



# Citizen Science, Hobbyists, and Makers

Are we ignoring those that 'Made' Computer Science?

Simon Harper - SIGWEB



# Citizen Science?

Astronomy – Galaxy Zoo & American Association of Variable Star Observers;

Ecology – GLOBE at Night & Cიტclops;

Biology – EyeWire & Cell Slider;  
and

Zoology – BugGuide.Net & The Audubon Society's Christmas Bird Count; and

Space – SETILive & NASA's International Space Apps Challenge.



# Hobbyists

- ▶ Amateur Astronomy Equipment;
- ▶ Amateur Radio Electronics;
- ▶ Small Scientific Sensors;
- ▶ Secchi App; and,
- ▶ DeepSea Challenger.

## New Technology

- ▶ San Francisco project;
- ▶ The WildLab;
- ▶ iNaturalist; and
- ▶ Project Noah



# What about Computer Scientists?

- ▶ Mostly Observational;
- ▶ Human Sensors;
- ▶ Citizens as a Resource;
- ▶ Are they Equal Partners;
- ▶ CompSci seems more 'active';
- ▶ Long tradition of 'Amateur' coding.



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- ▶ Mostly Observational;
- ▶ Human Sensors;
- ▶ Citizens as a Resource;
- ▶ Are they Equal Partners;
- ▶ CompSci seems more 'active';
- ▶ Long tradition of 'Amateur'...  
'Citizen' coding.



# History

HomeBrew – Birthplace of  
Apple;

367 Addison Avenue – Birthplace of  
HP;

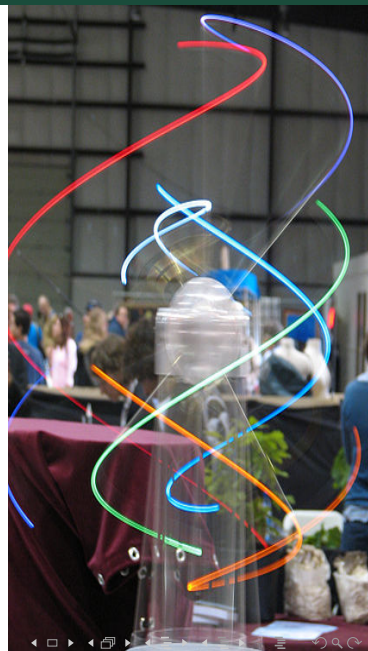
MIT Tech Rail Club – Birthplace of  
Open Source; and

Whole Earth Catalog – CS and  
Counter Culture.



## CS Resurgence in the 'Makers'

- ▶ Makers build 'stuff';
- ▶ Often technical, often involves software and hardware;
- ▶ Often devices; and often,
- ▶ Using complex technical equipment.



# Other Organisations

- ▶ Earthwatch Institute;
- ▶ Zooniverse;
- ▶ Informal Science;
- ▶ International Society of Genetic Genealogy;
- ▶ Citizen Science Alliance; and
- ▶ Make / Maker Faire / Maker Spaces.



# Do We Exclude?

*'ACM, the world's largest educational and scientific computing society, delivers resources that advance computing as a science and a profession. ACM provides the computing field's premier Digital Library and serves its members and the computing profession with leading-edge publications, conferences, and career resources.'*

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## **Text Mining Gives Us:**

Computing; ACM; Profession; and Resources.

# Our Message...

*'ACM is widely recognised as the premier membership organisation for computing professionals, delivering resources that advance computing as a science and a profession; enable professional development; and promote policies and research that benefit society. '*

# What Can We Bring?

- ▶ Recognition;
- ▶ Scholarly Support;
- ▶ TechPacs and Training;
- ▶ Events Hosting and Sponsorship; and again
- ▶ RECOGNITION.



# Questions

**Love NOT Money**

**Are we ignoring an important group?**

**If so, what should we do next?**

