Data Governance & Analytics at ECU

Data Governance

- Data Governance Steering Committee
  - 9 members (4 from ITCS, 2 from IR, 1 faculty rep, 1 student rep, & chair of DSC)

- Data Stewardship Committee
  - 17 voting members representing different data domains
  - DGSC members (ex-officio, non-voting)
  - Data Governance Awareness & Education sub-committee
  - Identity Theft Protection sub-committee
  - Various working groups

Analytics

- Institutional Research
  - Director, Associate Director, 4 Research Associates

- ITCS Enterprise Data Services
  - Includes Enterprise Analytics & Business Intelligence

- Analytics Development Community
  - Meets monthly
  - 66 members from across campus

First attempt

- In spring 2021, sparked by a discussion with UNC system office personnel, ECU's DGSC began investigating analytics maturity assessment instruments.

- First tool piloted: [MATURITY MODEL FOR INSTITUTIONAL INTELLIGENCE v1.0](#)
  - Developed specifically for use in higher education
  - Primary authors from Spain with contributions by authors from UK, Germany, & US

- Administered to only a few IR and ITCS staff as a pilot.

MATURITY MODEL FOR INSTITUTIONAL INTELLIGENCE v1.0

- Institutional Intelligence (I2) assessed along nine dimensions on a scale from 1 to 5 (1=Absent, 2=Initial, 3=Expanding, 4=Consolidated, 5=Institutionalized): (ECU scores)
    - I2 Team: The existence and organization of an II team (4)
    - Scope: The breadth of scope of the II platform in terms of key functional areas included (4.4)
    - SBU Role: The role of business units in the information supply chain (4)
    - Data Products: The level of sophistication of the data products being offered to the users (3.6)
    - User Coverage: The level of coverage of the potential universe of users (3.6)
    - Users Engagement: The role of the users of the resulting data products (4)
    - Data Management: The effective address of the most relevant aspects of data management (3.4)
    - Business Value: The perceived business value of the data products being offered (3.8)
    - Strategic Support: The position of the institutional intelligence initiative in the institutional strategy (4)
- Overall score (3.8; Consolidated) obtained with status of Incomplete, Centered, Unbalanced, or Evolved (Unbalanced)

OVERALL MATURITY LEVELS

LEVEL	NAME	GENERAL DESCRIPTION
1	ABSENT	No formal institutional intelligence initiative is in place, or it is in such an early state that it cannot be perceived as such. Data usage is, in general, limited to operational contexts.
2	INITIAL	The notion of data as a valuable asset that must be provided to certain addressees in an efficient, trustworthy way is perceived in some functional areas, and some local initiatives arise. Small scale, local success stories regarding data analysis services may happen.
3	EXPANDING	The potential of data to empower the institution at all levels is clearly perceived. There is a strong desire to build on the small, local institutional intelligence success stories and translate that success to a bigger, global scale. The first global, coordinated efforts are put in place and gradually incorporate/substitute the previous local initiatives.
4	CONSOLIDATED	Institutional Intelligence is clearly established as a permanent, global, visible, and valued program resulting in an effective internal service. Several data products targeted to different user groups and covering different functional areas have been created and are actively used.
5	INSTITUTIONALIZED	Institutional intelligence forms an integral part of the institutional culture, and is taken for granted. Its effective use by all relevant user groups through an extensive set of data products covering all key functional areas is very high.

MATURITY LEVEL CHARACTERIZATION

INCOMPLETE	The achieved maturity level is weak, and suggests the need of leveling the low scoring dimensions to consolidate it.
CENTERED	The level is well consolidated and the initiative is balanced.
UNBALANCED	The achieved maturity level shows an unbalanced general situation where efforts must be made to improve the weak dimensions (probably by taking advantage of the strong ones).
EVOLVED	The achieved maturity level shows a transitioning situation to the next overall maturity level

MATURITY MODEL FOR INSTITUTIONAL INTELLIGENCE v1.0

- DGSC decided not to continue use of this assessment instrument for several reasons, including the following:
  - Instrument very complex.
  - Concepts difficult to explain, even to people most involved in analytics & business intelligence.
  - Challenging to establish goals/actions for increasing maturity based upon responses.

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Next tool

- Analytics Institutional Self-Assessment

  – Developed by EDUCAUSE

  – Designed to help analytics professionals understand the level of analytics capabilities at their institutions and get some ideas about how to improve those capabilities.

  – Consists of almost 30 questions and divided into sections on Workforce (WF), Data Governance (DG), Data Management (DM), Leadership (L), and Data-Informed Culture (DIC).

  – Each question rated on a 3-point scale (low, medium, or high maturity).

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Analytics Institutional Self-Assessment
Sample Question

- Data Governance

  - There are clear and widely communicated data definitions and standards.

    - Data definitions are not consistent across the institution. Some progress may be underway to establish data definitions, but details are not well-communicated. There is no central source or data dictionary for defining key terms, or such resources are out of date. (Low maturity)

    - Data are somewhat or mostly well-defined and understood. Communication about data definitions and standards could be improved. There is a data dictionary or similar resource available, but it may be incomplete or need improvement. (Mid-level maturity)

    - Data are well defined and understood, with consistent cross-institution communication about data definitions and standards. There are source(s) such as data dictionaries readily available for staff to reference. (High maturity)

[Analytics Institutional Self-Assessment](#)
Administration, Round 1

- Assessment items distributed to members of the DGSC, the DSC, and the ADC (N=66) as a Qualtrics survey.

  – Only two-thirds opened the survey; about 1/3 completed it.

- Most notable result: Large variance in responses, not explained by unit or group.

  – Perhaps due to misunderstanding of terms & lack of university-wide communication or education about data governance.

- Working group formed to review, revise, pilot, and revised again.

  – Revision was focused on clarifying survey questions (e.g., defining terms) and making questions more specific to ECU. Some questions were eliminated. On the revised survey, a 5-point response scale was used.

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Analytics Institutional Self-Assessment
Revision, Sample Question

WF **Workforce (non-management employees both in central IT and across the institution)**

WF1 **Data literacy is a cross-institutional focus here at ECU.** (Data literacy is the ability to understand and communicate about data in context, including the range of skills and knowledge necessary to find, manage, evaluation, create, and communicate about data. The depth of data literacy required for each person depends on the role or position.)

	There is no focus on data literacy based upon the lack of written policies, training, or development efforts.	Many understand the importance of data literacy due to our written policies, training, and development efforts.	Data literacy is universally understood by everyone due to our written policies, training, and development efforts.
	1	2	3	4	5

Click on slider to move.

Analytics Institutional Self-Assessment
Administration & Results, Round 2

- Revised survey was distributed during the 22-23 academic year, again to members of the DGSC, DSC, and ADC.

- 84 people received the survey. Just over half opened; about 1/3 completed it. (No improvement in response rate over first administration.)

- Same variation in ratings as in round 1 indicating a continued need for more communication and education of the campus community about analytics.

- Although there were individual responses on the low end of the response range (1s & 2s), no average was below a 3 indicating mid-range analytics maturity.

- Respondents indicated ECU had highest level of maturity in areas of data governance & data security.

- The items with the lowest overall ratings (although still at a mid-range maturity level) are listed below. They are organized into priority categories based upon overall maturity rating averages and ranges, with Priority 1 items requiring the most immediate and greatest action. Highlighted items are those targeted by DGSC as those to improve next administration of survey.

    - PRIORITY 1:
        - Data literacy is a cross-institutional focus here at ECU.
        - Role agility is a cross-institutional focus when it comes to analytics here at ECU.
        - Where to acquire, and how to interpret, data to track metrics and make decisions is common knowledge at ECU.

    - PRIORITY 2:
        - Expenses related to data analytics (e.g., salaries for data analysts, professional development for data analysts. software for data analysis, etc.) are seen by leaders as an investment.
        - ECU is adept at change management.
        - There are clear and widely communicated data definitions and standards.

    - PRIORITY 3:
        - When it comes to analytics at ECU, communication and collaboration among units are common.
        - There are jobs or roles related to analytics outside of IT or IR.
        - Data analytics is used to make decisions, track progress on goals, and adjust institutional course as it specifically relates to supporting the access, representation, persistence, and success of a diverse student, staff, and faculty body (DEI).

Analytics Institutional Self-Assessment
The Future at ECU

- Decisions made by the DGSC about the assessment:

  – The assessment should be redeployed every two years in the spring (to allow time for data collection, review, and implementation of actions). Thus, the next deployment would be spring, 2025.

  – Before another assessment in 2025, the DGSC will discuss whether (and how) the survey audience should be broadened.

  – The DGSC meeting in late May/early June following survey administration will be devoted to reviewing the survey results and creating/prioritizing actions to be taken to improve analytics maturity at ECU.

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