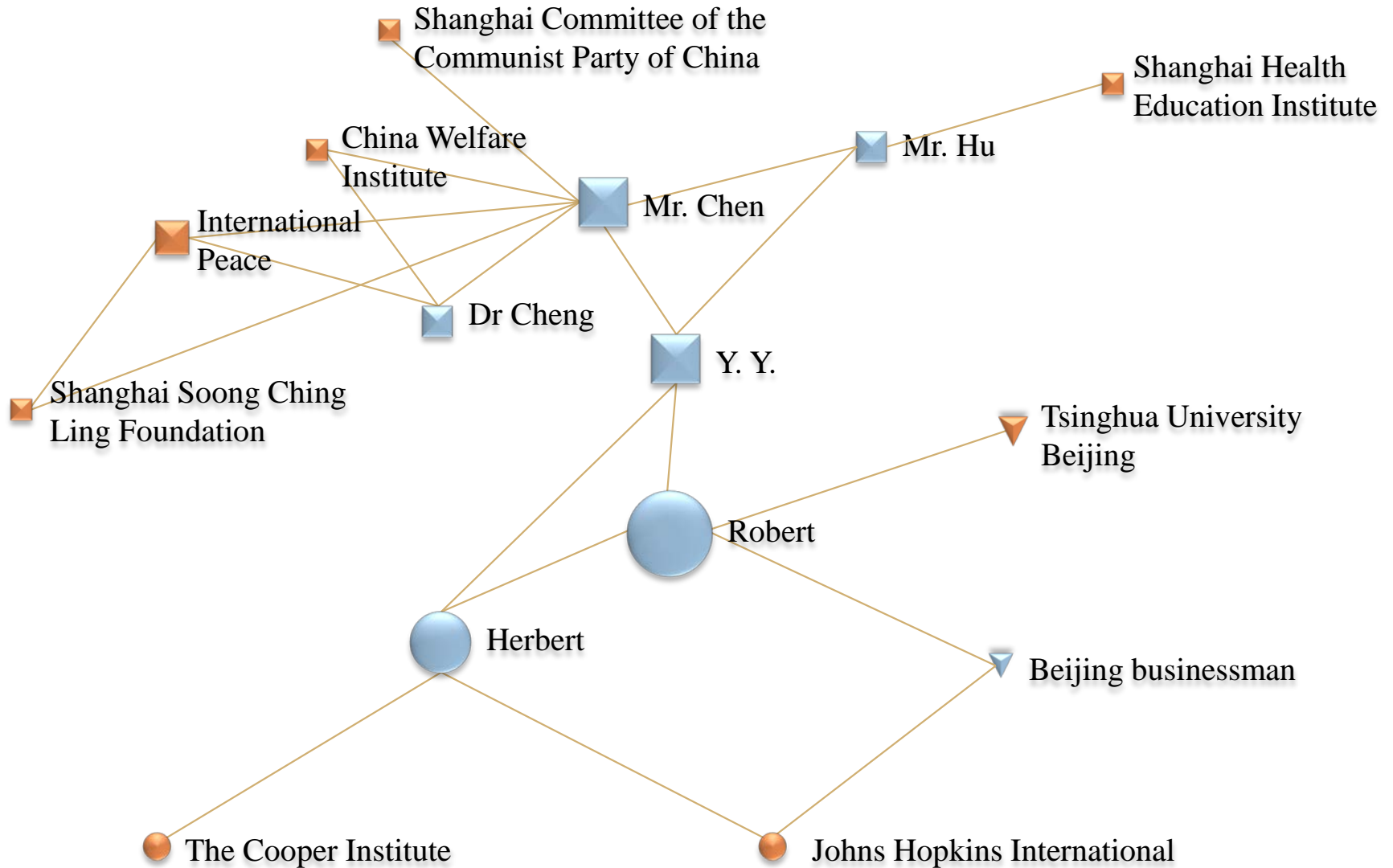


*THE MAKING OF A BUSINESS:  
A NETWORK PERSPECTIVE*

*BY*

*DR. GILBERT WONG*

# Case study

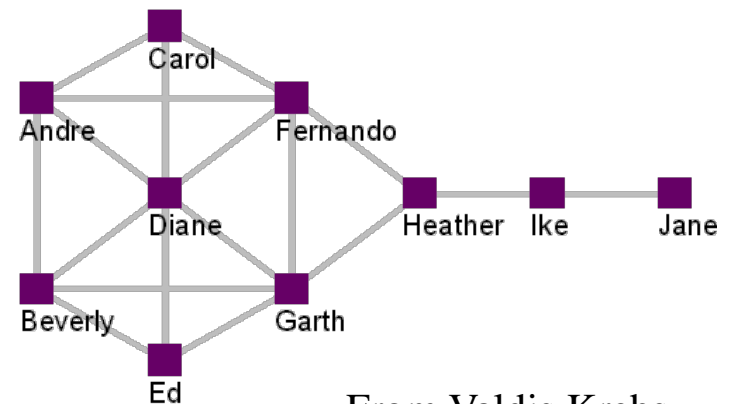


# Human & social capital

- Human capital - A measure of one's knowledge, abilities and skills - derived from education and training
- Social capital - A measure of the ability to leverage one's human capital by virtue of his/her connections & position in a network e.g. what a biologist can do with a chemist, an investment banker & a manufacturer?

# Describing networks

- Network as nodes and lines  
(connections, links, ties)
- Degrees – the number of direct links a node has
- *Eigenvector centrality* –  
*connected to the most powerful people*
- Betweenness – how often a node sits between the shortest distance between two other nodes
- Closeness – total steps it take to get to everyone in the network



From Valdis Krebs  
[www.orgnet.com](http://www.orgnet.com)

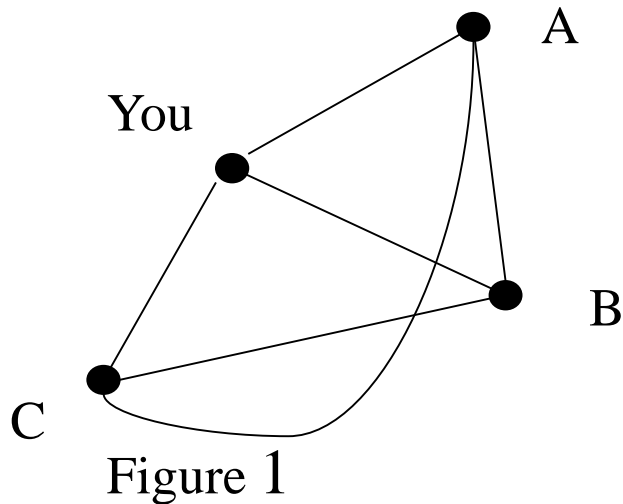
# Questions

- What are the characteristic of a good friend?
- What are the characteristics of useful friends?
- And what is a true friend?
- How does network structure create both?

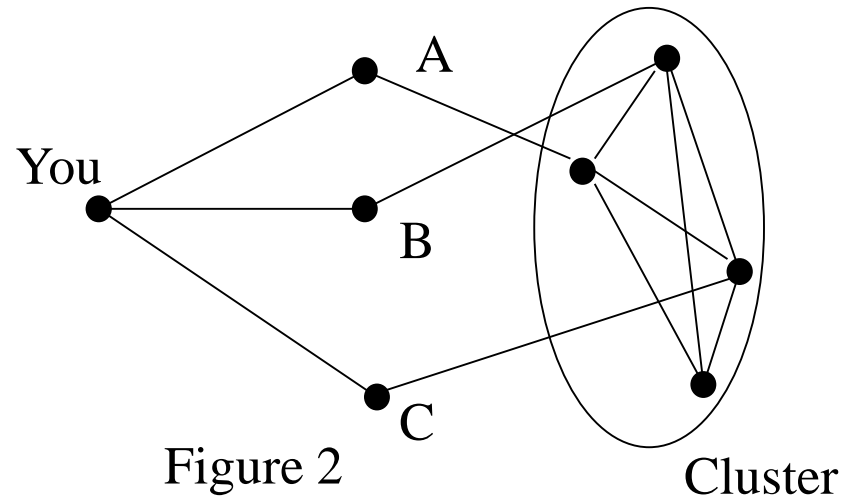
# Redundancy

- Redundancy - Two contacts (e.g. contacts A & B) are redundant to the extent that they are directly or indirectly connected.
- To the extent that social capital is an investment, redundancy **MAY** indicate a 'waste' of resources.

Redundancy by **direct contacts**

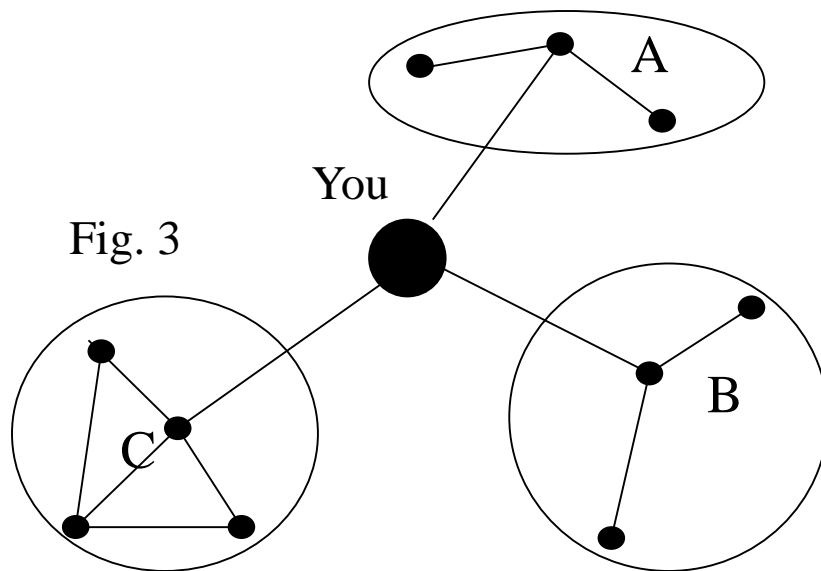


Redundancy by **indirect contacts**



# Structural hole defined

- A structural hole is “ a relationship of non-redundancy between contacts”. In other words, a structural hole exists between two contacts who are neither connected to each other directly or indirectly.
- *Strength of relations across structural holes tends to be weak >> “WEAK TIES” as distinct from “STRONG TIES” usually found in “closed” networks or cliques*



Contacts A, B, and C, are separated by structural holes. They have no direct or indirect connections with one another except through you.

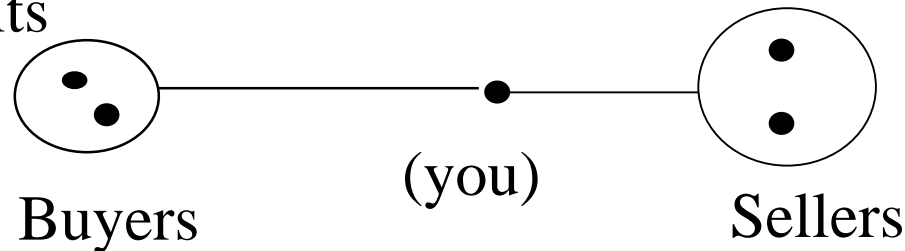
# Advantages of (weak) ties across structural holes

## □ Information Benefits

Your primary contacts (across structural holes) act as portals to disconnected resources. Hence you have

- More distinctive (private) information, *early*
- Access to different ‘kinds’ of people with different skill sets
- Referrals
  - Leading to *distinctive perspectives* on issues and opportunities for *learning, innovation and brokerage*

## □ Control Benefits



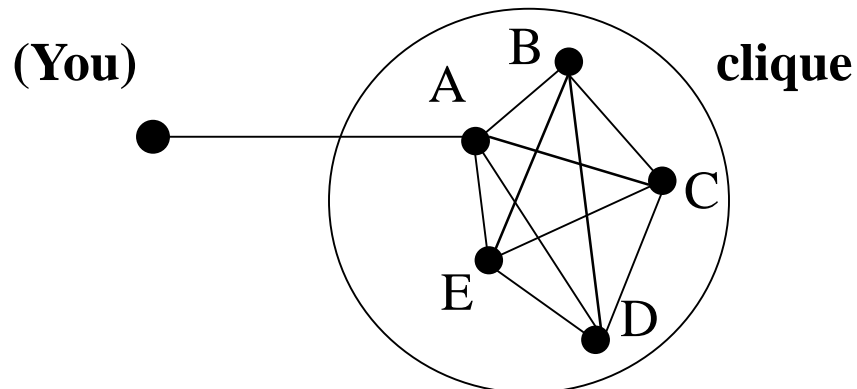
- *Tertius Gaudens* and *Tertius Iungens* (The third who ‘enjoys’ or ‘connects’)



# More on control - Secondary Holes

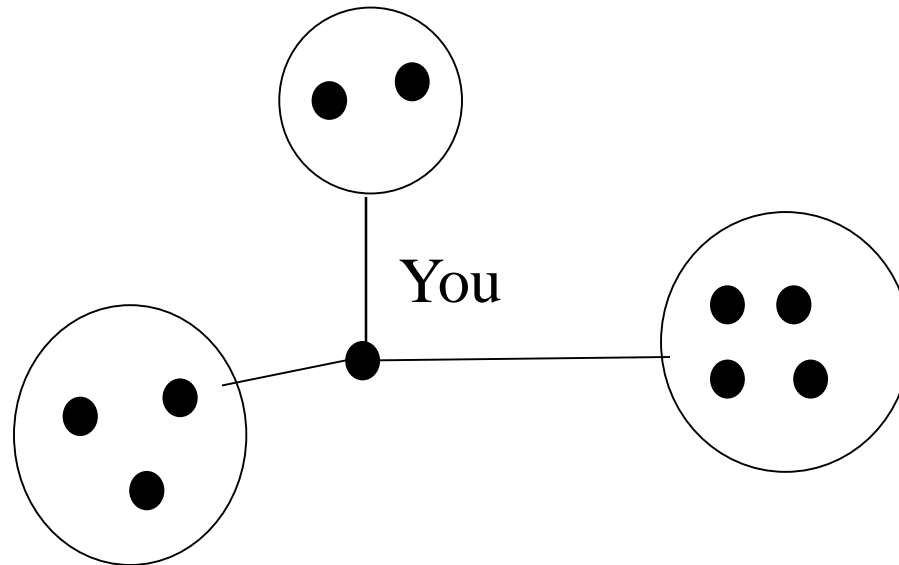
From a ‘middleman’ standpoint, you want **secondary structural holes** between secondary contacts whom you can use to replace your primary contacts (e.g. A with E). In the figure below, the strong ties within the clique indicate a lack of secondary holes, which means you have no way of pitting one member against another for your own advantage. The lack of secondary holes impose a ‘**constraint**’ on you.

□ *What are the relational challenges if you were to work for your father-in law?!!*



# The ideal network (from “brokerage perspective”)

The following figure illustrates a network optimized for primary and secondary holes. In this case, the network is non-redundant and the constraint is zero.

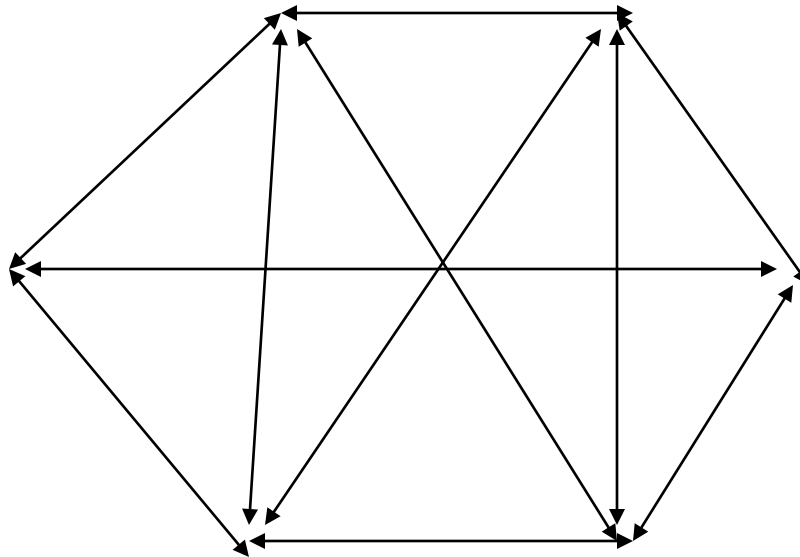


# Research findings

- Granovetter – “The Strength of Weak Ties”
  - ▣ Good jobs are found through friends with whom you do not know too well!!
- Structural holes associate with organizational learning by enhancing the organization’s absorptive capacity
- Burt - Lack of constraints is associates with
  - ▣ Better performance evaluation
  - ▣ Early promotion, especially for junior managers
  - ▣ Higher salary & larger bonus,
  - ▣ More recognition of achievement

# Strong ties

- Strong ties tend to be interconnected forming ‘cliques’, the network tends to be ‘closed’



# Bonding & Bridging Ties

- Bonding ties
  - Bonding ties: ties that are interlinked with each others within the same group, tend to create trust, mutual support and understand
  - Tends to be “strong” ties
  - Increases constraint with “closure”
- Bridging ties
  - Ties across distinctive groups, hence serve “brokerage” function
  - Tend to be “weak” ties with little constraint

# Mass Collaboration/Innovation in a Digital World

- Three ways to sing..... *together*
  - Boys don't sing,
  - Playing for Change,
  - Eric Whitacre

# Mass Collaboration Strategies

- \* Coordinating small contributions from the masses
- Open sourcing
- Data/information sharing - the “New Alexandrian”
- Co-designing and learning from the customers – the “Prosumers”
- \* Creating a platform for exchanges & sharing
- Leveraging your hobby and social and alumni circles

# Mass collaboration – everybody contributing

- Mobilizing tiny contributions – millions of them - Duolingo (9:11, 10:51- 16:00)
  - <http://blog.ted.com/2011/12/06/massive-scale-online-collaboration-luis-von-ahn-on-ted-com/>
  - <https://www.duolingo.com/>



# Open sourcing

- Peer Pioneer – Voluntary peer collaborative production e.g. the Linux (operating system); Wikipedia; Android;
- Open source cancer research
  - ▣ [http://www.ted.com/talks/lang/en/jay\\_bradner\\_open\\_source\\_cancer\\_research.html](http://www.ted.com/talks/lang/en/jay_bradner_open_source_cancer_research.html)

# The New Alexandrians

- Knowledge is the product of networked people; knowledge are shared, cross referenced and *repurposed*
- The new Alexandrians: Initiatives to share knowledge for the benefit of the community e.g.
  - World Digital library <http://www.wdl.org/zh/> ;
  - Open source drug discovery through computer networks - [www.Bioinformatics.org](http://www.Bioinformatics.org) ;  
<http://blast.ncbi.nlm.nih.gov/Blast.cgi>
  - Open course wares from MIT, Berkeley
  - University and industry collaboration – open data depository ( from Business School and Social Sciences? E.g. Market research, HR surveys...)

# Prosumers

- The “Prosumer” – Customer as co-innovator, e.g. The Back dorm boys  
<http://www.youtube.com/watch?v=bPeIcWR3nHo&feature=related> ;
- Remix music : <http://www.audio4fun.com/free-remix-songs.htm>
- Creative Commons contracts specifying the rights in the use of the IP [www.creativecommons.org](http://www.creativecommons.org);
- Opensource learning ; (Create, Rip, mix, burn)
  - ▣ [http://www.ted.com/talks/lang/en/richard\\_baraniuk\\_on\\_open\\_source\\_learning.html](http://www.ted.com/talks/lang/en/richard_baraniuk_on_open_source_learning.html) ;

# Platform for exchange

- Ideagora – A market place for ideas e.g. InnoCentive <https://www.innocentive.com/> ; [www.yet2.com](http://www.yet2.com)
- “Talentgora”: talent bank for ex-professionals YourEncore <http://www.yourencore.com/>

# Platform for sharing - the Mesh

[http://www.ted.com/talks/lang/en/lisa\\_gansky\\_the\\_future\\_of\\_business\\_is\\_the\\_mesh.html](http://www.ted.com/talks/lang/en/lisa_gansky_the_future_of_business_is_the_mesh.html)

- The Mesh enabling sharing of physical good with social media. Key elements:
  - ▣ Something that could be shared especially something that is physical and costly but used not frequently  
[http://www.ted.com/talks/robin\\_chase\\_excuse\\_me\\_may\\_i\\_rent\\_your\\_car.html](http://www.ted.com/talks/robin_chase_excuse_me_may_i_rent_your_car.html)
  - ▣ Advanced web and mobile data networks
  - ▣ Communication through social network services

# Leveraging your personal interests & social network

- ▣ Daydaycook (6:58 – 10.00)

<http://programme.tvb.com/news/pearlreport/episode/20140331/>

# Types of ties you need to develop

- Operational ties - strong & weak ties within work context
- Personal ties – strong ties outside work
- Strategic ties – broad ties in your strategic work context
- Compare A, B, C network of investment bankers
  - A – connections to reach your customers
  - B – connections to reach key internal decision makers
  - C- connections to “peers” in your industry and/or occupations e.g. academics in your field outside your own university

# How can we develop our social capital

## □ In work

- Develop distinctive knowledge and expertise
- Undertake special projects
- Attend cross functional/organizational functions
- Provide help voluntarily
- MBWA



# How can we develop our social capital

## □ In personal life

- Develop multiple interest at work AND at leisure - be REALLY interested in something outside work
- Keep generally informed about local & international events
- Develop your social skills
  - Social conversation
  - Remember some good jokes & numbers!
- Keep connected – SMs, keeping name-cards, sending Christmas e-cards, returning emails
- **Keep your reputation!!**

# Implications for building a business

- Never underestimate your experience and connections – you have no choice anyway!!
- Know and practice what you are good at >> at work or leisure
- Good ideas come from “strangers”, support comes from “good friends” >> you need to build & configure your social network – real & virtual (Facebook, LinkedIn)
- Conceptual thinking is important to put the “parts” of your ideas together >> talk about it, tell a “story”
- You need to develop (or acquired) relationship building and managerial skills (what we teach in the Business Schools are actually useful!!)
- Build “security” (money & social) so that you can take risk
- More from [www.orgnet.com](http://www.orgnet.com)