

# Reading Material Summary 0HV80

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# Sociology by Ultee, Arts, and Flap

## Chapter 2 Sociology before Sociology

### 2.1 The Problem of Order

Hobbes' problem is a question that says 'How is it possible that people live together peacefully'. The answer Hobbes gave more than three centuries ago is almost as adroit: 'only a sovereign state will avert a war of all against all'. Another answer to this question is the existence of God.

#### Hobbes' Sovereign State

According to Hobbes' solution to the problem of order, every human being has particular desires and aversions. Without always succeeding so, all people try to avoid the situations they dislike, and they attempt to reach their goals. In addition, persons when left to themselves, will pursue with all available means their own interests, even if this is at the expense of others. This condition Hobbes refers to as *the state of nature*. According to Hobbes, wealth, knowledge and honour not only are ends, but also means to attain more distant goals. People differ less in bodily strength than in wealth, knowledge and honour. That is why in the state of nature, people threaten *one another* with violence.

According to Hobbes, people in the state of nature eventually forego physical force. Endowed with reason, they see the necessity of a deal that bans violence. This structure is called the *state*, and the person embodying it the *sovereign*.

Locke came to add two questions to Hobbes' original question about the violence the members of a society use against each other. The first one was about the conditions under which a sovereign employs force against his subjects, the second new question was about the circumstances under which the members of a society use violence against their sovereign. The first question might be called the question of oppression, the second that of rebellion.

Hobbes' problem of order involves the violence which people use against each other. However, when states exist, three other types of violence are possible: states may oppress their subjects, people may rebel against the state, and states may wage war against each other. Finally, rebellion comprises revolution and revolt.

#### Locke on the Separation of Powers

According to Locke, the mere presence of a sovereign is not sufficient to bar violence from a society. Oppression and rebellion are less probable in a situation in which the legislative tasks of a state are separated from the administration of its laws. If one organization possesses the right to make laws that protect life, limb, and property, as well as the means to implement these regulations, then the head of this state and his servants are strongly tempted to misuse their powers. In Locke's argument, the administration of a state is to be entrusted to its sovereign, and legislation to its parliament, that is, a meeting of the representatives of the subjects of the sovereign.

#### Montesquieu on the Separation of Powers

He held that in states with a separation between the executive, judicial and legislative branches, fewer people who trespass laws go free and fewer law-abiding citizens are penalized, than in societies in which the judiciary is not independent.

### Bentham on the Judiciary

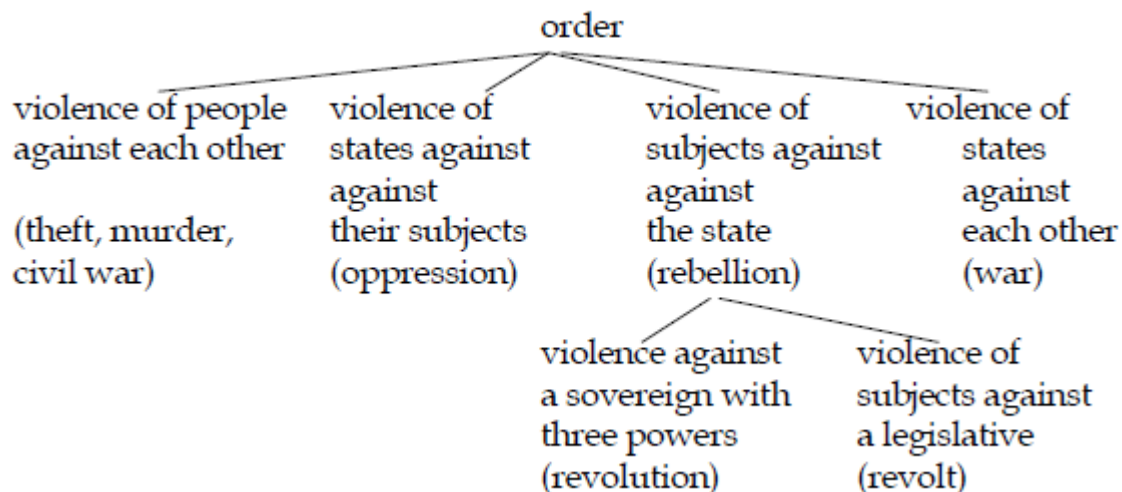
According to Bentham, people seek pleasure and avoid pain, and they perform those acts that gratify most and distress least. The penalties for acts forbidden by law, increase the burden of a crime. Punishments vary in intensity, duration and speed.

### Bentham on the Executive

Thus Bentham's hypothesis says that the more intensively, longer, and more speedily a society's judges have punished a crime, and the more likely a society's members who committed this crime have been arrested and convicted, the less frequently this act will be performed by this society's inhabitants.

### Bentham on the Legislative

Bentham says that parliaments will adopt laws making for yet more peace than under the condition of life-long hereditary seats. If these conditions are entered into a state's constitution, this society would be even more harmonious.



## 2.3 The Question of Why Nations Prosper

~~The problem of prosperity is one of the main questions of economics, if not the problem of that science of societies. A wealthy person may earn a lot of money or nothing at all, some rich persons are misers, and a state with citizens all hoarding bullion, may produce a lot of goods, or only a limited number of wares. Smith proposed the hypothesis that the less restricted the markets in a country are, the higher production and consumption in this country will be. According to Smith, characteristic of unfettered markets are the freedoms of settlement, labour, occupation and property. To the extent that markets may be entered freely — not only those for raw materials and for finished products, but also for capital and for labour —, the production of goods will be more effective and efficient. Nowadays economists hold that 'the market mechanism' leads to 'optimal' production. Smith states that if a country's markets are freed, the income of (almost) every inhabitant of this country increases.~~

## 2.4 The Birth of Utilitarian Individualism

The questions Hobbes, Bentham, and Smith sought to answer were all questions about societies: the extent to which to life within a society was peaceful, the level of production in a country. The answer to this question involved assumptions about individuals. That is why the theoretical tradition initiated by Hobbes sometimes is called *individualism*. The main proposition on individuals held that

persons maximize their utility. That is why the tradition that can be traced to Hobbes had been designated as *utilitarian individualism*.

### The Core of Utilitarian Individualism

How exactly did Hobbes elaborate the notion that people use the means of power they have at their disposal in such a way that they realize their goals as much as possible? Hobbes came quite close to this using the following proposition:

- a) Each feature of every society is the outcome of certain acts performed by its inhabitants under certain circumstances;
- b) These individuals have specific goals,
- c) They have a particular but always limited amount of means,
- d) And these individuals employ their means in such a way that they approach their goals as closely as possible (they choose the act which maximizes their utility);
- e) The circumstances under which people act, affect the extent to which they reach their goals in the short run,
- f) And the extent to which they reach them in the long run, as well as the extent that others reach their goals.

### Hobbes' Elaboration of the Core of Utilitarian Individualism

We phrase Hobbes' elaboration of the state of nature as follows:

- a) One feature of societies is the extent to which life for its members is peaceful or marked by bloodshed;
- b) The first priority of the members of a society is to avoid death and injury; their next one is to assuage hunger and quench thirst; and their third one is to secure wealth, knowledge, and honour;
- c) Almost all members of a society possess physical force;
- d) Threatening others with and using physical force against others,
- e) In the state of nature in the short run helps persons to realize their priorities,
- f) And in the long run causes every member of society to die a premature and violent death.

Hobbes' elaboration of a sovereign state (a to d from the state of nature):

- e) In sovereign states in the short run has as a consequence that persons no longer realize their priorities to the extent that they might in the state of nature,
- f) And penalization by the sovereign has as a long-run effect that life in sovereign states is more peaceful than in the state of nature.

Hobbes holds that the sovereign state penalizes in such a way, that first offenders are deterred from repeating their crime, and the general public is deterred from a first offense.

### Smith' Elaboration of the Core of Utilitarian Individualism

Smith specified the same core statement as Hobbes. The result runs as follows:

- a) Another feature of societies is its level of prosperity;
- b) People first go after the necessities of life, then after conveniences, and finally after luxuries,
- c) And the means people possess are instruments of production, natural resources, and labour power;
- d) Acts that maximize utility,





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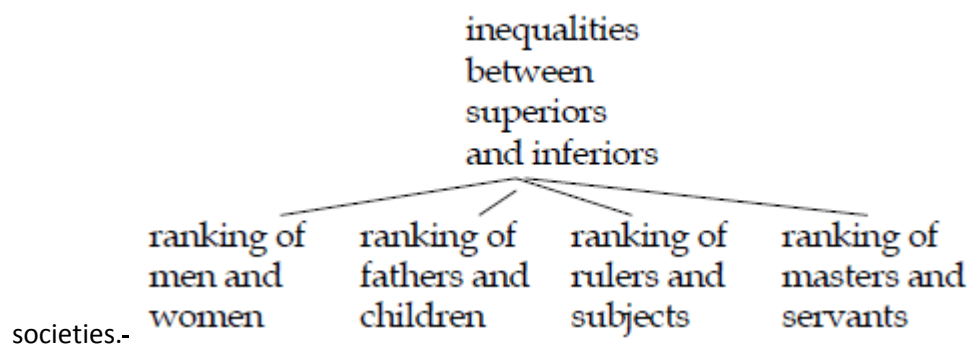
- e) If everyone has the rights to enter any market, not only have as an effect that in the short run particular persons reach their goals as closely and cheaply as possible,
- f) But also that other persons in the long run realize their ends more.

## Chapter 4: Inequality

### 4.1 An Initial Decomposition of the Problem of Inequality

In its most simple form, the problem of inequality runs: "who gets what and why?". This question, which consists of a descriptive and an explanatory question, is - as was argued in chapter one - one of the main questions of sociology. In the nineteenth century the problem of inequality was featured in the political pamphlets and scholarly studies of Karl Marx (1818-1883) and Friedrich Engels (1820-1895). Their historical materialism had its roots in the ideas of Rousseau, Ferguson and Millar and split in the twentieth century into various branches providing distinct answers to questions of inequality.

Ferguson and Millar asserted that societal phenomena like peace and inequality, are to be explained by the way a society's inhabitants make their living. The shift from one mode of existence to another resulted in the institution of land ownership and persistent inequality. In commercial societies, someone's place in the division of labour eventuated in poverty or plenty. In commercial societies, someone's place in the division of labour contributed to poverty or plenty. Millar studied distinctions of rank, below is his decomposition of the problem of inequality. Millar observed the extent to which superiors ranked above their inferiors by considering the content of the laws proclaimed in various



Since property in these societies mostly took the form of individual ownership of factory halls and machines, also called capital goods, Engels and Marx referred to the way of living paramount in these societies as the "capitalist mode of production". According to them the growth of the total amount of capital in a society, is accompanied by more and more riches on the side of the owners of capital and increasing poverty among the members of the working class. They tagged this hypothesis the general law of capitalist accumulation. According to the rules of law in a capitalist society all its members have equal chances in economic life – property in land and capital goods is restricted to no one and freedom of labour is universal -, but in actual fact the disparities in the condition of capitalists and the condition of workers widen.

### 4.2 The Core of Historical Materialism

The historical-materialist solution to the problem of inequality says

- a) Whatever mode of production prevails in a society,
- b) Every inequality in that society,
- c) Rests on some form of compulsion resulting from this mode of production;
- d) This compulsion leads to a certain type of strife,

- e) And sometimes this strife results in the abolition of the old mode of production with its ensuing forms of compulsion and the disappearance of old inequalities,
- f) And under certain circumstances in the coming of equality.

This is the core of historical materialism. A core offers help when devising propositions that are rich in content.

### 4.3 Classic Historical Materialism

The elaboration of the core says

- a) In societies with capital goods as the most important means of production and universal freedom of property and of labour (capitalist societies) that consist of inhabitants owning capital goods and of other inhabitants without such property having to live from employing their labour force (capitalists and workers),
- b) Wages of workers fall and profits of capitalists rise
- c) Because of the threat that capitalists dismiss workers and replace them by machines;
- d) This threat results in violence by workers against capitalists,
- e) And to the extent that workers become conscious of this compulsion and unite, they win this strife and abolish private ownership of the means of production, and
- f) If the means of production become common property, the distribution of consumer goods among the inhabitants of this society will proceed according to their needs.

The elaborations of Engels and Marx are known as classic historical materialism.

### 4.4 Revisionism

Eduard Bernstein (1850-1932) also elaborated the core of historical materialism. Bernstein held that as long as workers do not have the freedom to form trade unions, as long as the voice of a worker in parliamentary elections does not count as much as that of a capitalist, and as long as parliament cannot dismiss the members of a cabinet, the wages of workers will drop compared to the profits of capitalists. That is, wages fall in a relative sense. His revision holds:

- a) In capitalist societies without a constitution stipulating universal freedom of assembly, general suffrage for parliament, one vote for each inhabitant in elections for parliament and accountability of cabinet members to parliament,
- b) Workers do not become absolutely poorer, but they do become less well off in a relative sense;
- c) Workers improve their condition in an absolute sense, since the substitution of labour by machines, goes together with an increase in the skills of workers, whereas skilled workers are less easily compelled to accept lower wages than unskilled workers; workers become relatively poorer since skills cannot fully counter the threat that labour will be replaced by machines;
- d) Under these conditions the struggle of workers against capitalists becomes focused on the extension of political rights; this strife is not wholly violent and from time to time successful; and as these rights expand, it becomes syndicalist and parliamentarian, thus taking on peaceful forms;
- e) The more workers unite into trade unions and labour parties, the more they gain through gradual reforms various social rights;
- f) And with the extension of social rights, income disparities between workers and capitalists will narrow.



By way of these new elaborations Bernstein contributed to historical materialism. They amounted to a correction of earlier elaborations by Engels and Marx. Since the beginning of the twentieth century this branch of historical materialism is called revisionist historical materialism.

#### 4.7 Why no socialism in the United States (Sombart's mobility hypothesis)?

According to Sombart, something was wrong with a third elaboration of classic historical materialism. His elaboration extends Millar's observations that in a number of European societies everyone and anyone's labour is formally free and each and every person has the right to purchase, own and sell property. It runs:

- a) In capitalist societies
- b) all inhabitants with respect to the freedom of labour and the right to own property are equal before the law; in actual fact, the longer these laws persist, the more difficult it becomes for workers to start their own enterprise and accumulate capital;
- c) this is the case since established capitalists corner newcomers.

Feudal societies (preceded capitalism in Europe) were de jure (according to law) and de facto (in actual fact) closed. Economy was strict and had little freedoms. Capitalist societies were de jure open.

Sombart's hypothesis about mobility pertains to a very specific type of capitalist societies:

- a) In capitalist societies without a feudal past and with uncultivated land not yet private property
- b) more workers start their own business, making them upwardly mobile;
- c) they do so because dismissal is less of a threat in these societies;
- d) and since the workers of these societies experience upward mobility, their struggle against capitalists takes on peaceful forms.

The United States did not have a feudal past. In addition, not all land - given the wild Midwest - was private property. This de jure open society also was de facto open. In this situation, according to Sombart, no socialism could arise in the United States.

#### 4.9 Mobility as a subquestion of the problem of inequality

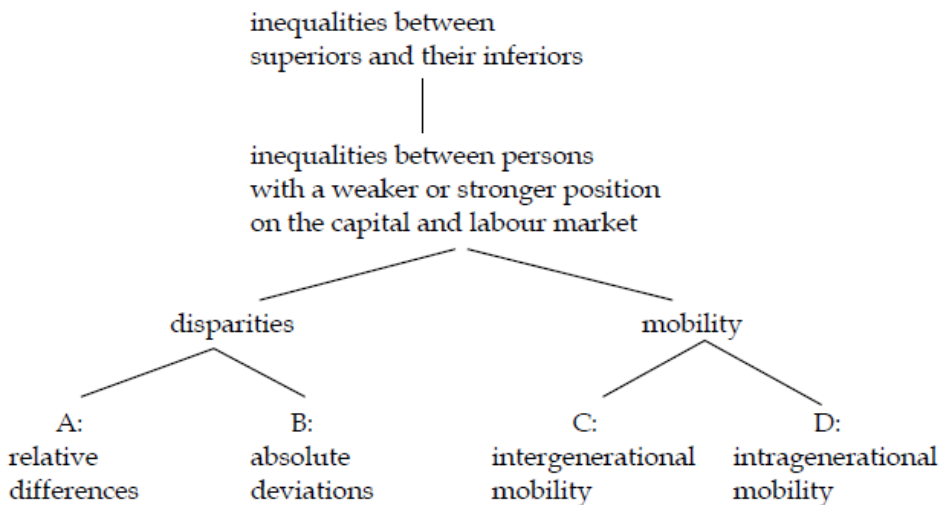
Sombart's question is that of whether persons during their whole life belong to one and the same class (the capitalist class, the working class) or whether they move from one class to another. How much mobility (upward mobility, downward mobility) of individuals between the classes of a society does occur? This is the problem of stratification and mobility.

Questions on inequality can be divided into two parts: questions of disparity and questions of mobility. How large income disparities - or other disparities - may be in some society at a certain point in time, it is possible that persons in the course of time change places.

Questions on disparities, in their turn, come in two versions. On the one hand they may involve relative differences. On the other hand questions about disparities may involve deviations from some more or less fixed point. This may be an absolute zero. There are two kinds of mobility questions too. It is possible to compare someone's social position with that of this person's parents. Sociologists also compare the class of persons at the end of their work life with that at the beginning.



Figure 4.2 The division of the problem of inequality after Bernstein, Sombart and Sorokin

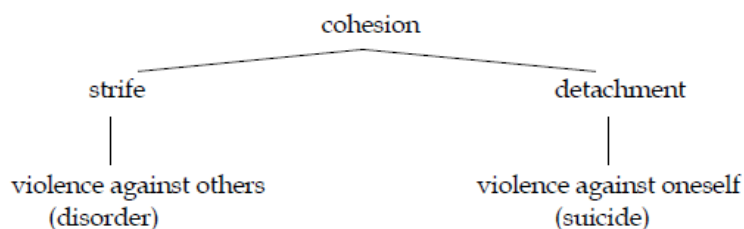


## Chapter 6: Cohesion and Suicide

### 6.1 The Parts of The Problem of Cohesion

Like his predecessors, Durkheim held that if the inhabitants of a society use more violence against each other, this indicates that this society is less cohesive. But since Durkheim, sociologists maintain that a higher incidence of suicide, the severest form of violence persons may use against themselves, indicates less societal cohesion too. When limited cohesion of societies is equated with violence against others, sociologists speak of *the problem of order*; if the other counterpart of living together peacefully gets underlined, that is, the violence person use against themselves, sociologists employ the expression *the problem of cohesion*.

Figure 6.1 The partition of the problem of cohesion



### 6.2 The Core of Structural Functionalism

The core of Durkheim's structural-functional answer to the problem of cohesion runs as follows:

- Every society displays a certain degree cohesion
- in as far as it consists of certain intermediary groupings (possesses some structure),
- and certain generally shared norms and values (which is to say, has a culture);
- and to the extent that the members of a society are more strongly integrated into these groupings, they are more likely to live up to these norms and values,
- which results in a more cohesive society.

According to Comte, order is impossible without consensus. At the end of the 19th century, Durkheim posed the question of suicide, an until then undervalued part of the problem of cohesion. The core statement is elaborated:

- a) A low incidence of suicide indicates strong cohesion;
- b) families, religious associations, and political organizations are instances of intermediary groupings,
- c) one such norm is (legal or public) disapproval of suicide, a norm generally prevailing in (almost) every society;
- d) and the stronger the integration of the inhabitants of a society in families, religious associations and political organizations, the more these persons follow the interdiction to take one's life,
- e) which lowers their chances to commit suicide.

### 6.3 Durkheim's theory of integration

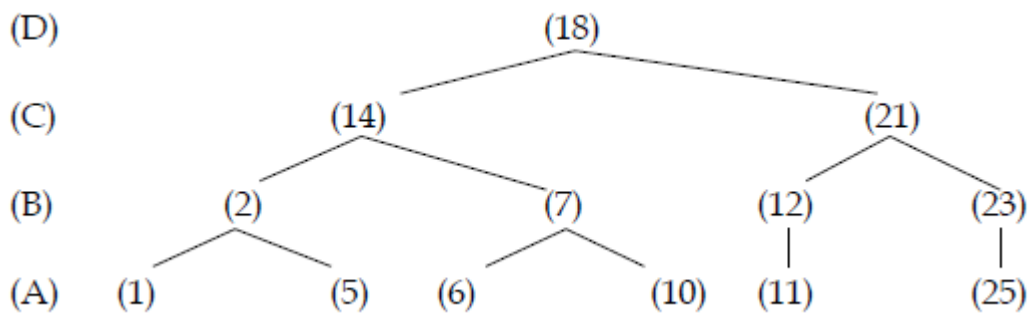
Integration in religious associations

- (1) In Europe at the end of the 19th century, suicide on the average is lower among Catholics than among Protestants. From (3) and (2) you can conclude (1).
- (2) The more strongly persons are integrated in a religious association, the lower their chances to commit suicide.
- (3) In Europe at the end of the 19th century, Catholics are more strongly integrated in their religious association than Protestants.
- (4) Catholics with little education are more strongly integrated in their religious association than Catholics who went to school for a longer time.
- (5) Catholics with little education are less likely to commit suicide than Catholics who went to school for a longer time. From (2) and (4) you can conclude (5).
- (6) The married have a lower suicide rate than the unmarried. From (7) and (8) you can conclude (6).
- (7) The more strongly persons are integrated in a family, the lower are their chances to commit suicide. From (14) and (16) you can conclude (7).
- (8) Married persons are more strongly integrated in a family than unmarried persons.
- (9) Married persons with children are more strongly integrated in a family than married persons without children.
- (10) Married persons with children display a lower suicide rate than married persons without children. From (7) and (9) you can conclude (10).
- (11) In France, during the war with Germany in 1870, the suicide rate fell. From (12) and (13) you can conclude (11).
- (12) The more strongly persons are integrated in political organizations, the lower are their chances to commit suicide. From (14) and (17) you can conclude (12).
- (13) In times of war, people are more strongly integrated in the state to which they belong, a political organization, than in times of peace.
- (14) The more the inhabitants of a society are integrated in any whatsoever of its intermediary groupings, the lower their chances of suicide. From (18) and (19) you can conclude (14).
- (15) A religious association is an intermediary grouping.
- (16) A family is an intermediary grouping.
- (17) A political organization is an intermediary grouping.
- (18) The more strongly persons are integrated in any whatsoever intermediary grouping of some society, the more likely they are to follow the norm of this grouping on suicide.

- (19) All intermediary groupings of a society disapprove of suicide.
- (20) Although most intermediary groupings of any society disapprove of suicide, in some societies there are particular groupings which approve of it under certain circumstances.
- (21) The more strongly persons are integrated in an intermediary grouping approving of suicide under some circumstances, the higher their chances of suicide. From (18) and (20) you can conclude (21).
- (22) The army is a grouping accepting suicide under certain circumstances.
- (23) The more strongly persons are integrated in the army, the higher their chances to commit suicide. From (21) and (22) you can conclude (23).
- (24) Officers are more strongly integrated in the army than soldiers.
- (25) Officers have a higher suicide rate than soldiers. From (23) and (24) you can conclude (25).

#### 6.4 The Structure of Durkheim's Integration Theory

The auxiliary assumptions have been omitted. Durkheim's theory comprises several levels. The propositions 'down below' are the most concrete ones, those above them are more general. The most concrete level is (A), the most general level (D). The concrete statements are derivable from the more general ones.



#### 6.5 Parsons' socialization- and internalization hypothesis

Parsons (1902-1979), in a critical examination of Durkheim's studies, proposed another elaboration of part *d* of the core of structural functionalism. He did so by formulating an hypothesis on the culture of societies. According to Durkheim, a society consists of intermediary groupings. Stronger integration in them would lead to higher chances of following their norms.

(d) To the extent that the members of a society have been socialized more strongly into its norms and values, and to the extent they have internalized them, these persons more strongly live up to these norms and values.

#### 6.6 Durkheim's theory of anomie

According to Durkheim, a society's suicide rate is not only lower when its members are more strongly integrated in its intermediary groupings. It is lower too when the elements of its culture are more attuned to one another. Sometimes societies lack a culture which makes the goals held up to its members agree with the means they should employ. Durkheim names this situation *anomie*.

(d) To the extent that the values and norms of a society attune the goals and means of the members of this society to one another, the more the members of this society live up to its interdiction of suicide.

## 6.7 To Conclude

A society displays cohesion to the extent that it has a structure. The term social structure captures the relations people maintain with one another. The goal of intermediary groupings is not to lower the suicide rate of a society (although suicide is disapproved of by most intermediary groupings); rather, a lower suicide rate is the unintended consequence of the existence of these groupings.

## Chapter 9 Rationalization

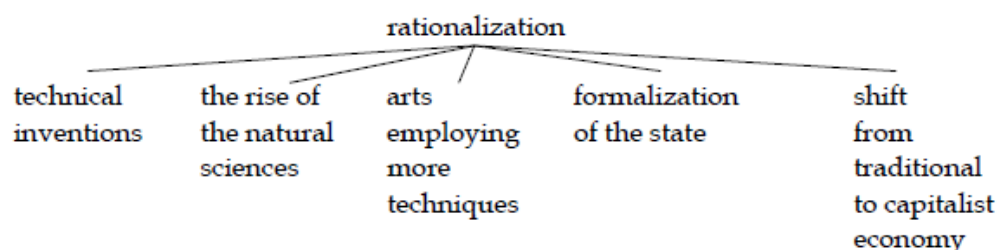
### 9.1 The Uniqueness of the Western World

The last few centuries the Rise of the West has taken place, production, agriculture and transport has mechanized. A result of his industrial revolution is the vast increase in the standard of living. Contemporary sociologists connect the question of the rise of the West primarily with the studies of Max Weber (1864-1920). According to Weber, this question amounts to that of what is unique for Western, in particular modern Western, civilization, and how the emergence of this civilization with its specific features can be explained. Weber's answer to this question sometimes is referred to as the interpretative tradition.

According to Weber, rationalization happened within Western societies in most areas of life; not only in fields where it might be expected, such as technology, science, and the way enterprises were managed, but also in spheres which even now are considered 'irrational', for instance the arts and the religions.

### 10.2 The Partition of the Problem of Rationalization

So, which are these characteristics supposedly making the Western World unique? To begin with, there is technological progress. According to Weber, the Western World at the beginning of modern times lagged in technology. Technological developments in the West, Weber held, were fed by the rise of science, a second feature unique to the West. In the West everyday experience and speculative philosophy turned into empirical-theoretical science. Thirdly, the arts in the West differed from those in other civilizations. Western painting consequently applied perspective, which creates a stronger illusion of reality. Fourthly, modern Western states differ from those elsewhere. In the modern West, with some exceptions, states show a distinctive combination of aspects: a written constitution stating that rulers are not above the law and that their subjects have rights, a system of general laws based on these statutes, and a corps of officials who execute these laws and passed examinations so that they would apply them properly. And then, finally, material goods are produced differently in the West. An economy consisting of largely self-sufficient households gave way to an economy in which persons no longer produce goods to satisfy their own old and trusty needs. Weber brings these five differences down to one denominator with the thesis that in the Western World rationalization processes have progressed further than elsewhere.



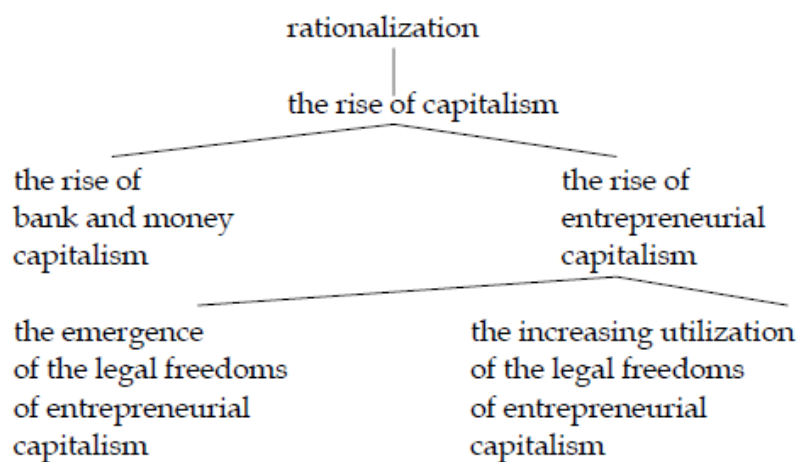


### 10.3 Earlier Answers and a New Sub-Question

Simmel (1858-1918) had argued that the invention and employment of money as a means of exchange, advances trade. However money was also used in China.

Sombart (1863-1941) proposed that population growth contributed to the rise of Western capitalism. If a country's population increases, labour becomes available for factories, and since sufficient consumers are around, mass production is possible. However this was also the case in China. It was also not the cause of laws, in England there was no common law systemized.

Weber held that all these explanations invoke possibilities to produce goods more efficiently. However, according to Weber, supplementary hypotheses are necessary which inform on the strength of the urge to utilize these opportunities. Thus, Weber twice splits sub-questions off from the larger question of the rise of capitalism.



### 10.4 An interpretative answer

In 1904 Weber showed that the shift in Northwestern Europe from catholicism to protestantism, involved a more frequent utilization of the rights of entrepreneurial capitalism. In 1905, Weber explained that the various forms of protestantism contributed less or more: the here stronger, there weaker duty to work and live methodically which flows from the world-view of these creeds, furnishes the motivation to utilize the rights of entrepreneurial capitalism on a large scale, and - if these freedoms do not exist - to create them.

#### The Core

The core of Weber's answer to the question of the utilization of the freedoms of entrepreneurial capitalism now is as follows:

- Every highly developed pre- and early modern society,
- has a certain religion
- with a certain world-view;
- this world-view for the members of this society fixes within certain limits a certain ultimate goal of salvation,
- and provides them with an urge to reach this goal with certain means (fixes within certain limits some way of life as the right one),
- and certain ways of life contribute more, and others less, to utilizing various opportunities to produce material goods more efficiently.

### The Full-Blown Theory

For catholics during the Middle Ages, labour was a natural necessity. Weber maintained that the way of life of monastics, since it involved arduous labour and little expense, unintentionally resulted in wealthy monasteries. The various forms of protestantism too offer their flock eternal life in heaven. However, for them the sacraments no longer are means to this goal. Thus, a rise on the social scale was a sign that God blessed a person, and that this person had been elected for eternal life. According to confucianism, man may adapt himself to the world. This religion does not reject earthly riches. However, the view that the world in essence is harmonious, attaches a negative meaning to the risks of enterprise. In Hinduism, a rule states that marriage between different castes is forbidden, this makes it difficult to form large enterprises. The difference in religion in the western and Asian world causes the difference in development.

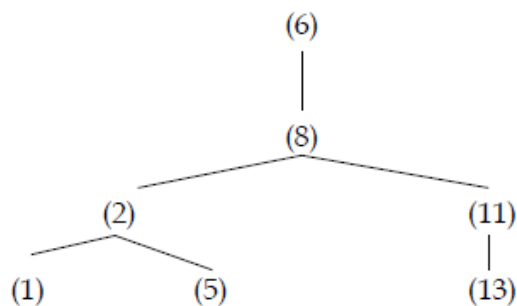
### 10.5 The Theory of World-Views and its Tests

The conclusion of Weber's argument in the following hypothesis is: to the extent that the world-view of a religion is more activist, this religion provides its adherents with a more practical-rational way of life, and a stronger urge to utilize more efficient ways of producing goods.

- 1) In Germany around 1900, protestants are over- and catholics under-represented among the entrepreneurs and the highly skilled technicians and clerks. From 2 and 3 you can conclude 1.
- 2) People with a religion which maintains that a person's occupation is this person's calling and people can administer the world, stand - if the freedoms of entrepreneurial capitalism prevail - a higher chance of being an entrepreneur, and a highly skilled technician or clerk. From 8 and 9 you can conclude 2.
- 3) According to protestantism as professed by certain Germans around 1900, a person's occupation, is this person's calling, and also according to this protestantism people can administer the world, whereas according to catholicism as affirmed by other Germans in those times, labour is a natural necessity; around 1900 in Germany the freedoms of entrepreneurial capitalism prevailed.
- 4) Although in the 16th and 17th century each form of protestantism holds that a person's occupation is this person's calling and people can administer the world, this idea is least developed within German lutheranism, more within Dutch calvinism, and most within English stringent movements; in these centuries the freedoms of entrepreneurial capitalism began to arise in these countries.
- 5) In the 16th and 17th century, the number of entrepreneurs increased more in England than the Netherlands, and more in the Netherlands than in Germany. From 2 and 4 you can conclude 5.
- 6) The stronger the urge of persons to a practical-rational way of life, and the more opportunities they have to produce goods more efficiently, the larger their chances to be an entrepreneur or a highly skilled technician or clerk.
- 7) The more activist the world-view of a certain religion, the stronger the urge of its adherents to a practical-rational way of life; if the freedoms of entrepreneurial capitalism prevail, people have more opportunities to produce goods more efficiently.
- 8) The more activist the world-view of a religion, the larger the chances of its adherents - if the freedoms of entrepreneurial capitalism prevail - to be an entrepreneur or a highly skilled technician or clerk. From 6 and 7 you can conclude 8.

- 9) A religion which holds that a person's occupation is this person's calling and people can administer the world, has a more activist world-view than a religion which holds that labour is a natural necessity.
- 10) A religion which holds that people can adapt themselves to the world has a more activist world-view than a religion which maintains that people are part of an invariable world.
- 11) People with a religion holding that people can adapt themselves to the world, have - if the freedoms of entrepreneurial capitalism prevail - higher chance to be an entrepreneur or a highly skilled technician or clerk than persons with a religion which maintains that people are part of an invariable world. From 8 and 10 you can conclude 11.
- 12) According to confucianism prevailing in China around 1900, people can adapt themselves to the world; according to hinduism prevailing in India around that time, people are part of an invariable world; in both countries the freedoms of entrepreneurial capitalism prevail.
- 13) Around 1900, relatively more Chinese than Indians are entrepreneurs and highly skilled technicians and clerks. From 11 and 12 you can conclude 13.

### The structure of Weber's theory of world-views



### 10.6 To Conclude

Although Weber stressed the effects of technology and law to the rise of capitalism in the Western world, these factors were external circumstances to a practical-rational way of life. By turning their job into their calling, people lived their lives in a way which, according to their denomination, was the right one leading to salvation. That this way of life also led to more material goods, was not so much an intended consequence of this way of life, but much more an unintended epiphenomenon.

## Chapter 12 Rationalization of the State

### 12.5 Individual and Collective Rationality According to Utilitarianism

According to the economic theory of collective decision making, free markets sometimes fail. They are effective and efficient when it comes to producing individual goods. In contrast, collective goods are not produced optimally by free markets.

#### The distinction between private and collective goods

The production of a goods brings with it effects for other persons, or externalities. Individual or private goods may be defined as goods whose ownership is exclusive and whose utilization is rivalizing. 'Exclusive' means that it is up to the owner to exclude others from using this good or not. 'Rivalizing' means that the claims of some persons to utilize a good, narrow the utilization of this good by others. Goods which, once they have been made available to one person, by way of external effects can be made available without additional costs to others persons, have been called public or collective goods.

### The Prisoners' Dilemma Elucidated

To elucidate that individual rationality and collective rationality do not always go together, the new political economics, calls in game theory. In the situations analyzed with the help of this theory, the outcomes of an action of one person depend upon others performing the same act. The most famous game of game theory is known as the 'prisoners dilemma'. The outcome of this game is that "If two people cannot deliberate together, individual rationality leads to collective irrationality".

### The Prisoners' Dilemma Applied

If there are two parties making decisions without knowing the decision of the other, there is a prisoners' dilemma. With situations in which there are many persons making decisions independent of one another, this case sometimes is referred to as an n-persons dilemma.

If the production of collective goods remains a matter of individual decision, only a few persons voluntarily will contribute to the production of collective goods. This reasoning makes clear that those involved act like parasites, hitchhikers or free-riders. Without contributing to the costs of producing a good, persons try to utilize it. But this has as an effect that others with a strong interest in this good, will postpone their decision. So an attitude arises, which has been dubbed the 'after you' effect.

We have seen that decisions on the production of collective goods lead to suboptimal results if they are being left to the markets, free negotiations, or decision by unanimity. For that reason the new political economics, appended the thesis that private or individual goods are produced optimally by markets, with the proposition that collective goods are produced optimally only by majority decision and the acceptance of coercion.

## Using the Internet: Skill related problems in users' online behaviour

By Van Deursen, and Van Dijk (2009)

This study extends the conventional and superficial notion of measuring digital skills by proposing definitions for operational, formal, information and strategic skills. Van Dijk (2005) defines operational skills as the skills used to operate computers and network hard and software. Operational Internet skills need to be complemented by formal skills that allow the use of hypermedia. Information skills is being able to locate required information. Strategic skills describes being able to take advantage of the internet to reach a goal. The main purpose was to identify individual skill related problems that users experience when navigating the Internet. In particular, lower levels of education and aging seem to contribute to the amount of experienced operational and formal skill related problems. With respect to information skills, higher levels of education seem to perform best. Age did not seem to contribute to information skill related problems. Results did reveal that age had a negative effect on selecting irrelevant search results. Individual strategic Internet skill related problems occurred often, with the exception of subjects with higher levels of education. Younger subjects experienced far less operational and formal skill related problems, but there was no difference regarding information and strategic skill related problems.



# On-line Reputation Systems: The Effects of Feedback Comments and Reactions on Building and Rebuilding Trust in On-line Auctions

By Utz, Matzat, and Snijders

## Theoretical Background

### Trust and Reputation Systems

Trust is a central issue in on-line markets. Trust can be defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the truster, irrespective of the ability to monitor or control that other party”. Among other things, trust is influenced by disposition toward trust, which is a stable personality characteristic, and by perceived trustworthiness. The latter comprises the perceived ability, benevolence, and integrity of the interaction partner. Behavioral trust can be influenced by willingness to trust and by situational circumstances.

Reputation systems collect and display information about the past behavior of an actor that can be used to judge his or her trustworthiness as a potential interaction partner. Research on the impact of on-line reputation systems has almost exclusively focused on the numerical indicators displayed on the feedback profile. As could be expected, extremely positive comments increased trust in the seller and extremely negative comments decreased it. Moreover, negative feedback has consequences not only for the seller who receives it, but also for the buyer who had the negative experience.

### Reparation of Trust

On-line transactions are noisier than face-to-face transactions because they are mediated and there are more moments where things can go wrong. The reparation of trust, therefore, is more often necessary in noisy environments. According to Kim et al., in the case of a competence-based trust violation, apology is the more successful trust-repairing strategy, but in the case of a morality-based trust violation, denial is the more successful trust-repairing strategy. From research on person perception, it is known that in the morality domain, negative information has a higher impact on the overall evaluation of a person than positive information. Buyers perceive the two types of trust violations differently. A competence-based trust violation should be less detrimental to trustworthiness judgments than a morality-based trust violation because low competence is less diagnostic than low morality. An apology acknowledges (at least indirectly) the responsibility for an incident.

Acknowledging responsibility in the case of a competence-based trust violation is not a big issue, because negative information in the competence domain is not very diagnostic. However, in the domain of a morality-based trust violation, where negative information is diagnostic, acknowledging responsibility would seriously damage perceived morality and consequently also trustworthiness.

### Discussion (Pilot Test)

The pilot test showed that the framing of the incident and the reaction of the seller influenced the trustworthiness judgments made by actual eBay users. However, in contrast to the predictions by Kim et al., the effectiveness of a reaction was not moderated by type of trust violation. A possible explanation for the weaker effect of type of reaction in the delayed-delivery scenario could be the type of apology.

### General Discussion

Across the pilot study and the main experiment, it was found that the short text comments given in reputation systems influence trustworthiness judgments. A morality-based trust violation decreased trustworthiness more than a competence-based trust violation. More important, the reaction of the seller influenced the trustworthiness judgments. However, in contrast to the predictions by Kim et al., the effectiveness of a reaction was not moderated by type of trust violation. Independent of type of trust violation, plain apologies resulted in higher trustworthiness judgments than denials, whereas apologies with an explanation were less successful than plain apologies in repairing trust.

Interestingly, plain apologies were always more successful in rebuilding trust than denials, regardless of the type of trust violation. The believability of a reaction turned out to be a strong predictor of trustworthiness—the more believable a reaction, the higher its trustworthiness.

### Conclusion

The experiments found that eBayers use the short comments to construe the situation as either a competence-based or a morality-based trust violation and, depending on the severity of the incident, that the latter was sometimes more trust decreasing than the former. Moreover, reparation of trust is possible. Apologies turned out to be more successful in rebuilding trust than denials independent of the type of trust violation. This can be explained by the fact that denials were not perceived as believable in this context due to the presupposition of guilt.

# Microfoundations and Macrosocial Behaviour

By James S. Coleman

In social theory there is a focus on social systems, while in research there is a focus on the individual. The problem of moving from the individual level to the systemic level is called the “micro-to-macro problem”. This problem can be solved using a micro-to-macro transition that is made by aggregating individual orientations, attitudes, or beliefs.

### What is an Appropriate Transition from Micro to Macro?

A good social history makes a transition successful. You have to attempt to establish a causal connection using historical evidence. The model should not only begin with number of applicants and places and with preferences orders for each actor; it also should contain, implicitly or explicitly, a model of the institution, process, or structure through which the matches take place.

### Collective Behaviour

Macro-level phenomena can be generated by rational actions that involve no exchange whatsoever.

### Stratification Research in Sociology

In general, the use of sample surveys to study social stratification makes it necessary to ignore the interdependence.

### Collective Decisions

Comparable micro-to-macro problem can be found which collective decisions using a formal decision rule.

# A Theory of Relational Signals in Online Groups

By Uwe Matzat

The outcomes of interaction in online communities depend to a large extent on finding solutions to typical problems of interaction, such as free-riding and lack of trust. This article presents a theory which argues that a member's online behaviour sends signals about how (s)he regards the relationship to other members and to the group. Under specific conditions, members take the signal sending into account when they decide whether to contribute to group discussions and to participate in trust-demanding online activities. Community administrators can use the insights to influence members' behaviour by using social control.

### Online Communities: Lack of Knowledge about the Effects of Group Characteristics

Individuals become group members for different purposes. While usability research is very common, we know much less about social and group conditions and how they affect interaction in online groups. What would be useful is a theory which can establish easily the link between the behavioural mechanisms that regulate online interaction and the social characteristics of online groups on the internet.

### Online Groups and Typical Problems of Interaction

The definition of an online group that is used here rests only on the existence of some common interests, rather than on sentiments. An online group is defined as a group of individuals that interact with each other by using the same CMC tool(s) such as an email list, a chat group or a bulletin board for the members. Interaction is centred around at least one common topic that reflects the common interests of the group members.

### Common Goals and Individual Goals

Group members have some common goals, but at the same time they have their individual goals or interests. These goals can conflict.

### Two Types of Interdependency

What often makes interaction in online groups problematic is the fact that an individual's goal fulfilment is not only dependent on his/her own behaviour, but also on other individuals' behaviour within the group. Some form of interdependency characterizes the situation.

### Three Typical Problems in Online Group Interaction

- Opportunity problems, including free-riding
- Problems of trust
- Problems of loyalty

Many online groups fail because of the insufficient activity of members. This is related to opportunity problems, there are two types: the free-rider problem and the volunteers' dilemma. The fulfilment of many common goals has the character of a collective good: no member can be excluded from its consumption, and its consumption by some members does not reduce the amount available to others.

Problems of trust emphasize the potentially negative consequences of a member's contributions if they are used in a way that was not anticipated by the contributor.

The loyalty problem refers to the fact that a member's interests in the online group have to be compatible with many other members' interests, so that a sufficiently large number of members are attracted to the group and stay there.

### Relation Goals, Relational Signals and the Shaping of Online Interaction

A distinction can be made between the two types of goals or interests that individuals can have in becoming a member of the online group. For the fulfilment of some goals, social interaction is necessary: these are relational goals. For the fulfilment of other goals, social interaction is not necessary, but is one of many possible options: these are material goals. The theory assumes that members follow a bounded rationality and their decision-making is influenced by processes of cognitive framing. If there is a frame and its fulfilment is in conflict with the fulfilment of other goals, then these other conflicting goals appear only as background goals, and the cost of neglecting them diminishes subjectively. For the avoidance of typical problems of interaction, such as the free-rider problem, it would be useful for the common group goal to be the member's frame.

### Sending Three Kinds of Signals During Online Interaction

According to the theory, during online interaction a member's behaviour gives some indication to others about his/her decision frame. That is, a member's participation in online activities or lack of participation sends signals about how he/she regards his/her relationship to other members and to the group. Three kinds of relational signals are distinguished. First, in bilateral interaction, every member sends signals to the other member as to how (s)he evaluates the bilateral relation. Second, the member's participation in common group activities, such as sending discussion contributions, sends signals to the whole group. Third, through its behaviour the administration of the online group gives a relational signal to the members that indicates the behavioural standards that it expects from its members.

The degree to which members take into account the relational signals of their own behaviour when they decide which activity to spend time on depends on some group conditions. The higher the degree of relational interests, the more members take into account their relational signals.

### Three Types of Social Control: From Weak/Indirect to Strong/Direct

Frame stabilizing tools work by increasing the salience of the common group goal. They increase the individual's attention to the frame of the group; thereby bringing it more to the forefront and diminishing the relevance of the perhaps conflicting, particular interests of the individual member. Through this mechanism, the individual's conflicting goals are pushed into the background, which reduces their value.

Indirect monitoring tools make use of the formal or informal rules that exist in a group. Indirect monitoring tools work through relational signals that indicate the individual's interest in conformity to the rules and thereby indirectly also his/her conformity to the group frame. Their effect is that exchanges in the group are evaluated not only with regard to the direct benefit that they deliver to the individual, but also to the individual's willingness to take the frame into account.



Direct control tools work through enhancing the real direct benefits of a group member, rather than through influencing the perceived ones, as with frame stabilizing tools.

### Effects of Social Control Dependent on Group Conditions

The three kinds of social control tools constitute a hierarchy that progressively indicate a lack of relational interests. Therefore, the stimulating impact of a direct control tool is restricted in situations of where there is a large degree of relational interests. The lower the degree of relational interests, the more direct control is useful.

The effects of frame stabilizing tools also differ between different online groups. The use of very indirect types of social control, such as the use of symbols, presupposes that members do not focus exclusively on their narrow short term interests, but take into account the interests of others.

### A Theory-Based Typology of Online Group Structures

There are three dimensions of online groups which have an impact on the degree of relational interest and therefore on the effects of the tools of social control.

#### Dependency Leads to Interest in the Relationship

The main idea underlying the typology is that members are more likely to develop an interest in building up and maintaining a satisfying relationship with each other when they are more dependent on each other for the fulfilment of their goals.

#### Social Embeddedness of the Online Group

Members' online and offline interactions are often related to each other. Members of an embedded online community have real-life relations which can be grounded on bilateral interaction, or on interaction in an offline organization or group. Thus under a high degree of social embeddedness, there is some degree of relational interest among the members.

#### Multifunctionality of the Online Group

The more different goals that the online community fulfils for every member, the higher the multifunctionality. This leads to a distinction between single and multiple common interest online groups. First, people are more likely to join and stay in a group when membership is useful to reach more aims at once. Second, in groups that fulfil multiple functions at once there is a higher degree of interdependency than in single common interest groups.

1st dimension Social embeddedness  2nd dimension Multifunctionality	Pure online groups	Embedded online groups
Single common interest	Example of Type 1: <i>worldwide</i> online forum for people interested in exchanging <i>information</i> about health questions, created by a commercial company	Example of Type 2: a <i>company's</i> online group for <i>employees</i> with different mailing lists and bulletin boards for the exchange of <i>information</i>
Multiple common interests	Example of Type 3: <i>worldwide</i> online self-help group built up by and for handicapped people, including a chat-group for provision of <i>social support and information</i>	Example of Type 4: same as Type 3; additionally, some users are members of an <i>organized pressure group</i> for representing their interests in public

### Social Control and the Different Types of Online Groups

The following hypotheses are described. The effects of frame stabilizing and indirect monitoring tools on the stimulation of active member participation are larger in embedded (or multiple common interests) than in pure (or single common interest) online groups. The effects of direct control tools are larger in pure (or single common interest) than in embedded (or multiple common interests) online groups.

### Theoretical Foundation for Short-Term and Long-Term Design of Online Communities

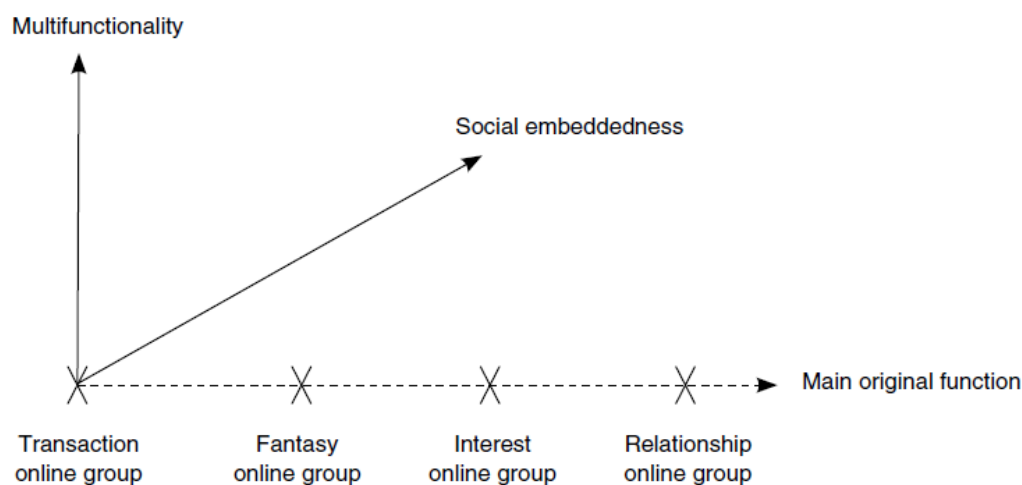
The theory points to two types of strategies that administrators of online groups can use. In the short-term they can apply the three different types of social control. In the long-term they can try to change the degree of relational interests in the group by increasing multifunctionality or social embeddedness.

### Opportunities for, and Limitations of, the Social Shaping of Online Communities

Single interest online groups can be divided further with regard to their main original purpose or function. Four main functions of online groups are distinguished that lead to the following types of groups:

- transaction online groups;
- online groups of interest;
- online groups of fantasy; and
- online groups of relationships

The three dimensions of online groups:



### Conclusion

#### Shaping the Social Impact of the Internet

The outcomes of the use of the internet to some extent depend on how individuals succeed in overcoming problems of interaction in online groups or communities.

According to the theory, the member's online behaviour in the group sends signals to others about what the member's decision frame is, and to what extent he/she takes into account the common goals of the group – the group frame – when deciding about participation in group activities.

The point is that the effects of the different forms of social control depend on the degree of relational interests in the group.

# Experimental Evidence of Massive-Scale Emotional Contagion through Social Networks

By Kramer, Guillory and Hancock

Emotional states can be transferred to others via emotional contagion, leading them to experience the same emotions as those around them. data from a large, real-world social network collected over a 20-y period suggests that longer-lasting moods (e.g., depression, happiness) can be transferred through networks as well. Three studies have laid the groundwork for testing these processes via Facebook, the largest online social network. This research demonstrated that (i) emotional contagion occurs via text-based computer-mediated communication; (ii) contagion of psychological and physiological qualities has been suggested based on correlational data for social networks generally and (iii) people's emotional expressions on Facebook predict friends' emotional expressions, even days later. The experiment manipulated the extent to which people were exposed to emotional expressions in their News Feed. This tested whether exposure to emotions led people to change their own posting behaviours, in particular whether exposure to emotional content led people to post content that was consistent with the exposure—thereby testing whether exposure to verbal affective expressions leads to similar verbal expressions, a form of emotional contagion.

If affective states are contagious via verbal expressions on Facebook (our operationalization of emotional contagion), people in the positivity-reduced condition should be less positive compared with their control, and people in the negativity reduced condition should be less negative. The results show emotional contagion. As illustrated, for people who had positive content reduced in their News Feed, a larger percentage of words in people's status updates were negative and a smaller percentage were positive. When negativity was reduced, the opposite pattern occurred. These results suggest that the emotions expressed by friends, via online social networks, influence our own moods, constituting, to our knowledge, the first experimental evidence for massive-scale emotional contagion via social networks, and providing support for previously contested claims that emotions spread via contagion through a network.

## Diffusion of Preventive Innovations

By Rogers

Preventive innovations usually require an action at one point in time in order to avoid an unwanted future condition. Hence, preventive innovations diffuse rather slowly, in part due to delayed rewards from adoption. Here we suggest five strategies, based on diffusion theory, for speeding up the diffusion of preventive innovations.

### The Diffusion Model

Diffusion is a special type of communication concerned with the spread of messages that are perceived as dealing with new ideas, and necessarily represent a certain degree of uncertainty to an individual or organization. The four main elements in the diffusion of new ideas are (1) innovation, (2) communication channels, (3) time, and (4) the social system.

The characteristics of an innovation, as perceived by the members of a social system, determine its rate of adoption. The characteristics that determine an innovation's rate of adoption are: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. Innovations that are perceived by individuals as having greater relative advantage, compatibility, trialability, observability, and less complexity will be adopted more rapidly than other innovations.

The innovation–decision process is the mental process through which an individual (or other decision-making unit) passes (1) from first knowledge of an innovation, (2) to forming an attitude toward the innovation, (3) to a decision to adopt or reject, (4) to implementation of the new idea, and to (5) confirmation of this decision.

Innovativeness is the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a social system. Five adopter categories, or classifications of the members of a social system on the basis on their innovativeness, are: (1) innovators, (2) early adopters, (3) early majority, (4) late majority, and (5) laggards.

### Preventive Innovations

Preventive innovations are new ideas that require action at one point in time in order to avoid unwanted consequences at some future time. Preventive innovations are relatively low in relative advantage, compared to nonpreventive innovations. Past research shows that perceived relative advantage is the most important predictor of the rate of adoption of innovations, so here we see one reason why preventive innovations are relatively slow to be adopted.

### Strategies for Diffusing Preventive Innovations

- Change the perceived attributes of preventive innovations
- Utilize champions to promote preventive innovations
- Change the norms of the system regarding preventive innovations through peer support
- Use entertainment-education to promote preventive innovations
- Activate peer networks to diffuse preventive innovations

# What's wrong with Diffusion of Innovation theory?

By Lyytinen, and Damsgaard

## Introduction

The DOI theory develops predictive accounts of the diffusion phenomenon that supposedly helps technology implementors advance the diffusion of selected technologies. Overall, the DOI tradition has sought to explain individual adoption decisions or intentions to adopt.

## Diffusion of Complex and Networked Technologies: the Case of EDI

EDI is the focus technology of this paper and the following points characterize EDI as complex standard-based and networked technology.

1. EDI is inter-organizational in nature;
2. EDI links electronically organizations thus requiring considerable alignment of organizational procedures and policies
3. EDI is a complex, innovative and abstract innovation that requires considerable skills and know-how to implement and operate



4. EDI relies on an advanced telecommunication infrastructure which creates a large set of dependencies with other components of the technological system
5. EDI implementations are often built on third party operated Value Added Networks or Internet Service Providers which complicate the promotion of EDI and create additional dependencies in the technological system
6. EDI is based on standards. Therefore EDI uses create a high degree of organizational interdependence, and necessitates institutional regulation
7. EDI requires a considerable user mass to be efficiently deployed

### Six Conjectures of Diffusion Theory Reconsidered

Rogers (1995) defines DOI as the process "by which an innovation is communicated through certain channels over time among the members of the social system". DOI explains diffusion rates by the characteristics of the innovation, and the surrounding social system. Factors that have been found to influence diffusion rates include: adopter characteristics, the social network they belong to, the communication process, the characteristics of the promoters, and the innovation attributes including triability, relative advantage, compatibility, observability, and complexity.

The six conjectures of the DOI model can be summarized as follows. An innovation (technology) has separate, distinguishable and objective features, which are easily recognizable by interested parties (1). The technology moves in a discrete package from an independent innovator to the adopter through a constant social "ether" called here a diffusion arena (2). The adopter's choice to adopt forms an atomic, isolated decision, which is shaped by the push and pull factors (3). The decision to adopt follows a rational calculus that is based on observed technological characteristics, and other relevant information made available to the adopter through communication channels (4). The diffusion process evolves through distinct stages, which are determined by the push and pull forces and are distinguishable by changes in the adoption rate (5). Finally, the diffusion process has neither feedback, nor any "effective" history (6).

#### *Technologies are not Discrete Packages*

Three difficulties with this theory are: it is not clear whether the list is complete, not all technological innovations can be characterized with the same set of attributes, it is not clear what the role is of these characteristics at different stages.

Complex technological systems have "interpretive flexibility" i.e. their significance varies from one context to another and from one time point to another. Consequently, groups, organizations, and industries construct the meaning of the technology differently. The herd effect rather than any specific technological characteristic (tangible or in-tangible) led to the adoption decision of a complex technological system.

#### *Technologies do not Diffuse in a Homogenous and Fixed Social Ether*

In the DOI theory interactions between technology suppliers and adopters are expected to happen in a relatively homogeneous space. With complex technologies like EDI, however, the diffusion arenas are neither fixed nor homogeneous. Therefore, in analysing EDI diffusion we found it necessary to employ institutional concepts to dynamically draw the borders of the diffusion space to understand what the studied processes were like.

#### *The Diffusion Rate is not Solely a Function of Push and Pull Forces*

The DOI theory integrates two supplementary modes of explanation: the supply-push and the demand-pull theories. Supply-push theories reckon that specific features of the innovation cause the

EDI diffusion like its functionality, or the standards that enable its use. The demand-pull theories explain EDI diffusion by a growing demand for organizational coordination.

- Push factors include features of technology, and channels of communications  
  
The push for EDI did not happen through the mass media or peer networks. Instead EDI was pushed by powerful actors (gatekeepers).
- Pull is determined by adopter's rational choices  
  
In real life EDI adoptions were not celebrations of rationality – organizations seldom followed what their rational analysis suggested.

### Choices are not Functions of Available Information, Preference Functions and Adopter's Properties.

In the DOI theory, adoption decisions are functions of available information, preference functions, risk and the adopter's properties. In EDI adoptions the choice parameters, however, fluctuated over time and over diffusion arenas in ways, which could not be derived from DOI theory. Sometimes adoption factors can be locally unique.

### Diffusion does not Necessarily Traverse through Distinct Stages, which Exhibit no Feedback

Our observations suggest that complex technologies will not diffuse in sequential stages. Many times it was not clear what these stages would mean in relation to the observed behaviour. Stages could be layered and feedback loops were possible, this is not possible in the DOI model.

### Time Scales are not Necessarily Short and the History of Decisions is not Unimportant

In DOI theory used time scales are normally relatively short and the mechanisms that drives the diffusion do not change over time. EDI, however, exhibits path dependencies, because it forms an add-on to the existing technology base.

### Discussion and Conclusions

As a step forward it is necessary to consider the following issues while studying complex networked technologies:

- Seek to understand the local complex, networked, and learning intensive features of technology.
- Seek to understand the critical role of market making and institutional structures in shaping the diffusion arena.
- Focus on critical process features and all key players in the diffusion arena.
- Develop multi-layered theories of diffusion that factor out mappings between different layers and locales.
- Use alternative theoretical perspectives that help extend analysis beyond questions of efficient choice. Good candidates include political models, institutional models and theories of team behaviour in conflict-cooperative games.
- Recognize the need for varying time scales when seeking to account for what happened and why.
- Develop theories at the site and with multiple levels of analysis.

# Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations

By Greenhalgh, Robert, MacFarlane, Bate and Kyriakidou

Innovations in service delivery and organization is defined as a novel set of behaviours, routines, and ways of working that are directed at improving health outcomes, administrative efficiency, cost effectiveness, or users' experience and that are implemented by planned and coordinated actions. There is a distinction among diffusion (passive spread), dissemination (active and planned efforts to persuade target groups to adopt an innovation), implementation (active and planned efforts to mainstream an innovation within an organization) and sustainability (making an innovation routine until it reaches obsolescence).

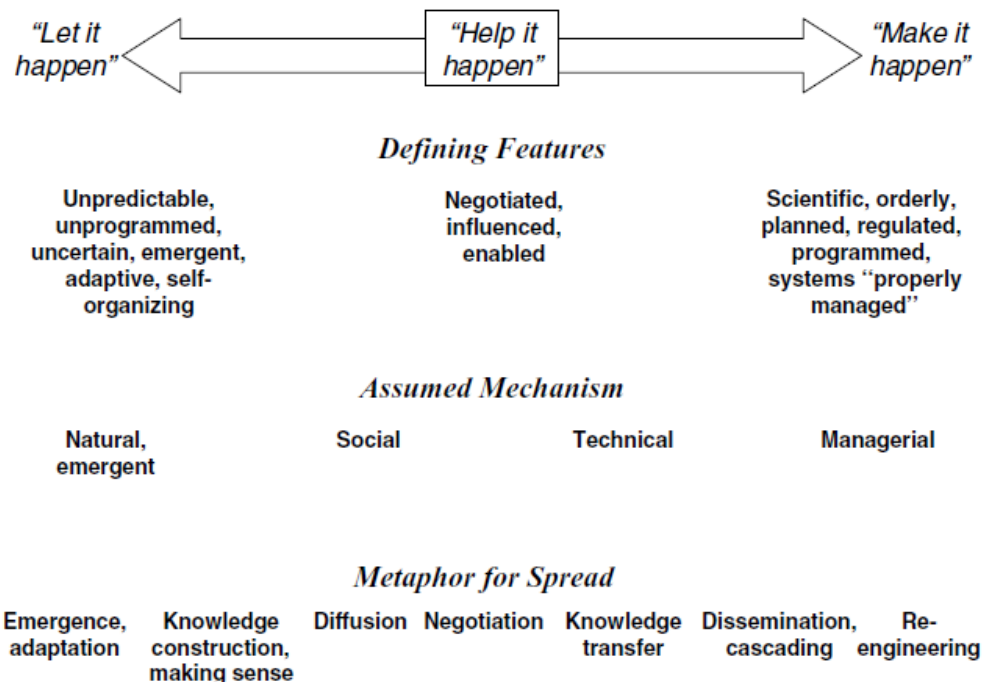


FIGURE 2. Different Conceptual and Theoretical Bases for the Spread of Innovation in Service Organizations

## A Model of Diffusion in Service Organizations

### The Innovation

Individual people adopt different innovations and then spread them at different rates to other individuals.

- Relative advantage. Innovations that have a clear, unambiguous advantage in either effectiveness or cost-effectiveness are more easily adopted and implemented. Relative advantage is required for adoption.

- Compatibility. Innovations that are compatible with the intended adopters' values, norms, and perceived needs are more readily adopted.
- Complexity. Innovations that are perceived by key players as simple to use are more easily adopted.
- Trialability. Innovations with which the intended users can experiment on a limited basis are adopted and assimilated more easily.
- Observability. If the benefits of an innovation are visible to intended adopters it will be adopted more easily.
- Reinvention. If potential adopters can adapt, refine, or otherwise modify the innovation to suit their own needs, it will be adopted more easily.
- Fuzzy Boundaries. Complex innovations in service organizations can be conceptualized as having a "hard core" and a "soft periphery"; the adaptiveness of the "soft periphery" is a key attribute of the innovation.
- Risk. If the innovation carries a high degree of uncertainty of outcome that the individual perceives as personally risky, it is less likely to be adopted.
- Task issues. If the innovation is relevant to the performance of the intended user's work and if it improves task performance, it will be adopted more easily.
- Knowledge required to use it. If the knowledge required for the innovation's can be codified and transferred from one context to another, it will be adopted more easily.
- Augmentation/support. If a technology is supplied as an "augmented product", it will be assimilated more easily.

### Adoption by Individuals

People are not passive recipients of innovations. They seek, experiment, evaluate, find meaning in, develop feelings, challenge, worry about, complain about (etc) them. Seven aspects of adopters and the adoption process are:

- General psychological antecedents. Individual traits that are associated with the propensity to try out and use innovations.
- Context-specific psychological antecedents. An intended adopter who is motivated and able to use a particular innovation is more likely to adopt it.
- Meaning. The meaning of the innovation for the intended adopter has a powerful influence on the adoption decision.
- The adoption decision. The decision by an individual within an organization to adopt a particular innovation is rarely independent of other decisions.
- Concerns in preadoption stage. Important prerequisites for adoption are that the intended adopters are aware of the innovation; have sufficient information about what it does and how to use it; and are clear about how the innovation would affect them personally.
- Concerns during early use. Successful adoption is more likely if the intended adopters have continuing access to information about what the innovation does and to sufficient training and support on task issues.
- Concerns in established users. Successful adoption is more likely if adequate feedback is provided to the intended adopters about the consequences of adoption and if the intended adopters have sufficient opportunity, autonomy, and support to adapt and refine the innovation.

### Assimilation by the system

Although one large, high-quality study demonstrated an organizational parallel to the "stages" of individual adoption, comprising "knowledge-awareness," "evaluation-choice," and "adoption-

implementation,” the remaining empirical evidence was more consistent with an organic and often rather messy model of assimilation in which the organization moved back and forth between initiation, development, and implementation, variously punctuated by shocks, setbacks, and surprises.

### Diffusion and Dissemination

A number of components for the model:

- Network structure.
- Homophily. Adoption is more likely if they are homophilious, have similar socioeconomic, educational, professional, and cultural backgrounds.
- Opinion leaders. Some persons have more influence than others.
- Harnessing the opinion leader’s influence.
- Champions. Adoption of an innovation by individuals in an organization is more likely if key individuals in their social networks are willing to support the innovation.
- Boundary spanners. An organization is more likely to adopt an innovation if those people who have significant social ties both inside and outside the organization and are able and willing to link the organization to the outside world in relation to this particular innovation.
- Formal dissemination programs.

### System Antecedents for Innovation

- Structural determinants of innovativeness. An organization will assimilate innovations more readily if it is large, mature, functionally differentiated, and specialized, with foci on professional knowledge; if it has slack resources to channel into new products; and if it has decentralized decision-making structures.
- Absorptive capacity for new knowledge. An organization that is systematically able to identify, capture, interpret, share, reframe, and recodify new knowledge; to link it with its own existing knowledge base; and to put it to appropriate use will be better able to assimilate innovations.
- Receptive context for change. An organization that embraces new ideas and faces the prospect of change are better able to assimilate innovations.

### System Readiness for Innovation

The elements of readiness are:

- Tension for change. If staff perceive that the current situation is intolerable, a potential innovation is more likely to be assimilated successfully.
- Innovation-system fit.
- Assessment of implications.
- Support and advocacy.
- Dedicated time and resources.
- Capacity to evaluate the innovation

### The Outer Context: Interorganizational Networks and Collaboration

- Informal interorganizational networks. An important influence on an organization’s decision to adopt is whether a threshold proportion of comparable organizations have done so or plan to do so.
- Intentional spread strategies.
- Wider environment. Environmental uncertainty has either a small positive impact or no impact on innovativeness.



- Political directives. A policy push occurring at the early stage of implementation of an innovation initiative can increase its chances of success.

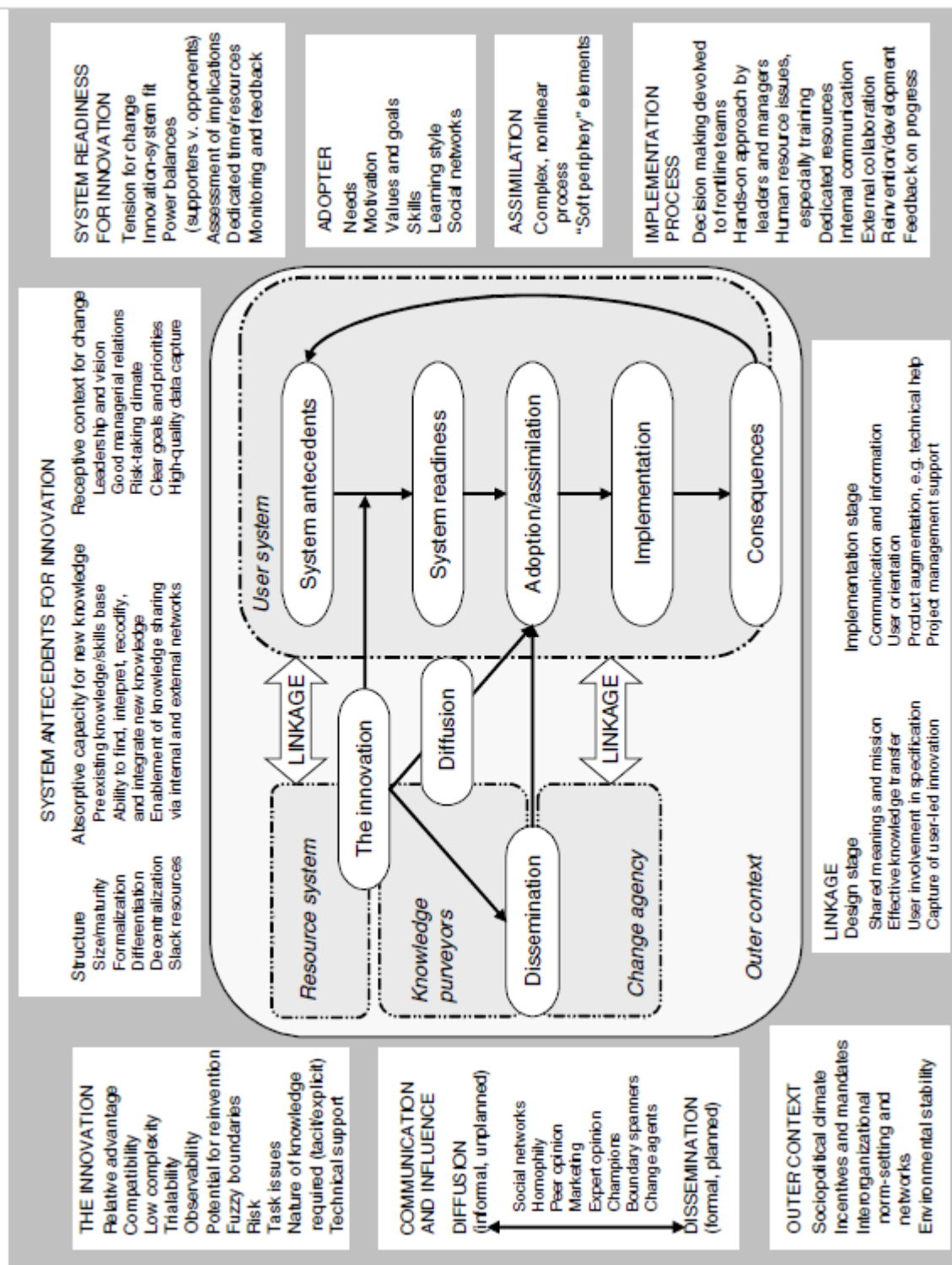
### Implementation and Routinization

Implementation is defined as the early usage activities that often follow the adoption decision.

- Organizational structure. An adaptive and flexible organizational structure enhances the success of implementation and the chances of routinization.
- Leadership and management. Top management support, advocacy of the implementation process, and continued commitment to it enhances the success of implementation and routinization.
- Human resource issues. Successful routinization of an innovation in an organization depends on the motivation, capacity, and competence of individual practitioners.
- Funding.
- Intra-organizational communication
- Interorganizational networks
- Feedback
- Adaptation/reinvention

### Linkage among Components of the Model

- Linkage at the development stage. An innovation that is centrally developed is more likely to be widely and successfully adopted if the developers or their agents are linked with potential users at the development stage in order to capture and incorporate the users' perspective.
- Role of the change agency. If a change agency is part of a dissemination program, the nature and quality of any linkage with the intended adopter organizations will influence the likelihood of adoption and the success of implementation.
- External change agents.



## Conclusion

This extensive systematic review has produced three important outputs: a parsimonious and evidence-based model for considering the diffusion of innovations in health service organizations; clear knowledge gaps on which further research on the diffusion of innovations in service organizations should be focused; and a robust and transferable methodology for systematically reviewing complex research evidence.

# Networks, Crowds and Markets

By Easley, and Kleinberg

Ch. 1.1; Ch. 2.1, 2.2, 2.3; Ch 3.1, 3.2,3.3,3.4

## 1.1 Aspects of Networks

In the most basic sense, a network is any collection of objects in which some pairs of these objects are connected by links. It is generally difficult to summarize the whole network succinctly; there are parts that are more or less densely interconnected, sometimes with central “cores” containing most of the links, and sometimes with natural splits into multiple tightly-linked regions.

When people talk about the “connectedness” of a complex system, in general they are really talking about two related issues. One is connectedness at the level of structure - who is linked to whom -| and the other is connectedness at the level of behaviour - the fact that each individual's actions have implicit consequences for the outcomes of everyone in the system. A fundamental point here is that in a network setting, you should evaluate your actions not in isolation, but with the expectation that the world will react to what you do.

What we see is a growing awareness and adoption of a new innovation that is visible in aggregate, across a whole population. What are the underlying mechanisms that lead to such success? Standard refrains are often invoked in these situations: the rich get richer; winners take all; small advantages are magnified to a critical mass; new ideas get attention that becomes “viral.” But the rich don't always get richer and small advantages don't always lead to success. Some social networking sites flourish, like Facebook, while others, like SixDegrees.com, vanish. To understand how these processes work, and how they are realized through the interconnected actions of many people, we need to study the dynamics of aggregate behaviour.

Understanding highly connected systems, then, requires a set of ideas for reasoning about network structure, strategic behaviour, and the feedback effects they produce across large populations. Different fields of study have drawn models and theories that help understand connected systems.

## 2.1 Basic Definitions

A graph is a way of specifying relationships among a collection of items. A graph consists of a set of objects, called nodes, with certain pairs of these objects connected by links called edges. We define a directed graph to consist of a set of nodes, as before, together with a set of directed edges; each directed edge is a link from one node to another, with the direction being important.

Graphs are useful because they serve as mathematical models of network structures. Graphs appear in many domains, whenever it is useful to represent how things are either physically or logically linked to one another in a network structure. An example is a communication network, in which nodes are computers or other devices that can relay messages, and the edges represent direct links along which messages can be transmitted. Two types of broad classes are social networks and information networks.

## 2.2 Paths and Connectivity

A path is simply a sequence of nodes with the property that each consecutive pair in the sequence is connected by an edge. A particularly important kind of non-simple path is a cycle, which informally is a “ring” structure. We say that a graph is connected if for every pair of nodes, there is a path

between them. A graph is not connected, then it breaks apart naturally into a set of connected "pieces," groups of nodes so that each group is connected when considered as a graph in isolation, and so that no two groups overlap. We say that a connected component of a graph (often shortened just to the term "component") is a subset of the nodes such that: (i) every node in the subset has a path to every other; and (ii) the subset is not part of some larger set with the property that every node can reach every other. Large, complex networks often have what is called a giant component, a deliberately informal term for a connected component that contains a significant fraction of all the nodes.

## 2.3 Distance and Breadth-First Search

We define the length of a path to be the number of steps it contains from beginning to end | in other words, the number of edges in the sequence that comprises it. We define the distance between two nodes in a graph to be the length of the shortest path between them. We can generally figure out the distance between two nodes by eyeballing the picture; but for graphs that are even a bit more complicated, we need some kind of a systematic method to determine distances. This technique is called breadth-first search, since it searches the graph outward from a starting node, reaching the closest nodes first.

Small-world phenomenon is the idea that the world looks "small" when you think of how short a path of friends it takes to get from you to almost anyone else. It's also known, perhaps more memorably, as the six degrees of separation.

## 3.1 Triadic Closure

Triadic closure is the principle that if two people in a social network have a friend in common, then there is an increased likelihood that they will become friends themselves at some point in the future. If we observe snapshots of a social network at two distinct points in time, then in the later snapshot, we generally find a significant number of new edges that have formed through this triangle-closing operation, between two people who had a common neighbor in the earlier snapshot.

The clustering coefficient of a node A is defined as the probability that two randomly selected friends of A are friends with each other. In other words, it is the fraction of pairs of A's friends that are connected to each other by edges. Reasons for triadic closure are opportunity, trust and incentive.

## 3.2 The Strength of Weak Ties

We say that an edge joining two nodes A and B in a graph is a bridge if deleting the edge would cause A and B to lie in two different components. In other words, this edge is literally the only route between its endpoints, the nodes A and B. We say that an edge joining two nodes A and B in a graph is a local bridge if its endpoints A and B have no friends in common. In other words, if deleting the edge would increase the distance between A and B to a value strictly more than two. We say that the span of a local bridge is the distance its endpoints would be from each other if the edge were deleted.

In general, links can have a wide range of possible strengths, but for conceptual simplicity, we'll categorize all links in the social network as belonging to one of two types: strong ties (the stronger links, corresponding to friends), and weak ties (the weaker links, corresponding to acquaintances). We say that a node A violates the Strong Triadic Closure Property if it has strong ties to two other nodes B and C, and there is no edge at all (either a strong or weak tie) between B and C. We say that a node A satisfies the Strong Triadic Closure Property if it does not violate it. Assuming the Strong

Triadic Closure Property and a sufficient number of strong ties, the local bridges in a network are necessarily weak ties.

Finally, the analysis provides a concrete framework for thinking about the initially surprising fact that life transitions such as a new job are often rooted in contact with distant acquaintances. The argument is that these are the social ties that connect us to new sources of information and new opportunities, and their conceptual “span” in the social network (the local bridge property) is directly related to their weakness as social ties. This dual role as weak connections but also valuable conduits to hard-to-reach parts of the network, this is the surprising strength of weak ties.

### 3.3 Tie Strength and Network Structure in Large-Scale Data

An edge is either a strong tie or a weak tie, and it is either a local bridge or it isn't. For both of these definitions, it is useful to have versions that exhibit smoother gradations when we go to examine real data at a large scale.

To do this, we define the neighbourhood overlap of an edge connecting A and B to be the ratio

$$\frac{\text{number of nodes who are neighbors of both } A \text{ and } B}{\text{number of nodes who are neighbors of at least one of } A \text{ or } B}$$

The key feature of this definition is that this ratio in question is 0 precisely when the numerator is 0, and hence when the edge is a local bridge. So the notion of a local bridge is contained within this definition, local bridges are the edges of neighbourhood overlap 0, and hence we can think of edges with very small neighbourhood overlap as being “almost” local bridges.

### 3.4 Tie Strength, Social Media, and Passive Engagement

Research by Marlow about the strength of ties on facebook resulted in three categories of links based on the usage over a one-month observation period. These are: reciprocal (mutual) communication, one-way communication and maintained relationship (following information with no contact).

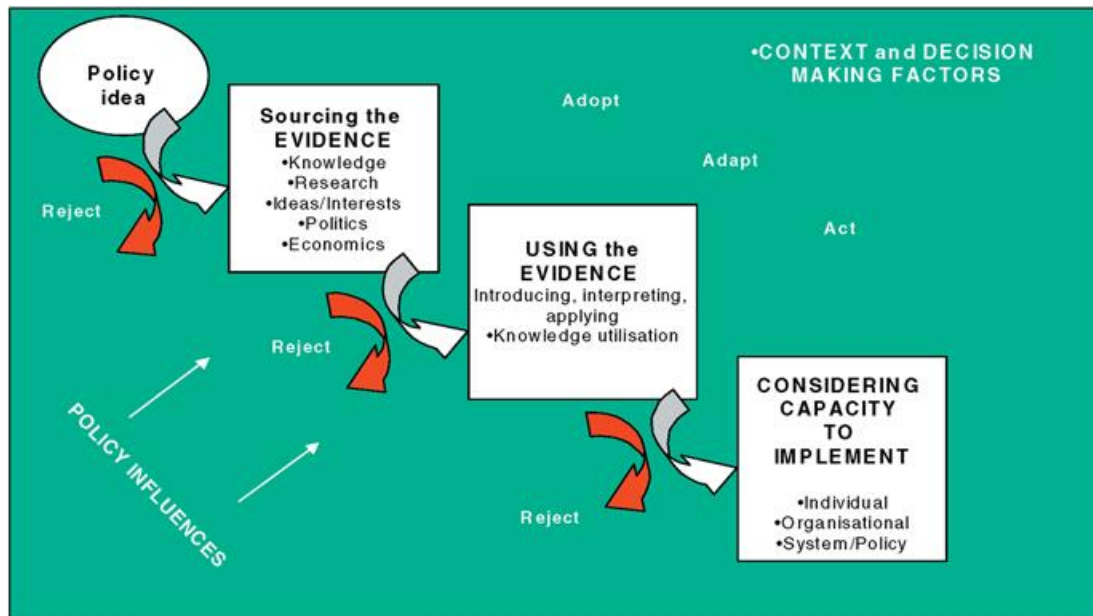
This stratification of links by their use lets us understand how a large set of declared friendships on a site like Facebook translates into an actual pattern of more active social interaction, corresponding approximately to the use of stronger ties. Marlow and his colleagues draw a further conclusion about the power of media like Facebook to enable this kind of passive engagement, in which one keeps up with friends by reading news about them even in the absence of communication.

Similar lines of investigation have been carried out recently on the social media site Twitter, where individual users engage in a form of micro-blogging by posting very short, 140-character public messages known as “tweets”. It is very easy for a user to follow many people's messages without ever directly communicating with any of them. As we saw for Facebook, even for users who maintain very large numbers of weak ties on-line, the number of strong ties remains relatively modest, in this case stabilizing at a value below 50 even for users with over 1000 followees.

## Pathways to “Evidence-Informed” Policy and Practice: A Framework for Action

By Bowen, and Zwi

In this article, we propose that an “evidence-informed policy and practice pathway” can help both researchers and policy actors navigate the use of evidence. The pathway to “evidence-informed” policy and practice involves three active stages of progression, influenced by the policy context. The three stages are (1) sourcing the evidence, (2) using the evidence, and (3) implementing the evidence. The pathway also involves decision-making factors and a process which we have termed “adopt, adapt, and act” .



### Diffusion of Innovations: An Underlying Theory

The success of diffusion of evidence into policy and practice rests largely with the characteristics at play at each stage of the adoption process. Information passes through an “adopt, adapt, and act” cycle. Characteristics of the individuals involved, the innovation itself, and the organizations in which they are considered affect decisions made about evidence in terms of the perceived value, priority given, and seriousness of response.

### Stage 1: Sourcing the Evidence

Types of evidence that inform the policy process can be grouped as research, knowledge/information, ideas/interests, politics, and economics. Evidence is usually sought to show effectiveness ( “it works” ), show the need for policy action ( “it solves a problem” ), guide effective implementation ( “it can be done” ), and show cost effectiveness ( “it is feasible and may even save money” ). Policy analysis theory proposes that evidence is information (information is data that has meaning) “that affects existing beliefs of important people about significant features of the problem under study and how it might be solved or mitigated”

### The Policy Context

The context is the environment or setting in which the policy is being developed and implemented, incorporating the historic, cultural, health services, system, and resource contexts. The ways in which the evidence is used in the policy process are largely determined by the beliefs and values of policymakers, as well as by considerations of timing, economic costs, and politics. Policy networks provide a useful lens through which to analyse the context of policymaking and research utilization. A policy network focuses on the relationships that shape the policy agenda and decision-making process.



### Factors in Decision-Making

- The usefulness of the innovation. This is based on relative advantage, complexity, compatibility with values and past experiences; and cost and flexibility, reversibility, trialability and revisability.
- The influence of the individual. Individual decisions are influenced by a variety of personal qualities and capacities such as values and beliefs, leadership, knowledge and skills, resources, organizational support, partnership links, and networking.
- The influence of the organization. An organization's structure, function, composition, and socioeconomic context are primary influences on both what decisions are made and how they are made. The extent to which change, new concepts, and new ideas are valued by management and leadership figures influences rates of adoption and adaptation.

### Stage 2: Using Evidence in Policymaking

Research indicates two things, that the evidence interacts with “context” before it is fully adopted in policy and practice, and/or that different types of evidence are useful at different times in the policy process. The literature identifies at least three key stages of knowledge utilization: introduction, interpretation, and application.

Effective knowledge transfer is not a “one off” event, rather it is a powerful and continuous process in which knowledge accumulates and influences thinking over time. The ability to sustain this process and a focus on human interactions is essential. Differences in conceptual understanding, scientific uncertainty, timing, and confusion influence the response to evidence. Understanding knowledge utilization in policymaking requires an understanding of what drives policy.

### Stage 3: Capacity for Implementation

Determining capacity to act on evidence is a neglected area of policy analysis and research efforts to date. At the individual and organizational levels, capacity is often visible as skills and competencies, leadership, partnerships, the development of appropriate workforce and organizational structures, and the ability to mobilize and allocate resources. Capacity theory offers something practical and operational, and calls for capacity to “adopt, adapt, and act” on the evidence in informing policy issues, otherwise policy remains idle. Capacity thinking both asks and answers the question of what needs to be in place to support evidence uptake in policy and practice across a variety of settings.

### Why This Framework?

The purpose of this framework is to describe the myriad of changing influences in achieving evidence informed policy and practice. The framework encourages research and planning in the area of how to “adopt, adapt, and act” on the evidence and in capacity for implementation as part of the evidence-informed policy development process. The framework emphasizes the policy context and its influence on each stage of interaction between research, other forms of evidence, and the policy process.

# Social Network Thresholds in the Diffusion of Innovations

By Valente

## Introduction

Individuals vary in their willingness to take risks in adopting a new idea or product. The diffusion of innovations is the process by which a few members of a social system initially adopt an innovation, then over time more individuals adopt until all (or most) members adopt the new idea. A social network is the pattern of friendship, advice, communication or support which exists among the members of a social system. The initial network approach to diffusion research was to count the number of times an individual was nominated as a network partner and to correlate this variable with innovativeness as measured by an individual's time-of-adoption of the innovation under study. Opinion leaders were defined as those individuals with the highest number of nominations, and were theorized to be a significant influence on the rate of adoption.

Granovetter argued that weak ties (people loosely connected to others in the network) were necessary for diffusion to occur across subgroups within a system. Burt (1980, 1987) presented a third network approach to diffusion by arguing that structural equivalence (the degree of equality in network position) influenced the adoption of innovations. The present research provides a fourth model of diffusion networks that incorporates threshold effects. Threshold models of collective behaviour postulate that an individual engages in a behaviour based on the proportion of people in the social system already engaged in the behaviour. An individual's adoption of a new collective behaviour is thus a function of the behaviour of others in the group or system.

## Network Thresholds

Threshold models of collective behaviour argue that individuals have varying thresholds, which are postulated as one cause for varying times-of-adoption and thus as a cause for the S-shaped rate of adoption. A collective behaviour threshold is the proportion of adopters in a system prior to an individual's adoption. One difficulty with applying the concept of collective behaviour threshold to adoption behaviour is that individuals may not accurately monitor the adoption behaviour of everyone else in the system. A second difficulty with applying the concept of collective behaviour applications to the adoption of innovations is that innovations are often uncertain, ambiguous, and risky.

Thus, adoption thresholds should be measured in terms of direct communication network links with others, in contrast to collective behaviour thresholds which are measured for the social system to which the individual belongs. The proportion of adopters in an individual's personal network generally increases during the diffusion process, since over time more and more individuals adopt the innovation. Everyone's personal network may eventually fill up with adopters, yet some personal networks fill earlier than others, according to the adoption behaviour of their network partners.

Exposure is the proportion of adopters in an individual's personal network at a given time. Since adoption thresholds are the proportion of adopters in an individual's personal network, the threshold is the exposure at the time-of-adoption. In sum, individual exposure to an innovation increases as more people in the personal network adopt the innovation. Innovativeness (early adoption of innovations) can now be distinguished, i.e. whether individuals are innovative with respect to their personal network or innovative with respect to the social system.

## Adopter Categories

Adopters are classified as (1) early adopters, (2) early majority, (3) late majority, and (4) laggards. Personal network threshold adopter categories may be created by partitioning the network threshold distribution in the same manner described for time-of-adoption adopter categories. Specifically, really low network threshold individuals have personal network thresholds one standard

deviation lower than the average threshold. Low and high network threshold individuals have personal network thresholds bounded by one standard deviation less than and greater than average. Finally, really high network threshold individuals have personal network thresholds one standard deviation greater than average. The average threshold being the mean threshold for the community.

### External Influence

Two possible external sources of influence on adoption of innovations are cosmopolitan ' actions and communication media. Cosmopolitan actions and media consumption provide individuals with earlier awareness of an innovation and freedom from system norms enabling them to be earlier adopters and proponents of an innovation.

### Empirical Analyses

Empirical analysis of the personal network threshold model requires data collected on (1) time-of-adoption and (2) social network ties. Three studies are discussed: the medical innovation study by Coleman et al., the study of Brazilian farmers' adoption of hybrid seed corn by Herzog et al. , Rogers et al. , and Guimarães and the Korean family planning study by Rogers and Kincaid.

The results show that external influence scores are almost always highest for individuals who are most innovative relative to the system and their personal network. These are the earliest adopters (innovators), who are the first to adopt the innovation. The results indicate that external influence tends to make individuals innovative relative to the social system more than relative to their personal network. Third, one would expect that within diffusion phases the external influence scores would be monotonic by innovativeness relative to network. In other words, if system and personal network influences acted serially, the scores would be greatest for early adopters relative to the system, next for early majority adopters, etc., which is indeed the case. Fourth, laggards (those who never adopt or adopt late) can be partitioned into isolates and high thresholds. Laggards who have very low thresholds do not receive exposure to the innovation from their network, and are not being exposed to the innovation through external influence. Innovativeness relative to one's personal network should be associated with opinion leadership. Opinion leadership is measured by the number of network nominations received.

For early adopters. it is normative for them to adopt early relative to their personal network, and these individuals are more likely to be opinion leaders. Individuals who exhibit consistency in their threshold are appropriate role models and near peers whose behaviour may be imitated. Individuals who are more innovative relative to their network for that phase of diffusion are generally not appropriate role models for others at that stage.

In sum, it seems that the diffusion of innovations in these three datasets followed three different patterns, perhaps as the result of three different influence processes.

### Discussion

Threshold lags occur because individuals are not immediately influenced by their peers, but may continually monitor their peers' behaviour. The magnitude of the threshold lags indicates the degree of delay in threshold activation.

The present approach assumed behavioural contagion through direct network ties. It can easily be extended to other forms of contagion by using other network properties as exposure weights. The social network threshold concept introduces the possibility of varying individuals' frames of reference.