

*Connecting people and resources to  
accelerate discovery by empowering the  
science gateway community*



# **Sustaining Science Gateways**

## **Finding your "best fit" sustainability model**

Nancy Maron  
BlueSky to BluePrint  
March 14, 2018



## Nancy L. Maron

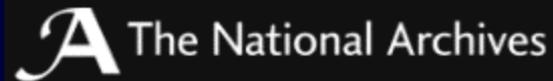
Founder, BlueSky to BluePrint, LLC

Supporting leaders of innovative initiatives in  
academic and cultural organizations

Strategy, consulting, research, and training

Resources including case studies, reports, and  
tools are freely available at [blueskytoblueprint.com](http://blueskytoblueprint.com)

# CASE STUDIES IN SUSTAINABILITY (20+)



# TODAY'S AGENDA

- What exactly are gateways?
- What is sustainability?
- Key steps to sustainability
- Finding a “best fit” sustainability model
- Science Gateways Bootcamp 2018 preview

# What is a gateway?

**Science gateways** allow science & engineering communities to access shared data, software, computing services, instruments, educational materials, and other resources specific to their disciplines.

What is sustainability?

# The origins of the problem...

- Funders and institutions have invested in a generation of tools, content, and infrastructure to support research and education
- They now face the Sisyphean task of launching new innovations, while existing ones... keep coming back for more support
- PI's realize that funding may not last forever
- Could a more entrepreneurial approach help?



Flickr. Dani\_Girl

<https://www.flickr.com/photos/postcardsfromthemothership/3385880850/sizes/m/>

# Do we have to?

- Depends. But probably yes, yes, you do.
- When do we start?
- How do we start?



# Sustainability is . . .

the ability to generate or gain access to the resources—financial or otherwise—needed to protect and increase the value of the content or service for those who use it.

A **sustainability plan** is an evidence-based strategy for identifying and securing these ongoing sources of support for your gateway over time.



# But what *is* it?

**A statement** about what is most valuable about your Gateway, and to whom it is valuable.

**The expression** of how the value you generate is converted into support for your work...

That support can take many forms, both

- Financial, and
- Non-financial

**Evidence**, gained through research, analysis, and experience, that backs up this plan.



# An Example: eBIRD



**eBird**



We make it visible.

[Home](#) [About](#) [Submit Observations](#) [Explore Data](#) [My eBird](#) [Help](#)

[Language](#) ▼

## Welcome to eBird

*Birding in the 21st Century.*



### News and Features

[Guillermo Saborio, September eBirder of the Month](#)  
*17 October 2017*

Please join us in congratulating [Guillermo Saborio](#) of Santa Ana, Costa Rica, winner of the September 2017 [eBird Challenge](#), sponsored by Carl Zeiss Sports Optics. Our September winner was drawn from eBirders who submitted 15 or more eligible checklists with flyover codes in September. Guillermo's name was drawn randomly



### Help Support eBird

 **Donate Now**

# An Example: eBIRD

Home About Us **What We Do** Give All About Birds  Find

Renew Member Services [+ Share](#)

## What We Do

Learn About Our Mission  
> Citizen Science

Citizen Science: We work with citizen-science participants across the hemisphere to understand and protect birds.

© Marie Read

# An Example: eBIRD





# A SUSTAINABILITY STRATEGY



Large, reliable, easy to use database, serving amateur birders and professional ornithologists, ecologists and others. Data is supplied by large base of amateur users, is vetted by expert volunteer editors, valued by scholars and policy makers, who extract and analyze it for their studies.

# A SUSTAINABILITY STRATEGY

## Users

**AMATEUR BIRDERS**  
submit millions of  
observations each  
month

**VOLUNTEER  
EDITORS** assure the  
quality of the  
observations



Large, reliable, easy to use  
database, serving amateur birders  
and professional ornithologists,  
ecologists and others.

# A SUSTAINABILITY STRATEGY

Users

**AMATEUR BIRDERS**  
submit millions of  
observations each  
month

**VOLUNTEER  
EDITORS** assure the  
quality of the  
observations



Large, reliable, easy to use  
database, serving amateur birders  
and professional ornithologists,  
ecologists and others.



Users

**ACADEMIC RESEARCHERS**  
rely on the data to study

**POLICY MAKERS** and other  
**PROFESSIONALS** also use  
the data in their work and  
assure the quality of the  
observations

**AMATEUR BIRDERS** benefit  
from the great lists they can  
keep

# A SUSTAINABILITY STRATEGY (THINK **CYCLE**)

Users

**AMATEUR BIRDERS** submit millions of observations each month  
**VOLUNTEER EDITORS** assure the quality of the observations



Large, reliable, easy to use database, serving amateur birders and professional ornithologists, ecologists and others.

Users

**ACADEMIC RESEARCHERS** rely on the data to study  
**POLICY MAKERS** and other **PROFESSIONALS** also use the data in their work and assure the quality of the observations  
**AMATEUR BIRDERS** benefit from the great lists they can keep

Sponsors

Derive value from the audience, deliver value through financial support

Donors

Derive value from support of the mission, delivers value through financial contributions and volunteer time

Host Institution

Derives value from the impact of research and reputation, delivers value through in-kind contributions



# Deep User Knowledge

Huge increase in user base and birding observations made multiple forms of support possible.



More observations  
→ greater value for  
scientists and  
amateur visitors.



International  
reputation is a huge  
benefit for host  
university, which  
offers \$\$ support.



Corp. sponsors  
  
Licensing to local  
nature centers and  
int'l birding  
organizations

# eBird's Sustainability Model

**Delivering Value to...**

**Makes it possible for...**

**Ornithologists**

*Level, style, quality of content*

**Community of birders**

*LOVE the tools*

**Participating institutions**

*Customization of kiosks*

**Host university**

*Impact, quality of scholarship*

# eBird's Sustainability Model

## Delivering Value to...

Ornithologists

*Level, style, quality of content*

Community of birders

*LOVE the tools*

Participating institutions

*Customization of kiosks*

Host university

*Impact, quality of scholarship*



## A Diversified Model

Grant funding

*Institutional participation*

Corporate sponsorship

*Optics manufacturers*

Licensing fees

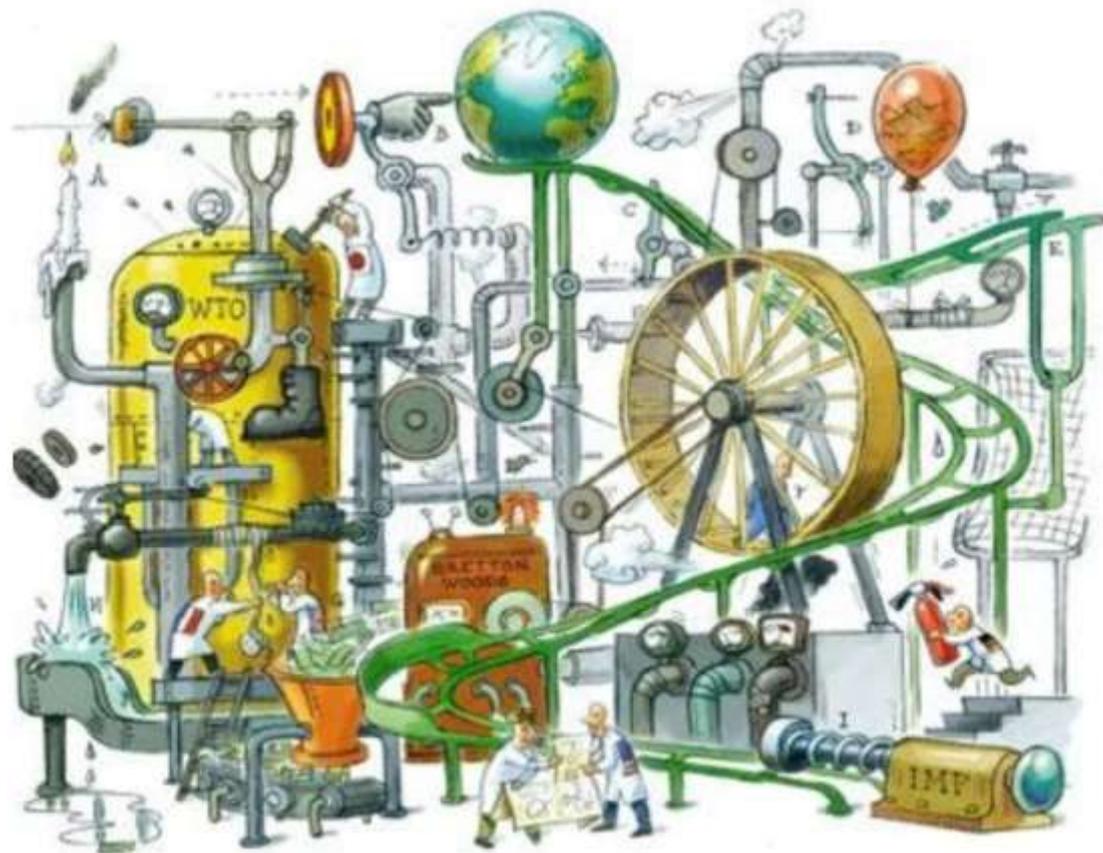
*Local nature centers*

Institutional support

*Lab of Ornithology, Cornell University*

# Key Elements of a Sustainability Plan

# There is no “sustain-o-matic”



From a cover of The Economist “Redesigning Global Finance” via <http://www.thedemocrat.co.za/index.php/2017/05/02/operator-error/complex-machine/>

# A sustainability plan will articulate...

*A clear understanding of the value the project offers...*

- **end users** (“audience”)
- **stakeholders**, including your host institution
- **partners**
- **volunteers**

*A system for obtaining reliable support from them, whether...*

- **financial** (membership, fees, or other revenue)
- **non-financial** (time, office space, or other in-kind contributions)

# The Keys to Sustainability

**Dedicated leadership**

**A strong value proposition**

**Strategic budgeting**

**Diverse and reliable sources  
of revenue**

**Setting and Meeting Goals  
that are realistic & ambitious**

**Host support**

# The Keys to Sustainability



- Laser-focused
- Opportunistic (in a good way)
- Relentless
- Time matters

# The Keys to Sustainability



- What, specifically, does your project help its audience do?
- Clearly defined value to clearly defined audience
- VP that reflects awareness of user needs and of changing environment
- Excellent execution when it comes to delivering this value

# The Keys to Sustainability



- What must you pay for and what might you be able to acquire through partnerships, volunteer support, or other in-kind contributions?

# The Keys to Sustainability



- No, grants do not count as “reliable”
- Grants are often not recurring
- Some diversity is very important
- Feedback from your users (the, ahem, “market”) is invaluable

# The Keys to Sustainability

Dedicated leadership
A strong value proposition
Strategic budgeting
Diverse and reliable sources of revenue
<b>Setting and Meeting Goals that are realistic &amp; ambitious</b>
Host support

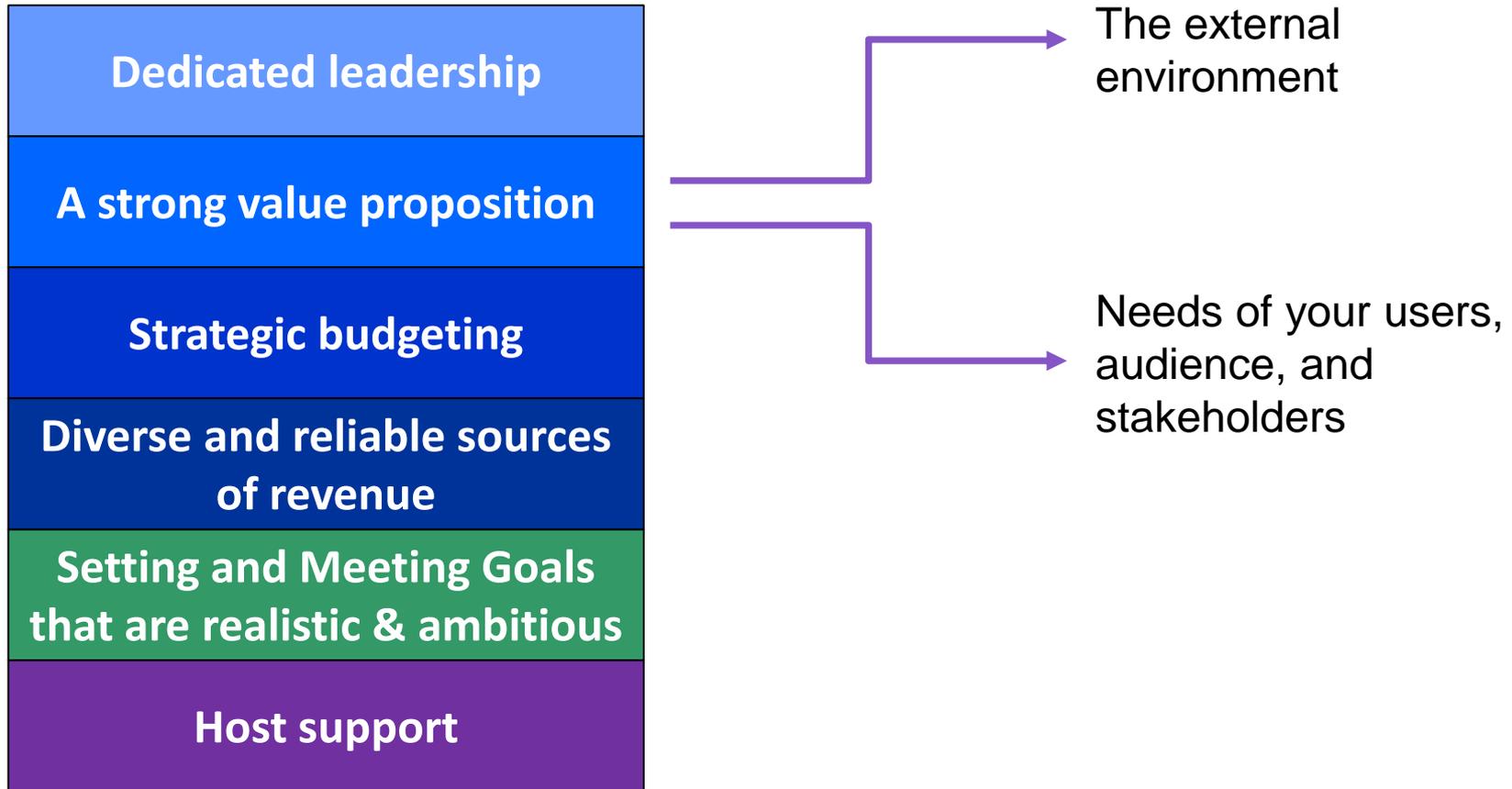
- How will you know if your project is a success?
  - Number of users?
  - Number of institutional members?
- What is meaningful to your work?  
How and how often will you measure this?
- What will you do if goals are not met?

# The Keys to Sustainability

Dedicated leadership
A strong value proposition
Strategic budgeting
Diverse and reliable sources of revenue
Setting and Meeting Goals that are realistic & ambitious
Host support

- How well do you know the mission and long-range plans for your host institution?
- If your institution offers support, it is a major stakeholder; stay close in touch!

# The Keys to Sustainability



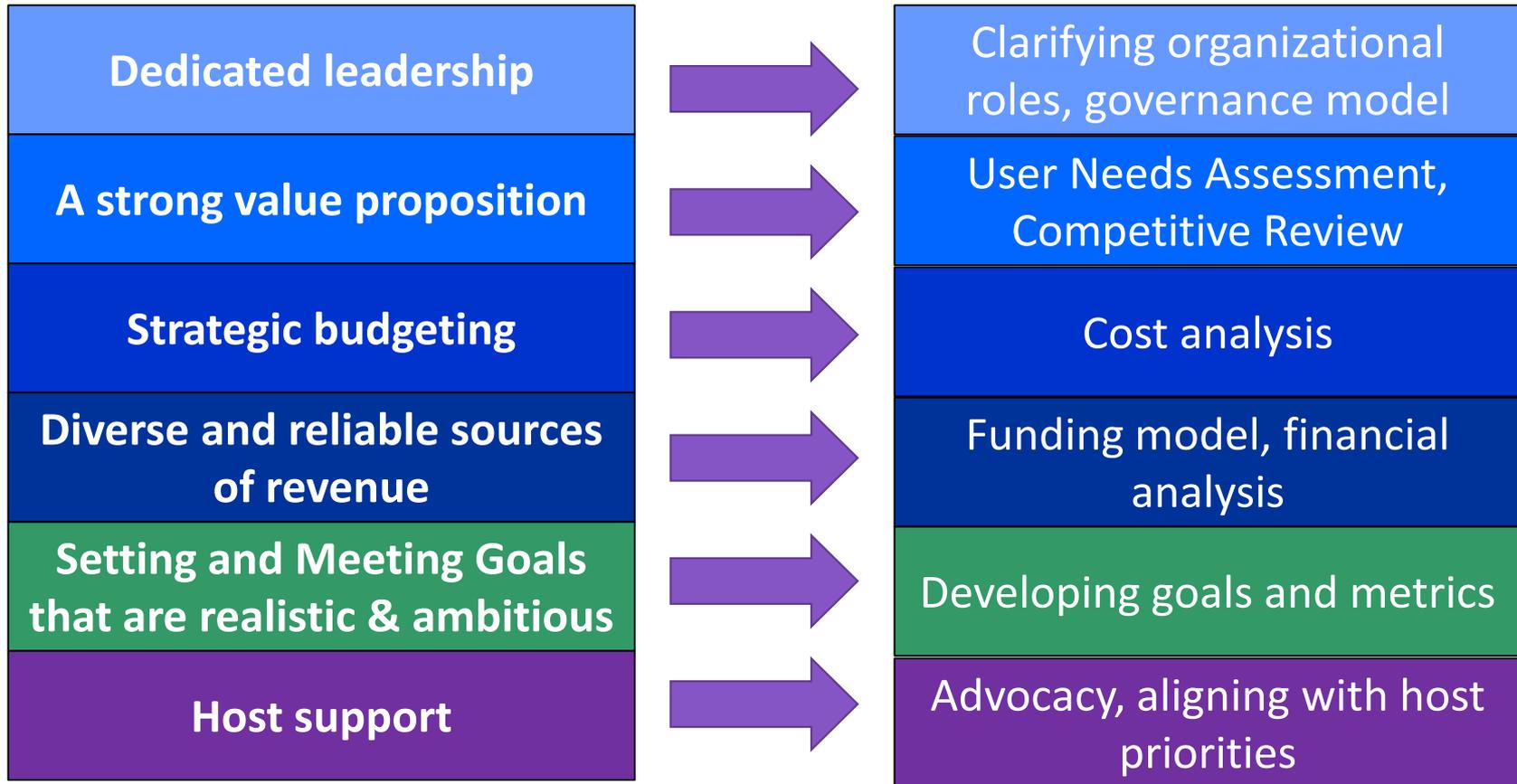
# Finding the right model for your gateway

# The Keys to Sustainability



Adapted from Maron, Smith and Loy, Sustaining Digital Resources (2009)

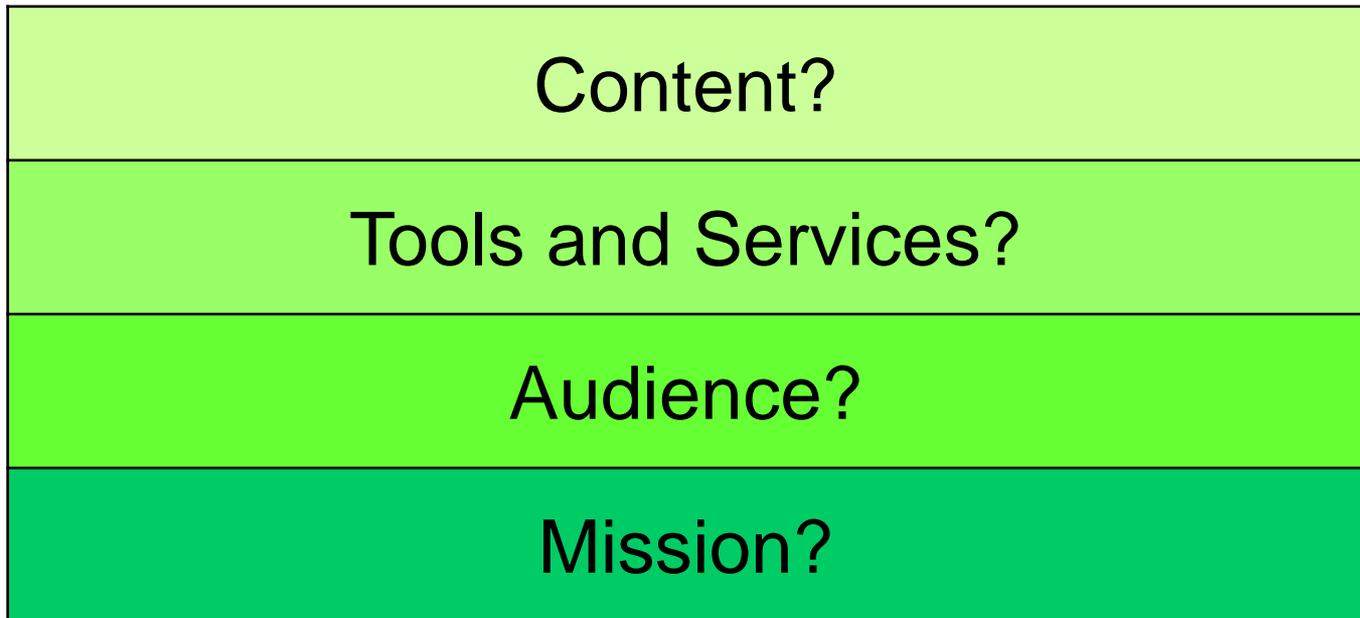
...and the practical steps to get there.



Adapted from Maron, Smith and Loy, Sustaining Digital Resources (2009)

To get a quick start, try this:

Where are the greatest sources of value in your gateway today? Which ones might you be able to leverage?



**Value Assessment Framework**

Nancy Maron, *A Guide to the Best Revenue Models and Funding Sources for Your Digital Resources* (Ithaka S+R, 2014)

[http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc\\_Report\\_032614.pdf](http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc_Report_032614.pdf)



# Ask yourself...

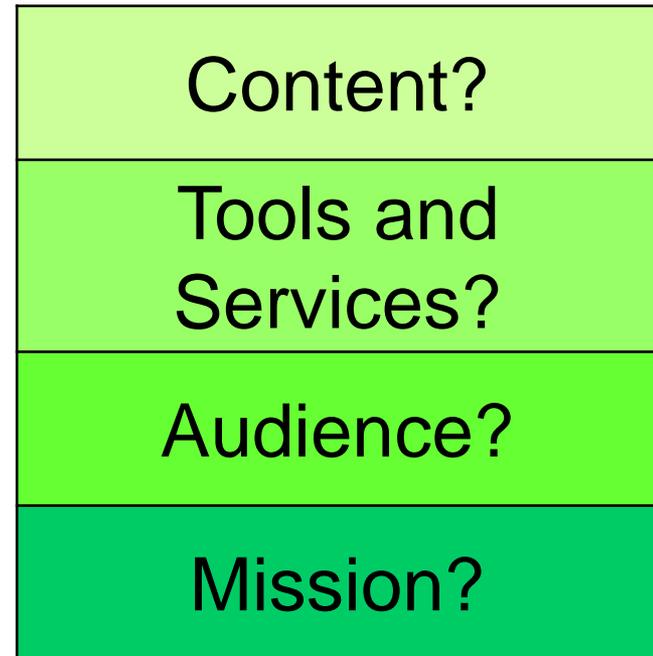
Which aspects of our work are **VITAL** to our users?

Are our users (whether individuals or their institutions) able and willing to financial contribute?

... and how do we know that?  
Are they already paying for similar things?

Do they have “good enough” alternatives out there?

Which elements of our gateway can they **NOT DO WITHOUT**?



## Value Assessment Framework

Nancy Maron, *A Guide to the Best Revenue Models and Funding Sources for Your Digital Resources* (Ithaka S+R, 2014)

[http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc\\_Report\\_032614.pdf](http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc_Report_032614.pdf)

# And you may want to consider...

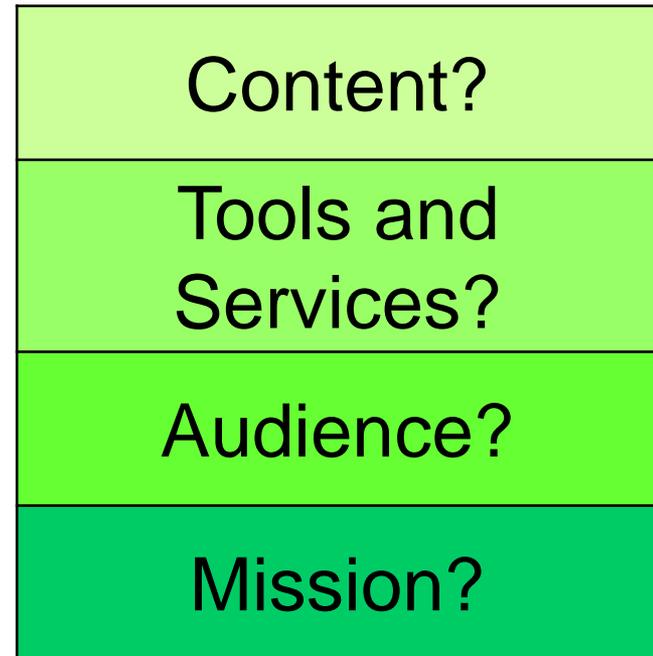
Generating revenue is not for the faint-of-heart!

Even generating “free” volunteer support can be quite time consuming (read: costly) as well.

And securing host support will also require a carefully planned strategy

Do you have staff in place for this sales-like effort?

Might there be some possible partnerships with other gateways, so you need not “do it all” on your own?

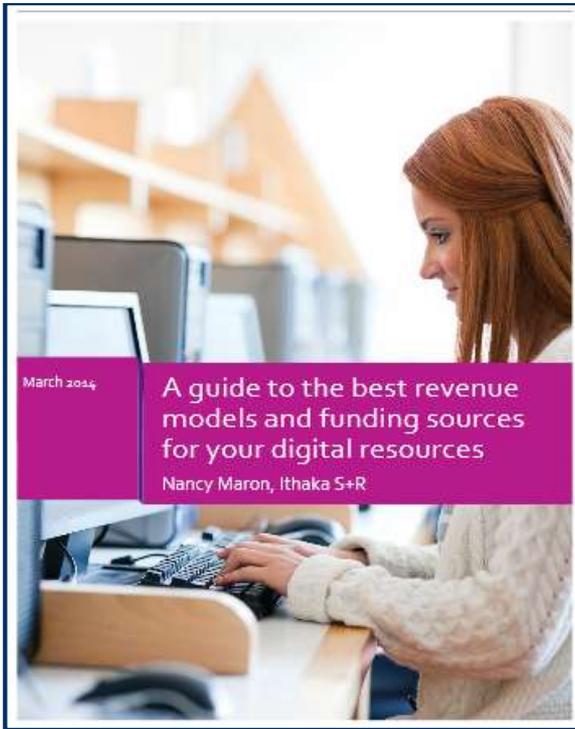


## Value Assessment Framework

Nancy Maron, *A Guide to the Best Revenue Models and Funding Sources for Your Digital Resources* (Ithaka S+R, 2014)

[http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc\\_Report\\_032614.pdf](http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc_Report_032614.pdf)

If you'd like to know more...



## **A Guide to the Best Revenue Models and Funding Sources ...**

Includes briefs on each model with real-world examples and tips on how to decide if the model is right for you.

Nancy Maron, *A Guide to the Best Revenue Models and Funding Sources for Your Digital Resources* (Ithaka S+R, 2014)  
Available at: [http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc\\_Report\\_032614.pdf](http://www.sr.ithaka.org/wp-content/uploads/2015/08/Jisc_Report_032614.pdf)

# SCIENCE GATEWAYS BOOTCAMP 2018

**Apply  
now!**

## **Science Gateways Bootcamp**

May 14-18, 2018 in Austin, Texas

Learn how to develop, operate, and sustain your gateway.

I have an idea!



Articulate the value of your gateway and how it's distinctively different from what already exists.

Who benefits?

Identify audience and stakeholder groups and consider how they impact your success.

Where does it fit in?

Establish where your gateway solution fits within the existing market landscape of partners and competitors.

How do I make it happen?



Define measurable goals for success and sustainability. Consider multiple needs such as technology, security, project management, usability, and funding.

How do I sell it?

Spread the word! Plan how to tell the unique story of your gateway.

## Bootcamp at a Glance

- 5 full days
- Knowledge dissemination
- Interactivity
- Community formation
- Putting away the normal daily routine
- Homework

# What past attendees are saying...

The Science Gateways Bootcamp is useful to people involved at any stage of their science gateway project, and in any role... They cultivate a lively, active, hands-on environment. A great experience overall.

*Steve Androulakis*  
Manager - Community Platforms,  
NeCTAR.org.au, ANDS.org.au,  
RDS.org.au

...The biggest thing I received from the boot camp was the ability to join a community of science gateway experts and colleagues engaged in the building out and sustaining of gateways. There was not a single person that I did not learn something from...

*Joseph T. Yun*  
Leader, Social Media Analytics,  
Technology Services, University of  
Illinois Urbana Champaign

... I am also looking forward to continuing my engagement with SGCI and interacting with my Bootcamp cohort. For example, I'll be looking to my fellow bootcampers to provide feedback on various elements of my project pitch deck going forward.

*Christopher Lenhardt*  
RENCI

Our team will work with yours throughout the week



# This means, we'll get to cover...

Defining your Project (Napkin Drawing)

Value Proposition

Audience & Stakeholders

The Competitive Landscape

Developing a Budget

Creating a Funding Model

Key technology concerns for sustainable projects

Cybersecurity

User Experience

How Campus-based cooperative groups can help

Marketing and Promotion

Each day, you'll get a little closer by ...

Asking tough questions

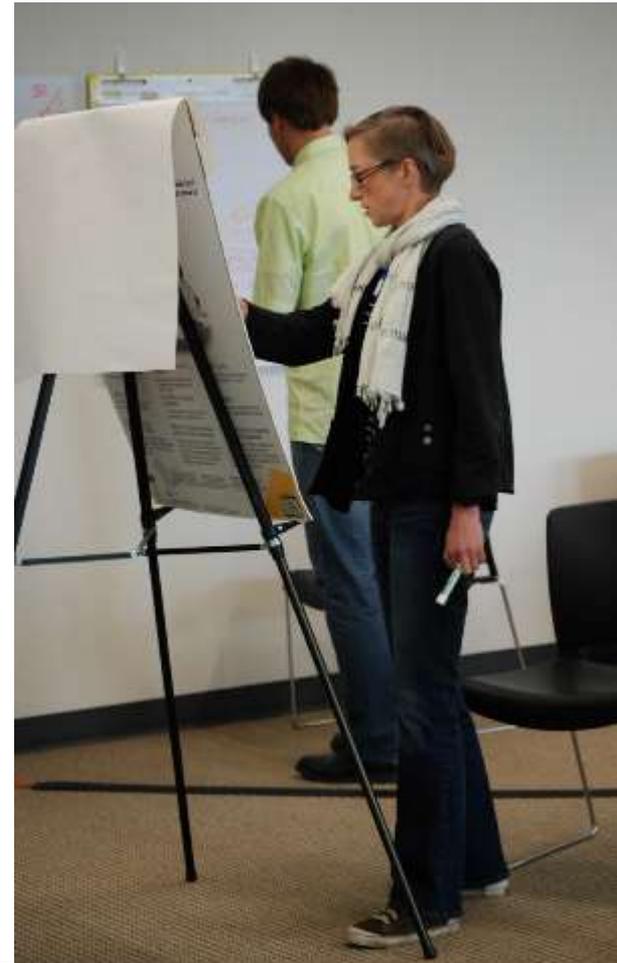
Brainstorming with instructors and colleagues

Sketching, revising, and sketching some more

Seeking answers to questions raised

Learning more when the workshop ends!

There will be some of this...



A good deal of this...



And even a healthy dose of this...



# Science Gateways Bootcamp 2018

Applications are due March 30  
for the workshop running May 14-18.

For more information, visit

<https://sciencegateways.org>

Thank you!

Nancy Maron

@nancymaron

nancy@blueskytoblueprint.com