

**Giorgos CHELIOTIS**  
School of Information Systems  
Singapore Management University  
80 Stamford Road  
Singapore 178902



giorgos@smu.edu.sg | gcheliotis@gmail.com

*Date of CV revision: Dec. 20, 2007*

**Citizenship:** Greek (Dutch and British national)  
**Singapore Residency Status:** Singapore Employment P1

## **EDUCATION**

<b>2004</b>	McKinsey MBA, with faculty from the Kellogg School of Management, Northwestern and INSEAD.
<b>1998-2001</b>	Ph.D. (honors) in Telecommunications and Information Systems from the National Technical University of Athens (NTUA), dissertation work conducted at IBM Research, Zurich Research Laboratory, Switzerland.
<b>1992-1997</b>	MS in Electrical Engineering and Computer Science from NTUA, thesis work conducted at IBM Research.

## **CAREER HISTORY**

<b>2006 – Present</b>	Visiting Assistant Professor and Head of the Participatory Media Lab at the School of Information Systems, Singapore Management University. <u>Research:</u> online distribution and creative reuse of digital content, related legal and business issues, and media-specific analysis of the role of technical protection measures (DRM). <u>Teaching:</u> Computer as an Analysis Tool (a hands-on class focused on building business models in Excel for decision support and consulting purposes).
<b>2005 – 2006</b>	Self-employed consultant, specializing in the management of digital content, with a focus on licensing issues and the use of new communication technologies for the dissemination of digital media.

<b>2003 – 2004</b>	Consultant at McKinsey’s Business Technology Office. Served five clients in Switzerland and throughout Europe on valuation, marketing, risk management, IT and operations issues. In addition, developed a quantitative model estimating the financial impact of internet telephony on incumbent telecoms.
<b>2002 – 2003</b>	Post-doc at IBM Research, Zurich Research Laboratory (ZRL), on the allocation of distributed computing resources. Spearheaded the field of Grid economics with a first-of-a-kind tutorial at the Global Grid Forum and several publications on the commercialization of Grid technology.
<b>1998 – 2002</b>	PhD student at IBM Research, ZRL, conducting basic research on the management and economics of networks. Invented the first ever technique of simulating the behavior of inter-city bandwidth prices, by solving a stochastic network optimization problem. This work led to the first Ph.D. dissertation on bandwidth trading, titled “Structure and Dynamics of Bandwidth Markets”.

**OTHER AFFILIATIONS**

- Associate Fellow of the Centre for Asia Pacific Technology Law and Policy (CAPTEL)
- Co-Project Lead of Creative Commons Singapore

**RESEARCH INTERESTS**

- Commons-based and open-source production models
- Measuring the adoption and impact of new licensing and distribution models
- Assessing the quality and impact of user-generated content
- Digital media piracy, pricing and copyright protection issues
- Legal, business and social issues in games and virtual worlds

**RESEARCH GRANTS**

- SMU Research Grant (SGD 60,000) for CC-Monitor, a research collaboration between the SMU School of Information Systems and the School of Law, aiming to analyze the use of Creative Commons licenses around the world, with an emphasis on the licensing of music and the effect of licensing on the creative re-use of content.
- IBM Research Grant (USD 200,000) for participation in a greater effort in IBM Research (Watson and Zurich Labs) to construct a decision tool which can calculate the ROI of Grid computing adoption in an enterprise.

**AWARDS**

- Award from Venture 2006 – Companies for Tomorrow, the biannual Swiss business plan competition, for the “Zattoo business plan”, based on peer-to-peer video streaming technology developed at the University of Michigan.

- Distinguished Scientist Award from the Greek state, awarded to Greeks excelling in academic research abroad
- IBM Business Methods Special Patent Incentive Award and IBM First Patent Award
- Two awards for outstanding performance in school from the Greek Ministry of Education and the city of Athens respectively.

### **WORKING PAPERS**

- *EMI and Apple - The Role of DRM for Price Discrimination as opposed to Copyright Protection* (work in progress).
- *Remix Culture: Creative Reuse and the Licensing of Digital Media in Online Communities* (work in progress).

### **JOURNAL ARTICLES**

- *Measuring the Commons: Quantifying Global Online Licensing Behavior*, submitted to the Journal of Management Information Systems (JMIS).
- *Dark Fiber Valuation*, The Engineering Economist, Vol.47, 3: 264-307, IEE Press 2003. With C. Kenyon.
- *The Dynamics of Failure Events in Network Markets*, Netnomics 4: 163-185, Kluwer Academic Press, 2002. With C. Kenyon.
- *Stochastic Models for Telecom Commodity Prices*, in Computer Networks 36, pp. 533-555, Elsevier Science, August 2001. With C. Kenyon.

### **CONFERENCE PAPERS**

- *Taking Stock of the Creative Commons Experiment: Monitoring the Use of Creative Commons Licenses and Evaluating Its Implications for the Future of Creative Commons and for Copyright Law*, 35th Research Conference on Communication, Information and Internet Policy (TPRC), at the National Center for Technology & Law, George Mason University School of Law, Sep 28-30 2007, Arlington VA. With W. Chik, A. Guglani and G. Tayi.
- *Autonomic Economics*, in Proceedings of the IEEE Conference on E-Commerce, Newport Beach CA, June 24-27 2003. With C. Kenyon.
- *Creating Services with Hard Guarantees from Cycle Scavenging Systems*, in Proceedings of the 3<sup>rd</sup> IEEE/ACM Conference on Cluster Computing and the Grid, 12-15 May 2003, Tokyo, Japan. With C. Kenyon.
- *Architecture Requirements for Commercializing Grid Resources*, in Proceedings of the 11<sup>th</sup> IEEE International Symposium on High Performance Distributed Computing, July 24-26 2002, Edinburgh, Scotland. With C. Kenyon.
- *Forward Price Dynamics and Option Prices for Network Commodities*, 2<sup>nd</sup> World Congress of the Bachelier Finance Society, Crete, June 12-15, 2002. With C. Kenyon.
- *Failure Contagion and QoS Elasticity in Bandwidth Markets*, in Proceedings of the 10<sup>th</sup> IEEE International Conference on Computer Communications and Networks, Oct. 15-17 2001, Scottsdale Arizona. With C. Kenyon.
- *Brokerage of Bandwidth Commodities*, Short paper, 7th International Conference on Intelligence in Services and Networks, 23-25 Feb. 2000, Athens, Greece. With B. Liver.

## BOOK CHAPTERS

- *From Open Source to Open Content*, chapter accepted and currently in preparation for “Online Community and Social Network”, Wenjing Duan (ed.), in the Handbooks in Information Systems series, by Andrew Whinston (ed.).
- *10 Lessons from Finance for Commercial Sharing of IT Resources*, invited chapter for “Peer to Peer Computing: The Evolution of a Disruptive Technology”, Ramesh Subramanian and Brian D. Goodman (eds.), Idea Group 2005. With C. Kenyon and R. Buyya.
- *Risk Models for Grid Computing*, invited chapter for “Handbook of Integrated Risk Management for E-Business”, A. Labbi (ed.), J. Ross Publishing, 2005. With C. Kenyon.
- *Architecture Requirements for Commercializing Grid Computing*, invited chapter for “Grid Resource Management”, J. Schopf, J. Węglarz, J. Nabrzyski, M. Stroiński (eds.), Kluwer 2004. With C. Kenyon.

## WORKSHOP PAPERS

- *Measuring the Creative Commons*, presented at the 3<sup>rd</sup> Symposium on Statistical Challenges in E-Commerce Research (SCECR 2007), at the Operations and Information Management Department of the University of Connecticut, May 19-20, 2007, Stamford CT. With A. Guglani and G. Tayi.
- *European-Style Forward Derivatives for Telecom Commodities*, in Economics and the Internet II: Proceedings of the 4th Berlin Internet Economics Workshop, Berlecon Research Documents, September 2001, Berlin. With C. Kenyon.
- *Bandwidth Trading in the Real World: Findings and Implications for Commodities Brokerage*, in Economics and the Internet, Proceedings of the 3rd Berlin Internet Economics Workshop, Berlecon Research Documents, June 2001.
- A Market-Based Model of Bandwidth and A New Approach to End-to-End Path Computation with Quality Guarantees, MIT/Tufts Workshop on Internet Service Quality Economics (ISQE), 2-3 Dec. 1999, Cambridge MA.

## INVITED TALKS

- *Licensing attitudes in Asia and (mis)perceptions of free culture*, presentation at the International Workshop on Asia and Commons in the Information Age, Taipei, Taiwan, Jan 20-21, 2007.
- *What do Creative Commons users do? And why should we care?*, presentation at the CC Salon in San Francisco, Oct 10, 2007.
- Speaker at the *Law and Regulation in Virtual Worlds* panel, organized by the Centre for Asia Pacific Technology Law and Policy (CAPTEL), at the State of Play V conference, organized by the Harvard Law School, Yale Law School, New York Law School, Trinity University, and Nanyang Technological University, Singapore, Aug 17-20, 2007.
- *Creative Commons Statistics from the CC-Monitor Project*, presentation on the Legal Day of the 3<sup>rd</sup> iCommons Summit, Dubrovnik, Croatia, June 14-17, 2007.
- *Grid Economics*, University of Zurich, Department of Informatics, Nov. 27 2002.
- *Grid Economics: Foundations and Challenges (Tutorial)*, 5<sup>th</sup> Global Grid Forum, Edinburgh, Scotland, July 24-26, 2002.

- *A Study of Future Large-Scale Bandwidth Trading*, Marcus Evans Trading Bandwidth Conference, 11-13 Sep. 2000, San Francisco CA.
- *On-line Bandwidth Trading: State-Of-The-Art and Beyond*, National Technical University of Athens, 24 May 2000, Athens, Greece.

### **MAGAZINE ARTICLES**

*Network Market Dynamics*, Telecoms Capacity, Dec 2001 / Jan 2002 Issue, Risk Waters Group, London. With C. Kenyon.

### **TECH REPORTS**

Several reports of non-published work can be found on IBM's Technical Paper Search: [http://www.research.ibm.com/resources/paper\\_search.shtml](http://www.research.ibm.com/resources/paper_search.shtml)

### **PATENTS**

1. *Method and System for Providing a Computing Resource Service*, U.S. filing July 23, 2003.
2. *Method and Device for Calculating a Forward Price for Using Links in a Network*, U.S. and European filing July 30, 2001. Later filing at WIPO.
3. *Method and Device for Calculating a Price for Using A Specific Link in a Network*, U.S. and European filing April 18, 2001. Later filing at WIPO.

### **TEACHING EXPERIENCE**

CAT (Computer as an Analysis Tool): Taught 4 sections of this course thus far. CAT is a hands-on business modeling class where students learn how to translate real-world problems into a quantitative model which can be entered into Excel to assist in decision-making. Some of the topics covered: time value of money, optimization, monte carlo simulation, statistical analysis and queueing systems.

### **DISSERTATION**

*Structure and Dynamics of Bandwidth Markets*, written at the IBM Zurich Research Laboratory and accepted at the National Technical University of Athens, 2001, under the supervision of Prof. Emmanuel Protonotarios, Prof. George Stassinopoulos and Prof. Miltiades Anagnostou (external advisor: Dr. Chris Kenyon, IBM Research).

### **OTHER PROFESSIONAL ACTIVITIES**

- Chair of the "Art, Piracy and Copyright: Friends or Foes?" panel, planned for the ISEA 2008 conference in Singapore
- Academic advisor for the "New Media at Arts House" event, organized by Singapore's Media Development Authority (MDA)
- PC member of the 5th IEEE/ACM International Workshop on Grid Computing
- Ad-hoc reviewer for the Journal of Cultural Economics, Computer Networks, Management Science, IEEE Systems Journal, and Concurrency and Computation: Practice and Experience
- Member of the ACM, INFORMS and ISAST
- Member of Creative Commons Singapore

## **COURSES/SEMINARS**

- Communication Skills Workshop, McAlinden Associates, Copenhagen, Denmark
- McKinsey & Company Business Consulting Readiness, Mexico City, Mexico

## **LANGUAGES**

Greek (native), English (fluent, Cambridge Proficiency), German (good), French (basic) and Italian (basic)

## **CONSULTING ENGAGEMENTS**

- *Business and product development for a Digital Media Startup.* Assisted the CEO in the commercialization of a video streaming technology. In business development, I identified and analyzed target audiences and the competition, helped develop a content acquisition strategy and assisted in marketing the company with broadcasters. I also wrote the company's business plan which won an award from the 2006 Swiss Venture competition. In product development, I helped the team produce a vision of what the product should look like and how to incorporate Web 2.0 functionality.
- *Risk management for a Financial Institution.* In close collaboration with the Head of Risk Management, I managed a workstream charged with ensuring Basel II compliance and with defining the contents of all internal risk reporting. I also developed training material on investment strategy for two Supervisory Board workshops. The client embraced the proposed reports; the Board also felt more confident they could monitor the institution's investments and associated risks.
- *Marketing plan for a Non-Profit.* The aim of the engagement was to improve the value proposition for members/sponsors. I helped the engagement team identify the root causes of low member loyalty through detailed analysis of membership trends. Also, on request of the Head of Operations, I led senior client staff through a process of prioritizing regional activities across the globe. After only three months the negative trends in number and quality of members were stopped.
- *Evaluation of IT options for a Bank.* Supervised two competing teams and helped them develop their respective proposals. Uncovered severe legal barriers to the implementation of the favored proposal. In addition, showed that this proposal would be at least 50% more expensive. I reported the findings to the CIO and the Head of Corporate of the parent bank. This led to a drastic change in the client's assessment and eventually a mandate from the CEO to include more options and reassess the situation until internal consensus is reached.
- *Operations improvement for an Insurer.* In the context of a pan-European project, I conducted a cost-benefit analysis for the replacement of one country's aging Life IT platform. This showed that the benefits could not justify the required investment, unless drastic operational changes took place. Recognizing this, the client decided to proceed with the IT replacement *and* the proposed reorganization. Additionally, BPO and 'lean' transformation opportunities were identified, to reach a total savings potential of USD ~40 million.

- *Due diligence for a Private Equity firm.* Analyzed the markets that an acquisition target was active in and the competitiveness of the target's offerings. Moreover, assisted the engagement team in reviewing the target's cost base and financial forecasts. Based on this, the client made the largest acquisition bid in its history, however no agreement was reached with the target company.

#### **KNOWLEDGE AND CLIENT DEVELOPMENT**

- *The Future of Voice.* Managed a team of four researchers for the development of a mathematical model to assess the impact of Voice-over-IP (VoIP) adoption on incumbent telecoms. This was used to assess the revenue impact for two leading European telecoms and was presented at the yearly global conference of the McKinsey Telecoms Practice. Since then, the results of the study and the model itself have been successfully leveraged by client service teams around the world.
- *Offshoring back-office operations.* Assisted a large team in preparing a successful project proposal for offshoring back-office operations of a leading European bank, with a focus on Eastern European captive offshoring options.