

Institutional Requirements for Second-Generation Reform

By Sanford Berg

Distinguished Service Professor
Director, Public Utility Research Center

Prepared for the Australian Consumer and Competition Conference on
Regulation and Competition
July 2002

Abstract

To prevent regulatory ossification may require second-generation reforms involving fine-tuning procedures and methodologies or a major organizational restructuring. Clearly, the changes should not be too disruptive, since that would affect the ability of regulators to make credible long-term future commitments. Part of the second-generation reform process involves revisiting performance objectives--if visions are not grounded in reality, rhetoric rules the day, ultimately leading to disappointment and to a possible denial of legitimacy. A record of accomplishment yields broad-based support for industry and for government. Conversely, if the regulatory commission has promised improvements in service quality yet reliability has deteriorated, performance does not match the promise. However, there are several potential explanations to poor performance. First, the stated objectives may have been unreasonable given other constraints. Second, managers may be inept and have wasted opportunities to improve quality. Third, the regulatory policies may have involved poor incentives. Whatever the reason for coming up short, stakeholders now can begin playing the "Blame Game". Recognition of the institutional, economic, and political forces affecting the performance of regulators and of suppliers underscores the importance of having realistic objectives for infrastructure sectors.

The life cycle of a regulatory commission has been characterized as having four stages: infancy, youth, maturity, and "old age" (Bernstein, 1955). There is no standard duration for these phases. However, to counter the possible ossification of regulatory institutions, early activities of new (infant) commissions are often followed by second-generation reforms.

At different stages of the regulatory life cycle, the agency leadership and professional staff face make decisions that either promote or discourage infrastructure investment. This paper describes the constellation of factors affecting infrastructure performance—particularly at the second stage of the regulatory process. Each stage presents its own set of threats and opportunities. A newly born agency is somewhat fragile, as the new agency establishes its place among other institutions at the national and state level. For a competition commission, infancy is a period of learning the ropes and creating an organizational culture that supports its public mandate. Most outsiders would agree that the ACCC has created a vision and established procedure—all in the context of specific problems.

When a regulatory commission moves past the “infancy” stage, it enters a youthful stage, characterized by self-awareness and a thirst for new approaches to solving problems. If the agency has had a successful initial growth period, it might enter the next stage with youthful confidence—possibly even cockiness. To avoid pitfalls requires equal doses of humility and technical proficiency. Stakeholders are watching how the agency navigates the next stage of development. Some have an interest in seeing the youngster fail, but most on-lookers have a stake in an agency that addresses issues with a high degree of professionalism: where improved sector performance is its primary goal.

The external environment is changing as well. Industry participants are revising their strategies in response to rules established by the agency. They understand the importance of two factors: governance (agency design and processes) and regulatory policies (or incentives). Generally, both factors are a matter of public record by this stage of the regulatory cycle—so the fundamental problem is to demonstrate to stakeholders that those processes and policies support the objectives laid forth in the law and the agency’s own documents. Internal reviews and external communications are two activities that we can expect in the youth phase of a regulatory commission.

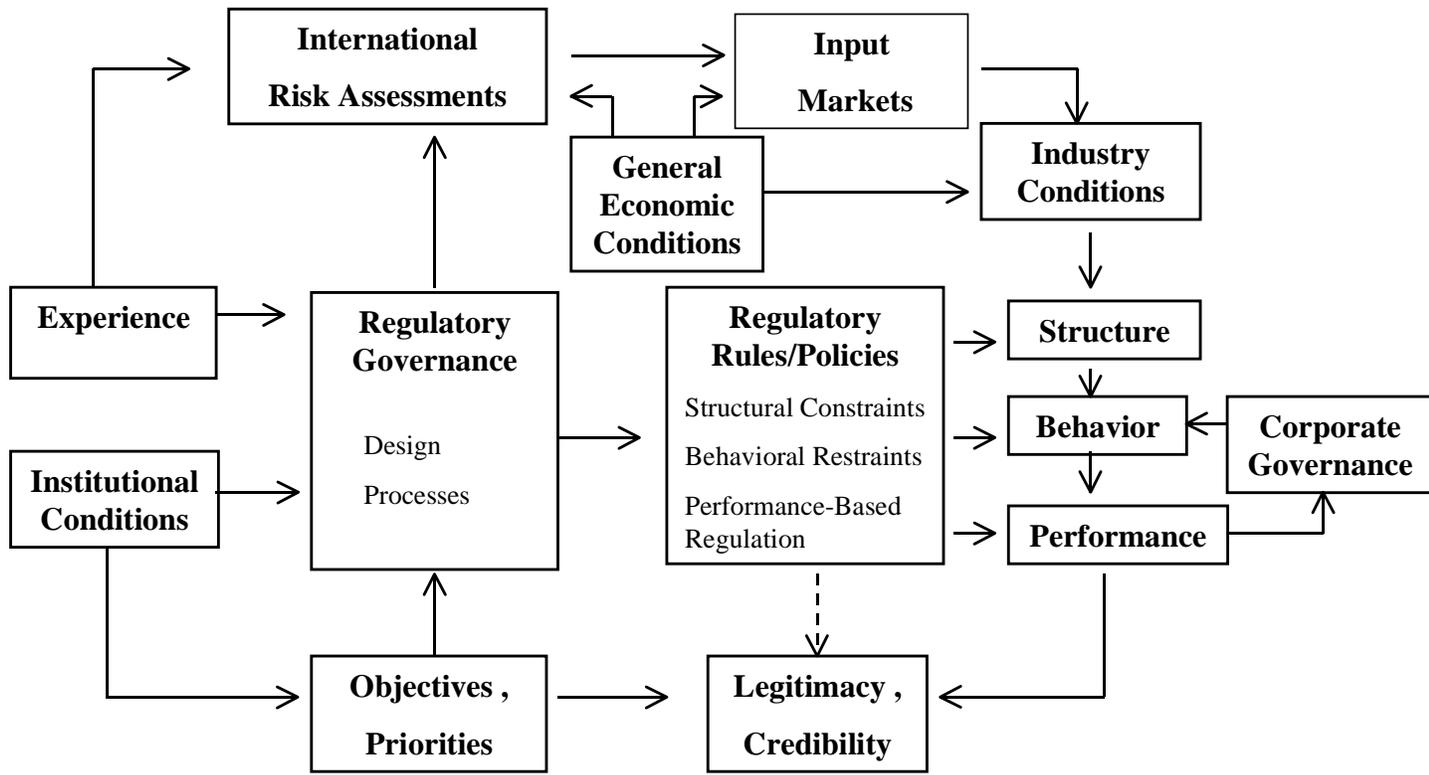
This new stage of the regulatory cycle raises some issues. Perhaps the greatest danger of the youth stage is that the benefits of long-term investments are given less weight than actions that can increase today’s approval rating of the agency. In addition, if the internal reviews lead to new priorities and regulatory strategies, then stakeholders need to be made aware of the changes. If stakeholders find out indirectly, the investors and consumers are likely to find the resulting surprise disturbing. Past decisions often represent precedents that anchor change and thus make the outcomes of price reviews more predictable. “The problem with such anchoring is that it can prove dysfunctional in the next phase [maturity] . . .” (Berg, 2000, p. 168)

Except for agency governance and policies creating incentives, most factors affecting network industry performance are outside the regulatory domain; but these factors both influence and are influenced by regulation. Ultimately, the legitimacy and credibility of the regulatory system depends on how closely sector performance matches realistic national objectives.

The Regulatory Environment

Government policymakers often formulate network infrastructure objectives; however, policymakers do not act unilaterally. Competition and regulatory commissions reporting to policymakers establish the necessary conditions for network expansion and improved operating efficiencies. For example, regulators provide incentives through tariff structures and create benchmarks via yardstick comparisons. Both influence a utility’s behavior and, ultimately, industry performance. Like policymakers, regulators do not operate in a vacuum. For example, politicians will wish to protect energy producers in their own regions while simultaneously promising citizens lower prices. Spectrum auctions and access to essential facilities are two policies affecting entry conditions in

Figure 1. Factors Affecting Sector Performance and Regulatory Credibility



telecommunications. Similarly, rules and regulations promulgated by environmental agencies affect allocative efficiency in that sector (as do determinations by watershed managers on access to raw water supply). Ultimately, responses by public and private investors may precipitate changes in regulatory governance and incentives.

Although it may be overly simplistic, Figure 1 above depicts the circular dynamics of the larger decision-making environment in which government policymakers, regulatory commissions, investors, and firms operate and interact.

Government Objectives and Priorities

During the infancy phase, government policymakers identify objectives and set priorities for infrastructure industries, ideally with citizen input. Policymakers could rank objectives based on surveys that capture citizens’ priorities. Although elections represent a “voter survey,” sector issues are bundled into party platforms or into the priorities of individual candidates. Election outcomes may not mesh with how citizens prioritize performance objectives. Most of us have witnessed serious "disconnects" between citizen preferences and government policies. However, sector issues seldom drive election outcomes.

From the standpoint of initiatives in the second stage of the regulatory life cycle, it is unlikely that either the government or its agents at competition or regulatory commissions will be very precise regarding the prioritization of objectives. Since outcomes are the result of exogenous factors as well as regulatory policies, those articulating and implementing broad sector policies may not wish to meet quantifiable objectives. *Berg's Law* would seem to apply; it states: "Given that mistakes will be made, decision-makers will try to make mistakes that are difficult to detect."¹ Any report card for sector performance and for the regulatory process is likely to be qualitative rather than quantitative in nature. Furthermore, decision-makers probably will be selective in the choice of performance indicators.

Nevertheless, the starting point for reviewing performance involves revisiting the objectives. The objectives represent a social consensus regarding what is possible and what is desirable. If the next phase of the regulatory life cycle results in a lack of local trust in the regulatory process, the consequences are significant for the long term. The system will not be sustainable without legitimacy.

Regulatory Governance

Government agencies are often created in the context of a crisis or changed perceptions regarding the status quo. It is naive to think that a new government agency will *solve* the problems that precipitated its creation. Agencies are created to *manage* problems—to balance the interests of competing groups and gain the trust of the citizenry. A poorly conceived regulatory scheme can impede a government's realization of its objectives and priorities. Therefore, when creating a new regulatory or competition commission, policymakers should have given careful thought to regulatory governance in terms of both commission design and processes.

Agency design. Agency design is established in the infancy stage. An agency's design relates to the clarity of its role in relation to other government institutions: specifically to the division of responsibility between the competition commission, the government ministry responsible for developing broad policies, other sector regulators, and agencies in other jurisdictions. If the roles of these entities are not clear, conflicts will result and stakeholders will not be able to predict how policies will be implemented in the future. The courts end up becoming policy-makers as they select the pecking order that politicians were afraid to establish.

A regulatory commission's autonomy and accountability are interlocking design features. When regulatory commissions are vulnerable to political pressure, their credibility can be undermined. Political interference for short-term gains can threaten the credibility of existing commitments to suppliers and prospects for new investments. Despite the information asymmetry characterizing regulation, antitrust authorities and sector

¹ The author first presented this law at the Bureau of Industry Economics Infrastructure Policy Forum—1995 in Canberra (Berg, 1996, p. 101). The law remains relevant for decision-makers at all levels: from parents to presidents.

regulators are in a better position than politicians to analyze the long-term implications of alternative rules. So some deference is warranted.

Regulatory process. Citizen participation, transparency, and predictability in decision-making characterize an effective regulatory process. Here, too, the broad features of the process will be in place at the start of the second stage of the regulatory cycle. As noted, citizen participation can help governments set priorities for infrastructure sectors, and citizens are more likely to accept regulatory decisions when there are formal mechanisms for their participation in regulatory decision-making. Some agencies even create Citizen Advisory Councils to educate opinion leaders and obtain feedback regarding consumer perceptions. In addition, if the regulatory process is transparent and the public has access to commission reports, the commission will be less likely to promulgate arbitrary rules. Finally, the consistency of decisions over time gives stakeholders, including investors, some confidence that facts and the law, not political pressures, form the basis of regulatory decisions.

Investor Considerations

By the start of the second stage of the cycle, regulators have a track record regarding dispute resolution and balancing the interests of various stakeholders. Before making long-term funding and technical commitments to infrastructure projects, investors consider certain factors, including the following.

Institutional Conditions. Each country has a unique legal and cultural context. Institutional conditions include the strength and independence of the judicial system, the administrative capacity and expertise within government ministries, the nature and stability of political processes, and the nature and historic enforcement of property rights and laws governing policies for infrastructure development (Levy and Spiller, 1996). Clear legal authority for expansion plans is a crucial prerequisite for obtaining new investment. Lack of legal clarity can be a significant impediment to private investments in network industries.

Risk Assessments. Because participants in financial markets face a wide array of investment opportunities, they tend to favor infrastructure projects in countries with predictable regulatory conditions. In making risk assessments of proposed network projects, they utilize information on country risk from a number of financial sources. As Figure 1 suggests, regulatory design and past policies affect investors' perceptions of risk.

Economic Conditions and Input Markets. Whatever the stage of the regulatory cycle, investors' assessments of project risks are also affected by a country's economic conditions, including the employment, savings, and inflation rates; the strength, stability, and diversity of the economy; the country's balance of trade; and the strength and stability of its capital markets. These conditions affect the markets, resources, and incentives that influence a utility's cost of doing business. Input markets also affect costs: entrepreneurial businesspeople, skilled labor,

capital equipment, and natural resource abundance all affect the level and structure of network industry costs.

Most infrastructure sectors are highly capital-intensive and politically sensitive, which makes private financing difficult to secure unless the rules are predictable and well understood. One indicator of sector performance is whether the right level and mix of investments occur. Both public and private investments may be required to create the infrastructure networks that are crucial for economic transformation.

To the extent that managers can curb input costs and obtain capital at lower rates, more resources become available to improve quality of service and expand supply networks. Benchmarking by regulators can put pressure on utility managers to identify and curb input costs. Moreover, competition in input markets can potentially reduce costs for both companies and consumers. The youth phase may involve experimentation with different incentives and different market structures—enabling policy-makers in a country to better understand the complex links among the factors identified in Figure 1.

Basic Industry Conditions

The Figure also suggests that economic conditions and input markets affect the conditions of utilities in terms of supply, demand, information, and ownership of assets. These features are not affected by the stage of the regulatory life cycle: they represent the economic realities of infrastructure industries.

Supply is determined by input prices and available technologies. Technologies, along with other related factors, have implications for costs. Thus, policies that encourage innovation are more likely to improve performance than those requiring particular technologies. Policies at all stages of the regulatory life cycle should be technology-neutral—leaving both incumbents and potential entrants to select production techniques and service bundles. Historically (in the U.S.) there has been a tendency for regulatory agencies to protect incumbents from those offering new technologies in the mature phase of the cycle (eg. railroads vs. trucking, broadcast vs. cable TV)

Demand depends on the population, their preferences, user demographics, and household income. A high percentage of the population with low income also implies low willingness to pay. Given the importance of infrastructure services, a government may decide to subsidize some groups who otherwise could not afford one or more of those services. Clearly, targeted subsidies are better than general cross-subsidies that are neither sustainable nor equitable.

Information also affects market structure since managers have better information than national policy-makers or regulators regarding demand patterns and the potential for cost containment. In the youth stage of the regulatory life cycle, regulators are in a position to use benchmarking to partly offset this information asymmetry. However, when designing incentives, they need to recognize that their information is still limited.

Ownership affects both number and size of firms, in conjunction with geographic and demographic conditions. Since public ownership has historically involved territorial (and vertically-integrated) monopolies, the youth stage of an agency becomes a time when relative efficiencies can be evaluated. Government regulation of government corporations can be contentious since the latter may argue that they already have adequate oversight.

Effects of Regulatory Rules and Policies on Infrastructure

Regulatory processes during the agency's infancy yield rules and policies that influence the structure and behavior of suppliers. These have implications for corporate governance (the internal operations of network firms).

Market Structure is clearly affected by regulatory rules governing entry of suppliers. High access prices for network interconnection can be an entry barrier. However, if they are set too low, the incentive to invest in new capacity is diminished (Gans and Williams, 1997, and King and Maddock, 1996). In the youth stage of the regulatory cycle, the agency is in a position to evaluate the impacts of past decisions—perhaps leading to revisions in rules.

Corporate Behavior is determined by regulatory policies governing price caps, reliability mandates, service standards, and network modernization requirements. Service to rural regions is likely to be more costly than service supplied to more densely-populated areas. Regulators set targets for reliability, expansion, and other dimensions of service quality, including reliability. Thus, rules affect both corporate cash flows and cost of service. Although regulatory policies are often directed at constraining price levels and price structures, the presence of information asymmetries means that firms should be given the opportunity to propose plans that can be win-win in nature.

Industry Performance is related to regulatory rules regarding how utilities and consumers will share the upside or downside returns on investment, and to penalties imposed on utilities for missing targets for network expansion. Ultimately, politicians and consumers care that the country's infrastructure networks perform well. They care that prices are in line with costs and that appropriate innovations are adopted so that service is comparable to that in peer countries. If citizens are dissatisfied, governments may press for reforms. Sometimes reform efforts are precipitated by a crisis: service quality that is less than expected, excessively inefficient operations, or financial problems that place an unsustainable drain on government resources—in the case of public enterprises.

Corporate Governance reflects the decision rights, implementation responsibilities, incentive programs, and auditing/reporting systems of publicly or privately owned organizations. In the U.S., Congress is investigating the *enronization* of infrastructure: where the company had been allowed to write the rules, limit the

umpire's role, play the game, and report the score to affected stakeholders. With the Enron debacle and the collapse of WorldCom, it is clear that investors (and citizens) cannot take manager-provided information for granted. Independent auditors have failed in their fiduciary responsibilities. Investors are hurt by lack of credible information, poor internal incentives for executives, and cozy relations among subsets of stakeholders. Perhaps "old age" has set in for key U.S. regulatory institutions—from the Securities and Exchange Commission to the sector regulators. Corporate governance is one factor that deserves greater attention, though we need to avoid medicine that is more lethal than the disease.

Other nations entering the youth phase of the regulatory cycle can learn from our mistakes—strengthening the corporate governance procedures and improving the information flows to investors. The checks and balances within firms need to be reinforced by rules requiring information disclosure and penalties for preparing financial reports that mislead the public.

Our recent problems seem to characterize infrastructure industries. U.S. experience with infrastructure investment provides at least three lessons²:

- Information, accountability and incentives matter. Large projects with substantial sunk costs can result in opportunistic behavior by various stakeholder groups. Mergers based on economies of scope can enhance efficiency, but those driven by short-term financial considerations often benefit executives with inflated egos, but harm shareholders. In addition, mergers reduce the number of comparators for benchmarking.
- Entrepreneurs, equity-owners, debt-holders, governments, and input suppliers have conflicting interests that often result in waste, theft, and significant wealth re-distribution. Recent developments in the U.S. underscore the importance of financial accountability and strong corporate governance as complements to effective sector regulation.
- To avoid economic inefficiency and social inequity, the oversight agency must have an appropriate legal mandate, a shared set of operating principles reflecting national values, and a budget that enables the agency to perform the activities necessary to implement good incentives (Berg 2000). In addition, the role of

²Consider one emerging nation's experience with a network industry. Entrants into the sector devoted considerable managerial attention and financial support to shaping national policy towards the industry. Political contributions to regional and national legislators lead to governments helping firms attract international investment capital. However, corporate insiders gained at the expense of shareholders by padding construction contracts (from which they benefited). The entrepreneurs obtained great wealth but the companies became debt-ridden and many finally fell into bankruptcy. Constructed using poor designs and materials, portions of new infrastructure networks needed to be re-built almost immediately. Bribery and corruption characterized the industry, as field supervisors and contractors misallocated resources to personal advantage. Where and when did these events occur? The answer: the United States, in the last half of the 1800s. The history of the U.S. transcontinental railroad reminds us that private and public fraud is not new to the development of network industries (Bain, 1999).

“regulator as educator” warrants continued emphasis in the second stage of the regulatory life cycle. An infant agency must explain its role to stakeholders to lay the foundations for legitimacy. During the youth phase, continued interaction is necessary to prioritize objectives and to explain the rationales for new initiatives.

While we have a track record of some regulatory successes, the U.S. has had significant lapses in the areas of regulatory design and corporate governance. The Savings and Loan scandals resulted in the losses of billions of dollars. Most recently, the California electricity crisis and the collapse of Enron, Global Crossing, and WorldCom suggest that energy and telecommunications present significant public policy problems even in mature developed economies. We do not know the extent to which these recent failures will reduce investor interest in infrastructure, although it seems that they will dampen enthusiasm for network projects involving long time horizons that depend on sound corporate governance and on consistency in government policies. In the case of emerging markets, the costs of delayed and mismanaged investments will be significant. Investors face other opportunities—they will turn to regions of the world where the risks and rewards are more favorable. Australia is a potential beneficiary of such capital flows—assuming its policies are not anti-business.

Thus, the behavior and performance of firms depend on corporate governance. Regulatory policies can improve the situation by providing investors with some kinds of data that might otherwise be unavailable—via yardstick comparisons across firms and comprehensive reporting requirements. In retrospect, it is clear that government oversight in this area was severely lacking in the U.S. Perhaps politicians should have devoted more attention to designing agencies that could help owners and potential investors understand the actual performance of firms. Instead, politicians found the “blame game” to be a much more attractive way to spend time in the wake of the Arthur Andersen Accounting debacle and the California energy “circus”(a.k.a. energy “crisis”).

Conclusion – Legitimacy and Credibility

Infancy sets the stage for youth, which in turn lays the foundation for maturity. The framework presented in Figure 1 shapes organizational propensities. However, as in humans, nothing is predestined. Commissions can engage in structured self-examinations to gain insights for second-generation reforms. Purposeful change is possible and, generally, desirable.

Operating principles are generally developed in an agency’s infancy. The shared values so essential for an agency’s success have also been labeled the *organizational culture*:

Culture is . . . a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (Schein, 1992, p. 12)

For example, the ACCC's nine best practice principles of good regulation represent an effort to be intentional regarding the process.³ Newly hired professionals are (presumably) exposed to these ideals. They learn how the agency has attempted to make the concepts operational so that routine tasks and key decisions reflect the weights given to each aspect of the process. Second-generation reforms can involve reviewing how values are explicitly communicated within the commission. A regulatory scorecard that evaluates how well an organization lives up to its own standards would seem to be an important initiative for an agency moving into the next phase of the regulatory life cycle.

We come full circle in Figure 1 when we compare actual infrastructure sector performance against the expected performance articulated by political leaders. Absent quantifiable goals and prioritized objectives, it would be difficult to create scorecards for the first two stages of the regulatory cycle. Part of second-generation reform involves revisiting performance objectives for infrastructure sectors. Clearly, if the targets associated with those objectives are unrealistic, the regulatory process will be perceived as having failed. Thus, identifying and communicating key objectives is an important task for policy-makers. The vision should stretch capabilities—but not be unrealistic. If visions are not grounded in reality, rhetoric rules the day—ultimately leading to disappointment and to a denial of legitimacy for regulatory commissions. In their role as educators, regulators must interact with the various stakeholders—setting realistic objectives, explaining how policies have been designed to promote the good sector performance, and monitoring the degree to which goals are achieved.

We do know that when important social objectives are realized, policy-makers, managers, and consumers are likely to be content with the outcome. A record of accomplishment yields broad support for industry, government, and the regulatory system that devised efficiency-enhancing incentives. With improved performance, stakeholders gain confidence in the regulatory system. They trust the agency that leads to higher levels of service penetration and improved prospects for other sectors that depend on energy, telecommunications, water, and transport. A widely accepted regulatory system can move a nation away from remaining inefficient outcomes.

I conclude with two questions.

- How do the initial years of a commission contribute to the likely initiatives of youth?
- How will the youth stage of the regulatory life cycle affect the success of network industries when the commission becomes truly “mature”?

The first question asks whether the track record to date has predictive power for the next phase of regulation. The second question asks how policies and procedures applied in the second phase of the regulatory life cycle will affect the attitudes of investors, managers, consumers, and policy-makers. If we pay attention to warning signs and reinforce best practice, the youth phase can serve as a crucial bridge to the future. If the youthful

³These principles include communication, consultation, consistency, predictability, flexibility, independence, effectiveness and efficiency, accountability, and transparency.

commission is not careful and focuses on short-term outcomes, those who follow will be forced to pick up the pieces and begin anew.

The process of evaluating a commission's moving from infancy to youth requires careful research by insiders and thoughtful critiques by outsiders. In the case of the ACCC, I wish you all the best in your review of the historical record—your collection of “baby photos”. And I am confident that this next stage of the regulatory cycle will be full of surprises requiring further organizational transformation.⁴

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⁴ Author's note: The concepts used in this paper are also described in modified form in Berg (2001) and in Berg-Holt (2002).