

Proposed LSST Data Rights and Access Policies

SAC Meeting, Mon Aug 13, LSST PCW 2018, Tucson AZ





Contents

- LPM-261: Draft Document Status and Timeline
- High-Level Principles for Data Rights and Access Policies
- Fundamental Concepts and Definitions
- Defining Who Has Data Rights
- LSST Data and Services
- Derived Data Products
- Publications Policy
- Proposed Committees for Operations
- Discussion Questions
- Risks to Construction/Operations budget, schedule, or scope.



LPM-261: Draft Document Status and Timeline

- drafted by Beth Willman, Melissa Graham, William O'Mullane, Donald Petravick, and Margaret Johnson
- submitted to the Change Control Board (CCB) on June 28 2018 (it's LCR 1395 if you have access permissions)
- first objective is a full technical review to assess impact on the Construction or Operations costs, schedule, and/or scope (a preliminary implementation review with NCSA revealed no blockers)
- we are also currently gathering feedback from all interested parties, including science collaboration members, and incorporating it
- the content of LPM-261 has been used to inform LDM-612 "Plans and Policies for Alert Distribution" (Bellm) and LPM-251 "Proposed Policy for Independent Data Access Centers" (O'Mullane)
- we intend to prepare and circulate an updated draft in Fall 2018



High-Level Principles for Data Rights and Access Policies

- honor the promise of open access to data products for all US and Chilean scientists
- honor the signed data rights agreements with International Contributors
- protect the value of data rights for the LSST Data Rights holders community
- recognize the science collaborations, and their members, as key stakeholders that have invested substantial thought in their own policies
- avoid disadvantaging junior scientists
- create an Operations model that is straightforward to implement
- have a transparent process for adjudicating Data Rights questions and concerns
- maximize the science output of the LSST



Fundamental Concepts and Definitions

- public: a data product that can be shared with anyone, anywhere, anytime, worldwide
- **proprietary**: a data product that cannot be shared with anyone that does not have data rights
- data rights: the ability to have the proprietary LSST data and to publish journal articles containing or based on proprietary LSST data
- data access: the ability to access LSST data and services through the LSST-run US and/or Chilean Data Access Centers
- LSST User: individuals with data rights
- Full LSST User: individuals with data rights and data access
- derived data product: any data or information generated from the proprietary LSST data that cannot be used to recreate any proprietary data products is proprietary until published; then it is public



Defining Who Has Data Rights

- **US Scientists**: all US scientists are Full LSST Users: any US resident, or staff or student at a US institution (including their affiliated international satellites) that wishes to ... do non-profit scientific research ... [or] develop new citizen science projects for LSST EPO
- Chilean Scientists: all Chilean scientists are Full LSST Users (i.e, those on the SOCHIAS list of scientists eligible for Chilean telescope time)
- International Contributors: with signed MoA will provide the names of their Principle Investigators and their junior affiliates
- Alternative Routes: individuals with LSST Builder status shall be Full LSST Users, regardless of their location or institution, in perpetuity
- **Grace Period**: when a (Full) LSST User departs their institution they retain their data rights (and access) for one year



LSST Data and Services

- public:
 - alerts
 - a subset of telescope and site metadata (TBD)
 - the LSST software stack
 - EPO data and services
 - proprietary data after 2 years

proprietary:

everything else, including unpublished derived data products



Derived Data Products (DDP)

- derived data product: any data or information generated from the proprietary LSST data that cannot be used to recreate any proprietary data products is proprietary until published; then it is public
- exceptions for sharing unpublished DDP with non-Users:
 - (1) when it is necessary to enable a scientific publication: the LSST data alone does not provide a sufficient physical analysis to warrant a publication (e.g., spectra for a single transient)
 - (2) when it preserves the value of data rights: waiting for a DDP to be published before sharing would result in the loss of scientific opportunity for a LSST User
- LSST Users do not need to seek advance permission from the Data Access Policy Committee if they are confident that they are making an exception that is in agreement with this policy



Publications Policy

- Only LSST Users with data rights may co-author publications based on proprietary LSST data (including unpublished DDP)
- **Exception 1**: individuals who made contributions to a publication while they had data rights, but whose grace period has expired
- **Exception 2**: individuals whose contributions uniquely enabled a publication (e.g., data, software, or expertise)
- Non-User co-authors may request a copy of the relevant LSST data product(s) for verification of the scientific conclusions.
- LSST Users do not need to seek advance permission from the Data Access Policy Committee if they are confident that they are making an exception that is in agreement with this policy



Proposed Committees for Operations

LSST Data Access Policy Committee

- ensure the community can responsibly use LSST data
- ensure technical implementations that accommodate the policies
- e.g., answer questions, arbitrate disputes, evolve the policies

Resource Allocation Committee

- manage requests for increased storage/computational resources above the basic quota for DAC accounts
- analogous to a Time Allocation Committee for a telescope (i.e., requests will likely require science justification)





Discussion Questions: Publications Policies

- DAPOL-700 states that Derived Data Products must be "published in a peer-reviewed journal" before being publicly shared. Should this be extended to include non-peer reviewed venues such as AAS Research Notes and Astronomer's Telegrams?
- Proposed new DAPOL regarding bulk sharing of time-sensitive but unpublished DDP: "Alert brokers, or other similar software entities, that use proprietary LSST data products to probabilistically classify transient, variable, or moving objects in near-real time, may apply to the DAPC for approval to publicly distribute their classification probabilities."
- No formal restrictions on pre-release scientific analysis or paper submission are placed on LSST staff during Operations (but are in place during Commissioning).



Discussion Questions: Who has data rights?

• Under the current wording, amateur astronomers do not have data rights. They would have access to the EPO data and services only.



Risks to Construction/Operations budget, schedule, or scope

- The proposed policies were reviewed with NCSA staff and no barriers to technical implementation were identified.
- Some open questions about technical implementation remain, such as how to serve data from telescope and site, whether DOI (digital object identifier) could be issued for queries to assist with reproducibility, and how use agreements will be 'signed'. These do not appear to pose any issues regarding the implementation of the proposed policies.



End.