

Need for emphasis of NetEconomy in Web Science curriculum

[This poster pitches the cause for Net economy to be a key curriculum subject while studying Web Science.]

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ABSTRACT

The idea here is to highlight the importance of Net Economy which as per the WSSC 1.0 categorisation [9] is in the E section. It is also shown as a separate wing in the butterfly diagram of webscience[7] quite far from the study of networks. As a student of a masters program on Web Science Net Economics was offered to the author as an "optional" subject begs the cause for reconsideration . The discovery of the close connection Net Economics has to the key research agenda of Web Science being "Dynamics of Web" makes it quite a vital subject in learning about Web Science.

Categories and Subject Descriptors

K.3.2 [Computing Milieux]: Computer and Information Science Education

Keywords

Web Science Curriculum, Web Science Education, Networked Economy, Net goods, Web Dynamics

1. NET ECONOMICS

The theories of Micro economics don't hold anymore when we have the concept of Networked Goods where the goods can be sold online. Net economics is around 20 years old despite us having net for 100 years old. Here network can be anything from supply networks like waters, gas and electricity to communication networks like radio and the Internet. There are changes in how we look at Goods, Markets and its actors in Net economics when compared to Micro economics. As explained by Tapscott [8] Internet and World Wide web play a key role in the transformations of digital age such as digitisation , virtualisation, internetworking, globalisation etc

1.1 Net Good

Net good is a good which after a certain point doesn't require more or very less amount to create a new good. A nice example would be an audio production . If a song is produced and once the costs of artist, record labels costs are met there is a bonus or profit for every new CD or a digital music download. For net goods we have high fixed costs compared to variable costs but are no variable costs. There is no capacity limit, it could be copied from one to another.

1.2 Relation to Web

There are quite a lot of emerging business models right from Pay to Click (google ads) , Download music and pay for individual purchase instead of the whole album (itunes) , Pay per subscription (Spotify) etc which make lot of sense for the study of Web and the dynamics of it itself forms a huge part of web science study.

2. CONNECTION TO WEB DYNAMICS

In a students perspective the study of network dynamics concepts such as Game Theory , Auctions Utility function , Markets , Information Cascades would be quite theoretical if the examples are not drawn from the field of economics. If the foundation of Micro Economics and subsequent introduction of a "Net Good" is given as prerequisite course it would help student appreciate the Dynamics of Web and therefore also have a good understanding of the inter disciplinary nature of Web Science.

3. CURRENT PROGRAMS

As of April 2015 Southampton , Oxford Internet Institute, Koblenz, FS Köln and USJ Beirut are the only courses which come somewhat close to a full fledged masters course with the exception of USJ course being more specialising in Digital Economy aspect.

The course at Oxford Internet Institute [1] was infact designed to highlight the social aspects of the web and in the first course itself teaches social dynamics of web which is quite relevant to the research goals of Web science. FS Köln in its master program has an introduction course to webscience [5] in which it teaches Web Economy. There isn't any separate course on Net economy but there was a course on

web marketing. University of Koblenz [3] has Net Economy as an optional subject which the author deems to be lucky enough to have chosen this course as his part of master study. Southampton[2] despite covering a wide variety of interdisciplinary subjects which includes teaching Social dynamics , law, digital publishing etc. but somehow missed "net economics" as a separate phenomenon worth studying.

USJ Beirut[4] on the other hand has a specialised economics course which was introduced by Bazan 2013 [6] and yes they do they have a prerequisite course of Net Economics. They even introduce as explained in the 2013 paper that a proper introduction to "Web goods" is given and it maintains equilibrium between Web and economy on X-Axis while real world and virtual world was put on Y-Axis. Agreed that this is a specialised course and could not easily be replicated by other computer science departments, there is still an inspiration to be drawn from this course and results of students feedback for such a course would deem interesting for further curriculum design.

4. SUGGESTIONS FOR FUTURE CURRICULUM DESIGN

WSSC categorisation does divide the Web Science course into parts which lead to many courses dealing the web part as a major introductory part while the other parts in section E were more or less optional except in the focus course of USJ. The author contests the claim of WSSC categorisation especially in the case of net economics and as vafopoulos 2011 [9] points out its not hard writing on a wall and could be revisited in the future. Its time for the larger webscience community to gather student and staff feedback while teaching and learning web science. As the author being a student has a bias on highlighting students feedback and improve venues for students to meet in conferences such as web-science conference for more exchange of ideas especially in this case of curriculum development.

5. CONCLUSION / RECOMMENDATION

It is thereby recommended that Net Economics is offered as a base prerequisite subject in the webscience course especially if the course is going to cover Network dynamics.

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