

Final report from RCG on the MIT Solve program, bringing together the learning from the three phases of the MIT Solve Challenge

Foreword

Commencing 2018, the Research and Communications Group (through consultants Stephen Parsons and Scott Rankin) provided monitoring, evaluation and learning to the Youth, Skills and Workforce of the Future program. Funded jointly by the Australian Department of Foreign Affairs and Trade (DFAT), the Massachusetts Institute of Technology (MIT) and the Atlassian Foundation (Atlassian), the Youth, Skills and Workforce of the Future program brought together three different organisational types who shared an interest in ‘innovation’ and better comprehending the meaning, implications and opportunities posed by the extraordinarily rapid advances in technology and innovation that were shaking the traditional global economy to its core.

RCG’s support, while intermittent, covered all three phases of implementation. This allowed the consultants a birds’ eye view of the overall approach of the Partnership, and insight as to its strengths, weaknesses and lessons learned.

Originally scheduled to be prepared as a traditional ‘final report’, the Partnership – in discussion with the Consultants – determined a more meaningful contribution to Partner learning would be made if the report was written more as a reflection aimed at drawing together the learning observed across the three program phases.

Given this context, the report should be read as reflecting the perspective of the RCG consultants on the overall program. However, this perspective emerges from extensive interaction with relevant Partner staff and grantees – most notably 40K Foundation and Ruangguru (a program of PT Ruang Raya Indonesia). We thank all of these stakeholders for their support throughout, and hope when they read this paper that they feel it accurately describes their own experience and the story of this important Partnership.

1. *Background*

Entrenched, inter-generational poverty is one of the world's most enduring and intractable development challenges. Efforts to cut the cycle of poverty through improving access to education and better pathways to employment have had only limited success over the decades. However, the rapidly evolving EdTech sector presents new opportunities to overcome recurring obstacles such as issues of access, educational quality and challenges posed by school-based learning systems.

In 2017, a partnership commenced between the Australian Department of Foreign Affairs and Trade (DFAT), the Massachusetts Institute of Technology (MIT) and the Atlassian Foundation (Atlassian).

Common to the three partners was a shared interest to harness the potential of innovation to address youth disadvantage. More specifically, the partners shared appreciation (and concern) that while technology and innovation clearly ensured new opportunities for economic and employment growth, environmental protection and poverty reduction, technological advances also presented complex challenges given estimates that half of today's jobs could become obsolete in the not too distant future due to such advances. Each partner also wanted to better understand if or how these monumental changes could be leveraged to address previously intractable development challenges.

It was this shared interest in both the opportunity and threats posed by innovation that encouraged the three organisations to form a strategic partnership aimed at identifying innovations capable of supporting disadvantaged youth to better prepare for the workforce of the future.

The initial foundation of the partnership was an MIT led challenge process that identified 12 'start-ups' to participate in and receive small grants through Phase One of the **Youth, Skills and Workforce of the Future program**. Over the following two phases, numbers of participating start-ups reduced, and funding increased as the partnership worked to identify a small number of scalable EdTech innovations that could impact educational delivery in a way that meant marginalised youth would not again be left behind.

Implemented over three and a half years, the Partnership will conclude in late 2021. This paper presents key learnings and achievements from program inception until its completion, focused primarily on the Partnership's work with the two Solvers that carried through until Phase three – Ruangguru and 40K.

2. *A complementary Partnership*

An important strength of the Partnership was that it was formed around an issue of mutual interest, and brought together partners with different strengths. There was also strong awareness amongst partners of the comparative advantage brought by each to the overall effort - notably Atlassian's world leading understanding of the tech landscape and latest innovations, DFAT's lengthy experience as a highly regarded international development agency, and MIT's status as a global benchmark for innovation (and also their emerging experience implementing youth innovation challenges.)

Interviews with grantees (Solvers) supported through the Partnership highlighted their positive perspectives on the different strengths and comparative advantages of each individual partner. Solvers placed great value on being associated with the prestige of the MIT brand, the MIT faculty and networks. Atlassian's reputation as being at the cutting edge of the tech revolution, and its embedded culture of 'giving back' through facilitating staff time to volunteer, has provided Solver teams access to very high level and ongoing technical support from Atlassian staff. Atlassian's willingness and capacity to quickly adapt and redirect funding according to changed circumstances

also stands out as a significant strength of the program, providing an added dimension of flexibility and innovation which proved especially valuable with the onset of the Covid-19 pandemic. DFAT brought important qualities to the Partnership in terms of being a respected international development actor, with extensive experience, skills and sophisticated understanding of capacity building and organizational development in resource and governance poor settings.

It should also be noted that the role of different partners ebbed and flowed in accordance with the different phases and evolving needs presented by the program. For example, MIT was the agency most front and centre in the first year as the Challenge process was rolled out, but their role receded over time. Understandably, the depth of Atlassian's relationship with Solver teams evolved and matured as the number of program participants reduced, and the technical support provided through the Atlassian volunteer network was fine-tuned and more carefully targeted. And DFAT has been able to draw on their broad experience throughout implementation to support partners to develop important technical capacity in relation to monitoring, evaluation and sustainability planning and simply provide advice around issues of project management in 'donor settings'.

A reflection of the strength of the overall Partnership can be seen in terms of the generally positive feedback received from Solvers through the external 2019 Partnership evaluation process. This evaluation highlighted that even those Solvers who were active only in Phase One of the program felt they had benefited from their participation, with 100% of organizations rating their experience with the MIT Solve Challenge as being either helpful (60%) or very helpful (40%) to their progression towards sustainability and scalability. Furthermore, all participants said that they would recommend the process to other organisations.

A feature of the feedback received from Phase One Solvers was the value they placed on non-financial support, with many citing examples of positive engagement with MIT, and the high quality technical support being provided by Atlassian volunteers. DFAT support to development of child protection policy and procedures was also cited as vital, and an example of unexpected value coming from the Partnership. Monitoring and evaluation (M&E) support supplied through external M&E specialists was also appreciated, although mostly described in the context of it being a good start, but insufficient to meet overall measurement needs.

Overall, where support to non-financial needs worked best was when there was a clear match between the Solver team need and the available partner skills and knowledge. While this worked relatively well in Phase One, it is also noted that the Partnership's capacity to provide holistic non-financial support was inevitably insufficient to overall needs given the large number of active Solvers and their start-up status. However, in Phases Two and Three, as the number of Solver's reduced, the Partnership's capacity to identify and respond to specific non-financial needs improved given strengthening relationships, an improved understanding of strengths and weaknesses and more focussed attention on fewer requests.

3. *Too fast a start?*

The acute complementarity of the Partnership and a desire to quickly progress the Partnership helped facilitate a rapid fire start that normal 'development program' design and planning processes would not likely have allowed. This allowed the **Youth, Skills and Workforce of the Future** challenge process to move forward with extraordinary speed, enabling the program to be quickly progressed and relationships entrenched. This 'fast start' also reflected the unity of purpose and trust between partners.

However, an unavoidable conclusion at the program mid-point was that while there was great value in this exceptional early momentum, it also contributed to longer-term challenges for the Partnership. Most notably, the initial selection process with hindsight can be seen to have lacked sufficient rigour to fully comprehend the strengths, weaknesses and opportunities presented by some applicants. Furthermore, the absence of reliable baseline data has been a constant challenge in terms of performance measurement, and compromised efforts to measure Partnership performance.

Furthermore, the Partnership operated through its first two phases without any formal documentation of its approach and objectives. While this was reflective of its rapid-fire commencement and a desire to be innovative and do things differently, all partners now agree that time should have been taken early on to step back and clearly articulate and define what success would look like at both partner and Partnership levels. Such a process would have allowed for development of a clear, unified plan, and more importantly it would have demanded performance metrics that could have been used to better monitor and evaluate performance during implementation. While an effort was initiated at Phase Three commencement to retroactively develop this structure, performance measurement of the Solvers remains complicated in the absence of a Phase One baseline.

4. *A Learning Partnership*

While the rapid-fire start contributed to some structural weaknesses, the Partnership has been impressive both in terms of how it has evolved and learnt during implementation, and also how each partner has developed systems and approaches reflecting lessons learned.

For example, the decision of both DFAT and Atlassian to provide financial support to MIT Solve competition winners has now been embedded by MIT within its approach to Youth Challenges. More generally speaking, MIT Solve acknowledges their partnership with DFAT and Atlassian as an important source of key learning, much of which is now reflected in their significantly evolved approach to Youth Challenges. At the heart of this revised approach is 'more structured support programming' to Solvers, many of which are directly informed from their experience with the Youth Workforce of the Future project, such as more thorough selection processes; greater focus on an early-stage Solver needs assessment; prioritisation of robust approaches to baseline information gathering; more considered approaches to mentoring; more frequent engagement of grantees, and full adoption of a staggered funding 'Prize model' (which they first trialled with DFAT and Atlassian). Notably, MIT Solve has grown significantly over the period since their engagement with the Youth Workforce of the Future project, currently employing 26 full time staff, which they expect to soon rise to 45.

Core approaches guiding the work of the Atlassian Foundation have also evolved based on learning emerging through this Partnership. Most profoundly, it has contributed to a revisit and revision of their purpose and approach, which can be seen through a strengthened Theory of Change. They have also re-thought which organisations they are best suited to support, with greater focus now being placed on innovative organisations with a track record of successfully implementing new ideas. Atlassian also openly acknowledges that hard lessons and challenges experienced through this program have been shared and discussed across the Foundation, which have contributed to positive change and a matured approach. Furthermore, Atlassian is applying this learning in new relationships with other organisations, such as the Aga Khan Foundation and the Jacobs Foundation.

Unfortunately, documenting how or if Program learning has occurred within DFAT has been more challenging. The rapid fire, non-standard approach to getting the Challenge up and running has meant that much of DFAT's standard program documentation (e.g. program design, a monitoring and

evaluation framework, etc.) were not available, making traditional performance measurement approaches difficult. The discontinuation of DFAT's innovationXchange (which funded the program and led the innovation agenda within DFAT) during the life of the Challenge was also of significance, since this meant that the corner of DFAT that had been granted remit to search out new and innovative ways of doing business was no longer available to deconstruct and promote lessons learned through the program.

5. *A Responsive Partnership*

While structural concerns and a determination to do things differently presented challenges, there were also strengths emerging from this fluid, agile approach to the Partnership. Most notably, the Partnership demonstrated a great capacity to be responsive and agile in a 'start-up' implementation space that by definition is unpredictable, constantly shifting and urgently requires adaptability in terms of positioning to seize opportunities as they arise. This strength came into its own in the context of a global pandemic, particularly with Solvers whose programming approach was heavily aligned with school based systems. For them, quick agreement was reached in terms of revised approaches and redirection of funding.

This responsiveness not only resolved practical constraints posed by Covid-19, but was also significant in terms of helping position Solvers to leverage opportunities that had arisen due to the pandemic. For example, Ruangguru's approach of developing course materials that complemented government school curricula positioned it as an invaluable resource for the government's Ministries of Education and Manpower as they closed schools and looked at strategies to support youth into employment. Through quick agreement to realign resources provided to Ruangguru, the Partnership helped facilitate strengthened relationships with these key ministries – thus aiding sustainability and scaling in the process. In the case of 40K¹, the Partnership also demonstrated capacity to draw breath and take stock of a highly complex implementation context that would likely have led many donors to walk away. This led to a situation whereby 40K has been supported with sufficient flexibility to reconfigure its approach and systems, giving it the best opportunity possible to succeed and prosper post Partnership funding.

¹ 40K and Ruangguru were the two Solver organisations supported in Phase Three of the Challenge. Information on 40K can be found at <https://www.40kplus.com/>. Information of Ruangguru can be found at <https://www.ruangguru.com/>

Ruangguru: A case study

An initiative supported through all three phases of the Partnership is the Ruangguru Digital Bootcamp, led by successful EdTech provider PT Ruang Raya in Indonesia. Ruangguru's story is a strong demonstration of the value of sophisticated, granular understanding of both the policy landscape and prevailing market dynamics, and subsequent opportunities in relation to partnership development, resource mobilisation and political capital. This is reflected in an upgrade in 2021 of Ruangguru's market valuation to US\$800 million.

While Ruangguru was already well established as a commercial EdTech services provider when it joined forces with the Partnership, they at the same time recognized a need for additional technical support and new approaches if they were going to reach the hardest to reach cohort of very poor youth living in contexts of long running inter-generational poverty, and who commonly had fallen out of the formal schooling system. This need was based on understanding that 24 percent of Indonesian students drop out of high school, and that most dropouts are either unemployed or limited to work in the informal sector.

Through its Partnership-supported 'digital bootcamp' model, Ruangguru now provides focused support to youth who have fallen out of the formal schooling system but want to return. By providing a structured framework of support and resources to this cohort, Ruangguru has been successful in supporting students to pass their exams, earn their graduation certificate and in many cases move into formal employment.

Evolution of its relationship with Ruangguru allowed a specific area of focus for the Partnership around a subject of global significance – inter-generational poverty. It also allowed the strengths of all actors within the Partnership to come to the fore, with Ruangguru's networks and reputation allowing strong levels of access to government, Atlassian being able to support development of a high quality Scalability and Sustainability Plan, and for DFAT to more broadly supporting Monitoring & Evaluation development within Ruangguru.

In its most recent report to the Partnership, Ruangguru noted that within 3 to 6 months of program completion, 28% of participants who were previously unemployed had secured a job. In addition, 31% of graduates were on a path towards continuing their study and were participating in university entrance exams, with a further 8% of Digital Bootcamp graduates having already been accepted into the university of their choice.

Work readiness programs are also integrated within the approach, supporting youth to develop the skills necessary to get employed such as CV writing, job interview techniques, correspondence standards and ethics, and job vacancy information and counselling.

Ruangguru is now using this success story to raise awareness of the Digital Bootcamp model, with the objective of further expanding the number of formal partnership agreements that it has in place with learning institutions. Currently, Ruangguru has established 26 partnership agreements (with 15 learning centers, 6 training centers and 5 universities). They have also taken significant steps to expansion across the region, with operations in Vietnam and Thailand having now commenced, Ruangguru also see opportunity to engage the corporate sector to explore opportunities with a view to them investing in the Digital Bootcamp in their areas of operation.

Opportunities also appear to exist in terms of building relationships with global actors leading the 'Education For All' movement, such as UNICEF, UNESCO, Development Banks and Non-Government Organisations such as Save the Children, World Vision and Plan.

6. *Prioritising the ability to define success*

As already mentioned, the program was impacted throughout by no reliable baseline having been assembled at commencement, either at Partnership or Solver level. Furthermore, the Partnership faced issues stemming from not adequately critiquing performance metrics and targets provided by applicants to the Challenge. This had the unintended consequence at commencement of rewarding some applicants whose targets proved to be unrealistic and not achievable.

DFAT, Atlassian and MIT have drawn on lessons from this Partnership to now be more demanding and robust in their own processes in terms of the information required from potential grantees, and verification of that information. Within Phase Three of the Partnership, Ruangguru and 40K have been supported by DFAT and Atlassian to assemble robust sustainability and scalability plans. This process was well managed in terms of providing the two Solvers with access to technical support for plan development, and by making the process highly iterative. This approach has involved rigorous questioning of data provided, to help ensure realistic targets, and also scrutiny of proposed engagement approaches to best assess their feasibility.

Both Ruangguru and 40K express appreciation and satisfaction at the end result, and now see these plans as an invaluable tool in terms of guiding them in their efforts to achieve scale and sustainability. The result is also an interesting reflection on the ability of different Partners to come to the fore in different ways, with Atlassian's expectations in terms of quality far exceeding what would have been deemed 'acceptable' in a more standard donor-client relationship. While onerous, the process appears to have strengthened relationships and mutual understanding, as well as leaving each organisation with a valuable planning and monitoring tool.

7. *Thought leadership - a Community of Practice?*

A central achievement of this program has been to enhance understanding of both the opportunities and challenges to better leveraging of EdTech to address the needs of the most marginalised and disadvantaged. This advanced learning is invaluable at a time when the Ed Tech sector and donors grapple with the inherent challenges of responding to the needs of the poorest layer of the pyramid.

Already lessons learned from this Partnership are being applied elsewhere, shaping Atlassian's thinking and approach with other similarly focused efforts, such as partnership negotiations with Singapore's Octava Foundation. Each new partnership and initiative is helping Atlassian further evolve its thinking on how best to impact disadvantaged youth and more profoundly overcome the many complex obstacles that are known to limit access and uptake amongst this cohort to EdTech resources.

As an increasingly prominent thought leader in the EdTech space, Atlassian is well placed to play an important role in promotion of further exploration and learning with regards to the potential of EdTech effectively responding to the needs of the most disadvantaged. This could occur through progressing a community of practice focused specifically on advancing understanding and strategies related to workable, sustainable solutions for reaching most disadvantaged youth, and breaking cycles of inter-generational poverty. Through convening such a Community of Practice, and linking it into the global conversation about innovative EdTech strategies, Atlassian can play a critically important facilitation role that helps this important conversation to continue to evolve. Such an approach would also likely yield evidence as to how far knowledge generated through this program is extending around the globe, which in turn could contribute to more interesting analysis of the global impact of Atlassian's programming.

8. *Summary of key findings*

As indicated above, the Partnership has shown strong capacity to learn and adapt during implementation, with all three organisations agreeing that their contribution to the program implementation approach would be significantly different today given lessons learned.

- **A deep and multi-faceted engagement** with applicants through the selection process is critically important on multiple levels, most notably to explore the voracity of their performance data and projections, their understanding of their operating landscape, but also the nature and depth of their leadership and staff capability, and suitability as a long term partner.
- **Efforts should be made to quickly open up** a transparent and open discussion around the Solver's understanding of 'vertical scaling' opportunities and challenges on the operating landscape, and also the depth of connection they maintain with key stakeholders and networks. This discussion should aim to identify how opportunities and challenges can be best managed and/or leveraged in the short and medium terms, while also teasing out clarity around the depth of connection the Solver maintains with key stakeholders and networks, their understanding of competition, and the sophistication of proposed strategies to address key challenges.
- **Capacity building needs of Solvers are commonly complex**, not easy to quickly identify and require strong levels of trust to be fully surfaced. Developing highly tailored responses to organisation-specific issues and capacity building needs is a vital offering to be made by Partners in terms of helping establish a strong platform for Solvers to build from. It should be noted that the capacity needs for early stage start ups are high and demand mobilisation of significant capital and resources if they are to be fully met.
- There is great value to be derived through investing time and resources to **develop Monitoring, Evaluation and Learning frameworks for the partners AND Solvers at the earliest feasible stage**, since getting this right allows a fast track to meaningful performance measurement, learning and decision-making. This dynamic, thought provoking process also helps facilitate trust, enhanced mutual understanding, and awareness of strengths and weaknesses. Such a process also helps break down what success looks like in the short, medium and long term, thus avoiding the trap of talking only about the ultimate impact from day one. While 'big impact' is the longer term goal and destination, getting there is made easier when there is granular understanding and logical, realistic approaches underpinning the pathway to impact.
- It is vital to **set realistic expectations early**. If Solvers have unrealistic expectations of what a Partnership can offer, it can cause misunderstanding, frustration and wasted effort. Most notably, there needs to be realistic expectations set regarding the likelihood of linking Solvers to third party funding, given how difficult this can prove to be. At the same time, it remains critical that Partners work actively with Solver teams to identify investment and resource mobilisation options, in order to develop nuanced and realistic resource mobilisation strategies that clearly articulate roles and responsibilities of different actors.

9. *In conclusion*

The **Youth, Skills and Workforce of the Future program** was both a timely and profoundly important initiative that has generated important learning regarding challenges and opportunities within the EdTech sector for effectively supporting severely disadvantaged and marginalised youth.

Furthermore, by partnering with one of the world's rising EdTech stars in Ruangguru, learning from the program is well positioned to be shared with implementers, donors and investors moving forward – furthering understanding of specific strategies required if the most disadvantaged are to benefit from EdTech innovations. Key to that learning are the results achieved with the more than 26,000 students that have participated in the program, and also the story of progressed relationships with key government partners and other stakeholders.

Another important aspect of the program has been the value gained when truly complementary partners come together with shared purpose, mutual respect and positivity to advance learning around a subject of global significance. This dynamic has helped maximise the contribution of each, which in turn has motivated grantees themselves to invest and commit to the effort.