on the Program Officer.

Yost: Looking back at the history of FastLane, are there lessons that NSF can learn, or perhaps other organizations can learn from NSF's experience, about FastLane in the future development and the design of cyber infrastructures?

Scioli: I think the most important thing, and which in my view NSF did, is to involve the users; not just the designers and the implementers, but those who will use it both at the program level and at the management level. And I think NSF did that correctly. I think that the system — how many years has it been now?

Yost: It became mandatory in October 2000. It was first launched in 1998.

Scioli: Wow. I think anticipating the workload increase, as a consequence of faculty paying greater attention to gaining research support; I think more attention to the physical problems that might result. I think the NSF experience should be a good learning model for others that want to take up such a system, because as far as I see it, the physical problems are real. We purchase all kinds of different things now that we never even had to consider in the past. And I'm told, that in terms of the Foundation getting resources, or OMB saying okay, we need to give you an increase for these different kinds of things that you need now; different keyboards, different screens; the gloves, if you will, that become necessary for them to wear. I think those are things that other agencies, other parts of the government, should consider when launching a system like this.

Yost: We have interviewed many Principal Investigators at a range of different types of universities, Sponsored Research Office personnel, as well as we're well underway in interviewing a number of FastLane designers and developers. We're early in the process of interviewing Program Officers and administrators for this project. Are there questions that I haven't asked in this interview, topics that I haven't covered that you feel are important to understanding FastLane and its history?

Scioli: I think the one area that I touched on, Jeff, that you might — rather than it coming out in the course of the conversation — [consider] asking the Program Manager if they feel that their, if you will, secretarial responsibilities have increased with FastLane and E-jacket. Of course you'd want to phrase that delicately. But other than that, and I was going to wait until the end of the questions to ask you whether my answers were four deviations away from the norm; I don't know if you're far along the way. But I think that's the only area that would be interesting to get on the record.

Yost: I just started interviewing at the beginning of this week and I have spent some of the time with interviewing designers and developers. With Program Officers, I believe you're the eighth or ninth of more senior administrators who were once Program Officers. Your responses have been fairly typical, there are some who have expressed concerns with increased workload and the shifting of workload. Others have pretty much completely been positive about all aspects of E-jacket and FastLane. But there have been some concerns along those lines, especially, as I think has always been the case at NSF, that there's crunch times. That's pretty much inevitable, given the type of work that's done

by NSF, but that those become all the more challenging, given that it might take longer to go through a proposal using E-jacket and seeing each component individually, rather than paging through a paper jacket. Well, I thank you very much for your time.

Scioli: Thanks for doing the work. One other question, I'm sorry, before you turn it off. I alluded to it, again, in terms of the delicacy of phrasing it. With paper copies stacked up, Program Officers could take them home on the Metro, take them home for Saturday, reading them; has the electronic proposal system meant that it's more difficult for them to read each proposal? And likewise for managers, the point that I mentioned; does it mean that you read fewer proposals than you did when you had the paper copy?

Yost: A number of Program Officers have expressed that they print out proposals to read. So I think that is still occurring, to a certain extent. I haven't had anyone indicate that they have spent less time reading or reviewing proposals with the new system. Just some people saying that they don't feel it's as effective for them, personally, to read a proposal on a computer screen and that they are attached to reading paper and to writing comments on the margins of proposals, and that that is something that they can still do.

Scioli: It's a little bit more tedious.

Yost: Right, exactly.

Scioli: Okay, thank you, Jeff.