

# THE MULTIPLE ROLES AND BENEFITS OF WORKING PART TIME AS A PROFESSOR AND PART-TIME PARTNERSHIP WITH INDUSTRY

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## ABSTRACT

It is generally accepted that radical changes are appearing in the world. New ways of communicating, sharing and doing business; globalization, virtualization, collaboration, bring about changes from an energy-based to a knowledge-based economy. These changes are demanding competencies (knowledge, skills, attitudes and values) which now come into our consciousness. We as educators and training professionals need to decide first, how to incorporate these competencies daily and then how we can prepare our “clients” for this change. In this presentation, I want to share with my colleagues the experiences I have had in making the change from a full-time teacher to a part time teacher and part-time consultant-developer: these new roles demand new competencies. This helps me improve my academic courses along the way. I think, now I better understand what the industry is expecting of young professionals.

To make these kind of activities possible, we must have conditions for administrative and academic support. I will share how we work within these conditions with a positive result.

## INTRODUCTION

It is generally accepted that radical changes are taking place in the world. New ways of communicating, sharing and doing business, globalization, virtualization, collaboration to mention a few, bring about changes from an energy-based to a knowledge-based economy. These changes are demanding individuals’ competencies [SCANS91] (knowledge, skills, attitudes and values) [CSCRR99], we need to act accordingly.

Universities in general are aware of these changes and are working on new profiles for students and new ways of making learning possible.

We know that the university serves society by preparing students and supports research and technology transfer. However, it seems that there is a clear divergence between what industry needs in competencies and what universities offer. Usually, curricular change is not as fast as what business requires. We, as educators and training professionals, need to think about this problem and act.

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In order to be sensitive to what industry needs and be able to educate our students according to the necessary competencies and industry demands upon our students, my proposal is to try to develop these competencies on ourselves, by working part-time in industry and part-time teaching.

This way of working provides financial benefits due to the differences between the market value of professional services and that of academic services. In order to have this kind of working scheme there must be conditions for administrative and academic support. I will explain how at ITESM’s Center for Knowledge Systems (CKS) we developed and applied a model of “Value Exchange” for Innovation Centers and individuals making possible these conditions.

After the model and conditions description, some of the competencies that are needed for this kind of work will be presented, and finally, some personal experiences of shifting from a full-time teacher scenario to a new role in part-time teaching, part-time consulting and other professional services, will be commented upon.

## 1. EVIDENCE OF CHANGES

The world is changing on many different fronts. Not only that e-activities are changing the way of collaborating, learning, doing business etc. Some authors have talked about the “Digital”, “Information” or “Network Economy”, some others about the “Knowledge” and “Value Based Economy”, most of them agree that the general phenomena is a “New Economy”.

The authors of “New Economy Index” [Atkins98], for example, explain these phenomena as “a set of qualitative and quantitative changes that, in the last 15 years, have transformed the structure, functioning, and rules of the economy.”

These authors present, among others, the following indicators that impact us as professors, professionals and in general as human beings:

- There is a widespread agreement that a defining aspect of the New Economy is the increased importance of knowledge. “The New Economy is a knowledge and idea-based economy where the keys to job creation and higher standards of living are innovative ideas and technology embedded in services and manufactured products.”
- “It is an Economy where risk, uncertainty, and constant change are the rule, rather than the exception.”

- “The New Economy is organized around flexible production of goods and services.”
- “There is a fierce business competition.” “It is now a competitive requirement that business invest all over the globe to optimally access markets, technology, and talent.” “[This] has accelerated industrial and occupational restructuring, leading to the decline of some industries and jobs, and the growth of others.”
- “Innovation and value are more and more commonly generated in networks. In fact, management guru Peter Drucker and other experts have suggested that the collaborative dynamic of networks, partnerships, and joint ventures is a main organizing principle in the New Economy. Social capital (networks, shared norms, and trust), as fostered in collaboration and alliances, may be as important as physical capital (plant, equipment, and technology), and human capital (intellect, character, education, and training) in driving innovation and growth.”

Don Tapscot [Tapscot96] in the book *Digital Economy*, presented some of the ideas considered in the last paragraph and some other illustrating topics as:

- “The New Economy is a digital economy” (obvious for us).
- Virtualization of the types of institutions, relationships and the nature of economic activity itself is possible.
- The New Economy is a molecular and network economy. “The old corporation model is being desegregated, replaced by dynamic molecules and clusters of individuals and entities that form the basis of economic activity.” These molecules are integrated with others forming networks for the creation of wealth.
- Dissemination: “Middleman functions between producers and consumers are being eliminated through digital networks. Middle business, functions, and people, need to move up the food chain to create new value or they will face being disintermediated.”
- Convergence: “In the New Economy, the dominant economic sector is being created by the three converging industries [computing, communication and content] that, in turn, provide the infrastructure for wealth creation by all sectors.”
- Discordance: “Unprecedented social issues are beginning to arise, potentially causing massive trauma and conflict.”

Javier Carrillo [Carrillo98] analyzes this change using a more holistic approach. He focuses on the existence of different “Value Orders”. In the referenced work he explains that one of the most challenging and promising facts of the emergence of the Knowledge Economy is the collateral effect of widening the value content of business activity.

David Skyrme [Skyrme97] talks about “Knowledge Economy” and “Human Capital” and relates them to other ideas already discussed: “Human Capital -competencies- are a key component of value in a knowledge-based company, yet few companies report competency levels in annual reports. In contrast downsizing is often seen as positive ‘cost cutting’ measures.” “These characteristics, so different from those of the physical economy, require new thinking and approaches by

policy makers, senior executives and knowledge workers alike. To do so, though, requires leadership and risk taking, against the prevailing and slow changing attitudes and practices of existing institutions and business practice”.

Cliff Hakim [Hakim94] also talks about Human Capital. He talks about empowerment, part-time work and an essential aspect for surviving as professionals on whatever the circumstances can be: self-management. “Organizations are *laying off*, doing more with fewer employees, building self-directed work teams, and buying services from a growing contingent: a part-time workforce. Many workers, regardless of their level or industry, are learning that they must begin to think and act carefully and openly as the world restructures and as they grow personally....” “A self-employed attitude is critical in the current work climate.”

## 2. NEW EDUCATION

Tapscot [Tapscot96] talks about “New Learning”: He explains how “increasingly, work and learning are becoming the same thing.” How “learning is becoming a lifelong challenge” and “shifting away from the formal schools and universities”. He thinks that the current process of self-reinventing in education institutions has progressed slowly.

Diana Oblinger and Rush Sean [Oblinger97] in their book *Learning Revolution*, indicate how knowledge doubles every seven years and no one person has all the competencies needed in today’s high performance workplaces. This creates a strong need for collaboration.

They explain how demographic changes in higher education places new demands on the institutions. How students are more selective and “expect a learning environment that fosters measurable improvement in their skill development, not just during college, but throughout their careers.” They remark how governors are pushing to make higher education more responsive to the changing workplace where many jobs now require continual retraining.

These authors make important questions. What are the institutions doing about all the new demands of the workplace? “Do faculty understand how decisions are made in business and industry?”...“What role does the curriculum and student services play in helping the students build and apply these new competencies?”...“Can students see this behavior modeled by the faculty?”

Peter Denning [Denning98] talks about the “New Teacher”. He points out the new competencies needed for teachers in order to have a customer-oriented relationship with students. He also proposes to evaluate a teacher performance by the real performance of students. He suggests shifting from research to innovation (new ideas, practices, products and businesses): “The research function in the university will be reshaped around a new social contract that places more emphasis on research leading to competence and on research partnership with companies.”

### **3. INDUSTRY AND UNIVERSITY RELATIONS AND DIVERGENCES**

Carrillo, [Carrillo96] upon analyzing the relationship between industry and university, establish that “the most basic relationship between university and industry is expressed in terms of the graduated student’s profile. But this fundamental interaction exhibits a series of prejudices that are inherent to the design of the educational system. In general, the basic question of correspondence between education and employment seems to be, Which professional profile is being produced by our university system, and which do our countries need?” The idea of having a first phase of study and then a future deployment possibly was suitable in times where the knowledge renovation cycle was longer. The still dominant practice to separate the learning, training and work is now questioned (both ideas making reference to [Knowles83] and [Bolles89]).

Carrillo continues, explaining how the problem of university and productive sector relationships are about “trying to make a relation on what belongs to diverse orders: enterprise and university are social institutions constructed over divergent categories and values... To recognize this duality is a necessary condition in order to achieve their integration.”

“Paradoxically, the respective survival depends on recognizing each other. Enterprise needs to redefine its business management as an increment on its human capital... and university needs to assume, in an entrepreneurial sense its social role and become accountable for its capacity to manage knowledge.”

Carrillo proposes a new paradigm with virtual relations between enterprise and universities. With the new paradigm universities need to:

- Be centers of knowledge production and learning in which knowledge does not respond to linear behavior and structures needs to be flexible.
- Change teaching “rituals” to ensure a practical business vision.
- Identify and develop its core competencies and shorten its knowledge life cycle.
- Reorient research, creating customized learning environments.
- Develop certification programs for life education, etc.

### **4. THE ITESM’S CENTER FOR KNOWLEDGE SYSTEMS PROPOSAL**

ITESM, like many universities is conscious of the changes in the world and the new competencies required.

In order to accomplish its 2005 Mission [ITESM95], ITESM has invested in:

- The training of faculty to develop and use a variety of teaching methods and resources to help students acquire

knowledge, values, attitudes and skills. Faculty should be an example of these competencies.

- The re-design of the educational process in order to provide the student with the general and specific competencies indicated above.
- Lay the groundwork to carry out significant research, consulting and other private/public sector projects or training programs.

The Center for Knowledge Systems (CKS) worked with a special commission to study the administrative requirements that will permit the Centers for Innovation to fulfill the ITESM 2005 Mission.

These requirements are suggested by the conclusions of the OECD (Organisation for Economic Co-operation and Development) document “University Research in Transition” [OECD 98]. “A central issue to be addressed both by government and university administrators is the extent to which existing rigidities in the academic reward system inhibit the creative potential of university researchers and thus limit university’s contributions to the knowledge-based economy.”

The commission reports significant differences between the value contributions made by individuals or Centers for Innovation and the value rewards obtained. These differences affect innovation activities, promotes the loss of innovation talents, and limits the development of teachers more attuned to the real world.

Based on these experiences and the world trends, the CKS prepared a proposal [OFERTA99] to maximize the value added by professional services provided by teachers and/or Centers for Innovation.

By measuring the profit obtained from the income of the projects sold to outside organizations as well as their intangible benefits obtained by the participating professors and Centers for Innovation, an attractive compensation scheme can be implemented for both.

The pilot project initiated in August 1999 and opened new avenues for teachers and innovation centers.

From my point of view, the greatest benefit obtained from the proposal is its promotion of faculty’s participation in real world project. This, as well as their personal involvement, improves their perception of practical situation outside the academic world. It also encourages them to incorporate these outside experiences into their curricular designs and teaching programs.

### **5. THE NEW ROLES, CHALLENGES AND COMPETENCIES FOR TEACHERS**

In this paper I have mentioned a changing world, new demands, new paradigms of innovation, etc. The responsibility of faculty is high. We need to promote competencies for a highly demanding work environment in a

constantly changing world. We need to personally develop these competencies in order to perform a better job.

In the next part, I will list some of the competencies that I think are important for developing a teacher profile.

These competencies are based on some attitudes that Cliff Hakim presents, and also on the conclusions of some of the work that CKS has developed in different projects in order to identify, diagnose and certify competencies for teachers (including also research and consulting services). I will add some others that I also consider important to include.

Attitudes [Hakim 96]:

- Begin the process of change with ourselves; career self-management is the responsibility of each one of us.
- Replace work fears by passion.
- Combine independence and interdependence.
- Provide service based on quality and competency, whether we work in or outside the organization.
- Commit to continuous learning, personal growth, and gaining new perspectives.
- Learn from feedback.
- Take risk based on what we know and believe.

Attitudes [CSCRC00]:

- Empathy with clients and co-workers.
- Conscience about learning at work.
- Active participation in clients' projects.
- Personal values and attitudes evaluation.
- Continuous improvement.

Other attitudes I think should be considered are:

- A strong commitment to the higher moral values such as ethics and respect for human dignity.
- A strong sense of service, patience and commitment to teaching.
- Justice and respect: teachers should fulfill their responsibilities both, to their external clients and the their students.
- Continuous self-evaluation and development.
- Acceptance of feedback with a positive attitude.
- Special attention to our most fundamental commitment: our families.
- Recognition of the importance of taking care of our physical, emotional and spiritual health.
- Awareness of the consequences our actions have on the work of others.
- Acceptance of our responsibility without fear of making mistakes, and encourage others to do the same.
- Awareness that the teacher should be agent of change.

Skills selected from [Hakim 96]:

- Create meaningful work.
- Being resourceful and able to give value to the work.
- Market ones skills and negotiate ones needs.
- Listen and understand the needs of others.
- Find and develop a niche, a valued service.
- Ask for guidance and support.
- Sell our ideas.

- Learn from mistakes.

[CSCRC99] [CSCRC00] reported among others:

- Holistic vision.
- Understand enterprise context (see the whole picture).
- Self-direction.
- Dealing with clients.
- Project planning.
- Budget development.
- Clarity and precision in making contracts.
- Evaluation of the middle and final products.
- Optimum use of ones time.
- Leadership.
- Conflict management.
- Group facilitation.

I also experienced the need for:

- Business strategy knowledge.
- Broader culture and ability and inclination to form interdisciplinary teams.
- Give positive feedback to boss, colleagues or team about their work.
- Continuing our education in ones chosen field.
- Controlling stress.
- Learning to say NO when we are not able to do something.

## CONCLUSIONS

Changing from a full-time teacher to both, a part-time teacher and consultant or solution developer, is not an easy decision, because we need to face the challenge of working in something different, within a different environment, with more stressful situations, etc.

These new roles demand new competencies. I have learned that what is important about this, is to be able to analyze which competencies we require to develop and to work on them.

In the three years that I have worked on these kind of projects, I've had a continuous learning experience in my field and in others such as business strategies, adult learning, personal relationships, etc. All this has made it possible for me to improve the courses in which I participate and/or design.

With this kind of work we can be in better position to understand what the industry is expecting from young professionals and we can be aware of which competencies the students and each one of us need to develop. It also helps the learning process by being able to illustrate concepts with personal or team examples.

I know that the activities of a full-time teacher demand more than full time. If the teacher is involved in a service project, he will not be fully available to his students because of other responsibilities as attend clients, look for new projects, travel etc. But in this changing world, all of us know that modern teaching-learning schemes give different options as "team teaching", electronic communication and team oriented

solutions, and these options complement and make it possible to fully comply with the different responsibilities. Of course, all of this requires from us to be well organized. It also requires from students to be disciplined and less dependant on the teacher. In fact, both these skills are also desirable.

Finally, by having this kind of dual-role work sharing, it is possible to improve our personal income, which is good for us and our families. We should not forget to develop the competencies (knowledge, skills, attitudes and values) among our relatives in order to make us a better person, a better instructor, advisor, and genuine guide and model for our students.

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