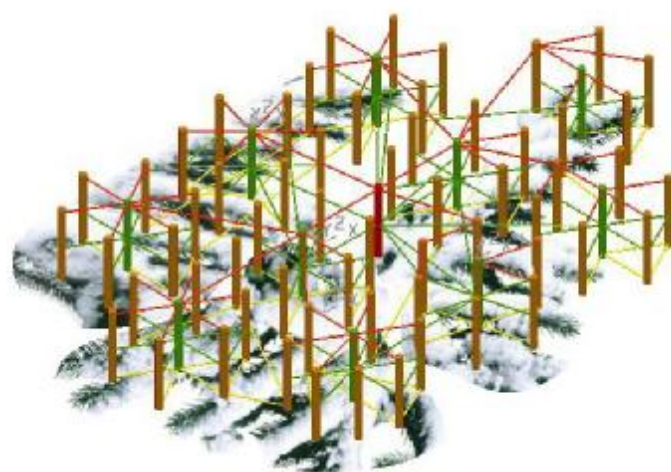
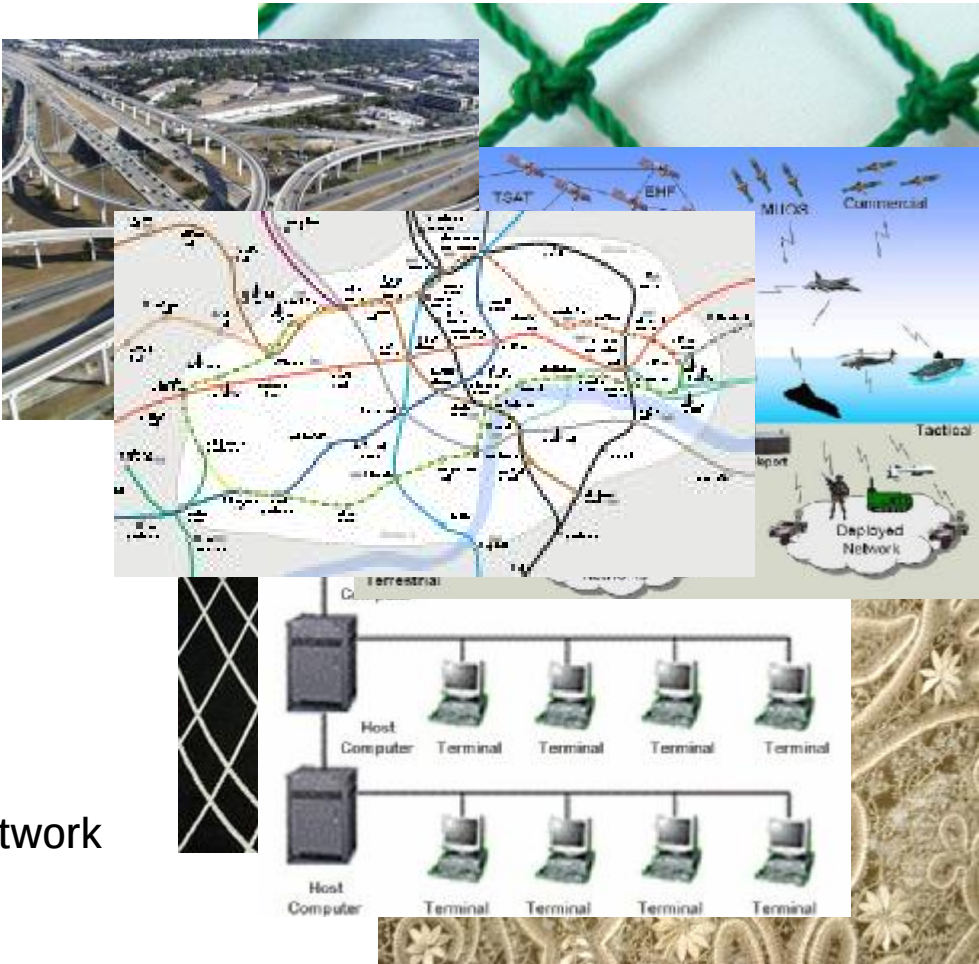




CNLace Calendar for 2012

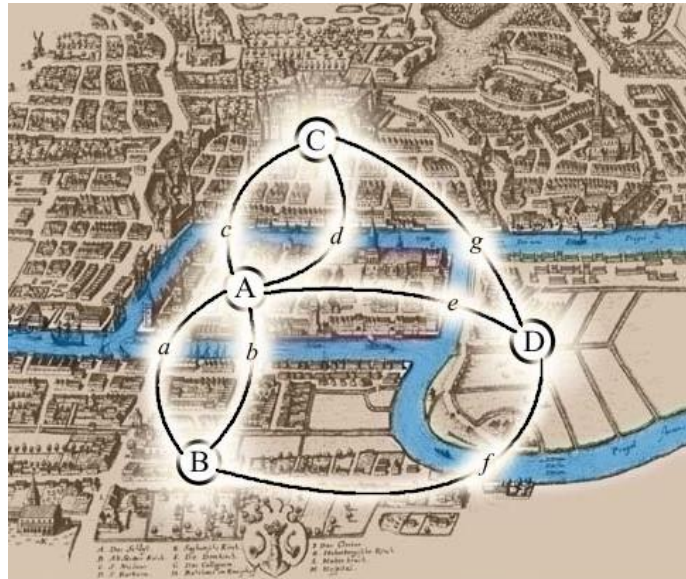
Networks

- Fishnet
- Lace
- Electrical network
- Computer network
- Biological network
- Social network
- Business network
- Corruption network
- Network of espionage
- Terrorist network
- Network of roads
- Subway network
- Telecommunications network
- Television network
- Universities network



January 2012

S	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

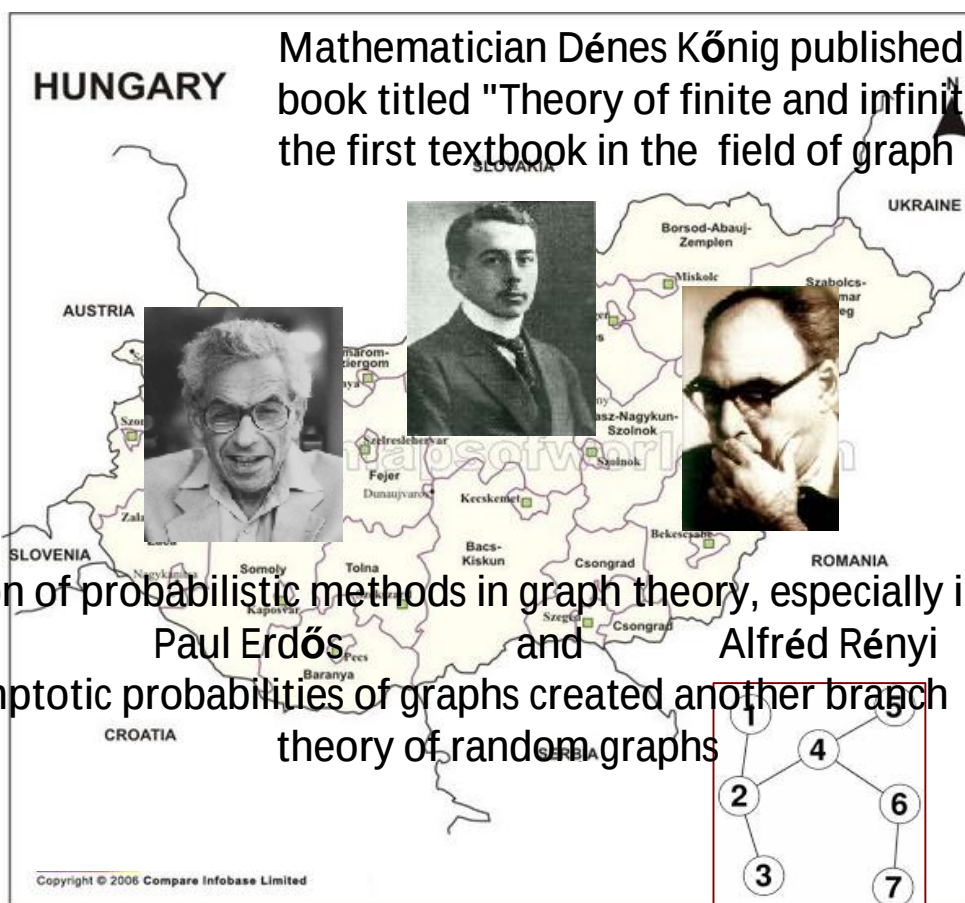


Graph Theory originated in the moment when Leonhard Euler, Swiss, German and Russian mathematician, decided to prove that a passerby can not get around Königsberg (modern Kaliningrad), using only one each of the seven city bridges.

Its key conclusion is: structural characteristics of graphs (networks) define a potential for their use.

February 2012

S	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

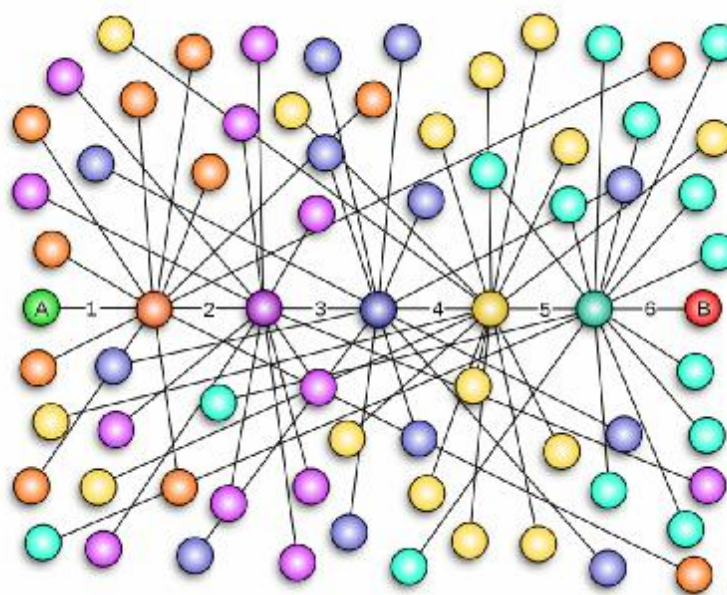


March 2012

S	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Small worlds: networks with short paths

$$d = \max_{i,j} d_{ij}$$

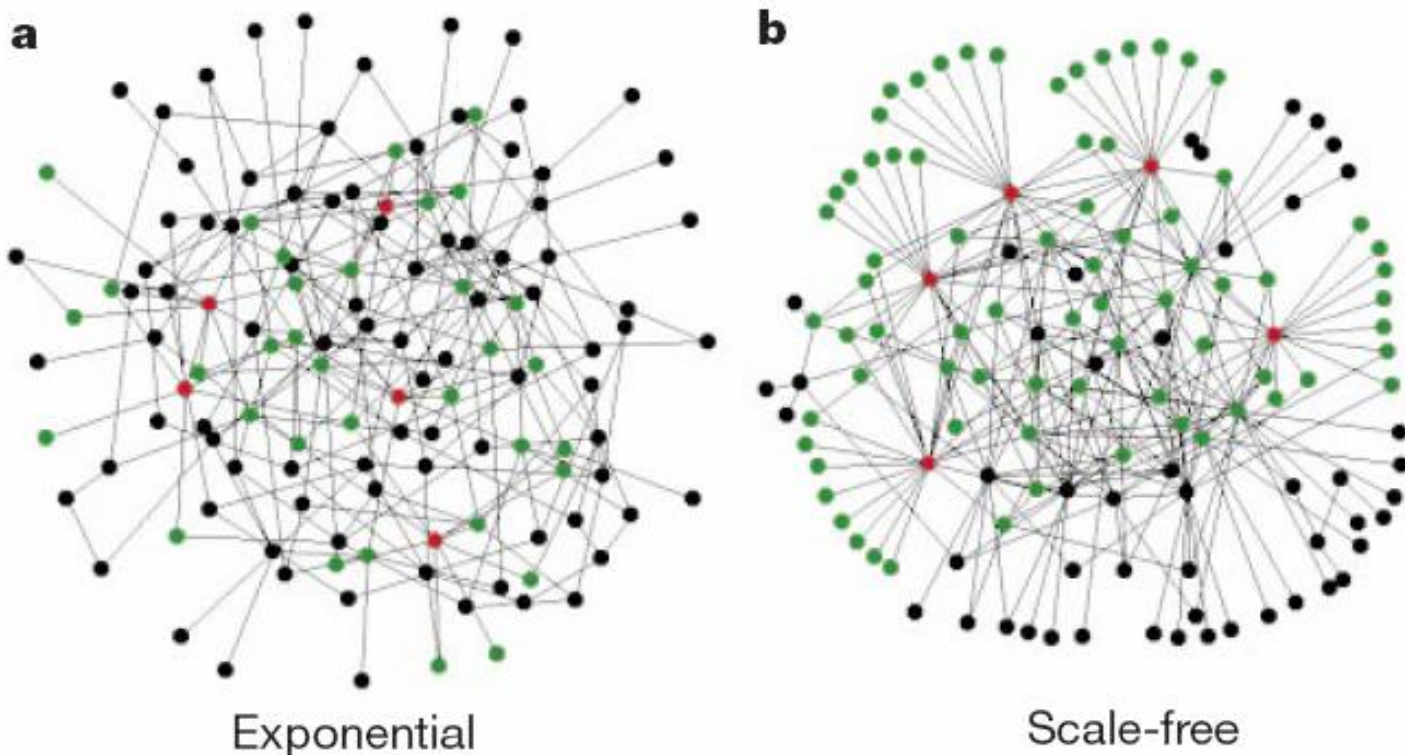


Psychologist Stanley Milgram (1933-1984): "The man who shocked the world". His experiments are often associated with the phrase "six degrees of separation", although Milgram did not use this term himself.

April 2012

S	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

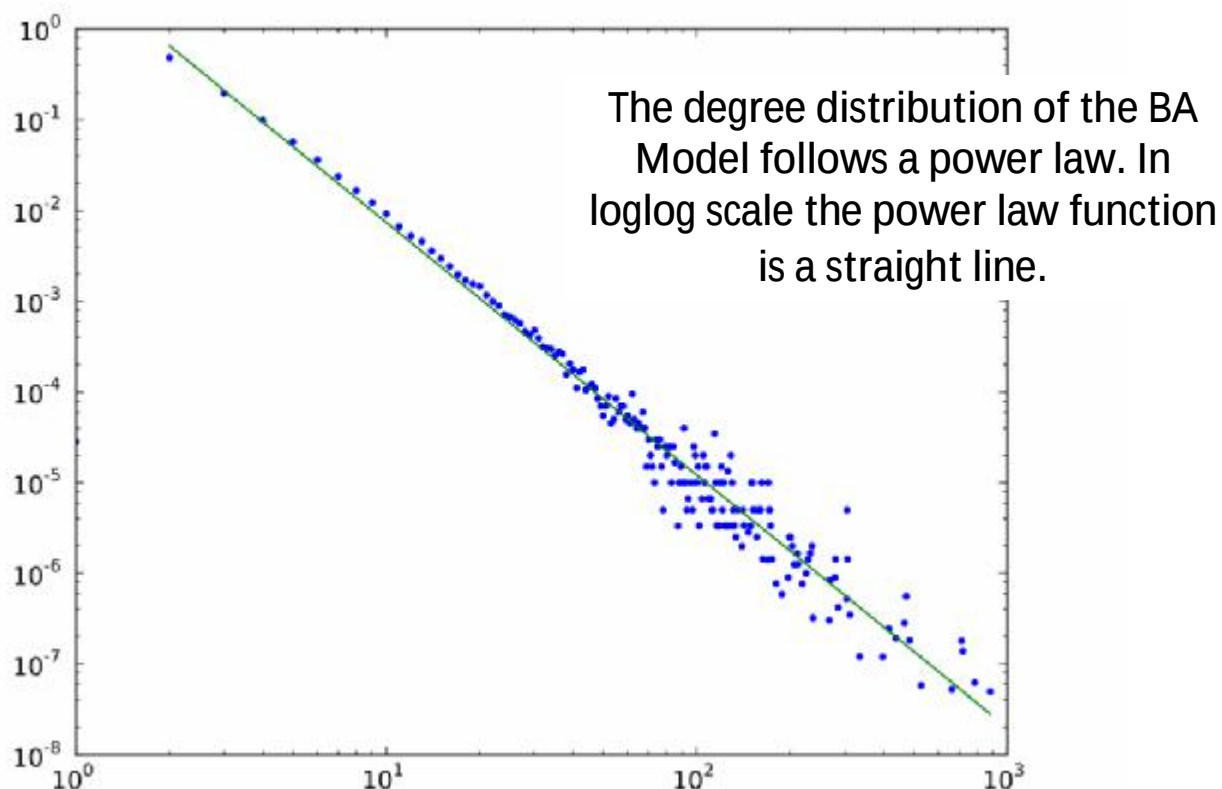
Two types of network connectivity



May 2012

S	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

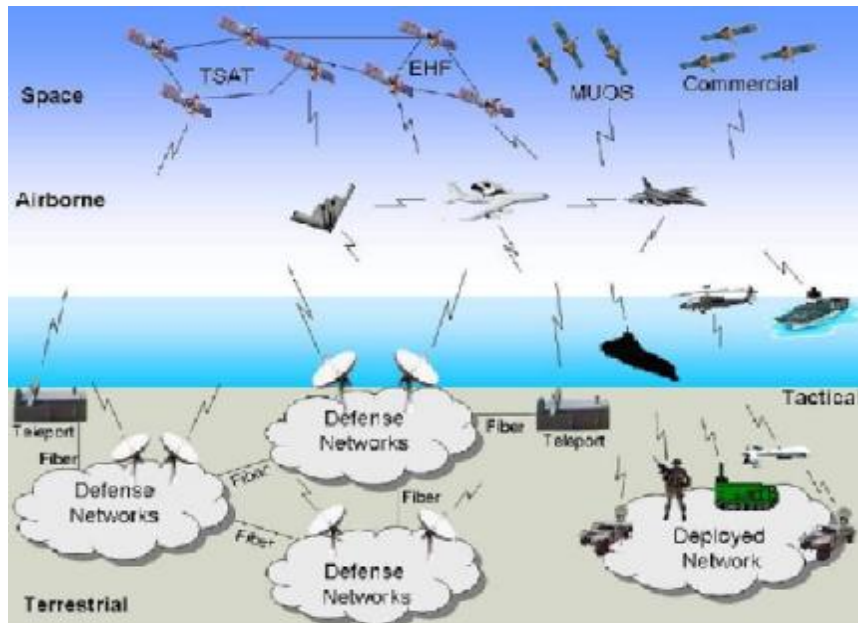
Barabási–Albert model



June 2012

S	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Network-centric warfare

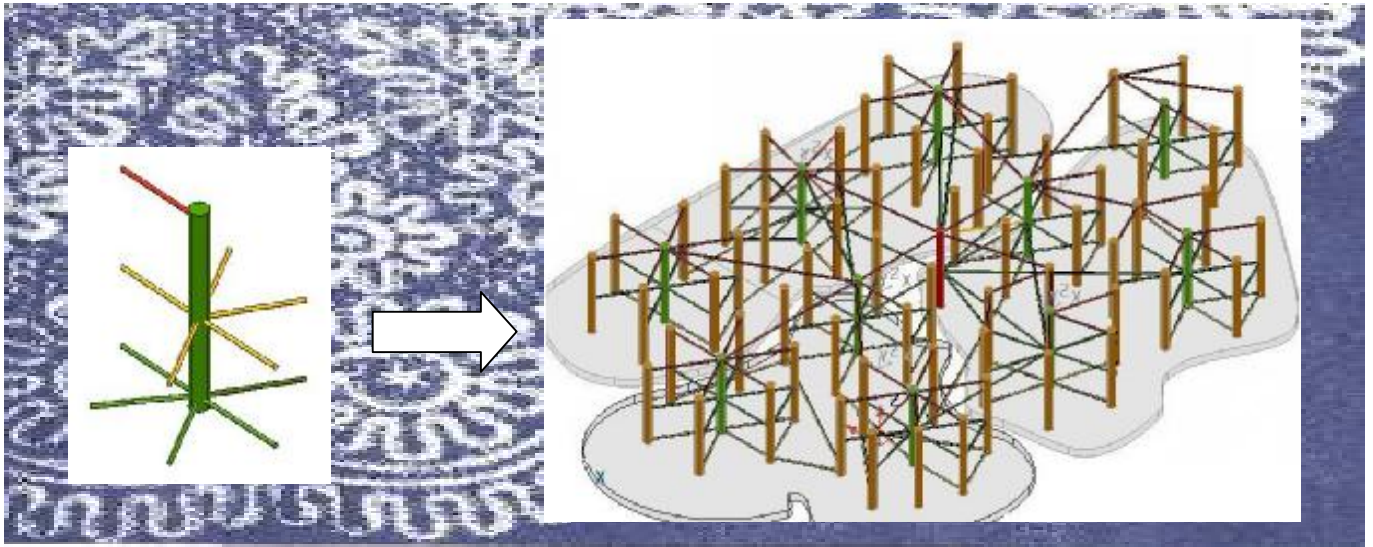


Network-centric warfare, is a theory of war which seeks to translate an information advantage, enabled in part by information technology, into a competitive advantage through the robust networking of well informed geographically dispersed forces.

July 2012

S	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Comprehensive Network Lace

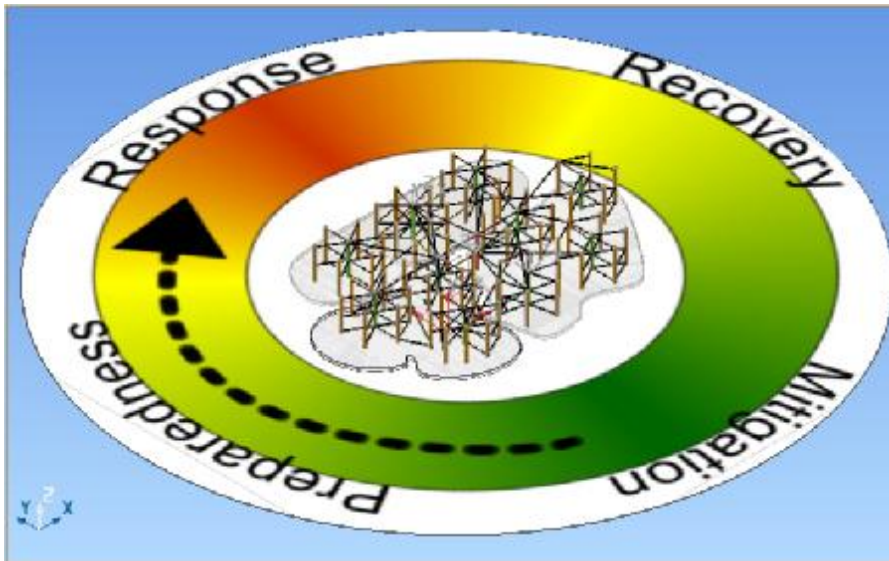


Suggested and developed by A. Tikhomirov (Moscow, Russia) and A. Trufanov (Irkutsk, Russia), with thorough contribution of A. Rossodivita (Milan, Italy), and participation of M.Aminova (Brussels, Belgium), the concept of Comprehensive Network Lace (CNL) proposing a special structure for interaction of complex or/and ordinary networks. CNL comprises multilevel interaction of principal actors- stems, which carry traditional network layers.

August 2012

S	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Comprehensive Network Lace



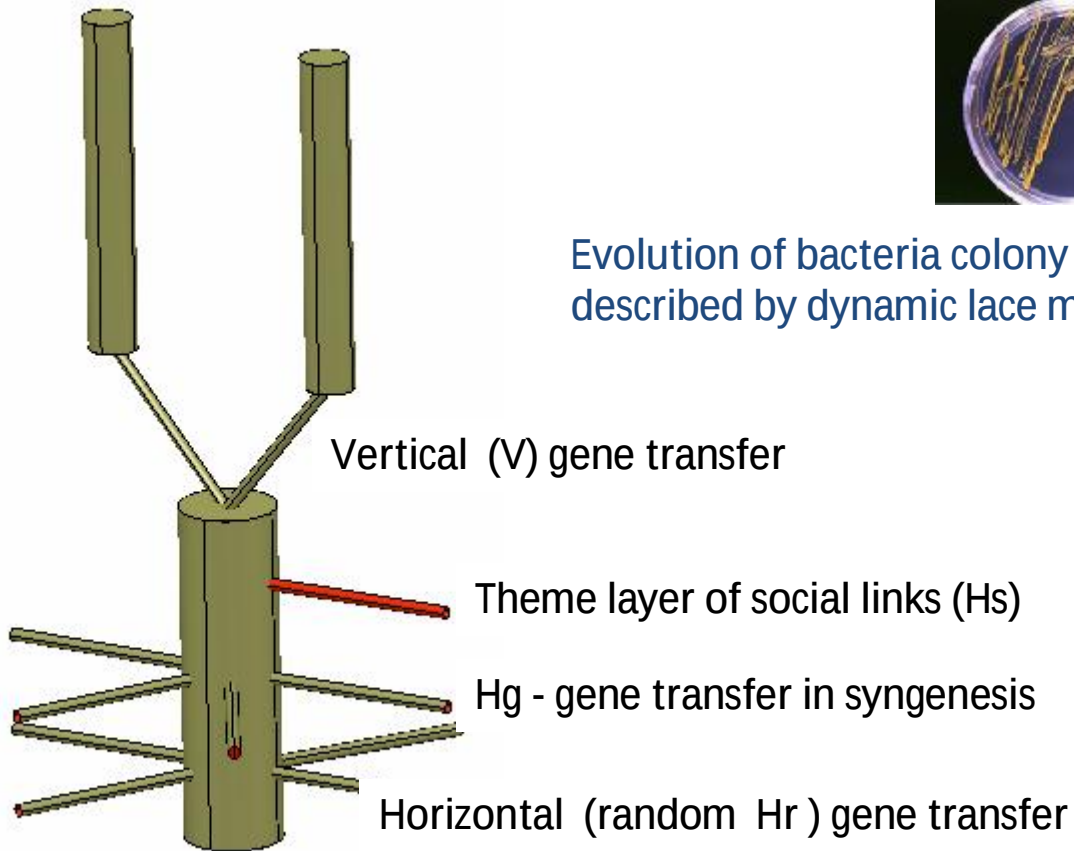
CNL model describes an overall Socio-economic Network by division that into the next three layers:

- Formal (State, etc), as hierarchical governments structures
- Informal (presented by different long time sustainable link groups)
- Random (acquaintances with short term links-so called weak ties)

September 2012

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2	3	4	5	6	7	8
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30						

Comprehensive Network Lace

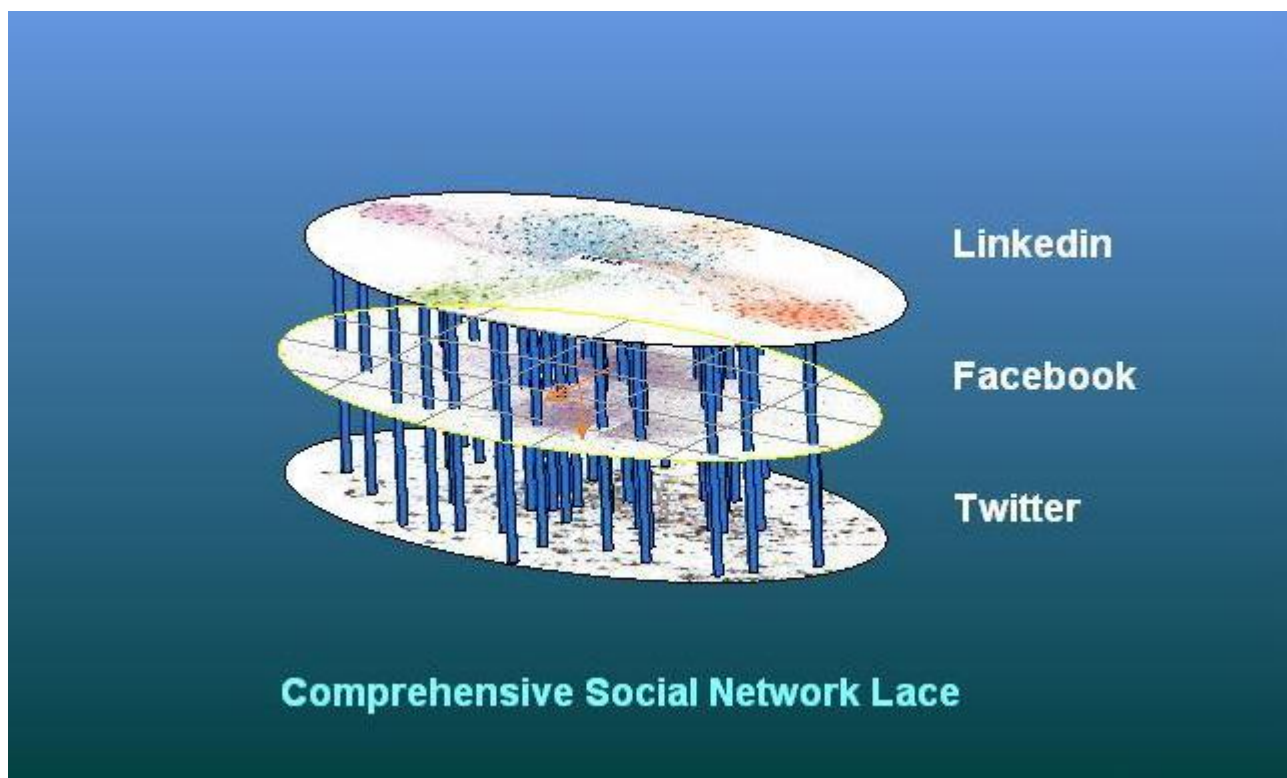


Evolution of bacteria colony might be described by dynamic lace model

October 2012

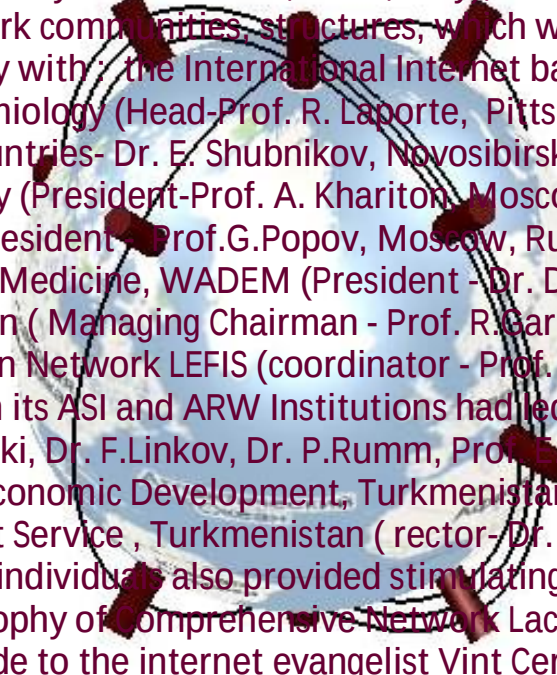
S	M	T	W	Th	F	Sa
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Comprehensive Network Lace



November 2012

S	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



We thank and acknowledge the importance of a fruitful collaboration with Dr. A. Rossodivita (University "Vita-Salute", Milan, Italy), also express our gratitude and sincere respect to network communities, structures, which we have been lucky to interact effectively and efficiently with: the International Internet based Entity «Supercourse» in global health and epidemiology (Head-Prof. R. Laporte, Pittsburgh, Pennsylvania, USA, Deputy Head for FSU countries- Dr. E. Shubnikov, Novosibirsk, Russia), International Informatization Academy (President-Prof. A. Khariton, Moscow, Russia), International Union of Economists- (President- Prof.G.Popov, Moscow, Russia), World Association of Disaster and Emergency Medicine, WADEM (President - Dr. D. Pirros, Athens, Greece), Edward Rhine Foundation (Managing Chairman - Prof. R.Gartz , Mayen, Germany), European Legal Education Network LEFIS (coordinator - Prof. F. Galindo, Zaragoza, Spain), NATO SPS Program (with its ASI and ARW Institutions headed by Prof. J.-G.Fontaine, Dr. E.Gursky, Dr. B.Hreckovski, Dr. F.Linkov, Dr. P.Rumm, Prof. E.Stikova), Institute of Strategic Planning and Economic Development, Turkmenistan (director- Prof. M.Ataev), Academy of Government Service , Turkmenistan (rector- Dr. A.Annamyradov), and many other organizations and individuals also provided stimulating and beneficial effect on the creation of a new philosophy of Comprehensive Network Lace. Also we would like to express a special gratitude to the internet evangelist Vint Cerf because complex network, CNL and other related methodologies could be elaborated and developed due to internet based methods and tools.

December 2012

S	M	T	W	Th	F	Sa
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



Wishing happy 2012

Alexei Tikhomirov, Andrey Trufanov

Referencies:

“COMPREHENSIVE NETWORK LACE: Theoretic basics”
<http://www.pitt.edu/~super1/lecture/lec41891/index.htm>

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UNDP, Turkmenistan, 2011*