



# Splendor in the Grass?

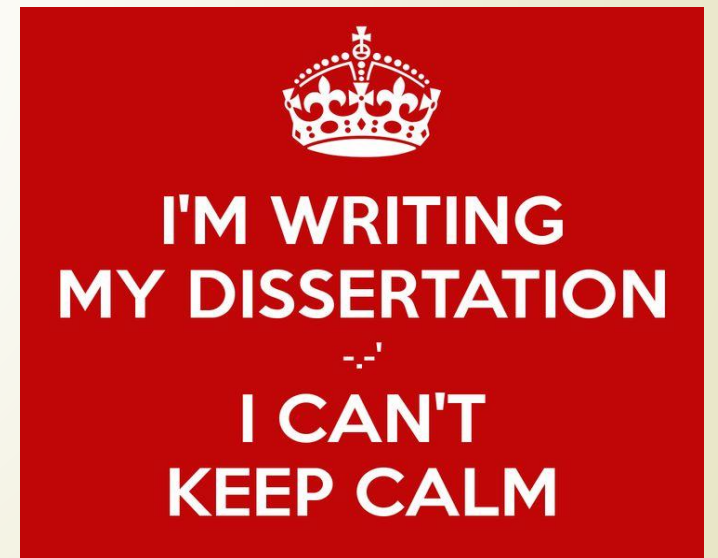
Troubled tales of turfgrass dissertation data discoverability

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**IASSIST & CARTO**  **2018**  
Once Upon a Data Point: Sustaining our Data Storytellers

# 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

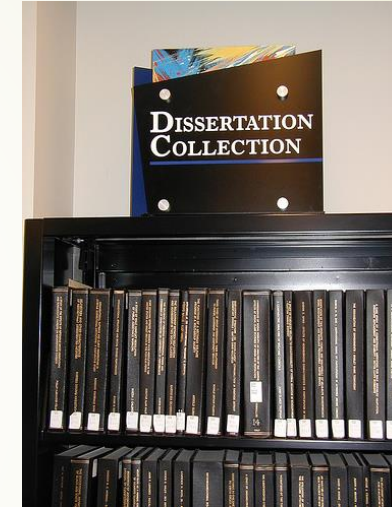


# Why focus on dissertations?

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
- ▶ 13<sup>th</sup>-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 17<sup>th</sup> and 18<sup>th</sup> 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



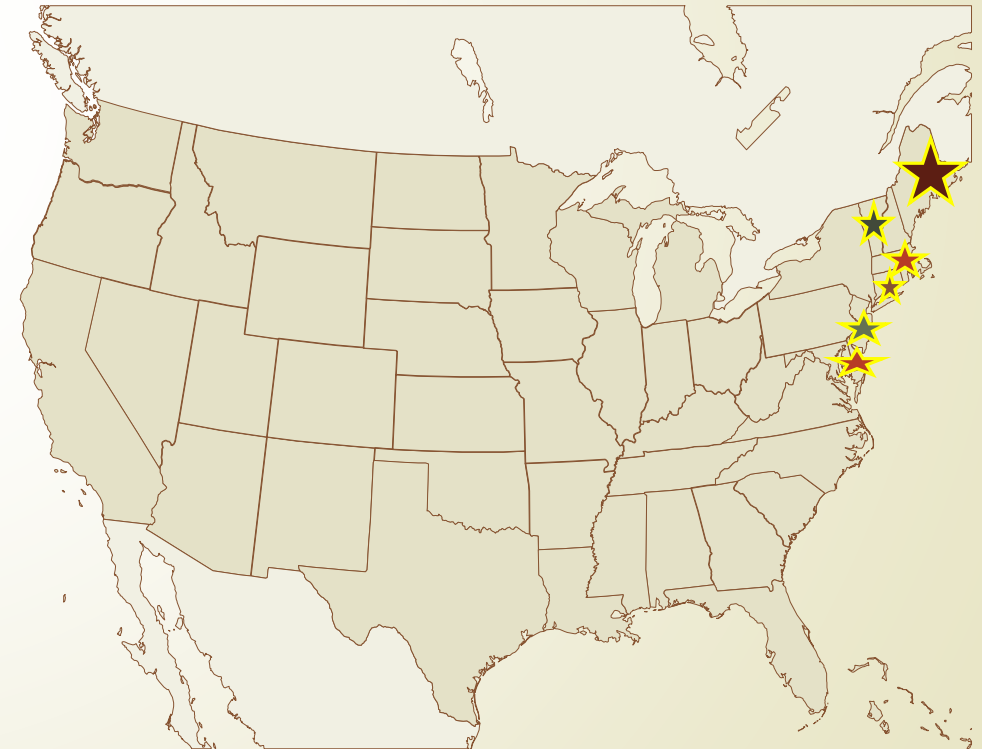
Beard, James B. (1973) *Turfgrass: Science and Culture*. Englewood Cliffs: Prentice-Hall

# 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 ~\$1billion 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]

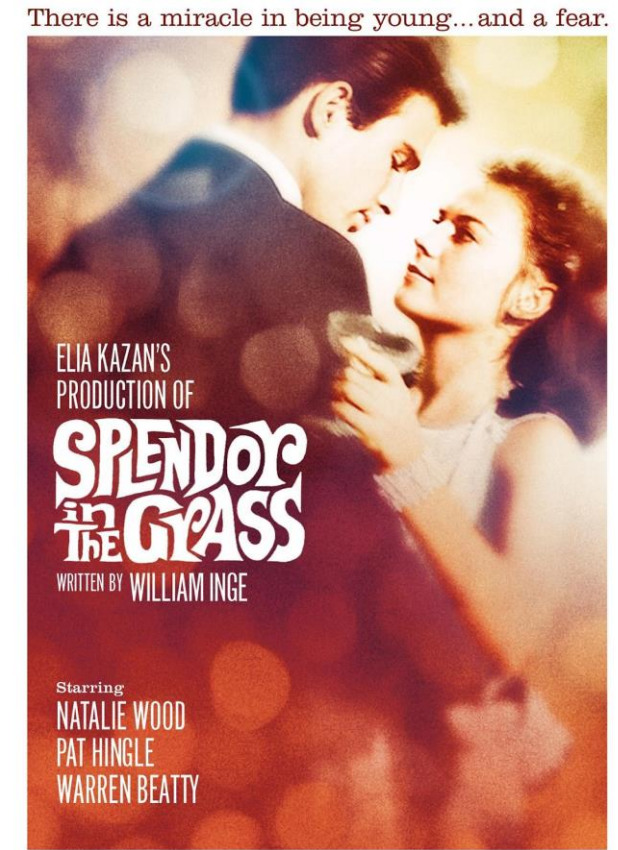
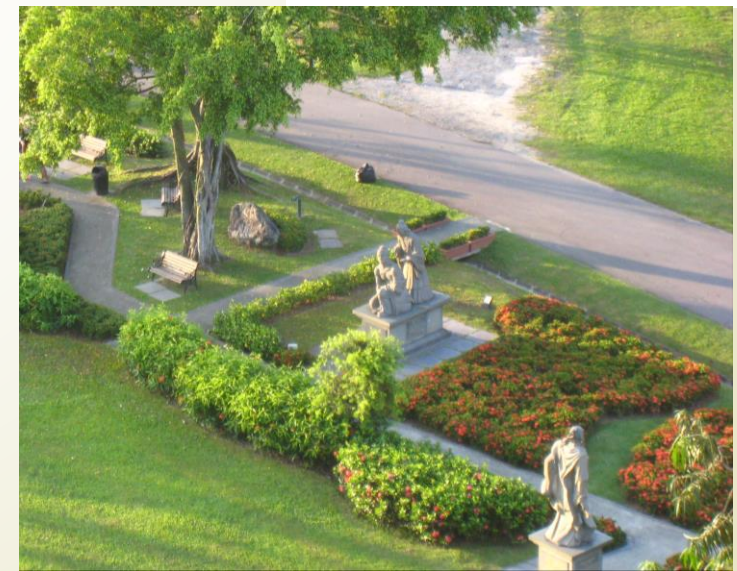
Emmons, Robert D. (2008) *Turfgrass Science and Management*, 4<sup>th</sup> ed.  
Clifton Park, NY: Thomson Delmar





# 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?



The screenshot displays the Deep Blue digital repository interface. The left sidebar contains navigation links: Login, Search Deep Blue (with a search bar and Go button), Advanced Search, Browse by (Communities & Collections, Titles, Authors, Subjects, Date), My Account (Login), Information (About Deep Blue, Help, Contact Us), and Coming Soon (About Deep Blue Data). The main content area shows a search result for the dissertation "Building Partnerships Among Social Science Researchers, Institution-based Repositories and Domain Specific Data Archives" by Green, Ann; Gutmann, Myron P., dated 2006-08-07. The citation is also provided: "also published as Green, Ann G., and Myron P. Gutmann. (2007) 'Building Partnerships Among Social Science Researchers, Institution-based Repositories, and Domain Specific Data Archives.' OCLC Systems and Services: International Digital Library Perspectives. 23: 35-53. <http://hdl.handle.net/2027.42/41214>". The abstract states: "In developing and debating digital repositories, the digital library world has devoted more attention to their missions and roles in supporting access to and stewardship of academic research output than to discussing discipline, or domain, specific digital reposi... [more]". The handle is <http://hdl.handle.net/2027.42/41214>. The subject(s) are "Repositories, Data Archives". A link to "Show full item record" is provided. At the bottom, it states "This item appears in the following Collection(s)" and lists four collections: Library (University of Michigan Library), Institute for Social Research (ISR), Inter-university Consortium for Political and Social Research (ICPSR), and Population Studies Center.

**DEEPBLUE**

Login

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Coming Soon

[About Deep Blue Data](#)

University of Michigan  
**M**Library

**Building Partnerships Among Social Science Researchers, Institution-based Repositories and Domain Specific Data Archives**

Green, Ann; Gutmann, Myron P.  
2006-08-07

**Citation:** also published as Green, Ann G., and Myron P. Gutmann. (2007) "Building Partnerships Among Social Science Researchers, Institution-based Repositories, and Domain Specific Data Archives." OCLC Systems and Services: International Digital Library Perspectives. 23: 35-53. <<http://hdl.handle.net/2027.42/41214>>

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[Show full item record](#)

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- [Library \(University of Michigan Library\)](#)
- [Institute for Social Research \(ISR\)](#)
- [Inter-university Consortium for Political and Social Research \(ICPSR\)](#)
- [Population Studies Center](#)





# 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...*

Schopf, J. et al. (2014) "Open access to research data in electronic theses and dissertations: an overview," *Library Hi Tech* 32(4), 612-627. <https://doi.org/10.1108/LHT-06-2014-0058>

*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.*

Springer Nature [Whitepaper, 27 March 2018]: "Practical challenges for researchers in data sharing."  
<https://researchdata.springernature.com/users/69154-springer-nature/posts/31633-whitepaper-practical-challenges-for-researchers-in-data-sharing>

## No happy ending (continued)

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

Shreeves, S.L. (January 2013). "Supplementary files in electronic theses and dissertations: implications for policy and practice," *Proceedings of the 8th International Digital Curation Conference*.

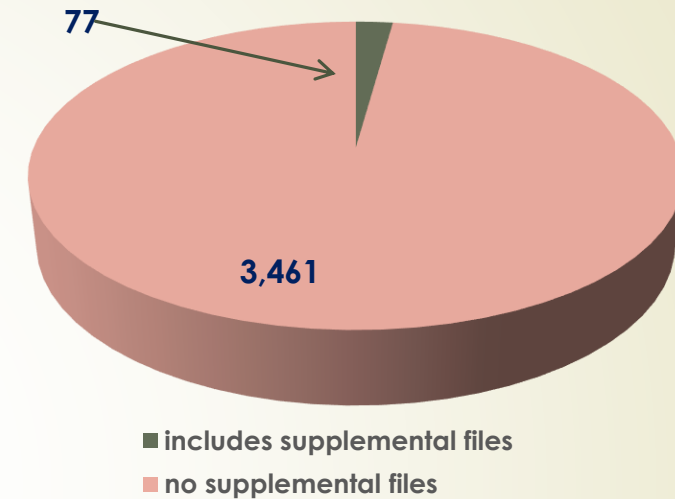
[https://www.ideals.illinois.edu/bitstream/handle/2142/35314/Shreeves\\_Poster\\_IDCC2013.pdf](https://www.ideals.illinois.edu/bitstream/handle/2142/35314/Shreeves_Poster_IDCC2013.pdf)

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

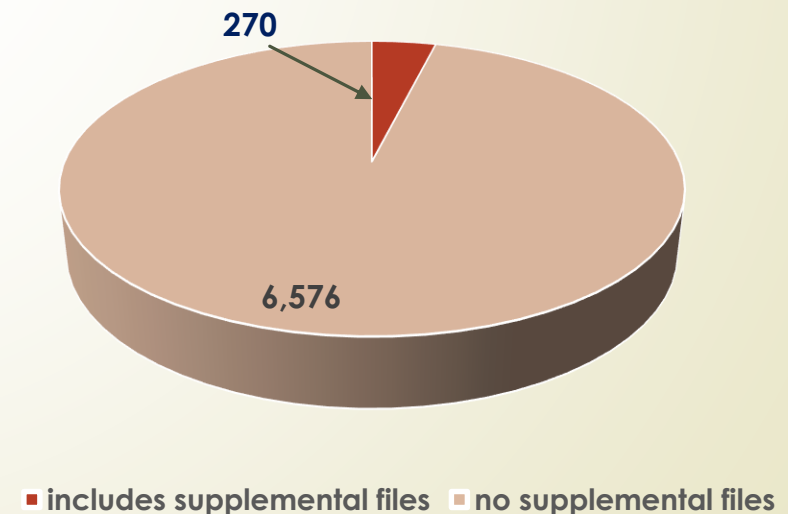
Reed, M. (15 March 2018). "Supplementary Files in Theses and Dissertations." Presented at: *Beyond the PDF: Planning for the Future of the Dissertation*. Iowa City, Iowa.

<https://kuscholarworks.ku.edu/handle/1808/26272>

ETDs with and without supplemental files



ETDs with and without supplemental files





# 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]

Xie, I. (2010) Information searching and search models. *Encyclopedia of Library and Information Sciences* (3<sup>rd</sup> ed.), Taylor & Francis, pp. 2592-2604. doi: 10.1081/E-ELIS3-120043745

Code	Category	Label/Description
1.0	Library Homepage	No mention of dissertations or ETDs on library homepage
1.1	Library Homepage	Library homepage mentions dissertations or ETDs pointing to Library based collection
1.2	Library Homepage	Dissertations or ETDs mentioned on library homepage are external to the Library, but on campus (eg. Graduate School, Central IT)
1.3	Library Homepage	Dissertations or ETDs mentioned on library homepage are external to the Library, off campus (eg. ProQuest)
1.4	Library Homepage	Dissertations or ETDs mentioned on library homepage point to Library based collections AND ALSO external to the Library, off campus (eg. ProQuest)
2.0	Browse Library	Unable to readily browse to Dissertation or ETD terms on library website
2.1	Browse Library	Dissertation or ETDs found by browsing library website, no evident supplemental files
2.2	Browse Library	Dissertations or ETDs found by browsing library website include supplemental files
3.0	Browse to Campus	Dissertation or ETDs found by browsing library website are external, but on campus (eg. Graduate School, Central IT)
3.1	Browse to Campus	Dissertation or ETDs found by browsing library website are external, but on campus (eg. Graduate School, Central IT) AND INCLUDE supplemental files
3.2	Browse to Campus	Dissertation or ETDs found by browsing library website AND ALSO external to the Library, but on campus (eg. Graduate School, Central IT)
3.3	Browse to Campus	Dissertation or ETDs found by browsing library website AND ALSO external to the Library, but on campus (eg. Graduate School, etc.) AND INCL. suppl. files
3.4	Browse to Campus	No pointer to campus
4.0	Browse to External	Dissertation or ETDs found by browsing library website are external to the Library, off campus (eg. ProQuest)
4.2	Browse to External	Dissertation or ETDs found by browsing library website AND ALSO external to the Library, off campus (eg. ProQuest)
4.3	Browse to External	No pointer off campus
5.0	Search Library	Could not readily browse to Dissertations or ETDs, and a search of the library website also turned up nothing
5.1	Search Library	Could not readily browse to Dissertations or ETDs, but a search of the library website turned up Dissertations
5.2	Search Library	Could not readily browse to Dissertations or ETDs, but a search of the library website turned up Dissertations AND supplemental files
5.3	Search Library	Dissertations or ETDs were found by browsing the library website, and a search turned up additional Dissertations
5.4	Search Library	Dissertations or ETDs were found by browsing the library website, and a search turned up additional Dissertations AND supplemental files
5.5	Search Library	Dissertations or ETDs were found by browsing the library website, but a search turned up nothing new
5.6	Search Library	No library website search is available

# A tiny trial tells the tale

- ▶ 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]

The screenshot shows the homepage of the Michigan State University Turfgrass Information Center. The header includes the MSU logo and navigation links: About the Center, TGIF & Digital Assets, Membership, Supporting Our Work, and Contact TIC. A search bar is in the top right. The main content area features a paragraph about the center's history and a link to the TGIF database. Below this are two buttons: "Search TGIF Now" and "Browse Full-Text Resources". A sidebar on the right contains social media links and a "Feedback" button. The footer includes contact information, a privacy statement, and a disclaimer.

MICHIGAN STATE UNIVERSITY

TIC Site Search

## Turfgrass Information Center

About the Center | TGIF & Digital Assets | Membership | Supporting Our Work | Contact TIC

The Turfgrass Information Center houses the most comprehensive publicly-available collection of turfgrass research and educational materials in the world, and has also continuously produced the [Turfgrass Information File \(TGIF\) database](#) since 1983. The TGIF database contains more than a quarter million records, with over 60% of those records linking the user directly to the full-text of the item. The Turfgrass Information Center and TGIF database are irreplaceable resources for students, researchers, and professionals around the world who are responsible for maintaining golf courses, lawns, athletic fields, and managed landscapes of every kind, helping fulfill [MSU's world-grant ideal](#). Please read [our disclaimer](#).

**Turfgrass Information File** **TGIF**

[Search TGIF Now](#) [Browse Full-Text Resources](#)

The [TGIF database](#) is a cooperative project of: **USGA**

MICHIGAN STATE UNIVERSITY

Call Us: (517) 353-7209 | Contact Information | Site Map | Privacy Statement | Site Accessibility

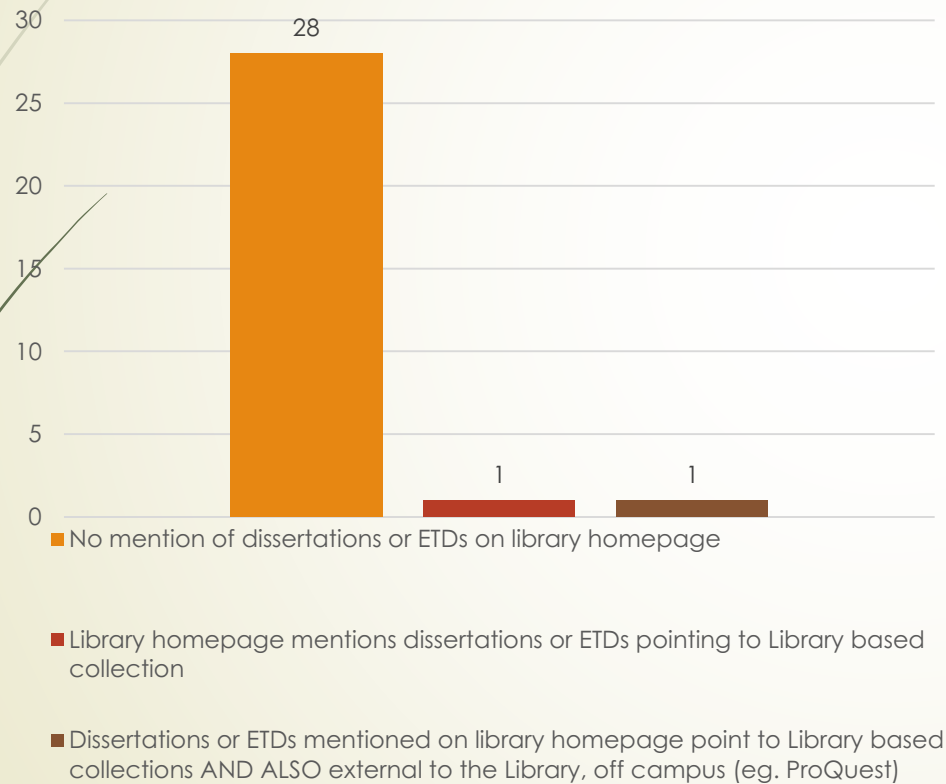
Call MSU: (517) 355-1855 | Visit: [msu.edu](#) | MSU is an affirmative-action, equal-opportunity employer. | [Nondiscrimination \(OIE\)](#)

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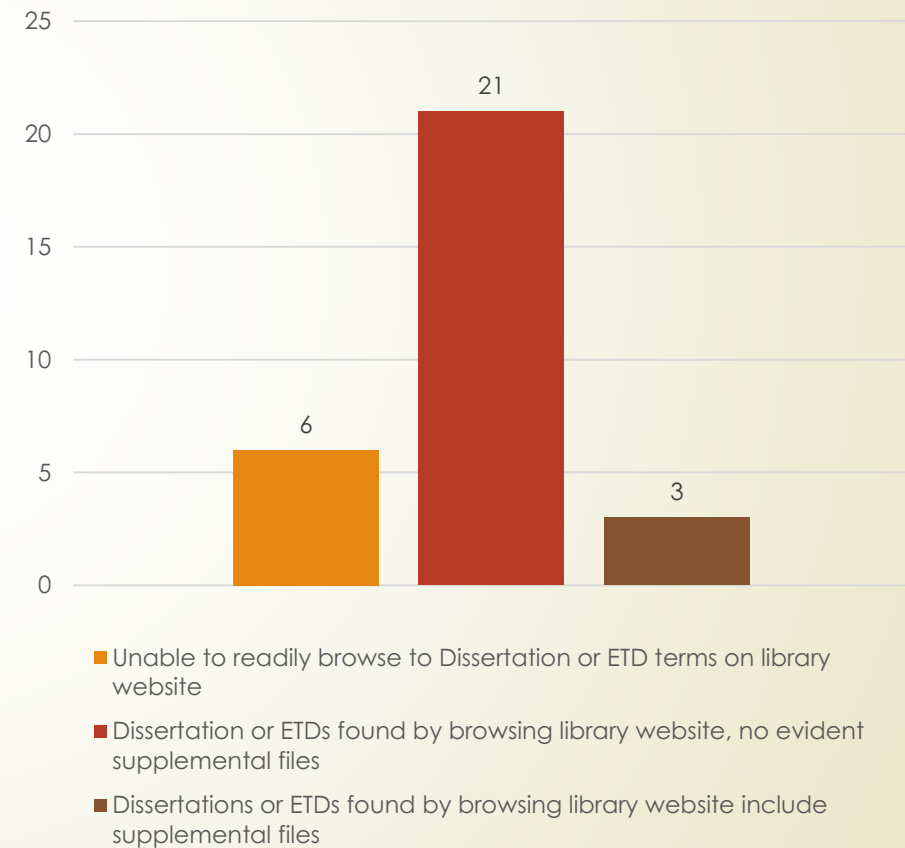


# Results were ...

Dissertations or ETDs on Library Homepage

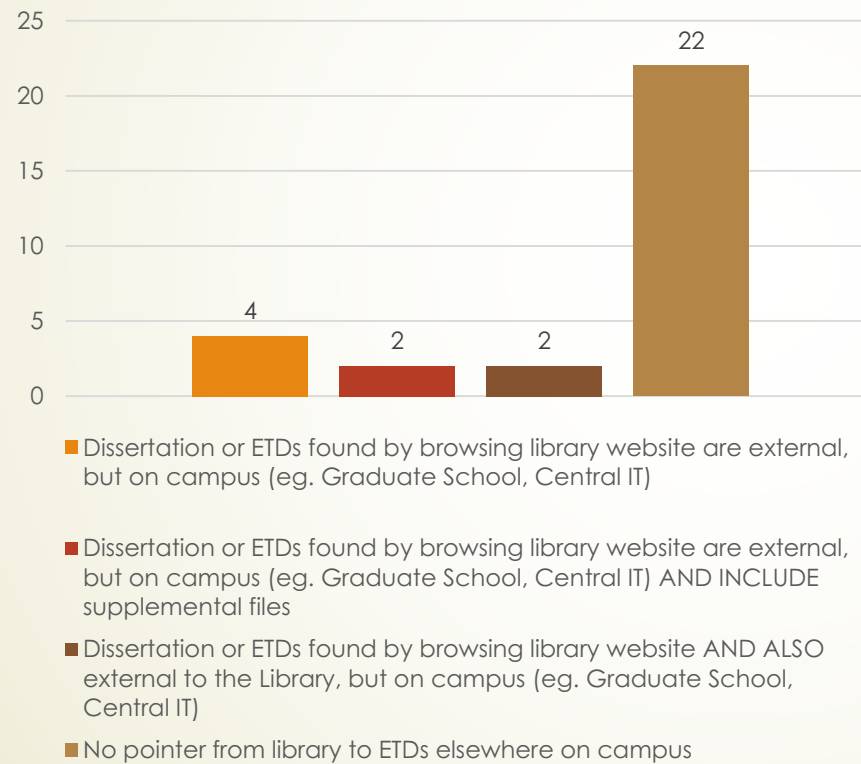


Browse Library Website for Dissertation or ETD terms

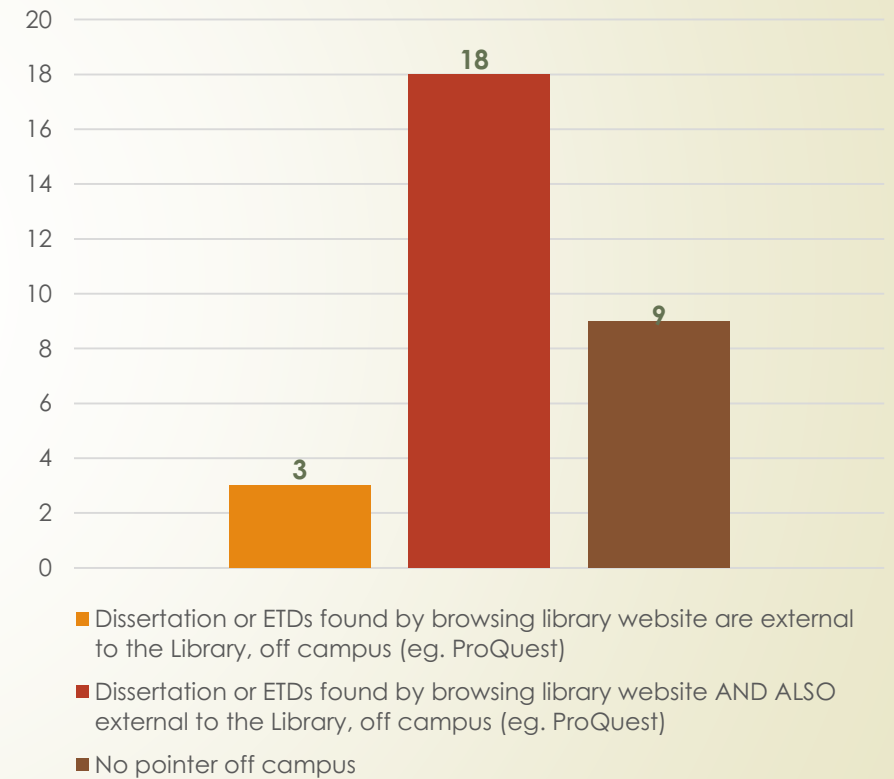


# Results were ...

ETDs found beyond library, on campus



Browse to ETDs not held on 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



The screenshot shows the 'About NTEP' page of the National Turfgrass Evaluation Program. The header features the title 'About NTEP' in red, with 'National Turfgrass Evaluation Program' in green below it. A navigation bar includes links: 'About Us', 'Latest Data', 'Previous Data', 'State Data', 'Onsite Data', 'Membership', 'Contact Us', and 'Turf Initiative'. The 'Latest Data' link is circled in red. Below the navigation bar is a section titled 'Overview' with a sub-header 'about us'. A bulleted list of links is provided: 'Overview', 'NTEP Organization', 'Test Procedures and Methods', 'NTEP Cooperative Efforts', 'Impact & Results', 'Staff', 'Contact Us', 'Membership', and 'Strategic Plan'. To the right of this list is a paragraph titled 'The National Turfgrass Evaluation Program' which describes the program's history and scope. Below the paragraph is a small image of a grass blade. At the bottom of the page is a footer with links: 'Back to Top', 'Home', 'Information', 'Services', 'Links', 'Data', 'News Room', 'Company', and 'Cooperator'.

**About NTEP**  
National Turfgrass Evaluation Program

[About Us](#) | [Latest Data](#) | [Previous Data](#) | [State Data](#) | [Onsite Data](#) | [Membership](#) | [Contact Us](#) | [Turf Initiative](#)

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*Overview*

*about us*

- [Overview](#)
- [NTEP Organization](#)
- [Test Procedures and Methods](#)
- [NTEP Cooperative Efforts](#)
- [Impact & Results](#)
- [Staff](#)
- [Contact Us](#)
- [Membership](#)
- [Strategic Plan](#)

**The National Turfgrass Evaluation Program** (NTEP) is one of the most widely-known turfgrass research programs in the world. From humble beginnings, NTEP has expanded to the evaluation of seventeen turfgrass species in as many as forty U.S. states and six provinces in Canada.

Information such as turfgrass quality, color, density, resistance to diseases and insects, tolerance to heat, cold, drought and traffic is collected and summarized by NTEP annually. NTEP information is used by individuals and companies in thirty countries. Plant breeders, turfgrass researchers and extension personnel use NTEP data to identify improved environmentally-sound turfgrasses. Local and state government entities, such as parks and highway departments, use NTEP for locating resource-efficient varieties. Most important, growers and consumers use NTEP extensively to purchase drought tolerant, pest resistant, attractive and durable seed or sod. It is the acceptance by the end-user that has made NTEP the standard for turfgrass evaluation in the U.S.A. and many other countries worldwide.

[Back to Top](#) | [Home](#) | [Information](#) | [Services](#) | [Links](#) | [Data](#) | [News Room](#) | [Company](#) | [Cooperator](#)



# 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?*

