האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

IP and Network Theory - 62548

Last update 13-08-2018

HU Credits: *4*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *Law*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Mt. Scopus*

Course/Module Coordinator: *Dr. Michal Shur-Ofry*

Coordinator Email: *michalshur@huji.ac.il*

Coordinator Office Hours: *Wednesdays, 13:30 upon prior coordination*

Teaching Staff:

Dr. Michal Shur-Ofry

Course/Module description:

Network Theory is a multi-disciplinary field that is concerned with the behavior, development and functioning of complex networks. Complex networks (or complex systems) are systems comprised of numerous interacting components. Prominent examples are the human social network, the internet, web-based applications (such as Facebook), as well as biological and financial networks. In recent years there is growing recognition that complex networks of different types share common properties and act as a whole that is different than the sum of its parts. Network theory thus explores the structure, patterns and development of such systems, while drawing on insights from numerous disciplines, among them sociology, economics, psychology, mathematics and physics.

Intellectual property (IP) law intersects in different manners with various complex systems. Among these are the social network, the internet, patent citation networks, as well as networks of cultural products and brands. The seminar explores the interface between IP and network theory and the manners in which network theory can influence, and perhaps already influences, the design of IP law and the design of legal doctrines in the various branches of intellectual property. The seminar includes introductory lectures on different notions of network theory. It then continues to discuss possible implications of network research for the field of IP. Among the topics discussed are network analysis of patent citations; research of social networks and its impact on the scope of trademark protection; diffusion of innovation in complex systems and copyright protection as well as possible implications of complexity analysis on IP policy.

Course/Module aims:

To accumulate basic knowledge of Complex Networks theory and of the principal branches of Intellectual Property. To research the interface between the field of complex networks and Intellectual Property Law. In particular – to explore how network theory can influence the theory and doctrine of the different branches of IP, including copyright, patents and trademarks.
Participants will make a presentation and submit a seminar on their chosen topic.

Learning outcomes - On successful completion of this module, students should be able to:

• To examine and investigate the interface between Network Theory and Intellectual Property Law (particularly Copyright, Patents and Trademarks;
• To criticize and assess different Intellectual Property rules and doctrines concerning their chosen topic;

• To explain various doctrines in Intellectual Property Law;
• To compare the legal rules concerning their chosen topic in Israel and in other jurisdictions;
• To recommend legal solutions and alternative or amended legal rules concerning their chosen topic;
• To present their research in class, and to submit a written seminar.

Attendance requirements(%):
100% (non-attendance for just reasons only)

Teaching arrangement and method of instruction: seminar

Course/Module Content:
1. Background: Network Theory and Intellectual Property Law
2.Interdisciplinarity
3. Non-random Network and Small Worlds
4. Long Tail
5. Collective Behavior
6. Diffusion of Innovation in Networks
7. Popularity as a Network Phenomenon and IP Doctrine
8. Nonlinearity and IP Policy
9. Network Economy and IP Protection of Computer Software
9 Additional IP Implications

Required Reading:
Intellectual Property and Network Theory
Faculty of Law
Hebrew University of Jerusalem
Dr. Michal Shur-Ofry
Reading List 2016
Note: this reading list is designed to assist students in searching materials for their seminars. Particular reading for classes will be assigned each week.
1. כללי: תיאוריה של רשתות ודיני הקניין הרוחני
חוק זכות יוצרים 2007-התשס"ח

חוק הפטנטים התשכ"ז – 1967

פקודת סימני מסחר [נוסח חדש] תשל"ב - 1972

מיכל שור-עופרי, פופולריות ורשתות בדיני זכויות יוצרים 58-23 (2011).

2. רב תחומיות, רשתות במדעי החברה
Stephen Borgatti, Ajay Mehra, Daniel J, Brass and Guiseppe Lbiance, Network Analysis in the Social Sciences, 323 SCIENCE 892 (2009)

3. רשתות לא אקראיות ; ה"עולם הקטן"
Granovetter, Mark, The Strength of Weak Ties, 78 AM. J. SOCIOLOGY 1360 (1973)

Stanley Milgram, The Small World Problem, 2 PHYSIOLOGY TODAY 60 (1967)

4. זנב ארוך
Chris Anderson, The Long Tail, WIRED 12.10 (2004), www.wired.com/wired/archive/12.10/tail.html;
5. התנהגות קולקטיבית

Granovetter, Mark, Threshold Models of Collective Behavior, 83 AM. J. SOCIOLOGY 1420 (1978)

Matthew Salganik, Peter Dodds & Duncan Watts, Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market, 311 SCIENCE, 854 (2006)

6. התפשטות חידושים ברשתות (innovation of diffusion)
Everett Rogers, Una Medina, Mario Rivera & Cody Wiley, Complex Adaptive Systems and the Diffusion of Innovations, 10(3) THE PUBLIC SECTOR INNOVATION JOURNAL, 10(3), article 30 (2005), http://www.innovation.cc/volumes-issues/ rogers-adaptivesystem7final.pdf
7. פופולריות כתופעת רשת וכללי קניין רוחני
ברבאשי, אלברט-לסלו, קישורים –המדע החדש של רשתות (2002, הוצאת ידיעות אחרונות 2004, תרגום דרורה בלישה), עמודים 128-111
Goldman, Eric, Search Engine Bias and the Demise of Search Engine Utopianism, 8 YALE JOURNAL OF LAW AND TECHNOLOGY,111 (2005-2006)
Michal Shur-Ofry, Popularity as a Factor in Copyright Law, 59 TORONTO L. J. 525 (2009)
Michal Shur-Ofry, IP and the Lens of Complexity, IDEA: THE IP LAW REVIEW, Forthcoming 2013, Part I. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id&eq;2268867

8. חוסר ליניאריות ומדיניות של קניין רוחני
Granovetter, Mark, Threshold Models of Collective Behavior, 83 AM. J. SOCIOLOGY 1420 (1978)

Salganik, Dodds & Watts, Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market, 311 SCIENCE 854 (2006)
Michal Shur-Ofry, IP and the Lens of Complexity, 54 IDEA: THE IP LAW REVIEW 55 (2013), Part III. Available at SSRN:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id&eq;2268867

9. כלכלת רשת וההגנה על תוכנות מחשב
Lemley, Mark & Mc.Gowan, David, Legal Implications of Network Economic Effects, 86 CALIFORNIA L. REV. 479 (1998)

Ariel Katz, A Network Effect Perspective on Software Piracy, 55(2) UNIVERSITY OF TORONTO LAW JOURNAL 155 (2005)

10. יישומי קניין רוחני – דוגמאות נוספות
Katherine J. Strandburg, Gábor Csárdi, Jan Tobochnik, Péter Érdi & László Zalányi, Law and the Science of Networks: An Overview and an Application to the "Patent Explosion" 21 BERKELEY TECH. L.J. 1293 (2007)

Additional Reading Material:
הפקולטה למשפטים
האוניברסיטה העברית בירושלים
קניין רוחני ותיאוריה של רשתות
ד"ר מיכל שור-עופרי
סמינר תשע"ו

קריאת רשות

ברבאשי, אלברט-לסלו, קישורים –המדע החדש של רשתות (2002, הוצאת ידיעות אחרונות 2004, תרגום דרורה בלישה)
MELANIE MITCHELL, COMPLEXITY – A GUIDED TOUR (2009)
סורין סולומון, מורכבות – מדע בגיל 30 -
http://physicaplus.org.il/zope/home/he/1113405067/sorin-1108847836
John Urry, The Complexity Turn, 22 THEORY, CULTURE AND SOCIETY, 3 (2005)
DUNCAN WATTS, SIX DEGREES: THE SCIENCE OF A CONNECTED AGE (2002)
CHRIS ANDERSON, THE LONG TAIL (2006)
Sunstein, Cass & Ulmann-Margalit, Edna, Solidarity Goods, 9 JOURNAL OF POLITICAL PHILOSOPHY, 129 (2001)
ROGERS, EVERETT M., DIFFUSION OF INNOVATIONS (5th. ed., New York 2003)

MALCOLM GLADWELL, THE TIPPING POINT, HOW LITTLE THINGS CAN MAKE A BIG DIFFERENCE (New York, 2002)
YOCHAI BENKLER: THE WEALTH OF NETWORKS (2006)
Gabor Csardi, Jan Tobochnik, , Péter Érdi, László Zalányi and Katherine J. Strandburg,, Patent Citation Networks Revisited: Signs of a Twenty-First Century Change? 87 NORTH CAROLINA LAW REVIEW, (2009).
S. Larsson, The Path Dependence of European Copyright 8:1 SCRIPTED 8 (2011)
Michal Shur-Ofry, Copyright, Complexity and Cultural Diversity – A Skeptic's View in TRANSNATIONAL CULTURE IN THE INTERNET AGE (eds. Adam Candeub and Sean

Pager, 2012), available at SSRN http://papers.ssrn.com/sol3/papers.cfm?abstract_id&eq;1829449
Daniel Spulber and Christopher Yoo, On the Regulation of Networks as Complex Systems: A Graph Theory Approach, 99 NW. U. L. REV. 1687 (2005)
Martin Peitz & Patrick Waelbroeck, Piracy of Digital Products: A Critical Review of Theoretical Literature 18 INFORMATION ECO. & POLICY 449 (2006)

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 20 %
Participation in Tutorials 0 %
Project work 80 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:
The Seminar will have a website in the Moodle System.

Partial grade will consider participation in tutorials in addition to the presentation.