

## iThesis: Polly's project

**Alvaro Conti**

School of Architecture and Design  
King Mongkut University of Technology  
Thonburi, Thailand  
vazzavazza@hotmail.com

### Abstract

*This paper outlines an attempt to loosen the existing role and structure of the traditional 'thesis' as the key undergraduate learning instrument within universities in Thailand. It does so by describing an exemplary project – Polly's project - that uses technology to facilitate an exit from the "regulatory space" in which thesis operates. The project succeeds in exiting this regulatory space by forming - outside of its jurisdiction - an "aggregate" body from which a cumulative intelligence is established. Operating out of such a space, a working process is liberated allowing a wider visionary scope and access to a set of productive forces ordinarily not considered permissible. The inclusivity afforded by the process achieves an extreme productivity that exposes the existing limitation of thesis, calling for its redefinition and transition to a wholly more pertinent educational instrument with new ambitions.*

### Keywords

Pedagogy, regulatory space, aggregate, coalition, enterprise, technology, immutability

## Introduction

*Quattro maestri, cinque opinioni / Four teachers, five opinions*

(Italian saying)

The traditional teaching environment is being dissolved, spatially, programmatically, authoritatively (Bruckman & Resnick, 1995; Bruckman 1994; Guzdial, 1989). In an age of "opportunity," the established learning models sustaining higher education and executed from within traditional environments are being eclipsed. More fluid methods of information-creation and transmission are being associated with accelerated and novel output (Hsi & Hoadley, 1997). In today's classrooms, the mesmeric mobility exhibited by students has begun to surpass the validity of formal instruction. Methods of egress to other bodies of knowledge, sources and agents puncture, from within, the protective, disciplined surroundings previously ascribed as suitable for learning.

With a new set of forces ever more in play (social media, mobile devices, interactivity), the current climate mocks a previous equilibrium between openness and constraint established by traditional instruction. The inert boundaries of more traditional learning spaces, erected to deliver standardised curricula in environmental isolation, are now fully contingent. New communicative "ecologies" emerge and thrive richly through interdisciplinary exchange (Visser, 2001) A network

of encounters between learners - facilitated by technology - promotes the discovery of multiple solutions, achieved collaboratively, and nothing less than a new learning subject is being constituted in the process.

In this spirit, the following text is an incursion into the sovereign territory of “thesis,” the key undergraduate learning instrument at university level. With undergraduate education in Thailand firmly rooted in the traditional service-profession, any contesting its tenets could be interpreted as irresponsible. The undergraduate thesis remains a professional degree, restrained by professional bodies such as the Thai Ministry of Education, the Thailand Interior Designers Association and at a local level, a university's curriculum (UNESCO & IBE, 2010/11). These regulatory bodies are in turn woven within a whole set of deeper arresting currents, i.e. seniority, patriotism, tradition, the familial which from a learner's perspective, are forces that dictate what is possible and define what a learner could be.

The paper intends to generate a critical discussion around the possible opportunities afforded, following an unmooring of these underlying yet palpable regulatory conditions. Although responding to highly localised conditions within Thailand, it hopes to resonate with teachers everywhere who recognise and operate under similar conditions and wish to affect productive changes.

The project described in this text is one of five thesis projects conducted over a two-year period. The other four projects share a similar shedding of institutionalised values in pursuit of a widening student role and a loosening of authoritative strictures to affect change. It describes an undermining of the pedagogical “rules of engagement” and, in so doing, reveals that such rules are only ever provisional and that educational institutions should know this.

How then to usher in a transition to a wider, wholly more pertinent understanding of design pedagogy, escaping stagnant and calcified pedagogical cycles to re-engage with the world? How then will it be possible to capsize previous methodology? From within?

## **An individual**

*Billy Dean: Guys...you're still trying to replace Giambi, I told you...we can't do it! But...what we might be able to do is recreate him...recreate him in the aggregate!*

**MONEYBALL | 2012 | Dir: Bennett Miller**

Found near the start of the movie, the above lines are extremely telling. Following the loss of a great individual player from his baseball team to the big leagues, the traditional methods for scouting new players begins all over again. The manager of the team, Billy Dean, understands that nothing will improve if he continues with his current recruitment method. So, he employs a different approach (in reality, Bill James' “sabermetrics”) to relocate and redistribute the achievement of a singular great player across a series of underrated and unknown players.

In a similar way, the dominant mainstream pedagogy remains modeled on the “tradition” of Modernity, its attitudes and objectives (Axelrod & Cohen, 1999). Its hegemony is upheld via thoroughly rationalised and ordered curriculums with learning spaces and transmission methods delivered in discrete space and time. A learner engages from a highly-regulated learning space, governed, disciplined and assessed with certainty by a higher, regulated authority (for alternatives, see Illich, 1971).

The increasing accountability of universities entails that they see each student as an individual unit and locus of measurable results. Through an established set of evaluative criteria, individualised intelligence and inherent ability is isolated and prioritised for assessment. In striking contrast, the real world exhibits progression through collaborative efforts, distributed across a range of tools, environments, locations, actors and time zones (Visser, 2001). Individuals, in interacting with each other achieve more than each in isolation.

With a clear discrepancy opening up between what is happening around the world at an everyday level and with what learners are experiencing through curricula, has it not become necessary to endorse emerging alternatives? Alternative learning spaces and transmission methods are now filtering through all on their own, inadvertently undermining the divisions and boundaries of pedagogy as they compete to exist.

With the technology currently at hand, knowledge is produced and occurs across environments. It is understood as residing between learners, within their interactivity, in the very differential between perspectives, and not simply stockpiled in a learner (Davis & Sumara, 2006). In these more “conductive” settings manufactured by technology, learners are constantly implicated in the emergence of latent, as yet unimagined knowledge, otherwise inaccessible (Biesta & Burbules, 2003).

As pedagogy evolves alongside technology, it becomes necessary to reorient emphasis away from the unaided individual learner, in isolation, and begin assisting intelligent collaborative activity. In this way, a learner can construct their own world as scaffold for their own activities.

## A limit

*Red: You believe whatever you want to Floyd but I'm telling you...these walls are funny...first you hate 'em...then you get used to 'em...enough time passes you get so you depend on 'em.*

**The Shawshank Redemption | 1994 | Dir: Frank Darabont**

Undergraduate education culminates in the thesis, the concluding platform through which learners are expected to demonstrate knowledge acquired over their previous years. It is thus a closed system of relative values. There is a hidden poverty within this vehicle and its accompanying pedagogical intention, one that primarily sees its role as producing a serviced-based aptitude through adequate, standardised means. In continuing to replicate past knowledge and skills, the thesis as an instrument remains undeveloped, unable to transform. Adherence to past methods constrains development by pre-determining the choices available for progression in terms of ambit, methodology, and subject matter. Such methods, in turn, increasingly produce docile subjects unattached to their work (Doll, 2002).

A final thesis is structured over two 16-week semesters and assessed via monthly group reviews with four to ten students per group and a panel of instructors. The first semester is *research-based* and is divided into six specific categories, namely, Historical Background, Site-analysis, Case-studies, Space-planning, End of semester review and Thesis book submission. Each category has its own set of criteria for evaluation. The second semester is *design-based* with students required to use research material from the first semester to produce a completed design proposal. Again, this design-based phase has specific categories, namely, Schematic design, Design development, Final design presentation and Final thesis book submission. Evaluation criteria must be made evident in the student's work. Over this period, outcomes for a thesis ordinarily exist as a final set of metric drawings such as plans, sections and elevations, perspective renderings and a comprehensive thesis book depicting the overall design journey. The well-established process, time-line and evaluative criteria used to assist students in completing this task organises and stratifies the 'space' of thesis establishing permissibility.

The method used for the completion of thesis is adopted by learners who squeeze themselves into convenient, pre-established categories, schedules and accepted methodology to avoid risking failure. Remaining within the narrow, well-established, existing intention of the thesis, however, leaves the experience of learners trapped, in advance, by pre-existing expectations. Projects tend towards equilibrium, paths of least resistance. Such equilibrium can add inertia to a project. Continuation of any project is dependent on entering into disequilibrium. Avoiding both a linearity

and complete disambiguation retains intensity, a salience with which to work, a remainder, provoking conditions for continuity.

Instead, the regulatory space of the thesis precludes what learners can think of as permissible or available for use. These affects should not however be confused with enabling constraints which are inherent, temporary and local to a project, often prompting invention. In strong contrast, the regulatory space of the thesis is all-pervasive, unilateral and insidious (Foucault, 1995). Its own management structure inhibits transformation of both student and process firmly placing the thesis within the conventional.

In addition to this, the dominant hallmarks constituting the regulatory space of the thesis such as method of instruction, institutional setting and operational imperatives, manage to corral a learner's vision into pre-determined sets of actions and procedures. The default roles performed by and between subjects within this institutional space, i.e. teacher/student, adult/adolescent, superior/subordinate, when married with disciplinary issues such as schedule, program, class location, hierarchy, and dress code all coincide within the learner arresting options (Foucault, 1995).

Accordingly, in an effort to verify their individual knowledge and capacity, a learner is drawn into a didactic contract that sanctions a series of expectations requiring that they work and be evaluated as individuals, operating unaided and in isolation. Learners passively enter such positions, automatically limiting the potential possibilities and affordances that occur to them. It would not be an understatement to say that immersion into the regulatory space of the thesis supports a mimesis and uniformity of process, leading to predictable and often “pleasing” results and, as a consequence, a confinement of the capacity to think of other opportunities or abandon existing ones. Such conditions continue to limit the view of what a learner could be. These experiences often cause learners to lose their enthusiasm and intensity as suitable directions for projects are predetermined and entry into “tried and tested” methods soon arrive at agreed outcomes. In imposing *a priori* methods, already shaped and polished, the irregularities and idiosyncrasies exhibited by learners are removed, de-vitalising encounters.

Putting this learning space into tension through alternative pedagogical strategies aims at dissolving such strength of habit and routine and helping reach beyond an existing repertoire of learning strategies to open a broader realm of experience for learners. Out-manoeuvring this highly-regulated “static” space of the thesis and temporarily substituting it for a “stable” one might better help acknowledge regulatory space as a contingent formation, ready to be shifted out of as a relic of didacticism. A regulatory space thought of in these terms would allow itself to be transgressed. How then does a learner make a leap towards these alternative approaches when the dominant method, the vehicle for transmission, is itself prejudiced towards passivity?

## iThesis

**Howard Hughes:** *We gotta get rid of the struts.*

**Odie:** *No, then the top wing falls off.*

**Howard Hughes:** *Then let it! Who says we need a top wing? I mean, who says we need anything?*

**The Aviator | 2004 | Dir. Martin Scorsese**

Technology lends an inexhaustible connectivity. In allowing us to do more than ever before, more quickly than ever before, it rapidly exposes complacency regarding the pedagogical choices before us, and the means through which to attain them.

As alternatives to established pedagogy take shape, our earlier pedagogical convictions may begin to untangle. Thereafter, a continued exposure to technological means - employed by newly emerging pedagogies - may require our existing pedagogical roles be redefined, jurisdictional borders redrawn and new affiliations brought into being. It is in this spirit that the previous

monopoly of method, habituated into place by established thesis protocol, may begin to be challenged and new alternatives for action freed to be envisaged.

One such alternative, described in this paper, invites a re-definition of “thesis.” Made visible through an exemplary case study, this invitation to re-define is called *iThesis*. Put simply, *iThesis* is about establishing conditions for interaction. It is the optimistic connecting of productive forces. It is not a single complete process but always in the making. It forms and reforms, remaining contingent and open, unable to be described wholly in advance.

It does not promote an overhaul of any existing system. It simply tries to open-up pedagogical motion from within the existing instrument, initiating a loosening of its fixity and adherence, not replacement. In this sense the learner can disengage from the terrain that they have become accustomed to, making visible an accumulation of viable alternatives.

*iThesis* is not about foundations, standards, emulation, or obedience, only the possibility of targeting and forging productive connections. These connections are intended to add diversity and maintain continuity through the duration of a thesis project (and beyond as we shall see). Generativity is its purpose, creating a range of credible trajectories - rather than prescribed outcomes - that continue to unfold according to emerging opportunities and not in any pre-determined fashion. It aims at proliferating emergent potential within a project using discovered connections to iteratively inform future directions.

Continuation occurs by integration of others. A thesis now becomes the starting point for a collective whose work becomes more than just a set of drawings, renderings and a final thesis book. What is initiated does not start and end with the academic calendar or graduation. Final outcomes are myriad and their effects are beyond the sum of parts. Unlike its antecedent, submitting solely required work, on time, is not to have engaged in thesis at all; it is to have remained unquestioningly within the remit of an institutionalised understanding of it. Instead, here, a brief becomes a page of inclusivity, seeing who and what can be mobilised for a project, what contributions could be made by emerging protagonists and how might their contributions in turn generate further inclusions. Through incremental collaboration, a project is enriched as one thinks of what each possible participant might contribute to the project in terms of sustaining productive continuity and transformation towards initiated objectives.

In this way, the outcomes associated with earlier thesis methods are eclipsed. *iThesis* deviates beyond pre-established trajectories, ready-made processes and stipulated requirements towards additional outcomes that may, or not, still be in play at the time a learner leaves their institution. Over and beyond a requisite set of skills, accrued over the years by a learner, their possible encounters with management, procurement, budgeting, sponsorship and an opportunity to establish connections in the pursuit of project trajectories would mean an opportunity to experience something that differentiated a learner from others, not what put them on par i.e. an ability to draw well and an understanding of their discipline's conventions.

Pursuing such outcomes in the way described here would clearly put the classificatory and evaluative systems of many universities in question. However, doing so may begin to induce, from within, an expansion of the existing ambition, methodology and regulatory space of the thesis. At the very least, exposing insufficiencies may make learners aware that their previously performed positions could be abandoned. Clearly, with technological ubiquity dissolving constraints and compliance to established methods, *iThesis* can propose more animated and inclusive relations to the world, exploding the rigidity of former methods - and accompanying presumptions - to force the question, why are learners still operating under, and being evaluated by such constraints, as if they still exist?

The current form of thesis may soon appear outmoded and inadequate if it is unable to transform, to use some of the productive forces coming into being from outside education, and, in addition, to stop seeing itself primarily as an evaluative tool, confirming a learner's inherent capacity via

stipulated submissions. In this sense it remains a closed totality and, in being so, is equal solely to the sum of its parts.

Many of these productive forces capable of instigating change, are available to learners, it remains only for them to place these forces in proximity to their work. It is in a determined pursuit of emerging project trajectories, such as those described here, that learners can trespass across sovereign borders, revealing to themselves (and the entities they encounter) a complacency for the impermeability of established borders and delineated territories. In doing so, learners can recognise them as contingent and acknowledge the very trespassing of these territories as an antidote to the anticlimax felt at the completion of pre-determined, institutionalised requirements. Here, the forces existing at the point of transgression can be conjugated, tripping extreme vitality.

## A project: Polly's thesis

**Brady:** *There used to be a mutuality of understanding and admiration. Why is it, my old friend, that you have moved so far away from me?*

**Drummond:** *Well, all motion is relative, Matt. Perhaps it is you who have moved away by standing still.*

**Inherit the Wind | 1960 | Dir: Stanley Kramer**

Abetted by technology, iThesis offers an example of a pedagogical shift, leading to increased autonomy through a simple relocation of learner responsibility. The project now described involves a learner generating a project in a more innovative and radical way, allowing them to be fugitive to the constraints and ambitions of the regulated space of the thesis, one primarily service-based and culminating in expected conventionally-evaluated end products. Conventionality is here sidestepped by a more inventive insertion of the learner into the project with respect to where one may play a part and with which forces one can engage. Operating in such a way rapidly discloses, then makes available a new project space in which to integrate, cooperate and expand.

Ploysira Sirasontorn's (Polly) thesis project humbly began as an interior strategy for a stray dog's home. Soon after, in recognising the stray dog problem as exceeding the remit of any single interior proposal, the project took on a virtual dimension. Networking was the only system capable of reaching the required audience numbers, to bring about the changes in conditions the project wished to affect. Aiming at a wider audience, Polly's new strategy involved the creation of an interior world for a phone app and computer game. It used recognisable Bangkok locations and their distinctive interiors (all the way down to the inside of a telephone box on a local street corner). At the same time, the opening of a Facebook blog and dedicated website for her work allowed her to expose all production to constant evaluation from an external public interested in the same matter.

In an on-going attempt to reach wider audiences, the early stages of Polly's project involved producing a calendar from surprise donation money acquired via Facebook and website. The calendar went on sale depicting information and facts generated by early research. All 200 copies of the calendar quickly sold, warranting the production of a second calendar (an additional 200 units) within a fortnight.

In continuing to expose her work through networking structures, a window of credibility was opened through which productive conversations were struck with people able to positively contribute. The project soon opened up to industrial designers wanting to design merchandise including a possible mascot and a collectable card game to educate young would-be owners of dogs. Shortly after that, a local published author with canine interests (again accessed via Facebook and website) began developing a storybook about stray dogs (free of charge) whose opening scene described the previously mentioned interior of the phone box. The thesis project had clearly begun to develop a synergy between parts resulting in an accelerated production that hurriedly surpassed existing thesis objectives and requirements.

Next, Polly's cartoon-like interior for her website's homepage (inspired by the author's storybook) was turned into an animation short which was considered for development by a renowned Bangkok animation studio discovered via a connection within the university (a brother of an instructor within the university). Meanwhile, the interior world of the app and game continued to undergo development in discussion with an app designer (from a different faculty of the university) who managed to confirm future sponsorship for the project through logo placement within interior scenes. Inclusion was contagious, viral.

Following the diverse encounters put in motion by her project, an interior identity was teased out that satisfied both virtual and real world applications. Finally, the production was brought together via an event-space which allowed the totality of work to be exhibited in the space of an abandoned building (itself reflective of abandoned dogs). All of the aforementioned merchandising, games and website contributed by the many individuals involved in the project, formed the event's overall program which would eventually come to occupy the 1500 square metres of available space. Those contributors who had designed merchandise for possible sale at a future event were paid from donation money received via Facebook. The increasing frequency of financial transactions, triggered by donations, sponsorship, calendar sales and design fees, soon meant that the project form a tiny registered company named *The Little Tiffin Foundation*. As things stand, donations continue to be accepted from many parts of the world, in turn, the number of products for sale continues to increase. All proceeds go to the assistance of stray dogs. The modest little company continues to thrive.

## An aggregate

**Verbal:** *McManus came to us with the job, Fenster got the vans, Hockney supplied the hardware, I came through with how to do it so no one got killed, but Keaton... Keaton put on the finishing touch. A little 'xxxx you' from the five of us to the NYPD.*

**The Usual Suspects | 1995 | Dir: Bryan Singer**

Having outlined the overall development of the project, its pedagogical significance is in turn described. Exposing a learner to their own agency, in a project-space defined by them, gave rise to an immediate unpredictability and vitality that counterbalanced the typical roles and well-established habits ordinarily draining the learning process.

At its beginning, the project progressed as a series of unsteady yet vital projections. The future-oriented process initiated movement and launched discovery. Trajectories continued to proliferate through contributions from new participants making evident that the more common forms of thesis output would eventually give way to emergent project properties and that habitual learning strategies would soon be interrupted and dislodged.

As work continued, three new and interrelated directives emerged. The first was how to increase Polly's capacity as alone, in the allotted time, it would not be possible to tackle the issues being raised. A second was how to exit the regulatory space of the thesis that, had she remained, would have prevented her from seeing and developing her project's unique direction. Third, how could a stronger position be negotiated for herself - through her project - to compensate for the incompatibility of its direction with the expected traditions of the thesis.

In tackling these directives, Polly abandoned the idea of single-handedly resolving all project issues from within the institutionalised space in which she found herself. Approaching her thesis in such a way meant that some of its most inviolable formalities, namely the tackling of a project as solitary author, the demonstration of previously acquired knowledge, and the timely completion of pre-requisites would not be viable.

In undertaking the three interrelated tasks, the primary action was one of evacuating the learning space both from inside herself and outside of the walls of the institution. The workspace became embodied outside the learner, teacher, classroom, regulatory space, and was distributed across time

between diverse participants, creating an energetically open space, constantly active. Virtual connections facilitated the complex workspace, establishing a feedback mechanism to monitor and reflect on the knowledge produced by all involved in real-time.

Temporary coalitions formed. These were not however the simple addition of individuals to form a group. The group was not pre-meditated, whole in number, fulfilling pre-requisites set prior to interaction. Participants were progressively solicited and included. Their contribution was absorbed by the project in terms of potential for extended thought, productivity and financial assistance. Each assimilation further accessed new participants emerging from different project vectors currently under consideration. Continuously inclusive, new possibility opened up, integrating anything that increased the project's capacity to thrive. Having shed a singularised body and individualised intelligence in favour of coalition - ordinarily prohibited by thesis and as such setting a precedent - the fatigue usually experienced under a model of solitary action and intelligence began to be traded for the benefits of an augmented self, enhanced, instrumentalised, achieving increased production.

In coalition with others, capacity was noticeably augmented. Having abandoned the usual role of learner and inserted herself into the project in a more imaginative way, she was clearly going to be more productive. And why remain singular? Aware of the limited capacity available when operating as single entity, her engagement with realistic project concerns warranted a need for coalition.

The effect of such coalition extended beyond mere productivity. More significantly, it aimed at escaping the limitations inherent to the existing regulatory medium in which she operated as an individual. Thus the initial use of a coalition to increase productivity led to a more significant and profound outcome. Once unified, and tapping resources external to the university, an alternative agenda could take hold. In a more deregulated space, outside the regulatory medium of the thesis, she was free to assemble more productive relations, with which she could combine to extract directions that on her own, she would not have been able to pursue. Released from the regulatory structure ordinarily permeating the institutional space, she temporarily fashioned an "other" to simultaneously have at her disposal a workforce, multiple methods of surveillance and emerging resources. She expelled herself from both the well-rehearsed responsibilities of a learner and formulaic methods of interaction and judicial boundaries. The non-institutional space assembled loosened her accountability to the same laws governing thesis space. From her own capacity, she began to construct connections to other capacities, the combination of which gave rise to a vision, ability and strength to project beyond this regulatory medium. Simply put, assisted by technology, she built her way out of an oppressive space through coalition.

Populating this new space was a more collective, distributed intelligence, progressively built from participants. The newly assembled space became operational as a distributed workforce, temporarily unified and conductive, akin to a field. Set up in this way allowed the actions of all participants to pulse through the workspace. Project trajectories were inaugurated by the strength of participants to influence the continuation of its direction positively, i.e. through donation, funding, sponsorship and connection. As an increasing number of participants were actively embedded in the ongoing process, each new participant temporarily drove the project forward, in turn creating the next generation of protagonists to be included. By experiencing putting different agencies into proximity with each other, Polly became aware of how to establish and select the interactions likely to be most beneficial, that is, to have the most potential for the various participants. The managerial skills associated with synthesising, keeping in motion and extracting the required work against thesis deadlines was quite formidable.

All the while, continuing to execute her project in this way manifested a constant disturbance of institutionalised values and regulatory space of thesis. The learner became increasingly disillusioned with and disengaged from the current form of thesis and the existing jurisdictional borders of the educational institution. During monthly reviews, she was routinely made aware of the difficulty in assessing thesis output that fell outside the scope of requirements. Recognising her

dissimilarity in terms of output and direction was a cause of anxiety and doubt. The antagonism of instructors to the continued absence of these requirements manifested through grading. A far more threatening and aggressive conclusion could have resulted under the circumstances, i.e. prematurely retiring a student from a course to repeat anew the following year. Although vulnerable, in remaining committed to her position, the learner did not need or seek protection as much as support. It was only when her work began to achieve some of its objectives, and the earlier contact with external parties could be capitalised upon, that this anxiety with her own trajectory seemed to lessen as the validity of her previous learning schemas was contested through her current experience. Her perseverance continued to prompt contentious debate and questioning as to the precision and role of the thesis instrument and her position within it. At times discourse indicated a need for its redefinition and, at other times, a widening of its ambitions to maybe trigger a transformation within the instrument itself.

## Enterprise

**Caesar:** *Don't clean the glass too well.*

**Vincent:** *Why's that?*

**Caesar:** *You might get ideas!*

**Gattaca | 1997 | Dir: Andrew Niccol**

In its unrelenting pursuit of project trajectories, this project entered financial dimensions creating the idea of a thesis as enterprise. This is significant. The emergence of an economical facet offered a glimpse of the tremendous variability of project directions and territory. More traditionally-centred educational institutions might claim working in such ways unprofitable in relation to knowledge. Some scholars may further interpret a venturing into commercial areas - along with the tactical progression described here - as barely being learning and disqualifying the project as pedagogical tool.

Such remarks and the kind of projects and methods that they continue to endorse may soon be over. It seems apparent that the opportunities afforded by technology to catalyse the learner, undermine established theory and lend a project mobility means learners can now engage with sophisticated interpenetrating issues. In this case, technology offers the ability to produce the intersection of enterprise, education, design, and ethics amongst others. The knowledge creation, productivity and vitality of learners remain undeniable. On the contrary, projects may show an even greater pedagogical efficacy when operationalised through such means.

Making sense of these alternative pedagogies has best crystallised in connectivism (Siemens, 2008). Through connectivism, some educational consistency has been achieved. Through it, many of the individual pedagogic episodes emerging (Barton, 2007; Brown, 2006; Egan, 2002; Stephenson, 2004) have been given coherence. The project described in this text clearly parallels many principles of connectivism (in particular its relationship of working methods to technology and networking media). However, an eventual capacity for broad scale and replicable use may not be the most rewarding pedagogical factor to be derived from this episode. Instead, the learner, in an optimistic pursuit of their trajectories, contributes here by opening a renegotiation of the artificially immobilised boundaries of the institutional. By working in a way that puts random aleatoric connections into proximity and alerting different parties to their as yet uncaptured potential, movement happens where previously there was none. It is this apparent immutability of institutions, their regulations, schema, criteria that learners can make malleable through their enterprising or entrepreneurial efforts. Otherwise, interaction with the regulatory space of institutions will always remain mechanical.

Engaging with these external active forces such as those engaged with here by the learner must insist that the thesis transform itself into a more inclusive instrument, liberated from dated obligations and opening new opportunities for all involved. With technology re-allocating power

and responsibility, the earlier confined roles of individuals and institutions alike will rapidly become invalid. In retaining its current responsibility - primarily that of qualifying levels of competency – the thesis will just continue to reproduce itself, failing to recognise and engage with new conditions projecting a way out for it from its more traditional pedagogical role. If the existing constellation drawn between academia, private sector and government remains calcified and intact, will learners be adequately equipped with an ability to sustain themselves and excel in a future economy?

In following a course of action similar to that described here, students may be able to liberate for themselves new types of participation and leverage with institutions during and post- education. In the immediate case of the project described, the learner is still in the process of stretching out connections established through a thesis project on a global scale, initiating opportunities for herself, by herself: something that the educational institution has never seen itself in need of providing. Such connections to the outside world were not established by the institution but by the learner. She remains highly motivated, engaged with the world, having set up the conditions for her entry into it, prior to an authoritative conclusion at the end of a final university year.

## Conclusion

**Juror No. 9:** *He didn't change his vote. I did.*

**12 Angry Men | 1957 | Dir: Sidney Lumet & William Friedkin**

This paper has depicted how an exemplary thesis project employed technology to facilitate an exit from the regulatory space in which it first operated. It succeeded in exiting this regulatory space by forming an aggregate body, helping to loosen thesis imperatives such as those requiring that a student work as solitary individual and as a singular assessable unit.

Engagement with technology became more than a means for supple inclusivity or fluid communication - this was not its achievement - rather it was the way in which the institution's regulatory medium, one immersing the learner, was exceeded. In helping to deliver an exit from the effect of a disarming regulatory space, technology helped access alternatives widening the possibility of what the thesis instrument and learner could become. In this case, technology allowed the learner to facilitate a coalition, increase productivity, access greater vision and resources and define a non-regulatory space outside of the institution in which to establish freedom to create alternate agenda.

Such an achievement necessarily prompts a redefinition of existing pedagogical entities, their processes and environments including: the student as individual intelligence, the classroom as entity of operations, the teacher as arbiter, immutable pedagogical agenda, the fixity of institutionalised boundaries and a student's profitable engagement with external bodies beginning only after exiting university.

The position promoted here is that in an unrelenting pursuit of its trajectories, a project can lead to a loosening of existing forms of educational practices helping transform, in this case, the idea of thesis away from a solely retrospective, evaluative process. Moving away from pre-determination and approaching the thesis as an emergent pedagogical form - one progressively engaging real-world actors, sponsors, clients - could itself culminate with a learner establishing greater leverage for employment or future endeavours, allowing a more enterprising exit from university.

Due to particular institutional requirements, projects will still be required to converge at specific points over their course for evaluation. However, in relinquishing more established methods and environments, learning and instruction might gain empowerment rather than remain institutionally domesticated. It might then be possible to assist in the emergence of additional models to open a greater space for possibility and assist learners in taking more fully their place in future economies.

Increasing the visibility of such projects will continue to push, from within, complacent curricula, obliging they evolve or become redundant. Subsequently, it compels each university to re-think how students are assessed. The question that now requires asking is what opportunities have been made visible from where one has landed, are students ready for their future in the world outside of the university.

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