



Solve Your Enterprise Learning Challenges

10TH INNOVPLUS CHALLENGE



CHALLENGE STATEMENT #05

1. Challenge Owner Index and Pseudonym

#05 – IDEA

2. Challenge Statement

We are a HR consulting services company seeking a learning solution that would support data driven skills assessment to shape continuous coaching to help both internal staff of organisations as well as individuals in job transitions and seeking to pivot in a post-COVID 19 world.

3. About the Challenge Owner Organisation

IDEA is a company that provides HR consulting services to enterprises in Singapore, seeking to address workforce development issues by adopting a holistic approach towards meeting HR needs. IDEA has been needing a solution that spans accurate performance management diagnosis with a data-driven approach which will empower individuals and companies to make evidence-based decisions on appropriate coaching, mentoring, and/or learning interventions. Our interactions with clients have shown us that employee engagement and easing job mobility within and across organisations is a concern. We believe that accurate diagnosis of skills shortfalls and holistic analysis of worker's skills, attitude and personality profiles builds a better job transferability profile, eases frictional and structural unemployment at the individual level, and improves engagement at the organisational level.

Furthermore, data-driven approaches towards these issues are not proliferated throughout the industry yet, nor are clients and organisations widely educated on the benefits of adopting an evidence-based approach. IDEA would like to explore the use of cutting-edge technologies, platforms, and approaches to solve these problems.

4. Define the Challenge

At the company level, local organisations and enterprises do not have easily accessible tools to systematically assess the skills (and through that, performance), of employees and develop them with appropriate coaching and learning & development interventions. The tools that do exist are currently piecemeal and/or do not a data-driven and evidence-based approach to these problems.

With the COVID 19 situation persisting, the employment landscape will also require such a solution to help individuals and jobseekers to comprehensively assess their own skills and plan their own career development for their next career move.



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Both these problems exist whether workers are considering their developmental needs within an organisation they are working in, or whether they are making the leap across different industries but applying similar/adjacent skillsets.

Challenge/Gap

Local organisations and enterprises are facing challenges in managing the skill competency levels of staff, as well as facilitating staff to stay relevant in their skills in this challenging climate. The post-COVID 19 climate has posed unique challenges for organisations and enterprises with remote working, which has impacted managerial visibility of staff, raised questions on productivity and performance, affected operations with the need for social-distancing, and tested trust levels in organisations. Furthermore, the challenges posed by disruptive technologies and the increased pace of change in the Fourth Industrial Revolution, as well as changing worker demographics and demands from millennials and Gen Z has not disappeared. This has placed demands on organisations and enterprises to stay on top of the skills profiles of employees and to build more agility into their human resources.

The ability to self-diagnose issues arising from inadequate skills and competencies to provide incisive coaching, mentoring, and/or learning interventions is hampered by the lack of data collection and insight generation as well.

At the level of individual jobseekers, Singapore will be looking at major displacements in several industries and job families in particular, as a result of COVID 19 as well as the pivots which the economy will be going through, for example, in the area of green energy and sustainability affecting the petrochemical industries. This means that individuals seeking new jobs and developmental opportunities will need a system to help them identify which skills they currently have, assess what level of skills they are at, and take into account a holistic view of their attitude, personality and transferability by also looking at other data points which may include data scrapping and analysis of keywords used in their emails and conversations. Next, the system should suggest roles or jobs with similar/adjacent skillsets. An added plus would be if such a system could also suggest appropriate coaching, mentoring, and/or learning interventions for individuals to undertake to obtain necessary skillsets and at appropriate levels of competence. This should allow individuals to then apply for roles or jobs which were previously out of professional reach.

Current supportive technologies and methodologies are woefully lacklustre and fragmented in providing the necessary clarity and flexibility for organisations and enterprises to use data to self-diagnose issues relating to skills competencies, and to act on them appropriately with coaching and learning & development interventions. Reliance on external consultants or career counsellors to assist with these issues is also not sustainable, financially and in terms of scalability, in the long run. The better solution would be to empower each company, large or small, and individual job seekers or those seeking to change industry as part of their career plan, with tools for self-help.

Implication & Impact

If local organisations and enterprises are not agile enough to manage the skills and competencies of employees and to address gaps where they happen, they risk their human resources not performing



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at peak potential, which affects their operational capabilities. Furthermore, the lack of data-driven and evidence-based approaches towards the current operationalisation of HR processes mean that various psychological biases, operational inefficiencies, and office politics may impede HR from helping local organisations and enterprises and their employees deliver to the best of their abilities. Employee behavioural data such as number of emails sent, turnaround time for goals/tasks set, keywords used in communications, and more, as well as the contents of performance management conversations, can be used to further build a better employee profile for incisive coaching, mentoring, and/or learning interventions.

Not being able to be the best they can be is only the tip of the iceberg of problematic implications of this challenge faced. At the other extreme end of the spectrum of issues, this challenge can result in recruitment, retention, and engagement issues, which result in an inability to attract high-quality employees and to retain existing staff. High turnover and churn are extremely disruptive to businesses, which can ill afford that during a post-COVID 19 and Fourth Industrial Revolution era.

With increased calls for coaching and mentoring to be deployed not only for management and C-level officers, but to be available to general staff as well, and with the sea of choices in learning & development interventions to choose from, organisations and enterprises will be lost on how to ensure that their staff are appropriately groomed and developed without being guided by a solution that applies data to guide recommendations and spans both skills competencies assessments and behavioural data, and curates the appropriate solutions to gaps that may be identified.

Similarly, individuals seeking job transitions or to change their jobs would like to know what it takes for them to get to the next stage of their career, whether they are moving vertically or diagonally across roles in their company, or if they are making career changes into different industries. The friction during such career movements that comes from the lack of information available to workers can be reduced if they are given data on their skillsets and what are the available roles or jobs with similar/adjacent skillsets.

This situation is very apt for the current employment climate, particularly for individuals in retail and petrochemical industries who are being hit hard, due to the realities of COVID 19 and Singapore's concerted push towards renewable energies with the setting up of the Energy Market Authority.

Unrealised Potential

Local organisations and enterprises need a one-stop solution that guides them to self-diagnose skills competencies issues amongst their staff arising from performance, provides a clearer picture of day-to-day performance to resolve trust issues and eliminates biases. The solution should also support targeted coaching, mentoring, and learning & development interventions, all with the benefit of data and Artificial Intelligence and/or Machine Learning if possible, to derive patterns for insights. This belies an evidence-based and data-first approach to solve traditional HR problems.

Individuals need to be able to re-deploy their skills elsewhere with minimal friction and in a timely manner. This will become important in the coming days. Algorithms can build an accurate and holistic picture of a worker's employability profile by considering current skills, performance levels, and other data points such as emails, word choice and conversational skills. AI-driven



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recommendations can then suggest improvements to existing skillsets of workers as well as for roles with similar/adjacent skillsets to promote a candidate matching marketplace to ease frictional and structural unemployment in today's job market will allow individuals in the first-targeted fields of retail and petrochemical industries to re-deploy rapidly. However, such a system need not be limited to only these areas, as they will be applicable across multiple job families and scalable if necessary.

5. Requirements

Baseline system

The performance management aspect should be able to carry out the following functions:

- Track the performance of employees with a focus on skills competencies assessments
- Track peripheral data that comes from naturally using a HR core platform, such as number of emails sent, turnaround time for goals/tasks set, keywords used in communications
- Track performance management conversation contents for keywords to suggest a more tailored developmental plan
- Identify and flag for management review and action when a possible coaching, mentoring, and/or learning & development intervention is necessary
- Adopt a data-centric and evidence-based approach towards performance management to form the bedrock for appropriate interventions subsequently

The coaching, mentoring and learning & development aspect should be able to carry out the following functions:

- Track and suggest internal subject matter experts and champions as possible coaches or mentors for staff, on the basis of matching of lacklustre competencies and/or experiences
- If possible, link external subject matter experts and coaches and/or mentors to company staff to widen pool of potential seniors for juniors to learn from, on the basis of matching competencies and/or experiences
- Track, curate and suggest appropriate external courses for possible deployment to plug skills competencies gaps, whether from SkillsFuture or 3rd party providers such as MOOCs
- Empower coaches or mentors with appropriate data on performance to ensure developmental interventions are data-driven (aka data-driven coaching/mentoring)
- Suggest skills to improve on or pick up for workers to move vertically or diagonally into different roles, whether within or outside the organisation, or whether staying in the same industry/job family or moving to a similar/adjacent field.

Software Integration

The software of the system should enable the following:

- Open API for:
 - Various integrations into HR core systems which handle employee data and HR day-to-day operations, which may already exist in client organisations and enterprises
 - Integrating with SkillsFuture for competency frameworks and course offerings



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- Integrating with MOOCs for course offerings
- Integrating with any open-source resources for learning depositories or by tapping on commercially subscribed white-labelled LMS to service client corporate needs
- Integrating with other sources of 3rd party coaches/mentors as potential resources
- Have data-processing capabilities to uncover insights arising from performance management module to empower coaching, mentoring and learning & development interventions

If possible, to develop and implement Artificial Intelligence and/or Machine Learning to support said data-processing capabilities.

6. Targeted Learners / Users

Targeted beneficiaries

Local organisations and enterprises who are open to leverage a data-centric and evidence-based approach to revamp their performance management and learning & development systems to stay on top of skills competencies, and address employee engagement, and retention. Other profiles that are a good fit are organisations and enterprises which are struggling with transparency and trust-related performance challenges in a post-COVID 19 era, or organisations and enterprises which may be undergoing pivots and/or in danger of being disrupted due to the industry they operate in.

Specifically, the following internal stakeholders of client organisations and enterprises will be able to benefit in the following ways:

- Senior management will be able to maximise the potential and contribution of every employee and actively support workplace learning while improving staff retention and recognising skills mastery
- HR and L&D functions will be able to support corporate goals and business objectives by ensuring that employees are engaged and are facilitated to be lifelong learners while providing a transparent and data-driven framework for their functions to operate within, while advocating the use of a 70:20:10 learning model
- Line managers and supervisors will be empowered by data to be effective coaches and mentors, and to facilitate timely and incisive interventions to arrest performance drops and skill competency gaps
- Employees benefit from targeted developmental interventions which are based on fair and transparent conversations arising from evidence-based performance management

Job seekers and Individuals seeking a career change will also be able to benefit from having a clearer picture of their current skillsets, how to improve on their employability and meet their developmental goals, and transition into a new industry/role if necessary.

7. Measures of Success

At the macro level, a high take-up rate of the platform by local organisations and enterprises, and individual job seekers and those seeking to plan their career progression.



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- Prototype MVP stage – target 5 organisations or enterprises for the prototype platform rollout, overall 200 users (preferably from the retail and petroleum & oil sectors and including a small number of job seekers (5%) recommended by career centres)
- Platform confirmation stage – Target 50 organisations or enterprises for adoption, to be rolled out over 12 months, with a stretch target of 200 organisations or enterprises, overall 5000 users

At the organisational level, the developed platform should be able to increase transparency scores and engagement levels with respect to employee development, which can be gathered by surveys and focus groups with stakeholders in local organisations and enterprises.

At the individual job seekers level, the developed platform should be able to ease frictional and structural unemployment. Users who are retrenched or seeking roles in new industries/job families should be able to reduce their time spent understanding their current skills profile and skills gap, thereby cutting down 30% of time spent with consulting career counsellors to diagnose their skills, allowing career counsellors to be more targeted to assist job seekers find a closer match to the job they need. Users who are looking for career development within their current organisation and/or are moving vertically should be able to report better engagement scores and sense of direction with respect to their developmental goals.

At the platform level, the developed platform needs to be able to appropriately and accurately gauge competency levels, synthesize data from performance scores into actionable insights and interventions for coaches, mentors, and/or learning & developmental interventions.

8. Deliverables

Development of a prototype performance management platform with the ability to track performance of employees, focusing on skills competencies assessments, track peripheral data that captures employee behaviour, track performance management conversations for keywords, identifies opportunities for data-driven coaching, mentoring, and/or learning & development interventions where necessary, and delivers AI-driven recommendations on roles/positions with similar/adjacent skillsets, particularly in the fields of retail and petrochemical workers, with a view towards scaling for other fields and roles later should they need to do so.

Development of a prototype coaching, mentoring, and learning & development platform which builds upon the data produced by the performance management platform to suggest internal coaches and mentors for developmental assistance, suggest external subject matter experts and coaches and/or mentors for developmental assistance, curate appropriate training courses for skills gap plugging, and empower coaches or mentors with appropriate data to ensure incisive developmental interventions.



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9. Vision

- Transformation of the HR function in Singapore to be more data-centric, evidence-based and to offer targeted coaching, mentoring, and learning & development interventions to employees in all sizes of organisations or enterprises and at all levels
- High take-up rate of local organisations and enterprises applying the solution to aid their productivity and engagement transformation in the areas of HR to support business goals
- Engaged employees supported by organisations and enterprises with targeted developmental interventions and career progression and professional development
- Lowered frictional and structural unemployment of workers in the challenges of a post COVID-19 era
- Individual job seekers transitioning or planning their career progression can be more independent when navigating this uncertain and trying period.