INDEPENDENT THOUGHT
Best practice case studies

Extending the student digital experience beyond graduation

New Mexico Higher Education Department provides lifelong, secure access to trusted digital diplomas and certificates with Hyland Credentials

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Top takeaways

1

Creating the right (business) conditions and level of trust for a new tech project to flourish expends a lot of energy; but it's an essential pre-requisite for success.

The business, socio-cultural, and process side of any technology project is foundational work. It not only sets up the conditions required for effective operation when the tech's deployed; it prepares the ground for wider, willing adoption by increasing understanding of how new ways of working can lead to improvements in efficiency, costs, service levels, etc. A pilot has a much higher chance of initial success when the efforts to demonstrate *Proof of Value* go hand-in-hand with those designed to prove the [technology] concept. And without this combination of contextual awareness, stakeholder goodwill, and evidence of realisable benefits at acceptable cost… moving any *further forward* (into wider production) will likely prove challenging too, with expansion business cases difficult to make.

2

A shift in business context can precipitate a re-evaluation of cost-benefit analyses… turning what was once considered "a bane" of effort (with insufficient payback) to "a boon" of enriched digital experience (that satisfies new and evolving requirements for increased breadth and depth of online service).

Changes in ways of working, catalysed by COVID, have seen an acceleration in digital transformation ambitions (across all sectors) as organisations shift and scale to meet the needs of newly-remote workforces, learners, customers, etc. The New Mexico education system is no different. As colleges sought to adapt and enhance their service offerings with online options, they began to look more holistically at their digital relationships with students and alumni. With the usefulness and usability of the digital credentials project becoming apparent as its first cohorts transitioned through the system, the payback potential became much more easily explainable and quantifiable; providing clarity (in terms of the COVID-inspired/-required business impetus) for its inclusion in digital strategies.

3

Blockchain's inherent trust and immutability can extend the reach of a digital transformation agenda in 'time' (after primary engagements have run their course) as well as in 'space' (beyond organisation boundaries).

By anchoring to the Ethereum public blockchain, the certificates, diplomas, transcripts, etc. issued through Hyland Credentials provide New Mexico's colleges with a way to close the digital gap on 'the last mile' of education delivery… providing a perpetual (at least as long as the life of the blockchain), accessible and independently-verifiable online proof of attainment service for their graduates. And with the digital wallets in place on user's mobile devices (to receive those credentials), the New Mexico Higher Education Department is additionally looking, longer-term, to build upon their use to maintain a life-long (through further study and ongoing employment) and life-wide (across multiple institutions) engagement with the state's learning workforce.

Organisation background

Established in 2005, New Mexico Higher Education Department (NMHED) is a Cabinet-level agency that provides financial, academic, and policy oversight and support for New Mexico's public universities, colleges, and state-sponsored adult education programmes; regulates the state's private, for-profit institutions of higher education; and offers programmes in which both public and private institutions participate. It's led by New Mexico's Cabinet Secretary of Higher Education, who also serves the Governor as State Higher Education Officer.

For this report, Independent Thought spoke to Bogi Malecki, NMHED's Director of Information Technology.

Project background

Like education institutions the world over, colleges and schools in the US state of New Mexico issue their graduating students with written credentials (certificates, diplomas, degree transcripts, etc.) that prove their level of academic attainment and help them go on to further study or employment.

However, there can be many inefficiencies inherent in paper-based credentialing systems, where layers of inbuilt bureaucratic dependencies and costly, time-consuming processes lead to extended lag times around both issuance and verification. Fake documentation is also often hard to spot, and certificates difficult to revoke once in the wild (with obvious potential for fraud and misrepresentation).

There is thus lots of opportunity for education institutions (as with other sectors) to embrace a decentralised digital alternative that reduces friction, simplifies the verification process (obviating the need for expensive third-party intermediaries), and minimises the exposure of vulnerable centralised systems.

The need for improvement in New Mexico's credentialing processes had already been identified by some of its smaller colleges, whose graduates weren't always able to afford the $10 or $15 fees for official transcripts (and who might wait weeks or months sometimes for them to arrive – often resulting in missed life opportunities when it came down to would-be employers were weren't able to wait or waive the requirement).

Although Malecki reports that there *had* (historically) been some attempts to digitise the process prior to this project, these were mostly done by, in, and for specific schools – i.e. there wasn't anything that was really engaging with his agency at a state level. *This* project represented the first large-scale operation of its kind; a concerted and coordinated effort to develop and deliver a practical, secure, and economically advantageous digital solution – creating, as Malecki describes it, "a very 21st Century experience" for those in receipt of (and/or needing to validate) credentials issued by the state and its institutions.

Of these institution-specific projects, NMHED took its principal inspiration from Central New Mexico College (which had already been running a blockchain programme for several years, focused mostly on their own students) – observing how well the technology could potentially scale, how easily each graduate was able to obtain their credentials (and access them in perpetuity without repeated fees), and how readily they could be securely shared with an employer or another college.

Implementation characteristics and status

NMHED implemented the pilot for its state-wide credential issuing using the blockchain-based, cloud-hosted *Hyland Credentials* service (formerly known as *Learning Machine*, until Hyland acquired the company which bore its name in February 2020). *Hyland Credentials* is hosted on Amazon Web Services (AWS) cloud infrastructure and its open standards-based *BlockCerts* credentials are hashed and anchored to the Ethereum blockchain (NB other blockchains are also available for this process).

Phase 1 of the project (running through 2020 and encompassing three tranches of graduating students, in May, August and December) was drawn-up to focus on issuing diplomas and certificates on behalf of five colleges recruited for the pilot.

Phase 2 (timetabled to run through 2021, funding permitting) has plans to scale both in terms of the scope of documents on offer (principally transcripts, initially from the original five pilot colleges); and then to expand across the wider education and workforce system (taking in other forms of credentials, such as licences and certificates of fitness-to-practice).

The approach

Strategy

NMHED's digital credentials project is part of a larger digital initiative (from the agency, and also from the state governor's office) to improve education services and make them cheaper, faster, and easier to consume – in the case of credentials: easier and cheaper for students to be able to receive and to keep their certificates, diplomas, transcripts, etc. (and for them to present them to prospective employers, etc.).

It's also looking to the data collection aspect of the project to additionally help generate insight into how well students are doing in different schools, and how the state might be better able to leverage a range of services in a more targeted way, right across its education system.

Selection

Following a meeting early in the summer of 2019 between the NMHED's new Cabinet Secretary and the President of Central New Mexico college, Malecki's team were charged with looking into blockchain technology as something with the potential to benefit the *entire state*'s education system (since – unlike Central New Mexico College – the majority would be unable to commit the funding and resources required to do this for themselves, individually).

Despite the COVID-19 pandemic focusing people's minds on more seemingly immediate operational challenges, the agency nevertheless had nearly twenty colleges express an interest in digitising their credentialing services in this way – from which five joined the initial phase of the pilot: San Juan College, Mesalands Community College, Northern New Mexico College, the Ayurvedic Institute, and Santa Fe Community College.

After scoping out requirements with the schools, the NMHED digital credentials project began to take more shape in August 2019 with the search for a technology partner. Research and presentations continued through September and October (along with further conversations with colleagues at Central New Mexico College, who had worked with *Learning Machine* and their blockchain-based *BlockCerts* service, soon to be acquired by Hyland).

As user requirements became better understood, it became clear that an open standards blockchain based solution (where credentials wouldn't require any special software or vendor to verify or confirm the identity of the issuer) would provide the best technical underpinning for a pilot project. Although other potential vendors were in initially the frame (with the state requiring three bids under open tender for public works), Hyland / Learning Machine came recommended, were seen as experienced and reliable, and priced well for the pilot.

A contract was signed in early January 2020 to develop a solution based on what became the *Hyland Credentials* system, and the pilot for Spring (May) graduations began in earnest at that point.

Besides the Hyland / Learning Machine service, Malecki's team had also looked at "blockchain-like" centralised ledger databases – which would provide some of the immutability and trust-bearing capabilities, albeit without the attendant complexities of a public anchor and consensus-based network. However they felt that, although NMHED could *theoretically* leverage its position in the state's education system to act as a trusted central authority in the issuance and verification (against digital credentials held on its own central system), it would be locking itself into a particular vendor for the duration; and – more importantly – wouldn't deliver on the project's goals of guaranteeing easy independent verification in perpetuity (or at least for the lifetime of the chosen public blockchain) *because* of the tie-in with a particular vendor's database of the moment. Also, such services were seen as being too new to try at the outset of the pilot (they're still a minority market presence, nearly a year into the project).

A move towards a more centrally-maintained ledger is still potentially "on the table" for the future, according to Malecki, as a way of expanding the service to smaller schools which wouldn't have the resources to commit to anything other than NMHED running such things on their behalf… perhaps as part of a hybrid solution in combination with the Hyland-based project. However any such adjunct would also need to be open standards-based and vendor-agnostic in order to satisfy longevity concerns regarding students' unimpeded access to their certifications.

Development

The pilot is geared towards proving the concepts (to all the various institutions) both that a blockchain-based credentialing system can deliver a secure, enhanced, digital service; and also that whilst NMHED *can* help with resources (as a central entity), the technology itself is flexible and open enough such that it can also be deployed by individual colleges through their own vendor partnerships (if they'd prefer to keep the management of student information to themselves) – and the agency is able to help with that route too.

The agency worked with the five higher education institutions in the pilot to design and create the diploma credential templates, with the intention that these digital versions would look very much like the traditional paper-based certificates that graduates (and would-be employers, etc.) had been used to receiving in the past. Malecki recounts that this process proved to be quite time-intensive, with much back-and-forth between registrars' offices, presidents' teams, etc. to ensure that the design was as close a facsimile as online reproduction allowed (featuring all the required signatures, seals, correct fonts, and so on). Although this wasn't *technically* necessary (as the certificate operates and is authenticated on a digital level, with its authenticity cryptographically assured on a blockchain), Malecki's take is that spending time and effort to give the digital certificates the equivalent "feel" of the paper document helped people better understand what they represented, and that this surface presentation

contributed significantly to successfully selling the concept ("you could see people's eyes almost light up when they saw them", he recalls).

Once the templates were signed-off by the colleges and imported into Hyland's system, NMHED established a secure chain of custody to obtain the records of their graduates (whether they'd met all the credential parts of their requirements for graduation, all their fees had been paid, etc., their email address, etc.) and then acted as intermediary to upload the details through Hyland's online portal. (However, Malecki notes, going forward there's no reason why the individual institutions couldn't upload the data themselves rather than transferring it to NMHED first.)

When the colleges were all ready to issue the credentials (this was done on a single specific day for the pilot, so again – more coordination with the individual schools) then Hyland generated the block certificates and anchored them to the Ethereum blockchain. From that point forward, the certificates themselves became independently verifiable (in a vendor agnostic way) – i.e. the process simply required checking against a public blockchain record.

Beyond the technical concept-proving around design, data gathering, and issuance, a large component of the project is public relations – schools (primarily) reaching out to their soon-to-be graduates to raise awareness of the digital certificate service (and the wallet tool for their device), so that they were primed, when notified, that the certificates were available (to be stored, shared, etc.); and that they knew what they were, what to expect, what they needed to download in order to access them, what they could use them for, etc.

Although the NMHED had early conversations with Central New Mexico College about the direction they were taking in their own (established) digital credentials project, the college didn't join NMHED's pilot (focusing instead on their own solution), leaving the agency to forge ahead on their own (with Hyland again as technology partner). No consultants or other third parties (beyond Hyland and the pilot cohort of colleges) have been involved in the project thus far – currently Hyland handle much of the technology side of things (which has made it easier to get the pilot off the ground quickly), but as NHMED seek to scale the initiative into wider production they're considering what aspects they might bring in-house in order to keep scaling costs to a manageable level within limited budget constraints.

Organisation and people

As we outlined in the *Independent Thought* report *2020 rebooted: Becoming differently digital*, the COVID-19 pandemic has inevitably affected organisations' attitudes towards, and aptitude for, emergent technology projects. The contexts have evolved (in some cases), and outcomes need to be clearly defined and aligned with (often revamped) business goals… with measureable benefits seen quickly in order to retain stakeholder support.

Adoption

Malecki recalls that there was initially push-back from some of the pilot college teams, with people questioning why they (and the state) *needed* the new digital credentialing system; arguing that – in the midst of a pandemic – they felt they had other, "more important" things to deal with at the time. However, senior management in the individual institutions (and the agency) remained on-board throughout, and once the NMHED team were able to complete the front-loaded design process, and demo the data transfer and issuance procedures, the level of *ongoing* involvement became clearer to project participants.

At this point there was, as Malecki puts it, “kind of a lightbulb moment” for some of the schools, when it became clearer what they and their graduates were getting (for the amount of effort required) – and although this ‘journey’ took several months, Malecki reports that the colleges are fully on-board now and eager to keep the project moving (even asking when they could start setting-up and processing for the next cohort of students).

Malecki’s team at the NMHED found that an accelerated shift towards process digitisation across the board (to provide increasingly contactless engagement experiences) provided a catalyst for the digital credentials project. And despite each college’s core business focus on working and teaching remotely (and its attendant challenges) during the pandemic, there was still both a will and a way to make this work and to more forward… *because* of its inherent usefulness in continuing the digital experience *after* graduation (something which only became fully apparent to some partners as the pilot wore on).

Take-up by graduates isn’t as high as Malecki’s team would have liked (at around 20% for the first cohort), but given the challenges of maintaining an effective promotional campaign when students aren’t physically on campus to attend classes (because of measures introduced in response to the pandemic), that’s viewed as a pleasing figure from a standing start. Especially when the qualitative responses from those who have engaged has been so positive, as Malecki reports.

Roles and resources

Malecki reports that there’s not been much change to organisational roles in the institutions the NMHED are working with yet, as the digital-specific processes have mostly been an add-on to what people are doing anyway (under the normal rhythm of college operations across the academic year).

However, as online and blended learning styles become more commonplace (especially through rapid adaptations for teaching continuity during the pandemic) he does expect some shift towards digital experience-focused roles to start to come on-stream – across the institutions, not specifically in response to adjustments and accommodations made for the digital credentials project (it’s part of a bigger movement now)… but that’s not happened yet..

Governance

At the moment, governance of pilot colleges’ digital credentials sits alongside their paper-based cousins, under existing paradigms – there’s been no move to look at digital aspects separately yet.

However, Malecki sees this more as a symptom of college governance not yet having fully caught up with the digital (and, specifically, the blockchain) world, rather than the blockchain-based counterparts not necessarily *requiring* different treatment (because of security, confidentiality, and longevity considerations, etc.).

This aspect of the project is something which he imagines NMHED may elected to take on in the future, as IT specialist in this area – committing to protect the data, through its own stewardship policies and through agreements with Hyland (as technology partner) to ensure its safety (i.e. that privacy and confidentiality concerns are addressed; that no parties other than the appropriate personnel in the agency itself and respective schools have access, etc.). However, for the time being, records are still held and overseen by individual schools themselves, and Malecki’s team hasn’t pushed at this, or attempted to codify alternative procedures, because of other priorities.

There's a lag in terms of institutional perception that there may be a *need* for specialist oversight (by the NMHED, on behalf of the state); and possibly in legislative terms to (where state law may need to change in order to facilitate this arrangement).

Technology and infrastructure

Malecki reports that the Hyland solution is "well contained" in terms of its architectural requirements. Once of the reasons NMHED chose *Hyland Credentials* was because the service is hosted on the AWS cloud, and the agency have other infrastructure and services hosted there already; it's a known quantity in terms of maintainability.

Hyland created the AWS-hosted portal to provide a secure "venue" where all the schools are able to upload their data, with access strictly controlled so prevent inadvertent (or deliberate) tampering. On the agency side, "nothing really had to change". Malecki's team had to commit resources to work with Hyland and with the schools, but technical infrastructure (and existing processes) remained relatively unaffected by the additions.

For the pilot stage, the service has simple load mechanism – via a CSV file through the portal (with the potential for XML files in the future). There's been no requirement for direct integration between *Hyland Credentials* and NMHED or college back-office systems.

However, going forward NMHED has various waves of integration under consideration – such as tie-ins with institutional ERP systems to bring a direct connection between traditional enterprise and blockchain systems (an important automation consideration for scaling the service beyond the handful of schools where portal-based file transfer has thus far sufficed).

It's something Malecki's team is set to explore carefully "in due course", but it's still "a way off" for now… set for a subsequent phase of development.

Outcomes

Beyond expanding to all the state's higher education institutions, NMHED also has ambitions to expand the system out to high schools (where there's already some interest). Malecki feels that the pilot process has both proved the concept for digital credentials, and also taught the agency how to scale the service – estimating that "90% of the work" has been tackled during the pilot, in terms of learning how to design, data-gather, and issue credentials on behalf of the five pilot colleges.

The various facets of the pilot project have helped NMHED to better understand its requirements; the business processes which need to become defined, digitised, and tested to all stakeholders' satisfaction; and the relationships which need to be established and maintained in order to support new ways of working, alongside existing systems. And these aspects represent a considerable amount of front-loaded effort (required for any attempt to digitise the awarding of credential, regardless of downstream decisions on the actual technology and vendor deployed to deliver the digital artefacts themselves).

And these processes are far from purely technical. Some of the biggest challenges NMHED and its partners overcame to make the pilot a success were business and cultural in nature, requiring tight partnerships and alignment of goals… from obtaining design approvals for the digital certificates; to negotiating with colleges for the transfer of their student data (providing assurances regarding security and robust procedures, etc.); to liaising with colleges over PR campaigns to raise awareness of the option to receive certificates in this new digital format amongst their student population (in order to encourage take-up).

Although NMHED is now in a much stronger position, as a much 'smarter customer', in terms of understanding the current state of the art and the state of play… it's the agency's capacity to accommodate similar inter-organisational negotiations and processes that Malecki cites as the main limiters on extending roll-out amongst more partner colleges, for now (despite, on the strength of the pilot, there being demonstrable interest and demand for expansion).

Malecki reports that there's "almost been a flip" in terms of people's attitudes towards, and aptitude for, a digital credentials initiative – once its usefulness became clear and proven in the context of providing a contactless digital service during the time of the pandemic.

Although NMHED engaged with dozens of schools to recruit interested parties to the pilot, they secured only five for launch… the main reason given, at the time, for not getting involved being the perceived need to focus on crisis management and COVID responses (such as ensuing adequate provision for digital teaching, learning, and assessment).

However, once the agency was able to *show* what pilot participant schools were able to do (and for the level of effort expended), and how the first tranche of their graduates benefited from the service, the project's value quickly became much more easily explainable, and quantifiable – especially in COVID operations context. With it, schools could continue to offer a digital experience *beyond* graduation, helping their students progress to higher-level study or employment, etc.

Malecki recalls that non-participating schools now began to see how useful such a service could be to them *right now* – moving from postponable luxury to necessity. This is an important distinction when evaluating the case for any project in any timeframe – but all the more acute during COVID recovery times. Especially for a technology, like blockchain, which often struggles to be able to prove its worth quickly enough to retain support and buy-in when requiring systemic changes to ways of working across the business and its partners (before participants are able to fully reap the rewards, often).

In the case of NMHED's digital credentialing service, it's likely to be operated as an adjunct (alongside traditional paper-based certification) for some time to come – at least until there's something of a seismic shift in consumer behaviour, with wallets and tokens becoming a much more commonplace way of transacting and trusting documentary evidence between people and organisations. Therefore, the pilot hasn't needed to prove its worth in terms of completely *replacing* an existing system and set of processes; rather it's been able to demonstrate additional (cost-effective) benefits – to students, schools, and employers. And as the digital route becomes more normalised, reaching a critical mass of credentials issued on-chain, Malecki hopes to see it become established as the default option (perhaps leading to a retiring of the old ways of working, in due course… but only once the service has earnt its commission – in robustness, scale, security, and reliability).

Malecki sees it as the *start of a shift*. Before, the blockchain system was seen as a "shiny new thing", but now it's being treated as the means to a very desirable end – in a much more mature, *post-blockchain* way of approaching the technology. Prior to the pilot, it was a tough sell (in troubled times). Now, with three tranches of graduates having been processed in this way (across five schools) the project has its own gravity – it's exhibiting a 'pull', rather than Malecki's team having to 'push'.

The positive reception which the pilot phase of the project enjoyed has encouraged the partners to scale-up their initiative – moving beyond just diplomas and certificates, to issue digital blockchain-anchored transcripts through the *Hyland Credentials* system too. It's a more involved template (which will require further rounds of design engagement between NMHED

and the schools), but it's an option supported by Hyland which the schools now want to investigate – when (limited) resources permit.

There's also burgeoning interest now in 'backfilling' student coverage by offering certificates, etc. to college alumni from previous years' cohorts (last year… ten years ago… etc.) – since, if the data's available (including up-to-date contact mechanisms, to make people aware of what's been done on their behalf), there's no real *technical* reason why the service can't be extended in that way.

At the moment, Malecki's team hasn't been asked to undertake any *formal* ROI assessment of the pilot project's outcomes, though they "see that coming" over the next few months, as they put together the case for scale-up funding (to move out of the five-school pilot phase). They've presented numbers around participation and recipient engagement / acceptance levels thus far, but not yet been asked to calculate the cost-benefit in quantifiable ROI terms.

NMHED is also planning to partner with its sister agency, the *New Mexico Department of Workforce Solutions* (which is responsible for economic development, labour relations, unemployment, volunteerism, workforce development, etc.) – to issue more vocation-related certificates (for instance, electricians' licences) on their blockchain system. Additionally it's looking at expanding the service to incorporate other state agencies and private sector partners (such as research institutions) both to provide a better quality (digital) experience for all the stakeholders involved in the hiring process, and tackle the issue of fake credentials in the wider workforce.

Recommendations for adopters

Malecki cautions not to underestimate how much commitment is required amongst participating institutions to make the process work (especially the involved level of to'ing and fro'ing needed to complete the front-loaded preparation stages – designing the templates for the digital certificates, etc. and getting senior stakeholder sign-off representing the bulk of this; but also ensuring that data is collected in a timely way and prepared for upload; and that the transfer is undertaken securely).

The workload *is* an imposition (and an addition to normal working practices, at present), and each institution has to recognise and commit to that. However – as the world of work and study changes post-COVID, with heightened expectations of empowering digital experiences – the reward (in terms of a new digital service) is now seen as being worth the effort… perhaps to a greater degree already than would have been the case had the pilot been run outside of COVID times!

As Malecki puts it, "what was a bane became a boon"… once the initial effort's been put in (designing templates, encouraging students to download wallets, etc.) then the blockchain-based infrastructure is *there*, available for other uses down the line.

Another point which Malecki stresses was key to NMHED's approach, was to settle on a solution that was as open (in terms of blockchain network and token technology) as possible, so that credentials are transferrable in a life-wide and life-long learning context, and institutions (and their alumni) don't fall foul of vendor lock-in effects long after original credentials are earnt and issued.

Independent Thought's best practice insights

There are a number of interesting aspects to the New Mexico Higher Education Department's experience of designing and piloting its new blockchain-based digital credentials services.

Despite initial wariness amongst prospective partners as to the wisdom of embarking on a new, emergent tech project during times of acute operational stress (due to the COVID-19 pandemic and its effect on teaching and learning practices state-wide), NMHED not only established and maintained stakeholder buy-in amongst participating institutions over the course of an intense design and preparation phase… it ended-up ultimately *enhancing* the level of commitment and interest in the project once its value became proven.

And that's partly down to being able to demonstrate concrete, contextual benefits (e.g. how easily and quickly the graduates which took up their digital diplomas, etc. were able to access and use the credentials when seeking employment or further study; the cost differential, especially to the student, compared with paper-based alternative).

But it also has something to do with circumstance.

The pandemic *crisis innovation* lens has provided perspectives on the business case for the project that have evolved over time. Initially, the front loaded effort required for project set-up was seen by some colleges (who declined to join the pilot) as a distraction and a drain on resources when their immediate focus (as the pandemic took hold in early 2020, campuses began to close) was on adapting systems and processes to accommodate COVID-inspired/-required shifts towards online teaching.

However, *new normals* have begun to engulf the teaching and learning landscape (just as they have in myriad other sectors), initiating or accelerating digital transformation agendas in response. NMHED found that this effect has ended-up strengthening the case for colleges extending their evolving digital experiences *post-graduation*, serving their alumni into further study and the wider world of work… and thus opening doors for credentials issued on a blockchain.

That's not to say that interest would have intrinsically built up *without* the effort put in to prove the concept through the pilot project though, to a point where a digital credentials initiative would have become an 'inevitability'. It took a *lot* of work to get to that point.

Which brings us to Malecki's main learning point for people embarking on something similar. A "bane" way well have "become a boon" (in terms of the pay-off for participating colleges and their students once the certificates and diplomas were issued), but the road to get there required a great deal of time-consuming close working amongst partners.

This effort was focused on the business, cultural, and process side of things; but it was foundational – laying the groundwork, without which the project would fail to fly (e.g. finalising template design, establishing trusted data transfer protocols, raising awareness amongst the target student population, etc.). By comparison, the technical realisation itself (by Hyland) was much more straightforward to accomplish, as essentially (for the pilot's purposes, anyway) a plug-in, self-contained, cloud-hosted service.

Ignore the socio-cultural and business process angle of any technology project at your peril (emergent tech, like blockchain, being no different). They're what maintains goodwill during a pilot, enables wider adoption to take root, and what makes the demonstration of business benefit to other stakeholders easier to quantify (because you're operating in a 'business outcome context' already).