

Information and Communication Technologies Institute
Carnegie Mellon | PORTUGAL

A N I N T E R N A T I O N A L P A R T N E R S H I P

A short report at the end of the Faculty Exchange Program

Participant: *Ana Groznik*

Position: *Assistant Professor*

Institution: *FCEE, Universidade Católica Portuguesa*

Working area: *Operations Management*

Visiting period: *August 16 - December 16, 2010*

Host at CMU: *Alan Scheller-Wolf, Operations Management, Tepper School of Business*

RESEARCH PROJECT

With Alan Scheller-Wolf, we considered several potential research topics, primarily in the context of health care, and decided to focus on management of diagnostic service centers which advise patients over the phone based on their symptoms about the appropriate treatment. When managing such centers, a balance must be found between accuracy of advice, callers' waiting time and operational costs. According to empirical data, in USA more than 10% of emergency room visits are non-urgent, e.g., which means that billions USD could be managed more efficiently by directing patients to more appropriate care center, and that is why different health organizations, hospitals and physicians are investing in call centers and providing counseling about appropriate and therefore also more cost-effective treatment.

We modeled a call center, where the managerial decision is the accuracy of the advice, which affects the calling traffic and the average duration of a call, which in turn affects costs and benefits of the call center. Potential callers are strategic and heterogenic, and contact a call center only if expectable accuracy of the advice is sufficiently high and outweighs the waiting time, considering their initial uncertainty level of the necessary treatment.

We believe that this is an important research topic that has not been addressed yet from a similar perspective. Our plan is to continue with the project.

Besides working on research, I was also participating in some quantitative courses offered to PhD students and attended several research presentations. The number of available options and their quality at CMU Tepper School of Business is rich, and overwhelming. I had an excellent chance to broaden my research experience, as well as observe and learn from one of the best teaching practice in the field.

I believe my visit at CMU will have a long lasting effect on my research and teaching, and I sincerely appreciate that I was enabled to seize this opportunity, and I am thankful for all the necessary support for this visit.

Pittsburgh, December 16, 2010