User Perceptions of Engaging with Institutional Data: “We Don't Know What We Don't Know”

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"We Don't Know What We Don't Know"

This session will present lessons learned from a series of interviews with campus stakeholders and decision-makers on the challenges they encounter in their efforts to understand and use institutional data to support student success.

Session Outline:

✓ Institutional data context at our institution
✓ Purposes and methods of the current study
✓ Interview findings
✓ Discussion and recommendations

DISCUSSION PREVIEW:

It seems likely that some of our observations reflect distinct characteristics of our situation. We would like to hear from you:

❖ What’s similar to your experiences and observations on your campus? What’s different?
❖ How has your campus aligned its institutional data resources to support end users and address these kinds of perceptions?
Institutional data context at our institution

Public research university in Iowa City, Iowa

- 325 undergrad, grad, and professional programs in 12 colleges
- ~ 30000 students (~ 70% undergraduate)
- ~ 3000 faculty FTE (total across all tracks)
- No Office of Institutional Research

IR functions distributed throughout the Provost’s Office, the Registrar, and unit-specific data offices -- for example, within the Office of the Vice President for Research, the Division of Student Life, the Career Center, and University Hospitals & Clinics

“Matrix Model”  
(Swing & Ross, 2016)

Institutional data context at our institution

Periodic attempts to assess the institutional data landscape

- 2009 Strategic Task Force on Student Success
- 2012 Review of Capacity for Institutional Assessment
- 2015 Institutional Efficiency Review (commissioned by the Board of Regents)
- 2016 Business Intelligence Needs Assessment
- 2018 IT Strategic Plan Data Strategy

Recurring observations in previous assessments

- Perceptions of insufficient support for utilizing institutional data
- Perceptions of a need for organizational change
- Agreement that something more is needed, but varying perceptions of what’s needed, uneven understanding of what’s already available
Purposes and methods of the current study

In the Office of Assessment, our clients are primarily faculty members, department chairs, academic Deans, and undergraduate program coordinators -- not necessarily data professionals. How do these types of decision-makers and end-users perceive the university’s institutional data landscape?

Steps in the current study:

1. Reviewed prior reports of Task Force groups, planning committees, and external reviews
2. Reviewed IR structures and practices at peer institutions
3. Conducted open-ended interviews with academic leaders of colleges, departments, and programs
4. Sought input on 2021 interview findings from campus leaders and IR colleagues at peer institutions
5. Based on accumulated input, identifying and prioritizing potential next steps for the university
2021 Interviews

*Topics explored in open-ended interviews:*

- Examples of cases where they feel they’re making good use of institutional data
- Challenges they’ve faced with using institutional data, what they have done when faced with the challenges
- What support is available in their office or department? What support is needed?

**Themes arising from interviews:**

- Perceptions of data
- Perceptions of support
- Recognized unknowns

**NOTE ON METHODOLOGY:**

We see stakeholder perceptions as descriptions of their experiences, but we realize that sometimes they have only a partial understanding of situations they are describing.

When we report perceptions, it does not mean we agree that they fully or accurately describe the situation. However, we recognize that their perceptions represent what stakeholders are experiencing in the situation.
(1) Perceptions of data quality and access

Consistency

“Very siloed databanks.”

“One department will have their own dataset regarding data that other departments deal with on a daily basis but they or another department are not aware of.”

“Having many different datasets is an issue. What the university puts on their website is different than the reports that specific departments and the president send out annually. Different interpretations. Lack of transparency.”
(1) Perceptions of data quality and access

**Availability**

“Information not being able to be shared due to confidentiality -- a centralized campus unit could remove barriers and increase/streamline flow of information.”

“When the University sets objectives for the colleges, the University needs to either provide the relevant data, or give colleges the access to gather the data.”

“In general, a more customer-focused (with colleges as the customer) central UI data office would be much appreciated. In the past it has been challenging to get accurate reports from central UI ... and it felt like we were asking the central office for a favor when it should be considered part of their role ...”
(2) Perceptions of support for end-users and decision-makers

Usability

“It is one thing to have data, another to access data, most importantly ... how to interpret it and make use of it.”

“We have some great systems already. Most people don’t know where or how to get to data that might be useful in their jobs.”

“We have a BI user group ... more geared towards developers, etc. What we are lacking is outreach to those who aren’t in those arenas and have no idea that data exists or what to do with it. Mostly administrators and instructors.”
(2) Perceptions of support for end-users and decision-makers

Training

“Wish a centralized IR office or embedded data analysts existed to coordinate frequent data-driven meetings among deans and department leadership.”

“People are flooded with all kinds of data and information to the extent that it is not easy to get to know what are available and how to access them ... It would be helpful to have training sessions once in a while on what are available and how to access them.”

“We want training but sometimes we don’t know what training is needed in order to interact with data and/or make data-informed decisions.”
(2) Perceptions of support for end-users and decision-makers

**Person Power**

“I feel like [we are] oftentimes starting from scratch each time we’re pulling data for reports, in part because we do it so sporadically that we just don’t remember how to without keeping good notes and documentation.”

“A centralized IR office would help areas who do not have an embedded assessment coordinator or data analyst.”

“While I think it’d be great to have a centralized IR office, I have mixed feelings ... The people hired need to actually understand the data and business rules to provide meaningful and accurate data ... [not] people who can create a pretty dashboard but have no actual knowledge of the data.”
(2) Perceptions of support for end-users and decision-makers

Systems

“The [...] portal is a nightmare to use; there are about 15 different filters to select in order to generate a report. Many end users don’t understand the business rules, so they don’t know which filters to select to obtain the relative data to their department.”

“Some of the data systems are clunky. […], for example, is designed really for tech-savvy people. Our typical faculty … [or] staff member finds it hard to find things and hard to navigate …

“It is sometimes difficult to figure out who has access to which report as this is buried under several layers of menus.”

“Dashboards created for our college have not been useful because they did not listen to the needs of the college, don’t understand the data and don’t clearly label items in a way the makes sense to the end user.”
(3) Unknowns: “We don’t know ...”

... where to go

“Hard to get information unless you know the right people.”

“Very satisfied with being able to utilize institutional data. However, you need to know the right person. We need a ‘One stop shop.’”

“I’m not sure where we would share what we learned [from a program innovation] ... Also, I’m not sure where we would look to hear what others are doing with similar initiatives in other colleges.”
(3) Unknowns: “We don’t know …”

... who knows what

“It’d be great if there was some place on the web that units can go to know who to contact for help.”

“I just don’t know the entire landscape of what is out there and who can help.”

“Sometimes the left hand and right hand are going opposite ways and that is very confusing …”

“There needs to be administrative oversight with a strong leader who can build effective relationships, understand different types and uses of data, and have influence in the Provost Office to build opportunities and understanding from an academic standpoint …”

“The technology is awesome, but it doesn’t start with that.”
(3) Unknowns: “We don’t know …”

... what we don’t know

“We simply cannot work in separate buckets with the left hand not knowing what the right hand is doing. It is confusing for faculty, for students, for staff and inconsistent data is worthless. This has been a long-term concern on campus. People don’t know what they don’t know and ... interpretation of data is much more critical than the data itself.”

“Are we reinventing the wheel?”

“Better systematic reporting would be greatly appreciated. Especially, it would help to know what some options might be, so we know what we’re missing!”
Follow-up interviews based on themes in 2021 interviews:

- **Perceptions of data quality and access**
  - Consistency
  - Availability

- **Perceptions of support for end-users and decision-makers**
  - Usability
  - Training
  - Person power
  - Systems

- **Perceived unknowns: “We don’t know ...”**
  - ... where to go
  - ... who knows what
  - ... what we don’t know

We prepared a written summary of previous reviews, peer practices, and 2021 interviews, and used it as a basis for a second series of interviews with senior campus leaders and institutional research colleagues at peer institutions:

- How does this align with your observations and experiences?
- What next steps would you recommend?

Responses to the second series of interviews in 2022 can be characterized as falling into one of four groups:
Observations from 2022 interviews with Senior Leaders and IR Colleagues

<table>
<thead>
<tr>
<th>Type 1: Appreciative</th>
<th>Type 2: Strategic</th>
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<tbody>
<tr>
<td>Agreed that the 2021 summary is consistent with their experience, agreed that issues need urgent attention</td>
<td>Agreed that the 2021 summary is consistent with their experience, observed that some user challenges may be a function of lack of awareness, misperceptions, or unrealistic expectations on the user’s part</td>
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<td>Responded with suggestions for more communication, coordination, and training, many of which echoed ideas suggested during the first round of interviews</td>
<td>Responded with suggestions targeting users’ functional needs, focused less on particular offices or structures</td>
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<tr>
<td>➢ More central oversight, more training, more information, web site directory with data sources and contact people, centralized IR office</td>
<td>➢ More consultation, support to help users know what to ask from data and how to use it, data literacy initiatives, more transparent data governance</td>
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Office of Assessment
Observations from 2022 interviews with Senior Leaders and IR Colleagues

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<th>Type 3: Puzzled</th>
<th>Type 4: Cautious</th>
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<td>Observed that data are readily available; suggested that units need to improve their understanding of the complexities of working with institutional data.</td>
<td>Observed that their unit manages its own data needs; not sure more central involvement would help</td>
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<td>The most important thing for the university is to be more clear about what problems need to be solved.</td>
<td>The most important thing is to provide accurate, relevant data, because the university’s numbers don’t always match the unit’s numbers or answer the unit’s questions</td>
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</table>
| ➢ *You need a better problem statement* | ➢ *It’s important to get the numbers right*  
➢ *Will central administration of institutional data be used to exercise control over campus units?* |

assuming high degree of data efficacy  
reflecting some degree of data privilege
Observations from 2022 interviews with Senior Leaders and IR Colleagues

- Appreciative
- Strategic
- Puzzled
- Cautious

Response types offer a range of perspectives on campus data user needs.

- All are partial, and all have some basis in experience. However, addressing issues identified by one group won’t necessarily address issues identified by others.
- Most on-campus interviewees seem to think about campus data practically and locally, not strategically or institutionally.
- In both of rounds of interviews, respondents readily offered strategies for addressing institutional needs as they saw them.
Where do we go from here?

<table>
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<th>User-identified needs that are overlapping and interconnected</th>
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<td>Need for a central hub to address functional gaps identified by users ...</td>
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<td>➢ In terms of data needs and uses, not organizational structures</td>
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<tr>
<td>In that hub, can’t be everything to everyone ...</td>
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<tr>
<td>➢ Identify priorities, parameters, unmet needs</td>
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<td>If that hub takes the form of a central office ...</td>
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<tr>
<td>➢ Both/and, “a front door rather than a gatekeeper”</td>
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<tr>
<td>Need for proactive, institution-encompassing oversight of data governance, data literacy, and strategic planning for future institutional data needs</td>
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<th>Distinct strategies that may operate independently</th>
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<td><strong>User Success</strong></td>
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<td>Expand client-centered, user-friendly practices</td>
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<td><strong>Institution Needs</strong></td>
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<td>Identify institution-level priorities and gaps to fill</td>
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<td><strong>Institution Assets</strong></td>
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<td>Determine and align institutional roles for supporting data users</td>
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## Action items suggested by interviewees

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- **Usability studies of existing, newly created resources**
- **Determine what makes sense to centralize institutionally**

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- **Build on priorities and needs identified in the Strategic Plan**
- **Facilitate formation of data user learning communities**
- **“Hub and Spoke” model to coordinate resources and identify where more central support is needed**
- **“a front door, not a gatekeeper”**

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- **Provide central resources to support campus understanding of data governance and data literacy in user-friendly accessible terms**
- **Establish an Institutional Data Strategy group that includes campus, college, department, and IT leaders**
- **Provide a more transparent map to our current “matrix model” -- what’s available, who to contact ...**

- **Pilot new strategies, structures in high priority areas that need added support**

**Data Consulting Services -- also described by interviewees as coaching, office hours, a librarian, a docent, or a data concierge**
Discussion

It seems likely that some of these observations reflect distinct characteristics of our situation. We would like to hear from you:

- What’s similar to your experiences and observations on your campus? What’s different?
- How has your campus aligned its institutional data resources to support end users and address these kinds of perceptions?
- There’s progress to be made in many areas, and no single course of action is going to address the full set of issues that have been identified. Where do we start?
Suggested places to start

Data Consulting Services -- also described by interviewees as *coaching, office hours, a librarian, a docent, or a data concierge*

Establish an Institutional Data Strategy group that includes campus, college, department, and IT leaders

Provide a more transparent map to our current “matrix model” -- what’s available, who to contact …

Facilitate formation of data user learning communities

Usability studies of existing, newly created resources

Determine what makes sense to centralize institutionally

Provide central resources to support campus understanding of data governance and data literacy in user-friendly accessible terms

“Hub and Spoke” model to coordinate resources and identify where more central support is needed

“a front door, not a gatekeeper”

Build on priorities and needs identified in the Strategic Plan

Pilot new strategies, structures in high priority areas that need added support

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Suggestions?

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