



Expanding the Impact of Remote Sensing Science

Apps, Algorithms and Data

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Remote sensing is serving an increasingly significant role in science and society. To meet this growing demand, which extends across a broad array of disciplines, remote sensing scientists must continue to develop new methodologies and analysis techniques for deriving information from imagery. However, transforming research ideas and results into effective software applications to address these needs is neither trivial nor straightforward. Fortunately, advances in technology, collaboration and communication are enabling new opportunities and avenues for application development. Notable areas where these advances are most evident, but where improvements are still required, include increased participation in data and information sharing, simplified utilities for building and testing algorithms, and improved functionality for creating and disseminating finished software modules. With these objectives in mind, HySpeed Computing is providing a community framework for remote sensing scientists to more efficiently harness their innovations and expand their impact on the community.

+ Community

- A collaborative group with common interests and goals
- Expands awareness of new algorithms and solutions
- Encourages cross-fertilization of research ideas
- Improves collaboration across disciplines
- Empowers the community through shared knowledge

App Marketplace +

- A digital framework to buy and sell scientific Apps
- Encompasses plugins, modules and stand-alone software
- Extends research outcomes to a broader community
- Allows developers to retain intellectual property
- Facilitates improved technology transfer

+ Datasets

- Comprehensive data examples of specific applications
- Provides foundation for developing new algorithms
- Offers resource for training and educational purposes
- Improves citation of publications related to data
- Expands impact beyond initial data purpose

Challenges +

- Structured contests for solving challenging problems
- Includes both theoretical and real-world questions
- Mobilizes the community to solve complex problems
- Provides avenue for algorithm cross-comparison
- Encourages innovation through competition

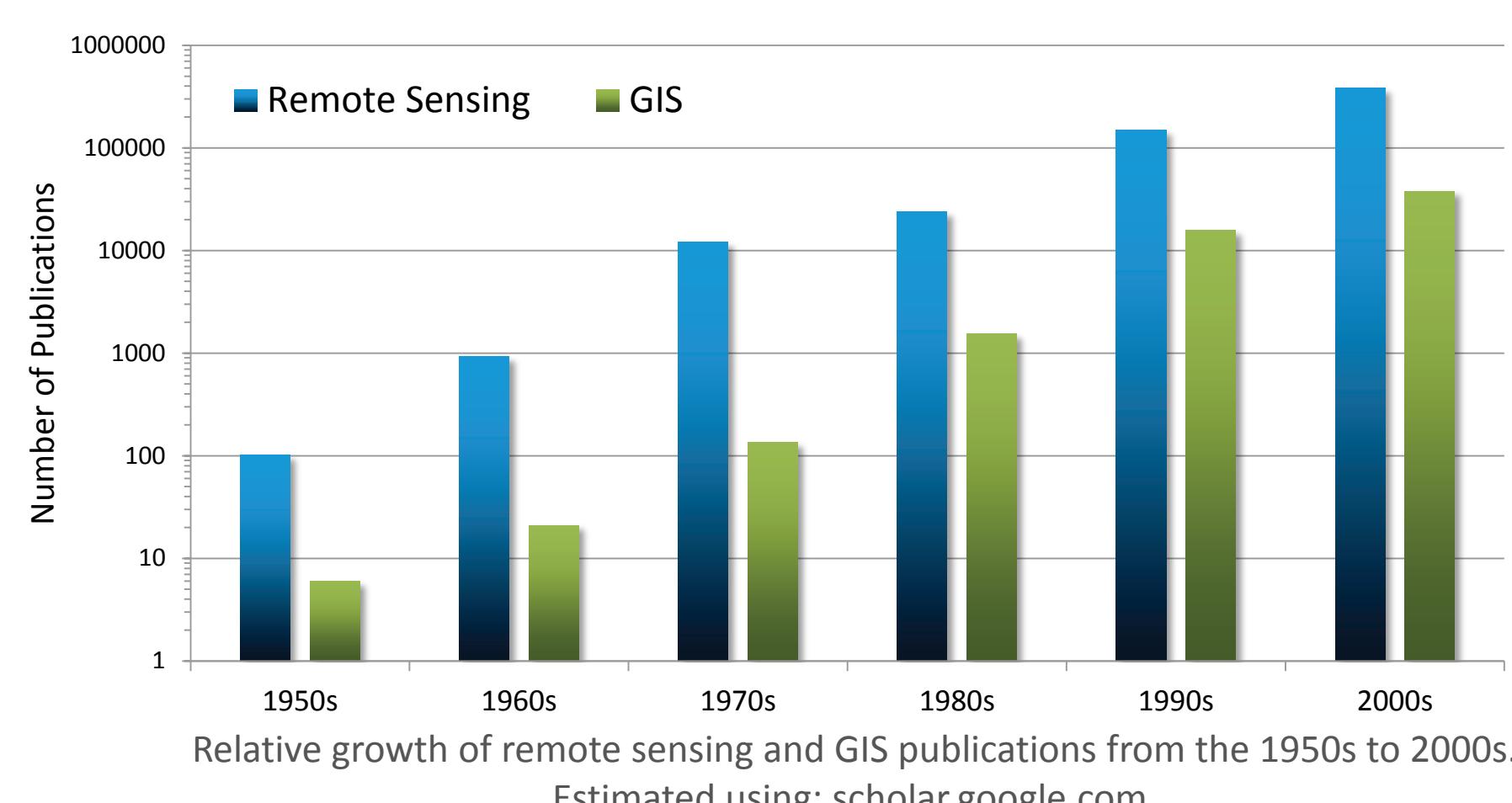


The Objectives

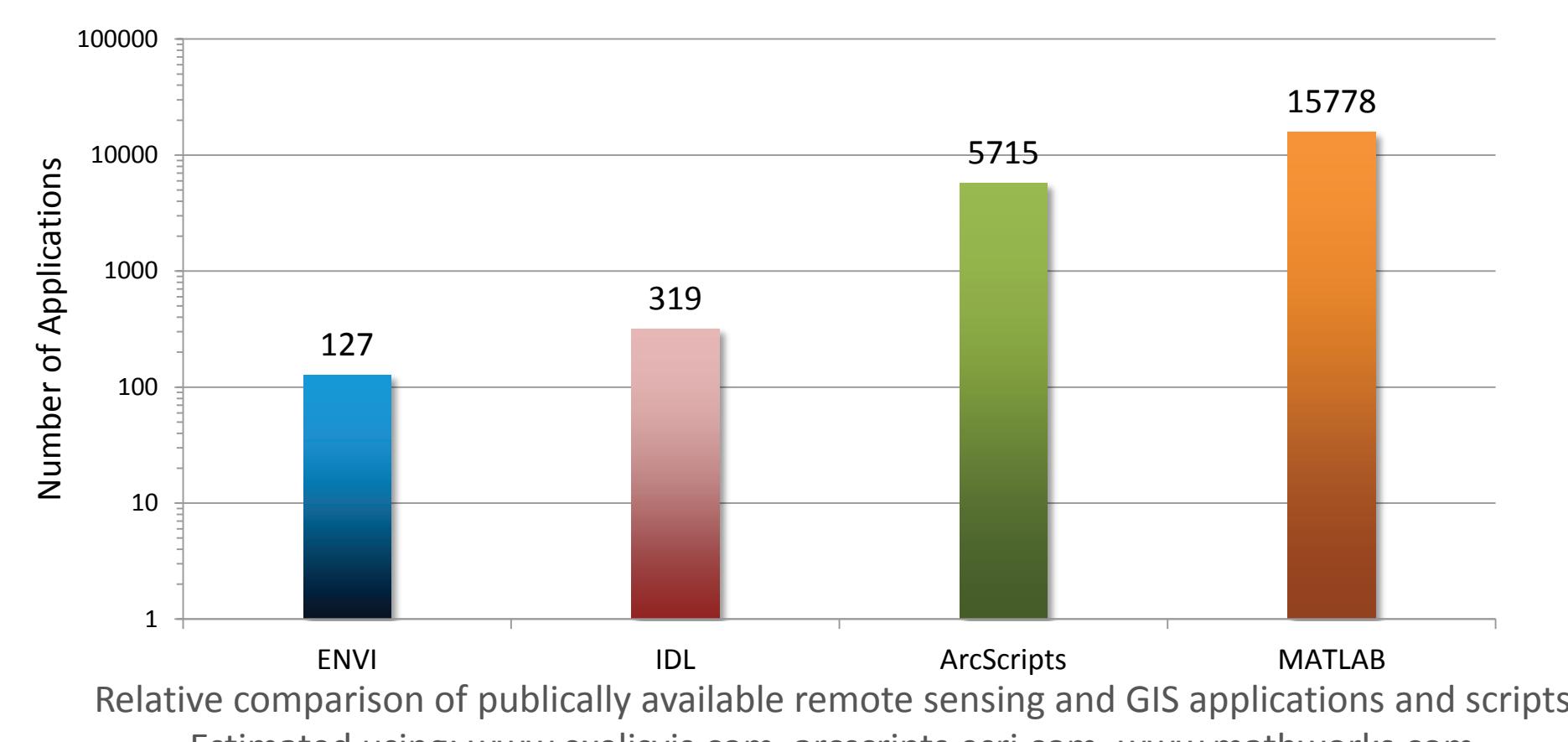
- + Create a virtual networking space to connect the geospatial community.
- + Improve the mechanisms for innovation and technology transfer within the geospatial marketplace.

The Motivation

- + There has been impressive growth in publications and algorithms in the fields of remote sensing and geographic information systems.



- + However, the development and dissemination of user-developed algorithms in the geospatial community, particularly within remote sensing, indicates significant opportunities for improved technology transfer.



The Solution



- + **HySpeed Computing** /Hy-Speed Com-put-ing/ (n.) a scientific community framework for innovation, technology transfer and collaboration.
- Connect with us at: www.hyspeedcomputing.com



- + **HyPhoon** /Hy-Phoon/ (n.) a digital marketplace and data sharing resource for the scientific computing industry.
- Coming soon in late 2012: www.hyphoon.com

How You Can Get Involved

+ Community

- Connect with other application scientists and developers
- Register to become part of the community
- via email: info@hyspeedcomputing.com
- web registration (coming soon): www.hyspeedcomputing.com

+ Datasets

- Explore and download datasets for training or research
- Contribute your own datasets for others to access

+ App Marketplace (coming in 2013)

- Purchase innovative Apps from other community members
- Avoid “reinventing the wheel” by leveraging existing Apps
- Contribute your own Apps to sell within the marketplace
- Propose algorithm concepts of your own

+ Challenges (coming in 2013)

- Participate in algorithm challenges
- Present interesting problems for others to solve