Introduction

A tradition began last year with the first of these USASBE keynote lectures. It was given by Arnold Cooper of Purdue University and carried the following title: "Entrepreneurship; The Past, The Present, The Future". Now there is a challenge for this lecture. What else is there to talk about?

Actually quite a bit, I suppose, because his topic doesn't treat: "Entrepreneurship: the Wasn't, the Isn't and the Won't be". That leaves unfinished business to work on. But which of it is worth working on? This presentation will discuss that. Hopefully as a start for the meetings that follow and beyond. It could be looked upon as unfinished business, or better yet Unfinished Entrepreneurship. That is the opportunity of the century, the next century.

I see seven categories that might be used to classify this unfinished business. I will list them briefly and explain further. Some of you will think of others I missed and more remedies than I suggest. I hope it will be possible for me to learn about those further. Figure 1 following presents the six:

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1. Legitimacy

Although entrepreneurship has certainly become fashionable there are signs that it has not yet attained full citizenship in the academic world. There are, according to Jerry Katz of St. Louis University, over 200 endowed chairs in entrepreneurship, somewhat
widely defined. Many, when they come up, however, are appointed to people whose major
dedication has been other than entrepreneurship, which suggests that for many faculty who
vote on those appointments, entrepreneurship is not a validated faculty source. Moreover,
at some schools, such as Washington and, I understand Texas and Harvard,
entrepreneurship chairs remain unfilled, years after the donors gave them. Washington
managed to find candidates internally who were “good enough” for 95% of its two dozen
chairs in other business subjects, but could not recruit anybody, even from a nationwide
advertised search, considered qualified for its entrepreneurship chair. So acceptance still
has a ways to go in some quarters.

There are over a hundred university entrepreneurship programs worldwide, and the
number is growing. Top U.S. universities, such as Carnegie-Mellon, Chicago, Columbia,
Harvard, Northwestern, Stanford, UC Berkeley, UCLA, and Wharton now have programs
in entrepreneurship. But so far every U.S. university degree entrepreneurship program,
whether at these universities or others, is subordinate to a business school, with the
exception of one that is under an engineering school. No U.S. university has a school of
entrepreneurship to the best of my knowledge, although there is at least one "school of
business and entrepreneurship." So entrepreneurship, as a school, seems not yet to have
arrived, at least in the U.S.

Most university entrepreneurship programs are heavily staffed with adjunct faculty.
It is a good way to operate, because adjunct faculty are typically real-world entrepreneurs
who have been successful and therefore bring to class a kind of magic that non-
entrepreneur academics cannot. They are low in cost to the school, which is an advantage
in gaining support from administrators who must balance budgets. And they are
untenured, which administrators also like because it allows flexibility to add and subtract
people from the faculty at will.

But adjuncts are not full citizens of the university. They cannot vote and they do
not have tenure, which renders them politically weak. That leaves the non-
entrepreneurship faculty politically strong, which in turn handicaps entrepreneurship from
taking initiatives and blazing trails that it otherwise might. With greater political strength,
for instance, entrepreneurship faculty might be able to end run conventional core courses
by incorporating basic training in core subjects like marketing, finance and accounting into
entrepreneurship courses and teaching only those parts of such subjects that entrepreneurs
find most useful. Entrepreneurship faculty might even shrug aside concern about
conventional business accreditation or introduce their own accreditation.

But at present it is the other way around. Entrepreneurship faculty can only do
what non-entrepreneurship faculty let them do and within accreditation constraints. That is
still a lot, which is fine. But why not reach further?

2. Targeting, Market-wise

It is obvious that we have some very different categories of customers in
entrepreneurship classes. But there is still much to be done in sorting them out and fine-
tuning courses to serve them. We need clearer ideas about (1) what the categories are, (2) which of them we should recruit to which classes, and (3) how those classes should be tailored to them.

Here and there are data points. But how do they fit together? Last year some of us followed up a commercial program sponsored by US West called NX Level, a clone of the Fast Track program. I personally heard participants who had taken the course say that because of the course, they had been able to start successful enterprises that they would otherwise not have started. So the course impact seemed to be very real and positive.

In contrast, at our school when we were discussing entrepreneurship curricula designed to serve the entire campus, a computer science professor who was part of the program asked what was the point of the MBA entrepreneurship course. It wasn't necessary, he said, for his computer science department. The real core of their start-ups, after all, was new software. They could easily pick up information and expert help on topics like business planning, venture capital and selling from other sources without participation of the business school. So an MBA entrepreneurship course, for his department at least, was a redundancy. (Coincidentally, the December 28, 1998 cover story in Forbes uses government data to question very logically the necessity of even a university education for business, let alone successful entrepreneurship.)

More encouraging seem to be reports on the Scottish Enterprise Program presented at the Babson conference in 1997. It aimed to impact entrepreneurship on a national basis through education from elementary school through university, plus public relations and financing initiatives. Moreover, it collected tracking data on the effects those efforts. The results indicated that the program really worked on a national basis, both to develop in the public a more favorable attitude toward entrepreneurship and to increase the number of start-ups.

But where does that leave us in universities? We have a mix of students with varying backgrounds and objectives. How do we aim? Is it better for us to offer survey courses in entrepreneurship that hit a spread of topics shallowly, or specialized courses in topics like intellectual property and IPO's that treat some in depth? Should we have courses that specialize by industry, like software, web technology application, biotechnology and restaurant creation? Should universities themselves specialize differently?

Figure 2 below suggests some market segments based upon student objectives regarding ventures. This could be further stratified, both as to prior experience and as to type of business, to produce a virtually endless array of possibilities. Our finding in the US West study, however, offered some relief from the need to target too finely, because it appeared that participants drew upon the various course elements, such as instructor, book, exercises, other class members, and assignments selectively according to their needs. It was as if the course were a buffet table from which students individually selected meals. That is not to say, however, that tuning could not improve it further. The choice of what to put on the table likely is important.
How should a given university focus its entrepreneurship education efforts on the spectrum that runs from nuts and bolts of start-up at one end to cultivation of general mental abilities at the other end? Graduates of top law schools are notorious for their inability to pass bar exams without supplementary trade school prep courses. But they are highly regarded for teaching students to think like lawyers, whatever that is taken to mean. Does it follow that the best university entrepreneurship programs will be those that teach students to think like entrepreneurs? If so, how is it that entrepreneurs think, anyway? Or does it depend on the particular entrepreneur, the particular industry or the particular venture, and if so, how?

I hope and suppose we are groping our way toward answers to questions like these. But I haven't noticed systematic reporting of the results, except here and there as I mentioned earlier. The Int Ent conferences of the European Business School at Frankfurt are a useful forum for exchange, and some sharing of such information occurs at the Babson and Academy of Management research conferences, but a better coordinated data sharing system could, I think help further. I see real optimism for progress on this frontier as we move into the next century.

3. Paradigms

We should also have more and better paradigms for grasping the field of entrepreneurship to transmit its growing body of knowledge to others. One of Arnie Cooper's predictions was that there would be no great entrepreneurial paradigm for the field, (perhaps just like no great American novel). That may be true, but we do need more paradigms, at least smaller ones if not “the big one.”

One reason we need them is to deal with what might be called the “snippets problem.” A letter I received from a dean in the Midwest illustrated this difficulty. He said he liked the idea of introducing entrepreneurship as a field of concentration in his school but he could not figure out how its content should be defined. He had looked at various textbooks with the word *entrepreneurship* on the cover and come away with the impression that they were mostly just books for survey courses in business. The topics

<table>
<thead>
<tr>
<th>Student Market Segments</th>
<th>Now</th>
<th>Later</th>
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<tbody>
<tr>
<td>1. Starter</td>
<td></td>
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<tr>
<td>2. Runner</td>
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<tr>
<td>3. Acquirer</td>
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<tr>
<td>4. Internal team member (“venture helper”)</td>
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<tr>
<td>5. External team member</td>
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<tr>
<td>6. Venture investor</td>
<td></td>
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<tr>
<td>7. Scholar/teacher</td>
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</tbody>
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included a little bit of accounting, a little bit of law, some marketing, production, and human resource management — snippets duplicating parts of other courses across his business school's curriculum.

Are we stuck with that? After all, entrepreneurs on occasion can find useful the tools of law, marketing, production, HRM and even finance. Does that mean the subject of entrepreneurship is inescapably redundant?

Maybe not. For one thing, it hooks information from these traditional subjects together somewhat differently. Because of the way new companies develop and the fact that not everything can be done at once by the entrepreneur, it may make sense to treat these topics as linked sequentially in ventures. A scheme for viewing this might look like the one in Figure 3 below. Using this paradigm, the field may be considered as a series of linkages among specialties, rather than just snippets.

For entrepreneurship there is a different starting point, and consequently it is possible that the introduction of topics like marketing and finance might be taught as parts of venture development processes, rather than as separate courses taught in separate departments. That would be a different way of looking at those topics, which is not to say it is a great new paradigm. But it is different than what we now use, and for teaching about venturing as a distinct field, it may be worth trying.

Attainment of increased legitimacy for entrepreneurship as a field through development fresh and better ways of looking at it should help us strengthen legitimacy, which in turn will increase our freedom to further explore.
4. **Content**

Although paradigms may be part of knowledge content, the content goes beyond them. Entrepreneurship as an academic field is criticized by some for having insufficient content. Part of our job is to figure out what it is useful for entrepreneurs to know and then to decide what part of that knowledge can be taught in school. Figure 4 presents one simple way to classify knowledge useful to entrepreneurs. Business schools that have entrepreneurship courses normally offer the first two categories of knowledge. The second two are typically not.

1. **Business-General Knowledge** - This is knowledge that applies to businesses in general, both new and established firms. It includes such things as basics of accounting, marketing, business law, finance, operations and human resources, plus subdivisions of those subjects. In short, it includes the curricular core. It also includes some of the electives that branch off of it, but not all of them. There may be courses specialized for auditors, courses in insurance or real estate, and research methods courses that apply to particular groups of specialists.
2. **Venture-General Knowledge** - This is the content in entrepreneurship courses that is distinct from business-general knowledge but fairly general to ventures. It includes things like the following:

- What is venture capital and how does it work?
- How do entrepreneurs find opportunities and ideas for new firms?
- What is a venture plan, who finds it useful and how, where does information for it come from and what is the difference been a mediocre versus good one?
- How is development of initial customers for a start-up different than in an established business and how do founders cope with it more versus less effectively?
- How should founders best find partners and recruit talent?
- How may defense of intellectual property be special for entrepreneurs and how should they decide what to do about it?
- How do the headwaters of great success get built into a new company and in what stage of its development?

The list here can be lengthened, and elaborated in more detail, which would add content. But should we elaborate? Couldn't we just say that the way to learn entrepreneurship is to “Just Do It?” Almost all entrepreneurs to date have followed that advice. They not only didn't have enriched content from an entrepreneurship program. They didn't get any curriculum in entrepreneurship, or business either for that matter. And here they are, successful. Again, the computer scientist at our school said. "We don't need you people. We can learn the basics of entrepreneurship on our own." And of course, like Jobs, Wozniak, Gates and Allen, they can, provided they have the other two types of knowledge in Figure 4.

3. **Opportunity-Specific Knowledge**, which is to say knowledge about the existence of an un-served market and where physical resources to serve it might be obtained is the
first of these others. With that type of knowledge Jim Bezos was able to start Amazon.com through recruitment of people who possessed the fourth type of knowledge.

4. **Venture-Specific Knowledge.** This is the knowledge of how to produce a particular product or service. In the case of the Apple entrepreneurs it was how to make a good microcomputer, and in the case of Gates and Allen it was how to write computer code. Starting with this they found their way to un-served markets by acquiring opportunity-specific knowledge. Business general and venture general knowledge they acquired through seeking advice and recruiting other people.

Neither of these last two types of knowledge applies to ventures in general. They are specific to a particular start-up. Moreover, as soon as awareness that in their nexus potentially profitable ventures exist, they quickly become obsolete discoveries. For both of these reasons schools cannot deliver them, except in rare and, typically, anomalous situations.

Sadly for us, the last two are generally the most important of the four types of knowledge for start-up success. They are like maps to unclaimed gold veins, rarely available, and then only at extremely high cost. The general business and general venture types of knowledge are, to continue the analogy, like how to shovel and transport ore. They are necessary, but relatively easy to learn or cheap to buy.

So is there something of real value to entrepreneurs for scholars of entrepreneurship to study and teach?

I think so, and it's part of our job to add more. To continue the mining analogy, there are such things as shoveling better, transporting better, smelting better, getting a better price and parlaying the mine into something valuable rather than losing the venture, as do many entrepreneurs. Adam Osborne and others spotted and pursued wonderful opportunities in the early days of the microcomputer industry with great technical sophistication but went broke anyway.

Another helpful analogy can be an automobile race, the **Indy 500**. Typically, each year the speeds get higher in this race due to discovery of ever better techniques, even after the many decades that have already been applied to refinement. The speeds creep up to a point where the race becomes too dangerous. Then the officials inject some new handicap: smaller engine size, restricted fuel composition, reduced intake area, to lower the speed to a safe range. Consequently, speeds drop. Then it starts to creep up again, even with the handicap, until again it becomes unsafe, at which point another new handicap is added, and so forth.

What produces the speed up creep? Sometimes big breakthroughs, like introduction of two-way radio for the drivers or controllable spoiler wings, and always many small things, like better tire material, tiny aerodynamic refinements, and improved coordination patterns for pit crews.
We have seen both types of improvements also for the practice of entrepreneurship. There have been big breakthroughs like microcomputers for many business functions and the web as an electronic vending machine.

There have also been lots of smaller things (LOST is the acronym) like annual improvements in tax software, more telephone feature options, and revelation of new tricks available through specialized consultants. For instance, a recent restaurant start-up in the Seattle area used special consultants not only for architecture and law, but also for recipe design, menu design, interior design, focus group utilization and staff training. The venture took two years to design and set up, and then was opened with no advertising. Within two weeks the waiting line for dinner was two hours, where it has remained. No doubt much of what the consultants provided was venture-specific. But when and how to use them may have been venture-general techniques that school can help with.

Inevitably, it is the people in industry who will originate most of the improved methods for venturing. They, by the millions, are tinkering and trying approaches that will let enter business more profitably. This represents a massive experimentation effort, with industry as the laboratory, which academics certainly can't match, but can assist. Our job must include noticing the improvements that arise from these experiments and helping diffuse them to other application sites. "Just do it" may have been good enough for the present century, but in the next one it should not. Instead, the slogan should be "Do it better than last time." More about that shortly.

The magazines and other media also have this mission, of tracking and reporting about best entrepreneurship practices, in parallel with us. But for them there is higher priority on discovery of the occurrences, whereas we are called upon more to codify and cumulate the information about improved methods so that useful knowledge will ratchet forward and not be forgotten, only to need rediscovery.

This adds to the content we offer, so it can reach beyond snippets, and also beyond paradigms for looking at or connecting snippets. It builds a unique content for the field of entrepreneurship. A likely result will be that other fields will tear off pieces of it to claim as their own.

5. Balance, Research-wise

In the search for new knowledge that we call research represents we have much to work on, not just in quantity, but in direction, balance and even underlying philosophy. Top priority, it seems to me, should be to work on two types of balance that need to be improved in entrepreneurship research.

The first is topical balance. There is too little attention being given to some topical areas relative to other topical areas. Graphically, this is illustrated by Figure 5. This figure depicts the distribution of articles by topic of 1,679 articles from three academic periodical series; Journal of Business Venturing, (JBV)Marketing at the Entrepreneurship Interface(MEI), and Frontiers of Entrepreneurship Research(FER) plus Inc. Magazine.
The categories coded along the horizontal axis of the figure are described in Figure 6 and are somewhat similar but not identical to those of Figure 3.

Figure 5 - Article Quantity by Topic Area

Topic codes – Please see Figure 6
It can be seen from the bar heights in Figure 5 that there are some significant differences in distribution among the periodicals themselves. For instance MEI is the source of almost all the academic articles on getting sales in new ventures (category 8a).
Inc. much less emphasizes articles on venture capital (category 5c), while the academic sources, particularly JBV and FER seem to highly emphasize venture capital, even relative to banks (category 5b), notwithstanding that extremely few entrepreneurs deal with venture capitalists, while virtually all must deal with banks. This seems strange.

More important may be the almost complete lack of attention to other subjects such as how to find viable venture ideas (2a, 2b), how to check them out (3a, 3b), how to protect ideas in a new venture (6a) and how to deal with acquisitions (9b). Certainly, these are important subjects to entrepreneurs, and areas where undoubtedly things can be done better. So it seems regrettable that they appear to be so undertreated.

By far the most treated, as can be seen from the bar chart, are topics at the two ends of the chart. The left-end topics have to do with overall occurrence of entrepreneurship in various economies, plus psychological makeup of entrepreneurs. How study of those topics is likely to give insights to better techniques of accomplishing entrepreneurship is not so easy to see, which makes it hard to defend the unbalanced attention these topics appear to receive.

At the right-hand end of the chart emphasis seems inordinately high on topics directed toward study of generating and coping with growth in existing companies. Those topics are of high interest and importance to managers in ongoing companies. But theirs is not the role of the entrepreneur according Webster's definition. Management of ongoing companies is a subject with an abundance of literature, research and otherwise. Entrepreneurship lacks such abundance and is, therefore, where the research is more needed.

Reasons for the apparent misdirection probably include inertia and resistance due to the traditional emphasis of management schools, as well as researchers, following the money. Start-ups generally can't pay for high consulting fees or expensive management programs, whereas many fast-rising companies can and do. It is always easier to study companies that are established, because most of the time they are easy to find and they stay put. Moreover, there is usually information about them in print already from any number of sources. To study them versus entrepreneurs in action is like photographing a cow versus a grasshopper on the move.

This extension of the term entrepreneur into the realm of management also adds confusion. Two people talking about entrepreneurship may have very different subjects in mind. One may be thinking about individuals or teams who start companies, while the other may be thinking of executives like the CEO of Chrysler. Perhaps we should develop a lexicon for the entrepreneurship field, which includes different types of entrepreneurs having different appellations. One possible set, building upon the list shown earlier in Figure 2, appears in Figure 7 below and is illustrated graphically in Figure 8.

Concentrating research on individuals and teams who enter independent business, and in particular on what they do to accomplish that, which is to say shifting focus more away from the economics and psychology of venture populations, can help add balance.
A second major driver of imbalance is created by academic fashion in methodology. Using statistics is the proper way to establish representativeness. But in entrepreneurship representativeness, typicality, normality, the mode, median or mean is not all we should be interested in. Entrepreneurship is based upon exceptionality. Entrepreneurs prosper by finding and exploiting anomalies, which is what they and their ventures often turn out to be, at least until they are up, running and successful, at which point management, hopefully still creative, and resourceful succeeds entrepreneurship.

![Figure 7 - Defining Entrepreneur Types](image)

<table>
<thead>
<tr>
<th>Name</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Starter</td>
<td>Enters independent business by creating a new one</td>
</tr>
<tr>
<td>Acquirer</td>
<td>Enters independent business by acquiring a going concern</td>
</tr>
<tr>
<td>Runner</td>
<td>Manages a small to medium business beyond start-up</td>
</tr>
<tr>
<td>Takeoff Artist</td>
<td>Steers a company onto a high growth trajectory</td>
</tr>
<tr>
<td>Turnaround Artist</td>
<td>Saves a failing company</td>
</tr>
<tr>
<td>Innovator</td>
<td>Makes something new happen that is not a new company</td>
</tr>
<tr>
<td>Champion</td>
<td>Supports subordinate innovator</td>
</tr>
<tr>
<td>Intrapreneur</td>
<td>Takes extraordinary initiative for business unit creation inside an established company</td>
</tr>
<tr>
<td>Industry Captain</td>
<td>Runs a big business artfully</td>
</tr>
</tbody>
</table>

![Figure 8 - Roles in Venturing Over Time](image)
So we should be looking in our research not just for the typical in populations, but also for the outliers and the range. We should seek to identify and map the arrays of venturing methods that are effective and how those arrays are caused. That can help enable the injunction for would-be company starters to change from "just do it," to "do it better."

Maybe USASBE should each year impanel two teams of scholars and have each team answer two questions. First, in what ways, maybe for selected industries, is new venture creation performed better today than it was five years ago? Second, how might best practices in entrepreneurship be better five years hence than they are today? After five years, the answers should be graded and one team should be given an award for guiding vision. This could be continued on a rolling basis year after year to keep our eyes directed on the course.

6. **Endowment**

All the tasks mentioned so far require time, money and persistence. It's not enough to have an effort begin and then be blown away. But that is what has happened repeatedly over the years. Consider the start-up studies of pioneers in the field like Hoad and Rosko at Michigan and Collins and Moore at Michigan State. They put those schools at the forefront then, but that leadership was not continued. Had there been endowments behind those early and significant research activities, instead of only temporary government contracts, and had those endowments been written with tight contracts binding them permanently to entrepreneurship, those schools would almost certainly still be prominent in the field and we would also have more good research content from continuation of their efforts.

What the money is for also seems to make a difference. A good thing about those two studies that I just mentioned was that their aim was to produce published results. Consequently, their output lasted.

A contrast to that publication emphasis would be previous programs that concentrated on activity to the exclusion of collection and dissemination of findings about entrepreneurship. For instance, in the seventies the National Science Foundation spent millions on so-called innovation centers at several major U.S. universities. Unfortunately, nobody was contracted to monitor the results independently, so the only reporting of the experiments consisted of what amounted to applications for renewal of the contracts. Later, years after the projects had begun and finally ended, an investigation to report the results in hindsight was mounted, but since it was commissioned by the same agency that had spent the money, it was not very penetrating. It seems likely that a considerable amount of learning about what worked well and what did not work was lost. This invites repetition of mistakes and consequent financial waste.

During the eighties the Canadian national government mounted a couple dozen entrepreneurship stimulation projects at universities around the country. Again, nobody
was given a contract to monitor the results as a third party, and again we have no results, that I am aware of, to show for it.

Without sustained effort, all these programs vanished. Very recently, the same thing has happened at two other universities. At the University of Dortmund in Germany an outstanding effort in entrepreneurship was going on, including development of new software, new outreach courses and a major international conference on entrepreneurship education. The university, however, was less than fully supportive of all this, and when the prime mover received a better offer and moved to the European Business School near Frankfurt the Dortmund program completely dried up.

In a similar vein, at Australia’s Swinburne University, an engineering professor developed an entrepreneurship masters degree program that was producing an impressive number of start-ups directly from the university. That professor just retired and, I'm told, the program is being abolished. Another Australian university, Murdoch, may adopt it, but for how long if there is no endowment?

What should be done? One remedy would be to develop longer-range plans for financial support, including creation of endowments for entrepreneurship program development and research. The second is to make sure that when money is given it goes to entrepreneurship, not to some sort of undesignated purpose beyond simply memorializing the donor's name. Universities always prefer unrestricted funds. But when they get them rarely make entrepreneurship the beneficiary.

I'm not a money-raising expert. But we need more of them with specialized expertise in tax angles that wealthy entrepreneurs can play by contributing to entrepreneurship programs. We need people who can persuade entrepreneurs to look at entrepreneurship programs like they might look at college football teams and also as programs that can help young people who are much like they were earlier on.

7. Liberty

Even with endowed financial support, however, entrepreneurship in universities still must deal with barriers and constraints that we should keep finding ways to penetrate. Entrepreneurship in universities has so far been developed as an add-on to business education, first as an elective course, then more courses, and finally as a concentration, major or program. So far it has largely been tucked in around the existing core. Its teachers presently must be approved by established faculty of other fields. Its courses currently must fit into the existing curriculum, grading system and calendar. It serves the students who for the most part apply for a conventional business education.

To quote a famous past-president's wife, I suppose there's nothing really wrong with that. But what might be different if we had started first with a school of entrepreneurship and then added a few courses for a concentration or major in middle management?
Would it be a school of art, science or profession? Would it be aimed at imparting knowledge content, tools and skills or ways of thinking? If ways of thinking, what would they be and how would the school seek to impart them? What would graduate students carry with them in the way of not only course content but also venture memories, mentor memories and perhaps portfolios of their creations such as product designs and prototypes, business plans, parts of plans, contacts from field studies and ideas about potential future opportunities as well as plans for continuation of their personal development and contact networks to enable them more effectively with time to become successful as venturers and helpers of other venturers?

Is there some reason, other than lack of progress, that there should not be a graduate school of entrepreneurship in the United States and why it should not be first class? For that matter, since this meeting is in San Diego, what would be a better place for such a school than in San Diego?

The San Diego business community, although not as big as those of other major cities on the West Coast, has a rapidly advancing growth frontier that includes both high technology and a very active adjacent international border with Mexico that also links it with other countries in both Europe and Asia. There are many entrepreneurs here locally and vastly more within commuting distance just up the coast along I-5 and inland up I-15. Venture capital firms are not here permanently yet, but hundreds of them show up here in San Diego annually for the technology showcase hosted by UCSD, and local venture capital firms are bound to arise as the economy grows, particularly in high technology.

San Diego State University has a world-class venture plan contest and an active entrepreneurship program that is well supported by the community faculty. But it has no doctoral program and, by the nature of the California State University system, has a mission that is oriented primarily toward teaching, not research. Those functions are instead the mission assigned by the state to the University of California system.

But if a new graduate school of entrepreneurship were created nearby, and if adequate financial support could be raised, then faculty from San Diego State could participate as members of the new school’s faculty on either a joint or summer basis. They could also belong to or supervise committees of its doctoral students on relevant doctoral research.

The University of California at San Diego, like Berkeley, UCLA and the other members of the University of California system, has the mission to pioneer and develop new knowledge. It has strong schools in engineering, medicine and the sciences. It also has an exemplary extension program that is strongly oriented toward new business ventures. But it has no business school, and the extension program is not authorized to offer degrees, only certificates. All of this makes it ideal as a collaborator with the local business schools, as it would also be with a graduate school of entrepreneurship, if one were nearby. A case in point is its collaboration with the MBA program at the United States International University here in San Diego, which just began accepting extension courses from UCSD to satisfy its MBA core.
It, like San Diego State, offers undergraduate and masters degrees in business. In addition, it has a business doctoral program. But that program is to be cut back, and it is not in entrepreneurship anyway. So a new graduate school with a doctoral program in entrepreneurship could be complementary, providing a basis for collaboration.

There is also a business school at the University of San Diego, a small school that is high in quality. It is unlikely to mount either a major entrepreneurship program or a research program in that field. But it has two active faculty in entrepreneurship who might collaborate with a local graduate school of entrepreneurship on doctoral or other research if the conditions were right.

There are other nearby business schools as well, such as to the north in Vista, Cal State, San Marcos. That business school serves a region with increasing numbers of start-ups and could pick entrepreneurship as a direction of future development.

Each of these schools provides important parts to the picture of entrepreneurship education in San Diego. But their combination still leaves, as opportunities, some gaps. The existing business schools here either have or are seeking AACSB accreditation, which imposes some restrictions that an entrepreneurship school might be better off without. A new school free from accreditation could make unrestricted use of adjunct faculty. It could offer a one-year masters degree in entrepreneurship without the inertia of traditional business core courses. It could design its own doctoral program around the special research needs of entrepreneurship. That doctoral program, by its wide-open nature, might be able to draw participation of distinguished doctoral mentors in entrepreneurship at universities elsewhere in the nation in addition to faculty of nearby schools, and it could include scholastically inclined members of the entrepreneurship community from outside the academic world as well.

The array of programs that would then be available, including those of a new graduate school of entrepreneurship, is displayed in Figure 9 following, from which it can be seen that the addition should be largely complementary and not duplicative.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Certificate</th>
<th>Diploma</th>
<th>BS</th>
<th>2 YR MBA</th>
<th>1 YR MSE</th>
<th>Ph.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSD</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDSU</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USIU</td>
<td>X</td>
<td></td>
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<tr>
<td>GSE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

In the longer term such a school, if done with sufficient freshness, imagination and quality, might even be eligible for adoption by UCSD, which would thereby become the only top quality university in the world with a graduate school of entrepreneurship and no
business school, at least provided it did not wait too long for the adoption. That, it seems to me, would make an interesting page in the 21st century history of the United States, and one that everyone concerned could be proud of. It could also pave the way for emergence of other such schools in the U.S. and elsewhere.

A graduate school of entrepreneurship in America could have happened in this century. But so far it has not. To give it a good start money would clearly be required, millions to do it right, and such amounts usually take time to get. So maybe such a school will not begin in the few months left of this century. But if not it should in the next one, and the sooner the better, and if not in San Diego, then still someplace in the U.S.

**To Be Done**

In summary, Arnie Cooper is right. The field is young, has come a long ways in a short time and is likely to keep on building, because its driving forces are continuing, for the foreseeable future. But there is also a tremendous potential for doing more than is likely to happen automatically. We have to drive it if we are going to maximize the win from it.

I have lived long enough to reach the belief that many opportunities are bound to be exploited sooner or later, and if not by one person or group or institution, then by another. But there are also opportunities that will never be exploited within our experience even though they could be. Maybe skateboards, snowboards and windsurfers were inevitable, but they certainly could have been done earlier. The same is true of the internet, Fed Ex and jet airliners, not to mention products like Trivial Pursuit, Pictionary, the Happy Massager and Magic, the card game. All of these could have been done sooner, or not at all. Initiative made the difference.

Our initiatives should recognize that although the entrepreneurship field is growing it still is short on both legitimacy and permanence. Further clarification of student market segments and finer tuning of curricula for them can help, as can more creative thinking about fresh paradigms for understanding the subject. Research efforts should be guided more toward areas that are thinly treated and with an eye toward discerning and disseminating the small improvements industry invents for performing entrepreneurial processes better. Emphasis should be reduced on study of central tendencies, means and modes in favor of more study about ranges and exceptions to be found in the tails of sample curves. We should develop a better science of our own for raising money and making sure it gets applied to entrepreneurship, not for just doing it, but for learning how to do it better. And someplace in the U.S. the next century should see an independent graduate school of entrepreneurship that, if its success warrants, can be the first vessel of a new fleet.