

A Social Environment Model of Socio-technical Performance

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This document is at: : <http://brianwhitworth.com/SEMSummary.pdf>

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Here are the key ideas of this model:

1. *Rule 1.* Competing self-interested individuals evolve competencies (individual evolution).
2. *Rule 2.* Cooperating socialized individuals evolve social synergies (social evolution).
3. *Synergy.* The difference between what individuals produce as a social unit vs. independently.
4. *Anti-social acts.* Taking individual benefit from society without contributing to its synergy.
5. *Social dilemmas.* When individual gains (Rule 1) contradict social gains (Rule 2).
6. *Social instability.* Social systems generating synergy are unstable to anti-social chain reactions.
7. *Social order.* That all members of a social group act as one.
8. *Social freedom.* That members of a social group are free to act from their own choice.
9. *Social hijack.* When leaders hijack a society for their own ends, and maintain control by:
 - a) *Repression:* Forcing individuals not to follow Rule 1.
 - b) *Brainwashing:* Convincing individuals to blindly follow Rule 2.
10. *Social inventions.* Ways to combine social synergy, world competence and evolution :
 - a) *Justice:* Punish unfair anti-social interactions by state laws, police, and sanctions.
 - b) *Democracy:* The group periodically changes its leaders by freely voting.
 - c) *Legitimacy:* The allocation of "rights" that are:
 - i. *Fair.* Individual consequences match the individual contribution (Rule 1).
 - ii. *In the public good:* Benefit society as a whole (Rule 2).
11. *The golden rule.* That individuals can freely choose to serve an environment above themselves.
12. *Social environment model.* That social units are environments within other environments.
13. *Rule 3.* That free-good-citizens combine Rules 1 and 2 by anchoring one and applying the other:

- a) *Rule 3a.* If social laws are not broken, compete for individual advantage (markets).
 - b) *Rule 3b.* If one has free time or money, give to others in the community (service).
14. *Rule 3'.* Extends Rule 3 to apply to complex, nested social structures.
 15. *Rule merging.* That communism and capitalism are extremes, and a hybrid is better.
 16. *Social health.* The percentage of individuals in a community that *freely* support social synergy.
 17. *Social inflation.* If a social unit doesn't satisfy *its* environment's needs its social tokens lose their external value.
 18. *External rectification.* When the consequences of a society's collective incompetence eventually impact upon individual members directly.
 19. *Technology.* Magnifies both negative synergies, like spam, and positive synergies, like wikis.
 20. *Socio-technology.* A social system mediated by a technical system. Allows a new social form that primarily increases synergy and secondarily denies anti-social acts, rather than the reverse.

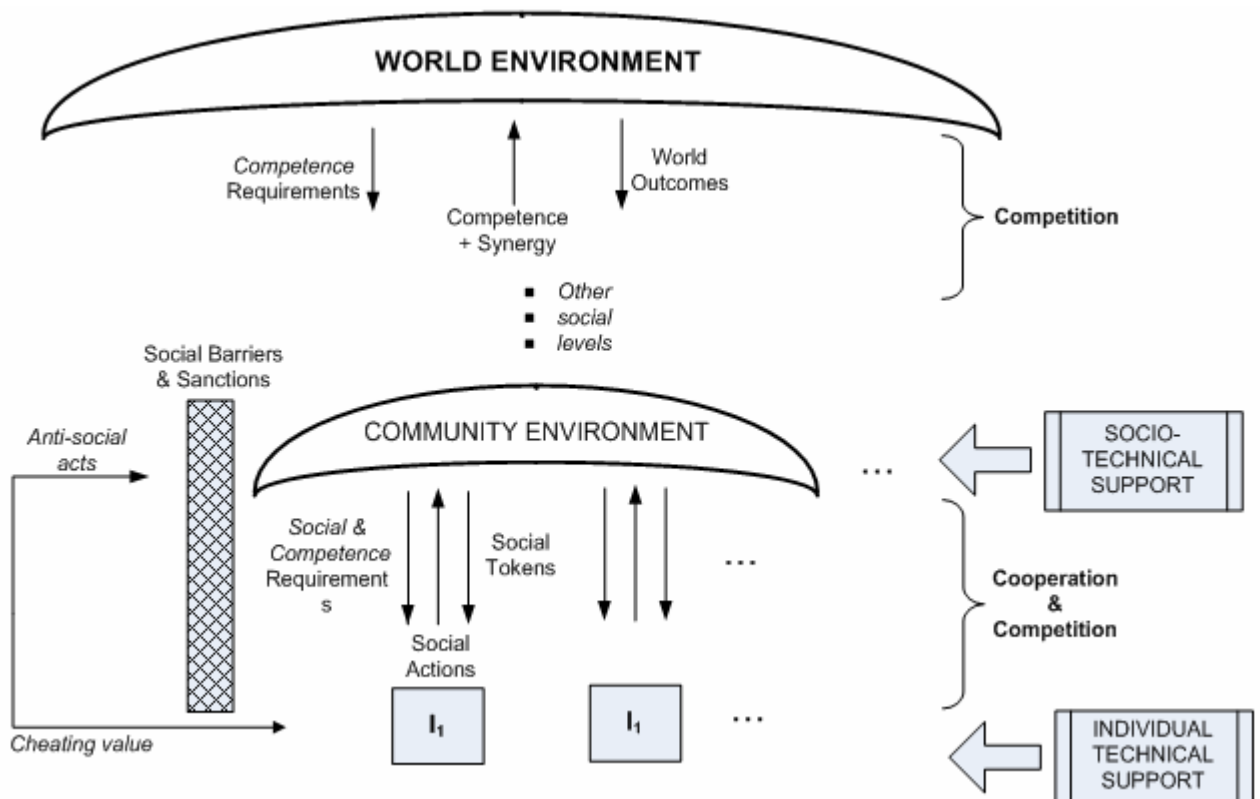


Table 7. Socio-technical synergies and defections

Aim	Examples	Synergy	Defection
<i>Communicate</i>	Email, Chat, ListServ, IM	<i>Shared communication:</i> People send messages they otherwise would not	<i>Spam:</i> Spammers waste others time, giving spam filters.

<i>Learn</i>	WebCT, Moodle Blackboard,	<i>Shared learning</i> : Students help others learn, reduce teacher bottlenecks	<i>Plagiarism</i> : Students copy other student's work, giving systems like Turnitin.com.
<i>Knowledge</i>	Wikipedia, Tiddlywiki	<i>Shared knowledge</i> : Taps knowledge of the group, not just a few "experts"	<i>Trolls</i> : Wikipedia's monitors and fights "trolls" who damage knowledge.
<i>Friends</i>	Facebook, Myspace	<i>Relationships</i> : People keep in touch with friends and family	<i>Predation</i> : Social network predators find victims, giving reporting and banishing
<i>Keeping current</i>	Digg, Del.icio.us	<i>Shared bookmarks</i> : Social bookmarks let people see what others look at.	<i>Advocates</i> : Who "digg" a site because of a vested interest, e.g. they own it.
<i>Play</i>	Second Life, MMORPG, Sims	<i>Shared play</i> : An avatar experiences things impossible in reality.	<i>Bullies/Thieves</i> : "Newbies" robbed by veterans don't return, so need "safe" areas.
<i>Trade</i>	E-Bay, Craig's List, Amazon	<i>Item trading</i> : People from anywhere exchange more goods.	<i>Scams</i> : Scammers are reduced by online reputation systems.
<i>Work</i>	Monster	<i>Work trading</i> : People find and offer work more easily.	<i>Faking</i> : Padded CVs and fake job offers need online reputation systems.
<i>Down-load</i>	Webdonkey, Bit-Torrent Napster,	<i>Shared down-loading</i> : Groups share the processing load of file downloads.	<i>Piracy</i> : Napster was in conflict with society's copyright laws, so closed down.
<i>Media Sharing</i>	Flickr, YouTube podcasting	<i>Shared experiences</i> : People share photos/videos with family/ friends.	<i>Offensiveness</i> : Editors remove offensive items—violence, porn, scatology...
<i>Advice</i>	Tech help boards like, AnandTech	<i>Shared technical advice</i> : People who have solved problems can help others	<i>Confusers</i> : People who start new tracks rather than checking old ones are scolded.
<i>Express opinions</i>	Slashdot, Boing-Boing, Blogs	<i>Shared opinions</i> : People express and read others opinions more easily	<i>Caviling</i> : People who "peck" new ideas to death—karma systems deselect them.