

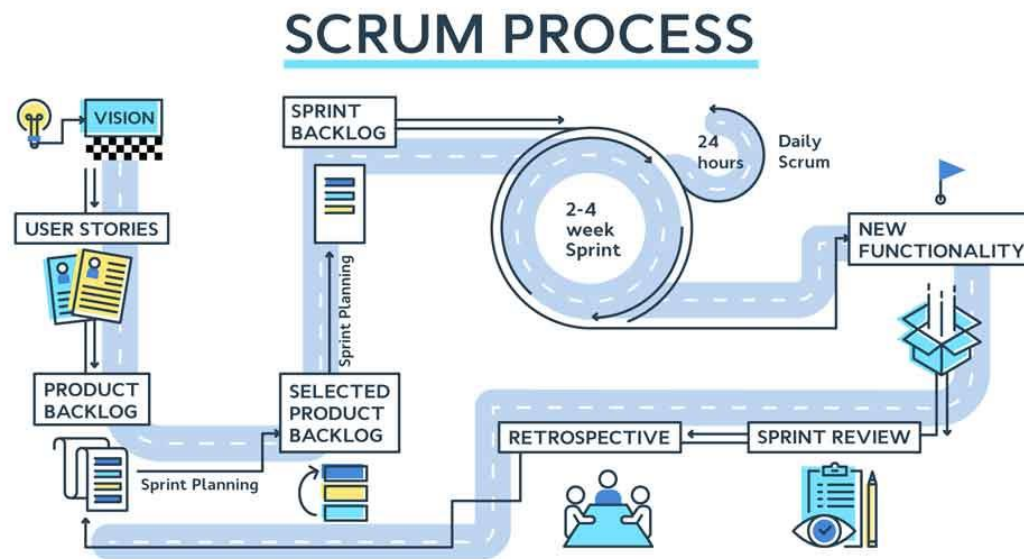
Take Quiz #2

On Canvas - 10 min



Introduction to SCRUM

MIS3535 | LEAD GLOBAL DIGITAL PROJECTS



SCRUM?

SCRUM

Noun

A **framework** within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

Scrum is:

- Lightweight
- Simple to understand
- *Difficult to master*

HISTORY OF SCRUM

First introduced to the agile community by Ken Schwaber and Jeff Sutherland in 1995.

- Inspired by the work of Hirotaka Takeuchi and Ikujiro Nonaka published in the HBR case study.
- Borrowed the name from the game of Rugby.
- Scrum is one of the *most popular Agile methodologies* globally.

SCRUM

- 1. Theory**
- 2. Roles**
- 3. Values**

1) THEORY: SCRUM BELIEVES IN

- **Empirical Process Control**
- **Self-organization**
- **Value-based Prioritization**
- **Collaboration**
- **Time-boxing**
- **Iterative Development**



Empirical process control

EMPIRICAL PROCESS CONTROL

SCRUM IS FOUNDED ON EMPIRICAL PROCESS CONTROL

Solution evolves as **Knowledge** is gained.

Transparency – Process outcomes should be visible

Inspection – Inspect and remove any unacceptable variations

Adaptation – Adjust and correct the process

Observation
Experimentation
Experience

Transparency

Inspection

Adaptation

Decision-making based
on what is known at a
certain point

3 Pillars of Empiricism

Transparency Inspection Adaptation

SELF ORGANIZATION

As opposed to the traditional command and control style of management, Scrum believes that today's workers have much more knowledge to offer than just their technical expertise and **deliver greater value when self-organized.**

VALUE-BASED PRIORITIZATION

Delivering the **greatest value in the shortest amount of time** requires prioritization and dividing what will be done from what needs to be done.

COLLABORATION

Scrum believes that product development is a shared value creation process that needs all the stakeholders working and interacting together to deliver the greatest value. Significant aspects of the process must be visible to ALL of those responsible for the outcome.

TIME BOXING

- Time Boxing enforces **maximum time allowed** for any given event and is treated as a limiting constraint in Scrum.
- Time-boxing is kept **constant** and used as the rhythm (Cadence) to which team and stakeholders work and contribute.
- Time-Boxing helps a self organized team **focus** on one problem (goal) at a time.
- Time Boxing helps in maintaining the right Work-in-process (WIP).

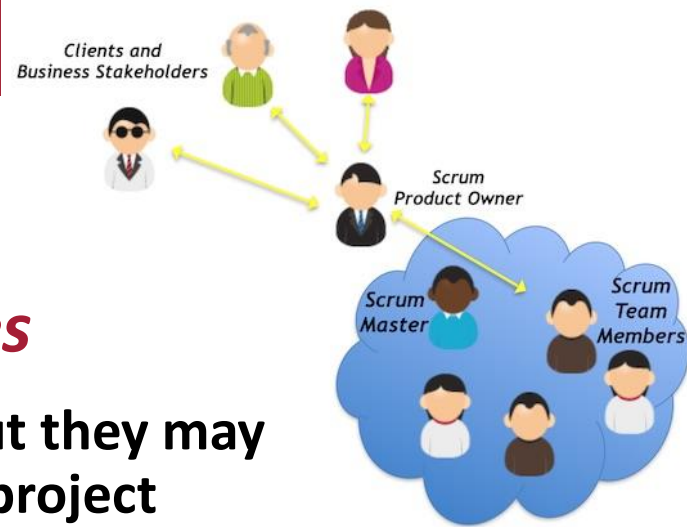
ITERATIVE DELIVERY

In most complex projects, the customer may not be able to define very concrete requirements or is not confident of what the end product may look like. The **iterative model is more flexible** in ensuring that any change requested by the customer can be included as part of the project.

Scrum is intended as a simple, yet sufficient **framework** for complex product delivery. Scrum is not a one-size-fits-all solution, a silver bullet or a complete methodology. Instead, **Scrum provides the minimal boundaries** within which teams can self-organize to solve complex problems using an empirical approach. This simplicity is its greatest strength.

-Scrum.org

2) SCRUM ROLES



Scrum Team

The core roles that are required for producing the project's product or service

1. Product Owner
2. Scrum Master
3. Development Team

Non-Core Roles

Not mandatory but they may have input in the project

1. Customers / Users
2. Business Stakeholders
3. Vendors
4. Scrum Guidance Body (a coalition body)

THE THREE CORE ROLES

Scrum Master

- **Facilitate and protects the process**
- **Removes team impediments**

Product owner

- **Represents the business interests**
- **Sets priorities**
- **Owns the product backlog**

The Development Team

- **Does the work**
- **Self organizes**
- **Owns sprint backlog**
- **Dev test, arch, DBA, BA, SME, etc.**

PRODUCT OWNER - THE VALUE MAXIMIZER

The Product Owner (PO) is an *individual* (not a team or a committee)

- Represents the direct user (**Voice of the Customer**) of the product with a deep understanding of the user base
- Have absolute **clarity on product vision**
- Responsible for maximizing business value for the end users
- Ensuring that the requirements in the form of product backlog is visible, transparent, and clear to all
- Complete control of **Product Backlog** to best achieve business goals and objectives in form of product increment and release goals
- Ensuring the Development Team understands items in the Product Backlog to the level needed and optimizes their work within an iteration
- Validating teams' deliverables to ensure it meets the desired specification
- There should be **only ONE PO** in a Scrum team



NOT A SCRUM PO

- You are on the sidelines of the team, feeding them with only requirements
- You are constantly judging their output
- You are interfering on their day to day work
- You have a strong opinion on team's level of effort on a specific job
- You do not have the courage to take decision on priority
- You are reporting your team capacity and output to stakeholders



A SCRUM PO

- You are a **distinct member of the team** with skin in the game
- The team failure is your failure
- Your presence brings confidence to the team in delivering the goal
- **You do what is of high value now for the business** and end users and not someone's wish list
- You support your team when they need it
- Constantly getting feedback and communicating end users' pain and pleasure
- Be familiar with team's strength, weaknesses, and personality types
- Socialize with your team and know your team member personality type

SCRUM MASTER – THE FACILITATOR

Two primary Responsibilities:

1. To make sure that Scrum guidelines are correctly followed by all Scrum Team members including the Product Owner
2. Acts *as facilitator* who ensures that the team is provided with an environment conducive to completing the product's development successfully

The role of the Scrum Master is based on the concept of Servant Leadership in which leaders achieve results by giving attention to the needs of those they lead

SCRUM MASTER SERVICE TO THE PO

The Scrum Master serves the Product Owner in several ways, including:

- Finding techniques for effective Product Backlog management;
- Helping the Scrum Team understand the need for clear and concise Product Backlog items;
- Understanding product planning in an empirical environment;
- Ensuring the Product Owner knows how to arrange the Product Backlog to maximize value;
- Understanding and practicing agility; and,
- Facilitating Scrum events as requested or needed.

SCRUM MASTER SERVICE TO THE DEV TEAM

The Scrum Master serves the Development Team in several ways, including:

- **Coaching** the Development Team in self-organization and cross-functionality;
- Helping the Development Team to create high-value products;
- Removing impediments to the Development Team's progress;
- **Facilitating** Scrum events as requested or needed; and,
- Coaching the Development Team in organizational environments in which Scrum is not yet fully adopted and understood

FACILITATOR TIPS

DO



- Do **clarify** the purpose, outcomes and process of the meeting including the timebox (the Container)
- Do define how information will be created and decisions will be made
- Do encourage full participation
- Do **maintain neutrality**
- Do **Listen and ask Questions**. Questions that will expand on what they have already said or assumed
- Do probe more on common understanding and agreement
- Do create a **conducive environment for discussion**. People should feel psychologically safe to share their views and thoughts
- Do have a wrap-up session to ensure everyone is taking responsibility of their next steps

DON'T



- Don't Assume participants know why they are in the meeting and what they need to accomplish
- **Don't offer your opinion and decisions**. Let the participants create their own content and make decisions (Content)
- **Don't let few people dominate the discussion**
- Don't take sides on specific people or views
- Don't engage in discussion. Let participants engage
- Don't interrupt or rush them for answers
- Don't blame or judge people on their views and opinions
- Don't take actions on their behalf

DEVELOPMENT TEAM – THE DEVELOPERS

The Development Team is a group of people responsible for **understanding the business requirements** specified by the Product Owner, **estimating User Stories**, and **creating the product increment**.

TEAM CHARACTERISTICS:

- **Self Organized with Collective Ownership**
- **Cross-Functional**
- **Co-located that enables face to face communication**
- **Team size of 3-9 people**
- **No hierarchy or further subdivision of team (Everyone is called a developer)**

EMOTIONAL INTELLIGENCE (EQ)

FINDING GOOD
PLAYERS IS EASY.
GETTING THEM TO
PLAY AS A TEAM
IS ANOTHER
STORY.

Casey Stengel

IQ MAY GET
YOUR FOOT IN
THE DOOR.
EQ WILL DECIDE
HOW FAR YOU
GO.

KeyTalent

EQ: the capacity to be aware of, control, and express one's emotions, and to handle interpersonal relationships judiciously and empathetically.

"emotional intelligence is the key to both personal and professional success"

DEVELOPMENT TEAM SOFT SKILLS

- ✓ Independent
- ✓ Self-motivated
- ✓ Generalist-specialist
- ✓ Customer-focused
- ✓ Collaborative

Team fosters an environment of independent thinking and group decision-making.

3) SCRUM VALUES

COURAGE
Scrum Team members have courage to do the right thing and work on tough problems



FOCUS
Everyone focuses on the work of the Sprint and the goals of the Scrum Team



COMMITMENT
Personally commit achieving the goals of the Scrum Team



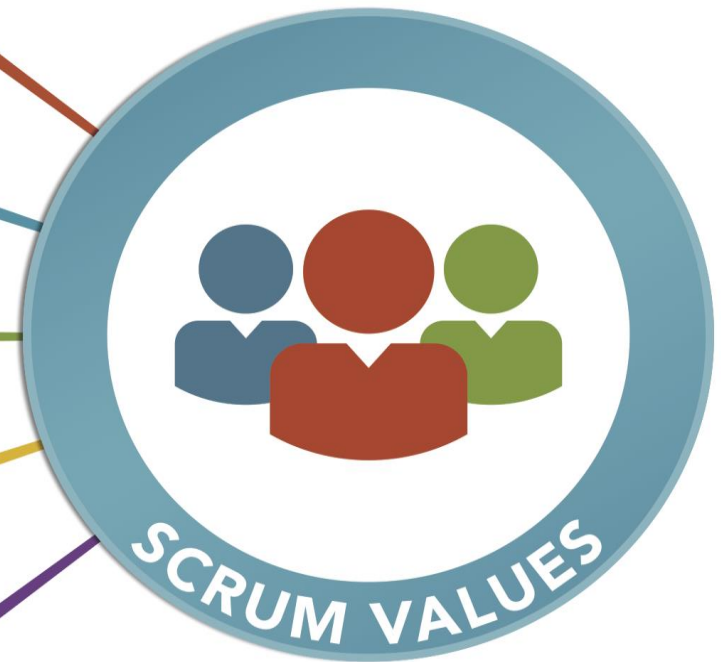
RESPECT
Scrum Team members respect each other to be capable, independent adults



OPENNESS
The Scrum Team and its stakeholders agree to be open about all the work and the challenges with performing the work



Web research



ADVANTAGES OF A SCRUM TEAM?

Web
research

- ✓ **Faster decision making**
- ✓ **Increased productivity**
- ✓ **Improved communication**
- ✓ **Collective ownership**
- ✓ **Continuous innovation**
- ✓ **Back-up each other**
- ✓ **Increase commitment**
- ✓ **Increased team moral**
- ✓ **Increased quality**
- ✓ **Increased customer engagement & satisfaction**
- ✓ **Reduced risk**
- ✓ **Reduced product release time to market**

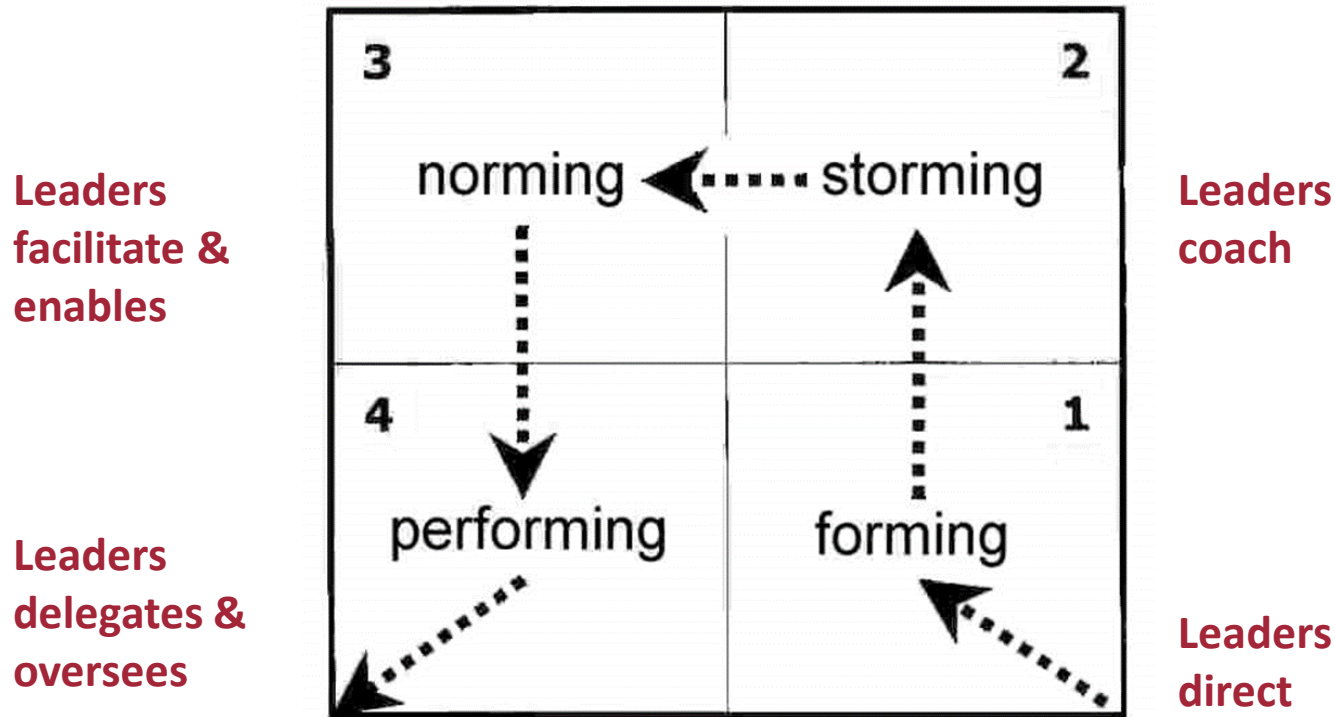
WHAT IS THE “TUCKMAN MODEL” OF TEAM DEVELOPMENT”?

Web
research/Video

CLASS EXERCISE : **IN YOUR TEAMS**

- 1- What are the phases?
- 2- What is the role of the leader in each phase?

WHAT IS THE “TUCKMAN MODEL” OF TEAM DEVELOPMENT?



5 - Adjourning

**SEE YOU THURSDAY FOR
OUR FIRST STUDIO DAY!**



Studio Day (Day 2)

Research the Agile Product Management Software and create your Scorecard. You will use this software to manage your product development throughout the semester.

Note: This is not about the website builder that you will be selecting later (wordpress, wix, squarespace, shopify, etc.).

On your scorecard:

1. Select at least 3 Agile Product Management Software (research all potential software and select at least 3 of them for your analysis)
2. Define 4-6 criteria to evaluate each software
3. Add a brief explanation of each criteria below your scorecard
4. Determine the weight for each criteria
5. Calculate your weighted average for each software
6. Clearly highlight your preferred software (highest score)

The output will be your **first assignment due by EOD Sunday**

Submit one file per team on Canvas

* No late assignment accepted

SCORECARDS

Structured comparison of features

Level of rigor can vary

Quantitative or qualitative



| | Product 1 | Product 2 | Product 3 | Product 4 |
|------------------|--------------|--------------|--------------|--------------|
| Criteria A (%) | <i>score</i> | <i>score</i> | <i>score</i> | <i>score</i> |
| Criteria B (%) | <i>score</i> | <i>score</i> | <i>score</i> | <i>score</i> |
| Criteria C (%) | <i>score</i> | <i>score</i> | <i>score</i> | <i>score</i> |
| Criteria D (%) | <i>score</i> | <i>score</i> | <i>score</i> | <i>score</i> |
| (Weighted) Total | SCORE | SCORE | SCORE | SCORE |

FIRST STEP: EXAMPLE OF SCORECARD CRITERIA & WEIGHT

| Criteria | Weight (%) |
|---------------------|-------------|
| Package Requirement | 10% |
| Lines of Code | 5% |
| Simplicity | 10% |
| Popularity | 5% |
| Development Sources | 10% |
| Data Visualization | 15% |
| Functionality | 45% |
| Total | 100% |

EXAMPLE: SCORECARD

| Criteria | Weight | Word-Press | Joomla | Drupal | Share-point |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|-------------|-------------|-------------|
| Access controls to give people different levels of authoring (add, edit, delete) by entry | 5% | 10 | 5 | 3 | 10 |
| Version control at the page level and at the “publication” level (Ability to “freeze” an entry and archive it) | 5% | 9 | 6 | 8 | 8 |
| Ability to incorporate multimedia into an entry | 10% | 8 | 7 | 4 | 6 |
| Support discussion-board style feedback from readers through different, access-controlled forums (student forum versus instructor forum) | 10% | 9 | 8 | 3 | 7 |
| Support login-based access control and account management | 10% | 9 | 5 | 7 | 5 |
| Convert an entry or a “publication” into a PDF for offline viewing and printing | 10% | 10 | 6 | 5 | 6 |
| Scalability – ability to support a large number of users | 25% | 8 | 8 | 5 | 7 |
| Delivery to browser in standard HTML (web-based delivery) | 25% | 9 | 8 | 9 | 8 |
| TOTAL | 100% | 8.8 | 7.15 | 5.95 | 7.05 |

EXAMPLE: SCORECARD

| CRITERIA | WEIGHT | SOFTWARE (1-10) | | |
|-------------------------------------------------------|-------------|-----------------|----------|------------|
| | | ABC | XYZ | LMN |
| Cloud-based | 30% | 10 | 10 | 6 |
| Ability to adapt to Agile and Waterfall methodologies | 20% | 9 | 3 | 8 |
| Ability to aggregate multiple projects | 20% | 9 | 4 | 6 |
| Team collaboration | 10% | 10 | 10 | 6 |
| Reporting sophistication | 10% | 8 | 6 | 4 |
| Easy-to-use and and requires minimal training | 10% | 10 | 10 | 5 |
| TOTAL | 100% | 9.4 | 7 | 6.1 |

TO DO:

Get ready for our **quiz#3 next Tuesday!**

You will be taking the quiz at the start of class (first 10 minutes) on your Laptop.

Don't forget to bring your laptop!

Quiz will cover the **content listed for week 4 Day 1** on our community site

