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The Annual Meeting Presidential Address

The Research and Training Center Program Concept-- Past Perils and Current Conundrums

Marcus J. Fuhrer, Ph.D.[1]

Welcomed guests, valued R&T Center colleagues -- A presentation following a substantial lunch of the kind we enjoyed ought to be like a good dessert souffle, light and airy. I must warn you, therefore, that my remarks will be more reminiscent of a stodgy bread pudding--a bit heavy, but rather basic and hopefully nutritious. This menu choice is influenced by the fact that several of you who are new to the R&T Center system have asked for a bit more orientation and background. Similarly, there are a number of NIHR staff members who rather recently have assumed positions of considerable influence over the centers. Lastly, those of us who have grown up professionally within the R&T Centers may profit from a return to basics as we consider the host of issues with which the system is currently confronted.

For the outsider who has not been part of the R&T Centers, discovering what they are all about might seem to be straightforward. A readily accessible portrayal can be compiled from a few lines in the 1973 Rehabilitation Act and its amendments, from several pages of the Federal Register describing the applicable regulations, and from other Federal Register issues containing requests for new center applications. The fact of the matter is

[1]Presented at the Annual Meeting of the National Association of Rehabilitation Research and Training Centers, Eugene, Oregon, May 26, 1983.

that such material no more depicts the essence of the centers than a paper in a scientific journal portrays the realities of the research process.

The R&T Centers as we presently know them are an emergent of a two-decade long history. They reflect a developmental process in which the initially defined program concept, once given life in 1961, began to interact with, and be shaped by a host of environmental forces. Some of these strengthened vital features of that program concept, other forces have produced glaring deformities. Some of these changes have been transitory, others seem to be enduring.

The center's guiding program concept has never lacked its advocates and protectors. At some junctures its defenders have been concerned federal agency staff persons, usually a distinct minority among their agency peers; at other junctures, its champions have been rehabilitation professionals like Fritz Kottke, Justus Lehmann, and Bill Spencer who originally fathered the system. More recently the NARRTC has taken on the key protective role. The point is that the system continues to evolve as the underlying program concept transacts with an ever changing environment. If we who work in the centers are to attempt to guide that development responsibly, we must remain mindful of the intents underlying the system and be keenly attuned with the forces bearing upon it.

Programmatic Research and Training

To put us on common ground, I want to review briefly the essence of the R&T Center program concept. A key feature of that concept concerns the programmatic quality of the centers' research, training, and service demonstration activities. This emphasis on programmatic performance was intended from the onset to assure two things: first, that the centers would undertake multiple, interrelated research efforts, sustained over time, that would contribute cumulatively to solving truly significant rehabilitation problems, and second, that the centers would function as change agents which, beyond simply generating and disseminating new knowledge, would be responsible for transforming that knowledge into useful applications that find their way into the mainstream of rehabilitation practice. A corollary of the emphasis on programmatic research and training was that the centers would be viewed by sponsors as a long-term investment in staff, facilities, and equipment.

Relevance to Meeting Needs of Handicapped People

The R&T Center program concept is insistently committed to the notion that the centers' research and training be relevant to meeting the needs of handicapped people and of the rehabilitation professionals who serve them. This is virtually assured by rooting operation of individual centers in a service setting so there is ongoing sensitivity to service problems, ready access to needed study populations, and an opportunity to test the soundness of research-generated solutions. Sensitivity to unmet service

needs is also fostered by advisory councils comprised of representatives from consumer advocacy groups, state rehabilitation agencies, volunteer agencies and rehabilitation service programs.

Institutional Commitment to Centers

The commitment of host institutions has been encouraged by founding centers in settings which already have established substantial research and training capacity. Host institution commitment also was fostered in the past by limiting indirect costs paid by the government so that the institution was forced to cost-match the federal grant. By 1978, it was established in the Abt Associates independent evaluation of the centers that for every $1 of budget support from the federal agency, an additional 75¢ of support was derived from other sources. Host institutions provided a good deal of that additional support by making available faculty and staff, equipment, and facilities that performed in a coordinated manner with capability paid for directly by the federal grant.

Mutuality of Research, Training, and Service Demonstration Objectives

The buzz words used so long to describe this aspect of the R&T Center program concept allude to the "synergistic relationship" of the center's research, training, and service demonstration objectives. The key affirmation here is that each activity is incomplete unless conducted interdependently with the others. The essence of this interdependence is that needs detected during service provision become the focus of research, and the results of that research and its applications are transmitted to service providers by means of the center's training activities. The net result is an increased number of rehabilitation practitioners whose skills reflect the best available practice knowledge.

Excellence of Program Performance

Mary Switzer, administrator of the relevant federal agency at the time of the centers' genesis, insisted that the centers aspire to excellence in the soundness of their component research projects, the expertise of investigators, educators, and service providers comprising their staff, and the state-of-the-art nature of their service demonstration activities. A number of review mechanisms were established to assure continuing excellence of program performance. These included detailed annual progress reports, site visits by agency personnel and peers, and advisory councils to monitor a program's progress.

These five key elements of the centers' program concept are summarized by the acronym "**PRIME.**" This really is applicable since it was envisioned from the start that the centers would become the prime operating arm of the

agency in achieving national goals for rehabilitation research and training. However, once born, the realities of implementation had to be confronted. For purposes of discussion, I shall sort out those realities in terms of those emanating from the center's federal administrative setting, those reflecting the resources made available to the centers, and those reflecting the climate of conception and expectation in which the centers functioned.

The R&T Center program has been the responsibility of a succession of different federal agencies variously named the Vocational Rehabilitation Administration, the Rehabilitation Services Administration, and the National Institute of Handicapped Research. In turn, these agencies have had a succession of different parent agencies which have included the Social and Rehabilitation Service, the Office of Human Development Services, and most recently, the Office of Special Education and Rehabilitative Services. All of these parent agencies have had policy objectives conforming with the main policy thrusts of the administration in power. And even though administration of the R&T Center system is buried deeply in the federal administrative hierarchy, it too was asked to lock step with these policies. In the case of the Great Society thrusts of the Johnson years, this took the form of insistence that the centers emphasize improvements in the social and economic well-being of a variety of minority groups. Annual progress reports during those years, for example, were required to document the number of blacks, chicanos, and yes, even gypsies who were involved in the centers' programs. The receipt of any form of public support also was to be documented. We were forever on the lookout for handicapped gypsies who were impoverished and black. During the epoch in which the Office of Human Development Services prevailed, research was legitimate only to the extent that it addressed agency policy options. The preoccupation was to develop a so-called "Research and Evaluation Strategy" to which all center research and educational efforts would be tied. A clearly subordinate role was assigned to the center staff's priorities, ongoing commitments, and interests. It was against this backdrop that the National Association of Rehabilitation Research and Training Centers was formed in 1976.

Some of the shaping influences exerted by the federal agency have reflected concerns of the agency's principal constituencies. Until 1978, the R&T Centers were administered by the Rehabilitation Services Administration which had then, and continues to have, responsibility for the State-Federal Vocational Rehabilitation Program. The most influential constituency of that agency is, therefore, the Council of State Administrators for Vocational Rehabilitation. The Council questioned whether the centers were sufficiently supportive of the state-federal program and argued for creating so-called "special needs" centers that would complement the efforts of the four medical rehabilitation programs that initially had been funded. Thus, beginning in 1965, we witnessed initiation of centers in vocational rehabilitation as well as those concerned with mental retardation and hearing impairments. The process went further when NIHR became the system's administrative environment. It was then that the geriatrically and psychiatrically oriented centers emerged, as well as the ones concerned with the visually impaired and with independent living.

The budget resources made available to the centers, of course, have had a decisive influence on their growth and development. After approximately a decade of existence, the centers had captured about half of the agency's overall research budget. That fact suggests rather adequate support until one learns more about the history of the agency's overall research budget. It is a dismal history indeed. First, to provide some perspective, take a look at the funding record for the National Institutes of Health for the years 1969 through 1982 (Figure 1). The solid line depicts the steadily mounting curve of annual yearly expenditures throughout the 70's. The broken line reflects application of the Biomedical Research and Development Price Index to the yearly figures. Like the Consumer Price Index, the Biomedical Research and Development Price Index corrects for the effects of inflation, but it does so for expenditures appropriate for biomedical research and development, broadly construed. The record for 1969 constant dollars is one of growth that peaked in 1979 and decreased slightly thereafter.

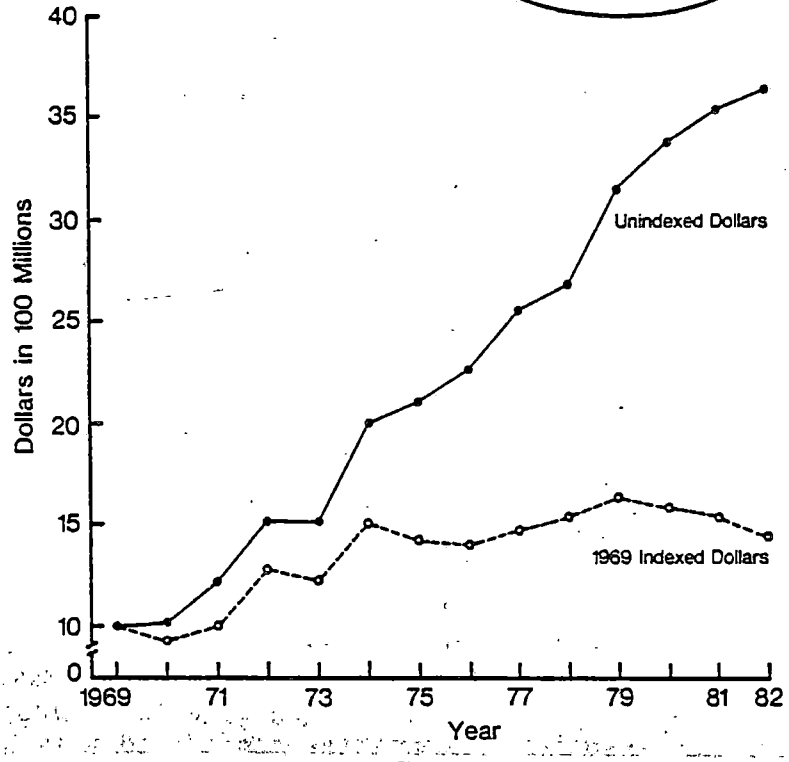

Figure 1.

Figure 2 shows the budget trend for the parent agency of the R&T centers. As indicated by the solid line, the budget fell precipitately in 1973, and it was not until 1978 that there was recovery to the 1969 level. The founding of the National Institute of Handicapped Research resulted in no augmentation of the budget, though the agency's mission had been substantially enlarged. And by 1982, the inflation-corrected dollars available to NIHR were approximately one-third of the dollars available in 1969.

The deplorable funding picture for NIHR and its predecessor agencies was reflected inevitably in the budgetary situation of the individual centers. For example, the two-decade funding record of our center at Baylor College of Medicine and at The Insitute for Rehabilitation and Research is shown in Figure 3. Here the base year is 1963, the first full year of our center's operation. In 1981, after 18 years of existence, we had fallen back to approximately the real dollar support available at the center's inception.

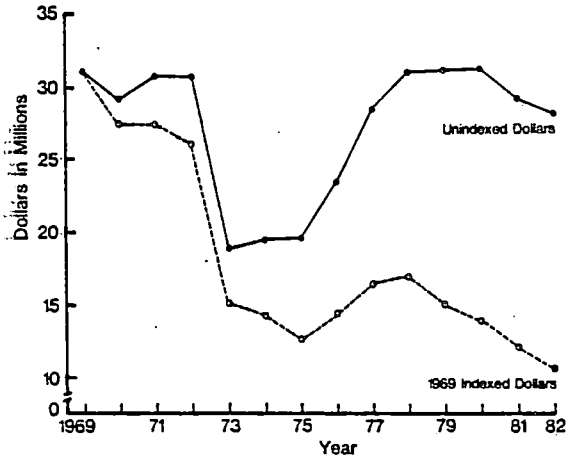

Figure 2.

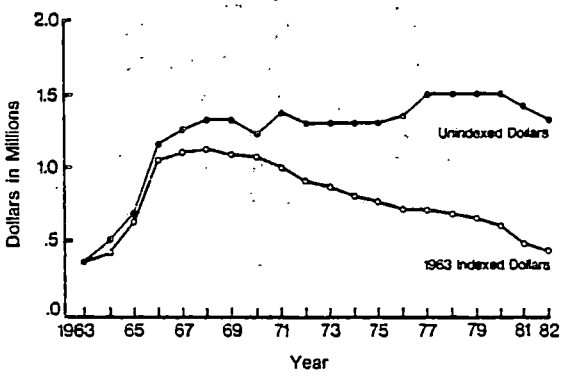

Figure 3.

The agency's meager annual budgets similarly affected resourcing of new centers that were initiated through the years. The NARRTC has consistently taken the position that there is a minimum funding level below which a center is forced to function more as a large project than as an integrated program. An Association committee considered this question in 1977 and concluded that the minimum funding level is $500,000 per year. And that was in 1977! Awards to many new centers since then have actually been much less. At the same time, it is not clear that the agency has commensurately downscaled its expectations for these new programs, compared to expectations appropriate for older programs funded at substantially higher levels.

As lamentable as our budget situation has been, it assuredly would have been far worse if we in the centers had remained aloof from the budgeting process. There has not been a single year since Richard Nixon became president that the administration has requested more funds for rehabilitation research than the Congress finally chose to appropriate. For every year since 1976, representatives of the NARRTC have been actively involved in preparing alternative budgets for congressional consideration, in asking our individual representatives and senators to support more adequate funding levels, and in defending these proposals before congressional committees. Though the federal agency leadership has been sympathetic with these efforts, they necessarily have had to remain mute in this dialogue with the congress. And while the outcomes have hardly justified resounding self-congratulations, there is no doubt that the agency, and thus the centers, would have had even smaller budgets to work with had these efforts not been made.

Support for the centers also took the form of looking after their information needs. The federal agency assisted by disseminating information about the centers' capabilities and accomplishments to the rehabilitation community, by promoting awareness among the centers about each other's work, and providing some opportunities for face-to-face information exchange

among center researchers and trainers. Among the documents published were the Informer, annual directories of ongoing research and available audio-visual aids, and a quarterly calendar describing scheduled training activities. All of these supports have been stripped away in recent years, thus severely undercutting the centers' ability to communicate with each other and with the world at large.

One's global impressions of the last five years under the jurisdiction of the National Institute of Handicapped Research is that the centers have been part of an agency sorely beleaguered--an agency that has had more directors or acting directors than years of existence; an agency with a policy-making body, the National Council on the Handicapped, which itself has had an arrested development; an agency both understaffed and awkwardly staffed; and above all, an agency beset with extravagant expectations and very slim resources. With Dr. Fenderson's arrival, optimism has been restored and a genuine momentum is building. In a mere five months, initiatives are being taken that the Association and other organizations have advocated for years. Included are a research fellowship training program, a program of investigator-initiated research grants, and protection of research and training capacity in the R&T Centers to which a major federal investment has been devoted through the years. It is an immediate past that predicts an exciting future for NIHR and for its prime program, the R&T Centers.

In addition to influences reflecting the centers' administrative environment and resources, their development has been powerfully shaped by the climate of expectation and conception in which they functioned. Throughout much of the 70's, we were bedeviled by the misconception that our individual centers are simply an aggregation of the separate research and training projects being conducted. Operationally, this view resulted in proposed research or training being evaluated in isolation from the R&T Center program of which it was a part. We worked hard to have this view revised, and the criteria used for the past few years by NIHR to evaluate R&T Center proposals suggest that we were heard.

Some of us are concerned that the pendulum has swung too far. According to the selection criteria used recently for evaluating R&T Center proposals, what is termed the "scientific validity of the center's methodological approach to conducting its research and training" can receive no more than six points by each reviewer. There are 94 additional points that can be assigned on the basis of other criteria. With five reviewers for each proposal, it is possible for two highly rated proposals to differ by only 30 out of a possible 500 points, yet the methodologic soundness of the research and training projects comprising one proposal may have been judged by all five raters to be practically nil. Changes are clearly required to more adequately take into account the soundness of individual research projects and training projects as well as the programs to which they belong.

The R&T Center program concept also became vulnerable to the misconception that somehow centers would be more effective if they were limited to working with a single impairment group or with a single aspect of rehabilitation practice. The decision to dismantle centers with multiple program objectives certainly was not based on evidence that such centers

were performing poorly. Quite to the contrary, the Abt Associates evaluation praised the effectiveness of the centers, most of which were multiple-objective in nature. Instead, advocacy for the change to single-theme centers seems to have stemmed exclusively from a few NIHR administrators, who, when asked to defend their view, would cite opinions expressed to them that the centers' programs were somehow "too fragmentary." It is by no means clear that the critics on their spokesmen had taken the trouble to expose themselves in reasonable depth to the rationale and program management processes that the multi-objective centers had in place to assure the coherence and productivity of their programs.

The multiple-objective programs that existed until this year were embedded in comprehensive rehabilitation programs providing services to a variety of impairment groups. The applicable service principles were those emphasizing the commonality among these groups, rather than the differences in underlying pathophysiology. It was demonstrated repeatedly that solving problems at the level of disability and handicap for one impairment group provided solutions to problems of other impairment groups. It was also the experience of these centers that technical resources such as data processing systems, equipment maintenance, information services, and audiovisual services required to support one line of investigation could be provided more cheaply if costs were shared with research having similar support requirements but somewhat different objectives. Just as important, increasing the number of centers with core effort in a given problem area was consistent with the principle that often the fastest progress in research occurs when several groups work independently on a problem, albeit in communication with each other. This communal approach to research progress is undercut in the present situation in which very few centers are wholly devoted to a single problem area.

My guess is that the NIHR administrators who were worried about the centers' ostensible program fragmentation were really voicing anxiety about their own lack of a readily retrievable cognitive map describing what was going on among the centers with regard to the near infinity of rehabilitation problems about which they might be queried unpredictably at one time or another. Now that's a genuine problem--but it is one better solved by setting up an appropriate information system than by altering a fundamental organizing principle underlying the centers' success. A Rehabilitation Act amendment supported by NARRTC this year explicitly condones establishment of multi-objective R&T Centers. I certainly hope this amendment is adopted and that the Institute moves to re-establish such centers.

Another misconception has served to distort the legitimate role of training within the R&T Centers. As understood for many years, that role involves nothing less than introducing advances in rehabilitation concepts and practice into pre- and post-graduate curricula, contributing to the continuing education of rehabilitation professionals, and educating the public. The misconception is that bonafide training only serves to dissimate information arising from each particular center's ongoing or completed research. This myopic view arose during the Nixon administration when federal subsidies for professional training were very much under the gun, especially

training being offered by the National Institutes of Health. It was a time during which the Office of Management and Budget (OMB) was cutting training budgets left and right, and there the centers sat with the odious term "training" in the very name of the program. Salvation came from the shrewd suggestion that the term "training" was really a misnomer as far as the R&T Centers were concerned, and that what we were doing was merely to disseminate outcomes of the research being conducted. And, hosanna, the centers' funding during that period was unscathed. Unfortunately, we still seem to hang on to this defensive conception of training even after the specter that provoked it has long faded.

The OMB also figures prominently in a more recent instance of confusion regarding the role of training within the centers. The problem is that the OMB applies cost principles to the R&T Centers that are intended to apply to research project grants, not to training grants, and certainly not to programs like the Centers in which research and training are each integral components. This OMB view took the form recently of disallowing grant support for training activities that are part of credit and degree granting courses. Removal of this specific restraint is the object of an amendment to the Rehabilitation Act which the Association is supporting this year. However, as long as the OMB continues to apply to R&T Centers cost principles appropriate for research project grants, the hazard remains that other aspects of the center's training activities will be abrogated by refusal to support them.

Further uncertainty regarding the legitimate scope of training within the RTCs is aggravated by the fact that NIHR has not, at least to my knowledge, developed a clear mission statement for itself regarding the undergraduate and graduate training of rehabilitation professionals. It would be valuable if the proposed revision of the Institute's long-range plan addresses this matter.

Perhaps the most damaging misconception of the R&T Centers' program concept has been that, like discrete research projects, our centers can operate productively on an elapsed time basis, e.g., 60 months, quite aside from the scope and complexity of the issues researched, the requirement to transform research results into clinical applications, and the imperative to disseminate the resulting knowledge by means of training and technical assistance. This "elapsed time, automatic termination" approach to center support is in sharp contrast with what can be termed the "variable duration, performance-dependent approach" by which the centers were administered prior to 1981. During that period, each center was funded on a yearly basis. The decision to renew funding for the succeeding year was dependent upon a critical review of the center's progress report and of its proposed program for the coming year. The crucial consideration was that center personnel had a reasonable expectation of continued funding as long as their performance was deemed satisfactory by the agency. Not all centers passed muster. In 1980, for example, support was withdrawn from three centers. The funds that become available were invested in new centers chosen appropriately by national competition.

Many of us who have known both methods of funding feel that the automatic termination approach is manifestly cost-ineffectual. For example, too little cognizance is taken of start-up costs entailed in getting a new center underway. Included are the expenses of recruiting personnel, establishing internal management procedures, and acquiring needed equipment. Similarly, substantial wind-down costs are encountered due to inefficiencies that occur as staff members begin making alternative plans for their future near the end of a funding period. The automatic-termination approach also impairs the center's ability to marshall other sources of support to augment the NIHR award. This is because other funding sources, including the center's host institution, are less willing to make long-term investments in a center's program if NIHR is unwilling to do so. The automatic-termination approach also forces the research process into an inflexible time-frame that can be decidedly suboptimal for addressing the more complex research problems that are particularly appropriate for centers to undertake. An additional concern is that the funding of a center is much too dependent upon promissory notes, that is, upon what is said in grant applications, and too little dependent on how well a program achieved its past objectives. Perhaps worst of all, we have found that the mandatory-termination approach damages the center's ability to attract and retain top-notch staff. The performance-contingent approach of earlier years signaled to the staff that continued funding could be expected as long as they delivered on program objectives which they put forth and the agency had approved. That expectation has been shattered by events of the past two years.

This is not the place to outline in detail how the variable duration, performance-dependent method might be refurbished and restored to meet current conditions. Suffice it to say that our proposal requires on-site peer review at intervals of less than 60 months and termination of the center before 60 months have expired if recommended correctives are not instituted. If the results of the site visit are positive, centers are encouraged to apply for renewed funding. Proposals for renewed funding would be assessed in terms of customary criteria of relevance to NIHR's priorities and scientific soundness. A national competition would be held for new centers whenever an extant center was terminated or more funds were allocated to the R&T Center system.

We should have no illusions about the difficulties of getting such a proposal accepted. National competition is afforded sacrosanct status by many people as a means of assuring fairness in allocating federal grant funds. Our burden is to convince skeptics that the centers' accountability and performance will be enhanced by returning to some form of the variable-duration, performance contingent mode of funding. Failing this, we may find a middle ground in the practices of the National Institutes of Health. There, for example, in the National Institute of Aging, center grants are fundable for two successive five-year periods, that is, for a maximum period of 10 years. And prominent among the review criteria for renewing grant support is the satisfactoriness of applicants' past accomplishments. The absence of this crucial consideration from among NIHR's review criteria has been analogous indeed. The Institute certainly needs to entertain the

related notions of grant renewability and evaluation of past performance in considering better ways of funding its centers.

It is only realistic to acknowledge that one's interest in R&T Centers does not frequently extend beyond one's own center. That's not surprising since for many of us, our center lies at the very core of our professional lives. We should recall, however, that the excellence of our individual center programs is not sufficient to guarantee their viability. Damaging changes in the way that the center system is administered by NIHR or in legislation undergirding the system could jeopardize each and every center. So we need to keep our eyes open, for the most part focused upon the performance of our own center, but occasionally directed to the well-being of the system within which our center functions.

That is precisely the focus of the National Association of Rehabilitation Research and Training Centers. The Association provides a forum to address issues impacting the system, and it provides a common voice for speaking to these issues and their resolution. In doing this, we join Dr. Fenderson in hoping that our relationship with NIHR is one of in-depth, sustained cooperation and not merely one of procuror and vendor. The agenda to be worked upon with NIHR is indeed even larger than I have indicated. To be added, for example, are questions regarding the role of the centers in the agency's planning processes, as well as criteria for establishing new centers.

I wish to conclude by expressing my pleasure in having had the opportunity to serve as President of the Association this year. The R&T Centers really are worth caring about, and you who are associated with the centers are a delight to work with. Thank you.

Deadline for Newsletter Submissions

Submissions for the next issue of NARRTC Reports must be received on or before January 15, 1984. Persons interested in presenting information of general interest to the NARRTC membership should limit their remarks to one or two typewritten, double-spaced pages. Mail to:

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