

| <b>Outcome</b>   | <b>Definition</b>  | <b>Example</b>                        | <b>Output Metrics</b>   | <b>Impact Metrics</b>                            |
|------------------|--|---------------------------------------|---|--|
| Code             | Source code to be compiled or executed                     | OpenTree API library code             | number of lines   | number of reverse depends, uses, users, mentions |
| Documentation    | Instructions and examples                                  | R vignettes                           | number of lines   | number of users, mentions                        |
| Designs, Schemas | Partially or fully encoded products that are not executed  | Phylo-querying design                 | number of lines   | number of users, mentions                        |
| Installations    | Installed and running software                             | Live Phylotastic pruner demo          | number of functions   | number of users, mentions                        |
| Data Products    | Aggregation, qa, etc resulting in value-added data product | Formal annotation of high-value trees | file size, number of data   | number of downloads, mentions                    |
| Training         | New or increased proficiency in a skill                    | Learning github                       | proficiency   | (output metric for using proficiency)            |
| Experience       | New or increased exposure to circumstances                 | Team programming                      | NA  | NA   |
| Networking       | New or enhanced professional connections                   | NA                                    | number of new or strengthened connections                           | number of collaborations                         |
| Awareness        | Recognition of resources, challenges, practices            | Name-resolution is a major issue      | number of newly recognized technologies, challenges, best practices | uses of newly recognized technology              |
| Posters          | Graphic presentations for meetings                         | R popgen poster                       | number, number of times presented                                   | number of mentions                               |
| Blogs            | Non-reviewed web publications                              | TreeForAll blogs                      | number  | number of mentions                               |
| Presentations    | Conference presentations                                   | DateLife iEvoBio presentation         | number, number of times presented                                   | number of mentions                               |
| Collaborations   | Commitment to pursue shared goal                           | rotl collaboration                    | number  | (output metric for using collaboration)          |
| Manuscripts      | Manuscripts for publication                                | Phylotastic                           | number, number accepted   | number of citations, mentions                    |
| Proposals        | proposals for funding further work                         | Phylotastic proposal                  | number, number accepted   | (output metric for using funding)                |