

Environmental Measurement Symposium

*“ Where Do We Go
From Here ”*

38th Annual Conference

Crystal Springs, VA

August 5, 2022

38th Environmental Measurement Symposium

Forum on Environmental Accreditation

National Environmental Monitoring Conference

NELAC

US EPA

Hyatt Regency

Crystal Springs, VA

Where Do We Go From Here

CITIZEN SCIENCE

Leon F. Vinci, DHA, DAAS, RS
CEO-President
Health Promotion Consultants

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MIT Technology Review

JAN '89

Quoting from R. Kerson in a Wilson Center report :

"The new form of engagement in science received the name "citizen science".

Described how 225 volunteers across the US conducted citizen research in assisting the [Audubon Society](#) in an acid-rain awareness raising campaign. The volunteers collected rain samples, checked for acidity, and reported back to the organization. The information was then used to demonstrate the full extent of the phenomenon.

DEFINITION

- **Citizen Science/Research** is defined as :
“scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions“
- The term *citizen science* entered the [Oxford English Dictionary](#) (OED) June 2014

Citizen Research : Impacting Policy Makers

Citizen Science to support local leaders and decision-makers (in public and private sectors) in recognizing risks to public health and taking actions to :

- improve health
- reduce impacts (to health/environment)
- enhance our lives

Citizen Science
Morning Session

First Presentation

Where Do We Go From Here

CITIZEN SCIENCE COMMUNITY SCIENCE and/or LOCAL RESEARCH

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Where Do We Go From Here

Today's Discussion : CITIZEN SCIENCE

Background & History

Current Profile

Technology Evolution

Future Gazing

Panel Q & A

Where Do We Go From Here

CITIZEN SCIENCE

Background & History

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Citizen/Community Research : Impacting Policy Makers

Community--Citizen Science to support local leaders and decision-makers (in public and private sectors) in recognizing risks to the public's health and environment & for taking actions to :

- improve health
- reduce impacts (to health/environment)
- enhance our lives

Where Do We Go From Here

'CITIZEN SCIENCE' codified in Federal Law (US)

Crowdsourcing and Citizen Science Act of 2015

Where Do We Go From Here

CITIZEN SCIENCE

Current Profile

Where Do We Go From Here

CITIZEN SCIENCE GOALS

Research

Data

Education

Policy : Environmental Regs, Laws

Empowerment

Where Do We Go From Here

CITIZEN SCIENCE

COMMUNITY SCIENCE

LOCAL RESEARCH

Where Do We Go From Here

CITIZEN SCIENCE -- DISCUSSIONS

Local Levels

Scientific Community

Literature & Research

Where Do We Go From Here

CITIZEN SCIENCE

Technology Evolution

TECHNOLOGY

Remote Reach



Cell Phone Magic

TECHNOLOGY

Working from Home ----- *LIVING AT WORK*



Zoom : an everyday word



Emoji



Where Do We Go From Here

CITIZEN SCIENCE

Future Gazing

Where Do We Go From Here

CITIZEN SCIENCE -- DISCUSSIONS

Local Levels

Scientific Community

Literature & Research

Where Do We Go From Here

CITIZEN SCIENCE -- DISCUSSIONS

One-Size Fits All

Inclusion vs Exclusion

Literature

Where Do We Go From Here

CITIZEN SCIENCE

Literature :

Science— Vol 372, Issue 6549

6/25/21

Where Do We Go From Here

Discussion of Article :

Terms and Naming

Use of Volunteers

Widen Participation (numerous Stakeholders)
Inclusive

Where Do We Go From Here

Discussion of Article :

Involve those that are Marginalized

Big Tent

Where Do We Go From Here

CITIZEN SCIENCE

Literature :

AJPH— Vol 112, No. 3

March, 2022

Where Do We Go From Here

Discussion of Article :

- Air Quality PM_{2.5}
- Citizen Monitoring
- Advocates for Coordination
 - Universities
 - Local Health Departments
 - Non-governmental Orgs

Where Do We Go From Here

Discussion of Article : GOALS

- To empower EJ communities and
the General Citizenry
- To improve Data
- Better Health + Environment

Conclusion

- Citizen Education
- Community Engagement
- Citizen/Community Research -- Surveys
- Citizen/Community Science
- Outreach & Sharing Data
- Negotiation

Citizen/Community Research : Impacting Policy Makers

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Where Do We Go From Here

Questions, Thoughts, Comments

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COMMUNITY SCIENCE
and/or LOCAL RESEARCH

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