

Dr. PR Officer

Or: How I Learned to Communicate Science

SCIENCE COMMUNICATION

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WE NEED SCIENCE
COMMUNICATORS

Ref: Shin-itiro Tomonaga, December 5, 1948,
"cooperation of highly developed science and
journalism," Bunrika University newspaper

Avoiding Copyright Infringement ...

「原子爆弾が一発爆発してみると、科学者は実験室の中で試験管とにらみっこばかりしては
られないし、一般人は原子というものが科学者の観念の産物に過ぎないと敬遠しては
いられないようになる。こうして、科学と他のあらゆる文化部門、科学者と一般人の相互作
用はますます大きくなって行き、互いに他をひとつごとくのように考えていることは許されなく
なっていく。… (中略) …

“Once the atomic bomb was detonated, scientists could not spend all of their time in a
laboratory just watching a test tube, and the public could not ignore atoms and just think
of them as conceptual objects created by scientists. In this way, interactions between
science and humanities, and between scientists and the public became more important, and
we must no longer think of each other as unrelated.

これからの科学者は単なる研究職人であってはならないことになる。彼らは目をひろく開い
て人類文化の中で自分の位置と責任を自覚し、一般人の科学への愛と関心とをよびおこし、
彼らをして科学が自分の享受する文化財であるという実感をもって、その力を喜んで科学者
に貸すようにしなければならない。しかし、このことがすべての科学者をして研究室を留守
にして街頭にたたせるという結果になってはならない。…科学そのものがからっぽになっ
ては、それを愛せよ、それに関心を持ってよと求めても出来ない相談である。科学者は常に科学
を生産していなければならない。

Today, a scientist should not only be engaged in science but should be a person who has a
wide perspective and understands his or her responsibility to humankind. Scientists must
try to attract people so they understand science is one of the cultural properties of being
human and make them willing to help scientists. However, this does not mean that all
scientists should leave their laboratories to stand on the corner to talk with the public. No
one will be interested in science if science itself is empty [if science is not progressing].
Scientists always have to produce [engage in] science.

この意味で、科学教育者とか科学ジャーナリストとか…といわれる人々の仕事ますます重要になってくる…われわれはこれらの仕事の意味を新たに見直し、それらに今までにない政策を要求しなければならない。すなわち、これらの仕事はもはや単なる職人的な教育や知識の切り売りであってはならない。これらの仕事は、一方に科学の文化における位置についてひろい見通しを持ち、他方には日々に進む科学そのものの中に深く根を張っているような人によって行われなければならない。これらの人々は、一般人の要求や興味をよく察するとともに科学がいかにして作られるかということも体得していなければならない。」

In this sense, the roles of people such as science educators or science journalists, become increasingly more important. ... We must pay attention to their work and listen to their recommendations when making policy. Therefore, this work should be done by a person who has a broad perspective on the relationship between science and human culture and it should be done by someone deeply rooted in day-to-day scientific progress.”

ABOUT ME

1. Ochanomizu University (~ 2010)
2. The University of Tokyo (2010 ~ 2013)
Project researcher, Public Relations Office
3. Freelance science communicator (2013 ~ 2015)
4. Caltech/IPAC (2016 ~ 2018)
Outreach Initiative scientist, IPAC Communications and Education Team
5. KMI, Nagoya University (2018 ~ present)

ABOUT ME

Role

Jobs

skills

Science
Communicator

Public relations officer

- (Press contact)
- (Event planner)
- Editor
- Strategist
- Social media manager
- Researcher

PUBLIC RELATIONS

1947

広報

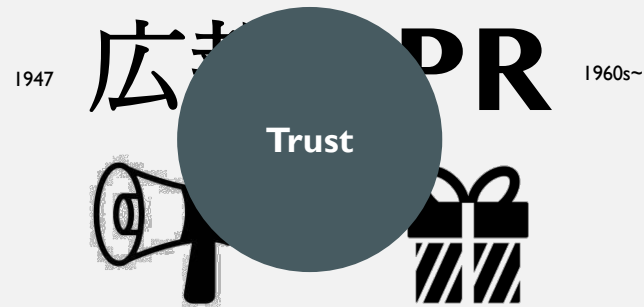


PR

1960s~



PUBLIC RELATIONS



SCIENCE COMMUNICATION



~19c
"Public Understanding of Science (PUS)"

20c
"Public Engagement in Science and Technology (PEST)"



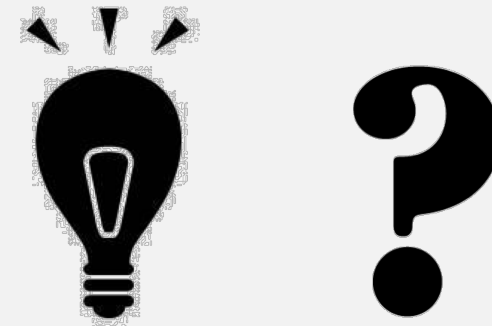
BSE – Bovine Spongiform Encephalopathy

SCIENCE COMMUNICATION



- 2005 - The beginning of "Science Communication" in Japan
 - "Science communicator" (2004, White paper on Science and Technology, MEXT)
 - Goal: "Public Understanding of Science (PUS)"
 - Some universities started science communication courses
 - [Azusa] Museum curator license (2005) + SC courses in Ochanomizu university
 - → became a science communicator!

JOYS OF SCIENCE





目立ふしぎ発見 (2008)

Director, script: Azusa Minamizaki



いつかあなたに逢うために
Same time, same place, on the night of the new moon

Avoiding Copyright Infringement ...

SCIENCE PROGRESS

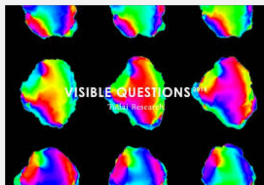
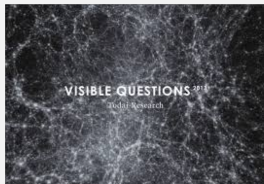
Avoiding Copyright Infringement ...

SCIENCE PROGRESS

Avoiding Copyright Infringement ...

VISIBLE QUESTIONS

UTalk



Avoiding Copyright Infringement ...

3.11

“Failure in
Science Communication”

“Trust of science
is lost”

3.11

“KEEP POSTING RESEARCH NEWS”

“SCIENCE IS NEVER COMPLETED”

“ability”



“always on-going”



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Social Media Manager

Outreach coordinator

3. Finance science communicator (2013~2015)
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WHY SHOULD WE SPEND MONEY FOR BASIC RESEARCH?

A. "Basic science will make our society better in the future"

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C. FREEMAN

Aggregate linear model:

```

graph LR
    A[Basic research] --> B[Applied research]
    B --> C[Invention]
    C --> D[Marketing Testing]
    D --> E[Diffusion & Imitation]
            
```

Firm-specific linear model:

```

graph LR
    A[R & D] --> B[Production]
    B --> C[Marketing]
            
```

Fig. 1. Aggregate and firm-specific linear models.

WHY SHOULD WE SPEND MONEY FOR BASIC RESEARCH?

A. "Basic science will make our society better in the future"

WHY SHOULD WE SPEND MONEY FOR BASIC SCIENCE?

A. "Science expands the horizon of knowledge"

WHY SHOULD WE SPEND MONEY FOR BASIC RESEARCH?

A. "decision is yours"



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MESSAGE TO YOUNG PEOPLE



"Being a particle physicist has been a source of joy in my life.

. . . .

Thus, physics study and research has been a very rewarding experience on the intellectual, human and cultural levels. I cannot think of a better choice of career!"

Search #KMI2019 on facebook, or check out our webpage!

JOYS OF SCIENCE

SCIENCE PROGRESS

SCIENCE IS NEVER COMPLETED

WHY SHOULD WE SPEND MONEY FOR BASIC RESEARCH?

MESSAGE TO YOUNG PEOPLE

Thank You