How Relevant Are We?

John Stufken

BIRS August 2017





The answer depends on who you ask

How relevant are we?

KSJ MATHEMATICS AND STATISTICS

・ロト ・ 同 ト ・ ヨ ト ・ ヨ ト

э

The answer depends on who you ask

In this room the answer is (hopefully) an unanimous and exuberant YES!

KSJ MATHEMATICS AND STATISTICS

э

The answer depends on who you ask

In this room the answer is (hopefully) an unanimous and exuberant YES!

Historically, there are many examples of the importance and impact of design in scientific studies

The answer depends on who you ask

In this room the answer is (hopefully) an unanimous and exuberant YES!

Historically, there are many examples of the importance and impact of design in scientific studies

But how does one measure relevance? Relevant for what?

「「 (山) (山) (山) (見)

The answer depends on who you ask

In this room the answer is (hopefully) an unanimous and exuberant YES!

Historically, there are many examples of the importance and impact of design in scientific studies

But how does one measure relevance? Relevant for what?

And is it even the right question?

Perhaps: Could we be more relevant than we are? Have a larger impact? If so, how?

We are a relatively small community, which limits our visibility and the impact that we can have

KSJ MATHEMATICS AND STATISTICS

We are a relatively small community, which limits our visibility and the impact that we can have

We are also a relatively closed community; often the same faces

KSJ MATHEMATICS AND STATISTICS

We are a relatively small community, which limits our visibility and the impact that we can have

We are also a relatively closed community; often the same faces

Within statistics, there is some recognition that design is relevant, but priorities are often elsewhere

(1日) (コン・コン・コー

We are a relatively small community, which limits our visibility and the impact that we can have

We are also a relatively closed community; often the same faces

Within statistics, there is some recognition that design is relevant, but priorities are often elsewhere

In the US, many statistics departments don't have an expert in design, and don't believe that they need one

We are a relatively small community, which limits our visibility and the impact that we can have

We are also a relatively closed community; often the same faces

Within statistics, there is some recognition that design is relevant, but priorities are often elsewhere

In the US, many statistics departments don't have an expert in design, and don't believe that they need one

Within the sciences, design is often, at best, an afterthought

We are a relatively small community, which limits our visibility and the impact that we can have

We are also a relatively closed community; often the same faces

Within statistics, there is some recognition that design is relevant, but priorities are often elsewhere

In the US, many statistics departments don't have an expert in design, and don't believe that they need one

Within the sciences, design is often, at best, an afterthought

Even statistics, let alone design, struggles to find recognition (ASA Executive Director)



Improve the pipeline?

How relevant are we?

KSJ MATHEMATICS AND STATISTICS

・ロト ・ 雪 ト ・ ヨ ト ・

æ

Improve the pipeline?

Some have done a fantastic job of producing offspring, but as a group we have arguably failed

KSU MATHEMATICS AND STATISTICS

Improve the pipeline?

Some have done a fantastic job of producing offspring, but as a group we have arguably failed

How can we attract more top talent to design? (If "design" is replaced by "statistics", the question remains relevant.)

KSU MATHEMATICS AND STATISTICS

Improve the pipeline?

Some have done a fantastic job of producing offspring, but as a group we have arguably failed

How can we attract more top talent to design? (If "design" is replaced by "statistics", the question remains relevant.)

Better recruiting efforts? Some folks have been extremely successful

▲ 伊 ▶ ▲ 国 ▶ ▲ 国 ▶ → 国 → の Q (~

Improve the pipeline?

Some have done a fantastic job of producing offspring, but as a group we have arguably failed

How can we attract more top talent to design? (If "design" is replaced by "statistics", the question remains relevant.)

Better recruiting efforts? Some folks have been extremely successful

Additional complication: In the US, it appears harder to attract top students, domestic or foreign, to the sciences

Improve the pipeline?

Some have done a fantastic job of producing offspring, but as a group we have arguably failed

How can we attract more top talent to design? (If "design" is replaced by "statistics", the question remains relevant.)

Better recruiting efforts? Some folks have been extremely successful

Additional complication: In the US, it appears harder to attract top students, domestic or foreign, to the sciences

Are we in danger of becoming extinct? (Retirements; administration; ...)



Change the curriculum?

How relevant are we?

KSJ MATHEMATICS AND STATISTICS

・ロット (雪) (日) (日) (日)

Change the curriculum?

There have been changes in how statistics is taught (though perhaps not enough); how about the teaching of design?

KSU MATHEMATICS AND STATISTICS

• (1) • (1) • (1) • (1)

Change the curriculum?

There have been changes in how statistics is taught (though perhaps not enough); how about the teaching of design?

Lower level courses that focus on basic design principles in the context of real problems that can resonate with students?

Change the curriculum?

There have been changes in how statistics is taught (though perhaps not enough); how about the teaching of design?

Lower level courses that focus on basic design principles in the context of real problems that can resonate with students?

Perhaps team taught, with active participation of students?

(日本)(日本)(日本)(日本)

Change the curriculum?

There have been changes in how statistics is taught (though perhaps not enough); how about the teaching of design?

Lower level courses that focus on basic design principles in the context of real problems that can resonate with students?

Perhaps team taught, with active participation of students?

Could help with the pipeline, but also with recognition, both within statistics and outside



Refocus research efforts?

KSJ MATHEMATICS AND STATISTICS

э

Refocus research efforts?

While we all want to work on problems that interest us ...

KSJ MATHEMATICS AND STATISTICS

・ロト ・ 雪 ト ・ ヨ ト ・

Refocus research efforts?

While we all want to work on problems that interest us ...

... are we, collectively, working too much on problems that interest only us?

Refocus research efforts?

While we all want to work on problems that interest us ...

... are we, collectively, working too much on problems that interest only us?

Should training be more connected to important real world problems?

Refocus research efforts?

While we all want to work on problems that interest us ...

... are we, collectively, working too much on problems that interest only us?

Should training be more connected to important real world problems?

Can our research focus more on interdisciplinary projects that matter to our institutions and science?



We are all excited about what we do ...

KSJ MATHEMATICS AND STATISTICS

э

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

э

・ 同 ト ・ ヨ ト ・ ヨ ト

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

... are we "relevant" within statistics?

3

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

... are we "relevant" within statistics?

Are we "relevant" within the sciences?

3

KSU MATHEMATICS AND STATISTICS

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

... are we "relevant" within statistics?

Are we "relevant" within the sciences?

Are we in danger of extinction?

コート イロート 一日

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

... are we "relevant" within statistics?

Are we "relevant" within the sciences?

Are we in danger of extinction?

If the answer to any of these is yes, what can we change?

We are all excited about what we do ...

... and some of you have made fundamental contributions to the pipeline and growth of the field. But ...

... are we "relevant" within statistics?

Are we "relevant" within the sciences?

Are we in danger of extinction?

If the answer to any of these is yes, what can we change?

Are the successes that some have had transferable?

7/7