Splendor in the Grass?
Troubled tales of turfgrass dissertation data discoverability

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Why does our story focus on dissertations?

- A dissertation tells the story of a scholar’s entrée into academic life.
- As the major distinguishing feature of education, the dissertation serves a dual role:
  - makes a significant contribution to knowledge
  - provides training in scholarly techniques
- New scholars wish to expose their ideas.
Why focus on dissertations?

Our story is a tale of discovery

- A reasonable assumption:
  - find the dissertation

- And you’ll find the data
And why is this story about turfgrass?

As a proxy for any niche discipline, turfgrass research covers a lot of ground!

- Lawns – residential and commercial
- Golf courses and parks
- Cemeteries and churchyards
- Colleges and universities
Some milestones in turfgrass development

- Reference to “lawn gardens” found in medieval English literature
- 13th-Century literature contains references to the sport of lawn bowling that utilized turf
- Turfs were cultured for use in lawn gardens, flower gardens, pleasure gardens, and greens during the 17th and 18th Centuries
- Edwin Budding of Gloucestershire, England patented a mowing machine for turf in 1830
- Turfgrass species studies at the Michigan Agricultural Experiment Station were initiated in 1880 by botanist W.J Beal
- In 1924, the Royal Canadian Golf Association established turfgrass experimental plots near Ottawa
- The British Board of Greenkeeping Research established a turfgrass research station in Yorkshire in 1929
- Studies of fertility requirements of Bermuda grass turf were initiated in South Africa in 1929

Why turfgrass?

Research and innovation in this field has wide applicability beyond the academy

- Practitioners focus on golf courses and other playing fields
- Professional landscapers—as well as any homeowner with a lawn—are concerned with turfgrass research
- Turfgrass management is a ~$1 billion industry: In the U.S., there are ~50 million acres of managed turfgrass [That’s the size of VT, ME, CT, DE, MA and NJ]

Telling the tale of turfgrass

- While much turfgrass research is initiated in the academy, that isn’t where the story ends.
- Other characters in the story include extension agents, golf associations, groundskeepers, turfgrass managers, cricket councils, commercial landscapers, and homeowners.
Connecting dissertations with data

We kept our story simple by asking:

- Can the typical turfgrass information seeker find institutional dissertations?
- Are the dissertation-related data also discoverable?
We knew that our story might not have a happy ending

There is no reliable and representative empirical evidence of the volume, distribution and characteristics of data sets and other files submitted together with ETD, except for a recent study ... that [found] ETD with some form of supplementary file since 2010 as 3 percent...

Numerous studies show strong recognition of the benefits of data sharing...

Yet in 2017 only about half of research data were shared ... and a much smaller proportion were shared openly or in ways that maximise discoverability and reuse.


No happy ending (continued)

Shreeves (2013) found supplemental files in just 77 of 3,538 ETDs.


Reed (2018) found supplemental files in 270 of 6,846 ETDs.

Methodology

- We search and browse the sample institution’s library’s websites
- Theoretical grounding for the coding scheme derived from wayfinding and information science search models
- Wayfinding affords a means to support systematic browsing
- Xie states “searching can be defined as users’ purposive behaviours in finding relevant or useful information.” [p. 2592]

As the premier collection and primary database for turf science literature, the Turfgrass Information File (TGIF) subscriber base [82 institutions] serves as the initial universe.

We limited the universe to North America [67 institutions]; and included only masters and doctorate granting institutions.

To this sample of 50 institutions, we applied a random number generator to further refine our sample [N = 30 institutions].
Results were ...
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ETDs found beyond library, on campus

- Dissertation or ETDs found by browsing library website are external, but on campus (e.g. Graduate School, Central IT)
- Dissertation or ETDs found by browsing library website are external, but on campus (e.g. Graduate School, Central IT) AND INCLUDE supplemental files
- Dissertation or ETDs found by browsing library website AND ALSO external to the Library, but on campus (e.g. Graduate School, Central IT)
- No pointer from library to ETDs elsewhere on campus

Browse to ETDs not held on campus

- Dissertation or ETDs found by browsing library website are external to the Library, off campus (e.g. ProQuest)
- Dissertation or ETDs found by browsing library website AND ALSO external to the Library, off campus (e.g. ProQuest)
- No pointer off campus
Can the story be told when the details are restricted?

- 70% of libraries pointed to external sources (such as ProQuest Dissertations and Theses) for full access to institutional dissertations (and supplemental files, if available)

- Issues of access to data for non-institutional affiliates
Are domain-specific data repositories able to tell the whole story?

- NTEP started in 1980, with the first national turfgrass species trial.
- Since then, NTEP testing of thousands of experimental and commercial turfgrass cultivars has yielded 800,000+ data records.
- As a part of a larger USDA grant (awarded to the University of Minnesota and other cooperating universities), NTEP data will be inserted in a database for further sorting and exploitation.
Discussion

- Perhaps our story has become a mystery: *If the library is the place to find the dissertation, why isn’t it the place to find the data?*

- Should libraries seek ways to encourage dissertation-data deposit?
Now we cede our turf to you...

What though the radiance which was once so bright
Be now for ever taken from my sight,
   Though nothing can bring back the hour
Of splendour in the grass, of glory in the flower;
   We will grieve not, rather find
Strength in what remains behind...

...which is William Wordsworth’s (c. 1804) way of saying:

*What are your thoughts?*