Saxton, G.D., Oh, O. & Kishore, R. (2013). Rules of Crowdsourcing: Models, Issues, and Systems of Control. ***Information Systems Management***, 30: 2–20

Presented by:
Ibrahim Abualhaol, Marko Jovanovic, and *Reza Shirazi,*

TIMG 5101 - Summer 2014
Technology Innovation Management
July 24th, 2014

Goals

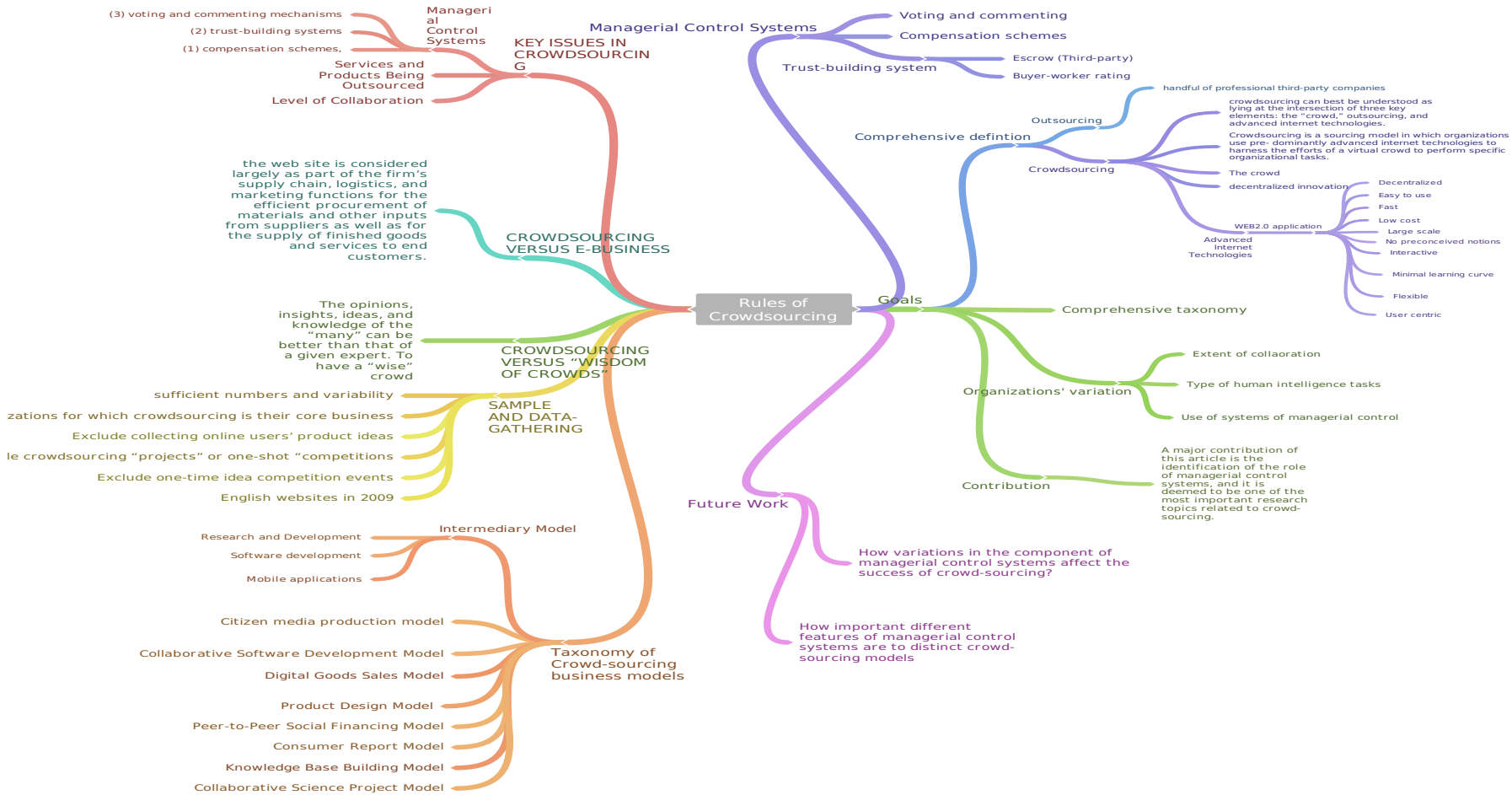
A) Providing academic definitions for Crowdsourcing and compare it with common understanding of outsourcing

B) Analyzing 103 well-known crowdsourcing web sites using content analysis methods and the hermeneutic (Quality Control Science) reading principle.

C) Developing a "taxonomic theory" of crowdsourcing by organizing the empirical variants in nine distinct forms of crowdsourcing models.

D) Discussing key issues and directions, concentrating on the notion of managerial control systems. The extent of collaboration, the type of human intelligence tasks, and the use of systems of managerial control are considered.

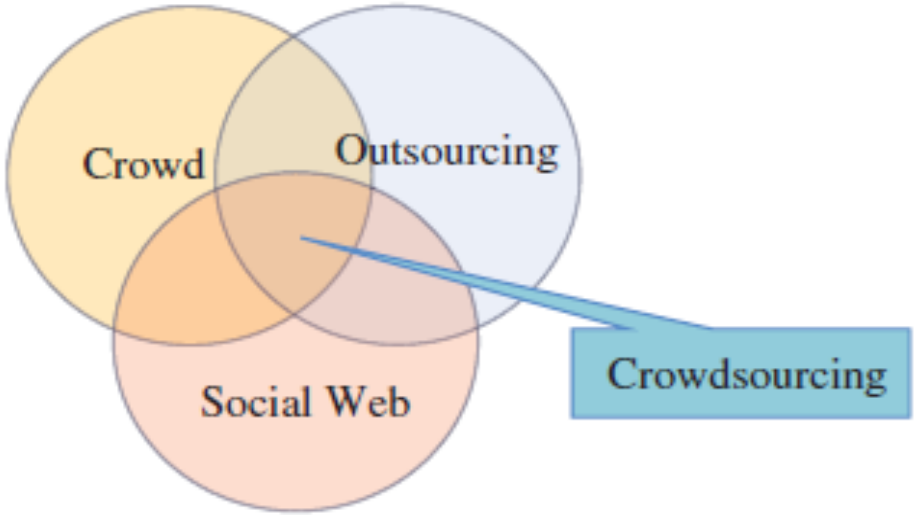
Mind Map


coggle
Rules of Crowdsourcing
Goals
Managerial Control Systems
Voting and commenting
Compensation schemes
Trust-building system
Escrow (Third-party)
Buyer-worker rating
Comprehensive defintion
Outsourcing
handful of professional third-party companies
Crowdsourcing
crowdsourcing can best be understood as lying at the intersection of three key elements: the "crowd," outsourcing, and advanced internet technologies.
Crowdsourcing is a sourcing model in which organizations use pre- dominantly advanced internet technologies to harness the efforts of a virtual crowd to perform specific organizational tasks.
The crowd
decentralized innovation
Advanced Internet Technologies
WEB2.0 application
Decentralized
Easy to use
Fast
Low cost
Large scale
No preconceived notions
Interactive
Minimal learning curve
Flexible
User centric
Comprehensive taxonomy
Organizations' variation
Extent of collaoration
Type of human intelligence tasks
Use of systems of managerial control
Contribution
A major contribution of this article is the identification of the role of managerial control systems, and it is deemed to be one of the most important research topics related to crowd-sourcing.
Future Work
How variations in the component of managerial control systems affect the success of crowd-sourcing?
How important different features of managerial control systems are to distinct crowd-sourcing models
KEY ISSUES IN CROWDSOURCING
Managerial Control Systems
(3) voting and commenting mechanisms
(2) trust-building systems
(1) compensation schemes,
Services and Products Being Outsourced
Level of Collaboration
CROWDSOURCING VERSUS E-BUSINESS
the web site is considered largely as part of the firm's supply chain, logistics, and marketing functions for the efficient procurement of materials and other inputs from suppliers as well as for the supply of finished goods and services to end customers.
CROWDSOURCING VERSUS "WISDOM OF CROWDS"
The opinions, insights, ideas, and knowledge of the "many" can be better than that of a given expert. To have a "wise" crowd
SAMPLE AND DATA-GATHERING
sufficient numbers and variability
zations for which crowdsourcing is their core business
Exclude collecting online users' product ideas
le crowdsourcing "projects" or one-shot "competitions
Exclude one-time idea competition events
English websites in 2009
Taxonomy of Crowd-sourcing business models
Intermediary Model
Research and Development
Software development
Mobile applications
Citizen media production model
Collaborative Software Development Model
Digital Goods Sales Model
Product Design Model
Peer-to-Peer Social Financing Model
Consumer Report Model
Knowledge Base Building Model
Collaborative Science Project Model

Crowdsourcing definition

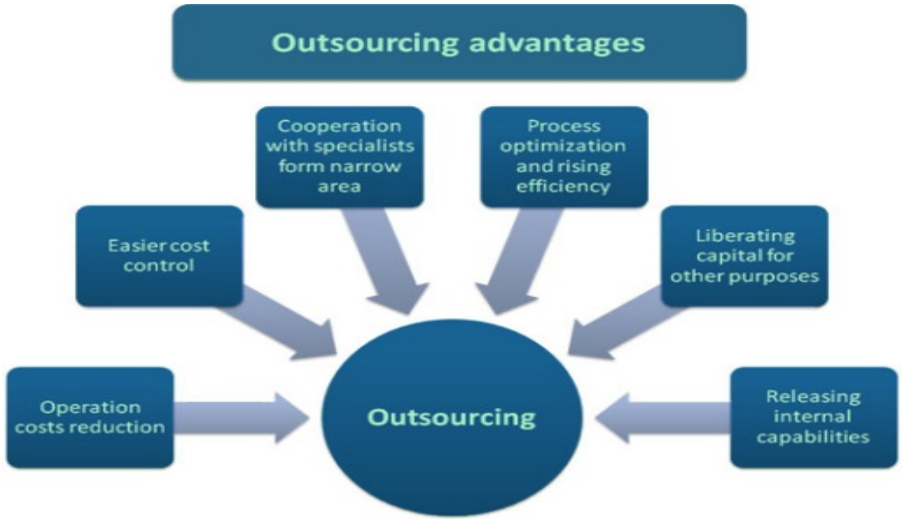
The authors' rigorous definition is:

Crowdsourcing is a sourcing model in which organizations use predominantly advanced internet technologies to harness the efforts of a virtual crowd to perform specific organizational tasks.



Outsourcing

Both outsourcing and crowdsourcing share similar objectives in that they source in their business needs from outside entities to achieve their business goals. Except for the fact that crowdsourcing is an emerging type of “small-scale outsourcing”.



The Crowd

While with traditional outsourcing, an entity subcontracts a business process or need—such as product design and manufacturing—with a handful of professional third-party companies, the crowdsourcing model turns to scale via an undefined, non-professional, and heterogeneous online “crowd” to source in these needs.

Advanced Internet Technologies

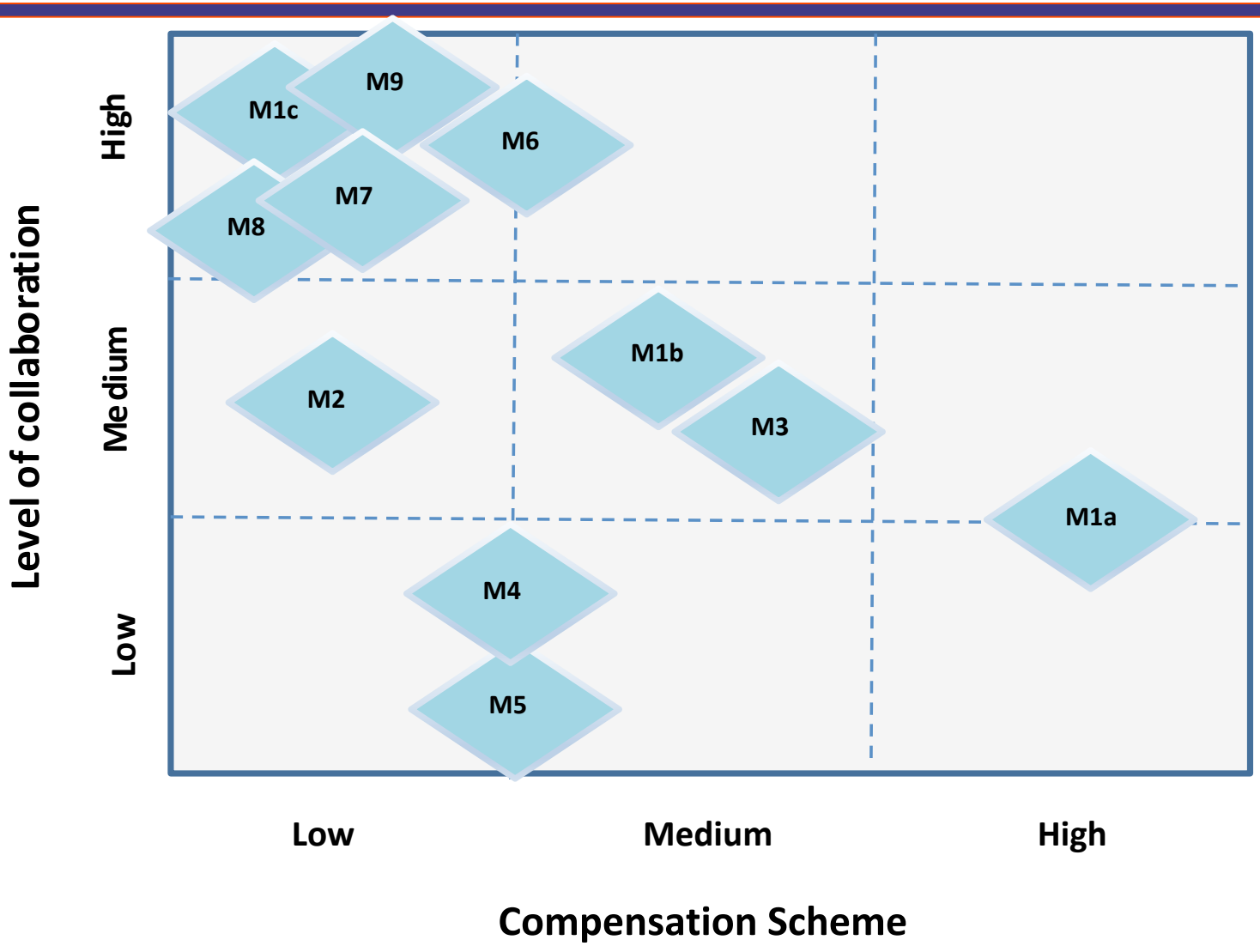
Web 2.0 is used to:

- Find and control the potential "crowd" of workers, negotiate contracts, and monitor work progress in real time
- Provides a "rich" media source, low cost, easy to use, interactive, and decentralized.
- Attract large user bases with a minimal learning curve, and facilitate massive amounts of user-created content.

Taxonomy of crowdsourcing business models

M1a: Intermediary model- Research and development
M1b: Intermediary model- Software development
M1c: Intermediary model- Mobile applications
M2: Citizen media production model
M3: Collaborative software development model
M4: Digital goods sales model
M5: Product design model
M6: Peer-to-Peer social financing model
M7: Consumer report model
M8: Knowledge base building model
M9: Collaborative science project model

Level of Collaboration and Compensation Scheme

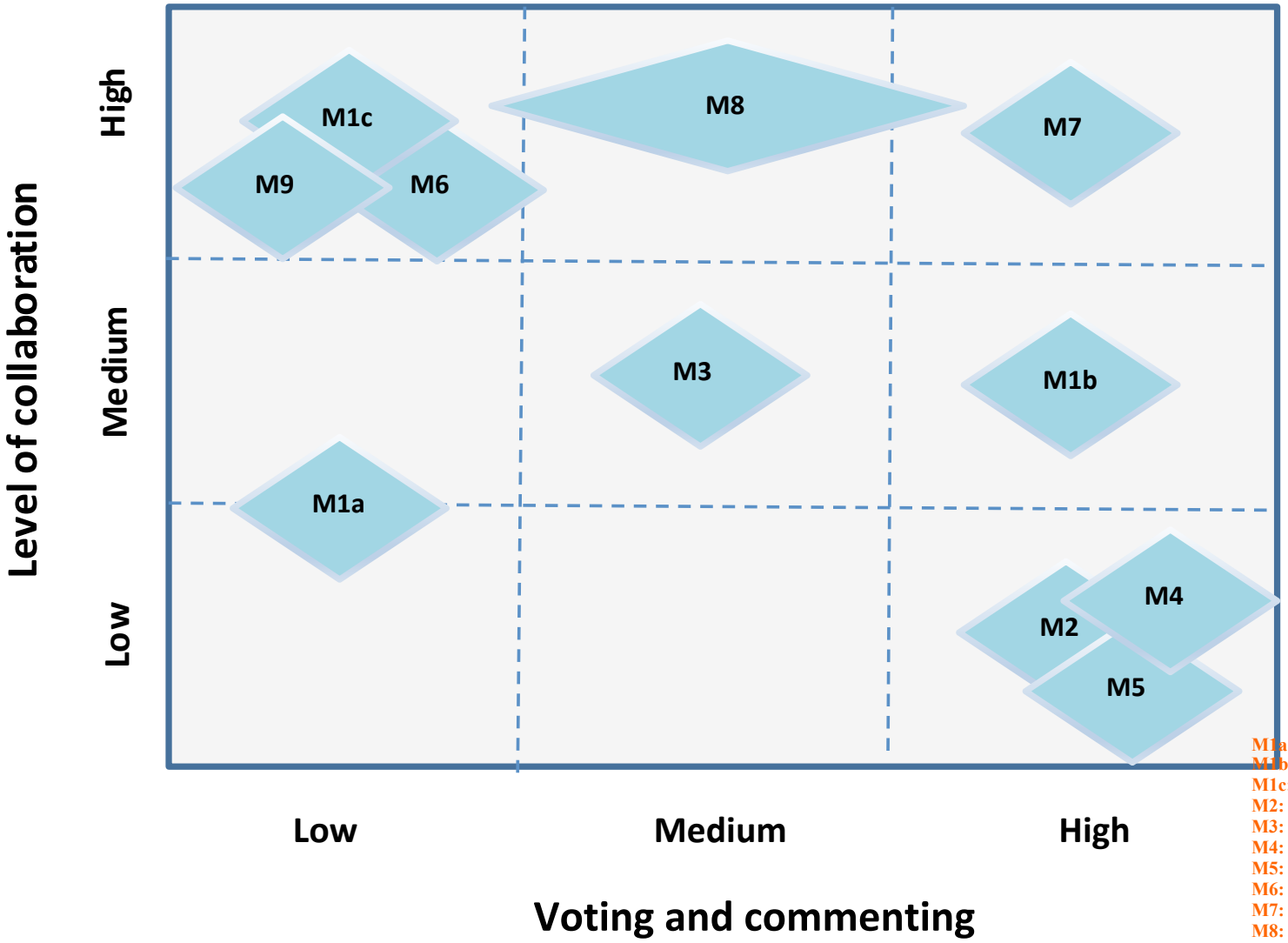


M1a: Intermediary model- Research and devel
M1b: Intermediary model- Software developm
M1c: Intermediary model- Mobile applications
M2: Citizen media production model
M3: Collaborative software development mode
M4: Digital goods sales model
M5: Product design model
M6: Peer-to-Peer social financing model
M7: Consumer report model
M8: Knowledge base building model
M9: Collaborative science project model

Trust Building System

M1a: Intermediary model- Research and developn
M1b: Intermediary model- Software development
M1c: Intermediary model- Mobile applications
M2: Citizen media production model
M3: Collaborative software development model
M4: Digital goods sales model
M5: Product design model
M6: Peer-to-Peer social financing model
M7: Consumer report model
M8: Knowledge base building model
M9: Collaborative science project model

Level of Collaboration and the use of Voting and commenting



M1a: Intermediary model- Research and developn
M1b: Intermediary model- Software development
M1c: Intermediary model- Mobile applications
M2: Citizen media production model
M3: Collaborative software development model
M4: Digital goods sales model
M5: Product design model
M6: Peer-to-Peer social financing model
M7: Consumer report model
M8: Knowledge base building model
M9: Collaborative science project model

Key Issues: 1/3 Services and Products Being Outsourced

- All crowdsourcing focuses with tasks that even now we cannot automated
- Highly versatile/two ends of the scales: simple (HITs) and complex (expert knowledge) tasks
- Combined with low cost and easy to use mechanism crowdsourcing disrupts existing sourcing mechanisms
- Its not just products and services; its creating new ways to source products and services (i.e. meta-innovation)

Key Issues 2/3: Level of Collaboration

- Contrary to popular belief collaboration is variable in crowdsourcing – sometimes even absent
- Management of outputs is key; collaboration doesn't even have to exist but if it does, then it too must be managed
- Collaboration is determined by need: task scope, complexity and IP/copyright implications

Key Issues 3/3: Managerial Control Systems

- Focus on leveraging short-term performance and temporarily attracting higher value performers
- “Facilitating user participation and eliciting their best knowledge and skills” for task
- (1) compensation schemes

  n =103: 89 some kind; 50 $ value; even nil value used reputation incentives
- (2) trust-building systems

  Buyer/seller rating systems; legally binding escrow systems (temporary 3rd party financial oversight)
- (3) voting and commenting mechanisms

  Functions as evaluation mechanism, and historical record , uniquely integrated into decision-making and compensation mechanisms

Conclusions and Future Work

- Article presented a taxonomy of Crowdsourcing, but its main contribution is managerial control systems (i.e. ways for maximizing value from groups) because of the growing baseline capability, availability and low cost of hardware and software
- Future research is needed on the relationship between managerial control system mechanisms and task complexity (i.e. understanding specific task typologies and their collaboration and control needs)
- So, this suggests that its futile to understand how to replicate general 'wisdom of the crowd' behaviour

Questions?

Rezashirazi@cmail.carleton.ca MarkoJovanovic@cmail.carleton.ca
ibrahimabualhaol@cmail.carleton.ca