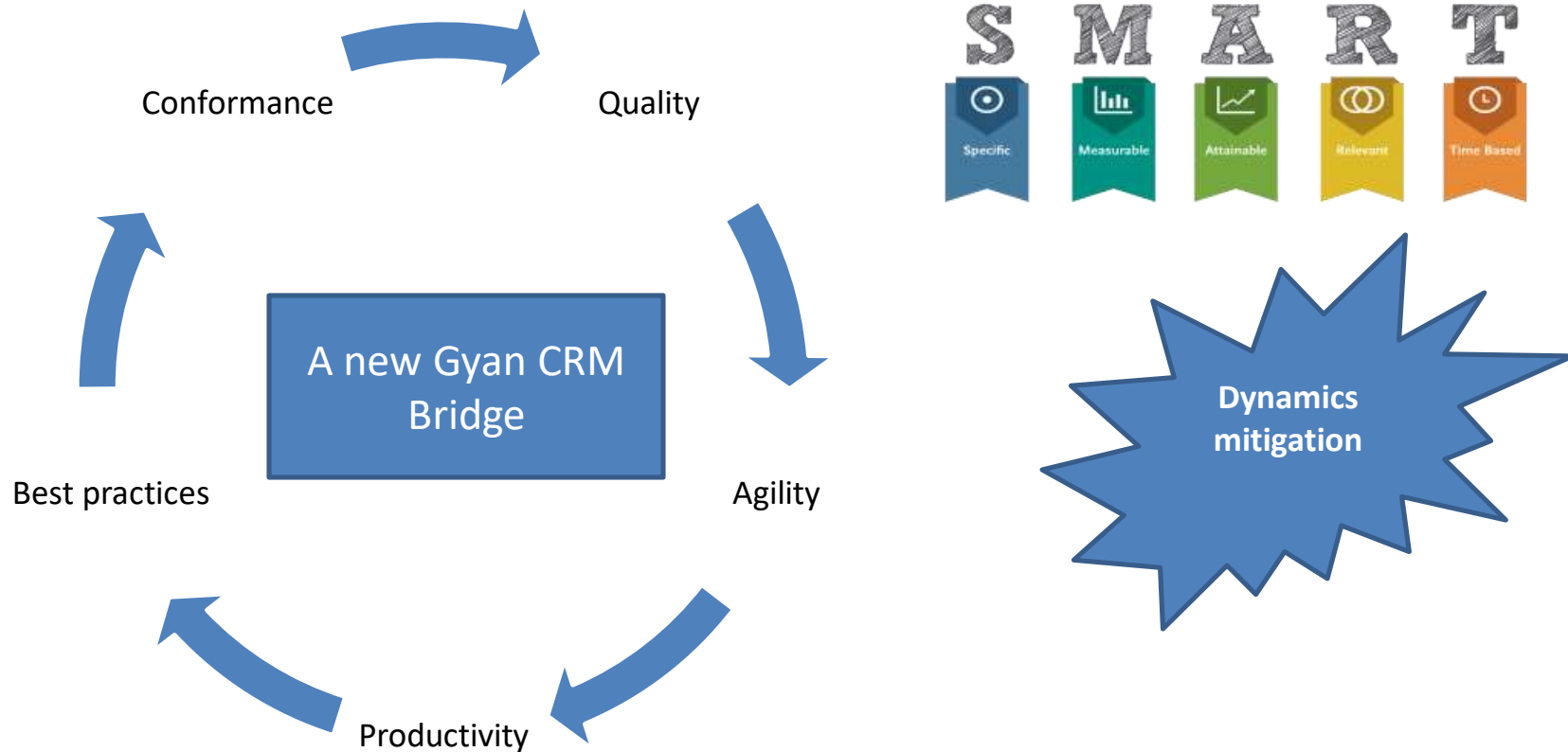


Gyan CRM

(A Mentorship Platform based on CRM)



K.S.Venkatram, Gap Analyst 2022-2023

Background

The invaluable development for improved demand fulfilment being, businesses will need to universally work on implementing People Welfare solutions for the emerging crisis of uncontrolled Online Services and unaddressed Social Accountability for expected classroom-teacher-student connects and un-designed best practices.

Cause and Effect

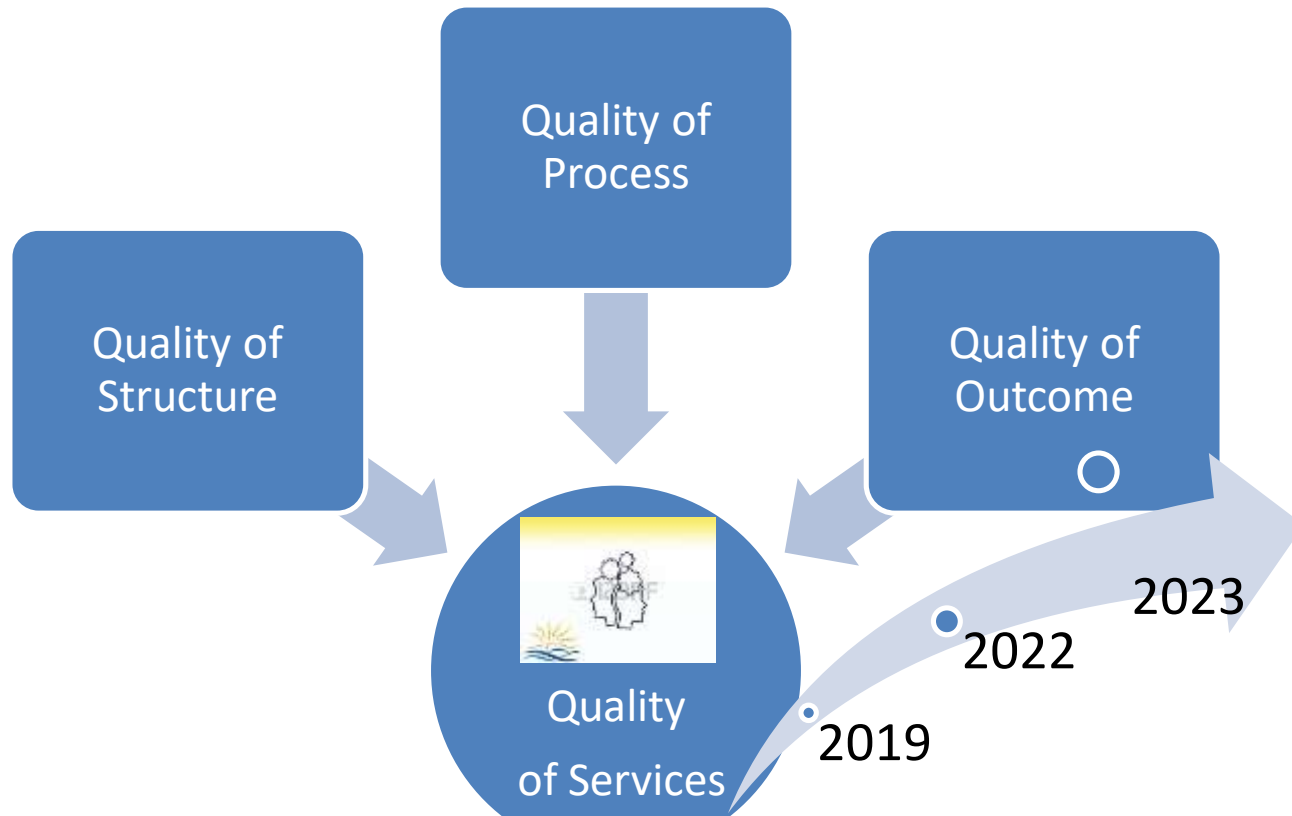
Today the need for Social Accountability is a solution based on standpoints. We need to translate this to processes for Sustainable resource management, Responsive Educational System Development & Capacity Management, where educational institutions, or the facilitating businesses and/or the educational system and its links are profiled to understand the FMCEA (Failure Mode Cause & Effects Analysis) that is critical to ensure student welfare.

Our CRM based Mentorship Platform addresses what is affecting the educational system today. It looks at social accountability to address the changing classroom environment and teacher-student connect. Our idea for mentorship innovatively helps students.

Background

- As per tradition, the past and today, the teaching methodologies and mapping of curriculums to classroom sessions form the science behind the timely supply of education. Today and since 2019, classroom environments have changed.
- With the availability of virtual reality or online technology, we have Google classrooms, the G-Suite for Education helping deliver classroom sessions remotely.
- We also have NPTEL that delivers technology enhanced learning to students in engineering, basic sciences and selected humanities and social sciences subjects.
- NPTEL: National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology
- We do know about online web portals but this does not mean timely supply of formal syllabus/curriculum/course outcome based education via educational institutions or different categories of service providers, in times of natural or man-made adversity or for the need to manage dynamics in time availability.
- The Ministry could also air cognitive educational content via T.V. and other educational or institutional frameworks. The multimedia content for this is emerging. With all this mind, what we think is missing is a CRM bridge for any dynamic teacher-student connect or adaptive classroom environment.

R2E CRM a new bridge for learning, course outcome assistance & prescriptive mentorship



Domains, Areas of mentorship and a sustainable Platform. Our proof of concept URL is as follow
www.venkataoec.wixsite.com/ace-ems

R2E CRM – A new bridge

Our Gyan CRM bridge uses a Design and Deliver framework & platform that helps a mentor commit a level of learning assistance to the mentee. Our bridge includes specific learning functions such as

1. **Level of mentorship** (or tutoring) that is Basic, Intermediate, Advanced
2. **Domain of mentorship** (or tutoring) that is School and Pre-university level based or Undergraduate level based...
3. **Gyan components** (Gyan CRM Products or Gyan CRM Services)
4. A **K-Choreograph** that includes a Mentor-Mentee cycle and mentorship platform specific cycles such as a Mentor-Resource Allocation cycle, a Mentor-Process Management cycle etc
5. A **Platform specific Network** such as the Internet/Mobile /new CRM specific connectivity services etc
6. A **Scalability factor** (such as long duration Mentor-Mentee cycles and additional Mentees cycles)
7. A **Pairing/Un-pairing Factor** that uses 2-way ANOVA to determine the pairing in the Mentor-Mentee cycle, the Choreograph-Fast Track cycle

R2E CRM – A new bridge

Our in-time problem solving via the bridge identifies that, what is needed, is the use of practices like Customer Relationship Management

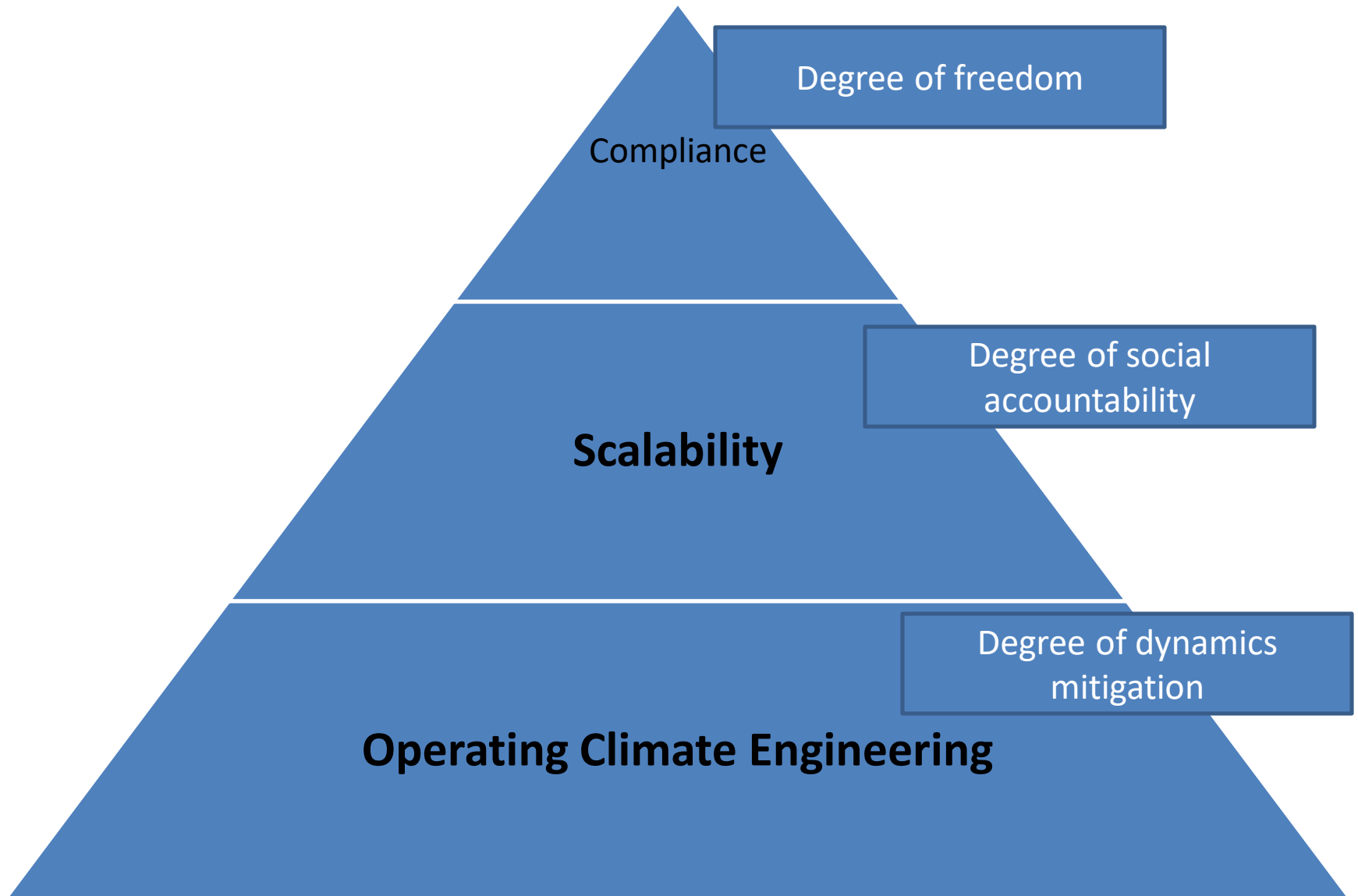
With CRM, the projected insight is that we will be soon able to

(i) Bridge Quality of Service gaps for learning assistance, outcome management and prescriptive mentorship

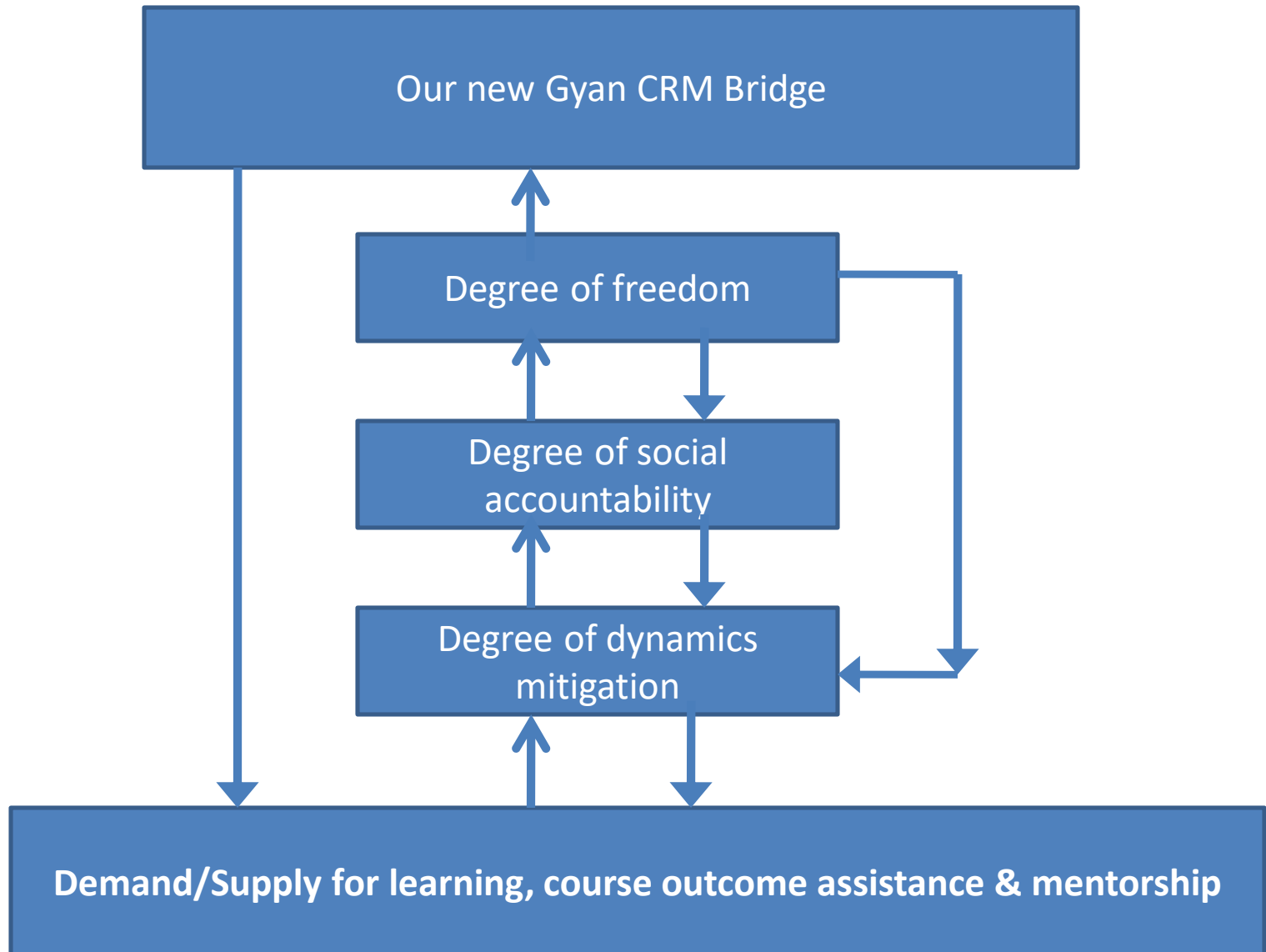
(ii) Scale up for choreographed accountability ensuring we can develop platforms, products and services as part of a management framework that can be fast tracked or adaptive (like all the Classroom-Teacher-Student e-Connect solutions available today), but is more conformant and sustainable for the educational system, which we state is evolving to keep up with remotely teaching students.

This potential management framework will include a **choreographed mentor-mentee connect** that can be leveraged by any institution, business or faculty expecting to address the issues of less conformant classroom-teacher to student (end to end) facilitation.

R2E CRM model



R2E CRM model



Principal products and services

Whether relevant Yes or No	Gyan CRM Platform	Gyan CRM Products	Gyan CRM Services
Educational institutions	Yes	Yes	Yes
Businesses providing Educational services	Yes	Yes	Yes
Independent Tutors	Yes	Yes	Yes
Gyan CRM Network	Yes	Yes	Yes

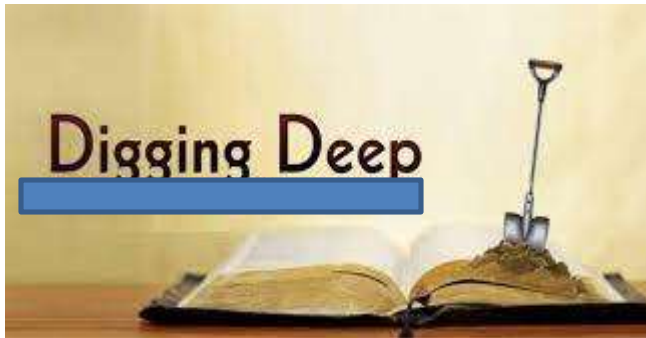
Gyan CRM Recommendation Systems

The **Gyan CRM Map Component** will help a mentee or student search for mentorship recommendations based on

1. **Popularity of the Mentor**
2. **Content** such as Domain, Area of mentorship, Subjects, Topics, Lessons, Course objective learning assistance
3. **Classifications** such as
 - a. Availability
 - b. Pre-requisite criteria
 - c. Topic modeling
 - d. Regular / Fast Track Schedules
 - e. Channels for online lessons
 - f. Case studies
 - g. Feedback (Positive, Negative, Comments (using the TFIDF practice))
 - h. Non-parametric criteria such as Nearest neighbor
4. **Collaborative Filtering** such as User-User collaborative filtering (that is mentee-mentee collaborative filtering) and Item-Item collaborative filtering (that is Subject-Subject, Topic-Topic, Lesson-Lesson)

Gyan CRM Recommendation Systems

- 5. Model categorization or Mentorship Platform categorization such as
 - a. **Window functions** (both Rolling and Expanding window functions)
 - b. **Correlation** (such as Environmental Factors Management, Risk Management, Time Interaction Performance (TIP) theory, Touch Point performance, Priority Area guidance, Schedules, Costs)
 - c. **Time Series Forecasting** based on the Pairing factor principle



Gyan CRM Machine Learning Process

The **Gyan CRM Machine Learning Process** involves the following steps

1. Define the mentorship platform problem
2. Describe the problem based on Task, Experience and Performance
3. Ask / Assess the need for a solution based on the R2E CRM model and its different degree of freedom, degree of social accountability and degree of CCMA / risk mitigation
4. Data collection using Analytics / Surveys / Feedback
5. Prepare the data for machine learning via
 - a. Cleaning
 - b. Formatting
 - c. Sampling
 - d. Decomposition
 - e. Scaling



Gyan CRM Machine Learning Process

6. **Select the algorithm based on**
 - a. Classification, Regression, Clustering
 - b. Recommendation Systems.
7. Train the algorithm based on Pairing factors
8. Evaluate the performance based on Test data, use this to tune the pairing factors or parameters such as **(1) Gyan Product / Service components, (2) Gyan CRM Choreographs (3) Levels of mentorship**
9. **Start using the model to plan, implement, manage and improve mentorship**



For those interested, you need to refer to the Code repository for source code excerpts and proof of concept