American Astronomical Society

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- The Astronomical Journal, 150+ yrs, IF = 5.0
  - 2012: 334 articles, 4335 pages
- The Astrophysical Journal, 100+ yrs, IF = 6.7
  - Letters (IF = 6.3), Supplement (IF = 16.2)
  - 2012: 3907 articles, 45586 pages

Partnerships

- Member society of AIP
- CrossRef, ORCID, Portico
  - We like: Sense About Science, DataCite, STIX, MathJax, IVOA, et al.
- IOP, AIP are publishing partners

AAS journals update

- Greg Schwarz (AAS) and Kerry Kroffe (IOP) are here too
  - Greg has a talk on Wednesday
- Publishing != Publishing
- Data sets are real scholarly products – but they require process to be valuable for a long time
- Complexity in the long tail vs. simplicity in exploratory research

What are we up to

- ✦ The usual: publishing the AJ and ApJ
    - ✦ Approaching 1000 MRTs annually
    - ✦ Encouraging similar data for figures
- ✦ Development: software as well process
    - ✦ Data citations via DataCite
    - ✦ Image Explorer
    - ✦ Unified Astronomy Thesaurus
    - ✦ ORCID, FundRef, public access, etc.

pub·lish·ing (*n*)

- Does not mean the same thing to everyone

- So you can't assume it does

- Listen carefully, avoid being dogmatic

- When the AAS says "publishing" we're talking about a process that we regard as inherent to artifacts in the scholarly record

Data publishing

- Has a process, a workflow, a lot like publishing manuscripts
  - Peer review
  - Copy editing and markup
  - Identification, discovery, et al.
  - Presentation and access
  - Preservation
    - Not temporary storage
    - Not the attic for all your forgotten stuff
    - Not an alternative to normal "backup"

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Data as a scholarly artifact

- ✦ Data should be considered citable products of research, it should be held in persistent repositories, and data should be cited in publications.
    - ✦ We generally agree with the Amsterdam Manifesto
- ✦ But citability in AAS articles depends on the heritage of the cited item
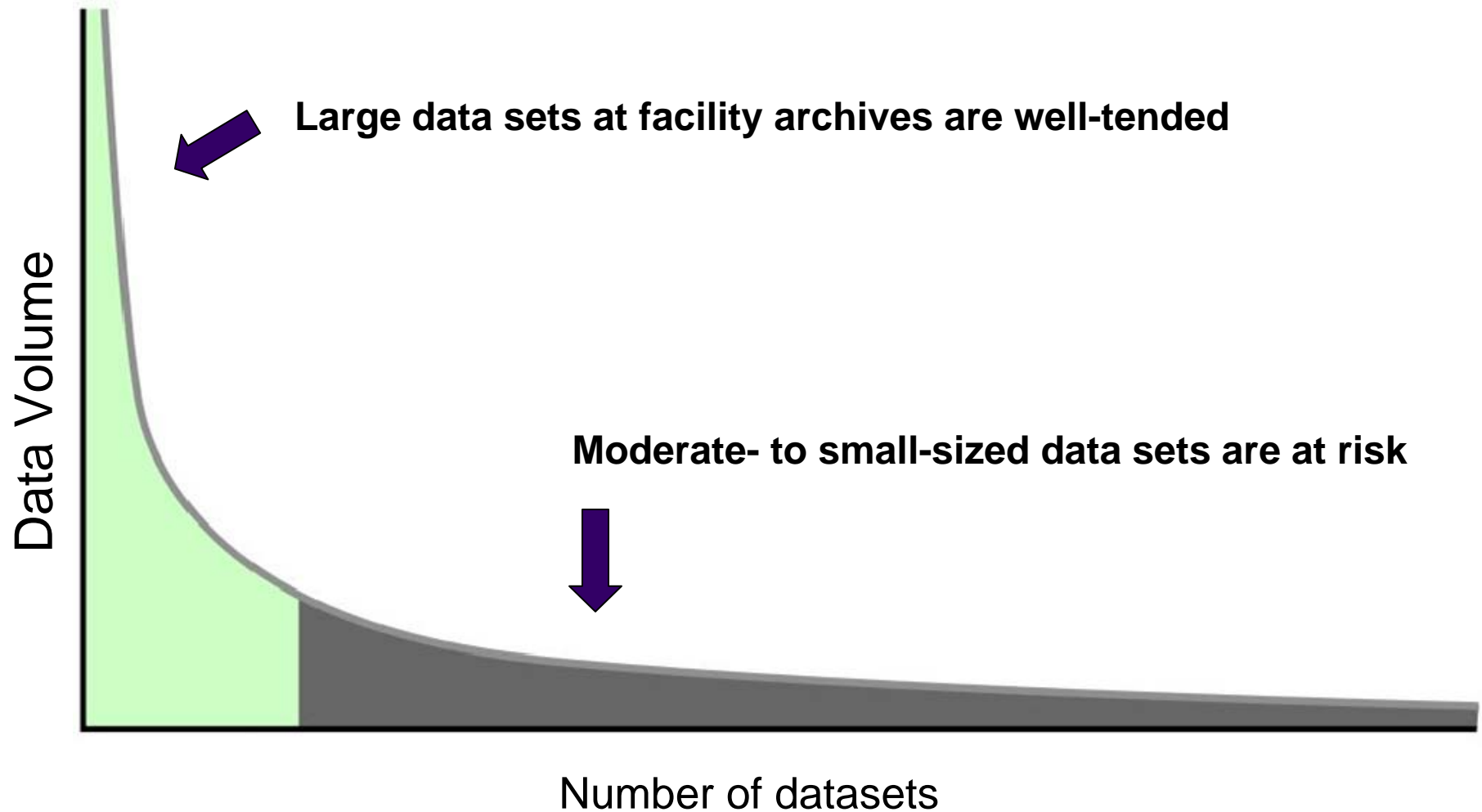   - ✦ They have to conform to *our* definition…

Complexity vs. simplicity

✦ Many data sets are straightforward homogeneous digital objects

✦ Some are complex intellectual creations

   ✦ And those often end up in our publishing queue

✦ **Proposition:** lots of the stuff that scholar/researchers care about in the long tail are in fact complex

Long Tail of Science Data

Large data sets at facility archives are well-tended

Moderate- to small-sized data sets are at risk

Data Volume

Number of datasets

Graphic from B. Heidorn

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DataCite

✦ Makes research better by enabling people to find, share, use and cite data

✦ Organization founded in 2009. Aim is to
  - ✦ establish easier access to research data on the Internet
  - ✦ increase acceptance of research data as legitimate, citable contributions to the scholarly record
  - ✦ support data archiving that will permit results to be verified and re-purposed for future study

DataCite objectives: 2013-2016

- ✦ Become a sustainable and reliable organization
- ✦ Become part of the global research infrastructure
- ✦ Nurture our membership & build strong communities
- ✦ Build and maintain services, guidelines, policies
- ✦ Deliver clear communications