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# Intellectual Property Challenges in Replicating an American Graduate Program in Poland Experiences, Perspectives, and Lessons Learned

## University collaboration and intellectual property protection Theoretical Context

As globalization explodes, there is an accelerating trend among universities to partner with other institutions throughout the world. An example of the partnering trend among cross country education is the European Union's Project Atlantis program (2010) which encourages dual degree programs between US and European universities. There are also many other examples of this kind of EU cooperation with Japan and other countries.

In most cases, the partnership is focused on student and faculty exchanges. There is also an emerging trend to create dual degree programs. In dual degree programs, the partner institutions share academic responsibilities and may elect to grant the student degrees from both partner universities. Dual degree programs create complex academic harmonization and university governance issues among the university governing boards as well as within national accrediting bodies.

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## Program replication and intellectual property challenges

The most complex globalization challenge among universities is replication of an academic program from one university in another university in a different country and culture. Not only must the normal cross cultural issues be addressed but intellectual property issues must be resolved.

What exactly is the intellectual property involved in the transfer? Who owns what intellectual property? What intellectual property does the university own? What intellectual property do the individual professors own? What is the intellectual property worth? What is the best transfer mechanism? How should intellectual property be updated? These issues and other intellectual property issues must be addressed and resolved between the partner universities to successfully transfer the academic program from one institution to another.

## Intellectual property defined

The definition of intellectual property varies from country to country and is reflective of the nation's culture. The most workable definitions of intellectual property have been hammered out by global organizations. The "global definitions" reconcile some of the country and cultural differences. The World Intellectual Property Organization (2010a) states: Intellectual property relates to items of information or knowledge, which can be incorporated in tangible objects at the same time in an unlimited number of copies at different locations anywhere in the world. The property is not in those copies but in the information or knowledge reflected in them. Intellectual property rights are also characterized by certain limitations, such as limited duration in the case of copyright and patents.

The World Intellectual Property Organization (2010b) specifically defines intellectual property: Intellectual property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. Intellectual property is divided into two categories: Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source; and copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. The World Trade Organization (2010) defines intellectual property as: Intellectual property rights can be defined as the rights given to

people over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creations for a certain period of time.

**Two categories of intellectual property**

Intellectual property rights are traditionally divided into two main categories: Copyright and rights related to copyright: i.e. rights granted to authors of literary and artistic works, and the rights of performers, producers of phonograms and broadcasting organizations. The main purpose of protection of copyright and related rights is to encourage and reward creative work.

The second category is industrial property: This includes (1) the protection of distinctive signs such as trademarks and geographical indications, and (2) industrial property protected primarily to stimulate innovation, design and the creation of technology. In this second category fall inventions (protected by patents), industrial designs, and trade secrets. A simplified definition of intellectual property is "property rights granted to individuals or organizations, for a limited duration of time, based on creations of the mind".

**Intellectual property in a U. S. university – who owns teaching?**

Intellectual property is a very complex issue within universities. There is a creative tension between the university itself and the faculty of the university – especially where pedagogy and teaching is concerned. Traditionally, when a professor joins a US university as full time faculty, he or she assigns their intellectual property to the institution. The idea is the university is paying his or her salary and, consequently, the university as an organization owned the individual's intellectual property. As an exception to the general rule, the university permitted the individual to retain rights to articles and books.

In *Remaking the American University*, Zemsky, Wegner, and Massy (2006) articulate the inherent tension between the institution and the individual professor as: Those with fiduciary responsibility for an institution – principally boards of trustees and executive officers – were the most likely to believe that what faculty member produced while being paid by the institution, from classroom teaching to published work, belonged to the institution.

Few faculties championed such a definition of institutional rights and prerogatives. From the faculty perspective, intellectual property in one's teaching and academic freedom were but two sides of the same coin. Teaching in the classroom belonged to the institution – but individual lecture notes, PowerPoint presentations, computer simulations, slides, and photographs be-

longed to the faculty member regardless of whose equipment or space was used to produce them (p. 131).

One of the significant limitations on the copyright holder of intellectual property is the "fair use" doctrine. The "fair use" doctrine permits, with some limitations, to use copyright materials for research and teaching. The US Copyright Office (2010) defines "fair use" of intellectual property as: one of the rights accorded to the owner of copyright is the right to reproduce or to authorize others to reproduce the work in copies or phonograph records. One of the more important limitations from the university's board perspective is the doctrine of "fair use".

The doctrine of fair use has developed through a substantial number of (US) court decisions over the years and has been codified in section 107 of the (US) copyright law. Section 107 contains a list of the various purposes for which the reproduction of a particular work may be considered fair, such as criticism, comment, news reporting, teaching, scholarship, and research. Section 107 also sets out four factors to be considered in determining whether or not a particular use is fair:

- The purpose and character of the use, including whether such use is of commercial nature or is for nonprofit educational purposes
- The nature of the copyrighted work
- The amount and substantiality of the portion used in relation to the copyrighted work as a whole
- The effect of the use upon the potential market for, or value of, the copyrighted work.

The distinction between fair use and infringement may be unclear and is not easily defined. There is no specific number of words, lines, or notes that may safely be used by a third party without permission.

## The MS in Science and Technology Commercialization program as a collaboration and cooperation object

The intellectual property issues mentioned as challenges for universities' collaboration and cooperation will be explored in the context of transferring a specialized and unique graduate program – the executive MS in Science and Technology Commercialization (MSSTC) program - from the University of Texas at Austin to the University of Łódź in Poland.

The MSSTC program is a one year long executive trans disciplinary program and may be described a modified MBA for individuals interested in creating new products, new services, and new organizations grounded in science and

technology. The focus of MBA programs is on the administration of current organization and operations – making organizations more effective and more efficient during an organization's mature stage. In contrast, the MSSTC educates individuals to think and act entrepreneurially during the start up stages from idea to prototype to product introduction through the initial growth stages. The objective of the MSSTC program is the creation of new organizations and related jobs by understanding and managing the wealth creation process from the idea through R&D to the early growth stages in the marketplace.

The MSSTC program was founded by Dr. George Kozmetsky, cofounder of Teledyne and Dean of the McCombs Business School at the University of Texas at Austin for 16 years, at the $IC^2$ Institute at the University of Texas at Austin. The mission of the $IC^2$ Institute is to create and disseminate knowledge on wealth creation. In addition, the $IC^2$ Institute validates wealth creation concepts by operating the Austin Technology Incubator – "a business laboratory". Once knowledge has been codified and validated, the wealth creation insights are disseminated through the $IC^2$ Institute's Global Technology Commercialization Group and the MS in Science and Technology Commercialization program.

Working with a number of the US national scientific laboratories to commercialize their research during the late 1980's and early 1990s, Dr. George Kozmetsky realized a specialized educational program focusing the early stages of the product / business life cycle was sorely needed. Dr. Kozmetsky realized that different skills were required to launch a science based technology from the laboratory to the marketplace than traditionally taught in MBA programs. The entrepreneurial skills necessary for success in launching science based ventures differed greatly from the administrative skills possessed by the traditional MBA graduate. Dr. Kozmetsky designed a program similar to but different from the traditional MBA program to assist scientists and technologists to translate research and developments into new products, new services, and new ventures to create individual and societal wealth as well as generate jobs.

Today the MSSTC program educates individuals to align technology with market needs. Most new ventures fail due to misalignment between the products or services offered to the market, not because the technology failed or a lack of funding. MBAs are, for the most part, fine-tuning organizations and operations in which the market-product alignment is already at equilibrium.

A basic tenet of the MSSTC program is that it is not the technology per se that creates economic value but the complex web of relationships among scientific knowledge, market needs, organizational purpose, and leadership interacting dynamically together in a complex ecosystem to create customers, competitive advantage, and wealth.

## The typical MSSTC student and program

The typical MSSTC student is 38 to 40 years old (with a range of 23 to 62), is a "fast track type A" middle manager with a scientific/engineering degree (60%), business degree (20%), or liberal arts degree (20%). Approximately 35% to 40% of the students have earned graduate degrees split evenly between advanced degrees in science and engineering and MBA degrees. Historically, women have comprised about 30% of each MSSTC class. On line distance education students comprise approximately 30% of the MSSTC class. International students comprise another 15% of the MSSTC class.

The typical MS in Science & Technology Commercialization student has 10 to 14 years of business and managerial experience. This experience brings a "real life" perspective to class discussion and problem solving. Given the emphasis on global cross functional virtual teams in many organizations, the wide range of diversity among the MS in Science & Technology students promotes cooperative and integrated learning mirroring today's workplace.

Many of the MSSTC professors who also teach MBA students have commented that the MSSTC students feel more comfortable with technology, ambiguity, and risk-taking than their MBA counterparts. The MSSTC professors' observations are further underscored by MSSTC students' actions post-graduation. Typically, approximately 25% of each MSSTC class becomes involved in founding new ventures less than one year following graduation. The typical MSSTC graduate received at least one promotion within one year of graduation. Over 25% of the MSSTC graduates have received two or more promotions.

The program is an extremely intense and rigorous educational experience. Students complete 36 graduate units in twelve months while fully employed. The program consists of twelve separate graduate courses completed over three terms. MSSTC classes meet every other weekend – Friday and Saturday from 8 am to 5:30 pm – for 27 weekends. This alternating weekend schedule enables students to integrate their MSSTC education with their travel schedules. Students typically complete 25 to 30 hours per week of homework outside of class.

The MSSTC program begins with a four-day live-in executive seminar in which the students are introduced to the technology commercialization topics they will be studying during the next 12 months. In addition, they are assigned to global learning teams. Each team selects two technologies to assess during the first term. In another significant difference from traditional MBA programs, MSSTC students work on real technologies not academic cases and exercise

since research (Light, 1992) has shown adults learn more by addressing real issues than simply completing academic exercises.

The first term courses focus on assessing the commercial viability of technology. The students determine whether or not a technology is commercially viable by following a systematic analysis methodology. The students complete the following courses: 1. Converting Wealth to Technology, 2. Marketing Technology Innovations, 3. Technology Management and Transfer: Theory and Practice, and 4. Financing New Ventures.

In the Converting the Technology to Wealth course the students learn a "Quicklook" methodology for assessing relatively quickly – in 50 to 60 hours - the commercial viability of a technology to arrive at a go or no/go decision. If the decision is to go forward, then the student learning team completes an in depth analysis of the product/market opportunity which takes about another 200 to 250 hours. The students always analyze real technologies for real organizations.

Having determined the commercial viability of the technology, the MSSTC students during the second term delineate the optimal strategy to introduce the technology to the marketplace. Should a new company be built around the technology, license the technology to another organization, or find a joint venture partner to develop and market the technology? What is the best strategy to commercialize the technology? During the second term, the students complete the following four courses: 1. Strategic Issues for Technology Commercialization, 2. Legal Issues of the Commercialization Process (including patents and intellectual property), 3. Managing Product Development and Production, and 4. The Art and Science of Market-Driven Entrepreneurship.

Having identified the best strategy to take the technology to the marketplace, the third term courses challenge the student to develop a commercialization business plan to acquire the necessary resources to implement his or her vision. Students complete the following four courses during their final term: 1. Creative and Innovative Management, 2. Decision Risk Analysis, 3. Internationalization of Technology, and 4. Technology Enterprise Design and Implementation.

In lieu of a Master's thesis, the MSSTC students present a commercialization plan to an evaluation board consisting of faculty, business leaders, and venture capitalists that judge and rank order the projects.

## Online MSSTC distance education

The MSSTC was the first University of Texas at Austin degree approved for online distance education. Each MSSTC course is web cast live as well as arc-

hived. All coursework – including team collaboration - can be performed online. Students from throughout the USA – from New York to California - and internationally – Canada, Mexico, Netherlands, Russia, Israel, Malaysia - have completed the MSSTC program via the online technology. Approximately 30% of the MSSTC students are enrolled as distance learners.

Originally, the distance education consisted of lectures, notes, etc. recorded on DVDs for each individual course. It was expected the DVDs would have a "shelf life" of three years. Experience showed that in a technology based field the individual courses must be updated annually. Consequently, the online distance education migrated from static DVDs to more dynamic and real time web casting.

Online students attend the new student orientation to meet the in-class students and be acculturated to the expectations of the program. The online students are completely integrated with the in-class students via electronic teams. The two groups work on the same technology projects and have the same class deliverables. This integrated approach eliminates any self-paced learning and ensures the academic integrity of the online student experience.

The learning outcomes of the online and in-class students are identical as measured by their final grade point averages as well as the selection of the "outstanding student" in the class by the faculty.

## The transformation

The primary objective of the MS in Science & Technology Commercialization program is to transform the individual professionally and personally. Professionally, the MSSTC provides the students with a variety of new paradigms so he or she understands the wealth creation processes. Personally, the program challenges the students and provides numerous opportunities to function as a leader – to generate increased confidence in their ability to provide organizational leadership.

It is important to recognize that in many cases, enrollment in the MSSTC program represents a major life inflection point for the individual. The MSSTC program may have an impact far beyond the technology commercialization education process alone. Participation in the MSSTC program frequently leads to soul searching resulting in a career reevaluation and reorientation. Participants also gain the confidence to step up to a technology commercialization leadership role in their current organizations. One significant outcome of the MSSTC program is that individuals are transformed from functional specialists into technology entrepreneurship leaders.

## Intellectual property issues and challenges in University of Texas at Austin and the University of Lodz cooperation

In 2003, Lockheed Martin entered into an agreement with the Republic of Poland. As part of the agreement Lockheed Martin agreed to build economic development programs that leverage Poland's scientific and technological heritage and create jobs. One of the programs Poland was interested in acquiring was the MS in Science and Technology program. In late 2003 and early 2004, an agreement was signed to transfer the University of Texas at Austin's MSSTC program to the University of Lodz.

$IC^2$ Institute at the University of Texas at Austin invested significantly for several years to develop the program. Over $5 million USD were invested to create and launch the MSSTC program. Since 1996, approximately 500 technology entrepreneurs graduated from 13 MSSTC cohorts.

The University of Łódź is one of the largest universities in Poland with approximately 42, 000 students and 4, 000 faculties and researchers. The University of Lodz had experience in the creation and development of degree programs with other American and European universities such as University of Maryland and the University of Baltimore to create an Executive MBA program and the Lyon University in France to create a master's program in management. The University of Lodz's previous experience facilitated the knowledge transfer from the University of Texas at Austin.

Lodz is the second largest city in Poland with a population of nearly 750,000, located approximately 135 kilometers south west of Warsaw. For about 150 years, Lodz was a major textile center manufacturing products for Poland, Russia, and Germany. Unfortunately the textile industry collapsed in Poland. In recent years, the city of Lodz and the surrounding region suffered high unemployment (approximately 20% in 2003 dropping to approximately 10% in 2010) and embarked on a policy of attracting foreign investment, developing new technologies, and creating new high value added jobs. The experience and the knowledge of educating entrepreneurs became a priority for its local government.

The agreement between the University of Texas at Austin and the University of Lodz was one of the milestones to reach this aim and after 5 years generated significant measurable results. Since 2004, when the Lodz program was launched, approximately 100 technology entrepreneurs graduated from 5 MSSTC cohorts.

## Key intellectual property elements between the University of Texas at Austin and the University of Lodz

The agreement between University of Texas at Austin and the University of Lodz contained several intellectual property elements:

1. The University of Texas at Austin warranted it owned or has obtained rights to the copyright, title, trademarks and all other rights related to the MSSTC program
2. The MSSTC program was defined as the compilation of all copyrightable expression to teach the MSSTC program.
3. The University of Texas at Austin MSSTC program was licensed to the University of Lodz for delivery throughout the physical territory of the Republic of Poland and nowhere else.
4. The license agreement permitted the University of Lodz to offer the MSSTC program in printed or electronic forms (World Wide Web, CD/DVD, video tape, etc.) to students physically residing in the Republic of Poland.
5. The University of Texas agreed to educational mentoring sessions sufficient to transfer the MSSTC program to the University of Lodz faculty.
6. The University of Texas at Austin agreed to provide updates to the University of Lodz via course materials, background readings, electronic media, direct consultations, and access to the MSSTC program websites.

## What exactly Is the intellectual property involved in the MSSTC program?

The intellectual property associated with the MSSTC program was defined as the compilation of "all copyrightable expression associated with and necessary to teach" the program. The intellectual property definition was enumerated further as encompassing the twelve separate courses comprising the MSSTC program.

At the beginning when the MSSTC program's intellectual content was defined the challenge was rapidly evolving as the professors teaching the MSSTC courses were constantly updating and changing their courses to incorporate rapid technological changes and business challenges as well as their experiences teaching their courses. Later on when the program was transferred to the Polish partner some other challenges appeared. The Polish challenges were connected with the adjustment of American program to Polish and European

conditions so some cultural and environmental issues arose. Some classes had to be redesigned dramatically because for Polish students American case studies or American perspective was not very clear and understandable. The issue who really owns the intellectual property, even if the agreement is valid, started to be important.

The agreement was signed by two universities and the intellectual property was transferred on this basis. However, the question arises - as in many cases in many universities all over the world, when intellectual property is an issue - who is its real owner – university or professors? The ownership of the MSSTC program's intellectual property is complex and predicated on the interrelationship between the University of Texas at Austin and the individual MSSTC professors. There was no doubt that the University of Texas at Austin owned the creative idea and course structure of the MSSTC program. The $IC^2$ Institute of the University of Texas at Austin conceptualized, designed, and implemented the MSSTC program and its unique pedagogical structure. The professors agreed to that conceptually at the moment of signing their teaching contracts with $IC^2$ Institute – the University of Texas unit that delivers the MSSTC program.

However, since the MSSTC professors initially developed and annually redeveloped the contents of the twelve separate MSSTC courses. Some of the MSSTC professors felt they owned the intellectual property associated with their individual course. Some MSSTC professors would copyright their individual lectures, slides, and PowerPoint presentations as they updated their course. The differing perspectives on the ownership issue created some tension between the University of Texas at Austin and the MSSTC professors during the preparatory phrase of transferring the MSSTC program to the University of Lodz.

At the same time at the University of Łódź faculties adjusted the program to the European and Polish conditions and needs. The content of most classes were changed by incorporating many European and Polish case studies and experiences. The content of some individual classes was modified and updated. Some Polish experts and entrepreneurs were invited to meet the Polish students and they did not follow the instructions transferred by American faculties at the preparatory phase of transferring MSSTC program.

Another issue was the communication and constant knowledge sharing with American faculties. Knowledge sharing did not progress as expected at the very beginning because of personal or other formal or informal reasons. So 5 years after transferring the MSSTC program, not only the intellectual property ownership but also its value can be examined.

## What is the intellectual property worth?

Valuing copyrightable university intellectual property is very subjective relative to valuing of patents. Patents may be valued according to their commercial market potential and related revenues and profits. As knowledge, copyrights are much less tangible and, consequently, more difficult to value. Another issue associated with university copyrights is the role and responsibilities of the university in societies – to create and to disseminate knowledge.

Recognizing its responsibility to freely share and disseminate its knowledge, The University of Texas at Austin valued the MSSTC program at the lowest value possible. The University of Texas at Austin valued the MSSTC program to recover direct out of pocket expenses associated with transferring the MSSTC program to the University of Lodz. The minimal valuation approach implemented the University of Texas at Austin's $IC^2$ Institute mission to create and to disseminate knowledge on wealth creation as a "think and do tank". The transfer cost of the MSSTC program was very minimal relative to the total investment the University of Texas at Austin made in creating and refining the MSSTC program.

Minimizing the value enabled the University of Lodz to create a MSSTC program. The University of Lodz could have created its own MSSTC program but doing so would take a great deal of time. Additionally, the University of Lodz would have to invest significantly to gain the experience necessary to create an effective program. The University of Texas at Austin had refined the MSSTC over nearly a decade and evolved a unique structure and pedagogy to successfully educate technological entrepreneurs.

The most valuable input of the MSSTC transfer to the University of Łódź was the "know how" - the knowledge how to run the program and how to teach students. Some Polish faculties had already experience in teaching MBA students and teaching international students, however, neither different cultures nor different environmental conditions could change the value of the fully organized and prepared on the years of global experience program. The University of Łódź would have to work very hard for many years to gain the experience of what seemed a very difficult task with the incorporated high operational and financial risk. The value of faculty and administration staff meetings organized to transfer knowledge seems to be the most important one. It is very hard to measure it quantitatively. For some faculties on both sides it can be low, but for some – open minded people it was really important. The knowledge sharing was priceless as the constant learning by personal and professional cooperation.

## What is the optimal mechanism to transfer the intellectual property?

Transferring intellectual property is challenging since most intellectual property, especially the nuances, are lodged in the mind and personality of the creator. The University of Texas at Austin decided the optimal way to transfer the intellectual property from the MSSTC professors to their academic peers at the University of Lodz were via face to face meetings.

When the transfer program was announced to the MSSTC faculty some of the MSSTC professors immediately embraced the idea. Other MSSTC professors resisted and became very protective of "their" intellectual property and declined to participate in the transfer. However, the director of the $IC^2$ Institute immediately defused the situation by meeting with the reluctant professors and convinced them to participate by appealing to their professionalism and collegiality.

The University of Texas at Austin finessed this part of the intellectual property issue by compensating the MSSTC professors for their time transferring the intellectual property to the University of Lodz. The important issue to the MSSTC professors was not the modest compensation per se – the compensation was less than most MSSTC professors could command for few days of consulting - but the acknowledgement and recognition of the value of their intellectual contribution to the MSSTC program.

Once the sending mechanism was in place and the University of Lodz identified the professors who would "localize" the courses to the Polish environment and culture and teach the course, arrangements were made for the University of Lodz professors to visit their new colleagues at University of Texas at Austin. The University of Lodz professors had several mentoring meetings with their new colleagues over six weeks in Austin, Texas and participated in the class they were designated to teach as well as other MSSTC classes to develop a feel for the intellectual pedagogy of the MSSTC program.

The time spent with the US professors was also good experience for Polish faculties. Some of Polish lecturers have already identified the areas that can be fully transferred and those that need to be changed and adopt for the Polish and European conditions. Different willingness to share knowledge was also observed and experienced by the Polish lecturers. Some American professors were very dedicated and treated Polish partners as counterparts - wanted to share knowledge. Some of the US professors mentioned they were afraid to share their experience. These behaviors reinforce the opinion that intellectual property sharing is a very difficult task. People share knowledge. Organizations that do not understand the power of knowledge sharing and the idea of part-

nership, as many companies' and institutional cases confirm, frequently fail in the global competitive environment.

The University of Texas at Austin agreed to provide updates to the University of Lodz via course materials, background readings, electronic media, direct consultations, and access to the MSSTC program websites. This was the most challenging part of the transfer of intellectual property due to the online element of the program. The University of Texas at Austin was in the initial stages of experimenting with web casting and was not aware of how to best control the webcasts. The University of Texas at Austin was concerned the web casts of the classes would somehow be captured by individuals not enrolled in the MSSTC program. The Texas MSSTC director was charged with the responsibility of protecting the MSSTC's intellectual property and the "fair use" doctrine did not apply to the knowledge embodied in the web casts.

The electronic use of the MSSTC intellectual property was a very sensitive and significant issue within the US MSSTC program since the MSSTC program was experiencing significant financial challenges with an outside vendor which created the original DVDs used for on line distance education of the MSSTC program.

The University of Lodz wanted access to the web casts to update their MSSTC program. Web casts would be the easiest way to update the intellectual property as the US professors continued to evolve their MSSTC courses. Additionally, the University of Lodz desired access to the Texas webcasts for their Polish students. Access to the University of Texas at Austin webcasts was not granted as the Polish students were enrolled in the University of Lodz program, not the University of Texas at Austin MSSTC program. The University of Texas at Austin was willing to enroll Polish MSSTC program in the US webcast program if the Polish students agreed to pay the same tuition as the US students. The US MSSTC program was afraid someone would pirate the MSSTC courses from the web, repackage the course, and sell the intellectual property commercially.

From time to time, the director of the Texas MSSTC program would visit the University of Lodz to update the Lodz professors on program modifications. But the director's periodic visits were not enough from the Polish point of view. Some additional mechanisms might have been utilized to update the program. For example, the creation of web based knowledge transfer platform where the faculties and students from both sides of the Atlantic Ocean could share their opinions and knowledge. Such a web based mechanism would enforce MSST program popularity globally while enhancing its intellectual content.

## Lessons learned – the 5 most significant

Some lessons were learned about the intellectual property issues associated with the transfer of academic programs from one country / culture to another country / culture. The five most significant lessons are:

1. Prior to signing the agreement to transfer the intellectual property from one institution to another, the administration of the source institution should clarify internally the ownership of the intellectual property. What specific intellectual property does the institution own? What specific intellectual property do the professors own as per their contract and relationship with the university? What is the intellectual property relationship between the administration and the faculty? The more keenly defined "who owns what" and the relationship between the two internal institutional partners, the less the internal conflict and easier it will be to transfer the intellectual property.
2. A neutral third party might value the intellectual property involved in the transfer. The neutral party will facilitate negotiations between the two universities and establishes a "bona fide" value for legal purposes. Then the source university can do whatever should be done within the institutions academic mission and culture. Decisions taken will be more rational since they are based on facts and data, not the opinions of either party re: the value of the intellectual property.
3. The exact intellectual property should be defined including the intellectual property held by the institution itself - such as sequence of courses, fundamental pedagogy, etc. - as well as the intellectual property residing with the faculty – such as materials, course notes, lectures, and PowerPoint slides. All electronic and digital issues must be delineated and resolutions determined.
4. The transfer mechanism for the intellectual property should be delineated and addressed during the agreement negotiations phase. What is the optimal mechanism to transfer the intellectual property? Should the source administrators and professors visit the receiving institution or vice versa? How many times? For how long? How frequently? In what sequence? The costs of the transfer should be addressed upfront so they may be budgeted. Unanticipated transfer costs of a minimum of 10% to 15% should be incorporated into the final budget.
5. The final significant issue is updating of intellectual property during the term of the agreement and, even, post agreement. Clarity of the responsibilities of both the source and receiving institutions must be clearly delineated. Financial funding mechanisms should be implemented to up-

date the intellectual property by both institutions to assure that students in both institutions receive the most current and timely intellectual property relative to a rapidly expanding body of knowledge to assure the highest quality education possible.

## Conclusions

The experiences of the University of Texas at Austin and the University of Lodz simply begins to surface lessons learned about one of the many complex issues, intellectual property, associated with transferring programs from one institution to another university. The net result of this transfer is that the University of Lodz has graduated nearly 200 technology entrepreneurs who will eventually help Poland leverage its rich scientific and technological heritage by creating new ventures and new jobs.

The most important lesson learned is to clearly define, discuss, and resolve all aspects of intellectual property ownership prior to entering into the agreement as well as delineating post agreement actions and related funding.

Both the University of Texas at Austin and the University of Lodz are much richer and wiser as a result of this collaborative and collegial transfer experience. As issues arose, most were readily resolved due to the collegiality of the administrators and professors involved on both sides of the Atlantic Ocean.

It is worthwhile examining the experiences of universities in transferring, replicating, and receiving educational programs across countries and cultures as the trend towards globalization accelerates. More and more institutions are beginning to realize that the smart move is to replicate a successful academic program which has been fine turned rather than create an entirely new program from scratch. Replication saves both time and money while simultaneously improving the educational program itself as well as enhancing the global collegiality between institutions.

The world is becoming smaller daily due to the Internet and air travel. Smart scientifically educated individuals with excellent ideas for commercialization are as likely to be found in Europe as in Asia, Latin America, or the USA. Capital to fund ideas is global and may be found in Shanghai, Silicon Valley, Scotland, or the Middle East. To facilitate the wealth creation processes necessary to build civil societies, we need to learn from each other and can only do so by sharing our mutual experiences.

## References


1. Light, R. J., *The Harvard Assessment Seminars, Second Report: Explorations with Students and Faculty about Teaching, Learning, and Student Life*, Harvard University Graduate School of Education and the Kennedy School of Government Cambridge, Massachusetts 1992.
2. Project Atlantis Program, EU-US Cooperation in Higher Education and Vocational Training, 2010. Retrieved from http://ec.europa.eu/education/eu-usa/doc1156_en.htm
3. U.S. Copyright Office, Copyright – Fair Use, 2010. Retrieved from http://www.copyright.gov/fls/fl102.html
4. World Intellectual Property Organization, Understanding Copyright and Related Rights, 2010a. Retrieved from http://www.wipo.int/freepublications/en/intproperty/909/wipo_pub_909.html
5. World Intellectual Property Organization, What is Intellectual Property? 2010b Retrieved from http://www.wipo.int/about-ip/en
6. World Trade Organization, Trade Related Aspects of Intellectual Property Rights, 2010. Retrieved from http://www.wto.org/english/tratop_e/trips_e/tripfq_e.htm.
7. Zehner II, W. B., The Emerging Technology Commercialization Degree, Proceedings of Eighth World Conference on Integrated Design and Process Technology 2005. Beijing, China, 2005, June. Retrieved from https://msl1.mit.edu/twiki/pub/Scratch/SantoriniPage/Sample_paper.pdf
8. Zemsky, R., Wegner, G. R., and Massy, W. F., Remaking the American University – Market Smart and Mission Centered, Rutgers University Press, New Brunswick, N.J., 2006.

## Streszczenie

Globalne trendy i międzynarodowy charakter komercjalizacji technologii sprawia, że pojawiły się globalne trendy do zacieśnienia współpracy pomiędzy uczelniami. Uniwersytety Trzeciego wieku oprócz misji edukacyjnej i naukowej włączają się w nurt przedsiębiorczości nazwanej akademickiej, współpracy z przemysłem i instytucjami rządowymi.

Artykuł zwraca uwagę na istotną rolę transferu własności intelektualnej zawartej w programach edukacyjnych, szkoleniowych wymiany kadry i studentów. Współpraca rodzi wartość dodaną jako uzyskują uczelnie w postaci wspólnych programów lub transferu wiedzy z jednej uczelni do drugiej. Prezentowany artykuł zawiera również studium przypadku oparte na współpracy dwóch uczelni amerykańskiej i polskiej oraz transferze programu magisterskiego Komercjalizacji Nauki i Technologii z Austin do Łodzi. Udostępnienie wiedzy i najlepszych praktyk Instytutu IC2 w Austin obejmowało wyzwania związane z prawidłowym transferem własności intelektualnej wielu podmiotów jak wykładowców, uczelni, instytutu, doradców oraz innych osób pracujących przez wiele lat przy tworzeniu najlepszego w USA programu magisterskiego do zarządzania technologią.

Autorzy zebrali najbardziej istotne problemy występujące podczas ich pracy w programie i przedstawili je w rozdziale *Intellectual Property Challenges in Replicating an American Graduate Program in Poland Experiences, Perspectives, and Lessons Learned*



## Abstract

The article delineates some of the challenges in implementing of one of the global trends among universities - increased cooperation and collaboration to create and transfer intellectual property. Universities all over the world are increasing cooperation and collaboration in different fields. In addition to the traditional student and faculty exchanges, more and more universities are exploring deeper collaborations ranging from replication of degree programs to creation of dual degree programs. The article presents a case study of an extended collaboration to replicate a program founded by the University of Texas at Austin at the University of Lodz in Lodz, Poland. The transferred program is the year long executive MS in Science and Technology Commercialization (MSSTC) Program which focuses on wealth creation associated with intellectual property by transforming ideas based on science and technology into new products, new services, and new ventures to create jobs. The MSSTC program was transferred successfully from the University of Texas at Austin to the University of Lodz in Poland. However, one of the most significant challenges associated with the program replication across countries and cultures is how to best address a program's intellectual property issues. This paper examines some of the intellectual property issues involved in transferring the MSSTC program like from a US to a Polish university. Some of the lessons learned re: intellectual property are delineated, examined, explored, and recommendations offered.