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CHALLENGE STATEMENT #03

1. Challenge Owner Index and Pseudonym

#03 – Heuta

2. Challenge Statement

We are looking for a learning solution that will accelerate our capability in implementing the heutagogy instructional strategy which allows learners within the Financial Services & ICT industries to embark on self-determined learning. Competencies and learning outcomes will be mapped to the learner's profile (learning style, job role, job level, the competencies and competencies gaps they have) and relevant content will be pushed to the learners, which address their learning and industry needs.

3. About the Challenge Owner Organisation

We are a social enterprise and online blockchain academia incorporated as a public company limited by guarantee (CLG). We have been an IBF accredited training organisation and are also the training partner of SkillsFuture Singapore, NTUC e2i and People's Association.

We are on a mission for the advancement of Blockchain education and certification. Presently, we have trained more than 2000 learners from 9 countries (Singapore, Malaysia, Indonesia, Japan, China, UAE, United Kingdom, United States & Germany).

We are also on the journey to be the early adopter/pioneer in implementing the heutagogy approach. As a social enterprise, through our learning solution to create social impact and drive social value.

4. Define the Challenge

Current Situation
The current instructional strategy that we used is Andragogy which focuses on adults (but may not be adequate for both senior adults) and **self-directed learning**. However, learning outcomes and content are largely trainer/training provider-centric. That is to say we curate or create the learning outcomes and content based on what we perceive as industry need or gaps. Most of the time, adult learners may not necessarily have the skills gaps that training providers perceive, they know what competencies they have and are lacking. Often, learners end up learning something they might not require for their job role or job level.

Therefore, our learners need a new instructional strategy - heutagogy approach which focuses on **adults of all ages** because they can embark on **self-determined learning** which is largely learner-centric and they could (based on their learner's profile such as learning style and job role etc..) determine their own learning outcomes and relevant content will be pushed to them.

On one hand, SkillsFuture has institutionalised the national skills framework and critical core skills framework. However, such frameworks are standalone and silo on SSG's website and are not built into any learning systems. Curriculum developers extract the competencies from the skills framework manually which is very time consuming for curriculum development. Curriculum developers need a way they can upload the Skills Framework competencies, bloom taxonomy (Learning Outcomes) and content to a learning solution because this cuts down on time spent on manual and repeated extraction and the better utilisation of man-hour can be channelled to addressing the needs of our learners instead.

On assessment criteria and methods, it is also pre-prescribed and may not be adequate in assessing/measuring the learning outcomes. Assessment outcomes (Competent and Not yet Competent) are manually delivered and lack the avenue to inform candidates what areas they are weak on (e.g. good in 1 learning outcome but weak in another).

Past & Current Solutioning Efforts
Presently, learning outcomes are manually mapped and are embedded in the content, the content and LO then are being hosted on a basic 3rd party learning management system (LMS) we used. Our current instructional strategy is andragogy and we used a blended learning approach (where learners spend 70% of their learning during asynchronous eLearning and 30% learning on synchronous eLearning/Face-to-Face).

Upon enrolment in the SSG-approved training management system (TMS), learners will embark on their learning journey on the LMS. Both TMS and LMS have their limitations, they do not capture data such as the learner's profile - learning style, job role and competencies they want to learn. Learners will commence their learning by following a pre-determined learning outcomes and content that are uploaded in the LMS. At times, the learner does not know what the learning outcomes are or what it means. Learners also come with different profiles and may have different learning needs to be addressed, a one-size fit all learning outcome or content may not have learning efficacy.

On the heutagogy aspect, heutagogy can be commonly seen on pay-per-use based Massive Open Online Courses (MOOCs) such as Udemy, Coursera or eDx etc.. where learners search for and decide the topic/skill they want to learn. However, such MOOCs platforms are proprietary and target an international/global audience, there is limitation in built-in/uploading a localised Skills Framework onto the platform. Moreover, personal data ownership lies with such a proprietary system and we have no oversight in the personal data.

In the Financial services industry, Financial Technology (or Fintech) is a relatively emerging technology and concept and there is not a designated competency map/framework for it. Presently, our curriculum developer will manually map competencies and learning outcomes from across different Skills Framework such as the Financial Services Skills Framework and ICT Skills Framework.

Challenge / Gap / Unrealised Potential
- Continued frustration from prospective & existing learners and curriculum developers.
- More man-hour is needed for largely manual process.
- Impact to learning efficacy.

- The unrealised potential is the possibility of extending the incorporation of heutagogy, skills framework & bloom taxonomy in one learning solution to other training providers in TAE.

5. Targeted Learners / Users

Primary targeted learners: Learners who are interested in financial technology and blockchain (500 a year)

Secondary targeted learners: Total PMETs in the financial services sector (180,000 PMETs in the financial services/fintech industry)

6. Solution Partner and Deliverables

The Solution Partner:

- should have basic understanding of various instructional strategies such as pedagogy, andragogy, heutagogy, geragogy with the main focus on heutagogy.
- has working knowledge on Skills Framework.
- has worked with organisations in the Training and Adult Education (TAE) before.
- Optional but good to have: need to have technical capabilities such as Analytics, Behavioural insights, SCORM/XAPI, OpenCerts, integration of various technologies.

7. Expectations of Solution

The learning solution must:
- be able to populate downloaded enrolment records (.xls, .csv) from external training management systems into a Learner's Profile (1st learning touchpoint) where learners can populate their learning styles, industries, job roles and competencies they currently have and their competencies gap.
- be able to populate the skills framework competencies (e.g. Financial Services & ICT) and bloom's taxonomy into the learning solution. This will be automatically mapped to the job role or learning needs based on the pre-populated Learner's profile.
- incorporate behavioural insights tracking (e.g. how long does learner spend in each learning unit, measurement of learning outcomes' effectiveness, which competencies are being delivered the most).
- has an assessment dashboard where assessment criteria, methods can be defined for mapping to learning outcomes. Automatically map learning outcomes to assessment criteria/methods.
- enable uploading of content (e.g. SCORM/XAPI package, standalone video, video embed from YouTube/Google Drive, powerpoint slides/Google slides.
- Integrate with video conferencing tool such as Zoom & Google Meet (i.e. able to create a Zoom/GMeet room within the solution).
- Has a certification dashboard to issue certificate of completion/credential upon course completion.
- observe PDPC's Personal Data protection requirements (i.e. full/partial masking of personal data).
- Non-subscription/license based solution.

8. Measures of Success

Selection Criteria

Learning Content

1. Able to upload content such as SCORM/XAPI package, standalone .mp4/.avi video, embedded video from YouTube/Google Drive, .ppt/.pdf slides.

2. Able to create/populate competencies based on skills framework and recommend the competencies based on learner's profile (e.g. job role/job level).

3. Able to map learning outcomes (based on bloom taxonomy) to competencies.

4. Able to push content to learners based on the competencies/learning outcomes.

Learning Engagement/Interaction

5. Simple user experience/user interface

6. Incorporation of behavioural insights

7. High engagement/interaction level (based on Guerra Scale)

Learning Administration

8. Able to handle at least 500 or more learners.

9. Able to have an analytics dashboard that track behavioural insights & generate reports.

10. Able to populate .csv, .xlsx enrolment records from TMS into Learner's Profile".

11. Able to have an assessment dashboard for creating assessment criteria and methods and mapping it to learning outcomes.

12. Able to have a certification dashboard to automatically issue certificates/credentials after course completion.

13. Able to ensure security of personal data (e.g. full/partial masking of data).

14. Able to integrate video conferencing tools such as Zoom or Google Meet.

Learning solution is able to satisfy at least **80%** of the selection criteria.

Evaluation Criteria

1. Able to roll out within 12 months.

2. Better learning outcomes based on built-in 6 levels of Bloom's taxonomy.

3. Number of competencies that are populated and mapped from Skills Framework.

4. Reduced man-hour of curriculum developers.

Evaluation Methods

- Qualitative:

- Learner's positive sentiments with the learning solution, measured via open feedback segment in learning / training evaluation form.
- Focused Group Discussions: Inputs from Adult Educators and Assessors.
- Quantitative:
    - Achieve at least a 4.5/5 rating for overall satisfaction in learning/training evaluation form.
    - Reduced man-hour of curriculum developers by at least 60%.
    - Achieve at least 70% in assessment competency rate (current average is 50 - 60%).
- Questionnaire: for internal stakeholders, such as Curriculum Developers, Academic & Examination Board and Governing Council members.

Expected Tangible Outcomes

Observable outcomes:
- Greater satisfaction from learners - based on end of course Learning / Training Evaluation.
- Increased confidence for learners as relevant competencies is imparted.

Measurable outcomes:
- Average rating for learning / training evaluation will increase to 4.5/5 (presently average 4.0 - 4.2)**.**
- Reduced man-hour of curriculum developers by at least 60%.
- Faster processing time with manual process cut down by 60%.
- Achieve at least 70% in assessment competency rate (current average is 50 - 60%).