

**UNIVERSITY RESEARCH AND KNOWLEDGE AS AN END IN ITSELF:
ENTREPRENEURSHIP IN THE ACADEMIC ORDER**

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This article identifies a high regard for the refereed journal which creates opportunities for innovations in the marketplace of ideas as the *differentia specifica* of the university and an unusual willingness to defend his entrepreneurial ideas in the face of heavy resistance as the *differentia specifica* of the university researcher.

Successful innovation is ... a task *sui generis*. It is a feat not of intellect, but of will. It is a special case of the social phenomenon of leadership. Its difficulty consisting in the resistance and uncertainties incident to doing what has not been done before, it is accessible for, and appeals to only a distinct type which is rare (Schumpeter 1928, pp. 379-380).

A person's judgment as to the proper role of the university researcher and of his teaching counterpart derives critically from the way in which that person views knowledge as a concept. In this regard, there are two fundamental views. The one view proceeds from the concept that knowledge is power. In research, knowledge is power relates to the researcher's ability to attract funds to the university from grants, contracts, consulting fees, and the like. Scholarly inquiry with no immediate payoff is subordinated if not openly discouraged. In teaching, knowledge is power means that only those programs that attract students or place graduates in jobs are regarded as cost-effective and are to be continued. All other programs are to be dropped or are not offered.

The second view proceeds from the concept that knowledge is an end in itself. As regards research, knowledge as an end in itself means that the central mission of the investigator is to discover the truth whether it works to the advantage of the university or not and whether it destroys the conventional wisdom or not. In this sense, the researcher is radical. As regards teaching, this concept of knowledge means that the main responsibility of the instructor is to convey the truth even when it does not help the student immediately and demonstrably. In this sense, the teacher is a conservative.

RECAPPING THE SIMPLY ANALOGY TO THE ENTREPRENEUR

When knowledge is seen as an end in itself, the university becomes as John Henry Newman observed "the high protecting power of all knowledge and science" (Newman 1947, p. 335). The researcher is an entrepreneur who creates new findings, hypotheses, principles, and theories that effectively destroy older ones. When knowledge is viewed as power, instruction reduces to vocationalism and the university becomes a trade school. The researcher is a huckster, a peddler of small pieces of knowledge who sifts the known truth looking for what will sell.

On the surface, the researcher-huckster and the researcher-entrepreneur appear to be quite similar. As regards basic methods, they are alike in that both engage in sifting and weighing. As regards fundamental ends, however, the two are very dissimilar. The one sifts and weighs the

truth in search of those pieces that will sell. The other sifts and weighs the evidence in search of the truth.

Knowledge as power means that the university must compete with the other peddlers of the truth such as the media and for-profit research institutes. The researcher-huckster is highly relevant but not always trustworthy. Knowledge as an end in itself means that the university stands alone as the source of truth through scientific verification. However, the researcher-entrepreneur is subject to criticism for work that to the conventional mind is not always useful.

Consider the dilemma of the university. If it prefers knowledge as power, it reduces to a trade school which is threatened by competing institutions that may be more adept at sifting the truth and delivering what the client wants. If it chooses knowledge as an end in itself, it remains an authentic university but is assailed for appearing to put the irascible, the irrelevant, and the irreverent ahead of the polished, the practical, and the profitable.

What follows is an extension of this simple analogy between the researcher in the academic order and the entrepreneur in the economic order. Our principal purpose is to identify the *differentia specifica* of the researcher and the university.

EXTENDING THE SIMPLE ANALOGY

Schumpeter identified a critical linkage between the entrepreneur and the private creation of credit which he regarded as the *differentia specifica* of capitalism (Schumpeter 1928, p. 362).

As ... innovation, being discontinuous and involving considerable change and being, in competitive capitalism, typically embodied in new firms, requires large expenditure previous to the emergence of any revenue, credit becomes an essential element of the process. And we cannot turn to savings in order to account for the existence of a fund from which these credits are to flow. For this would imply the existence of previous profits, without which there would not be anything like the required amount – even as it is, savings usually lag behind requirements – and assuming previous profits would mean, in an explanation of principles, circular reasoning. “Credit creation,” therefore, becomes an essential part both of the mechanism of the process and of the theory explaining it (Schumpeter 1928, p. 381).

Just as the entrepreneur depends on the private commercial bank to create the credit needed to test his innovation in the market system, the university researcher relies on the professional refereed journal to create the opportunity needed to bring his new findings, hypotheses, principles, and theories to the marketplace of ideas. Indeed, the editor and the referee are to the researcher as the banker and loan officer are to the entrepreneur (AUBER 1984).

In the economic order, the entrepreneur's prospectus is evaluated for the head of the bank by the loan officer. If the loan is approved, the risks involved are shared by the banker and the capitalist (who may be the entrepreneur as well). Should the innovation become a commercial success, both parties share in the additional revenue and profits. However, success depends initially and critically on securing the needed credit, and overcoming the resistance of sources of credit to new ventures is more a matter of the will than of the intellect. In the process, some otherwise worthy innovations are rejected for lack of a sufficiently strong-willed person to promote them.

In the academic order, the researcher's manuscript is scrutinized for the editor-in-chief by the referee. If the manuscript is accepted for publication, the risks are shared chiefly by the journal, the researcher, and to a lesser extent by whatever professional association or university acts as the journal's sponsor. Should the published article finally be judged an important contribution, all share more or less in the added prestige and recognition. As in the economic order, the successful researcher-entrepreneur is not necessarily best known for an exceptional intellect. Rather, he is identifiable by an unusual willingness to defend his work in the face of heavy opposition from his peers. Therein lies the *differentia specifica* of the researcher in the academic order. The university researcher is like the entrepreneur because, most fundamentally, both have that rare personal quality of persistence in carrying forward their innovations.

Commercial banks protect themselves against losses from bad loans by tying the interest rate to the estimated risk and by requiring the borrower to pledge some security against the loan. Even though a submission fee may deter some researchers from submitting manuscripts which, if accepted for publication, might "go bad," this fee provides the journal and any sponsoring agencies no protection because the risk that is taken is not fundamentally financial (GSRI not dated, not paginated). Rather, it is a loss of status in the scholarly community which the journal, self-evidently, cannot retrieve from the author. In effect, every article that is published is the equivalent of a signature loan.

ON BUREAUCRACY, AUTOMATICITY, AND DEPERSONALISM IN RESEARCH

Socialism emerges from capitalism, argues Schumpeter, not because of any failure on the part of capitalism but because of its success. Innovation in the socialist economic order becomes bureaucratized, automatized, and depersonalized. The entrepreneur becomes as incongruous as the medieval knight on the modern battlefield (Schumpeter 1950, pp. 133-134).

Similarly in the academic order, the university transforms into a trade school because of the successes of the institution, not its failures. It is the researcher with a record of success in publishing who turns to huckstering because it is his professional reputation that attracts funds from clients who need an authority figure to defend their position and "destroy their enemies."

Examples of bureaucracy in research at the university are not difficult to find. Perhaps the most visible and certainly one of the most important examples are the research bureaus within the various colleges of the university. There is even a professional association for “any organized bureau, division, institute, or center devoted to economic and/or business research which is an integral part of a university or college” known as the Association for University Business and Economic Research or AUBER. Established in 1947, AUBER now claims a membership of 150 bureaus (AUBER 1984, p. iii).

Another example of the bureaucratization of research is the university-wide office of research which oversees and supports activities of the various research bureaus and individual researchers at the university. One of the main functions of this office is to help the university generate outside funding, principally through contracts and grants. It is well known that the success of this office, along with its subordinate bureaus, is measured chiefly in terms of the amount of outside funds it is able to secure for the university.

Quite recently the State of Louisiana retained Gulf South Research Institute, a private research organization in the State, to implement an ambitious program called Louisiana Technology Quest that seeks to link and enhance certain efforts throughout the State in the areas of research, technology, and industrial development. Of particular interest, for our purposes, is the program’s second objective.

To develop and implement a program which will provide for the systematic and efficient identification, documentation, assessment and transfer of innovative and commercially viable technologies from the research and development arena within the State’s colleges and universities to state, national and worldwide markets ... (GSRI not dated, not paginated).

Gulf South Research Institute, in turn, has hired Worldtech, Inc., a subsidiary of Control Data Corporation, to assist in the commercial evaluation and marketing of specific technologies. Financial gains that derive from any successful technology transfer are to be split among the various parties involved. Worldtech’s gains would derive from commissions on the sale and from a share of any royalties that are generated. The university researcher also shares in any royalties that are forthcoming. So far, eight major U.S. universities, including MIT, University of Michigan, and Case Western Reserve University, are participating in technology transfer programs. If successful, the Louisiana Technology Quest program would further bureaucratize and commercialize research at participating universities in the State.

On occasion, there may be some deception in merging the research and fund-raising activities of the universities. For instance, one university recently expanded the role of one of its research bureaus to include fund raising mainly through direct solicitation of friends and graduates. A

new professional position was created which is devoted solely to fund raising. The official title of this position is “research associate.”

Examples of automaticity in research abound. When knowledge is perceived as power, one faculty member simply may add a colleague’s name to his manuscript in order to help advance his associate’s career. His colleague, in turn, may do the same for him. An unknown author may arrange to have affixed to his manuscript the name of an already well-established author in order to increase the manuscript’s chances of being accepted for publication especially by the editor of a lesser journal who sees an advantage in being able to publish an original article co-authored by one of the “stars” in the field. A dean may add the names of his faculty members to the manuscripts produced in the college in order to make the college appear more productive when it next faces accreditation. Notice that the co-author “scam” produces the impression that more research is being conducted. But it is only an impression: nothing is added to the body of knowledge. Another example of the automatization of research is the “boiler plating” of a string of articles based on one’s own original idea or someone else’s.

As regards the depersonalization of research, some universities strengthen their research proposals by attaching the resume of their “star” faculty members, thereby suggesting that if the project is approved and funded the work will be done by these well-known and highly regarded professors. Indeed, in some cases the research is conducted mainly or entirely by other members of the faculty at a substantially lower cost, thereby generating a surplus for the university. This surplus, in turn, may be used to purchase items that were not specified in the original proposal and that have not been approved in the regular university budget. Worse than that, the university may distribute surplus funds to selected members of the faculty and staff through overload payments for services to the project which are never rendered. Such payments are made possible by falsifying the records that are used to document the services utilized by the project.

The records themselves are insufficient evidence to prove this kind of fraud. The only way to establish this practice as fraudulent is through the testimony of a truthful person familiar with the day-to-day activities of the project. However, by previously embracing knowledge as power, the university already has driven out or corrupted those who might provide the critical testimony. Having so easily “stonewalled” this fraud, does the university have any claim to the title “the high protecting power of all knowledge and science”? Can the university be trusted to tell the truth in other matters? Indeed, has it retained the resources needed to actually search for and discover the truth?

The university-turned-trade school further bureaucratizes the research function through its own provincial, in-house publications (Muse 1983, not paginated). Some of these publications may have the physical appearance of a professional refereed journal, but the resemblance ends there because the refereed journal creates opportunities for the researcher-entrepreneur, whereas the

university's own publications are a device to project a favorable image of the university in the public domain. Note, for instance, the practice of routinely rejecting the manuscripts contributed by persons who are not members of the faculty of the sponsoring institution. Depending upon the amount of sifting that is done, the in-house publication may deal more in propaganda than in truth and the routine use of propaganda is one of the identifying marks of the bureaucracy.

When knowledge is an end in itself, the university and most particularly the refereed journal are the means toward the end. When knowledge is power, the university-trade school is the end and its in-house publications are the means. Whereas the professional refereed journal is risk-taking, the in-house publication is risk-averting. Because it assumes risk whenever it creates opportunities for researchers to enter the marketplace of ideas, the refereed journal in the academic order is analogous to fractional-reserve banking in the economic order. On the other hand, because it attempts to avert risk by managing the truth, the nonrefereed in-house publication corresponds to 100-percent reserve banking (Newman 1947). In as much as fractional-reserve banking makes possible the private creation of credit while 100-percent does not and (following Schumpeter) the private creation of credit is the *differentia specifica* of the capitalist order, we suggest that a high regard for the professional refereed journal is the *differentia specifica* of the authentic university (i.e., "the high protecting power of all knowledge and science"). This proposition suggests another: the provincial, nonrefereed in-house publication is the *differential specifica* of the trade school.

AN ANALOGUE TO GRESHAM'S LAW

The extent and the rate of the university's transformation into a trade school can be estimated through a close examination of the types of publications that serve as an outlet for the work of the faculty and by the regard with which each publication is held. However, the refereed journal and the in-house publication cannot co-exist for long at the same institution because each reflects a radically different concept of knowledge. Because the university increasingly sees knowledge as power, we propose an analogue to Gresham's law: in time, the provincial, nonrefereed in-house publication will drive out the professional refereed journal.

The same logic applies whenever the university-trade school competes unsuccessfully with such data-gathering and disseminating institutions as the media and the for-profit research institutes that sift the truth for their clients. That is, publications like the newspaper and the contract research report eventually drive out the in-house publication. The crowding-out effect of contract research on traditional academic research already has been represented graphically (and approvingly) by a member of the business school faculty at Pennsylvania State University (Vicere 1983, p. 24).

In the extreme, finally, propaganda takes the place of, and is taken for, the truth and the editor of the journal is replaced by the chief of the university news bureau. The university's news bureau chief may double as an editorial writer for the local press. His (unsigned and thereby depersonalized) editorials praising the university may be taken in some quarters as hard evidence as to the quality of the institution's programs, faculty, staff, and students.

Gresham's law may operate in several ways. For faculty promotion purposes, the university may equate a self-serving article that appears in an in-house publication with a scholarly manuscript that is accepted by a refereed journal. It may award merit pay for an article in a trade association magazine with a wide circulation especially if the university's supporters are among its readers. The vice-chancellor for academic programs at Texas A&A University, for instance, recently branded a higher regard for articles appearing in professional refereed journals as "academic snobbery." He asserted that "we need to value more highly publications that are aimed at the practitioner; i.e. trade publications" because "we have permitted benefit to be defined in terms that are not necessarily of benefit to business schools ..." (Muse 1983, p. 4). Another university recently presented one of its highest awards to a faculty member who publishes only in newspapers. His research, which typically projects a positive image of the state, is perceived by that university as noteworthy precisely because it creates significant goodwill and public support for the university.

Two other ways come to mind as to how the professional refereed journal is driven out. Taken together they are particularly instructive. The editor of such a journal may be advised by officials of his university to "tone down" certain authors whose criticism of the conventional wisdom or of the present establishment might offend supporters of the university. In addition, the journal may routinely reject the manuscripts of unknown researchers on grounds that articles by established researchers are much more likely to enhance its reputation in the community of scholars. Notice that the first defines a class of innovation and the second a class of innovators as unacceptable. In both instances, the professional refereed journal moves in the direction of becoming bureaucratized, automatized, and depersonalized – three qualities identified by Schumpeter as characteristic of the entrepreneurial function in the socialist economic order (Schumpeter 1950, p. 133).

We argue further that the effect if not the main purpose of the provincial, nonrefereed in-house publication is to render research bureaucratic, automatic, and depersonalized in order to make it serve the ends of the sponsoring institution more effectively. It follows that a professional refereed journal must remain independent of its host university's control if the journal is to be regarded as trustworthy. By the same token, the presence of a truly independent professional refereed journal is what gives substantial meaning to "the high protecting power of all knowledge and science."

Plainly, the professional refereed journal does not perform as well as the nonrefereed in-house publication under the test of cost-effectiveness. The strict logic of this test argues powerfully for the latter and against the former. However, forcing the professional refereed journal to pass the test of cost-effectiveness is equivalent to requiring the private commercial bank to extend credit only to those entrepreneurial activities that are risk-free. In both cases, the effect is the same: creative destruction in the academic order and in the economic order is substantially eliminated.

Carried to its logical conclusion, cost-effectiveness drives out the professional refereed journal – the *differentia specifica* of the authentic university – and thereby undermines that institution. The inescapable conclusion is that, insofar as cost-effectiveness is employed as a first principle governing the academic order, “the high protecting power of all knowledge and science” reduces to the trade school.

SUMMING UP

Tables 1 and 2 summarize our main arguments and propositions. Table 1 draws an analogy between the academic order and the economic order seen from a Schumpeterian perspective on capitalism. The underlying premise is that in the academic order knowledge is an end in itself. Table 2 draws a similar though clearly imperfect analogy between those two orders using the premise that knowledge is power.

Our central problem has been to identify more clearly the *differentia specifica* of the authentic university and the university researcher. For the former it is an overriding regard for the independent, professional refereed journal that creates opportunities for innovation in the marketplace of ideas. For the latter it is an unusual willingness to defend his innovative ideas in the face of heavy resistance from his peers.

A comparison of Tables 1 and 2 reveals some of the essential differences between an institution that is properly called a university and one that is a trade school. If there is fundamental validity to our proposition that the university researcher is an entrepreneur, one important conclusion follows. University research is, to use Schumpeter’s language, “a task *sui generis* ... which appeals to a distinct type which is rare” (Schumpeter 1928, pp. 379-380). This implies that routinely requiring teachers on the faculty, who lack the researcher’s unusual willingness to face and overcome the opposition to his innovative ideas, to publish or perish results in publications but not original contributions to the body of knowledge. Such publications lack the essential characteristic of all authentic research – creative destruction. Thus, the publish-or-perish command, reinforced by the cold logic of cost-effectiveness, contributes directly and powerfully to the deterioration of the authentic university and the proliferation of the trade school in its place.

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TABLE 1.
THE UNIVERSITY RESEARCHER AS AN ENTREPRENEUR:
AN ANALOGY PREMISED ON KNOWLEDGE AS AN END IN ITSELF

Academic Order

Researcher creates and destroys knowledge mainly by virtue of an unusual willingness to defend his innovative ideas. Usually works independently.

Independent, professional refereed journal that creates opportunities for innovations in the marketplace of ideas.

Editor/board of directors

Referee

Published manuscript

Risk is the loss of status in the scholarly community from publishing manuscripts of inferior quality.

Risk bearers are the journal and the researcher.

Teacher conveys the known truth without regard for its utility mainly by virtue of a special talent for exposition.

differentia specifica
of the
capitalist entrepreneur
← university researcher

capitalism
→ university

Economic Order

Entrepreneur creates and destroys goods, services, markets, production processes, organizational forms by bullheadedly pushing his innovations to their fruition. Typically acts independently.

Private commercial bank creates credit for innovations through fractional reserves.

Banker/board of directors.

Loan officer

Signature loan

Risk is the loss from loans on which the borrowers default.

Risk bearers are the bank and the capitalist (who may also be the entrepreneur).

Production manager oversees the production process mainly by virtue of a special talent for motivation.

TABLE 2.
THE TRADE-SCHOOL RESEARCHER AS A HUCKSTER:
AN (IMPERFECT) ANALOGY PREMISED ON KNOWLEDGE AS POWER

Academic Order

Economic Order

Researcher is a huckster, a peddler of small pieces of knowledge who sifts the known truth for what will sell. Usually works in or thru a bureaucracy.

differentia specifica
of the
socialist entrepreneur
← trade-school researcher

Independent-acting capitalist entrepreneur is replaced by an entrepreneurial process that is bureaucratized, automatized, and depersonalized.

Provincial, nonrefereed in-house publication that serves the ends of its sponsoring institution.

← trade school

100-percent reserve requirement eliminates credit creation by private commercial bank and makes for tighter control of the money supply and entrepreneurial activity.*

Editor manages the truth. In the extreme, the editor is a news bureau chief who is a propagandist for the trade school.

Banker who brokers loans instead of creating credit.*

No need for referee since editor knows what will sell.

Loan officer.

Published manuscript.

Highly secured loan.

Risk is the failure to fully serve the trade school's interests especially in attracting outside funds.

Risk is the losses from defaulted loans that are not properly secured.

Risk bearer is the trade school.

Risk bearer is depositor with a surplus.*

Teacher conveys only that part of the known truth that is cost-effective. Talent for exposition is less important than ability to judge the specific skills in short supply.

Production manager oversees the production process to assure that the predetermined quotas are met.

* Imperfection in analogy: the "pure" socialist banking system is characterized by a central bank with exclusive control of credit creation.