

Tuesday, April 15, 2008

LITERATURE

INTRODUCTION

I strongly feel that **such a separate section** should be included in order to **properly emphasize** how “the written word” can influence “**society**” in complex **Science, Technology and Society [STS]** issues. After all, it is **public opinion** that can be the final arbiter of an issue / topic – **what is believed to be true.**

Public opinion may be sufficiently informed or not, right or wrong, powerful or not to change things, etc., but it is what can be this final arbiter.

Public opinion can be formed by many forms of information – e.g., radio, TV, life experiences, opinions of others, research, education, beliefs, culture, etc.

How can you best get this information to the public and how best can you formulate this information so that it is properly understood and made use of?

How truthful and reliable is this information? How do you decide?

These and many other questions are very critical in the decision making processes involved in forming public opinion.

SOME SPECIFICS

Literature, the written word, in its many forms can be a very good way to do this. It can make use of **common life experiences** to illustrate many complex matters. The Bible and similar ancient religious documents are examples that many can identify with.

In addition, it is **more permanent** than many other forms of information [e.g., radio, TV, life experiences, etc.]. It can be reread, studied, dissected, shared with others, compared / contrasted with other written documents, etc. This can lead to a much more sophisticated and better understanding of a topic / issue.

Certainly, the **novels by Tom Clancy** that are part of my web site show very vividly some of the complexities involved in many ways with respect to STS issues. I was alerted to them by a student when I was teaching science lab courses for non-science

majors, and have been a fan ever since. There are many other similar authors and many other forms of literature that can also do this on many different levels.

Another area that some may or may not find appealing is **poetry!** I had some very good English teachers in college and even minored in English as a scientist. This can be very unusual for many scientists. Science needs to be expressed well and many times it is **not**, since as scientists, we are sometimes too absorbed in our work with nature that we do not develop the skills needed for better communication, especially to those who are **not scientists**.

I am also an avid reader, as noted in other areas of my web site. I prefer it to many other forms of relaxation. It also helps to occupy the time when you must wait for something.

ORIGIN OF MY STS RESEARCH

In particular, much of my **STS** research began with **Chiam Weizmann** and his discovery of a particular ingredient [acetone] from a special kind of fermentation. Much more information is given on this topic in other areas of my web site.

But very briefly, acetone was important in the manufacturing of the new “smokeless” gunpowder needed for the coming WW I, particularly by the navy. It became clear that government could help science and science could help government in areas each was interested in. This may have been the beginning of the “military – industry complex” that General Eisenhower warned society of after WW II.

This led me into the area of the use of science by the government, especially for warfare. Much science research was and still is funded for such uses. Many scientists became **especially very upset** about this during the atomic bomb development in WW II. They had **lost control** over how their work could and would be used by the government and others. This was particularly important due to the **great power** of the atomic bomb – capable of destroying humanity and the planet, if it was not properly controlled. We continue to struggle with this issue today and will probably forever.

But how to communicate with those who are **not scientists** about such complex, important and critical matters involving science and technology?

Certainly a technical approach will not work. Few would understand it who are not experts in the field.

However, by making use of **common experiences of humanity – literature** – some significant progress can be made.

WORDS

Some may have said that Weizmann should **not** have cooperated with the government, since the use of his work would just provide an even better means of “just killing people.”

Others could argue about “the enemy” must be stopped at all costs!

These are certainly very complex and debatable issues on many levels that continue today and will probably forever.

However, how do you best communicate to the general public, what the consequences of such decisions can be?

Again, technical explanations are difficult for many to understand.

However, common human experiences may be a better approach, since they can be more understood by many more people. They can illustrate the truth or not the truth of a particular issue, depending on the writer and the approach taken. People will have to properly evaluate what is presented.

Specific words used properly can be very powerful tools in communication.

There is much skill and art involved in doing this. Some just have “**the gift!**” Certainly Churchill, among many others, had this gift in many special ways. He is involved in the time periods of much of my STS research.

As an aside, my wife has taught at the college level for over 35 years many courses involving **communication** on many different levels. She actually puts the theory of such communication in practical use in her many professional and volunteer activities. I have learned much from her. I alerted her to the poem mentioned below and she uses it in some of her courses.

POETRY

At the request of Churchill, Weizmann met with him and agreed to assist.

A few weeks later, Germany used **poison gas [chlorine] in warfare on a large scale in Belgium, near French border, a center of hostilities.** **There had been a dramatic escalation in the conflict.** It was a major military innovation

Some German scientists felt that such use would shorten the war and save lives ultimately. This argument continues to be used today and will probably be used forever to try to justify new and better ways of killing people.

Some even called WW I **“the chemists’ war”** because of the widespread use of advances in high explosives and chemical warfare.

But what did poison gas warfare mean to the average citizen? Certainly, some may have had some experience with similar gases that could kill [e.g., cooking gas, carbon monoxide from heating devices, industrial experiences, etc.] How could you best communicate what the use of such gases really meant in warfare?

One particular poem I was exposed to in college by a brilliant, low keyed and very sensitive English teacher was the work of **Wilfred Owen** – **“Dulce Et Decorum Est”** – in essence it is from a longer title that means basically **“it is sweet and fitting to die for one’s country.”**

Very simply, Wilfred Owen fought in WW I and died in it. He experienced poison gas attacks. **This poem very vividly describes what it is like.**

It dramatically shows what even one **STS** issue can have on humanity – the suffering of those poisoned by the gas, but also the others who survive and society in general.

I can show why we must take **STS** so seriously and the critical importance of the decisions it requires

This topic will be developed further as time permits and as interest is shown.

SOME REFERENCES

A few **references** for further exploration of this poem are as follows.

WWW.EN.WIKIPEDIA.ORG/SIKI/WILFRED_OWEN

WWW.EN.WIKIPEDIA.ORG/SIKI/DULCE_ET_DECORUM_EST

WWW.EN.WIKIPEDIA.ORG/SIKI/POISON_GAS_IN_WORLD_WAR_I

WWW.1914-18.CO.UK/OWEN/DULCE.HTM

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Note –

Benjamin Britten incorporated **9 Owen poems** into his commissioned **War Requiem**, opus 66, along with the words from the Latin Mass for the Dead.