A RECORD OF PUBLICATION

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Abstract

The paper based on this abstract begins by briefly defining the form of academic written output termed "papers", and the distinctions between types of that output. That leads to discussion of how writing ideas come, with this author's personal output (110 total, 99 conference papers and 11 journal papers in 28 years*, plus other output) used as illustration. The difference in output between this author and other academics observed in one faculty is outlined, a difference which cannot be explained, other than suggesting some factors which may have contributed to this author's output and lack of which may lead to others writing less. An experiment with students, having them write papers, is provided to show writing can be stimulated.

1. Introduction

It's reasonable to state that there's at least two sides to an academic's life, the first, obvious, one is *teaching*. The other obvious side is *research*, and related to that there's the injunction: "Publish or perish!" which is supposed to become an intimate part of an academic's life, and rightly so, for publishing one's thoughts, impressions, ideas, experiences, criticisms *et cetera* and so on is a demonstration of that second side of academic life. (The author will not, at this stage, look at the third and any other sides of such a person's life.) There has been, through centuries, many examples of the importance of publication, particularly the importance of being first with an idea, illustrated by the Darwin-Wallace case. From all that one might assume that a flood, an absolute torrent, an uncontrollable tsunami, of writing flows through the corridors of a university, bringing forth new thoughts, impressions, ideas, experiences, *et cetera*, *und so weiter*, and so on, as well as criticisms of previous work. Observation, however, has shown more division than that, some people find writing enjoyable, some find it dead boring, some people have ideas spring up freely day after day in such quantity they never develop all of them into text, others struggle to find an idea. The intriguing question is: why is it so?

2. What, Basically, is a Paper?

The content of this section is abbreviated from notes given to classes some fifteen years ago, notes which related to the experiments in student writing. The notes used several texts on academic writing as reference material, most of which were given to libraries to free shelf retained there's Turabian[1], Luey[2], Pirie[3], the admirable Strunk and White[4] which all writers

* The author confesses those number should be taken on an "at least" basis, as some early publications may have been lost. Even keeping track of more recent output has been difficult!

space when the author retired, and therefore are unavailable as references here. Among those should have, and others on more general writing such as Elbow[5] and MacCampbell[6], all of which have contributed to the author's output.

A "paper" is a form of "report", information-centred, existing to tell others something, and presented in a formal manner on a formally organised occasion. It's a "to-the-world-at-large" type of report, providing information to anyone who wants to read it. Although the idea for it may come from the person's work it may not be related immediately to the work-situation of the person preparing it, often done "just for the fun of it", as an extra-curricular activity.

The "audience" for a paper may be two-fold, presented both in written and spoken form; spoken by the writer at a seminar or conference, and at the same time printed in the "collection of papers", the "proceedings" of the conference, presented on the occasion. It therefore has both a "Seen" and an "Unseen" audience.

3. Two Basic Types, Times Two

This distinction being made here is very blurred, with a lot of overlap. It exists, most likely, more in the intentions of the writer than in the interpretation of the reader. However, there are two broad types of papers and, in keeping with the above, both are "informative".

The first is almost purely so, intending to reveal to the readers some new piece of knowledge, or to bring them up-to-date on something generally known, or even to assemble together some diverse fragments of knowledge. The simplest example of this type is the "research paper", covering the results of an investigation or experiment.

The second type is mainly analytical. The writer would take the existing knowledge on a subject, dig deeply into it, find all the obscure references and details, spread it all out, compare parts with each other, then analyse, discuss, and comment on what has been found from all that. As an illustration, there may have been several experiments over a number of years to find the value of a heat transfer film coefficient under some exceptional conditions, and a paper could be written to pull all the accumulated evidence together, and reach a conclusion.

The other two types of papers are journal papers and conference papers. There's little difference, in principle, between these, they both fit into both of the above types, but there's a difference in their acceptance. Both, generally and usually, are peer-reviewed, but journal papers are (again, generally) scrutinized more severely and may be sent back for revision, whereas conference papers are (again, usually) accepted with little question. When the status rating is considered, however, it's evident that journal papers carry much more *kudos*, attract more recognition, and provide more funding from Canberra, than conference papers, a point which has puzzled this author for many years.

This present paper is, obviously, in the above "conference" category, but is neither research-based or analytical, falling somewhere within and between the two, being a summary and presenting some suggestions to explain observations. Indeed, one of the inspirations for this paper was remembering a professor of Chemical Engineering who had an output in the hundreds of papers, and who finally wrote one summarising all his previous papers - - - a precedent worth following.

4. So, How Does “The Paper” Get Started?

This is, probably, the most difficult question of all, because “getting started” requires getting an "idea", and there is no recognised method of getting ideas. Ideas are a mystery. They come unbidden, at most peculiar times and places, and, of course, sometimes they won't come at all.

Getting *the idea* can be a dreadful struggle, when a deadline looms. Can the reader recognise the original of this, adapted to suggest how one may feel, with modern writing technology?

"Seated one day at the keyboard, I was weary and ill at ease,
And my fingers wandered idly, over the 'lectronic keys."

Unfortunately, ideas rarely seem to come from such an activity (or lack of it). Various professional writers (that is, those whose income is from their writing) have mentioned various ways of "getting ideas". Some do just relax and go into a trance, some do the opposite and concentrate hard in a mental search-pattern, some indulge in discussion with others, some are inveterate wool-gatherers and snatch ideas from observations and conversations all around them. Others just look at the "present state of knowledge" of a topic, and develop something from that.

No general method can be found. However, all methods or techniques used by writers seem to have one feature in common: the subtle feature termed inspiration. When that strikes, and *the idea* comes, the writer hunting for an idea should jot it down, or record it on tape, or otherwise make sure it will be there when the opportunity (in terms of time) comes to develop the idea. Maybe not for weeks, but it'll be there when wanted.

A few years ago this author talked to an American writer (Poul Anderson) about this, and he said he uses the scribbled-note technique. It always worked for him, but (this illustrates the need to write legibly) he admitted that sometimes he's had to ask his wife what he meant in the cryptic note he wrote for himself during the night before the morning when he wanted to start writing. Another writer, also from the USA (Greg Bear)*, said to a gathering: “You’ve got to be more than a little bit crazy to be a writer,” and there’s, probably, some truth in that statement.

So, sometimes, *getting the idea* may not be such a devastating struggle, after all, if one has some method and is, perhaps, slightly off centre. Inspiration can, may, happen.

5. One Author’s Experiences

Much of the above is so very obvious, and has been included as background to this author’s experiences. Now, having dealt with all those generalities the author can proceed to the meat of this paper.

All the above sources of inspiration have featured in this author’s experiences, and have produced papers which have been separated into five groups. That division is rather arbitrary, there’s considerable overlap between the groups, the difficulty of tightly placing individual

* These two writers have been, admittedly, in the fiction genre, but their comments seem to apply to academic writing, equally.

papers into neat and tidy categories shows when one finds titles (and, more important, content) which relate to management listed under "Education", or *vice versa*, and similar mixtures between other groups. However, the separation into these groups has been a convenient way of identifying the principal interest of each paper.

Some ideas have come very freely, for example, brief notes in the periodical ***Power*** (1969, 1970, 1972) and two early papers (1976 and 1980) on maintenance engineering and management came from the surrounding work environment in industry. So did many which followed those, after joining a university faculty (those in the "Education" series, forty-two papers). That series began with musings on subjects being taught[7], on observations of colleague and student behaviour, on the management system, how the teaching methods this author used differed from, and were believed to be better than, those previously generally used[8], presented the results of some experiments in human error[9] and ethics[10] using students as subjects, developed into some particular areas of the conditions related to students' learning, such as stress[11], time management[12], conflict, working in teams, and employment[13], and items an engineer needs to know but are not in the general curriculum, such as judgement.
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There's been similar free idea-development in a second group of papers (series titled "Safety, Accidents and Risk", twenty-seven papers) related to the author's research topic which was basically about safety and management in a particular industry. Those papers began with reflections on the early work on the topic, grew in step with the thesis as interesting sections developed, presented the results, then explored further related ideas.

Referring again to the problem of getting an idea, an interesting example of idea stimulation came from the mental connection between an item in general reading and an investigation. There was a brief mention, in the media, of the "Port Chicago Mutiny" which followed a munitions explosion in the 1940s, mentioning lack of adequate training as a contributing factor for what happened, and the investigation which was about the fire in a prison paint store, for which lack of training (or complete ignorance) was also a factor. Now, how the mind suddenly clicked and put these two together cannot be described or explained, but that happened, and the paper developed by relating the two incidents, one historic overseas and one recent local, pointing out the similarities, and using those features to stress that training in hazardous situations is vitally important[14].

Another paper in that group came from a newspaper item, about the salami poisoning in South Australia. In this instance the "click" was between how rapidly the government departments worked out what was wrong, contrary to how those departments are usually accused of being so very slow, and that inspiration led to a paper published in England advertising that Australia is more than a mere colonial outpost.

A further example from that group illustrates a feature which can be used to make academic papers more attractive to readers: the title began by using the title of a play ("The Importance of Being Earnest - - - "), and followed that with a negative (- - - About the Accidents That *Don't* Happen")[15]. The combination of the sets of words worked well, and may have attracted more attention than the content of the paper.

The third group (titled "Professional Engineering Practice", fourteen papers) goes back, obviously and inevitably, to the author's original work-situations, to the period in which employment went through apprentice/tradesman/draftsman/project-engineer/maintenance-engineer/manager, and in that group there's a mix, similar to that mentioned above, between

education and engineering, with an attachment to management as well.

Some maintenance issues have been explored, including how the work could and should be audited (an early paper, dated 1980). One paper grew from combining ideas from a book with results from a class assignment, another from experiences in design as a project engineer, given first as a talk to senior students then as the paper for a conference on the particular topic[16]. Two papers identifying the engineering profession as "an adventure"[17,18] were intended, sincerely, to promote interest in the profession, but were wasted, probably, by preaching to the converted who would have heard or read them.

Having taught management subjects to engineering students for what seemed at the time to be several decades, but looking back feels much less than the actual sixteen years, there had to be some papers intended to explore management *per se*, in a group simply titled "Management" (eleven papers). These started, perhaps paradoxically, with some thinking about the future of management, presented a couple of quite original thoughts about organisations[19,20], another questioned the humanity of managers[21] (with a related letter published in the Sydney Morning Herald), based on a comment by another engineer who worked on safety in England, and a later paper compared management in industry with university management.

The final, fifth, group of papers, has been titled "Fun and Games" (fifteen papers), and although the group title may suggest humour that's not intended, these papers were the author's attempt to bring about interest in neglected matters and topics, by having the content of each paper present something unusual, in some manner, and to some extent. Early ones (again, ones with catchy titles) were on non-engineering subjects being taught to student engineers and the ways devised to improve learning by making the subject more interesting to the engineering mind. There were a few on the fictional company used in a series of case studies written for the Engineering Management subject taught for many years[22], and a paper on "Ethical Dilemmas" was present twice, with some variations, once in Australia and once in USA.

The paper titled "Engineers' Dreams and Folklore" grew from a class assignment developed from a book with a similar title, with some other anecdotal material added, and was also intended to promote interest in the engineering profession. Some of the most recent papers in this group have focused on unusual, indeed almost heretical, processes this author has used to help students to learn, such as using speculation, applying a folktale to a thermodynamics problem[23], and going through the reasoning methods used by fictional detectives[24].

Two papers in this group expressed strong criticism of established dogma. One was a review of the teaching of the subject this author developed through more than a decade, and *inter alia* contained what some might have read as uncharitably scathing remarks on what happened to the subject when it was taken over by others[25], curiously, no comments have ever been received related to those remarks.

The other was an attack on the topic "sustainability", using the "devil's advocate" approach and aimed not at the principle but at the way it's applied, at how the movement's disciples aim at "use less" rather than at "don't waste but find more"[26]. As much as anything, these papers (and others in this overall collection) deliberately took a view contrary to that accepted in order to make readers re-think the established line of thought - - - which is often "right", well, more or less, but still should be questioned.

6. Why, and Why Not? How, and How Not?

Those questions are intended neither to praise ones-self for that range and quantity nor to condemn others with a less prolific output, but to find reasons, explanations, which just might explain why some write extensively and others don't, and to help those others to extend and broaden academic writing.

The above excursion through this author's range and quantity of output, and the examples modestly cited below, leads to the double questions: why and how has one person generated such diversity, and why and how do others not do likewise? There are, certainly, marked differences between academics, for example, mentally reviewing along the corridor in which this author's office was placed, there were ex-colleagues who wrote no papers and those who wrote a few, "few" being one or less in a year, and for that matter not every year, an example being one who was promoted to associate professor with hardly any output and a long-delayed doctoral thesis, but there was no-one else who dashed off anything near an average of nearly four per year for over fifteen years.

The suspicion, or to use a more scholarly term, the hypothesis, floating up to the mind's surface is that the answers come from the author's degree of non-specialisation on the one hand (say, the left), and from the tendency of other academics to specialise strongly in a particular area on the other hand (say, the right). This author's background, mentioned above as apprentice/tradesman/draftsman/project-engineer/maintenance-engineer/manager, to which can be added consultant/academic after leaving industry, is, probably, more varied than many other academics, and the variation has almost certainly led to broader interests, leading in turn to thinking more inspirationally peripherally.

Consider, as an example of an oppositely-lived life, an academic well known to this author, a person who went through student life non-stop to PhD by age thirty, moving directly from student to academic, teaching and researching in a special area of medical science, and reaching associate professor in the early forties while managing a research group in that confined area. He is well known internationally, has published several papers on the work performed by him and his group, and his work has been reported in the media. The level of concentration and value of output has led to extreme expertise in the specialty, and to high respect and recognition. But he has not ventured, literature-wise, out of that area, not even with a paper on the management he has applied to operating his group, or on the management of the quasi-government organisation in which he also worked for several years in parallel with his university appointment. There's nothing "wrong" with all that work, its content is to be applauded, and such an output is fairly common among dedicated researchers, indeed, similar concentration has been observed in colleagues in the faculty in which this author worked, though not the same volume output of publication.

It can be argued that such concentration, however much it may limit the spread of thinking, is a "good thing", it leads to recognition that the person is "one of *us*", the mysterious "us"-group being the select people who specialise in the same area of work and knowledge.

The benefit of concentrating in a particular area of work and knowledge is emphasised by the attitude expressed towards one who spreads over a wide range, say over five divisions or areas of thought and output. All the gurus in each of those areas will mutter the ultimate condemnation: "*not one of us*," meaning "he spreads his interests too thinly", thus excluding the wide-ranger from close communion in any of the specialised areas. There is, admittedly,

some exaggeration in that statement, but observed attitudes appear, in general, to be more or less in that direction.

Academics have been observed with backgrounds closer to this author's, two, for example, with several years in industry, who left industry at an earlier age and hence with less years of industrial experience. One, last known as an associate professor, published a few papers, the other only a very few, indeed, only one known. It appears, from those examples, that "some years" in industry is not enough to inspire creativity

So, summing up, why and how has this author written so much and so diversely? The answer is, of course, that ideas have come, sometimes as questions, sometimes simply as a title-statement, sometimes from what has seemed to be a contradiction, sometimes just because of interest in a topic. The ability to develop those ideas appears to have come from breadth of experience which has led to a wide variety of interests. After all, this author's years in industry (forty) numbered more than double those in academia (sixteen). Is that necessary and sufficient to explain why and how do others not follow suit? A suggested answer is they may be limited by narrow experience and concentration on specialty. However, no matter how one may try to explain the difference a sense of mystery remains, only made deeper by recognition that here may be, possibly, other factors.

7. Other Factors?

Here this author ventures into further hypotheses via some self-analysis, all intending to penetrate further into the mystery of why some write much and why some write little, if any at all. Actually, there appears to be much more difficulty in explaining the latter and the author will therefore only suggest some factors which may apply to the former.

The first "other factor" may be a desire to be "creative", to branch out beyond what's recognised, to speculate, to look into not-generally-inspected crannies. Perhaps this quality is diminished by working from textbooks? The "literature" of a subject such as engineering usually establishes the accepted way of thinking, rarely goes off at a tangent, so perhaps any creativity in the majority of academic minds is damped out, even stifled, by "what's known and accepted"? That's particularly so in engineering, where the student is mentally stuffed and intellectually massaged with facts and figures? If all that happens, then how did this author, once an engineering student, then a lecturer in a "real engineering" subject at a TAFE College before entering university life, escape from the majority way of mental operating as an engineer?

The second suggested factor is that this author has a physical disability, not a serious one, but one which makes running, walking up and down stairs and similar activities difficult, and therefore has limited being involved in many of the usual sports. Perhaps, therefore, this author has taken up writing, papers and fiction, as a "desktop sport"?

The third possible factor is the truly mysterious factor generally termed "luck". This is a factor which appears in different forms, can only be analysed in hindsight, and if "good luck" is analysed will often turn out to be the result of a series of "because-events" going back over a long period. (Analysing "bad luck" usually shows it to be the result of a series of "if-events".) So, perhaps *because* a series of events occurred through this author's life up to, say, age fifty, *then* he has been able to churn out all that written material through more than two

decades. So the luck-factor may exist, but it may be external to the individual, not of one's own making, inspiration coming from random occurrences.

Finally, the invention of the computer must be added as a factor. The first ten years or so of this author's output was by using a conventional electric typewriter, sometimes by cutting text into strips, pasting them into columns, and photocopying the assembly, but that, fortunately, became unnecessary. Without the existence of word processing, which became available in primitive form about the time this author was writing his first papers and developed rapidly thereafter, writing would have been much slower and hence not in the same quantity. Or quality. Using word processing has certainly been a factor in making use of the flood of ideas which peaked in 1993 with eight papers written and published, and an average of about four per year.

8. Student Experiments

As mentioned earlier, this author taught management to engineering students for a number of years, mainly in Australia, but also overseas for some time. Short weekly assignments, replying to the content of case studies, were used to check students' understanding of each lecture material, with a final assignment in the form of a paper following from an instruction, summarised here as: "write about any management topic you have found interesting".

The results varied, there were those who presented a simple collection of paragraphs quoted from several texts, others who discussed different forms of accepted management thinking, and some who wrote about their employer's management and how it resembled (or differed from) what the experts claimed it should be. The final lecture session formed a conference, in which the best papers were presented to the class by the writers, and those were printed and bound, a copy given to each student

Occasionally, perhaps twice in a semester, there was an outstanding student paper, often on leadership, a management topic which attracted many students, and the outstanding example was the paper titled: *Some Indications of Margins of Success in the Use of Proactive, Reactive, Interactive, and Apparent-Desertion Leadership Styles under Organisation and Environmental Conditions Ranging from Total Benignity to Destructive Hostility*, one which was both pleasing and enjoyable.

What can be seen from those conference papers? While recognising that the students were *compelled* to write them, for without completing that assignment a pass grade was most unlikely, in general, each contained a measure of research (consulting the literature) and analysis (for example, comparing the literature with observations of an employer). Most important, the general quality of the majority of the papers was close to what was seen in the early AAEE conferences, from which one might conclude that (almost) anyone can write a conference paper, given an incentive.

That last word brings thought back to the previous two sections, and returns to the question: why has this author written so much? Was there an incentive, such as the students had? No, continuing publication brought no return in income or promotion, indeed publication generally involved some cost. So what was the motivation? The only motivating factor the author can identify has been a desire to share ideas, impressions, experiences, with others, the same motivation as an artist has, the desire to create something.

9. Some Conclusions

The conclusions from this exploration into the writing of journal and conference papers have already been stated in the above and are now summarised, but only as hypotheses, not as firm convictions.

Beginning with what's been observed: some academics, a few such as this author, have a significant output, some have little or zero. Why this author has written so much may be the result of having had broad life-experience, of having a creative (perhaps artistic) mind, may be related to having a physical disability, may be a matter of luck, or may be due to having access to a computer. Maybe any, or some, or all five, of those.

Why others are not as prolific may be due to lack of that creativity feature, which may be due to a narrow set of life-and-work-experiences, causing lack of inspiration, which in turn may be a matter of "luck". Or lack of output may be due to lack of interest in expressing any ideas which may come. Or being too interested in university politics? The last possible reason, brought out rather reluctantly, is some may be too lazy to bother.

This author's final word on this topic, not a hypothesis but a firm statement, is: writing papers has been *fun*. Some have flowed out easily, some have been hard work for one reason or another, but every one has been enjoyed, and has led to understanding something better, even how to write an interesting paper.

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