

Developing identity: start-ups and aspirant entrepreneurs gaining authority

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Entrepreneurs and the start-ups they build are recognized as important contributors to economic development. However, current policies in many nations point at a lack of entrepreneurs and, in particular, entrepreneurs bridging a perceived gap between research and business. A critical question not well understood is how individuals interested in entrepreneurship develop an entrepreneurial identity. The aim of the study is to explore how aspirant entrepreneurs develop entrepreneurial identity within the interaction with stakeholders in a combined education and supportive incubator environment. Results from this process are start-ups and entrepreneurs with authority.

The paper builds from experience and successful formation of more than 25 technology-based start-up companies (valuation 56M€) during ten years in a unique environment, combining entrepreneurship programs with an incubator and support network. This environment offers a unique opportunity to study how specially selected master-students – ‘aspirant entrepreneurs’ - in interaction with different actors - ‘stakeholders’ – gain entrepreneurial authority to run a high-tech startup. The start-up projects originate mainly from university research. Thus, the aspirant entrepreneurs, having no history with the initial invention, must gain confidence and authority around the project during an intense education and incubation year. The ethnographic study focuses on teams of aspirant entrepreneurs, and the stakeholders with whom they engage. The interim results reported in this paper illustrate how the building of entrepreneurial identity is closely associated with the formation of the start-up and how the aspirant entrepreneurs make the project their own, while learning from and involving stakeholders. The key interim conclusion is that aspirant entrepreneurs when positioning themselves as the key drivers of a project – in relation to the stakeholders – both gain authority while also developing their entrepreneurial identities. Implications for educators, incubators and policy makers are that developing entrepreneurs and new companies in combination is a highly beneficial approach. The key contribution of the paper is to illustrate the way in which identity development of aspirant entrepreneurs over time helps to enable start-up formation together with the gaining of “professional” entrepreneurial authority.

The paper is intended to have implications for select audiences. For educators, it is to help understand effective education/training for aspirant entrepreneurs. Incubators and policy-makers can appreciate the importance of supporting entrepreneurial education and linking it to incubation processes. The study explores new ground in its combined interest in understanding how to develop both the human and business side of start-ups.

Key Words: entrepreneur, aspirant, identity-creation, education, start-up creation, incubation

Introduction

Scholars have forged the importance of the entrepreneur and entrepreneurial firms as stimulus for economic growth and development of societies (Schumpeter, 1934; McClelland, 1961), particularly when linked to technological innovation (Baumol, 1986; Thomas & Mueller, 2000). As a result, increasing emphasis has been placed in many national policies on the creation and sustainability of entrepreneurs and their firms, with the US held as a comparative standard for Europe (Aligica & State, 2005). The European Commission's 2006 Report on the implementation of the Entrepreneurship Action Plan, is just one example of such increased emphasis.

While the outcomes of entrepreneurial success, such as start-up establishment or growth, are relatively well understood (Aldrich, 1999; Covin & Slevin, 1997; Baum & Locke, 2004), the process and context of creating and sustaining successful organizations is less clear (Aldrich & Martinez, 2001). Recognizing that the entrepreneurial process does not follow a pre-defined or concise path, providing education to prepare individuals to become entrepreneurs has resulted in different and often fragmented pedagogic approaches (Solomon, 2007; Garavan & O'Cinneide, 1994; Kuratko, 2005; Finkle & Deeds, 2001). However, there is recognition of the importance of including the experience of being entrepreneurial and being inspired by entrepreneurs, in order to import some of the knowledge, skill and attitude of an entrepreneur (Sørheim & Rasmussen, 2006; Solomon, 2007; Garavan & O'Cinneide, 1994; Fletcher & Watson, 2007; Souitaris *et al*, 2007).

Many inventions with commercial potential are not realized because the individuals that develop them are not always able or willing to act as entrepreneurs (Vestergaard, 2007; Aldrich, 1999). As a result, there is a need for either a structure to support these individuals to become entrepreneurs or a need for a transfer to actors that can champion the idea, either with or without the continued engagement of the inventor. Universities are becoming a focal point for such activity since in them reside both public research and the ability to offer entrepreneurship education.

Vestergaard, in reinterpreting a case study of an academic-driven start-up at the University of Helsinki (Tuunainen, 2005), points to the importance of role separation between the academic that is the originator of the invention with commercial potential and the entrepreneur that constructs a business around the invention (Vestergaard, 2007), stating that a need to choose is invoked by the academic environment. At the same time established entrepreneurs and companies often perceive early-stage university invention to be insufficiently packaged and verified, and thus too risky to invest time and other resources into. As a consequence, opportunities exist for unproven aspirant entrepreneurs to champion inventions otherwise left uncommercialized. If these aspirant entrepreneurs receive an attractive entrepreneurship education, then the risk-reward equation is dramatically altered allowing attraction of high-potential students.

This type of environment is exactly what has been championed around Chalmers School of Entrepreneurship in Göteborg, Sweden since 1997. Similar action-based approaches are currently established at other universities (Sørheim & Rasmussen, 2006) and the potential of combining entrepreneurship education and technology transfer is increasingly appreciated (Nelson and Byers, 2004). Aspirant or nascent entrepreneurs are often hampered by 'newness liabilities' (Stinchcombe 1965; Aldrich & Auster, 1986), as well as lack of capital and experience. Thus, processes that facilitate the development of start-ups, and the teams that drive them, are critical.

Chalmers School of Entrepreneurship (CSE) utilizes a pedagogy combining entrepreneurial education with action-based start-up creation, with the viewpoint that a balanced supportive environment plays a critical role in developing, and even forming, entrepreneurs. The pedagogy was also adopted in the formation of a sister school, Gothenburg International Bioscience Business School (GIBBS) in 2005. The pedagogy is based on the premise that individuals can be taught to act entrepreneurially and take on entrepreneurial behaviour. Other researchers have investigated and analyzed CSE and also done comparisons with other action-based entrepreneurship educations (Jacob *et al*, 2003, Sørheim & Rasmussen, 2006; Dahlstrand & Berggren, 2007), but more in-depth longitudinal studies have been lacking.

There is little research around the actual development processes occurring in such environments. The current study gives a longitudinal footprint around one key development dimension – the building of entrepreneurial identity.

Entrepreneurial entrepreneurship education

The insight that entrepreneurship education needs to be action-based challenges established educational practice. Comparisons have been made to differentiate between traditional business education and entrepreneurial education (Table 1). Research from Garavan & O’Cinneide and others illustrates the increasing emphasis on action-based, experiential and/or learning by doing as fundamental parts of entrepreneurial education – for individuals striving to become entrepreneurs (Garavan & O’Cinneide, 1994; Solomon, 2007; Vinten & Alcock, 2004). Gibb called this structure the creation of ‘the enterprising environment’ (Gibb, 1993).

Table 1: Contrasting learning approaches

University/business school learning focus	Entrepreneurial education/training learning focus
Critical judgement after analysis of large amounts of information	‘Gut feel’ decision-making with limited information
Understanding and recalling the information itself	Understanding the values of those who transmit and filter information
Seeking (impersonally) to verify absolute truth by study of information	Recognize the widely varied goals of others
Learning in the classroom	Making decisions on the basis of judgement of trust and competence of people
Gleaning information from experts and authoritative sources	Seeking to apply and adjust practice to basic principles of society
Evaluation through written assessment	Developing the most appropriate solution under pressure
Success in learning measured by knowledge-based examination pass	Learning while and through doing
	Gleaning information personally from any and everywhere, and weighing it
	Evaluation by judgement of people and events through direct feedback
	Success in learning by solving problems and learning from failure

Source: Gibb (1993).

Creating an ‘enterprising environment’ holds the purpose of introducing risk, chance and opportunity into a controlled structure in order to provide practical learning and competency development based on real experiences. The integration of students not only with real-world activities, but with key stakeholders around a start-up, can strongly contribute to the competency development within the students (Solomon, 2007).

Framework for understanding entrepreneurial identity-creation

The shaping of entrepreneurial identity by ongoing structuring of social relations is well recognized in research literature (Gartner, 1985; Aldrich & Zimmer, 1986; Carsrud & Johnson, 1989; Johannisson *et al*, 1994; Anderson, 2000; Fuller & Moran, 2001; Warren, 2004). The understanding of identity is shifting “away from monolithic to multiple identities and from fixed or essentialistic views on identity to discursive and constructed approaches to the subject matter. [...] Individuals and organizations are said to be better understood in terms of becoming rather than being.” (Sveningsson & Alvesson, 2003, p. 1164). Such a comprehension of identity is well placed for studying aspirant entrepreneurs, how they develop entrepreneurial identity and eventually gain authority. In the case of this study, they are in a special role and context (see Figure 1). As a result, entrepreneurial identity can emerge from a “positioning process” (Berglund, 2007) capturing the dual nature of identity-creation “showing both how one positions oneself, but also how one becomes positioned by others.” (Berglund, 2007, p. 213)

Studying identity-creation requires a rich understanding of the context:

“In order to understand identity in depth we need to listen carefully to the stories of those we claim to understand and to study their interactions, the discourses and roles they are constituted by or resist – and to do so with sensitivity for context” (Sveningsson & Alvesson, 2003, p. 1190).

Some types of entrepreneurial training and learning approaches are specifically addressing identity-creation, facilitating the development of real business ideas and entrepreneurial opportunity recognition through dramatized e.g. role-plays (Fletcher & Watson, 2007). Thus, the ‘in-process’ transition from role to reality, where ‘words become deeds’, helps aspirant entrepreneurs shape their reality of becoming and being an entrepreneur (Fletcher & Watson, 2007).

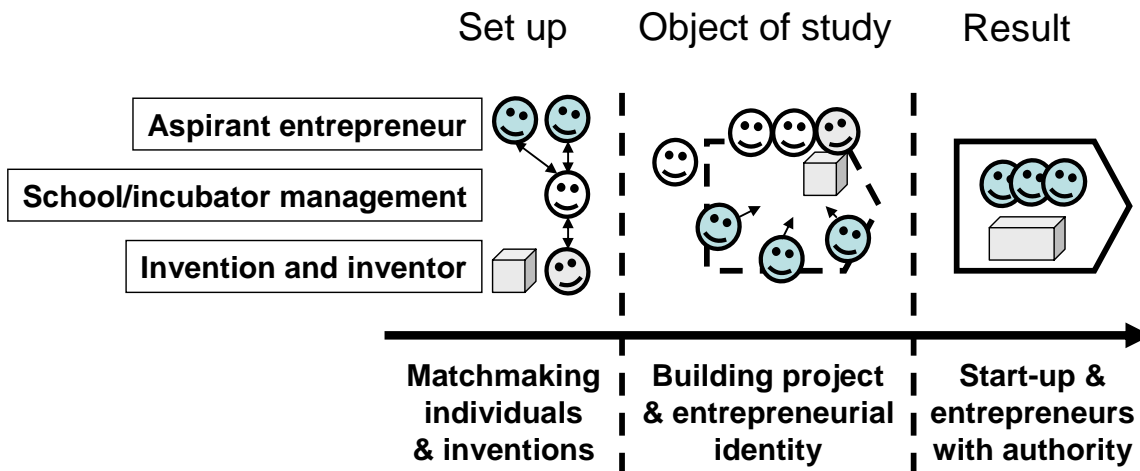


Figure 1. Framework for studying entrepreneurial identity creation.

The specific environment on which the case study is performed goes beyond role-play and simulation and is fully action-based. The students as aspirant entrepreneurs (Reynolds, 1994; Ratefoss & Kolvereid, 2005) both self-select to the education (CSE/GIBBS) by choosing to apply, as well as undergo admissions assessment before being accepted and then entering the education. They next spend a half-year in a more controlled and traditional educational environment before both engaging and being positioned in formed teams, matched with an invention and set of stakeholders (in the form of a project), with the intention to develop their project into a potential start-up.

During the controlled half-year prior to the team formation, a rigorous recruitment process of inventions for potential start-ups is conducted by the incubator. Again, the process is one of both self-selection and admissions assessment. Inventions brought by the inventors are assessed for educational fit, control of intellectual property, and company formation and growth potential, among others. Educational fit includes time of incubation required, technological area – CSE is high-technology based and GIBBS is bioscience based – and inventor willingness to collaborate. A three-party collaboration agreement stipulates the rights and obligations of the school, the inventors and the aspirant entrepreneur teams, when working in a joint project and when eventually forming a start-up. The aspirant entrepreneur teams have no formal commercial obligations. However, if the project championed by them is formed into a start-up, they then have stipulated rights to shares, as do the inventor and the investing incubator, associated with CSE/GIBBS.

Methodology

The majority of research addressing the entrepreneurial process, including research studying the results of entrepreneurial educations/programs, such as CSE and GIBBS, has been outcome based (Van de Ven & Engleman, 2004). Only a small percentage of research has studied entrepreneurial processes longitudinally (Chandler & Lyon, 2001), mainly because of the challenges of structuring and accessing research units that can facilitate such studies (Van de Ven & Engleman, 2004). The authors have had closeness and daily contact to the current object of study. This in combination with being cautious around the techniques for collecting

evidence has allowed for an ethnographic case study following the year-long process of stimulating the development of start-ups and the entrepreneurs that drive them was established.

Ethnography is utilized to attempt to describe and build a portrait of the stakeholders and the environment in which they act, react and interact. The study thus blends historical, observational and interview methods when gathering and interpreting evidence from quotations, segments of documents and descriptions (Hammersley, 1990). The stakeholders (see Figure 2) communicate their experience of the development of the projects and the teams of aspirant entrepreneurs.

Stakeholder Definition

The term stakeholder is used to describe an individual that maintains a level of responsibility towards the start-up and has an interest in the successful creation of start-up. It is important to make a clear differentiation between stakeholder and shareholder, as not all the stakeholders can or will have a percentage of shares in the start-up company, should it be formed. It is also important to note that not all of the potential shareholders are represented by the stakeholder types, as the definitions presented are limited to the span of time covering of the combined education and incubation.

Each stakeholder is presented as follows:

Stakeholder X: Descriptive name

- Short description
- Responsibility in relation to the education/incubation environment. Other personal, professional, etc. responsibilities may exist that affect the actions of the stakeholder, but are only clear on a case-by-case basis
- Organizational/contractual arrangement, including % share of project/start-up (if any), compensation, etc.
- Type of empirical evidence

Stakeholder 1: the aspirant entrepreneur

- A CSE/GIBBS student provided with an invention to form into a start-up during the education/incubation period.
- Core responsibilities are: choosing the inventions to work; indicating desired team constellation; fulfilling education deliverables; attracting financing or investment; developing the innovation including value propositions, the product, etc; developing strong group dynamics; acting as directors reporting to project board.
- Granted an option of 3% of the company, should there be a start-up formed at the end of the education/incubation period, based upon a contractual agreement. Potential for an additional percentage of ownership in the formed start-up company, based upon a board decision
- Weekly journals, group meetings, informal discussions, presentations and other key deliverables

Stakeholder 2: the inventor

- A professor, researcher or industry actor providing an invention to the education/incubation environment
- Provide the invention and any intellectual property capturing the invention; eight hours per week of advice and support to the team
- Percentage share (often between 35 and 45%) in the project/start-up company in exchange for the investment of the intellectual property of the invention, as well as optional capital investment
- Meetings and informal discussions

Stakeholder 3: school management

- University actors and educators facilitating, orchestrating and guiding the learning process, as it directly relates with the progression of the project/start-up
- Ensure the learning process; including the power/responsibility to shut-down a project, should it be negatively affecting the educational learning process. The management also has, together with the incubator, the responsibility to form the team for the

education/incubation period, though based on communicated desires of the aspirant entrepreneur

- No shares in the project/start-up; normal employment structure with the university
- Interviews with key actors (ex. CSE/GIBBS founders, program managers), direct reflection as part of education provider group, and bi-monthly education meetings

Stakeholder 4: incubator management

- The incubator management consists of a team of professionals with experience in start-up company management. At the start of the incubation period, the team is assigned a representative from the incubator management who takes the role of the acting chairperson until an appropriate external chairperson is recruited.
- Business guidance and development of the entrepreneurial start-up
- The incubator management, as an organization, receives a 20% share in the project/start-up. Regional development authorities invest in this equity, which in turn help finance the operation.
- Bi-monthly staff meetings and informal meetings

Stakeholder 5: the consultant/advisor

- Consultant: an individual familiar and closely associated with the unique education/incubation environment, with either engineering or legal expertise; The advisor: an alumni coach that has completed a specialized leadership training, also provided by the school management
- Consultant: 100 hours consulting time towards making informed strategic decisions, particularly regarding patenting, novelty verification, technological development, etc.; advisor: advice and informal
- Neither the consultant, nor the advisor receive shares in the project/start-up; the consultant is contractually engaged by the incubator; the advisor coaching is voluntarily structured, though they are given a small compensation
- Consultants: interviews; advisors: informal meetings and alumni association meetings

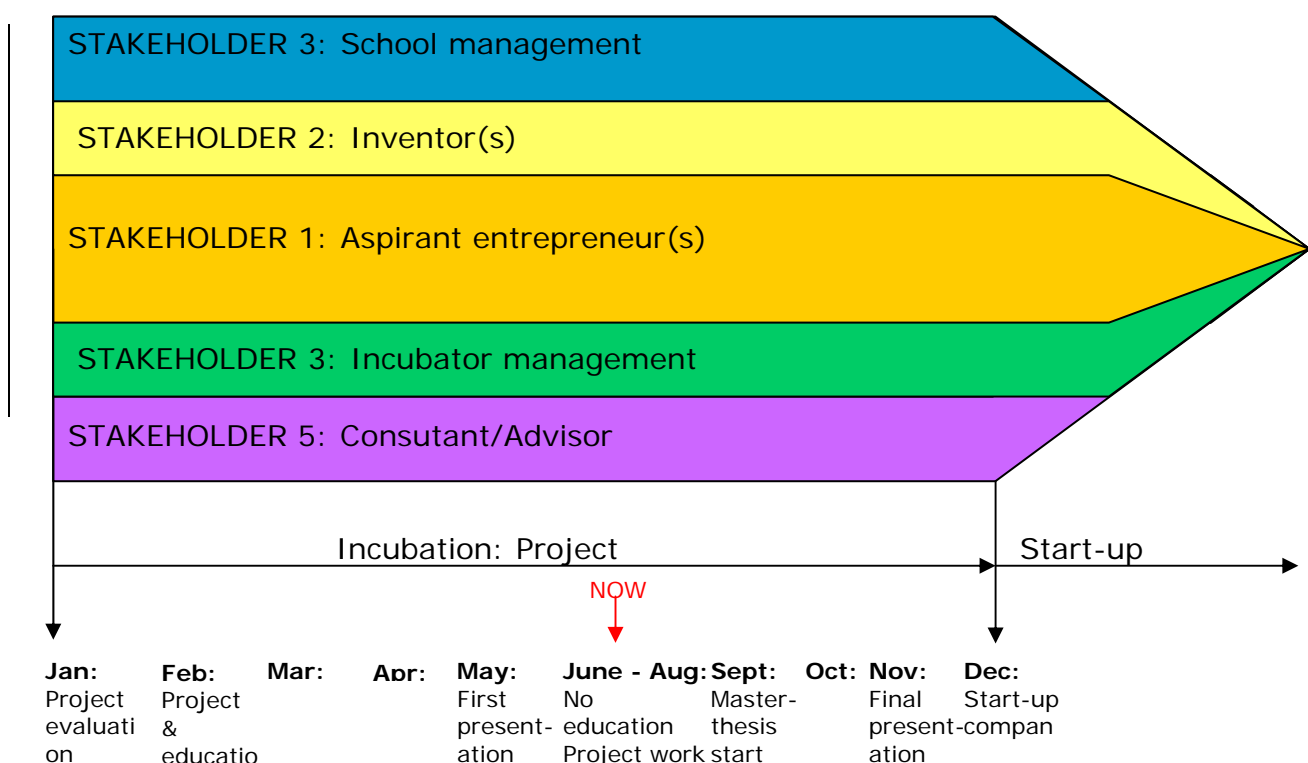


Figure 2: Longitudinal stakeholder analysis

The study utilizes stakeholder narratives of two representative teams (and associated stakeholders). Pseudonyms for the individual stakeholders and projects are used in order to protect anonymity. It is important to note that both teams have already experienced the

shutting down their first project and re-starting with a new project. The first team is identified as TECH A, with aspirant entrepreneurs Ray, Kris and Jo. The second team is identified as TECH B, with aspirant entrepreneurs Calvin, Erin and Gordon.

As part of the pedagogic structure, there are key milestone deliveries that are both educational and project relevant: the project and education start in February, the first external presentation of the project in May, the start of the master-thesis work, and the final external presentation of the project in November (see Figure 2). The narratives from stakeholders of the two representative teams will be presented longitudinally, starting in January, prior to project formation, to June and the summer break. The study will continue during and after the summer, until the teams leave the combined education/incubation environment in December. The study is ongoing.

Empirical evidence

The central figure of the case study is the Stakeholder #1: the aspirant entrepreneur, around which the other stakeholders act and react (and affect and are affected) in a network of professional, coaching and advisory roles. Even prior to team formation period, in the end of January, the aspirant entrepreneur, together with his/her class, assesses the inventions provided through the incubator recruitment process, and is required to motivate their preferred interest in an invention and fellow aspiring entrepreneurs to work with, as well as the perceived contributions and skills he/she brings to the team. The first citation is from this point in time.

"One's role in a group is very much dependent on the situation and the people involved. ... I was an Airborne Ranger in an elite force...because of my duties I became the one that had to be hand- on and make fast decisions so the group would be at the right place during the right time... Overall, I see myself as more of an analytical person than a hands-on person."

- Aspirant Entrepreneur Kris

After the teams are formed, members very quickly start to formulate opinions about each other, often starting quick positively. In team TECH B, Gordon reflects upon Calvin:

"When we had a telephone conference with the idea provider, Calvin stepped up as the main speaker person for us. I thought he did really well and I was surprised how able he was on going through a lot of complex stuff and keeping things on track. I think he is great with negotiations.... I was really proud of him. In general I love our group and my place in it".

A few weeks after project/team formation, a school management representative has structured talks within the teams of aspirant entrepreneurs.

"Most are still learning how to relate to one another ... the so-called 'honeymoon phase'. Most of the teams have been active in seeking financing, patent formation and securitization, as well as building relations with the idea provider – solidifying understanding of the technology ... The students were asked to describe their strengths and contributions to the project, and in almost every case, the students described their personality type skills (i.e. providing energy, reflecting, posing questions, being the doer, organizing, etc.) vs. their "technical skills" or "educational skills" (ex. IT competence, economics background, science background). These skills came out later on during the conversations, but they were not how the students initially described themselves"

After only a few weeks working with the inventions and the stakeholders, team TECH B had to shut-down their first project in the end of February. This challenge is the first trigger to motivating and shaping identity through self-reflection.

"I am a bit sad that we terminated this project since so much thought already has been placed into it and I was really fond of it. I however realized that the group is the most important, and I do not want to engage myself in any start-up with team

members who have the kind of attitude towards certain things as [our inventor] did."

Having let go of their first project, and on the path with a new one five weeks later, the aspirant entrepreneurs of TECH B, in mid-April, reflect upon how they have gained confidence in their identity and authority towards their new inventors.

"Calvin: ... gaining confidence from having gone through the process before ... how we approach the idea providers and that we inside the team know what we want to get out of the idea providers and know what kind of relationship we want to have with them. ... I have changed. The force I have towards the idea provider... the security I feel...going through the first project gave ... my role (and) I gave the idea provider more ability to bring his best parts instead of being confused about what the roles are.

Erin: ... The first time we were going to meet our first idea provider, we sat down and did not know what we were supposed to be doing ... when we met [our new inventor], we knew what we were doing and we could show that, and he could then say...'yes, you are an asset', and we felt more in control.

Gordon: For me it is obvious that we are going to become the control figures in the project ... because who ever has the information will be the ones that controls it, when you think of it in terms of groups, like the incubator, the consultants, the idea providers, the coaches ... the more we engage in the process the more we gain this advantage"

Observational data from both school management, discussed both with the incubator representative and the aspirant entrepreneurs themselves shows how stakeholders can align to support the interest of developing the aspirant entrepreneurs. Calvin says:

,"...in the first project, I did not know how much I could trust them [the incubator representative], because they had their own incentives. But now I feel very secure in working with them, that the incubator is more a part that we can rely on, that they are with us 200% and not some totally external owner in that sense."

During staff meetings, the incubator representative discusses TECH B and their new project, pointing out ideas for development, but from a business (not educational or personal) point of view:

"They have five idea providers, but they are sharing the 45% equally. One of the five is not a real idea provider - so these have to be dealt with immediately. One issue is that they have a Swedish application, and they did this 4 hours too late, but they are trying to find some kind of solution. There is a [project benchmark] - they are a group that has lots of money for investing, so need to see how can use this as an opportunity."

The consultant sits and works in the same environment as the school and incubation management as well as near to the education and incubation environment of the aspirant entrepreneurial teams. This proximity facilitates informal observation of the teams outside the specified consulting hours, allowing for increased perceptions created about the teams. A consultant for TECH A, talks about his perceptions after 1½ months:

"I perceive Ray as the leader of the group – the most verbal, the most social. He takes a lot of space. He has a great support from Kris, being an analytical mind. ... Jo is harder to read. It is hard to see his fundamental contribution to the group."

The supporting stakeholders often communicate about the aspirant entrepreneurs as a collective group. The consultant for TECH A gives an example:

[They] are meeting my expectations of how they are progressing. ... They come prepared to the meetings ... Ex. the NDA – they had already read it and had specific questions and came with a specific viewpoint to start with. Also, when they are given tasks, they deliver, and they are also aware and reminding me of deadlines, so they actually put demands on me as a consultant."

The joint identity can sometimes even extend beyond the aspirant entrepreneurial team, particularly in the early stages of development. When asked about TECH A's relationship with their idea provider, TECH A consultant reflects:

"[They have] a good relationship with him, and actually brought him to a meeting to discuss NDAs and collaboration agreements. I don't even see the relationship as necessarily separate, but integrated."

Like TECH B, TECH A also shuts down their first project, although three months later. Even so, they have similar reflections upon how they have changed their perceptions of the idea provider and the roles they take on:

"The first time, everything was new – it feels more relaxed this time. Feel like we know what to do this time. Before only looking for buzz words, but now feel more relaxed. We can critically assess the idea provider, not trusting everything that they say. That is not quite true – we trusted what they said, we just are more aware of the core questions, and knowing why we are asking the questions of the idea providers. ... Now meeting with the new idea provider, we are more direct, more serious, hacking through the problems."

Interaction with one stakeholder can affect the way in which the students find confidence to take on identities that allow them to change their opinion about another stakeholder. The perception of power is assigned to expertise, but that is changed when the aspirant entrepreneurs realize that different types of experience and expertise can be illustrated (ex. research vs. management). TECH A says during a team interview in May:

"When we started the project, we thought that it was going to be the idea provider in power – the management power. The idea providers had the research power. They always had the control over the idea, they had the expertise. Then when meeting with [a consultant], seeing the other potential applications, we felt that we got hold of the team because we were outside the idea providers' range of expertise. Then it was about how we used our position as the management team. Took the ideas into the management jargon – at first this did not work, but finally in the last few weeks, we really assessed and put the idea, through our own management experience, into the business world instead of the research world. This was a dramatic shift – we did not ACT as the management team until we took on the idea and internalized it for ourselves."

Observing ownership can also give the perception of ownership. A school manager refers to observing TECH B during the first project presentation in May:

"they are not just students anymore. They feel, and more importantly, show a strong responsibility and ownership when presenting their project."

This comes across as well to an audience member, as represented in feedback given:

Questionnaire: Have the student entrepreneurs demonstrated ownership of the project through their presentation and business plan? "Yes"

What are the major strengths of the business plan and presentation? *Award winning start of presentation! "Excellent, with practical demonstration. Presentation creates interest."*

- a local science park director

After several months, the aspirant entrepreneurs in the team are, for some of the stakeholders, less perceived as joint and more as individuals. For example, the consultant for TECH A, when asked about the team, talks more specifically about the individuals and their perceived dominance in the group. Talking about Ray:

"...He understands that if he wants something done, he has to do it himself ...the bad thing is that if you look at as a whole, it reduces others ability to learn – how do we manage a project, how do we get things done – and that is always a problem if you have someone being dominant, there is no need for someone else to learn. The solution would be to continue what he does but bring someone else along and teach them, because others could benefit from being more like Ray."

When asked if he would identify anyone in the team as an entrepreneur, TECH A consultant replied:

"Ray I would say is an entrepreneur in some way. He makes things happen. He is passionate about what he does. Yes I would say that has an entrepreneurial spirit ... I would definitely see him in an environment where he can be more free to do what he wants to. Jo I think is an entrepreneur or he has the desire. He wants to do something on his own and to not go into existing structures and believing in what he does in the bigger perspective. Kris is the one I see the most as a student... my guess is that if the project will continue, it will be either Ray or Jo..."

One of the strongest identity and influence developments is perhaps between each of the aspirant entrepreneurs within the team. For example, when meeting new potential idea providers, they have to balance both their individual desires and those of the team:

"When in the meetings – the questions are objective, so it is not like there is an 'us' or a 'me'. It is organic. It is much more an 'us' than a 'me'. We have our own independent impressions, but there is always the underlying 'we'. It also depends on how you define the 'us' or 'me', and depends on the level: strategic, operative, entrepreneurial. It's a 'me' when it comes to being honest about needs, ways of working etc. That is just accepted in the group because of the underlying trust. The trust has not been questioned or broken."

-Team TECH A, team interview

"I negotiated most with my group when we were choosing our project. It was easy to choose since we prioritized mostly the time aspect ... I still am worried about how good the idea is... I feel that the project we ended up with is a compromise. I am totally neutral with the project but I feel very strongly for the project that we dumped. ... However, I am in a group and I had to make a decision according to what my group members felt- which was – we want to start ASAP - we do not want to wait any longer. Calvin was most critical in this respect while Erin was "mellow" in her feelings. There is a clear need for me to learn more about the project and also how to work with my team members."

- Gordon, TECH B in weekly journal

The role of the 3rd stakeholder, the school management is perhaps both the most and the least influential. This stakeholder is the most influential because of the responsibility of designing and facilitating the environment in which all stakeholders come together to help with the formulation of the start-up. Sometimes this role is described as an institutional entrepreneur, which, for the context of this paper is a person creating and driving new processes within an institutional environment, such as the university setting.

My responsibility as an institutional entrepreneur is to really create the best premise for ventures to be created. My most important role is that every idea is built upon its own merit. ... the potential of the invention should be explored as much as possible. So the trick is then to find the balance between empowering and emancipating people to take control, because that is what we are really doing when we are creating entrepreneurs. Balance between allowing there to be "I

will take control and I am driving this venture" and "we are all are supposed to help each other creating it".

- Senior school manager

Because the school management have both formal and informal authority to make core decisions regarding the pedagogy of the environment, they can strongly influence the way in which other stakeholders are engaged in the project, such as setting criteria in the contractual agreements to which the different stakeholders are to adhere. The school manager continues:

"We have the brand and the process ... and both signal to people [idea providers] that they will be treated fairly, but they have to give away [control of their idea]. Everyone knows that [the idea provider] will have less than 50% of the company ... It weeds out the ones that are too possessive. Those who come to us are only the ones that are willing to allow other people [the aspirant entrepreneurs] take over."

But at the same time, because of the importance of having effective relationships between the different stakeholders, there has to be relational or psychological contacts that supplant the structural contractual agreements.

"as part of the education they [aspirant entrepreneurs] are to contribute to the company, but if they choose not to, then we cannot force them ... The idea providers need to sign that they will spend some pro bono time – 8 hours a week – we will not sue them, but we can have the contract as a ground and remind them that they have promised that they would spend this time"

The strength and weakness of the school manager (and effects then on the pedagogic design and other stakeholders) is also affected by perceptions from individuals outside the environment.

"We have created the biggest difficulties of all. Since we were interested in commercializing university technology, then we immediately realized that the students were key drivers. We decided to make a separation between the innovator on one side and the entrepreneur on the other. That was a key strategic choice that we did deliberately and we were criticized for, for [several] years and are only now being recognized for. People said that was impossible, you can only build companies around people that are both innovators and entrepreneurs themselves."

This citation brings forward a critical challenge, that of convincing individuals outside the unique environment that aspirant entrepreneur and start-up development is possible. And even more, it is a challenge that the aspirant entrepreneurs must shoulder the most – proving that they are in fact capable of building companies without being the original innovations or, at least from an outsider's view, an entrepreneur.

Analysis

The case study has revealed some of the identity developing activities existing in the environment of CSE/GIBBS. The first example is shown when the aspirant entrepreneur teams describe their changed attitude towards their inventors; the different approaches taken from the first compared to the second project. Having already started a project, they express knowing better what to do, and not do, when they start again. Not only do they communicate feeling more confident, but they allow themselves to then act with more authority, communicating more power and control in the process of relating to the inventor, the second time around. This is an example of Berglund's "positioning process" (Berglund, 2007), and how the identity created through the positioning is immediately recognized by the inventor, as show in Erin's citation – *"and he could then say 'yes, you are an asset' "* – talking about the inventor. Taking the position, and then receiving confirmation of that position also reinforced the position, as Erin says – *"and we felt more in control"*. The citations from TECH A about restarting a project also show their changed perceptions towards even the potential inventors. They place higher demands on the information provided by inventor, when assessing the

project and deciding whether or not they will chose it for their own. The observation of ownership through claimed language – “*their project*” - by Stakeholder #3, and even an external incubation actor, regarding the project presentation in May, also illustrates the position of ‘entrepreneur’ is bestowed on team individuals.

Both teams experience a shut-down and re-start of their projects. However, team TECH A was working with their first project for the majority of the time of the study. Even while working with their first project, they experienced and communicated their shift in perception of influence, from the inventor to themselves, as illustrated in the citation – “*[we] put the idea...into the business world instead of the research world ... we did not ACT as the management team until we took on the idea and internalized it for ourselves*”. The gaining of authority seems to be highly related to the transformation of the project, when aspirant entrepreneurs communicate a reformulation of the project around themselves, trying to relate to what the other stakeholders appreciate. Confirmation of authority comes when the other stakeholders recognize the reformulation presented by the aspirant entrepreneurs. This finding seems to be valid for transformations in on-going projects as well as the obvious transformation from one project to another.

For the aspirant entrepreneurs, there is often a level of separation between the internal dynamics within the team, and the identity creation, struggles and positioning on that level, and the way they collectively present themselves to the ‘outside’ stakeholders. Sometimes, the way in which one aspirant entrepreneur attempts to differentiate from the others in the team is kept within the boundaries of the team, such as is shown through Gordon’s citation about selection of the new project. Other times, the differentiations become clearer to the other stakeholders, as shown in the consultant’s perception of Ray in team TECH A.

The current analysis is based upon interim results. Limitations based on this include the incomplete longitudinality of the study and current inability to access more personal levels of identity creation.

Concluding remark

The aim of the study has been to explore how aspirant entrepreneurs develop entrepreneurial identity within the interaction with stakeholders in a combined education and supportive incubator environment. The key interim conclusion is that aspirant entrepreneurs when positioning themselves as the key drivers of a project – in relation to the stakeholders – both gain authority while also developing their entrepreneurial identities. Implications for educators, incubators and policy makers are that developing entrepreneurs and new companies in combination is a highly beneficial approach.

References:

- Aldrich, 1999;** *Organizations evolving*. London, UK, Sage.
- Aldrich & Auster, 1986;** Even dwarfs started small: Liabilities of age and size and their strategic implications. *Research in Organizational Behavior*, Vol. 8: 165-198.
- Aldrich, H., and Zimmer, C., 1986;** 'Entrepreneurship through social networks', in Sexton, D., and Smilor, R., eds, *The Art and Science of Entrepreneurship*, New York, Ballinger.
- Aldrich & Martinez, 2001;** Many are Called, but Few are Chosen: An Evolutionary Perspective for the Study of Entrepreneurship. *Entrepreneurial Theory and Practice*, Summer 2001: 41-56.
- Aligica & State, 2005;** Ambiguity, imitation and innovation: Notes on the conceptual and operational facets of the EU approach to entrepreneurship policy. *Entrepreneurship and Innovation*, November 2005: 249-258.
- Anderson, A. R., 2000;** 'Paradox in the periphery: an entrepreneurial reconception', *Entrepreneurship and Regional Development*, Vol 12, No 2, pp 91–110.
- Baum & Locke, 2004;** The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Start-up Growth. *Journal of Applied Psychology*, Vol. 89(4): 587-598.
- Baumol, 1986;** Entrepreneurship and a century of growth. *Journal of Business Venturing*, Vol. 1: 141-145.
- Berglund, 2007;** *The Hunt for Entrepreneurs - On Openings and Closures in the Entrepreneurship discourse*, PhD Dissertation (In Swedish), Mälardalen University College, Västerås, Sweden.
- Carsrud, A. L., and Johnson, R. W., 1989;** 'Entrepreneurship: a social psychological perspective', *Entrepreneurship and Regional Development*, Vol 1, pp 21–31.
- Chandler & Lyon, 2001;** Issues of research design and construct measurement in entrepreneurship research: the past decade. *Entrepreneurship Theory and Practice*, Vol. 25(4): 101-113.
- Covin & Slevin, 1997;** High growth transitions: Theoretical perspectives and suggested directions. In Sexton & Smilor (Eds.), *Entrepreneurship 2000* (p. 99 – 126). Chicago, IL USA, Upstart.
- Dahlstrand & Berggren, 2007;** Linking Innovation and Entrepreneurship in Higher Education: A Study of Swedish Schools of Entrepreneurship. Paper presented at the High Technology Small Firms Conference, Manchester, June 2007.
- Fletcher & Watson, 2007;** Entrepreneurship, Management Learning and Negotiated Narratives: 'Making it Otherwise for Us – Otherwise for Them'. *Management Learning*, SAGE, Vol. 38(1): 9-26.
- Finkle & Deeds, 2001;** Trends in the market for entrepreneurship faculty, 1989-1998. *Journal of Business Venturing*, Vol. 16: 613-630.
- Fuller, T., and Moran, P., 2001;** 'Small enterprises as complex adaptive systems: a methodological question?' *Entrepreneurship and Regional Development*, Vol 13, No 1, pp 47–63.
- Garavan & O'Cinneide, 1994;** Entrepreneurship Education and Training Programmes: A Review and Evaluation – Part 1. *Journal of European Industrial Training*, Vol. 18(8): 3-12.
- Gartner, W. B., 1985;** 'A conceptual framework for describing the phenomenon of new venture creation', *Academy of Management Review*, Vol 10, No 4, pp 696–706.
- Gibb, 1993;** The enterprise culture and education: understanding enterprise education and its links with small business, entrepreneurship and wider entrepreneurial goals. *International Small Business Journal*, Vol. 11 No.3, pp.3-32.
- Hammersley, 1990;** *Reading Ethnographic Research: A Critical Guide*. London, UK, Longman.
- Jacob, Lundqvist, Hellsmark, 2003;** Entrepreneurial transformations in the Swedish University system: the case of Chalmers University of Technology. *Research Policy*, Vol. 32: 1555-1568.
- Johannisson, B., Alexandersson, O., Nowicki, K., and Senneseth, K., 1994;** 'Beyond anarchy and organisation: entrepreneurs in contextual networks', *Entrepreneurship and Regional Development*, Vol 6, No 3, pp 329–356.
- Kurakto, 2005;** The Emergence of Entrepreneurship Education: Development, Trends, and Challenges. *Entrepreneurship Theory and Practice*, Summer 2005: 577-597.

- Low & MacMillan, 1988**; Entrepreneurship: past research and future challenges. *Journal of Management*, Vol. 14: 139-161.
- McClelland, 1961**; *The achieving society*. Princeton, NJ USA, Van Nostrand Reinhold
- Nelson & Byers, 2004**; *Organizational Modularity and Intra-University Relationships Between Entrepreneurship Education and Technology Transfer*, Colloquium on Entrepreneurship Education and Technology Transfer, Stanford Working paper.
- Reynolds, 1994**; Reducing barriers to understanding new firm gestation: Prevalence and success of nascent entrepreneurs. Paper presented at the Academy of Management Meeting, Dallas, TX. August, 1994.
- Rotefoss & Kolvereid, 2005**; Aspiring, nascent and fledgling entrepreneurs: an investigation of the business start-up process. *Entrepreneurship & Regional Development*, Vol. 17(2): 109-127.
- Schumpeter, 1934**; *The theory of economic development*. Cambridge, MA USA, Harvard Press.
- Solomon, 2007**; An examination of entrepreneurship education in the United States. *Journal of Small Business and Enterprise Development*, Vol. 14(2): 168-182.
- Souitaris, Zerbinati, & Al-Laham, 2007**; Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, Vol. 22: 566-591.
- Stinchcombe, 1965**; Social structure and organizations. In J. March, (ed.), *Handbook of organizations*. Chicago, IL USA, Rand McNally. 142-193.
- Sveningsson & Alvesson, 2003**; Managing managerial identities: Organizational fragmentation, discourse and identity struggle, *Human Relations*, Vol. 56(10): 1163-93.
- Sørheim & Rasmussen, 2006**; Action-based entrepreneurship education. *Technovation*. Vol. 26: 185-194.
- Thomas & Mueller, 2000**; A Case for Comparative Entrepreneurship: Assessing the Relevance of Culture. *Journal of International Business Studies*, Vol. 31(2): 287-301.
- Tuunainen, 2005**; Contesting a hybrid firm at a traditional university. *Social Studies of Science*, Vol. 35(2): 173-210.
- Van de Ven & Engleman, 2004**; Event- and outcome-driven explanations of entrepreneurs. *Journal of Business Venturing*, Vol. 19: 343-358.
- Vestergaard, 2007**; The Entrepreneurial University Revisited: Conflicts and the Importance of Role Separation. *Social Epistemology*, Vol. 21(1): 41-54.
- Vinten & Alcock, 2004**; Entrepreneurship in education, *The International Journal of Education*, Vol. 18(2/3).
- Warren, 2004**; Negotiating entrepreneurial identity – communities of practice and changing discourses. *The International Journal of Entrepreneurship and Innovation*, Vol.5(1): 25-35.