

## Subject Description Form

<b>Subject Code</b>	COMP1BN02
<b>Subject Title</b>	Friends, Followers and Circles: Connections in a Socially-Computed World
<b>Credit Value</b>	3
<b>Level</b>	1
<b>Medium of Instruction</b>	English
<b>Pre-requisite and/or Exclusion(s)</b>	Pre-requisites: Nil Exclusion: COMP 1901 Seminars and Topics in Information Technology
<b>Objectives</b>	<p>Specific objectives of the subject:</p> <p>This subject is specifically targeted at students not in the Computing discipline. They will learn of the basic concepts and essential elements of social computing behind the social network for general audience; the focus is not simply on what the social network is, but also on how it is formed and evolved, with some of the supporting technologies underneath. The objectives are (1) to introduce non major students to the core concepts of social computing and to arouse their interests, (2) to give them an idea of how various technologies work together to create the fantastic virtual world, (3) to relate the social networking concepts to real-life applications under a broad range of platforms, (4) to teach the student of the theories behind the modelling and analysis of social networks and (5) to provoke students into analysing the short-term impacts and projecting long-term impacts of social computing in the context of technological advances and society.</p> <p>Students are not expected to have any background in Computing and Information Technology. The subject will cover both social and technological aspects underlying social computing, including internet platforms, web servers, content management, user management, social linkage: formation and implication, pervasive access via mobile devices, underlying social computing policies and mechanisms. Students will explore contemporary social networks, media and so on, learning through group projects, active discussion and individual blogging on BlackBoard etc.</p> <p>Students are expected to apply the fundamental knowledge acquired during lectures on to specific domains of social networking for proper analysis. This is achieved upon case-studying contemporary social networks and probably participating in some of them. They will report the results as a group project and present to the benefits of other students. An individual term paper on a related topic will provide a student with the chance to work on his/her own and demonstrate one's actual ability.</p>
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ul style="list-style-type: none"> <li>(a) understand the basic concepts of social networks and the underlying social computing;</li> <li>(b) possess the ability to appreciate the design and operation of different social networks;</li> <li>(c) possess the ability to understand the interactions between social networking media, contents, and usage platforms; and</li> <li>(d) possess the ability to understand changes in social computing with respect to technological advances.</li> </ul> <p>Relationship between the learning outcomes with the following three essential features: Literacy, Higher order thinking, and Life-long learning</p>

	<p>Literacy: Learning outcomes (a), (b) and (c) are designed to teach and to train students' technological literacy, in technical contents like servers and platforms, and less technical contents like relationships between users and mutual inference. Students will perform blogging, browse through contemporary social networks and use them. The knowledge level will stay beyond simply knowing, but also understanding.</p> <p>Higher-Order Thinking: Learning outcomes (b), (c) and (d) are designed to teach and to train students' higher-order thinking in appreciating social networks and the technology underneath. The interactions of various components require students to think critically, to connect and even to create knowledge with respect to different computational platforms. The connectivity of the social network can reveal interesting information and generalised into knowledge that are extractable by various computation techniques. Students would be able to apply towards other applications in daily life and propose new ones.</p> <p>Life-Long Learning: Learning outcomes (c) and (d) are designed to train students and provide them with the foundations for independent life-long learning. Through the linkage created in the social network and the content, the subject aims to motivate students to pursue continuous learning by making relevant the subject matter to daily life. Students are encouraged to follow on the technological and social development of social network and social computing in the new decade.</p>
<p><b>Subject Synopsis/ Indicative Syllabus</b></p>	<ol style="list-style-type: none"> <li><b>1. Social networks</b> Overview; nodes, links and distances; social network connections; sixth degree of separation; hubs and authorities; friends and followers; crowds, communities and circles; social network services.</li> <li><b>2. Information in social network</b> Media content; blogging; tagging; node attributes; user profiles; "like"ness and rating; information aggregation; wisdom of crowds; crowd-sourcing; recommendation; collaborative filtering.</li> <li><b>3. Contemporary social network-like platforms</b> Facebook; Twitter; Google+; MySpace; Flickr; LinkedIn; MSN; QQ; Wikipedia; Kiva; OpenRice.</li> <li><b>4. Technological support</b> Internet and web; web servers and clients; Android and iOS platforms.</li> <li><b>5. Computational aspects of social networks</b> Social network modelling and analysis; visualisation; information extraction; clustering and data mining.</li> <li><b>6. Selected social network topics</b> Sample topics include social presence, social games, creditability, free-rider and incentive schemes, addiction, psychological impact, social impact, ethics, privacy threats, information leakage, use of social networks for marketing, human search engines, connecting from virtual world to real world, gold farming in online games.</li> </ol>
<p><b>Teaching/Learning Methodology</b></p>	<p>The course materials are delivered mainly through a combination of lectures, seminars, workshops and tutorials. Students acquire the fundamental knowledge through lectures and seminars. Students will work together during tutorials and workshops, facilitated by the teaching staffs, for various case studies and for group project to reinforce their knowledge acquired during lectures. Students should perform active blogging and study on the social media, with BlackBoard being the first "mini-social network". Students</p>

	will demonstrate their knowledge acquired through the term paper and a few quizzes, let alone the group project.					
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed			
			a	b	c	d
	1. Class attendance, discussion and blogging	20%	✓	✓	✓	✓
	2. Project	30%	✓	✓	✓	✓
	3. Term paper	25%	✓	✓	✓	✓
	4. Quizzes	25%	✓	✓	✓	
	Total	100%				
<b>Student Study Effort Expected</b>	Class contact:					
	▪ Lectures / Seminars					26 Hrs.
	▪ Tutorials / Workshops					13 Hrs.
	Other student study effort:					
	▪ Self study					24 Hrs.
	▪ Term project and term paper					42 Hrs.
	Total student study effort					105 Hrs.
<b>Reading List and Reference</b>	<ol style="list-style-type: none"> <li>1. M.O. Jackson. <i>Social and Economic Networks</i>. Princeton University Press, 2010.</li> <li>2. N.A. Christakis, J.H. Fowler. <i>Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives - How Your Friends' Friends' Friends Affect Everything You Feel, Think, and Do</i>. Little, Brown &amp; Company, 2009.</li> <li>3. L.C. Hillstrom. <i>Online Social Networks</i>. Lucent Books, 2010.</li> <li>4. M.A. Russell. <i>Mining the Social Web: Analyzing Data from Facebook, Twitter, LinkedIn, and Other Social Media Sites</i>. O'Reilly Media, 2011.</li> <li>5. B. Furht. <i>Handbook of Social Network Technologies and Applications</i>. Springer, 2010.</li> <li>6. D.J. Watts. <i>Six Degrees: The Science of a Connected Age</i>. W.W. Norton &amp; Company, 2003.</li> </ol>					