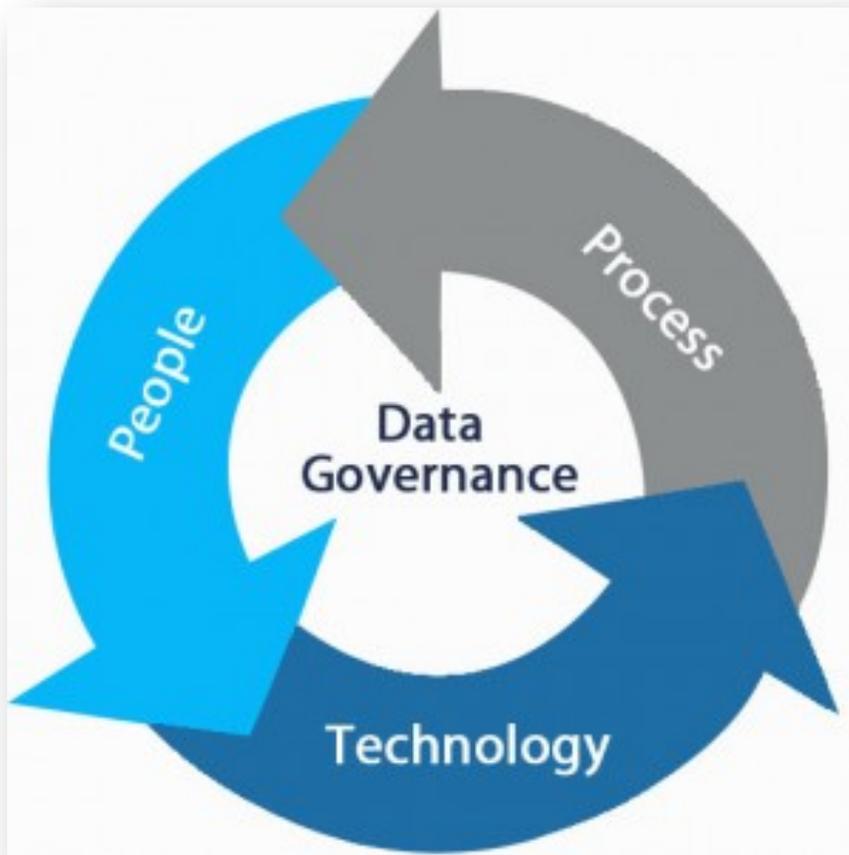


# New River Community and Technical College

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## *Proposal for a Data Governance Program*



*We are drowning in information and starving for knowledge.  
– Rutherford D. Rogers*

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## Overview, Background, and Abstract

As part of the Ellucian Action Plan (developed in 2014), New River CTC obtained a quote from Ellucian to assist us with creating a data governance structure that would formalize our procedures for identifying responsibilities and procedures related to how we manage our data as a resource. Although the quote was not affordable for us at the time, our **Ellucian Super User Group** proposed that we proceed with creating this internal structure and the **Ellucian Steering Group** was in support of this initiative. Although these two groups made significant progress on many of the Ellucian Action Plan goals, they did not complete the data governance structure that was needed and both groups have been inactive since 2016, when the 3-year Ellucian Action Plan ended.

We are revitalizing this data governance initiative by first establishing a small core group composed of only Dara Fann, Steve Lacek, and Dave Ayersman to do some initial research and planning during the summer of 2018. To date, this effort has resulted in a focused plan of action (this document) which we plan to share with the President's Cabinet in August 2019 to inform them, gain their support, and their endorsement for this College-wide initiative. Additional planning and implementation will then occur during the fall of 2018 and continue into spring 2019.

There are many constraints that will impact this initiative. Assumptions we are making from the outset of planning are that:

- (1) we have no additional budget or personnel for this initiative,
- (2) our timeline is self-created and somewhat flexible although we will strive to complete this project in one academic year, and
- (3) the overall initiative will be broken into smaller and more manageable tasks that will require buy-in and support from multiple personnel (and supervisors).

Through the creation of a data governance structure we will identify data **owners** and **stewards** to be responsible for specific systems as well as internal procedures (working collaboratively with the **Chief Data Officer**, the Retention and Records Committee and others) to create a formal understanding of how the College manages its data resources. Existing personnel will be charged with these responsibilities and will obtain expertise and information from external sources, such as the **Data Governance Institute** and **Lynda.com**.

The Data Governance Institution (DGI) is an excellent source of in-depth, vendor-neutral best practices and guidance for data governance. The framework they provide is used throughout the world as a basis for data governance programs. The DGI Data Governance

Framework is designed to assist organizations and we plan to learn from it and apply it to our own plan. The following is a quote from their site:

*All organizations need to be able to make decisions about how to manage data, realize value from it, minimize cost and complexity, manage risk, and ensure compliance with ever-growing legal, regulatory, and other requirements. Management and staff need to make good decisions – decisions that stick. They need to reach consensus on how to “decide how to decide.” They need to create rules, ensure that the rules are being followed, and to deal with noncompliance, ambiguities, and issues. In short, they need to do more than manage data; they need a governance system that sets the rules of engagement for management activities. Small organizations, or ones with simple data environments, may be able to succeed in these goals through an informal system of governance. They may not even be aware of when they are switching between making management decisions and broader governance decisions. On the other hand, larger organizations, or ones with more complex data or compliance environments, generally find that they need to step back and agree upon a more formal system of governance.*

## Milestones and Timeline

This proposal utilized a *Planning and Roadmap Tool* to develop both high-level and detailed tasks that comprise the overall initiative. This table (see below) of key milestones and timeline is derived from that information and provides an effective high-level view of the initiative.

Milestones	Who	Timeline
Identify Data Governance Requirements	Stewards	05/2018
Research Data Governance Topics and Locate Supporting Information	Stewards	05/2018
Identify Current State and Complete Gap Analysis	Stewards	05/2018
Develop Responsibilities by Role	Stewards	06/2018
Identify and Complete Data Governance Training	Stewards	06/2018
Create a Project Communication Plan	Stewards	09/2018
Develop a Business Data Glossary (Data Definitions)	Owners	10/2018
Develop Implementation Plan	Stewards	10/2018
Complete Data Governance Training	Owners and Board	10/2018
Create Data Entry and Provenance Procedures	Owners and Stewards	11/2018
Create Data Entry Procedures	Owners and Stewards	11/2018
Create Information Security Procedures	Stewards	11/2018
Supervise, Manage, and Monitor Data Governance Efforts (Calendar of Audits and Routine Reporting)	Owners, Stewards and Board	05/2019

This proposal attempts to connect related organizational initiatives and obligations as appropriate. For example, BRIM provides the College an insurance policy that has recently been modified to include coverage for cyber information security and privacy. There are clear expectations for the College to address a number of issues in this area while providing

documentation and evidence of completion (evidence of confidentiality agreements, privacy awareness training, etc.). An effective *Information Security Procedure* would encompass much of this and we simply haven't yet created such a procedure for the College. This procedure (and others) will be created as components of this data governance initiative. Once completed, it is our hope that having these procedures in place will allow for additional progress in the near future by ultimately creating *Telework Procedures* and other guides for meeting the needs of an increasingly technology-savvy workforce. But clearly, we see establishing these guidelines for data security and management as foundational and a prerequisite to this type of further improvement.

## Planning Activities

### **1. Vision, Mission, and Purpose**

*A data governance program should be an enterprise-wide initiative rather than an initiative at the division or business unit level. A common vision will articulate the state the organization wishes to achieve and how it will reach that state. Visioning helps to develop long-term goals and direction. Multiple opinions and perspectives should be integrated into the overall vision for data governance.*

#### **1.1 Vision**

New River CTC is dedicated to creating a data governance program to establish agreed upon standards and procedures for inputting, processing, verifying, retrieving, archiving, and restoring data with clearly defined and shared responsibilities among stakeholders.

#### **1.2 Mission**

This data governance program will help New River CTC to successfully manage and maintain data resources, ensuring the integrity, reliability, availability, and compliance of organizational data and information resources.

#### **1.3 Purpose**

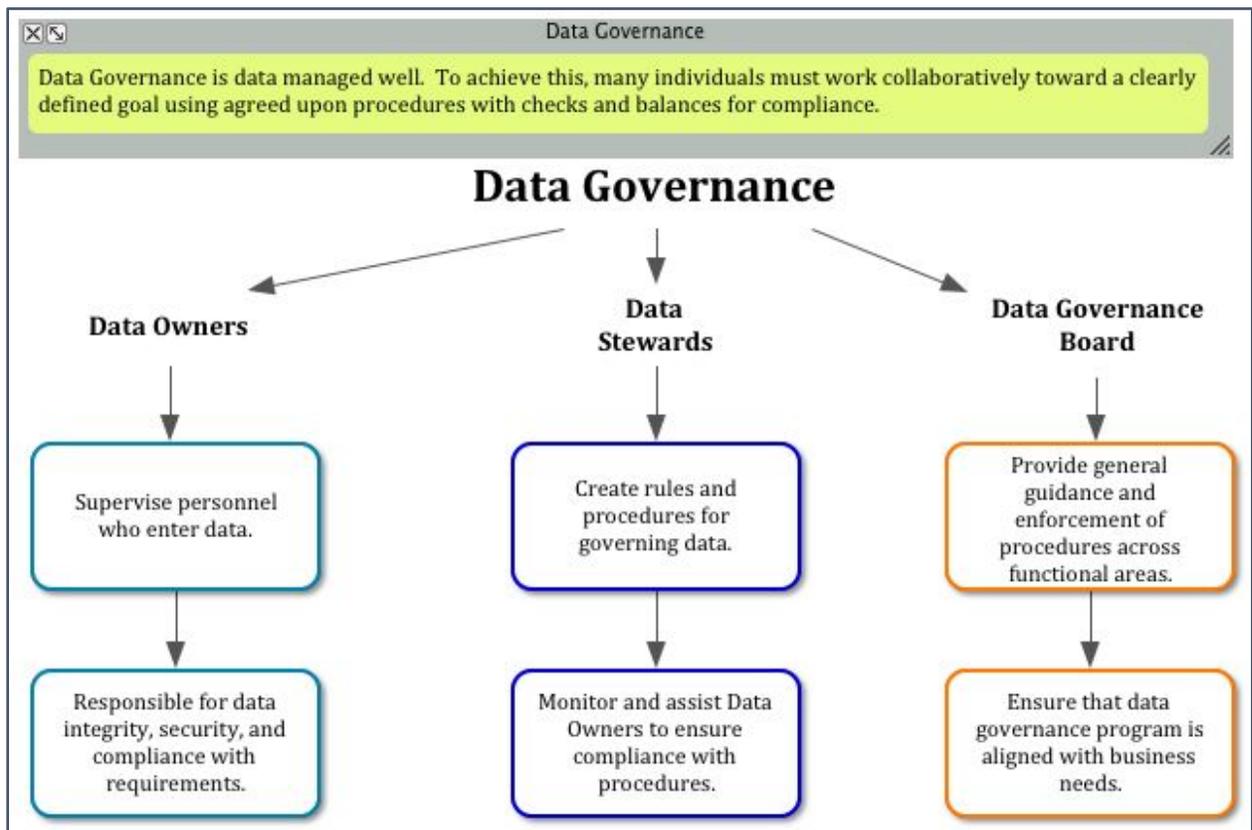
As a still relatively new institution, New River CTC has not yet established standards and procedures to guide data governance. While the institution has invested in multiple analytics products (Blackboard Analytics, Argos, etc.) to improve access to data for decision-making, these investments are not yet fruitful. Data stewards and data owners have not been clearly identified nor charged with responsibilities. Additionally, data standards have not yet been clearly established with accompanying procedures to ensure they are followed. A strong collaborative effort involving a number of personnel and offices will be required to complete this initiative.

This proposal strives to resolve these issues by aligning business goals and strategies with IT strategies and objectives as follows:

<b>Business Goals</b>	<ul style="list-style-type: none"> <li>• Standardize data entry procedures.</li> <li>• Improve quality and validity of data.</li> </ul>
<b>Business Strategies</b>	<ul style="list-style-type: none"> <li>• Establish procedures and guidelines to ensure integrity of data.</li> </ul>
<b>IT Strategies</b>	<ul style="list-style-type: none"> <li>• Leverage technology to automate and streamline processes.</li> <li>• Use data to provide insight to business decision making.</li> </ul>
<b>IT Objectives</b>	<ul style="list-style-type: none"> <li>• Generate a high degree of user trust in the organization’s data.</li> <li>• Ensure data is of high quality through consistent processes for data auditing, data escalation, and data monitoring.</li> </ul>

## 2. Establishing Roles and Responsibilities

We’ve created the following diagram to depict the roles and responsibilities that will be used at New River CTC for our data governance initiative:



## 2.1 Data Owners

*Identify and document data owners within the organization. Clearly define their roles and responsibilities. Remember that when there are decision points as to when someone should be granted permission to access data, a data owner must exist.*

**Data owners** are charged with responsibility for data and are accountable to an authority (Data Stewards) who have an enterprise perspective. Ownership means being held accountable for such things as data integrity, security, and compliance requirements. Most data owners supervise employees tasked with inputting data, so ownership includes oversight of these personnel and ensuring that data integrity is maintained by all persons involved.

Organizational Area	Data Owner	Data Set
Academic Affairs	Jan Schofield	<b>Banner</b> (course definitions, academic programs) and <b>DropGuard</b> (attendance)
Academic Affairs	Tamara Rahal	<b>Banner</b> (course schedules, instructor assignments)
Admissions	Tracy Evans	<b>Banner</b> (admissions) and <b>Comevo</b> (online orientation)
Finance	Gerald Shields	<b>Banner</b> (finance and budget)
Financial Aid	Deena Ritchie	<b>Banner</b> (financial aid)
Foundation	Michael Green	<b>Blackbaud</b> (donor and alumni) and <b>Quicken</b> (foundation budget and scholarships)
Human Resources	Amanda Baker	<b>Banner</b> (employee information)
Information Technology	Steve Garlow	<b>Active Directory</b> (authentication source, account creation, email)
Workforce	Gloria Kincaid	<b>Banner</b> (course schedules and instructor assignments)

## 2.2 Data Stewards (and the Chief Data Officer)

*Identify and document data stewards. Clearly define their role within the organization and their responsibilities in terms of data. If possible, appoint people already interested and involved in data quality.*

**Data stewards** have enterprise authority and are ultimately responsible for data governance. They create the rules and processes for governing data and anticipate that data owners will follow these rules and processes. For New River, three personnel will collaboratively serve in this role and they are Steve Lacek, Dara Fann, and David Ayersman. The Director of Institutional Effectiveness and Grants (Lacek) also has the **Chief Data Officer** (CDO) responsibility.

*To truly appreciate the increasing need for the CDO's role, one must first understand that 90% of the world's data was created in the past two years alone (Forbes, 2018).*

The Chief Data Officer role is an evolving one with some literature suggesting it should be a C-level executive position. At New River this would equate to being a member of the President's cabinet. This proposal **doesn't recommend any changes** to the President's cabinet structure. Because our organization is so small we recommend periodically inviting the CDO to cabinet meetings as needed. Additionally, the literature indicates that the CDO most often reports to the CIO – although there is no single answer to where the CDO should report. This proposal **doesn't recommend any changes** to the reporting structure at New River because the CDO and CIO will assuredly have a very close working relationship given that they comprise two of the three identified **Data Stewards**. In fact, having the CDO report to someone outside of IT ensures that the entire Data Governance initiative **isn't** perceived as only an "IT project", but is instead understood to be a College-wide initiative with executive-level support and enforcement.

The CDO must be able to understand both the technical points of data management, as well as the business drivers and needs regarding data. The CDO establishes data procedures and standards while working closely with IT to implement them. The **CDO is the go-to person for data-related issues within the company and is essentially the overall manager of the data governance initiative** – while working closely with others in functional areas and in IT.

### 2.3 Data Governance Board (President's Cabinet)

*The steering committee that will drive the governance project must consist of both business and IT representatives that understand the data needs of the business and the technological constraints of the existing IT infrastructure and applications. Document the core objectives, responsibilities, and frequency of meetings. This group is responsible for data management, i.e. how it is used, generated, and curated. Taking a cross-functional approach and including inputs from senior managers and C-suite executives will help ensure the data governance program is aligned with the business needs.*

While data stewards work independently, they rely on the **Data Governance Board** for general guidance and enforcement across functional areas. This proposal recommends that the President's Cabinet serve as the Data Governance Board by helping to communicate the value of data governance throughout the College and by supporting its enforcement. We feel that reliance on this existing group of cabinet-level personnel will best ensure that the data governance program is aligned with business needs and that goals and policies are enforced.

Data Governance Board (President's Cabinet)	
<b>Core Objectives:</b>	Ensure that periodic audits are conducted to verify security and appropriate usage of data resources.

<b>Responsibilities:</b>	Periodically review data governance issues and processes to ensure that institutional needs are addressed and that procedures are being enforced.
<b>Frequency of Meetings:</b>	Meets twice a month, particularly during Fall and Spring terms. Data governance topics to be reviewed as needed with periodic updates from CDO.

### **3. Training and Procedures for Data Governance**

*Procedures are brief statements that seek to manage the creation, acquisition, integrity, security, compliance, and quality of data. These procedures vary among organizations. Document the procedures to be developed and implemented depending on your specific data needs. Training for data governance will be particularly important as we expect to rely on existing personnel to implement this overall initiative.*

#### **3.1 Training**

Training is needed not just for the broad topic of data governance, but also for specific areas within data governance. For example, BRIM (the West Virginia Board of Risk and Insurance Management) requires us to document that we train employees on Privacy and Security Awareness Training. These topics (and other requirements from BRIM) are components of our overall data governance initiative and we will identify, provide, and manage training related to these requirements as part of this initiative.

We’ve created a playlist for Data Governance in **Lynda.com** and plan to use it to increase expertise for those of us involved in this effort. To date, the Data Stewards have completed this training and we have enrolled all members of the **Data Governance Board** so they can be next to complete it. Following that, **Data Owners** and their subordinates will complete the training. The following information is from one of the training sessions in Lynda.com:

*Managing data is concerned with the use of data to make good business decisions while data governance is the degree to which we use disciplined behavior across our entire organization in how we manage our data. At a high level, data governance is simply data that is managed well.*

The **Lynda.com** playlist we’ve created for Data Governance contains the following information:

1. Course: Learning Data Governance (41m 4s)
  - a. Video: Data Governance Definition and Basics (2m 32s)
  - b. Video: Data Governance Focus Areas (3m 37s)
  - c. Video: Data Quality and Governance (4m 29s)

### 3.2 Procedures and Policies

New River has already developed some internal procedures and policies for managing aspects of our overall Data Governance initiative, while others are yet to be developed. The policy owner will be responsible for documenting the policy, communicating the change, and monitoring the outcomes. Links are provided for procedures and policies that have been developed and will be added for others as they are completed.

Procedure	Topic and Objective (with Links)	Owner
<i>Computer Use Policy</i>	Provides acceptable use information for College-owned computer and network resources. <a href="https://web.newriver.edu/procedures/computer-use-policy.pdf">https://web.newriver.edu/procedures/computer-use-policy.pdf</a>	CIO
<i>Operating Rule #16</i>	<a href="https://www.newriver.edu/wp-content/uploads/2018/04/or_16_computer_use.pdf">https://www.newriver.edu/wp-content/uploads/2018/04/or_16_computer_use.pdf</a>	
<i>Confidentiality Agreement</i>	Enables employees to accept responsibility for managing and protecting confidential information. <a href="https://www.newriver.edu/wp-content/uploads/2018/07/confidentiality-agreement.pdf">https://www.newriver.edu/wp-content/uploads/2018/07/confidentiality-agreement.pdf</a>	CHRO
<i>Data Cleansing and Quality Policy</i>	Decreases the amount of duplicate and incomplete data within enterprise systems. <b>TBD</b>	CIO
<i>Email Retention Procedure</i>	Describes procedures for retaining and accessing emails. <a href="https://web.newriver.edu/procedures/email-archive-procedure.pdf">https://web.newriver.edu/procedures/email-archive-procedure.pdf</a>	CIO
<i>Guidelines for Data Classification</i>	Establishes guidelines for classifying institutional data. <b>TBD</b>	CIO
<i>Information Security Policy</i>	Includes procedures for responding to cybersecurity incidents, evidence of confidentiality agreements, privacy and security awareness training, and privacy policy information. <b>TBD</b>	CIO
<i>Records Retention Procedure</i>	Explains requirements and procedures for retaining records. <a href="http://intranet.newriver.edu/images/publicdocs/HR/procedures/Procedure_42-Records_Retention.pdf">http://intranet.newriver.edu/images/publicdocs/HR/procedures/Procedure_42-Records_Retention.pdf</a>	CDO