

Preface to the Inaugural Issue of the Journal

All About Systems and Control

A well-known saying in English is “those who can, do; those who cannot, teach” which is a rather arrogant way used by some scholars/scientists to denigrate others whom they consider lesser than them in innovation and ideas. True, having an original idea is important. But readers of my blog on ScienceNet China know that I feel differently (<http://blog.sciencenet.cn/home.php?mod=space&uid=1565&do=blog&id=5442>).

Writing out clearly your idea so that people can appreciate its significance and be able to explain your idea in a talk so that the scientific public or the general public can understand are twin tasks every scholar/scientist should learn to do well. After all, with the exception of few persons such as Einstein or Hawkings in each century, the great majority of scholars/scientists require financial support from the Society in general for their work. Popularization of science for the general public is what enables such support and grants. In fact, the same arrogant scientists who feel superior to others often seem to me behave just as subservient and humble when they are directly asking for money to support their research. Almost everything in this world is a matter of “Give and Take”. We all need to justify our existence.

Accomplishments of science and technology in the last few centuries well established their contributions to our civilization. Society no longer questions the need for S&T and the support of the same. However, as the subjects of S&T become more diverse and complex, they are often given the status of magic and divine invocation not approachable by ordinary mortals. In fact, often people take perverse pride in being scientifically or mathematically illiterate. This is unfortunate. This author always hold the opinion that everything worthwhile must be fundamentally simple once it is thoroughly understood and we should always follow the Einstein dictum - Everything must be explained in the simplest terms but not to the point of being simplistic. The successes of magazines, such as Scientific American, and the popularity of the website- ScienceNet China are indications of the need for popularization of S&T.

Incidentally, the fore-mentioned ScienceNet China website is one version of what might be considered as the Chinese “Scientific American”. But Science Net is devoted to all branches of S&T. In fact it features articles on life style, travel, debates and other general topics. One can also wish for a more specific popularization platform devoted exclusively to a particular broad subject of S&T. It is thus most welcome to see the launching of the Journal “ All About Systems and Control ” under the editorship of Dr. Ji-Feng Zhang of The Chinese Academy of Science. Surely, events and things such as the moon landing and the Internet fall under the rubric of control and system sciences. Without such theories, neither can exist nor function well. In fact it is not an exaggeration to say that control and system science are the foundation stones of modern civilization. Thus, I welcome the opportunity and attempt to explain what control and system science do to the general public in China and to give voices and outlets to authors who want to do these important jobs of education and explanation so that others can devote their time exclusively to “ideas”. I wish every success for this new Journal.

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Lexington, MA USA, Feb. 14, 2014



有句英语谚语是这样讲的：能干的人进实验室，不能干的人上讲台。某些学者、科学家就是如此贬低那些他们认为缺乏创意的同事的，这种说法反应了他们自己的傲慢和偏见。有创意当然很重要，但是我在科学网博客的读者们很清楚，我对此有所保留。（详见<http://blog.sciencenet.cn/home.php?mod=space&uid=1565&do=blog&id=5442>）。

每位科学家都必须掌握两项技能，一项是以文字形式清晰地表达你的想法，以便他人可以理解该想法的重要意义，另一项就是能够向科学界和大众宣讲你的想法，获得他们的理解和支持。因为除了爱因斯坦和霍金那样一百年里才出几个的天才，绝大多数学者、科学家的研究经费都来自社会，科普宣传有助于确保大众对科研活动的支持。实际上，在我看来，那些自觉高人一等的傲慢的科学家在直接向社会大众争取经费支持的时候表现得非常谦卑，甚至可以说是低三下四。世间万物皆有因果。我们所有人都必须力证自己存在的意义。

过去几百年间，科学技术飞速发展，硕果累累，对人类文明进程做出了巨大的贡献，这是毋庸置疑的。现在社会大众再也不会怀疑科学技术存在的必要性和支持科研的重要性。尽管如此，随着科学技术的日新月异，学科分类日趋繁复，学科内容日益丰富艰深，很多学科被披上了神秘甚至神圣的面纱，似乎离世俗大众愈行愈远了。实际上，现在甚至颇有一些人以无知为荣，崇拜科盲。这真是太可怕了。本文作者一向秉持以下观点，任何有价值的东西一旦被彻底理解，本质上一定是非常简洁的。爱因斯坦有句名言：一切须归于简洁，但不可归于简陋。此言极是。《科学美国人》这类杂志以及中国科学网的巨大成功表明，科普事业大有可为。

巧合的是，前文所述的中国科学网可以在某种意义上被看作是中国版的《科学美国人》。不过科学网涵括了科学技术的各个领域。实际上，科学网上还有不少文章涉及到生活方式、旅行见闻、各类讨论以及其他更宽泛的话题。我们可能需要一个专门介绍某一科学技术大领域的科普平台。由中科院张纪峰博士主编的《系统与控制纵横》的创建非常及时。登月、互联网这类科技事件和高科技产品显然与控制 and 系统科学息息相关。如果缺乏理论基础的研究和支持，不论是登月还是互联网，显而易见都是无法实现的。实际上，我认为说控制与系统科学奠定了现代文明的基础也并不为过。因此我热烈欢迎这样一本期刊的面世，它将为有志于向公众解释系统与控制科学重要性的作者们提供一个非常好的机会和平台，这样其他人可以把他们的宝贵时间全部用于所谓的“创新”上。我衷心祝愿这本期刊获得巨大的成功。

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美国马萨诸塞州列克星敦
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