RStudio Connect
An Analytics Publishing Platform Service
Agenda

• What is RStudio Connect (RSC)?
• What can you do with RSC?
• Examples and demonstration
• How to get RSC and support options
• Q & A
What is RStudio Connect?

• A self-service publishing platform for works created in R and Python
• Publish R-Scripts, RMarkdown Reports, Dashboards, Shiny Applications, Plumber APIs, Jupyter Notebooks, interactive Python content
• Publish directly from the RStudio IDE
• Permission levels include Anonymous, Viewer, Collaborator (e.g. Publisher)
• Content can be accessed without authenticating or can be secured by adding user accounts and assigning rights to the content
RStudio Connect Overview
OCTRI’s RStudio Connect

- Hosted on OCTRI servers in data center west
- Available “on network” only
  - Citrix: viewing published content
  - On campus or VPN: required for publishing content
- 100 Licenses – “Named users”, not concurrent users
What can you do with RSC at OHSU?

- Publish reports, visualizations, and interactive dashboards using RMarkdown
- Schedule reports to run automatically
- Host Shiny Applications
- Publish datasets using the “pins” package
- Access internal databases (e.g. REDCap)
What we’ve been using at OCTRI

• COVID Studies Registry Dashboard
• REDCap Form Entry Completion Report
• OHSU/NIH Physician Scientist Dashboard
• Shiny Navigator Dashboard
COVID Studies Registry Dashboard

**Purpose**: quickly needed to disseminate information about COVID research.

**Not very pretty – got the job done.**

**Publicly available for all OHSU users on O2 as link.**

**Connected to REDCap form.**

**Internal version shared via e-mail with COVID task force members.**

### Summary table of studies tracked to date (updated daily)

<table>
<thead>
<tr>
<th>Number of Projects</th>
<th>Number of Investigators</th>
<th>Number of COVID-19 Clinical Trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>298</td>
<td>209</td>
<td>36</td>
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### Detailed list of studies tracked to date (updated daily)

<table>
<thead>
<tr>
<th>PI/Primary Contact</th>
<th>Date Submitted</th>
<th>IRB Number</th>
<th>Title or Description</th>
<th>Development of diagnostic COVID-19 testing for COVID-19 patients</th>
<th>Treatment of COVID-19 patients</th>
<th>Prevention of SARS-CoV-2 infection</th>
<th>Natural History, observational, surveillance, epidemiologic</th>
<th>Basic sciences of SARS-CoV-2</th>
<th>Study Type</th>
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<tbody>
<tr>
<td>Fialkowski, Elizabeth</td>
<td>2020-10-12</td>
<td>22106</td>
<td>Delay in Pediatric Inguinal Hernia Repair During the SARS-CoV-2 Pandemic</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>Retrospective cohort</td>
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<td>Theile, Doris</td>
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<td>00022180</td>
<td>Implementing COVID-19 Testing Strategies in a Federally Qualified Health Center</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>Butler, Marilyn</td>
<td>2020-10-07</td>
<td>22164</td>
<td>A study to investigate the impact of the COVID-19 pandemic on pediatric cancer patients: an international, multicenter, observational cohort study (COVDDiPeaCohort)</td>
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<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>Prospective cohort</td>
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</table>

**ON VPN or CITRIX:** [https://octri-analytics.ohsu.edu/connect/#/apps/57/access](https://octri-analytics.ohsu.edu/connect/#/apps/57/access)
REDCap Form Entry Completion Report

- **Purpose:** track the response of various hospitals to COVID-19 across the U.S.
- REDCap is not a reporting program.
- These tables pull in data from REDCap directly via the API.
- Shared as a link with team.
- Does not show any information other than what's been programmed.
OHSU/NIH Physician Scientist Dashboard

Purpose: showcase figures from a publication in an streamlined way.

Based on research published by Zell et. al., 2018

“From bedside to benchmarks: A physician-scientist workforce dashboard for biomedical research institutions”

Figures from that paper continue to be updated.

Outlives the paper itself with continuing updated information.

Easier to quickly get the gist of each figure and how the data was obtained.
Shiny Navigator Dashboard

- **Purpose**: Share information about projects and services in a database.
- **OCTRI Navigators** provide project guidance and support to investigators.
- Needed a way to keep track of services and projects constantly being added to their database.
- Presenting at standing meetings – share a link.
- Pretty and aggregated information
Live Demo

• Upload your RMD to RS Connect.

• Set the viewing permissions.

• Set the e-mail automation (or share the link).

• Work collaboratively on documents.
How to get all this goodness
How to access RStudio Connect

• Send an email request to octrihlp@ohsu.edu
  – Instructions will follow
  – CARS request is involved so allow some time
  – You can request two account types:
    • Viewer
    • Publisher
What Support is Available?

- **OCTRI**
  - Wiki space: [https://octri.ohsu.edu/wiki/display/ORC](https://octri.ohsu.edu/wiki/display/ORC)
  - Basic support included with Publisher Accounts
    - 2 hrs consultation
    - Paid hourly support

- **Peer to Peer**
  - Microsoft Teams

- **RStudio / Internet**
Some Caveats to be Aware of

- Relatively new service, fairly complicated platform
  - Allow extra time for deployment issues
- External R package dependencies can be challenging and require consultation with OCTRI Informatics
- Minimize the need for multiple user accounts to save $
- Support resources are somewhat limited, so allow time
“OCTRI Prime” Day (or FY)!

• New accounts fully subsidized for remainder of FY21
  – Annual account charges will apply beginning July 1, 2021

• Current Fee Schedule:
  – Basic/Viewer Account: $217
  – Publisher Account: $427
Thank You!

Questions?

OCTRI Informatics Research Support
octrihlp@ohsu.edu
Extras
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Anonymous Visitors</th>
<th>Viewers</th>
<th>Collaborators</th>
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